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## **Academic success and dropout among international students in Germany and other major host countries**

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## 1. Executive summary<sup>1</sup>

- The number of Bildungsauslaender (BiA) at German higher education institutions has increased significantly over the past few years, especially on Master's courses. This poses new challenges for the higher education institutions in terms of providing appropriate levels of supervision and support for these students.
- Between 2005 and 2008, the average drop-out rate for BiA fell from 65 to 50 per cent. After Bachelor's and Master's degree courses were introduced throughout Germany in the framework of the Bologna Process, a drop-out rate of 45 per cent was determined for students of Bachelor's programmes and of 28 per cent in the case of students in Master's programmes in the 2016 examination year. These rates remain significantly higher than the drop-out rates for German students (Bachelor's: 28%; Master's: 19%).
- To date, very little systematic investigation has been undertaken into the reasons for the BiA drop-out rate in Germany. However, research findings from other countries and feedback from the higher education institutions indicate that poor linguistic proficiency, financial problems, a lack of social and academic integration, and misconceptions regarding the teaching and learning culture at German higher education institutions are some of the main reasons why BiA drop out.
- Since 2017, the Federal Ministry of Education and Research (BMBF) has been funding a total of 19 research projects as part of its funding line on research into rates of success and drop-out rates. Three of these projects focus on the rates of success and drop-out rates of BiA. The aim is to use the findings obtained from these projects to develop measures that promote academic success and reduce the drop-out rates of BiA.
- A look at other major host countries suggests that drop-out rates for international students are not necessarily higher than drop-out rates for students from the home country. This is the case for countries such as the USA and Australia, for example. Furthermore, in these two countries and in the Netherlands, it can be seen that international students frequently complete their degree course even earlier than their native-born counterparts.

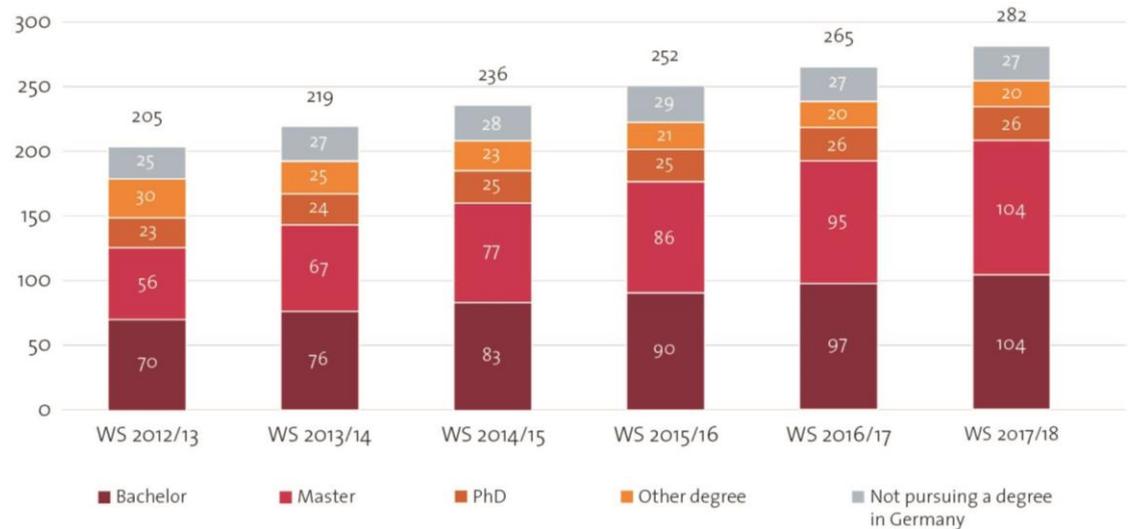
## 2. Background: Bildungsauslaender in Germany – trends and characteristics

According to the definition by the Federal Statistical Office, Bildungsauslaender (BiA) are international students who gained their qualification for admission to higher education overseas or who attended a German higher education preparatory course to supplement qualifications gained at a school abroad. Currently, around 282,000 BiA are enrolled at German higher education institutions – they make up nearly 10 per cent of all students (Destatis, 2018). In the past five years, the number of BiA has increased by almost 40 per cent. This increase has thus been much greater than for German students in the same period (+11%). Some 90 per cent of these students also intend to complete their degree in Germany. Of these, the vast majority were studying Bachelor's and Master's degree courses, the rest were studying for other types of degree or for doctorates.

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<sup>1</sup> In the preparation of this report, sections of text from the unpublished exposé/proposal for the joint project "Success and withdrawal of international students in Germany (SeSaBa) were also used. Sincere thanks go to the co-authors Susanne Falk and Julia Zimmermann for their kind permission to use these sections in this publication.

Figure 1: BiA students in Germany since winter semester 2012/13, in thousands

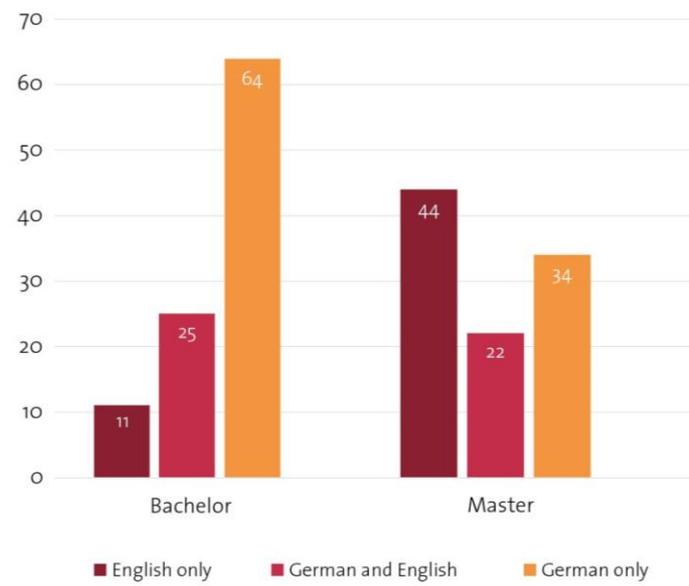


(Source: Federal Statistical Office, student statistics; special calculations)

The significant increase in BiA, particularly on Master’s courses, may also be attributable to the rapid expansion of English-taught Master’s programmes at German higher education institutions in recent years. Overall, the number of English-language degree courses in Germany has more than tripled since 2009, from around 400 to over 1,300 in 2018 (DAAD/HRK/AvH, 2018; HRK, 2018). The vast majority of these courses are Master’s degree courses, which accounted for 84 per cent in February 2018. It can be assumed that a large proportion of BiA studying for a Master’s are enrolled in such English-language courses, although no corresponding data has been collected by the Federal Statistical Office to date. However, in a DAAD survey of over 10,000 BiA back in 2013 (DAAD, 2014), 44 per cent of all Master’s students indicated they were enrolled in a degree course taught solely in English; a further 22 per cent stated that their course was taught in both German and English.<sup>2</sup> These percentages may have increased even further since then due to the expanded range of English-language Master’s courses.

<sup>2</sup> The corresponding figures for Bachelor’s courses were only 11 and 25 per cent respectively.

Figure 2: Language of instruction of BiA students in Germany by degree type 2013, in %



(Source: DAAD 2014, special evaluation)

### 3. Definitions, data and calculation methods

There are various study-related differences between BiA and German students. These include in particular: access to higher education, language requirements, educational socialisation and financial situation. Particularly for higher education institutions with a high proportion of BiA and for higher education institutions with strong rates of growth in terms of BiA numbers, this presents specific challenges in terms of selection and admission, as well as the subsequent supervision and support of these students. These are possible reasons for the fact that even though drop-out rates of BiA have fallen significantly in the last 10 years, they are still much higher than those of German students.

In the following, under rates of success, the successful completion of a degree course or a study cycle is considered – regardless of the achievement of specific study objectives, grades or employment relationships – as relevant data is available only for this definition. In the same way, dropping out is understood as leaving the higher education system without having obtained the degree which was originally aimed for.

The figures for rates of success and drop-out presented below are based on the calculations of the German Centre for Higher Education Research and Science Studies (DZHW) (Heublein et al., 2012, 2014, 2017). These numbers are calculated based on the higher education statistics provided by the Federal Statistical Office. To date, student statistics in Germany – unlike in Switzerland, for example – have not included statistics on academic progress, in which the individual academic progress of all students is documented. Therefore, a cohort comparison procedure developed by the DZHW needs to be used for these calculations. To calculate the drop-out rates, a particular examination year cohort is compared to the corresponding first-semester cohorts in each case. Not only do the graduates of an examination year come from different first-semester cohorts, but the numbers of students as well as the period of study change every year. For these reasons, various correction factors

are necessarily taken into account when it comes to the calculation of the drop-out rates. A high degree of uncertainty is attached to the drop-out rates calculated using such a cohort procedure. For example, in cases when students change degree course or higher education institution, the rate calculations are distorted to a certain extent despite the use of correction procedures. A further distortion factor is the proportion of students that only enrol at a higher education institution to obtain a residence permit (so-called bogus students). This proportion could be calculated and monitored relatively easily using study progress statistics, whereas in this case only an estimation is possible based on the cohort procedure.

#### 4. Current drop-out rates and trends

The latest DZHW calculations on drop-out rates relate to the 2016 examination year (Heublein Schmelzer 2018). For this year group, DZHW calculations indicate a drop-out rate of 45 per cent for BiA at Bachelor's level and 29 per cent at Master's level. It was not possible to calculate the rates for graduates with traditional German degree types (Diplom, Magister, Staatsexamen) because the numbers of cases were too statistically insignificant. Compared to the first DZHW calculation (Burkhart et al., 2012), which related to the 2005 examination year and indicated an average drop-out rate of 65% across all degree types, the current drop-out rates for Bachelor's and especially for Master's courses represent a clear improvement. The drop-out rate trends since 2005 also show that steadily falling drop-out rates had been recorded between 2005 and 2012.<sup>3</sup> After 2012, however, this positive trend didn't continue. At Bachelor's level, the numbers have risen slightly again, from 41% to 45%; at Master's level, on the contrary, a clear increase in the drop-out rate from 9% to 29% was recorded. One can only speculate on the causes of this development due to a lack of data, since explanatory data is not available neither from student nor from expert surveys. Another complication when it comes to the analysis is the fact that a regional differentiation of the drop-out rates of Master's students of the 2012 examination year was not possible (see also section 5), given insufficient case numbers. As a result, it is not possible to draw conclusions on whether the significant increase of these rates in 2014 is attributable to certain regions of origin more than others.

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<sup>3</sup> Ever since the 2010 graduation year group was monitored, the DZHW has provided separate rates for Bachelor's and Master's students instead of global figures for all degree types.

Figure 3: Drop-out rates for Bildungsauslaender and German students in Bachelor's and Master's courses since the 2004/05 examination year group, in %



(Sources: Burkhart et al., 2011; Heublein et al., 2012, 2014, 2017; Heublein/Schmelzer 2018)

Besides the current drop-out rates provided by the DZHW data, an analysis is available of drop-out rates for five Bachelor's courses in engineering<sup>4</sup> at 10 technical universities<sup>5</sup>. This was published at the end of 2017 by the National Academy of Science and Engineering (acatech) (Klöpping et al., 2017). The BiA sub-group is also addressed in this analysis. It examined four first-semester cohorts (winter semester 2008/09, 2009/10, 2010/11 and 2011/12) up to the beginning of the seventh subject-related semester of their Bachelor's course. In the report a distinction was made between dropping out, transferring to another higher education institution and changing subject. For all four first-semester cohorts, the BiA drop-out rate was between 28 per cent in the first cohort (WS 2008/09) and 24 per cent in the last cohort (WS 2011/12). The proportion of students transferring institutions fell from 13 per cent for the first cohort to eight per cent in the last cohort. By contrast, no variation was apparent between the four cohorts with regard to changing subject: in each case, seven to eight per cent of all BiA in a cohort changed their subject by the beginning of the seventh subject-related semester.

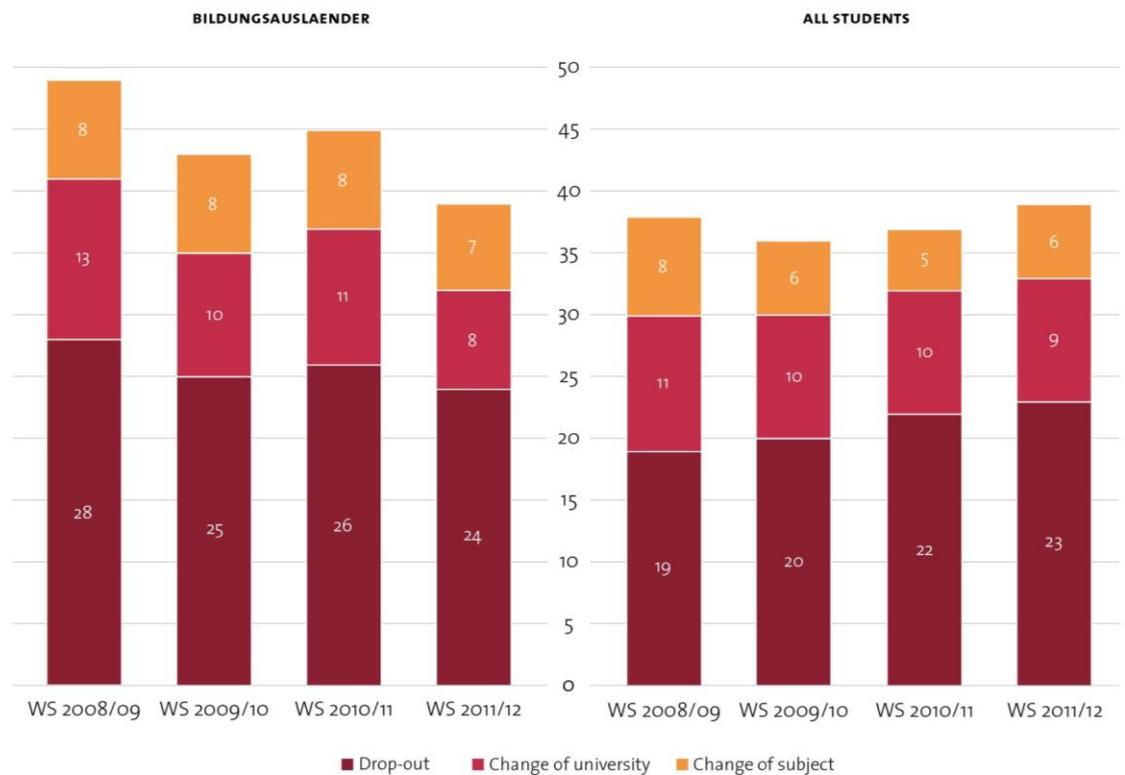
It is striking that the acatech study indicates significantly lower drop-out rates than the DZHW calculation. Furthermore, only very minor differences exist between the drop-out rates, institution transfer rates and subject change rates of all the students analysed and those of the Bildungsauslaender sub-group, particularly in the last beginner cohort observed (WS 2011/12). However, it is important to note that the two studies are not directly comparable, as the authors of the acatech study themselves state: "Firstly, they are based on another population and sample. Secondly, the investigation pursues study progress from the perspective of a first-year student cohort, while the DZHW estimates the level of drop-out by means of a comparison of graduates with first-year cohorts" (Klöpping et al., 2017, p. 7). For

<sup>4</sup> Civil engineering, electrical and electronic engineering, computer science, mechanical engineering and industrial engineering.

<sup>5</sup> RWTH Aachen, TU Berlin, TU Darmstadt, TU Dortmund, TU Duisburg-Essen, FAU Erlangen-Nürnberg, LU Hannover, Karlsruhe Institute of Technology (KIT), TU Munich, University of Stuttgart.

the rates calculated in the acatech study, it is also unclear how the students changing subject and institution are classified, i.e. how high the proportion of students is who actually complete their course successfully after changing subject or institution. The comparison of the two studies thus shows that the calculation of drop-out rates depends very much on the respective calculation methodology, the subject considered as well as the higher education institutions involved. However, using the available data, it cannot be clarified to what extent these factors could explain the existing discrepancies.

**Figure 4: Drop-out, institution transfer and subject change rates of Bildungsauslaender and all students on Bachelor's engineering courses, in %**



(Source: Klöpping et al., 2017)

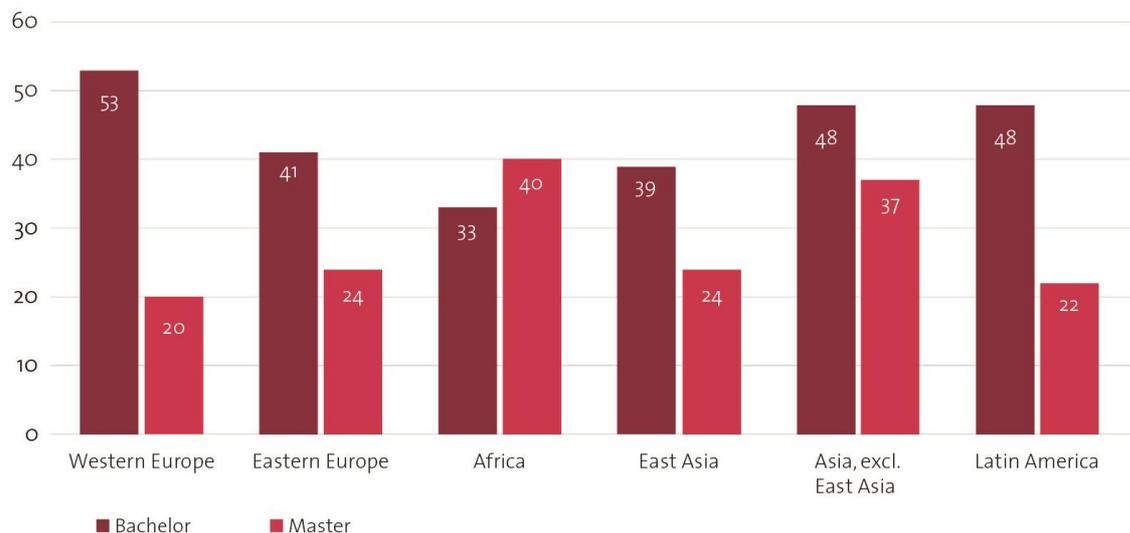
### 5. Differences by region of origin

The drop-out rates calculated by the DZHW for the 2016 examination year for BiA on Bachelor's courses in Germany vary widely by region of origin. While over half (53%) of BiA from Western Europe drop out of their Bachelor's course, the drop-out rate for African students is only 33 per cent. For students from Eastern Europe, Latin America, East Asia<sup>6</sup> and other parts of Asia, the drop-out rates calculated by the DZHW are between 39 and 48 per cent respectively. The picture is different for Master's students, though. This applies in particular to students from Western Europe, who have the lowest drop-out rate among Master's students, at only 20 per cent. Similar results with significant differences between Bachelor's and Master's drop-out rates can be found for students from Eastern Europe, East

<sup>6</sup> East Asia includes the following seven countries: China, Japan, Mongolia, Republic of Korea, Democratic People's Republic of Korea, Taiwan and Vietnam.

Asia and Latin America. By contrast, there are rather small differences between the drop-out rates of Bachelor's and Master's students from Africa and other parts of Asia.

**Figure 5: Drop-out rates for Bildungsauslaender on Bachelor's and Master's courses by region of origin, examination year 2016, in %**



(Source: Heublein/Schmelzer 2018)

Due to insufficient survey data, it has only been possible to speculate by now on the reasons why drop-out rates vary by region of origin. Particularly surprising is the high drop-out rate for Western European Bachelor's students. One possible reason could be that, for them, it would be fairly unproblematic to drop out of a degree course in Germany and to pursue it in their home country. Indeed, this transition would be more complicated for students from other regions of origin further away. That this effect is not observed among Master's students of the same group could be due to the shorter duration of the study period and the greater study and/or mobility experiences. Another possible reason could be that Bachelor's students who do not intend to graduate in Germany (e.g. exchange students) are classified as students who do intend to graduate in Germany by higher education administration staff. Such a classification would mean that, for the DZHW cohort procedure, ending short-term stays in Germany would sometimes be recorded as dropping out.

## 6. Reasons for academic success and drop-out

Research to date into the Academic success and dropout rates of students in Germany has focused on understanding the reasons among German students and students with a migration background. This means that the important and growing group of BiA students has been all but overlooked up to now. This is surprising, since improving the success rates and thus also the professional prospects of BiA ought to be in the interests of Germany and its higher education system for a variety of reasons (Rech, 2012):

*“Firstly, from the perspective of the higher education institutions, it is advantageous to demonstrate successful completion for as many Bildungsauslaender as possible so that an institution is able to promote itself as a place to study when competing for international students (...). Secondly, from the point of view of the international students concerned, it is important that they complete their course successfully, to ensure a seamless educational career. Furthermore, these individual reasons are linked to the*

general economic interest of avoiding students dropping out unnecessarily. *Thirdly*, it is envisaged that educating Bildungsauslaender who return to their home countries after completing their studies will have a developmental impact (...). *Fourthly*, education policy and the economy expect German higher education institutions to meet the need for skilled workers (...)." (Rech, 2012, p. 17, emphasis in original).

### a. Main reasons for academic success and drop-out among German students

Based on the last report on the matter published by the DZHW in 2014 (Heublein et al., 2017), it is clear that performance issues are by far the main reason why German students drop out of their course: 30 per cent of the respondents who decided to drop out were not (or no longer) able to cope with the demands of their course. Another important reason for dropping out was the lack of motivation to study:

"For 17% of the students dropping out, motivation had declined to such an extent that they had decided not to continue with their course. In most cases, these students had begun their course with misconceptions about the subject or about the future career opportunities that would result from the degree course. The subsequent lack of identification with the subject resulting from these misconceptions and expectations then frequently leads to the belief that they have chosen a course that is not suitable for them" (ibid. p. 21).

For a similarly large group of drop-out students surveyed (15%), the desire to be involved in an occupation with a focus on practical tasks was a determinant to make the decision to withdraw from their course. These individuals wanted to undertake practical work, missed a practical and professional relevance on their course or wanted to earn money as soon as possible. This motive for abandoning a degree course is obviously closely linked to the expansion of student numbers in Germany over the past decade: "To a large extent, this encompasses drop-outs who see vocational training as an alternative to academic studies. Given increased first-semester numbers and undiminished drop-out rates, the rise in the number of students dropping out in order to pursue practical activities can ultimately only mean that the number of first-semester students with less of an affinity for an academic education has also increased" (ibid. p. 22). Two other important reasons that motivate German students to leave their course were each cited by 11 per cent of the drop-outs surveyed. These are: problems with financing studies, i.e. financial constraints or difficulty in coordinating employment and studying, and health, social or psychological problems (e.g. illness, experiences of discrimination or discomfort at the place of study).

### b. Reasons for academic success and drop-out among Bildungsauslaender

It has only been possible to speculate up to now about how far the motives for dropping out identified for German students can also be applied to BiA students. In particular, it is unclear what weighting these motives have and whether other important motives for dropping out exist, which result from the specific characteristics of the BiA or their specific study situation. Researching and explaining international students' academic success has much greater importance in English-speaking countries than in Europe. In recent years in particular, a number of studies on this subject have appeared, including many doctoral theses.<sup>7</sup> By contrast, in Germany there is only a single investigation specifically addressing the reasons why BiA successfully complete their academic studies or drop out. Rech (2012) deals

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<sup>7</sup> See, for example, Kwai, 2009; Nagdhi, 2015; Smith, 2015; Wong Davis, 2012.

in particular with the impact of institutional support structures on BiA success rates. A key finding is that, on the higher education institution side, it is possible to have an impact on institutional integration in particular, i.e. the degree of orientation within the academic system of the higher education institution. This may involve the provision of appropriate information, introductory events, language courses and support options. Furthermore, these measures are also able to reinforce the academic and social integration of the BiA.

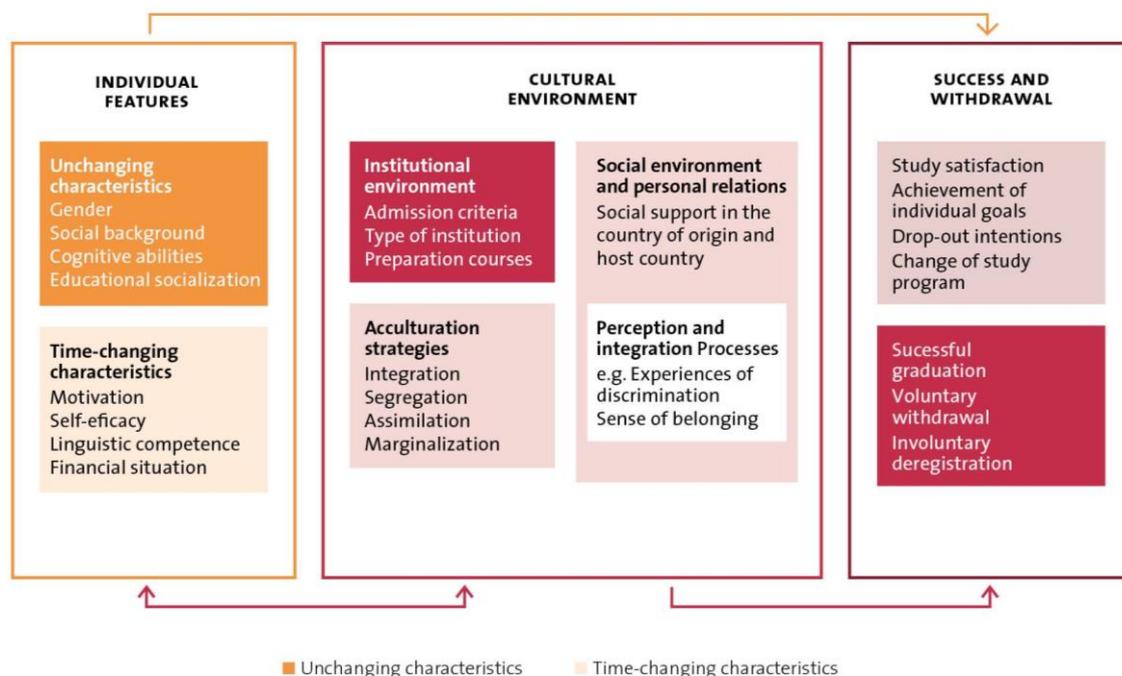
Rech's analysis also showed that academic integration is also dependent on the career-related motives of the BiA and their academic obligations to their discipline. In addition, language skills were seen to be relevant when it comes to tertiary education choices. Lastly, it is apparent that there are significant differences between BiA and German students especially with regard to financing studies, the family situation and reasons for dropping out of a course. In light of this, simply transferring the findings of drop-out studies conducted with German students is not considered advisable.

One reason for the recent marked rise in BiA drop-out rates at Master's level (see section 4) could be the significant increase in the number of students pursuing at postgraduate level courses. This may have led to a deterioration of study conditions, i.e. greater complexity and anonymity in day-to-day student life, as well as supervision ratios. These factors may thus have contributed to the rise in drop-out rates. However, it is currently not yet possible to make a more precise statement on the extent to which the study situation of BiA contributes to the success rate or drop-out rate. A theoretical framework that can offer explanations on BiA success rates and drop-out rates is being developed in an ongoing research project coordinated by the German Academic Exchange Service and funded by the Federal Ministry of Education and Research (see also section 7.1). Based on the "Comprehensive Model of Influences on Student Learning and Persistence" by Terenzin and Reason (2005) the theoretical approach was extended to include relevant findings from German higher education research. One example of these findings is the topical study by the Expert Council of German Foundations on Integration and Migration (2017) which, based on the research to date, carves out five core areas in which problems are encountered by international students (SVR, 2017, p. 26):

1. Difficulties with both colloquial and academic German.
2. Cultural distance between own and Germany's learning culture.
3. Cost of living in Germany and lack of financial assistance
4. Social isolation, instances of exclusion or discrimination
5. Uncertainty when dealing with authorities, fear of having to leave Germany before course ends

On the basis of the extended, inclusive explanatory model, it is thus now already possible to formulate assumptions regarding the relevant factors for success rates of BiA in Germany. The model roughly distinguishes between two groups of explanatory variables. First, individual characteristics like gender, social background, cognitive abilities, educational socialisation, financial situation and language proficiency. Furthermore, it covers characteristics of the cultural and social environment, i.e. specific features of the respective higher education institution (e.g. type of higher education institution, admission criteria, support options), the social environment of the students (e.g. social support relationships in the host country and country of origin). Other important issues are the perception and integration process (e.g. institutional, academic and social integration). These factors mutually interact, and they affect various aspects of academic success, such as student satisfaction, the achievement of individual study objectives, intentions to drop out, interruption of the study process as well as changing institution or course. Ultimately, the process ends with the successful completion of a degree, (voluntary) dropping out or (compulsory) abandoning the institution on the grounds of inadequate academic performance or insufficient academic progress.

Figure 6: Inclusive explanatory model for rates of success and drop-out rates among Bildungsauslaender (SeSaBa project)



(Source: Falk et al., 2017)

## 7. Current research projects on academic success and drop-out among Bildungsauslaender in Germany

Since spring 2017, the Federal Ministry of Education and Research (BMBF) has been funding a total of 19 research projects as part of its funding line on research into rates of success and drop-out rates. The projects are funded for a period of up to four years. Three of these research projects focus exclusively or partially on BiA in Germany. The key research questions and methodological approaches of these three projects are outlined below.<sup>8</sup>

### a. SeSaBa – Success and withdrawal of international students in Germany

The joint project “Success and withdrawal of international students in Germany” (SeSaBa) is being conducted by the DAAD in conjunction with Hagen distance university (FernUniversität) and the Bavarian State Institute for Higher Education Research and Planning (IHF) in Munich<sup>9</sup>. The primary aim of the research project is to take an interdisciplinary approach towards integrating previous findings on rates of success and drop-out rates among higher education students to produce a comprehensive theoretical model. The model should also adequately reflect the relevant aspects of the specific study situation of BiA in Germany. The methodological framework of the study is based on a longitudinal study of BiA on Bachelor’s and Master’s courses in Winter Term 2017 at universities and universities of applied sciences

<sup>8</sup> Short descriptions and contact details for all 19 research projects are available at <https://www.wihoforschung.de/de/studienerfolg-und-studienabbruch-620.php>.

<sup>9</sup> More information at: <http://daad.de/sesaba>

in Germany. The study is supported by qualitative data gathered during focus groups with BiA and expert workshops with higher education representatives.

The joint project aims to investigate the following research questions in particular:

- What sociodemographic factors and predispositions (e.g. gender, social background) influence success and withdrawal of international students in Germany?
- What role do political and defined frameworks play (e.g. regulations on access to higher education, attendance of a preparatory course) for the success and withdrawal of BiA?
- What psychological factors (e.g. personality, motivation to study) affect success and withdrawal of international students in Germany?
- What acculturation strategies of BiA have a beneficial impact – directly or indirectly – on the successful completion of studies?
- What social factors (e.g. financing of studies, social capital, family situation) affect success and withdrawal among BiA?
- What institutional and course-related factors (e.g. type of higher education institution, main teaching language, the institution's integration and support measures) affect success and withdrawal among BiA?
- Are there certain key events during the course of study (e.g. exams, experiences of xenophobia) that can be identified as particularly critical for course progression, or which significantly increase the tendency to drop out?

On completion of the project, the intention is for the findings not only to be used for academic purposes. They will also be incorporated into a practical guide for higher education institutions, which will provide recommendations to increase success rates and reducing drop-out rates among BiA. Based on the study results and on a discussion of these findings with higher education representatives, the German Academic Exchange Service will also examine whether optimising or supplementing the existing DAAD funding programmes would be sensible in order to increase the success rates of BiA (e.g. STIBET funding lines).

## **b. SPRASTU – Language and academic success of international students**

The project “Language and academic success of international students” (SPRASTU) is a longitudinal study conducted jointly by the universities of Leipzig and Würzburg. It seeks to examine in depth and over time the relationship between the academic success of BiA and their German language skills.<sup>10</sup> Throughout their Bachelor's course, data will be collected from 600 students with non-German university-entrance qualifications who are studying chemistry, economics and German as a foreign or second language/German language and literature. Four groups of test variables will be considered. Firstly, many constructs of linguistic competence will be collected in a longitudinal study with standardised language test procedures. Secondly, data relating to academic language requirements for specific subjects will be collected.

The results will enable preparatory measures to be more precisely aligned with actual study-related linguistic needs for prospective students who are not native speakers of German. Findings can be incorporated into didactic concepts, curricula and materials.

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<sup>10</sup> Further information at: <http://home.uni-leipzig.de/sprastu/>

### **c. WeGe – Refugees on their way into German higher education**

This study by the German Centre for Higher Education Research and Science Studies (DZHW) examines for the first time the conditions of effective access to higher education in Germany for prospective students with a refugee background.<sup>11</sup> In their country of origin, many refugees have obtained a school leaving certificate giving them right of entry to higher education there. Furthermore, a significant proportion had already begun or completed a degree course in their country of origin before migrating to Germany. This initial situation indicates enormous educational potential, but the appropriate conditions need to be in place for the immigrants to realise this potential. To date, however, very few academic findings have been available on this topic.

The project is a mixed methods study, i.e. both qualitative (discovering structures) and quantitative (explaining structures) research methods will be used. A longitudinal study will be carried out involving questionnaire surveys as well as guided interviews. The assessments and data on the experiences of prospective students with a refugee background will be collected at five higher education locations, each including a preparatory college.

In addition, the perspectives of staff and experts from the higher education institutions and preparatory colleges will also be examined. The project will generate new data and findings on a key area of education which up to now has been largely neglected by academia, and which is set to gain in importance over the coming years.

## **8. Academic success and drop-out of international students in other major host countries**

In order to better understand the drop-out rates of BiA in Germany, it is helpful to take a look at other major host countries. However, it should be noted that this data is not available for all major host countries, including in particular France, Russia, Canada, China and Japan. Furthermore, for those host countries for which international student drop-out rates are available, the problem is that the calculation methods differ from the calculation methods in Germany. Therefore, their results cannot be compared with the ones in Germany. This is particularly because in most of these countries, data on study progress is available, which enables success rates and drop-out rates for certain first-semester cohorts to be generated. Nevertheless, the calculation methods used also differ from each other. One reason for this is that, depending on the country, study progress periods of different lengths are observed to determine the drop-out rates. For the UK, for example, drop-out rates are available only at the end of the first academic year, whereas for the Netherlands they are available only at the end of the fifth academic year. Another reason is that the rate calculations differ based on whether only a global rate is calculated for all international students (e.g. in the Netherlands) or whether different sub-groups of international students are also considered (e.g. in Austria). As these groupings often do not correspond to the classifications of the German drop-out statistics, comparability of the data is thus limited.

Furthermore, the higher education systems and particularly their financing arrangements differ significantly from the higher education system in Germany, a factor that also makes the comparison of drop-out rates substantively difficult. The reason for this is primarily the high tuition fees for international students in the USA and Australia, as well as the general tuition

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<sup>11</sup> Further information at: <https://wege.dzhw.eu>

fees in the Netherlands. On the one hand, these tuition fees increase the incentive for the students themselves to finish their course, as dropping out not only means lost time, but also lost money. Additionally, the higher education institutions have a greater incentive to prevent student withdrawal, given the importance of the international student market. The result is that extensive support services are provided for international students – especially in the USA and Australia, where higher education institutions benefit immensely from the high tuition fees charged to these groups. This is an important difference between these countries and Germany, given that most of these initiatives can be funded from the tuition fees. The criticism is also repeatedly publicly expressed that those higher education systems that depend heavily on international students' tuition fees as a main source of income risk their higher education institutions deteriorating to become nothing more than 'diploma mills'.<sup>12</sup> This debate addresses higher education institutions that may eventually lower their course standards to considerable low levels even for students without the proper abilities to graduate.

Despite these limitations, international comparative data allows to shed some light into the drop-out rates in Germany in comparison to other host countries. In the next sections, data on drop-out rates of international students in the USA, Australia and the Netherlands will be briefly presented.

### **a. USA**

In the USA, data are available on graduation rates from the National Center for Education Statistics. These statistics indicate differentiated completion rates for full-time Bachelor's students on their first-degree course at higher education institutions with four-year Bachelor's programmes<sup>13</sup> (NCES, 2016). These numbers allow researchers to distinguish between the completion rates for international students (so-called "non-resident aliens") four years, five years and six years after studies begin, and enable differentiation according to the type of higher education institution and admission rates. In terms of institution type, a distinction is made between public and private higher education institutions, with the latter further subdivided into the categories of for-profit and non-profit. The non-profit private higher education institutions range from small colleges to large and reputable research universities like Stanford and Harvard, which are usually funded through foundation assets. The for-profit private higher education institutions are considered less selective; many obtain their revenue primarily from government student loans. Only 12 per cent of all students are enrolled at these higher education institutions, but they receive nearly a quarter of all Pell Grants (DAAD 2017, p. 4).

Examining the completion rates first of all shows that the completion rates of international students are consistently above the average for all students. While approx. 49 per cent of international students in the first semester cohort of 2009 have successfully completed their Bachelor's degree course after four years, the corresponding figure for all students is only around 40 per cent. This difference is also similarly clear six years after the start of the course (64% vs. 56%). This means that international Bachelor's students in the USA complete their degree course faster and often more successfully than American students. This difference was reinforced by the first-semester cohort of 2000, as the completion rates of international students in this period increased, whereas they remained largely static in the overall group of

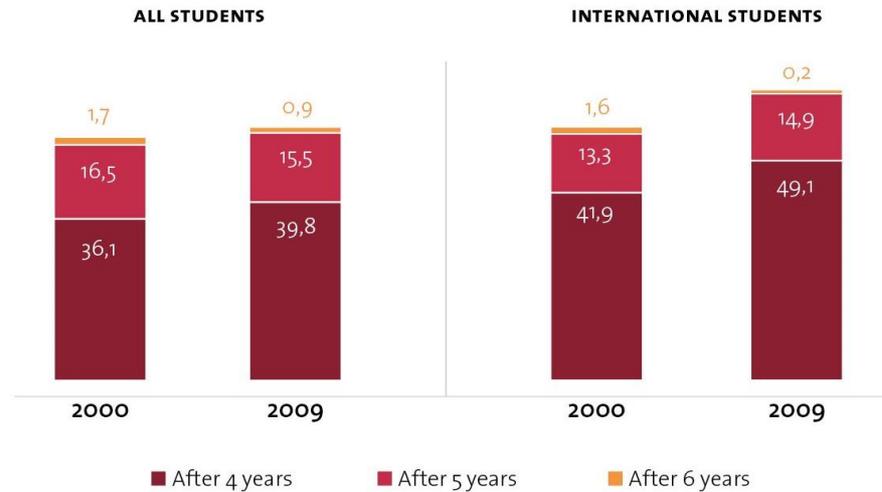
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<sup>12</sup> See also Wade, 2018. In Australia, the proportion of tuition fees coming from international students is over 50 per cent in some cases, which means it sometimes exceeds the portion of revenue derived from tuition fees paid by Australian students.

<sup>13</sup> "Graduation rate from first institution attended for first-time, full-time bachelor's degree-seeking students at 4-year postsecondary institutions" (NCES, 2016).

all students. Although, it should be noted that also in the first-semester cohort of 2009 around 36 per cent of the international Bachelor's students also had still not obtained any degree six years after beginning their studies. For all Bachelor's students overall, this figure was around 44 per cent.

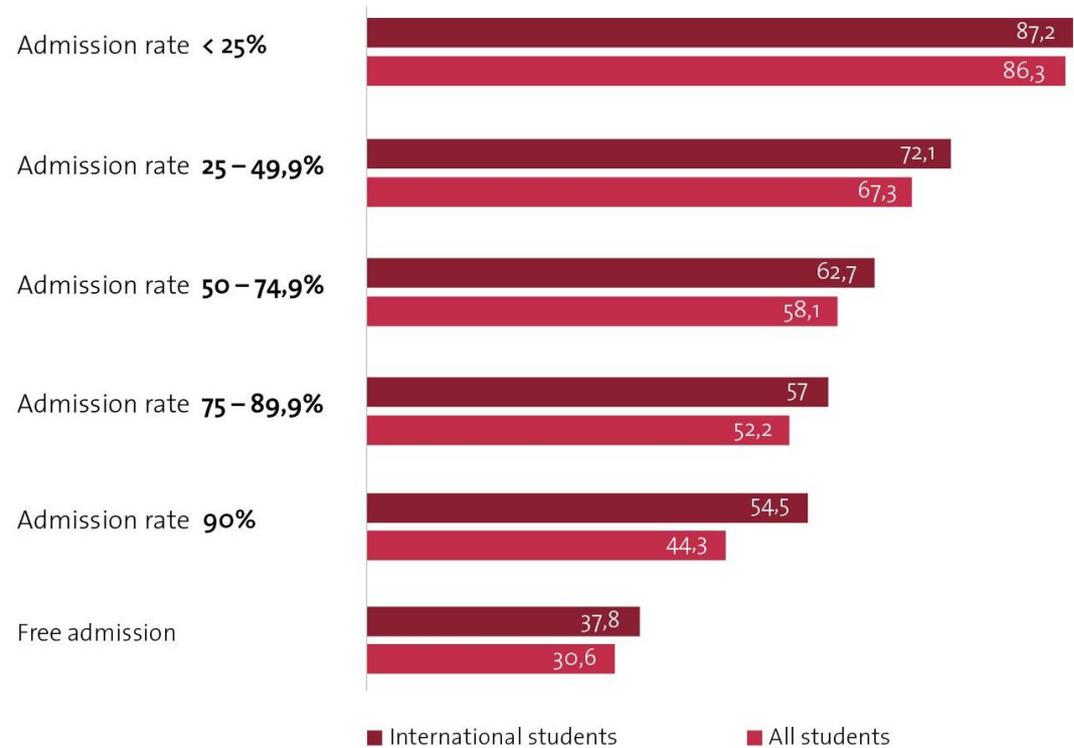
**Figure 7: Completion rates of international students and all students on four-year Bachelor's courses six years after beginning their studies, first-semester cohorts 2000 and 2009, in %**



(Source: NCES, 2016)

Regarding the higher education institutions concerned, if a distinction is made according to the average admission rates for Bachelor's courses, a clear relationship is found between admission rates and completion rates. While international students in open-admission Bachelor's degree courses only achieve a success rate of around 38 per cent after six years, the success rate in degree courses that admit less than a quarter of applicants is around 87 per cent. It is notable that the international students' "lead" over the entire group of all students tends to be somewhat lower in study programmes with stricter selection criteria.

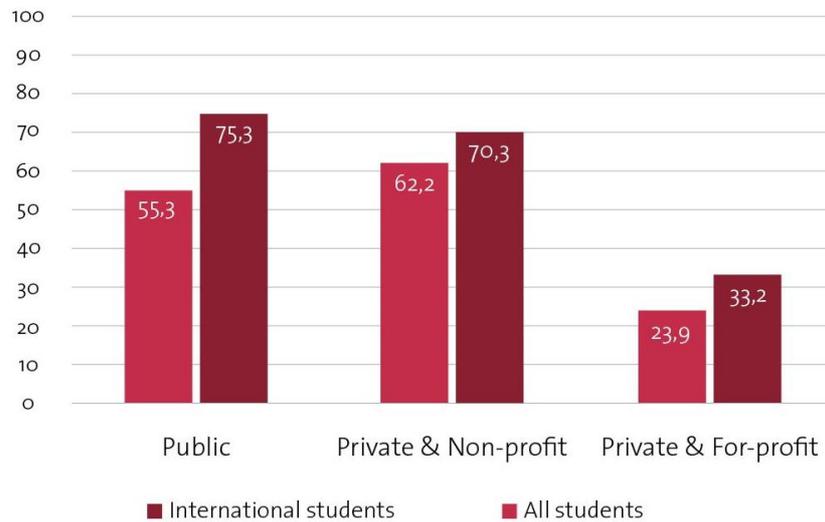
**Figure 8: Completion rates of international students and all students on four-year Bachelor's courses six years after beginning their studies in 2009, by admission rate, in %**



(Source: NCES, 2016)

An analysis of the type of institution also reveals very different completion rates. However, international students also perform better on average without exception compared to all students. This difference is particularly evident at public higher education institutions, at which international students attain a completion rate of 75 per cent, whereas all students attain a completion rate of only 55 per cent. At the same time, the completion rates at public and private non-profit institutions are clearly higher overall than at for-profit private institutions.

**Figure 9: Completion rates of international students and all students on four-year Bachelor's courses six years after beginning their studies in 2009, by type of institution, in %**



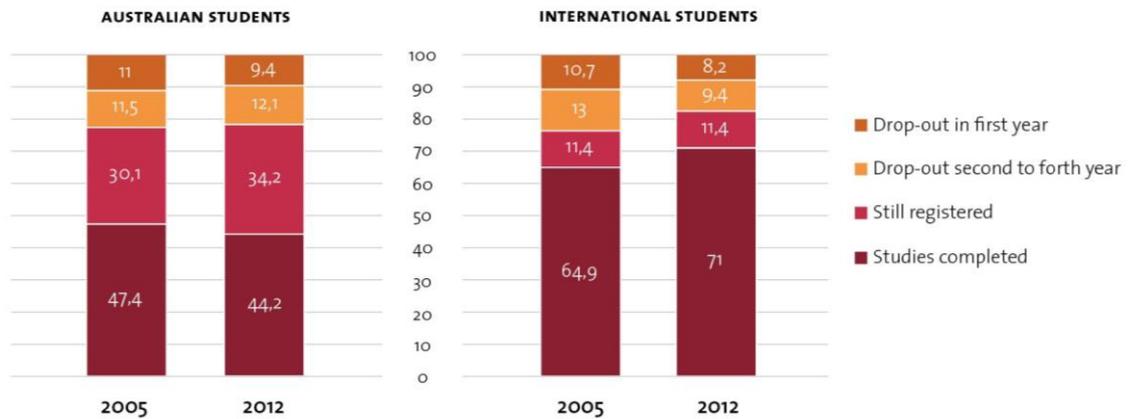
(Source: NCES, 2016)

## b. Australia and the Netherlands

The Australian Department of Education and Training regularly publishes detailed cohort comparisons on success rates and drop-out rates for Australian and international Bachelor's students at public and private higher education institutions. The most recent of these was published at the end of 2017. The study focused on the success rates and drop-out rates for the beginner years 2005 to 2012, each for four years after commencement of studies.<sup>14</sup> Very similar cohort comparisons also exist for domestic and international Bachelor's students at universities in the Netherlands. These are published by the Association of Universities in the Netherlands (VSNU), to which all 14 state universities in the Netherlands belong.

<sup>14</sup> In addition, for the beginner years 2005 to 2010, cohort analyses are available up to six years after commencing studies. For the beginner years 2005 to 2007, cohort analyses are available up to nine years after commencing studies. These cohort analyses are not presented here due to lack of space.

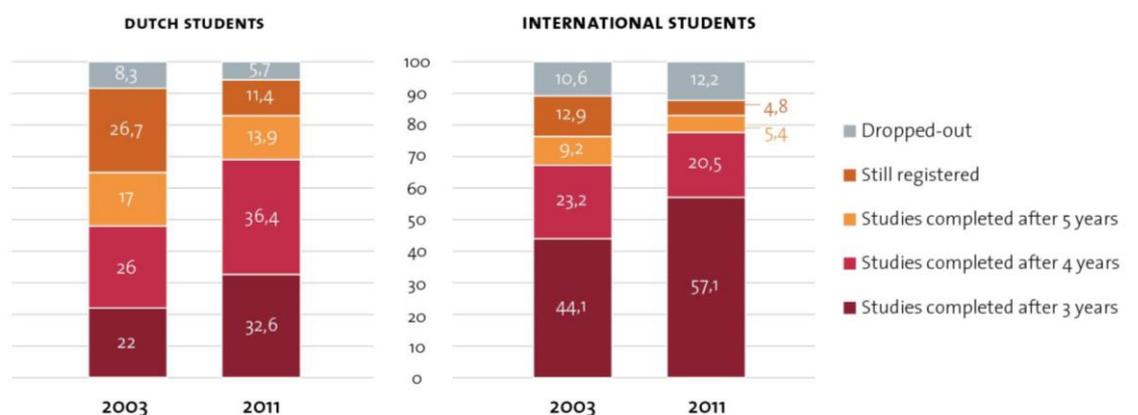
**Figure 10: Completion rates and drop-out rates of domestic and international Bachelor's students in Australia four years after commencing studies, first-semester cohorts 2005 and 2012, in %**



(Source: Australian Government, Department of Education and Training, 2017)

In Australia – even more apparent than in the USA – it can be seen that international students successfully completed their Bachelor's course after four years more frequently than domestic students did. For first-semester students in 2012, the corresponding proportion was 71 per cent, whereas for domestic students this figure was only around 44 per cent. This difference has become even greater since the first-semester cohort of 2005, as the completion rate after four years fell for Australian students, whereas it rose for international students. The drop-out rates are also somewhat lower for international students in the first four years after commencement of studies than for domestic students (18% vs. 22%). For the 2005 cohort, the figures showed a different behaviour (24% vs. 23%).

**Figure 11: Completion rates and drop-out rates of domestic and international Bachelor's students at state universities in the Netherlands, first-semester cohorts 2003 and 2011, in %**



(Source: Association of Universities in the Netherlands (VSNU), 2017)

As in Australia, international Bachelor's students in the Netherlands frequently complete their studies at a faster pace than domestic students. The proportion of first-semester students in 2011 who had already completed their Bachelor's course after three years was approx. 57 per cent for international students, whereas it was only approx. 33 per cent for domestic students. Four years after the commencement of studies, the completion rate for international students was 78 per cent, still slightly higher (78%) than that for Dutch students (69%). Not until six

years after commencing studies do the two groups of students have a completion rate of around 83 per cent. Since the first-semester year group 2003, this proportion has been increasing for domestic students (2003: 65%) as well as for international students (2003: 77%), but especially clearly for domestic students.

Unlike in Australia, in the Netherlands the drop-out rates for international students are higher than for domestic students, even though they are at a low level overall. For the first-semester students of 2011, the proportion of drop-outs is currently around 12 per cent for international students, which is approximately twice as high as for Dutch students (6%). This difference has increased since the beginner cohort of 2003, as the drop-out rates for domestic students have fallen slightly (2003: 8%), whereas they have risen slightly for the international students (2003: 11%).

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