

DAAD

Deutscher Akademischer Austauschdienst  
German Academic Exchange Service

## Wissenschaft weltoffen

Facts and Figures on the International Nature of  
Studies and Research in Germany and Worldwidewissenschaft-  
weltoffen.deAll figures include a  
download option for  
data and figure files  
(see notes on p. 4)

2022

DZHW German Centre for  
Higher Education Research and Science Studies

This is an excerpt from the publication

## “Wissenschaft weltoffen 2022”

Since 2001, the DAAD has been analysing data on the internationalisation of studies, research and higher education from Germany as well as from particularly relevant countries and regions such as the USA, the United Kingdom or Asia. The current edition presents the most important results and graphics.

These include figures on international students in Germany, data on mobility behaviour, an overview of students' countries of origin and host countries as well as developments in the field of doctorates. Special data analyses shed light on the status quo and trends at universities and research institutes during the Covid-19 pandemic.

The study integrates international data from OECD and UNESCO as well as national data from the Federal Statistical Office in Germany. In combination with other indicators, it provides a valid basis for long-term analyses.

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Despite the global mobility restrictions in 2020 and 2021, the first two years of the pandemic, there was no drop in the number of international students at German universities. On the contrary, their numbers continued to grow. Between the 2019/20 winter semester and the 2020/21 winter semester, the number of international students rose from around 319,900 to 324,700, an increase of 2%. This positive development continues in the 2021/22 winter semester, the second winter semester of the pandemic. At this point in time, a total of around 349,400 international students are enrolled at German universities, a rise of approximately 24,700 or 8% compared to the 2020/21 winter semester.

“Following a sharp fall in the 2020 summer semester, the number of international first-year students saw strong growth again in the 2021 summer semester.

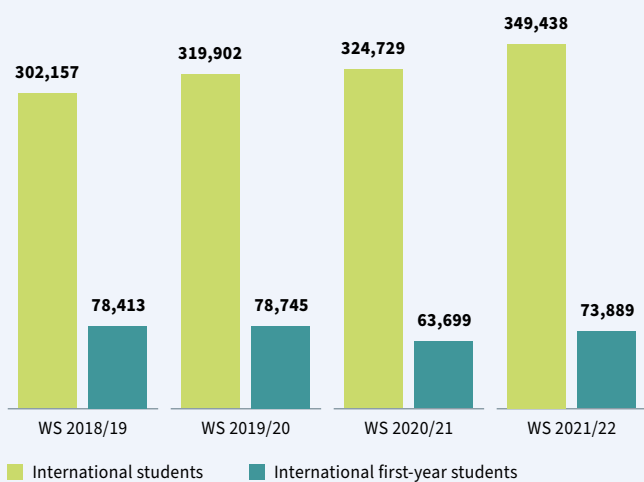
To begin with, there was a significant decline in international first-year students in 2020 nonetheless. While there were approximately 74,700 in the 2019/20 winter semester, this number dropped to 63,700 one year later, a decrease of 19%. However, the number of international first-year students rose again in the 2021/22 winter semester, by around 10,200 to 73,900, an increase of 16%. This significantly reduces the margin between the highest number of international students enrolling for the first time, roughly 78,700, in the 2020/21 winter semester.

### Database

The evolution of the number of international students in Germany in 2021 is primarily visualised using data from official statistics for the 2020/21 winter semester and the 2021 summer semester. Robust, final data are available for these periods. Moreover, the analysis also includes robust data for the 2021/22 winter semester published by the Federal Statistical Office in August 2022. Nonetheless, these current figures were not yet available in all differentiations and forms.<sup>1</sup>

To enable a differentiated analysis, this spotlight once more uses student numbers for the summer semesters. Previous editions of *Wissenschaft weltoffen* were based first and foremost on the numbers for the winter semesters. The summer and winter semesters were only both taken into account in the figures showing the numbers of first-year students and graduates.<sup>2</sup> When interpreting the student numbers presented here, it should be noted that the data from the summer and winter semesters cannot be compared directly. Due to variations in the figures for first-year and formerly enrolled students, there are systematic differences in the student numbers between the summer and winter semesters. The figures for the winter semester are higher for all student groups than those of the summer semester. Therefore, the data for the summer and winter semesters are not compared directly. Instead, they are only compared with the respective data for the summer semesters or that for the winter semesters.

BS2.1 International students and first-year students in Germany since winter semester 2018/19

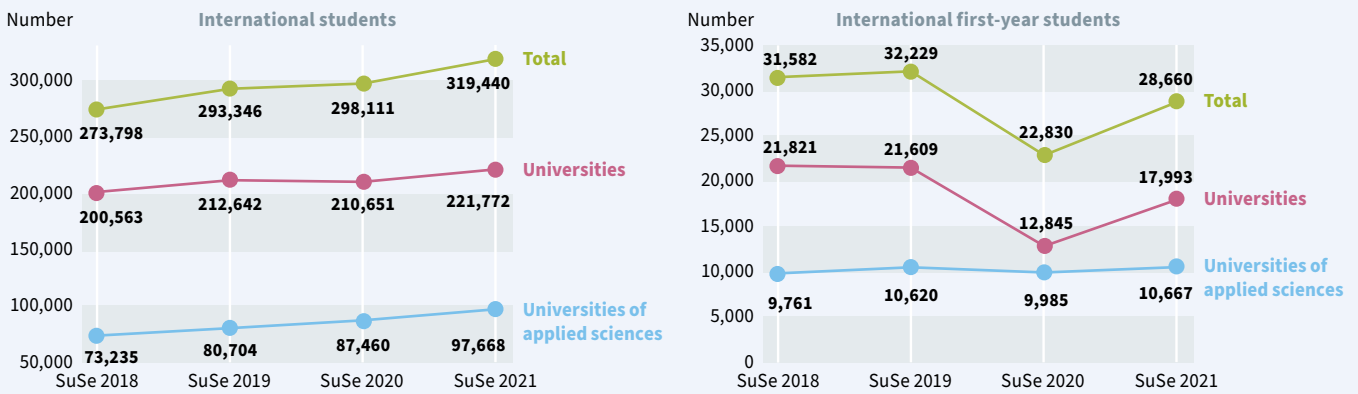


Source: Federal Statistical Office student statistics

Similar developments in the number of international students can be observed for the summer semester. While a total of 293,300 international students were enrolled at German universities in the 2019 summer semester, this number rose by 5,000 or 2% to around 298,100 in the 2020 summer semester. The 2021 summer semester saw a further jump of 21,300 or 7% to 319,400. Whilst the number of international students at universities increased by 4% (from 212,600 to 221,800) from 2019 to 2021, they shot up by 21% (from 80,700 to 97,700) at universities of applied sciences during the same period.

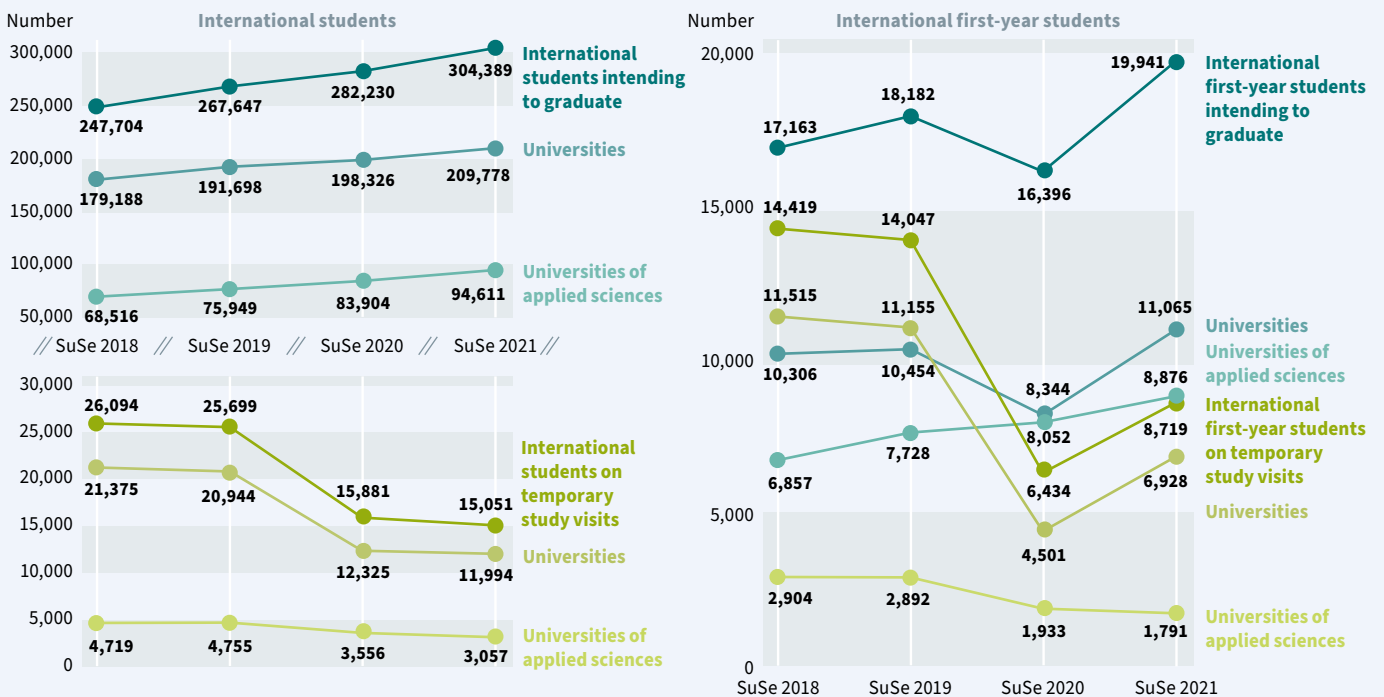
Meanwhile, at both universities and universities of applied sciences, the number of international first-year students fell significantly in the 2020 summer semester, before rising sharply again in the 2021 summer semester. At universities, they plummeted by 41% from 2019 to 2020 and then surged back up by 40% in 2021. At universities of applied sciences, they first dropped by 6% and subsequently went back up by 7%. Overall, roughly 22,800 international students enrolled in a German university for the first time in the 2020 summer semester, down from 32,200 in the 2019 summer semester. The number was back to 28,700 in the 2021 summer semester.

BS2.2 International students and first-year students by type of university, since summer semester 2018



Source: Federal Statistical Office student statistics

BS2.3 International students and first-year students by intention to graduate and type of university, since summer semester 2018



Source: Federal Statistical Office student statistics

The remarkable increase in international student numbers in both the summer and the winter semester, despite Covid-19 and the temporary decline in the number of international first-year students at the same time, may be explained by the reduction in the number of international graduates over the same period, meaning that more international students in later semesters remained at the universities than in previous years. In the 2021 summer semester and the 2021/22 winter semester, the upturn in the numbers of international first-year

students also contributes to the increase in the number of international students overall. However, there also appears to be a longer study period extension in these semesters as the number of international students increased even more sharply than that of international first-year students in each case. The hypothesis that many international students in later semesters extended their period of study would appear to be confirmed not just by the fall in international graduates in 2020, down 2% year-on-year, and by declining dropout rates (see

pp. 46/47). Compelling reasons for this could be that the changeover to new digital study formats led to delays in many degree programmes<sup>3</sup> or that students put off completing their degrees to avoid having to look for a job under pandemic conditions, which were also having a considerable effect on the economy. On the other hand, a larger percentage of international students than in previous years may have continued with a master's programme immediately after obtaining their bachelor's degree, for example to steer clear of any difficulties in undertaking planned placements or visits abroad or to avoid uncertainty when searching for a job to further their career. This would appear to be corroborated by the above-average increase in international students starting a master's programme in the 2021 summer semester, compared to 2020. Their number jumped by 24%, from 11,400 to 14,100.

The considerable shortfall in international first-year students in 2020 was more than offset, firstly by the renewed rise in numbers as of the 2020/21 winter semester and, secondly, most of all, by extending the study period for international students at German universities. Many international students had obviously come to terms with the conditions of studying under Covid-19. Conversely, the situation for international first-year students was initially more complex in 2020, the first year of the pandemic. Covid-19 led to severe restrictions in terms of issuing

visas and travelling. Moreover, starting a degree in a foreign country under pandemic conditions at that time was an even greater challenge than under normal conditions. Quite a few internationally mobile students who were interested in studying in Germany may well have postponed commencing their courses until such time as the situation improved. This seems to be borne out by the rising numbers of first-year students in the 2021 summer semester. During the second year of Covid-19, the universities clearly succeeded in establishing conditions that were more conducive to effectively taking up studies than under pandemic conditions.

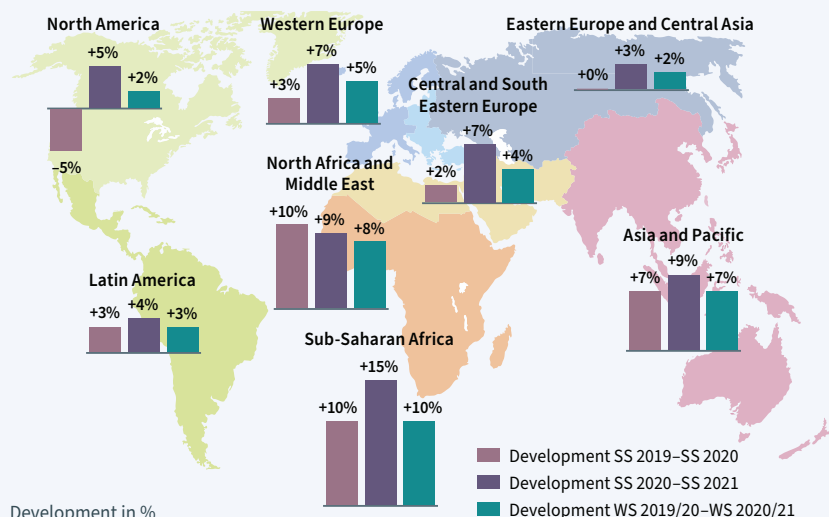
“ 6% of international students enrolled in a distance learning course in the 2021 summer semester – more than ever before.”

In the 2020/21 winter semester, numerous host countries offered international students an alternative: namely of commencing their programmes online from their home countries. Just under three quarters of German universities offered international students this option in the 2020 summer semester and the 2020/21 winter semester.<sup>4</sup> Plenty of international students took advantage of this opportunity when enrolling or re-enrolling; the number of those indicating that they were domiciled abroad during the semester surged by 30% from the 2019/20 winter semester to the 2020/21 winter semester (from 29,900 to 39,000). This applied to 12% of all international students. In the 2021 summer semester, this figure went up to 42,100 or 13%. The increasing number of international students who enrolled in

a (normal or permanent) distance learning programme may be another consequence of the pandemic. From the 2019/20 winter semester to the 2020/21 winter semester, their numbers leaped from approximately 12,500 to 15,800 (+27%). The 2021 summer semester saw a further increase to 18,900. This means that, overall, 6% of international students are enrolled in a distance learning course.

A differentiated analysis of the development in international student numbers in the summer semesters clearly shows that the decrease in international first-year students is mainly the result of the declining figures of international students on temporary study visits. While in the 2021 summer semester, compared to 2019, 14% more international students were enrolled at German universities with the intention of obtaining a degree in Germany, the share of visiting and exchange students in 2021 was still 41% below that of the 2019 summer semester. This development is similar at both universities and universities of applied sciences.

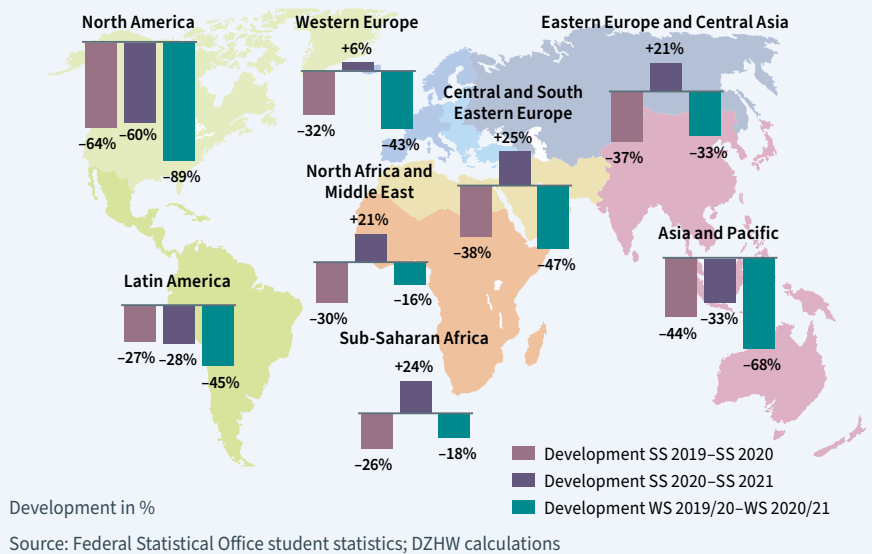
BS2.4 Development in numbers of international students intending to graduate, by region of origin, in summer semesters 2019–2021 and winter semesters 2019/20–2020/21



Development in %  
Source: Federal Statistical Office student statistics; DZHW calculations

As the majority of international students on temporary study visits only remain at their host universities for one semester, it is extremely interesting to monitor the situation among first-year students. Following a sharp fall of 54% during the first year of the pandemic, an increase in the international first-year students on temporary visits can now be observed, although this has not yet reached the 2019 level. In the 2021 summer semester, 2,300 more international visiting students enrolled in Germany for the first time than the previous year (+36%). Nevertheless, this positive development applies to universities only. The decline at universities of applied sciences is ongoing (-7% compared to the 2020 summer semester). By contrast, among international first-year students intending to graduate, not only has the downturn of the 2020 summer semester been offset, their number in the 2021 summer semester noticeably exceeds that of the 2019 summer semester (+10%). The upswing is 6% at universities and a remarkable 15% at universities of applied sciences.

BS2.5 Development in numbers of international students on temporary study-related visits, by region of origin, in summer semesters 2019–2021 and winter semesters 2019/20–2020/21



The differences between international students with and without the intention of obtaining a degree in Germany can also be seen when looking at the evolution of student numbers from the various regions of origin. For all regions of origin, despite the pandemic, the number of international students intending to graduate grew steadily between the 2019 and 2021 summer semesters. This applies most notably to students from Sub-Saharan Africa, whose number rose by 10% from 2019 to 2020 and by a further 15% from 2020 to 2021. The only exception is students from North America, who showed a decline (-5%) at first from 2019 to 2020. However, this was almost offset between 2020 and 2021 (+5%). A comparison between the 2019/20 winter semester and the 2020/21 winter semester produces similar findings.

first show a decrease of 26%, followed by an increase of 24%, so that this region registered student numbers for 2021 that were equivalent to pre-pandemic levels. Nonetheless, the significant reduction in the number of visiting students also continued in the 2021 summer semester for the regions of origin North America (-60%), Asia and Pacific (-33%) and Latin America (-33%).

In summary, the findings reveal that, at universities in Germany, there was merely a decline in temporary international mobility (referred to as credit mobility) during the pandemic in 2020 and 2021. In some of the regions of origin, this downturn stabilised in the 2021 summer semester. By contrast, degree-related international mobility (known as degree mobility) increased, despite the mobility restrictions in the wake of Covid-19. It may be assumed that this positive development continued unabated in the 2021/22 winter semester.

“ Between the 2019 and 2021 summer semesters, the number of visiting students from North America tumbled by 85%.

The situation is very different for international visiting and exchange students. Their number tumbled from the 2019 summer semester to the 2020 summer semester for all regions of origin, particularly in the case of visiting students from North America (-64%). Between the 2020 and 2021 summer semesters, most regions of origin regained a positive development, without cancelling the decline, however. Only for international visiting students from Sub-Saharan Africa did the results

\* Footnotes

- 1 Therefore, no information on international students with temporary study visits, types of university or types of degree can be provided at this juncture.
- 2 To date, apart from in this spotlight, the number of first-year students has invariably been presented in *Wissenschaft weltoffen* with reference to an academic year (academic year = summer semester + the following winter semester) and that of graduates with reference to a graduation year (graduation year = winter semester + the following summer semester).
- 3 See Lörz et al. (2020).
- 4 See DAAD (2021b), p. 17.