Brain drain or brain faucet? The ebb and flow of international students

According to the Organisation for Economic Co-operation and Development (OECD) in 2020 there were over 5.6 million international students studying worldwide. International students are defined as students in higher education who conducted their previous education in a different country and are not residents in the country of the institution they are currently attending. Whether you consider this number large or small, what is not debatable is that it has been rapidly growing. In the past 20 years alone it has increased by more than 200%, from 1.6 million in 2000.

The top country, in terms of receiving foreign students, is the United States, with an enrollment of almost 1.1 million in 2020. This is impressive when you consider that in 1949 there were fewer than 27,000. Today, a single institution alone, New York University, has almost that number with over 21,000 International students enrolled for the 2019 school year.

Recent Changes

Currently we are experiencing a major global disruption in terms of international studies as a result of the COVID pandemic. The total number of international students in the US has declined by 16%, even taking into account those students who are enrolled but attending classes virtually while abroad in their home country. The US is not alone in experiencing the downturn, but as we think forward to what the world of education, and international study, looks like going forward it also makes sense to consider how things looked pre-pandemic.

While the US was, and currently remains, in top position in terms of total international students who select it as their study destination, the recent trends are not encouraging. According to the Migration Policy Institute, the 2019 school year saw a decline of almost 20,000 students (almost 2%) which marked the first year of negative growth in over a decade. This was pre-pandemic, and part of a four year decline in new enrollment by international students. This was happening at a time when most other countries were experiencing significant growth (Canada: 15%, Australia 10%, Japan 9%, Russia 6%, UK 5%).

Why is it important

If we believe that the presence of international students is valuable, this is concerning. Simply at a pragmatic economic level international students are a huge economic boon - the government of Canada estimated that in 2018 international students contributed $21.6 billion (CAD) to the country's GDP and supported almost 170,000 jobs for Canada's middle class. In Australia, educating international students has become their third largest export, only after coal and iron ore (and it is growing at a much faster rate).

Beyond that, however, there is the value to the learning environment at the schools international students attend - providing outside perspectives and insights and exposing US students to global diversity. Friendships and partnerships are built. Understanding is fostered. And the connections often live on past the date of graduation, with students putting down roots in the US or creating business connections between the US and their home countries.

What do we know now

With this in mind, it seems like an important time to conduct a high level “state of the international student union”, so to speak. Who are the international students in the US? Where are they coming from? And where are American students going? How do things look if we look at schools by ranked tiers? And can we make any predictions about how things might look in the future?

The Open Doors Report on International Educational Exchange tracks the numbers of US students going abroad as well as data on international students being educated in the US. According to the latest available data from 2019 China (370,000) and India (202,000) account for about half of all international students, with South Korea third at 52,000. For their part American students are very euro-centric in their study-abroad choices, with the UK (39,000) and Spain (34,000) leading the way, followed by France in third at 18,000.

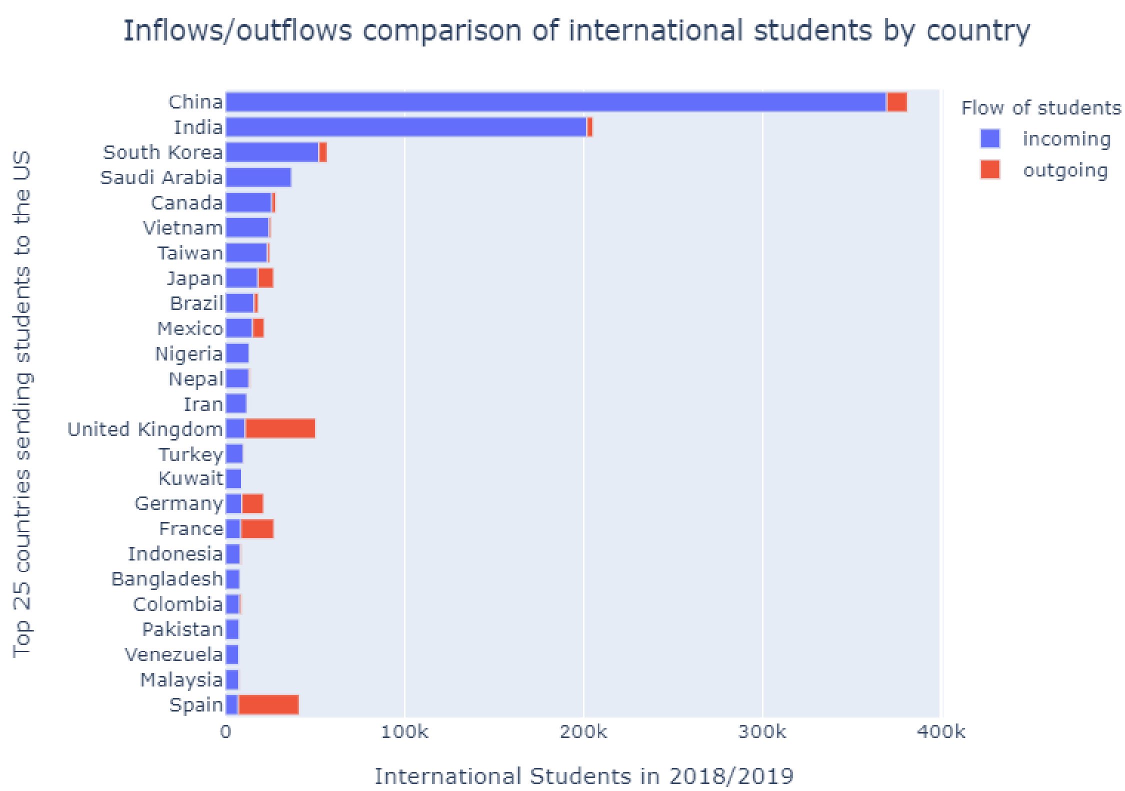


Figure: D.J.Wilson. Source data: Institute of International Education. (2020). "Leading Places of Origin of International Students, 2000/01 - 2019/20" and "Destinations of U.S. Study Abroad Students, 1999/00 -2018/19", Open Doors Report on International Educational Exchange.Retrieved from https://opendoorsdata.org

Notable in these numbers, as presented above, is the discrepancy between inflows and outflows. India, for example, has 60 students going to the US for every 1 that goes to India. Spain is the reverse with 4.7 American students going to Spain for every Spanish student who studies in the US. Germany is the only country somewhat close to an exchange balance, sending 9000 German students to the US, while welcoming 12,000 American students at German universities.

We can get a better sense of these trends by mapping the ratio of incoming vs outgoing students (limited to the 25 countries sending the most students to the US) onto a world map. This reinforces how European universities are a big draw for US students, while the US itself receives a surplus of international students from the rest of the world.

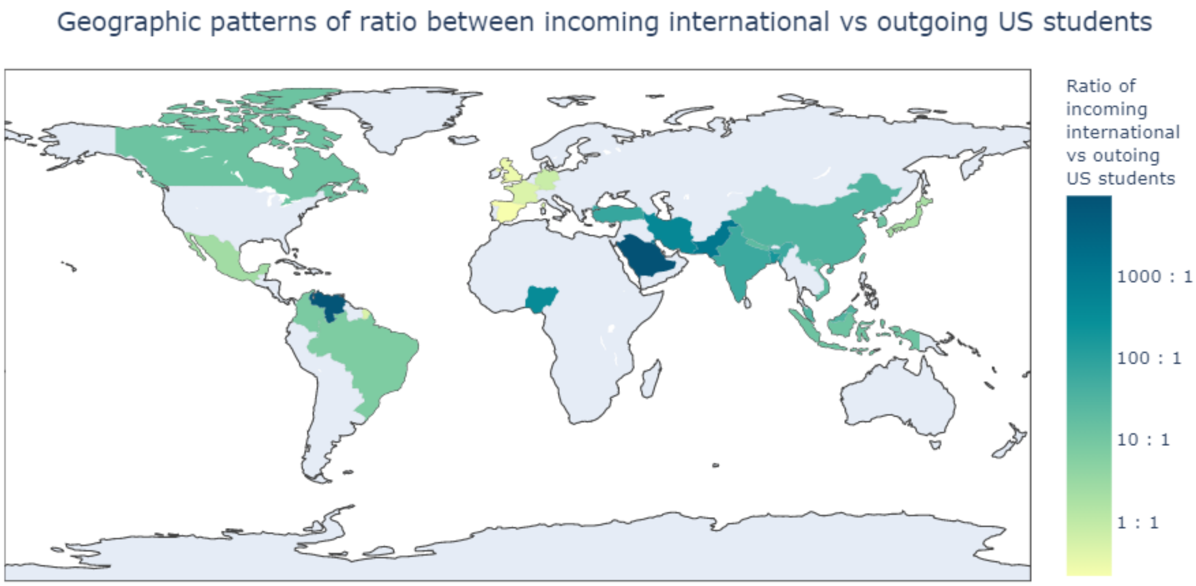


Figure: E. Schindling. Source data: Institute of International Education. (2020). "Leading Places of Origin of International Students, 2000/01 - 2019/20" and "Destinations of U.S. Study Abroad Students, 1999/00 -2018/19", Open Doors Report on International Educational Exchange.Retrieved from https://opendoorsdata.org

Unsurprisingly, international students are not picking their American institutions randomly. Using data from the Times Higher Education World University Rankings we can see that international students are disproportionately drawn to top ranked universities. As shown in the figure below, there is a clear stratification of international enrollment if you group the schools by their rankings, with the top 10 schools having international enrollment levels of around 25% while those schools ranked below 250th are barely hitting 10%.

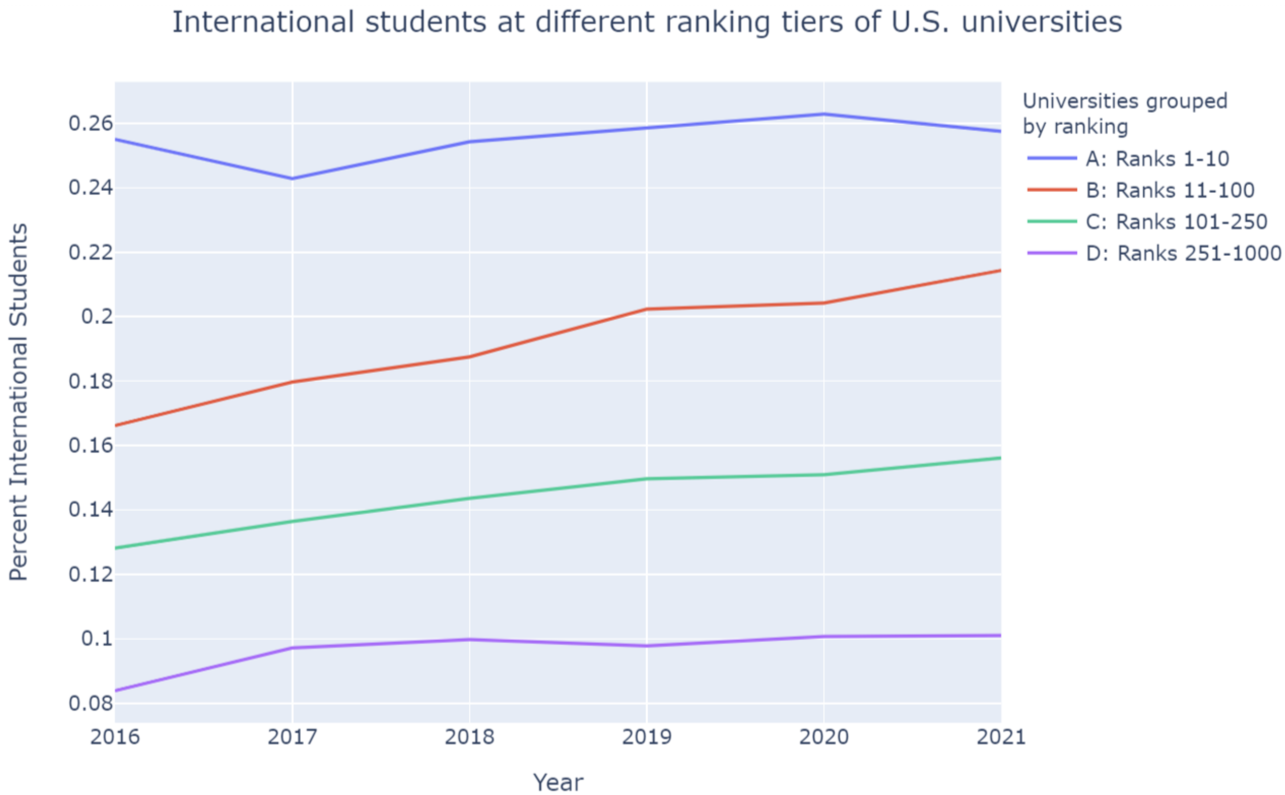
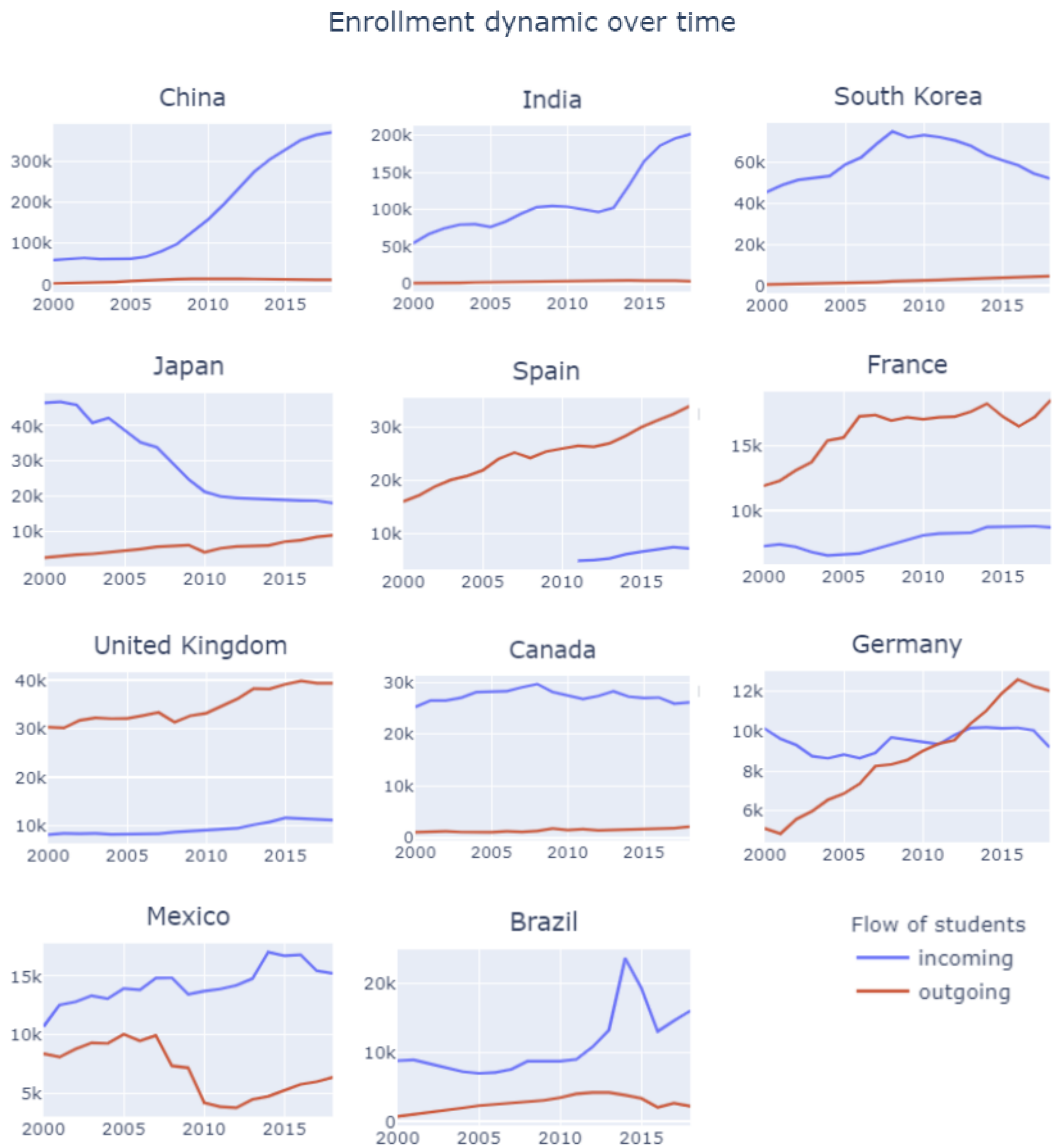


Figure: D. Vakalis. Source data: https://www.timeshighereducation.com/world-university-rankings

A closer look shows that while the top-tier universities have the highest percentage of international students they also appear to have the most fluctuation. What about top-tier schools made them the most sensitive to changes during the past years? One piece of the answer might lay in the U.S. policies vis-a-vis restricting travel differentially, based on country of origin, combined with the shifts over time in where students are coming from. Consider the surplus-deficit discussed earlier. Looking at individual countries reveals striking characteristics on a country-by-country basis, and these patterns can be loosely characterised by region: Spain, France and the UK are largely ‘attractors’ of U.S. students. Whereas China and India are the largest contributors, and these trends are accentuating over time.



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What it means for the future

It is difficult to predict how international study might be affected in the aftermath of COVID, and also how schools around the world might be affected by this disruption in enrollment of international students. For countries such as Australia and Canada this could have large economic impacts as foreign students account for a significant portion of export income. For university towns whose economy is strongly driven by students we could see declines in rental prices, for example. For institutions around the world the reduction in in-person interactions between people of different cultures and nations can only lead to an impoverished educational experience, in the broad sense of the word. As, for the US, who were already lagging behind the rest of the world in the latter half of the 2010s in terms of international student enrollment growth, is the current situation going to serve to accelerate the decline, or spur on changes that encourage growth in this domain?