

BRIEFING PAPER

**TRUE POTENTIAL: IMPROVING THE HIGH
POTENTIAL INDIVIDUAL VISA**

Executive Summary

**JASON SOCKIN &
SAM DUMITRIU**

- Half of the UK's fastest growing startups were co-founded by someone born overseas.
- Although the UK has one of the world's most open immigration systems for skilled workers, there are limited opportunities for people to move to the UK without a formal job offer. For instance, the UK's Innovator and Start-Up visas can only be accessed through a specific endorsing body such as an accelerator or university.
- The UK's new High Potential Individual (HPI) visa fills a gap in the market, by allowing recent graduates of some of the world's top overseas universities to move to the UK for up to two years without a job offer.
- To be awarded a HPI, you must have attended an eligible university in the last five years. Eligibility is determined by appearing in the top 50 of at least two of three global university rankings: either the Times Higher Education World University Rankings; Quacquarelli Symonds World University Rankings; or The Academic Ranking of World Universities by Shanghai Jiao Tong University.
- In practice, this means that around 30-40 universities are eligible in any given year.
- The HPI visa is also closed to immigrants who attended UK universities that ranked in the Top 50 of two global lists. In theory, they could access the Graduate visa, but this only applies if they do not leave the UK between graduation and application.
- The three global universities lists, which determine eligibility, are not designed to assess graduate quality. They assess universities on factors including research output, the number of Nobel Laureates on faculty, and the quality of facilities. However, they are relatively weak predictors of graduate labour market performance.
- An alternative method developed by economists Martellini, Schoellman, and Sockin uses real-world labour market data from Glassdoor for migrant and non-migrant graduates from around 3,300 colleges across 66 countries.
- This method, which compares university graduates as though they are employed in the same labour market, reveals that the HPI visa excludes graduates from many of the world's top performing universities in terms of post-graduation earnings.
- Graduates from most of the top 25 global universities by average earnings are not eligible to join, including the Indian Institute of Technology - Ropar, which tops the list.
- If the UK adopted this method and allowed any overseas graduates who attended an overseas university with higher potential earnings than the median-performing, currently-eligible university, it would allow graduates from approximately 100 universities spanning 12 different countries access to the visa.

- The additional universities include many STEM-focused institutions, small liberal arts colleges, and business schools. Of the omitted universities, 33% are from the United States, 22% are from Europe, and 17% are from India.
- The average earnings among university alumni is a strong, reliable predictor for the rates at which graduates innovate, start companies, and become executive managers.
- Public and private sector datasets, in this instance regarding labour market earnings for college graduates from around the world through Glassdoor, while imperfect and nascent, are highly useful yet currently under-utilised tools for policymakers.

“While just 14% of the UK population was born outside of the UK, half of the UK’s fastest-growing businesses have at least one co-founder born overseas.”

Introduction

It is hard to overstate the role of foreign-born founders in the UK’s startup success story. While just 14% of the UK population was born outside of the UK, half of the UK’s fastest-growing businesses have at least one co-founder born overseas.¹ If you focus solely on unicorns, venture-backed companies with a \$1bn valuation, the share of immigrants increases further.²

There are many factors that help explain why immigrants are over-represented as founders of high-growth businesses. Immigrants can bring new perspectives, are typically self-motivated, and have higher education levels than the general population. When The Entrepreneurs Network published its analysis of the UK’s 100 fastest-growing businesses, it revealed that many of the foreign-born founders moved to the UK to attend highly-selective universities such as Oxford, Cambridge, and Imperial, then decided to start their business after settling post-graduation. It is in this context that the Government has attempted to reform its visa system to make it easier for would-be entrepreneurs to move to and start businesses in the UK.

Immigration policy after Brexit

As of January 31st 2020, the UK is no longer a member of the European Union. Outside the European Union, the UK government was able to end freedom of movement with EU nations while implementing its own points-based immigration policy. Net migration to the UK has remained high despite the end of freedom of movement, with increased migration from outside the European Union cancelling out declining migration from the EU.³

1 Stewart, A, and Dumitriu, S. (2019). Job Creators: The immigrant founders of Britain’s fastest growing businesses. The Entrepreneurs Network.

2 Ibid. Calculation as of 2019.

3 For an analysis of the most recent ONS data with a comparison of different methods for calculating net migration, see: <https://ukandeu.ac.uk/immigration-statistics-looking-forward-looking-backwards/>

The number of visas issued for work has increased by 25% since 2019. Among people moving to the UK to work, almost two-thirds (63%) used the Skilled Worker visa, which replaced the Tier 2 (General) visa in 2021. The Skilled Worker visa is significantly less restrictive than its predecessor. There has been a reduction in the skill level needed to qualify for the visa, an end to the Resident Labour Market test (the requirement that a job must be advertised to UK workers for 28 days and no UK worker could carry out the role), and a reduction in the minimum annual salary threshold to £25,600 for most jobs (with an even lower threshold of £20,000 for new entrants and shortage occupations).

However, in order to acquire a Skilled Worker visa, a worker must be sponsored by an employer with a sponsor's licence. As a result, the visa cannot be used by entrepreneurs who plan to move to the UK to either start or relocate their business. Similarly, startups may find it difficult to hire workers using the Skilled Worker visa for two reasons. First, the salary thresholds while low do not consider in-kind benefits such as equity, which is an important form of payment in high-growth venture-backed businesses.⁴ Second, there are administrative burdens associated with acquiring and maintaining a sponsor's licence which are difficult to manage for businesses with fewer than 10 employees.

There are alternative routes open for people who want to come to the UK for work but lack a job offer from a licensed sponsor. Individuals who have recently graduated from a UK university are able to apply for a Graduate visa, which allows them to stay in the UK for an additional two years post-graduation.⁵ Graduate visa holders are free to work for almost any employer in the UK.⁶ They are also allowed to be self-employed and start their own businesses. The only condition of the visa is that graduates cannot apply for benefits and must switch to a different visa when their initial two years are complete. The Graduate visa effectively reinstates the Post-Study Work visa which was withdrawn in 2012 due to concerns around abuse by 'bogus colleges'.⁷

Another option for overseas entrepreneurs are the Start-Up and Innovator visas, which replaced the UK's Tier 1 Entrepreneurs visa. These two visas are targeted at entrepreneurs and rely on private endorsing bodies to determine eligibility. The previous Tier 1 visa had a requirement that a civil servant assess the sponsoring startup's business models for signs of innovativeness and viability. Due to concerns that caseworkers with limited business experience and knowledge were rejecting genuine entrepreneurs,

4 The Startup Manifesto. (2019). Coade and The Entrepreneurs Network.

5 Three years if the individual is a PhD or other doctoral qualification holder.

6 There is a restriction on professional athletes.

7 Most of the 'bogus colleges' in question have been forced to close due to increased immigration enforcement. For instance, see: '75 fake universities closed in UK'. (2019) Prospects. <https://www.prospects.ac.uk/prospects-press-office/75-fake-universities-closed-in-uk>

this requirement was scrapped.⁸ But the Innovator and Start-Up visas are not without issue. Endorsing bodies are prevented from charging endorsees. This has led to a situation where endorsing bodies seek to recoup the costs from becoming an endorsing body via tying endorsement to investment or attendance of an accelerator programme, which typically requires entrepreneurs to give up equity in their business. As a result, while many of the endorsing bodies' mentoring or accelerator schemes are highly regarded, the Innovator and Start-Up visas are not well suited to entrepreneurs who have already raised external finance and do not wish to further dilute their equity.

The High-Potential Individual visa

As part of the UK Innovation Strategy, the Government announced the creation of a new High Potential Individual route for individuals who have graduated from a top global university⁹ within the last five years. In many ways, the HPI route mirrors the Graduate visa. Applicants are granted the right to work and live in the UK for two years. They are not tied to any specific employer and are free to work for themselves. At a recent London Tech Week event, the Chancellor Rishi Sunak described the policy's rationale as follows:¹⁰

“If you're a young person, who's graduated from a global top 50 university, you can come to the UK with virtually no conditions; no job offer, and stay here, with your family, for two years.

“To just explore. Work. Study. Invent. Figure out what you want to do. And that should send a strong and clear message to the brightest global talent: If you come to the UK, we will back you to succeed.

“Nothing like that exists anywhere else in the world. And it sums up our philosophy when it comes to visas: Less 'build it and they will come', and more 'let them come and they will build it'.”

This route is similar to the now-defunct Highly Skilled Migrant Programme, which was a points-based system and allowed graduates to move to the UK without a job offer based on their educational history and past earnings.

To qualify for the HPI visa, applicants must have graduated from a university which appears on at least two of three internationally recognised rankings of universities in their year of graduation within the last five years. For instance, for graduates who finished their courses in 2022, there are 37 universities on the global universities list used to determine eligibility.

“To qualify for the HPI visa, applicants must have graduated from a university which appears on at least two of three internationally recognised rankings of universities in their year of graduation within the last five years.”

8 For a summary of the issues with the Tier 1 Entrepreneur visa's Genuine Entrepreneur Test, see: Newbury, K. (2015). A call for reform and redesign of the UK's Tier 1 Entrepreneur visa. Kingsley Napley.

9 Outside of the UK

10 Chancellor's opening address to London Tech Week.

In the UK Innovation Strategy, the Government states that while initially eligibility “will be open to applicants who have graduated from a top global university. The UK government will explore the scope to expand eligibility to other characteristics of high potential.” This briefing paper argues that while the HPI visa represents a positive step toward promoting innovation and entrepreneurship in UK immigration policy, the Government’s reliance on global university rankings inadvertently excludes many highly skilled individuals who could make large positive contributions to the UK’s economy.

Building on innovative research, which uses Glassdoor data to predict the human capital of graduates based on their alma mater, this briefing reveals that many of the institutions that produce the world’s most productive graduates, as measured by real-world labour market performance, are overlooked by global university rankings.

This briefing is divided into three key sections. The first section discusses the relative merits of university rankings for the purposes of assessing graduate ability and potential. Although lists of the top international universities may be useful for many purposes, their limited (if any) use of data on graduate outcomes makes them at most second-best predictors of potential human capital. In the second section, we explain how an alternative methodology using comparable real-world outcomes more accurately identifies high potential individuals based on their university. If the HPI visa instead used this method and allowed any overseas graduates who attended an overseas university with higher potential earnings than the median-performing currently eligible university, it would allow graduates from approximately 100 universities spanning 12 different countries access to the visa. In the final section, we discuss the potential for similar data-driven methods to be used and consider how the HPI visa can better reflect an individual’s true potential moving forward.

“Many of the institutions that produce the world’s most productive graduates, as measured by real-world labour market performance, are overlooked by global university rankings.”

Section 1: Ranking universities - potential pitfalls

For consumers and policymakers alike, rankings can be extremely useful. They allow us to make comparisons without first-hand knowledge of the items being compared. For consumers, think Yelp for restaurants, Glassdoor for workplaces, TripAdvisor for hotels, etc. For policymakers, in the case of a high-skill visa, there are university rankings. Rankings, though, can lead us astray if the dimensions along which items are ranked are only tangentially related to our outcome of interest. In the case of restaurants, workplaces, and hotels, because the rankings are largely crowd-sourced from experienced consumers, these rankings directly mirror what people who use those rankings are looking to maximise, their own satisfaction.

According to Chancellor Rishi Sunak,¹¹ the HPI visa is meant to “attract

¹¹ Quotes are taken from the following article: <https://www.theguardian.com/education/2022/may/30/visa-scheme-graduates-top-50-non-uk-universities-high-potential-individual>.

the best and brightest from across the globe.” Why invite the best and brightest graduates to the United Kingdom? He goes on, the HPI visa “means that the UK will grow as a leading international hub for innovation, creativity and entrepreneurship.” For identifying the most talented college graduates, these internationally recognised rankings of universities are useful but imperfect proxies. Especially if the goal is to foster innovation and entrepreneurship, new research suggests a better approach.

Take the three rankings currently used to determine eligibility for the HPI visa. For the Times Higher Education World University Rankings, 60% of the ranking is based on each university’s research and citations while 30% is based on teaching.¹² Zero weight is given to students’ post-graduation outcomes. For the Quacquarelli Symonds World University Rankings, the rankings are an amalgamation of six inputs, only one of which is related to students’ outcomes: employer reputation.¹³ The other five include academic reputation, faculty/student ratio, citations per faculty, international student ratio, and international faculty ratio. And for the Academic Ranking of World Universities, only 10% of the ranking is related to the achievement of each university’s graduates, and even then, this sliver pertains to success in academia through Nobel Prizes and Fields Medals, not the labour market.¹⁴ These three rankings and others are inherently flawed for identifying top talent.¹⁵ To quote the president of Princeton University, “Rankings...are a misleading way to assess colleges and universities... Applicants should also want to see some measure of post-graduation outcomes.”¹⁶

12 For the full methodology, see <https://www.timeshighereducation.com/world-university-rankings/world-university-rankings-2022-methodology>.

13 For more detail on each input, see <https://www.topuniversities.com/qs-world-university-rankings/methodology>. Just how much employer reputation factors into the overall university rankings is not provided and it is clear that there can be some disconnect between the two. For instance, among the roughly 1,500 universities included in the rankings, while Waseda University and Keio University are each ranked around 200th overall, they are each in the top 50 by employer reputation. And both universities fall in the top fifty of the earnings-based MSS rankings. However, employer reputation is a poor proxy itself for an earnings-based ranking, at least for international comparison. For instance, Universiti Malaya, Universidad de Buenos Aires, and Universidad Nacional de Colombia each rank in the top 50 by employer reputation according to Quacquarelli Symonds, but outside the top 1,000 of MSS rankings.

14 For the full methodology, see <https://www.shanghairanking.com/methodology/arwu/2021>.

15 Only 5% of the input into the U.S. News Best Colleges ranking is related to post-graduation earnings, and even then it pertains to student debt, which may relate more so to a university’s costs than to its graduates’ earnings. (For methodology, see For the full methodology, see <https://www.usnews.com/education/best-colleges/articles/how-us-news-calculated-the-rankings>). For the Center for World University Rankings, an annual list of the top 2000 universities globally, though 25% of the ranking reflects the “employability” of alumni, employability in this context captures the propensity with which graduates become CEOs of top public companies, not the post-graduation success for the average graduate. (For methodology, see <https://cwur.org/methodology/world-university-rankings.php>).

16 Taken from a Washington Post Opinion piece written in October 2021, <https://www.washingtonpost.com/opinions/2021/10/21/i-lead-americas-top-ranked-university-heres-why-these-rankings-are-problem/>.

Section 2: A better way to assess graduate potential

Innovative new research from Paolo Martellini, Todd Schoellman, and Jason Sockin, hereafter MSS, shows that it is possible to directly target the main outcome of interest for HPI visas, college graduates with high potential. The measure MSS introduce is an earnings-based metric: how much would migrants from universities around the world earn in the United Kingdom. Exciting new data from the private sector allows the authors to effectively rank—by estimating how much each university’s Bachelor’s degree recipients would earn working in a common country—3,300 colleges across 66 different countries.¹⁷ We should caveat that post-graduation earnings are not necessarily a one-to-one reflection of an institution’s quality. Given the highly selective nature of admissions policies, we might expect graduates who attend top universities to be successful if they instead attended a different university. MSS cannot unravel whether a university produces graduates who command high wages in the labour market because it selects the best students or because it adds value through superb instruction. From the perspective of prospective students and their families, the distinction is an important one. However, for policymakers concerned with attracting top talent from abroad, disentangling the two is immaterial.

Ranking workers by their labour market earnings effectively orders them by individual productivity, or as economists may refer to it, human capital.¹⁸ Ranking workers, or universities, around the world by human capital though is remarkably difficult for two reasons. First, wages in different countries can reflect myriad factors beyond a worker’s human capital, such as aggregate productivity, capital intensity, or the scarcity of skilled labour. Second, graduates who find employment domestically may not be representative of graduates who find employment abroad. Are graduates of Oxford who choose to remain in the United Kingdom more or less productive than those who find employment in the United States? In the European Union? In India?

By using the real-world earnings of college graduates submitted on the website Glassdoor, MSS is able to produce an earnings-based ranking

¹⁷ The Federal Reserve Bank of Minneapolis working paper is available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3899337.

¹⁸ According to economic theory, in a perfectly competitive market, the wage that a worker is paid is equal to their marginal revenue product of labour. In other words, the added profit a worker brings their employer is how much in income the worker will receive. High wages are a reflection of highly skilled, highly productive workers.

that overcomes both of these obstacles.¹⁹ First, Glassdoor allows MSS to calculate how much graduates of each university earn when employed in the country in which they studied. MSS also observe, for many workers, how their earnings change when moving between countries, such as when moving from India to the United Kingdom. By combining the two—graduates' earnings domestically and the change in earnings when migrating—MSS is able to estimate how much graduates from colleges around the world would earn in the same country. Further, since Glassdoor contains earnings data for countries around the globe, MSS can also observe college graduates who migrated and found employment in a different country than the one in which they studied. In turn, MSS can speak to which countries attract the most talented college graduates and which ones relinquish them.²⁰

According to the earnings-based ranking of universities from MSS, the HPI visa overlooks many universities whose graduates significant amounts of human capital and thus tremendous potential.²¹ Just because a university is not at the top of a prestigious ranking does not mean its graduates are not highly talented individuals.²² According to MSS, roughly 100 universities produce graduates whose average human capital is above the median among universities that do qualify for the HPI visa. That is almost triple the number of universities that are eligible. In fact, a majority of MSS's top universities end up being excluded, meaning heaps of human capital and the benefits that human capital could reap are left untapped.

Not only are many universities with top talent left out, but entire countries end up being excluded. While the current list is primarily dominated by US institutions, it includes universities from Australia, Canada, China, France, Germany, Hong Kong, Japan, Singapore, Sweden, and Switzerland.

“Just because a university is not at the top of a prestigious ranking does not mean its graduates are not highly talented individuals.”

¹⁹ Because workers provide their resumes on the website, MSS can discern the university from which each worker earned their undergraduate degree. Glassdoor earnings data are not administrative, rather they are the product of workers volunteering information on the website. As a result, there could be selection bias in which graduates choose to document their earnings on the website, meaning that the Glassdoor estimate of average earnings may over- or under-estimate the true average. While this may affect the individual rankings of universities, it almost certainly cannot reverse the broader takeaways. Reassuringly, MSS find little evidence of extreme selection into Glassdoor for graduates from many countries, including Australia, the United Kingdom, the United States, New Zealand, and Japan, and further show that the change in earnings at migration relative to the difference in GDP per worker within the Glassdoor sample is similar to previous estimates from the literature.

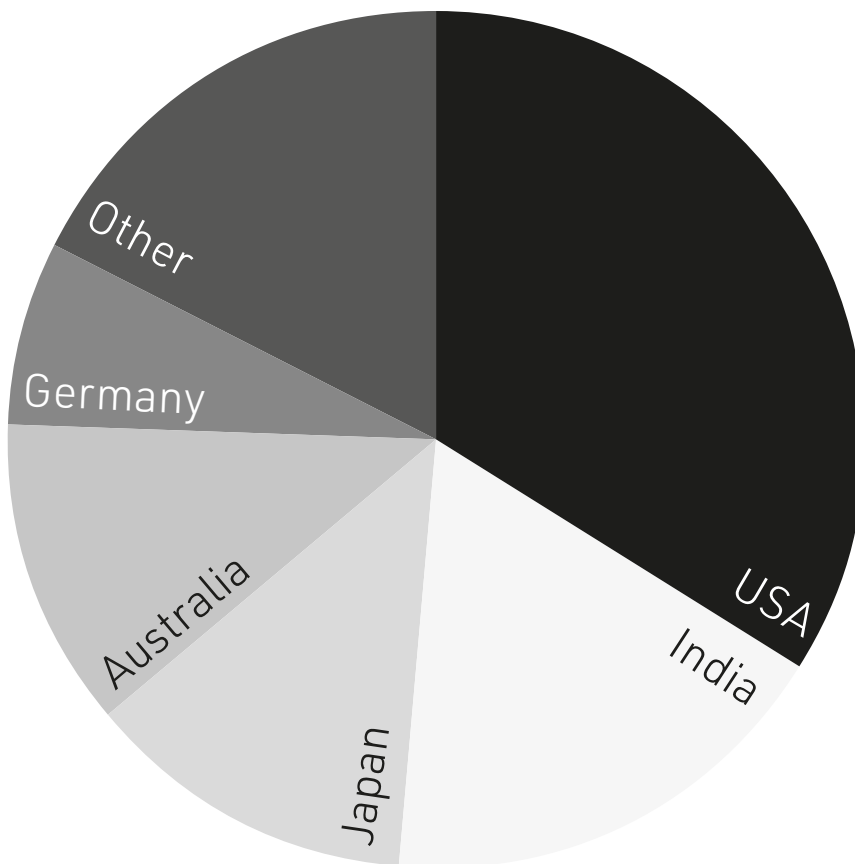
²⁰ Though outside the scope of our discussion, MSS highlight that the United Kingdom (like the United States) gains through high-skill migration, attracting graduates with even more human capital than their own college graduates. More specifically, the United Kingdom attracts university graduates from abroad who out-earn domestic UK graduates by about 10% on average. On the other hand, less developed countries lose their most productive graduates through emigration. Whether it is the promise of economic opportunity, highly desirable amenities, or both, high potential individuals flock to the United Kingdom, a pattern that would likely continue under the HPI visa program.

²¹ Of the 37 universities that qualify for the HPI visa, 31 are present in the MSS rankings. The six not represented are Duke University, ETH Zurich, Johns Hopkins, Karolinska Institute, LMU Munich, and PSL.

²² The reverse is true as well. While fifteen of the universities that qualify for the HPI visa fall in the top 100 of MSS's ranking, seven fall outside the top 500.

Omitted from this list though are Denmark, India, Israel, Russia, and the United Kingdom. Figure 1 provides a country breakdown of where these overlooked universities are located. Most notably, Indian universities account for nearly one-fifth of the universities with graduates whose human capital is above the median among qualified universities, yet zero Indian universities currently qualify. Another one-third are from the United States.

Figure 1: Overlooked Universities with High Potential Individuals by Country.²³



“Importantly, graduates with more human capital increasingly become entrepreneurs.”

Since MSS observe only a sample of graduates from each university rather than the full population, the individual ranking for any given university could be sensitive to the size and composition of the samples they observe. For two-fifths of the universities whose graduates’ level of human capital is above the median among eligible universities, MSS’s estimate of human capital is based on the earnings of fewer than 100 graduates. (MSS imposes a minimum of at least 25 graduates to be considered in the ranking). So, rather than highlight individual universities that are left behind by the

²³ Full breakdown by nationality: United States (35), India (18), Japan (13), Australia (12), Germany (7), France (5), Denmark (4), Switzerland (3), Canada (2), Israel (2), Russia (1), and Sweden (1).

policy, we highlight three takeaways.

First, many universities focus on technology and STEM-related fields. This is most evident for Indian Universities, where ten Indian Institutes of Technology (IITs), three National Institutes of Technology, and three Institutes of Information Technology are overlooked. But it is not solely a phenomenon driven by Indian universities. It is true for science-focused universities around the globe including, for instance, Franklin W Olin College of Engineering, Karlsruhe Institute of Technology, Technical University of Munich, Tokyo University of Science, Technical University of Denmark, and Technion - Israel Institute of Technology.

Second, many small liberal arts colleges from the United States would likely be included if an earnings-based metric were utilised. The list includes Amherst College, Claremont McKenna, Colgate University, Harvey Mudd, Haverford College, Middlebury College, Pomona College, Swarthmore College, Washington and Lee University, and Williams College. These liberal arts colleges in 2019 enrolled on average about 460 students and had an acceptance rate of 14%.²⁴ For comparison, the University of Oxford enrolled about 3,300 students and had an acceptance rate of 17%.²⁵

Third, a number of business schools from around the world, including Copenhagen Business School, ESSEC Business School, IPAG Business School, and the Stockholm School of Economics, would likely be included as well. To recap, while many IITs, liberal arts colleges, and business schools produce graduates with relatively high human capital, none of them qualify for HPI visas.

By quantifying potential talent through human capital, newly eligible candidates would be reliably high-earners. According to the estimates of MSS, graduates from these 105 universities would earn on average 15% more than the average graduate from the University of Oxford would. Higher wages means higher tax revenue. But it's not just the promise of high wages that makes human capital a desirable criterion. Selecting universities based on the human capital of their graduates invites other desirable outcomes for fostering growth and prosperity as well.

Importantly, graduates with more human capital increasingly become entrepreneurs. MSS estimate that one standard deviation greater human capital among a university's graduates is associated with an additional 1.0 percentage points more graduates becoming founders. Graduates with more human capital increasingly become inventors. MSS find that more human capital among a university's graduates is associated with a greater share of graduates becoming (top) inventors. Moreover, countries with universities whose graduates have lots of human capital file more patents per capita in the United States. Graduates with more human capital also

“While many IITs, liberal arts colleges, and business schools produce graduates with relatively high human capital, none of them qualify for HPI visas.”

²⁴ Calculations are based on the enrollment, application, and acceptance totals for Fall 2019 data from the National Center for Education Statistics made available through the Integrated Postsecondary Education Data System.

²⁵ Calculations are based on the applications, offers, and admitted totals for 2019 available in <https://www.ox.ac.uk/sites/files/oxford/AnnualAdmissionsStatisticalReport2022.pdf>.

increasingly become top executives. One standard deviation greater human capital among a university's graduates is associated with roughly 0.5 percentage points more graduates additionally becoming C-suite managers. Innovation, new business formation, and strong business stewardship are key foundations for building the economy of the future.

Section 3: Taking a data-driven approach to policy

International talent is vital to innovation. In the UK, immigrants are overrepresented as founders of the fastest growing and most innovative businesses. Yet existing paths for high potential immigrants to enter the UK exhibit limited flexibility for experimentation and entrepreneurship. By allowing individuals to move to the UK without being tied to an employer, the HPI visa, alongside the Graduate visa, fills an important niche.

When the HPI visa was first announced in the UK Innovation Strategy, there was an implicit recognition that global university rankings do not have a monopoly on identifying high potential and a commitment to exploring alternative measures of high potential. To that end, if policymakers are looking to identify individuals who are more likely to go on to invent new products, to found new companies, and to lead businesses at the C-suite level, then methods that incorporate data on real-world outcomes should be included in the dashboard that policymakers consider, at least alongside if not perhaps even before, relying on global university rankings.

This analysis is not meant to criticise or disparage the HPI visa programme. Rather, it is meant to first, caution against the pitfalls that can arise from relying on university rankings that typically will not capture what policymakers intend to target, and second, advocate for instead incorporating data-driven approaches that better reflect the outcomes policymakers seek to promote. In the future, policymakers may wish to consider potential alternative markers of human capital beyond attendance at a leading university, for instance they may choose to look at individuals' attendance at certain startup accelerators, past venture capital backing, or experience patenting. Using real-world data on employment outcomes, from sources such as Glassdoor or LinkedIn; entrepreneurial outcomes, from sources such as Angellist, Pitchbook, and Beauhurst; and innovation outcomes, from data on patenting, can help identify high potential individuals that may otherwise go unnoticed or overlooked.

While the portfolio of indicators policymakers choose to prioritise may vary depending on their preferences, goals and views, data should nonetheless be welcomed assets where and when available. Leveraging public and private sector datasets, in this instance regarding labour market earnings for college graduates from around the world through Glassdoor, while imperfect and nascent, can play a vital role in designing effective and efficient policy.

“If policymakers are looking to identify individuals who are more likely to go on to invent new products, to found new companies, and to lead businesses at the C-suite level, then methods that incorporate data on real-world outcomes should be included in the dashboard that policymakers consider.”

APPENDIX

Table 1: Full list of international institutions with higher graduate human capital than median eligible university¹

Human Capital Ranking (* = currently eligible)	University	Country
1	Indian Institute of Technology Ropar	India
2	International Institute of Information Technology, Hyderabad	India
3	Keio University	Japan
4	Indian Institute of Information Technology Allahabad	India
5	Indian Institute of Technology Delhi	India
6	Aoyama Gakuin University	Japan
7	Franklin W Olin College of Engineering	USA
8	Indian Institute of Technology Guwahati	India
9*	The University of Tokyo	Japan
10*	University of Pennsylvania	USA
11	University of Basel	Switzerland

¹ This appendix includes the full list of institutions with higher graduate human capital than the average eligible university. Again, it is important to caveat that the individual ranking for any given university could be sensitive to the size and composition of the samples MSS observe. The measure of human capital MSS calculate for each university is based on an estimation and as such, is produced with statistical error. While we prefer to emphasise broad takeaways, we include the full list for interested parties to peruse.

The Human Capital Ranking number is global, the two missing rows 81 and 85 refer to two UK institutions, Bayes Business School and London School of Economics.

Human Capital Ranking (* = currently eligible)	University	Country
12	Indian Institute of Technology Kharagpur	India
13	Indian Institute of Technology Roorkee	India
14	Sophia University	Japan
15	Samuel Merritt University	USA
16	Emory University	USA
17	Indian Statistical Institute	India
18	Indian Institute of Technology Patna	India
19	Indian Institute of Technology Kanpur	India
20	Chuo University	Japan
21	Netaji Subhas University of Technology	India
22	Indiaraprastha Institute of Information Technology	India
23*	Kyoto University	Japan
24	Karlsruhe Institute of Technology	Germany
25	Indian Institute of Technology, BHU	India
26*	Harvard University	USA
27	Indian Institute of Technology Madras	India
28	Harvey Mudd College	USA
29	St. Louis College of Pharmacy	USA
31	Stockholm School of Economics	Sweden
32	Technical University of Munich	Germany
33	IPAG Business School	France
34	United States Naval Academy	USA

Human Capital Ranking [* = currently eligible]	University	Country
35*	California Institute of Technology	USA
36	Indian Institute of Technology Bombay	India
37	Tokyo University of Science	Japan
38	Cooper Union for the Advancement of Science and Art	USA
39	Roseman University of Health Sciences	USA
40	Australian National University	Australia
41	SUNY Downstate Medical Center	USA
42	Carnegie Mellon University	USA
43	Osaka University	Japan
44	Brown University	USA
45	Doshisha University	Japan
46	Williams College	USA
47	Georgetown University	USA
48	Claremont McKenna College	USA
49	Dartmouth College	USA
50	Waseda University	Japan
51	The University of Sydney	Australia
52	Technical University of Denmark	Denmark
53*	The University of Melbourne	Australia
54*	University of Michigan-Ann Arbor	USA
55	École Polytechnique	France
56	Université Paris-Dauphine	France
57	Nanzan University	Japan
58	International School of Management	Germany

Human Capital Ranking [* = currently eligible]	University	Country
59	University of Canberra	Australia
60	The Interdisciplinary Center	Israel
61*	Stanford University	USA
62	Washington University in St Louis	USA
63	National Institute of Technology, Kurukshetra	India
64	United States Military Academy	USA
65	The University of New South Wales	Australia
66*	Yale University	USA
67*	University of Chicago	USA
68	University of Maryland Baltimore	USA
69	Tufts University	USA
70	Nihon University	Japan
71	Universität Hamburg	Germany
72*	Cornell University	USA
73	University of Southern Denmark	Denmark
74*	Princeton University	USA
75	Tokyo University of Foreign Studies	Japan
76	Kansai Gaidai University	Japan
77	Technion Israel Institute of Technology	Israel
78*	École Polytechnique Fédérale de Lausanne	Switzerland
79	Swarthmore College	USA
80	University of Regensburg	Germany
82	Queensland University of Technology	Australia
83	University of Lausanne	Switzerland
84	Babson College	USA

Human Capital Ranking [* = currently eligible]	University	Country
86	Charles Sturt University	Australia
87	Meiji University	Japan
88*	University of California – Berkeley	USA
89	Santa Clara University	USA
90	United States Air Force Academy	USA
91	Technische Universität Darmstadt	Germany
92	Rice University	USA
93	Motilal Nehru National Institute of Technology Allahabad	India
94	ESSEC Business School	France
95	Amherst College	USA
96	Middlebury College	USA
97	University of Technology Sydney	Australia
98	University of Waterloo	Canada
99	Copenhagen Business School	Denmark
100	Haverford College	USA
101	University of Tasmania	Australia
102	Monash University	Australia
103	Macquarie University	Australia
104	Western Sydney University	Australia
105	Pomona College	USA
106	Universität Passau	Germany
107	United States Merchant Marine Academy	USA
108	École Polytechnique de Montréal	Canada
109	Washington and Lee University	USA
110	Universität Zürich	Switzerland

Human Capital Ranking (* = currently eligible)	University	Country
111	Colgate University	USA
112	Yeshiva University	USA
113	The University of Queensland	Australia
114	Sciences Po	France
115	National Institute of Technology, Tiruchirappalli	India
116	University of Copenhagen	Denmark
117	University of Nebraska Medical Center	USA
118	Stevens Institute of Technology	USA
119	ITMO University	Russia
120	University of Notre Dame	USA

Table 2: All other eligible universities

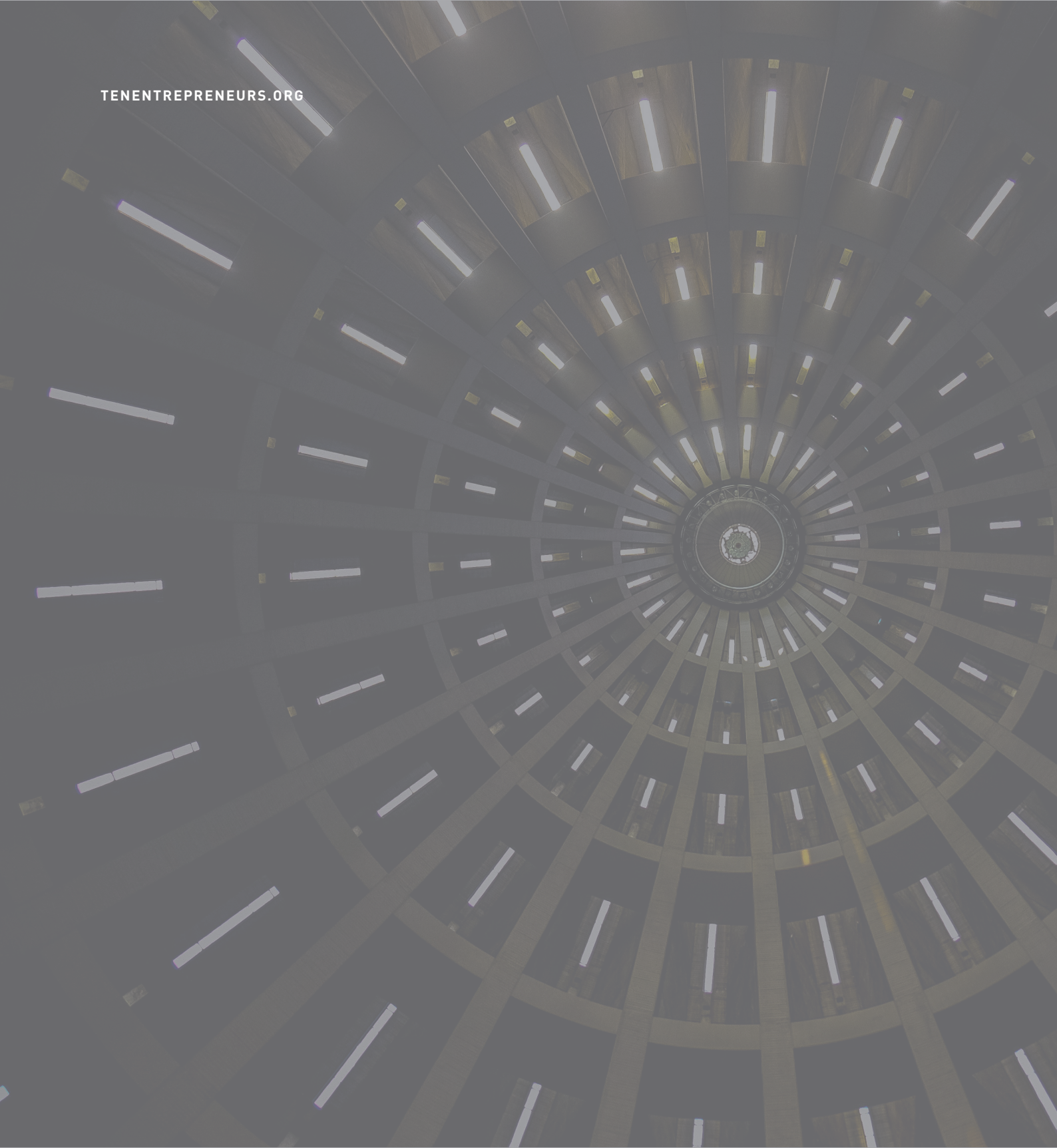
Human Capital Ranking	University	Country
121	Massachusetts Institute of Technology	USA
206	University of California-Los Angeles	USA
212	University of Washington-Seattle Campus	USA
234	University of Toronto	Canada
235	McGill University	Canada
259	University of California-San Diego	USA
292	New York University	USA
296	The University of British Columbia	Canada
316	Northwestern University	USA
518	Tsinghua University	China
581	Peking University	China

Human Capital Ranking	University	Country
610	National University of Singapore	Singapore
651	The University of Hong Kong	Hong Kong
676	The University of Texas at Austin	USA
813	The Chinese University of Hong Kong	Hong Kong
838	Nanyang Technological University	Singapore

Table 3: UK universities on two global top 50 lists

Human Capital Ranking	University
85	The London School of Economics and Political Science
138	Imperial College London
163	The University of Warwick
184	University of Oxford
195	Durham University
216	University College London
218	University of Cambridge

TENENTREPRENEURS.ORG



The Entrepreneurs Network
84 Eccleston Square
Pimlico
London
SW1V 1PX