

Global private higher education: an empirical profile of its size and geographical shape

Daniel C. Levy¹

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Abstract Societies' relative use of private and public services is an abiding and significant issue of scholarly and policy interest. For higher education, however, there has hitherto been no comprehensive dataset and, accordingly, no extensive, reliable analysis of the private-public distribution. As this article provides both the dataset and the analysis, it allows us to discover both the size and geographical shape of global private higher education. Having grown greatly for decades, the private sector now holds a third (32.9%) of the world's total higher education enrollment. We find striking patterns of concentration and dispersion. The several largest country systems account for much of the private enrollment but, simultaneously, private sectors now exist in all but a few systems; a stunning 97.6% of the world's present enrollment is in systems with dual-sector provision. Societies no longer rely exclusively on public provision. We discover too that private enrollment concentrates mostly in developing regions, though it is noteworthy in developed regions as well. Asia and Latin America are the twin giants but in all regions, at least 10% of students are in the private sector.

Keywords Private · Public · Global · Regional · Sectors

Challenge, dataset, and significance

A large reality requiring mapping and analysis

Higher education—long and overwhelmingly seen beyond the USA as an essentially public sector function with no or only marginal private presence—has become very much a dual-sector phenomenon globally. Private higher education (PHE) has grown over more than 50 years to where, as we will detail, it now holds a third of global enrollment (32.9%, 2010). This global private share edges out the US private share (27.5%) whereas the USA

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Department of Educational Policy & Leadership, SUNY Albany, 1400 Washington Ave., Albany, NY 12222, USA



[☐] Daniel C. Levy dlevy@albany.edu

had historically towered over the rest of the world in private size. The term global is further warranted, as we will also see, because of PHE's remarkably wide regional and national presence. Accordingly, a comparative literature on PHE has moved from just a few works in the 1980s (Geiger 1986; Levy 1986) to a sprouting landscape of national studies (Jamshidi et al. 2012), including within global volumes (Kinser et al. 2010; Joshi and Paivandi 2015; Shah and Nair 2016). Policy-oriented reports reflect increased interest in the size and nature of PHE in different counties (Hunt et al. 2016; Teixeira et al. 2017).

For the global PHE literature to do justice to the fast-growing subject matter and interest in that subject matter, it must fill a particularly large and harmful void. We have lacked broad, systematic, and reliable data on PHE, a deficiency in turn precluding analysis of the magnitude and dispersion of PHE. Data on enrollment are mostly limited to national case studies, notably including dissertations (e.g., http://www.prophe.org/en/dissertations-on-private-highereducation/) while regional or global volumes with chapters on individual countries make at most partial attempts at comparing or aggregating the data or working through the different ways that PHE is defined and counted in different countries. So outside the USA, study after PHE study remarks on astonishing private growth but without contributing much to a systematic empirical profile that reveals the basics of *how much* or *where*. This article interrogates the how much and where questions. Its analysis of multiple pertinent dimensions produces a much-needed empirical profile of the size and shape of the global private presence.

The PROPHE dataset

Such a profile was not achievable without a reliable and comprehensive global dataset. This dataset has now been developed by "PROPHE" (Program for Research on Private Higher Education, a worldwide network of scholars http://www.prophe.org), and this article brings its first public posting. Although the dataset takes us back to 2000, allowing observations about trends in recent years, this article is mostly a contemporary snapshot. We present and analyze systematic data on global, regional, and national levels, thus opening the door to much more informed analysis by scholars as well as more usage by stakeholders than previously possible.

This article's text can only highlight how PROPHE has built its dataset, what pivotal choices have been made, and what vulnerabilities remain, but it also provides access to elaboration of these and other data development matters at http://www.prophe.org/en/global-phe/dataset-development/.

PROPHE's dataset covers 210 countries. As 18 lack any higher education data, however, the effective "n" for data analysis is 192. The chief source for the dataset is UNESCO's Institute for Statistics (UIS), the only international agency gathering enrollment data by sector.

³ PROPHE has for a decade posted data, which have been the most widely used data by scholars international agencies (Bjarnason (2009) for UNESCO; ADB (2012)), but they have been preliminary and subject to ongoing and recent modifications.



The USA remains the lone national case of PHE that has long provided ample data and been much studied; that study has only rarely come in comparative international context (Shils 1973; Geiger 1986).

² Two different sorts of exceptions to the stated dearth bare mention here. (1) The major regional exception provides detailed data and analysis on Latin America, but takes us only to 1980 (Levy 1986). (2) A recent global piece reflects the major interest in gauging PHE quantitatively but focuses more on private growth than on the configurations produced by the growth (Buckner 2017) and is handicapped by using data on numbers of institutions, not enrollments (see footnote no. 7).

Because the UIS data can be only as good as what countries' official offices give them, which in turn depends on what the offices can obtain from individual higher education institutions, the UIS data sometimes suffers from gaps, dubious figures, and probable inconsistencies, all caveats when it comes to cross-national and cross-regional analysis. On the other hand, the problems should not be overstated: UIS gives each country a template identifying what institutions to include and how to categorize them, and it appears that the resultant numbers are usually reasonably accurate and inclusive.

While benefiting from its UIS inheritance, PROPHE takes substantial measures to overcome UIS limitations. It uses other international agency sources and more often national sources to fill gaps or substitute where UIS data are particularly dubious. It also calculates estimates for missing years with data from other years. Only after 2010 did UIS show private enrollment for now the world's two largest systems (China and India) and it continues to misclassify as private the public enrollment in the 16th largest system (UK). To be sure, the bulk of PROPHE's 122 data substitutions and calculations for 2010 (far fewer than needed in prior years) are tiny in comparison to the adjustment required for these three large countries. Regardless, data substitution generally involves risk of distortion—sometimes virtually guarantees at least small distortion. PROPHE does not substitute because substitutions are perfect but because leaving missing data or inserting obviously false data is more often worse. Blank boxes not only provide no information for a country in whatever years but also cripple us in assessing a country's longitudinal change. Blank boxes for large countries can significantly distort regional and even global calculations both at snapshots in time and longitudinally.

As in nonprofit studies (Powell and Steinberg 2006), so in higher education studies (Marginson 2007) and other social science and philosophical fields, legitimate debate can be extensive on the definition of private and public but UIS and PROPHE both classify and count institutions (and thus enrollment) by the most common and straightforward method, the official legal designations in each country. Also as in nonprofit and other fields of sectoral study, this approach does not attempt to define and count by degrees of privateness and publicness. Accepting the official terms private and public for identification, such a definitional approach leaves analysis of degrees of privateness for empirical investigation; while beyond this article, such analysis has been a mainstay in PHE literature, which strongly establishes the predominance of the private-public distinction, the private sector steeped in privateness, the public sector in publicness (Levy 1992).

The PROPHE database places global enrollment into seven regions (as well as sub-regions for Asia and Europe). Again, the overlap with UIS categories is predominant, as is overlap among all the leading international categorizations of region. In alphabetical order, our seven regions are the following: Africa (Sub-Saharan, but henceforth rendered in the text as Africa), Arab, Asia, CANZ (Canada, Australia, and New Zealand, 3 developed countries of the British Commonwealth with common higher education roots quite distinct from those of either Continental Europe or the US) Europe, Latin America, and the USA. The rationales for these choices—especially where PROPHE regionalizes differently from how UIS does, creating a category (CANZ), or considering the USA as a region—appear in the same data development

⁵ Outside the USA, the most significant example of where PHE includes institutions limited in privateness is what the UIS and others label "government-dependent" private institutions, with ample publicness in finance and control; this phenomenon is rare outside Europe.



⁴ On only two countries, the UK and Israel, does PROPHE alter UIS designation in respect to private and public label.

file referred to above (see http://www.prophe.org/en/global-phe/dataset-development/). As we will see, regional categorization allows the analysis to discover much about the geographic concentration and dispersion of global PHE.

Significance of private sector size and shape

Why are the numbers we analyze important? They are crucial to addressing a core question scholars face in any social and economic arena including health care, child care, nursing homes, welfare, poverty alleviation, and all levels of education: how do societies allocate the provision of services to public and private sectors? The enduring question goes back at least to the Greeks. As noted at the article's outset, when it comes to global higher education, there has been a major shift from reliance on the public sector to dual-sector systems. But to what degree and where is the subject of our empirical analysis. Furthermore, as just noted, the PHE literature finds overwhelming inter-sectoral distinctiveness. The distribution of enrollment between private and public sector matters. Coupling the chief points of this paragraph, the quantitative private-public split matters for both subjective and objective reasons; subjectively, it matters to many observers as well as stakeholders while objectively, the split separates sectors that are quite different from one another in significant respects.

That the private-public question matters to many is further reflected in heated debate in all the just-identified social and economic policy arenas, very much including higher education. Standard arguments extol or criticize individual sectors on grounds including equity, the public interest, efficiency and effectiveness, freedom and choice, and autonomy and accountability. Accordingly, the private-public question is at once empirical and normative, even philosophical. This article deals with the empirical.

Our attention is further commanded by the enormous transformation rather suddenly effected in the private-public balance. In the nineteenth and most of the twentieth century, especially as modern systems developed, higher education would be overwhelmingly public, the USA the prominent outlier. Many countries had no PHE, often proscribing it. This reality sometimes contrasted with ample private provision at lower education levels, though the advance of compulsory education generally put these levels on a mostly public footing as well. From the middle and especially latter decades of the last century, however, continuing powerfully to the present, the private sector has grown prodigiously at the higher education level.

The spectacular growth to a third of global enrollment has occurred *despite* several formidable forces (likewise not covered in this article but in the literature): (a) unprecedented growth of public enrollment; (b) varying degrees of financial privatization within public institutions, sometimes facilitating the public enrollment expansion; (c) persistent normative dominance of the notion that higher education is rightfully a public good, overwhelming responsibility for provision and supervision lodged with the State, which in turn makes acceptance of PHE begrudging, legitimacy an abiding challenge; (d) expanding regulation, especially in the form of quality assurance and other accreditation mechanisms. Yet in the face of all this, PHE not only survives and grows but also continues to spawn fresh forms (cross-

⁶ Certain kinds of private institutions (missionary schools, offshoots of businesses, correspondence schools, etc.) were often precursors to modern systems but almost all countries came to develop their modern systems predominantly through the public sector.



border, for-profit, colleges affiliated to public universities); these then bring their own controversy. It is one thing for global PHE to have grown powerfully in absolute size under all these circumstances, another that it has grown even in share of the soaring higher education enrollment. Although preliminary data analysis on the new century suggests a leveling off of private proportional growth, it also shows continued sharp growth in raw private enrollment. Recent work has identified causes of relative private declines and prospects for possible future relative decline (Levy 2013) and a rare in-depth national exploration raises provocative questions about the future of the private-public balance (Kwiek 2017). Whereas the present article does not predict the future balance, it provides the first-ever comprehensive global database and snapshot analysis against which to monitor unfolding trends.

Even as we have indicated the importance of our central questions, we have begun identifying this article's limitations. First and foremost, most questions about PHE are beyond its scope. Discovery and analysis focused on how much and where say little about why, how, by whom and for whom, or when. Nor do we much address historical context, policy debates, blurring versus distinctiveness, behavior, performance, or the large and complex private intrasectoral diversity. Second, we make only limited longitudinal analysis. The PROPHE dataset will allow close analysis of changes between 2000 and 2010 but the present article includes only a few salient longitudinal discoveries. A third limitation concerns our principal quantitative gauge, enrollment. Enrollment is not the sole indicator of size and neither is size the only component of importance. Moreover, enrollment is perhaps the single most flattering gauge of private size and importance; the only clear exception to this global rule is, again, the USA, where PHE's importance surpasses what its share of enrollment would alone indicate. Nonetheless, enrollment is higher education study's most common gauge of size (and definitely the PHE literature's most common gauge) and, in terms of sheer practicality, it is the only gauge on which we can secure comprehensive global data.

Global findings: aggregate size and country contours

Huge in the aggregate with concentration and dispersion

Our principal overarching finding about PHE size globally, whether we look at absolute size or proportional size, is that it is very large. Simple aggregate figures alone forcefully make the point. The private sector has 56,722,374 students. It thus accounts for 32.9% of the world's enrollment. Although PHE remains clearly the "second sector," it is far from a marginal sector.

A full, detailed table showing both the raw enrollment and share of each country's private sector appears at http://www.prophe.org/en/global-phe/data-by-region-country-2010/. The countries are there grouped by region, providing a more meaningful portrait than by alphabetical order from Afghanistan to Zimbabwe (though the country alphabetical order can be seen at http://www.prophe.org/en/global-phe/data-by-country-2010/); the regional ordering also paves the way for the regional analysis that follows the global analysis. Here in the text, Table 1 shows the overall global picture without individual country insertions.

Number of institutions is the second most available type of data but a far off second and it is in any event a much inferior gauge of size, especially as so many institutions in PHE are tiny; where policymakers and analysts refer to PHE importance by private share of institutions, they exaggerate private importance.



Table 1 Global private and total higher education enrollment 2010

Regions	Private (%)	Private 2010	Total 2010	
Global	32.9	56,722,374	172,546,175	
Africa (Sub-Saharan)	17.8	930,016	5,218,120	
Arab States	17.4	1,423,630	8,201,861	
Asia	42.1	32,267,911	76,568,246	
CANZ (Canada, Australia, New Zealand)	10.1	318,033	3,162,889	
Europe	14.9	5,526,851	37,177,470	
Latin America and the Caribbean	48.8	10,638,863	21,789,880	
USA	27.5	5,617,069	20,427,709	

Source: PROPHE dataset (see http://www.prophe.org/en/global-phe/data-by-region-country-2010/) which shows the same table except with all countries shown in their respective regions as well as country notes where needed for clarity

Beyond our broadest finding—the private sector's impressive size—we probe to discover salient characteristics about its shape. With regional analysis to come later, the global analysis here emphasizes the shape across countries.

Analysis of our data yields two sweeping findings about private dispersion. One is that global PHE enrollment concentrates strikingly in an identifiable set of countries. The second sweeping finding, however, is that PHE has ample breadth. Global PHE's large presence does not rest on one or a few fluke country systems (or any region or sub-region). Tension obviously exists between these two broad findings. If either generalization about concentration or dispersion was much stronger than it is, the other generalization would dissipate. In reality, each finding stands but qualified by the other, and different readers could legitimately emphasize one perspective or the other. More important is to recognize the ways in which both concentration and dispersion manifest themselves. Together, they tell us much that we had not known about the shape of global PHE.

To facilitate the analysis of concentration and dispersion, we divide the world's national higher education systems into five categories based on total enrollment. Those with over 3 million yield a "big 10." On the other end, systems under 10,000 enrollments are "very small" and we sometimes count with them deleted (and acknowledged as deleted), gauging how much they skew averages when included. "Small" systems (between 10,000 and 300,000) are most frequent, in fact half of all systems. Of course, absolute system size does not tell us absolute private sectoral size; a country's absolute private sector size rests on a combination of system size and private share of that size. Table 2 shows exactly how many countries fall into what system size category.

Table 2 Higher education system size by total enrollment 2010

Total enrollment range	Size	Count
0–9999	Very small	35
10,000-299,999	Small	95
300,000–999,999	Medium	30
1000,000-2,999,999	Large	22
\geq 3,000,000	Very large	10
	Total	192

Source: Author compiled based on PROPHE dataset (see http://www.prophe.org/en/global-phe/data-by-country-2010/)



The notable concentration

The evidence for private concentration is powerful. It takes only three countries—India, the USA, and Brazil—to account for 40.2% of the world's PHE. Yet as there are other private giants as well, we can reach a third of the world's PHE through any of 17 different combinations of 3 countries, always including India, even though no trio of countries holds a majority of global PHE. Analysis could reasonably regard the multiple combinations of 3 as further evidence of concentration (as at least a third of global PHE can be found through sets of just 3 countries) or as dispersion (since there are so many sets of 3 countries).

That a large share of global private enrollment would come from large higher education systems is an important yet not surprising finding. Surprising and even striking, however, is how potent the correlation is. The "big ten" higher education systems—China, India, USA, Russia, Brazil, Indonesia, Japan, Iran, Turkey, and Republic of Korea—comprise more than half of total higher education globally (58.3%)—yet these same countries comprise an even higher share of PHE (69.2%), a remarkable figure for a big 10 list derived from total enrollment. Selecting a big ten by private size would get us only slightly higher (71.9%). In fact, 9 of the big countries would remain the same, only Turkey leaving the list, replaced by the Philippines. Among the 9 that remain on both lists, only Russia changes its rank by more than three slots between lists. In sum, analysis by multiple indicators shows how much global PHE concentrates in large higher education systems, as Table 3 shows.

Let us return to the big 3 (China, India, USA) in total enrollment, especially as the fall off to fourth place (Russia) and below is steep. As with the list of 10, so with the list of 3, the list changes only limitedly when we choose by largest in private enrollment (Brazil slightly leading China). The big 3 systems—China, India, and the USA—account for 38.0% of total global enrollment, but even a tick higher (40.1%) for share of global *private* enrollment. Both the concentration of global PHE and its correlation with total system size are clear regardless of whether we focus on a big 10 or a big 3.

We can even recognize a "big one" in PHE. India has 21.9% of global PHE. With over 12 million enrolled, its private sector is more than twice the size of the second largest private sector, the US's. 9 Yet even giant India does not itself unduly distort our global PHE picture: without India, the private share of global enrollment would still be 29.3% (rather than its actual 32.9%).

The widespread dispersion

Whereas the evidence from big systems weighs in to show that PHE is concentrated, other measures provide unequivocal evidence that global PHE is also amply dispersed. ¹⁰

If asked to speculate on which country has the most PHE, educated people might well guess the USA. Some might think it would have by far the largest enrollment. But it barely clings to the second slot in raw private enrollment, followed closely by several fast-

⁹ India is the only country in the top ten where PHE equivalent to "government-dependent" has great weight. ¹⁰ While our mean of global private/total enrollment is 32.9%, the global mean of means across countries is 30.0% and the global median is 19.7%.



⁸ The second ten countries in absolute private sector size are Mexico, Chile, Bangladesh, Colombia, Peru, Poland, Argentina, Venezuela, Malaysia, and France. Whereas Asia stands out in the top ten, Latin America stands out in this next ten.

Country	Private (%)	Private enrollment	Total enrollment	Rank by total enrollment	Rank by private enrollment
China	19.6	4,664,531	23,856,345	1	4
India	58.3	12,443,748	21,350,427	2	1
USA	27.5	5,617,069	20,427,709	3	2
Russian Federation	14.7	1,323,348	8,984,977	4	10
Brazil	72.7	4,764,498	6,552,707	5	3
Indonesia	58.2	2,908,383	5,001,048	6	6
Japan	78.6	3,016,964	3,836,314	7	5
Iran (Islamic Republic of)	44.9	1,702,572	3,790,859	8	8
Turkey	5.2	181,829	3,529,334	9	35
Republic of Korea	80.7	2,636,972	3,269,509	10	7
Total—top ten	39.0	39,259,914	100,599,229		

Table 3 Private enrollment rank of top ten countries in total enrollment 2010

32.9

Source: Author compiled based on PROPHE dataset (see http://www.prophe.org/en/global-phe/data-by-country-2010/)

172,545,175 58.3

56,722,374

growing private sectors. It undeniably towers over all other private sectors in reputation and, even regarding "size" in measures such as research expenditures and outputs. And yet the USA accounts now for "only" a tenth of the world's private enrollment. Indeed, one could argue that private share is the only major characteristic about US PHE that is rather "average" globally, 27.5% versus the global 32.9%. Moreover, the huge private presence and growth we discover particularly in the developing world insure that no private sector (or higher education system overall) will hold as dominant a position as the USA long did.

Whereas total enrollment turns out to be by itself usually a good preliminary indicator of private sector size, as it usually is accompanied by high private enrollment, we find that private *share* of total enrollment proves not to be a good preliminary indicator of private sector raw size. Instead, where private shares are large, the higher education systems are often dwarfish. Accordingly, the high private shares translate to only limited private enrollment. This is epitomized where "very small systems" (fewer than 10,000 total enrollments) have high private shares, e.g., Namibia. Of the world's 14 countries whose private share exceeds 80% of total enrollment, half are in the "very small" category of systems. The 3 countries shown as 100% private have a collective enrollment under 1000. Moreover, immediately following the "very small" group in frequency of private shares exceeding 80% is the "small" group, leaving only two countries over 80% private that are neither "very small" nor "small" (Chile "medium" and South Korea "very large").

More important in global private size are countries with comparatively large systems even where they have only lower than average private shares. We have already noted that two (China and the USA) of the world's big 3 in raw private enrollment have lower than globally average private shares, though the US's is only slightly lower. Starker illustrations of the point are South Africa, Italy, and Turkey, each with less than a 10% private share and yet with over 90,000 private enrollments.

On top of all this, our analysis can add a simple and yet powerful gauge of the dispersion of PHE: the number of countries with no private sector. Of the 179 countries showing enrollment

¹¹ Unfortunately, policymakers and others sometimes characterize PHE in general by what they see of the USA. Given that the US's PHE characteristics are exceptional, conflating US and global PHE is often a huge error.



Total—global

Top ten share of global

sectorally, only 24 *appear* to have zero PHE, and that is by liberal counting. Not so long ago, global reality was very different, many systems with only public higher education, many legally prohibiting a private option. The number of countries with zero PHE probably has diminished in each decade for more than a half century and the movement continues: in 2000, 39 systems appeared to have zero PHE, compared to the 24 in 2010.

We further find that a disproportionate number (11) of the 24 national systems shown without PHE are "very small" systems (<10,000 total enrollment). Of the remaining 13, 9 are "small" (>10,000 but still <300,000). Thus, only 3 "medium" higher education systems (Myanmar, Greece, and Cuba) have no PHE, as does only one "large" system (Algeria) and no "very large system." Consequently, all 24 single-sector countries together account for just 2.4% (4,093,250/172,546,175) of the world's total enrollment. As much as the small number of countries without PHE indicates ample private dispersion, that number by itself actually understates private dispersion. Put in terms of presence rather than absence: 97.6% of the world's higher education enrollment lodges in dual-sector systems. Contemporary higher education is very much a dual-sector reality.

Furthermore, the country counts of number of systems without PHE are very liberal counts. That is the reason we wrote that only 24 countries *appear* to have zero PHE. In fact, only 10 of the 24 shown in the dataset as zero are truly without PHE. The other 14 have some PHE but UIS lists as zero (2010) and because we have no decent way to estimate the usually just recently emerging private enrollment in the 14, we leave the zero intact. In some cases, the UIS already shows PHE in years after 2010. Accordingly, the PROPHE list of countries with truly no PHE is limited to only 10: Algeria, Bhutan, Cuba, Djibouti, Eritrea, Greece, Luxembourg, Myanmar, Turkmenistan, and Uzbekistan. Six of these 10 are "very small" or "small."

Pushing still further, even this list of 10 includes countries where some tertiary study takes place in private institutions. The problem in these institutions is that they do not offer degrees recognized and counted nationally by the State (and therefore by the UIS and PROPHE as well), or at least its degrees are not state-recognized; Greece and Uzbekistan, for example, allow a local presence of foreign providers. Thus, although PROPHE tallies 10 systems as without PHE, an even lower number would be defensible. Finally, even where zero has truly been the reality, we often see strong reform initiatives and sometimes already license applications or enabling regulation. Importantly, these cases include the one large-country case, Algeria, and the medium-sized case of Greece, as well as the "small" or "very small" cases of Bhutan, Myanmar, and Turkmenistan.

There is of course an interactive effect between existing structure and where fresh enrollment flows. At least since the advent of the modern nation-state through the middle of the twentieth century, enrollment flowed into a universe where public status was usually assumed, PHE rarely a thought. (Yet again, the USA is the huge exception.) In contrast, in a constantly expanding number of countries, for higher education emerging and growing in the latter part of the twentieth century and into the twenty-first century, PHE has been very much an option.

Regional findings

Regional rationale and overview

Having discovered how much PHE there is globally and its major country contours, we turn to regional analysis to discover what we can about the shape of global PHE. As with



the global findings from big country analysis, so with regional analysis, we explore for salient points of concentration versus salient points of dispersion.

Regions are, admittedly, imperfect markers. For one thing, no region is homogeneous internally. Even on just the dimension of private share, Brazil and Chile are over 70% private while neighboring Uruguay and Bolivia remain below 20% private; within even just Southeast Asia, private holds the majority in Indonesia, the Philippines, Singapore, and Cambodia, while holding under 20% in Thailand, Vietnam, and Myanmar. But (with only trivial exceptions) neither is even any country system homogeneous. Regardless, part of what we explore regionally is the degree and shape of heterogeneity versus homogeneity within each region. Although colonial legacies vary within regions, they also mark patterned differences between regions, as seen in many ways by the strong similarities spanning Latin America as compared to regions that were heavily under British or French control. Regional studies have shown important intraregional patterns of similarities, including in size (Slantcheva and Levy 2007; Mabizela 2007; Levy 1986).

Region shows itself to be a very potent variable, as Table 4 shows. It puts several salient realities into high relief. One is that by sheer private enrollment size, two regions—Asia and Latin America—tower over rest of the world. They hold over three quarters of global PHE, Asia alone more than half. Latin American raw private enrollment, although much smaller than Asia's, is still nearly twice the size of Europe's or the US's. As starkly, three regions (Africa, Arab, and CANZ) individually fall short of having even 5% of global PHE.

To be sure, vast differences in regional total enrollment obviously account for much of this private range in raw enrollment size, reflecting what we discovered in the global data about the large correspondence between system size and private sector size. Nonetheless, the regional analysis provides striking evidence of large cross-regional variation in private *shares* of total enrollment. The same two regions again tower over the others, though this time Latin America leads, Asia a close second. They are the only regions whose share of global private enrollment is higher than share of global total enrollment. Most regions are individually far below the global average. Again, the cross-regional range is so large that it is crucial for discovering the shape of global PHE.

Table 4 Regional shares in global private and total higher education 2010

	Regional share of global private (%)	Regional share of global total (%)	Private share (%)	Regional private enrollment	Regional total enrollment
Global	100	100	32.9	56,722,374	172,546,175
Africa (sub-Saharan)	1.6	3.0	17.8	930,016	5,218,120
Arab States	2.5	4.8	17.4	1,423,630	8,201,861
Asia	56.9	44.4	42.1	32,267,911	76,568,246
CANZ (Canada, Australia, New Zealand)	0.6	1.8	10.1	318,033	3,162,889
Europe	9.7	21.5	14.9	5,526,851	37,177,470
Latin America and the Caribbean	18.8	12.6	48.8	10,638,863	21,789,880
USA	9.9	11.8	27.5	5,617,069	20,427,709

Source: PROPHE dataset (see http://www.prophe.org/en/global-phe/data-by-region-country-2010/)



Developing versus developed

To explore cross-regional variation more closely, we will turn to a region-by-region analysis below. Before that, however, a further big picture dimension cries out for exploration. That dimension is development level. Seeing that the twin regional peaks are both developing regions is enough to whet the appetite. A look next at the other regions whets it further.

Just as categorizations of regions by country vary but highly overlap, so it is with categorizations of regions by "developed" versus "developing" (or "less developed," or "low income," and so forth). Our seven regions fall rather conventionally into the dichotomy. Developing includes Africa, the Arab region, Latin America, and Asia (with an exception momentarily noted) while developed regions encompass CANZ, Europe, and the USA. One could argue about the placement of some countries, such as some of the poorer European countries, but no geographical categorization would be without debatable placement. Where this regionalization has its most obvious and weighty national "misplacement" is with Japan and South Korea. Alongside our basic developed versus developing delineation by region alone, therefore, we show also developed versus developing "worlds," with Japan and Korea moved from developing to developed world. 12

Basic confirmation of our development designations comes from comparing population shares to total enrollment shares. Developing regions would have low enrollment to population ratios, developed ones the reverse. Of course, controlling for population size, it is easier for developed than developing countries to get to have large systems; regardless, our size categories capture reality, whatever the causes of that reality. The developed world, with 20.8% of the world's population, has 39.3% of its higher education enrollment. Six of our seven regions fit their development designation, the stark exception being Latin America, and the Arab region fits only weakly. But the fit is shown very powerfully on the developed end by the USA, Europe, and CANZ and on the developing end by Africa. And, crucially, the fit is strong for "developing Asia" (without Japan and South Korea).

Baldly comparing the four developing regions to the three developed ones would show the developing world holding 79.8% of global PHE, the developed world just 20.2%. Better analysis, moving Japan and South Korea to the developed side, diminishes the contrast but leaves it stark: the developing world holds 69.8% of the world's PHE versus just 30.2% for the developed world. Far larger in raw population, the developing world holds the majority of even the world's public enrollment, but a notably larger majority of the world's private enrollment. Seen from a different angle, while 25.2% of the developed world's (with Japan and South Korea) enrollment is in the private sector, 37.8% of the developing world's enrollment is.

It turns out then that none of the three developed regions (US, Europe, and CANZ) has a large share of its higher education enrollment in the private sector. None matches the global average for private shares. Where developed countries most commonly build private sector size is through a combination of large systems with not very low private shares, as in France. Japan and South Korea are the *only* 2 developed countries with private majorities. Indeed, they

¹² A case could be made to add Taiwan (not included by UIS in its national listings) and Singapore to this article's references to Japan and South Korea as developed countries with high private shares (both over 60%).
¹³ For developed and developing regions' shares of global enrollment and population 2010, see http://www.prophe.org/en/global-phe/developed-vs-developing-regions/.



are the only 2 in which private share exceeds even just the global average (32.9%), Poland a borderline case. Add the USA in with Japan and South Korea and just 3 countries hold two-thirds (65.9%) of the developed world's PHE.

Another reason that PHE is more abundant in the developing than developed world harks back to our historical contrast. Until the middle of the twentieth century, higher education expanded predominantly in the developed world. That was time in which, outside the USA, large higher education was almost automatically public sector activity. In recent decades, however, higher education growth has taken place mostly in developing countries, and developing countries' growth has come disproportionately in their private sectors, in large part as rapidly rising demand for higher education outstripped governments' ability or willingness to finance it. Increasingly, secondary school graduates face systems that are dual-sectoral rather than public monopoly.

Individual regions

Let us now shift the analysis from our aggregated data of the developed and developing worlds to look at regions individually, exploring for salient dimensions.

We start with the largest region. Asia accounts for far more of the raw private enrollment than does any other region. Indeed, it accounts for more than all other regions combined. Asia's share of the world's total enrollment is very large, 44.4%. But its share of global private enrollment is yet larger, 56.9%. Although this article does not extend to systematic sub-regional analysis, the PROPHE dataset shows that South Asia alone has more PHE than any region outside Asia does, East Asia alone and Southeast Asia alone more than any region except Latin America (see http://www.prophe.org/en/global-phe/data-by-region-country-2010/).

With more than 10 million private students, Latin America is the second largest region in raw private size and holds almost a fifth of the world's PHE. Though it is a distant second to Asia in raw private size, it in turn leaves the USA and Europe as a distant third and fourth, each with only about half the PHE Latin America has. And when it comes to private *share*, Latin America is first and by far, with a 48.8% private share. Asia is the only region to come within 10% of this share, the USA more than 20% away, and all other regions more than 30% away. Latin America's leadership in private share is not merely recent; it overtook the USA by the late 1960s, jumping from 20 to 30% private just between 1965 and 1970 (Levy 1986).

Thus, we find that Asia and Latin America are the twin giant regions of PHE. Each towers over all five other regions in both private raw numbers and private share. A twin peak characterization is apt. The USA is the distant third on both measures, there is no close fourth on private share, and Europe is the only region that is a close fourth in raw private enrollment.

This significant weight of Asia and Latin America underlies the strong aggregate correlation—inverse—between development level and PHE. Yet neither Africa nor the Arab region itself fits the correlation, at respectively 17.8 and 17.4% private (however, quickly their PHE is now growing), shares only about half the global private average. Thus, of the four developing regions, two are (very) high in private share and two are low in private share. It is largely because the former two are vastly larger than the latter two that the developing world inclusively has a much higher average private share than the developed world inclusively.

Also, largely responsible for the lower private share in the aggregate developed world is (as we just saw) the rarity of large private sectors in developed countries. Now, we examine



individual developed regions more closely. The smallest by various measures is CANZ (just 3 countries, not counting tiny Tokelau) the smallest region in both private and total enrollments. Yet none of these dimensions explains its being lowest also in private share, 10.1%. As historically in the UK mother country, so in Canada, Australia, and New Zealand, privateness has come mostly within the public sector. But even this smallest region in PHE now has a tenth of its total enrollment in the private sector—a sure reflector of the cross-regional dispersion of PHE. Again, in sync with the mother country, the CANZ countries have private sectors that are young and fast-growing.

Clearly expected for Europe is high total enrollment and, in fact, Europe is the second largest region in that respect, though a distant second to Asia. Less clear but also expected is that the private share would be low and, indeed, Europe holds only 9.7% of the world's PHE as opposed to 21.5% of its total enrollment. In the not so distant past, the topic of PHE could hardly have been imagined as a major one for Europe. The powerful global tradition of publicness in higher education has its historical roots and strongest presence in Europe. That publicness stands out even in contrast to primary and secondary education, where private sectors have been common. And even since privatization has become a common subject in European higher education the focus has been on privatization within public sectors more than on growth of PHE.

Where the weight of the past appears to have a great and lasting impact to date on Europe is in the absence of any countries with very high private shares. Whereas in Latin America and Asia, we often see private sectors even in the majority, only 6 of the 44 European countries (for which we can show private shares) do those averages match the global private share (32.9%) and at least 3 of the 6 rest heavily on "government-dependent" PHE (Belgium, Estonia, and Latvia). The range of private size is small in Europe and it is small not by it being limited on the lower end but by its being very limited on the upper end. ¹⁴

As seen earlier in our examination of the largest PHE countries globally, the USA remains prominent in private sector size. This is largely the function of the great size of its higher education system but even its private share, now fallen to less than 30%, registers as third among our seven "regions." It nevertheless is rather startling that the US private share is lower than the world's.

Dispersion

Our analysis of the seven individual regions clearly reveals patterns of both concentration and ubiquity. Respecting the discovered facts one is free to emphasize either the breadth or restrictiveness of the regional dispersion. Only two regions—Asia and Latin America—indisputably have large PHE. Argue the USA either way. The flip side of Asia's and Latin America's dominance is that the other four regions outside the USA are less impressive in private size. Their raw private enrollment is much lower than that of the two regional leaders. So are their private shares, much below the global average. Among these four comparatively low private share regions, Africa has the highest private share, 17.8%, and yet that is only a touch over half the global average. Along with their rather low private shares, three of the four regions are comparatively quite small in higher education overall. Africa is numerically only 1.6 to 3.0% of our subject matter, depending upon whether we use private or total enrollment.

¹⁴ Only CANZ has less range, as it too lacks any country with a large private share, but also as it has only 3 countries with data versus Europe's 44.



So PHE is ubiquitously prominent cross-regionally, but only if we allow that private sectors with 10–20% of small to very large systems are prominent. All this is a qualification—not a denial—of the conclusion that PHE has marched to a significantly widespread presence.

With analysis across regions, then, we have found patterns similar to what we found in analysis across countries: a combination of discernible concentration and yet broad expanse. Asia and Latin America have unusually large private presences (as does the USA in quite different form), but even Africa, the Arab region, CANZ, and Europe now also reach a reasonable bar for private sector prominence. It is impressive that each region has crossed the 10% private threshold. Viewed from the regional level, higher education is everywhere a dual-sector phenomenon, a finding that complements our striking finding on the near ubiquity of PHE across countries.

But might the apparent regional ubiquity be in some sense misleading? Might single very large countries skew average (mean) private shares in regions (whereas none could skew the global private share)? In three regions (CANZ, Latin America, and Asia), a single country holds over a third of regional PHE. ¹⁵ But only giants that differ sharply from regional cousins in private share would starkly impact regional averages. We explore the matter for six regions (the USA omitted for being a single-nation region) and capture the data results in a single table (http://www.prophe.org/en/global-phe/largest-private-sectors'-impact-by-region/).

Although the results are mixed, they limit concerns of a large skewing effect. The impact is very small in some regions, moderate in others. Furthermore, these results hold when we remove regions' two largest private sectors. In four regions, averages change by only 2% or less when we remove the largest private sector and do not change much more even when excluding the two largest. But it is the other two regions that hold most of the world's private enrollment and removal of just India and Brazil would lower the Asian and Latin American averages by slightly over 6 and 10% respectively. Whereas additionally omitting the second largest Latin American private sector (Mexico's) has little further effect on the regional average, additionally omitting China does significantly affect the Asian regional average—but in a moderating way, offsetting India's skewing effect. In sum, regional averages do meaningfully indicate the comparatively widespread private presence.

Conclusion

Notwithstanding the uptick in studies of PHE and, more importantly, the surge of PHE itself, we have until now lacked a comprehensive and reliable global PHE dataset with which to analyze fundamental empirical dimensions of the private presence. With such a dataset now in hand, this article has interrogated for higher education the basic issue of private versus public allocation. Specifically, it has been able to analyze and discover much about the essential how much and where questions of the private presence.

The most basic finding is plainly the large size of PHE. This size impresses whether we focus on raw enrollment or enrollment share. With already close to 57 million students by 2010, PHE accounts for one in three of the world's students. Five of the world's largest ten

¹⁵ We separately explored the effects of omitting the systems largest in total enrollment but found no major difference from those shown through our principal exploration (omitting systems largest in private enrollment). ¹⁶ Roughly equal to India in total enrollment, the Chinese private share (19.6%) is well below Asia's (42.1%) and even further below India's 58.3%. Hence, whereas omitting India alone would modestly lower the regional average (to 35.9%), omitting both India and China would modestly raise the regional average (to 48.3%).



higher education systems have a majority of their enrollment in the private sector. Further, findings on size are complemented by findings on the geographical shape of the large private presence. At the country level, the remarkable concentration in large systems is juxtaposed to a dispersion at least equally remarkable as nearly every country now has a private sector of higher education. Regional analysis likewise discovers notable patterns of concentration and dispersion. Regarding concentration, PHE is much more a developing than developed world phenomenon and Asia and Latin America are the twin regional giants of PHE. But again, ubiquity proves remarkable as each of our seven regions has at least 10% of its total enrollment in the private sector. Taken all together, we have been able to flesh out an overarching global picture revealing the expansive contours as well as the size of PHE.

Our new global profile allows researchers to have much better quantitative context for their exploration of myriad qualitative concerns about PHE's roles and performance. On the quantitative side, the new analysis provides baselines, tools, and pathways for research on recent and future growth patterns. But what we now have already learned is how formidable and broad the private presence is, making global higher education very much a dual-sector reality.

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