

Country Notes For the PROPHE Global Dataset (4 years 2000-2015)

The country notes shown here provide pertinent information that could not be conveyed by the legends within the largest data tables showing individual countries (Table 2, Appendix B). Like the legends and other notations, the country notes focus mostly on why and how PROPHE went beyond or revised UIS data. PROPHE modified UIS country names to common and usually simpler ones used by the World Bank for Bolivia, Tanzania, United Kingdom, United States, Venezuela, and West Bank and Gaza, and added Kosovo as a country. For further details on how the PROPHE dataset handles countries see (<https://www.prophe.org/en/data-laws/global-data-2015-in-progress/>).

1. Afghanistan. UIS provided only 2009 and 2011 data, the two years appearing implausibly divergent (yielding a 20.5% private share (19,511/95,185) for 2009 vs versus a 1.3% private share (1,298/97,504) for 2011, though against a volatile political backdrop. We turned therefore to national data (Ministry of Education, in Aturupane, 2013), which provided 2001, 2003, 2006, 2009, and 2012 data for our estimates, showing a great PHE rise, under U.S. influence, whereas the 2022 Taliban victory obviously put PHE in grave danger.
2. Algeria. More than faithful to French colonial statist roots, Algeria remained the largest higher education system with 0 PHE. By 2014, however, concrete proposals were submitted to found private universities. Although UIS data still fail to show PHE enrollment as of 2020, it appears that PHE was functioning, with soon 15 state-recognized institutions, most specialized for market-oriented fields, with private finance marking a huge intersectoral difference, reflected also in different founders and stakeholders (both more private than in public higher education), though many founders and owners had managerial experience in the public sector (Bedaida, Benguerna, Meyer, 2022).
3. Barbados. We enter 0% private for what the UIS shows as “category not applicable,” for 2010 and it shows no figure for 2015 either, but we know that there is more than sparse PHE in Barbados. Indeed the Barbados Accreditation Council lists 25 “post-secondary/tertiary education and training providers,” though the list fails to include enrollment data. We figure that the private share is under 10%, probably under 5% of the undergraduate level.
4. Benin. We use the Benin 1999 figures from Mabizela (2007) as its 2000 PHE data.

5. Bhutan. We put PHE enrollment for Bhutan as 0 because UIS shows “NA”--not applicable. For PHE enrollment in 2008. Bhutan remains without PHE, though now establishment of PHE is very much discussed.
6. Botswana. UIS did not provide PHE data for Botswana until their updates in 2016, offering data from 2008 to 2014, to which we added polation.
7. Canada. UIS shows the public sector at 1,430,169 for 2010. Canada does not gather data on its national PHE even though PHE undeniably exists. Adding PROPHE’s 190,000 estimate to the reported public figure yields our total higher education enrollment of 1,620,169 and thus our PHE share of 11.7%. We use our 2010 PHE share estimate of 11.7% for all years; given the likely growth of private share 2000-2015, the 11.7% likely overstates the private share for Canada (and thus for the Developed British Commonwealth overall) for 2000 and 2005, understating the private share for 2015. PROPHE’s PHE estimate is a compilation of estimates for Canadian PHE’s three components. For these estimates three leading experts—Scott Davies, Glen Jones, and Hans Schuetze— were consulted through emails as well as their pertinent publications. PROPHE has compromised among their estimates, and the experts are unanimous that all PHE figures are estimates only. Private universities (which Canadians often consider higher education as opposed to post-secondary) thus enter as 35,000. Easily the largest private enrollment is in career colleges. Our 135,000 estimate is deflated as these data are gathered from only those provinces with the largest enrollment and probably omit many language and similarly specialized institutions but inflated by the inclusion of programs only loosely qualifying as post-secondary and of part-time student (with full-time equivalency data not available). The third category is CEGEP, two-year general and vocational colleges in Quebec. Although often thought of as public, these institutions have private, religious status; they thus appear somewhat akin to what some international agencies call “private/ government-dependent” (and PROPHE usually tabulates as private).
8. China. (This China Note was developed principally by Daniel Levy, Yitao Wang, and Ruirui Sun, with the assistance of Fengqiao Yan and, from the China office providing information to the UIS, Z. Zhang and JuXiang Liu) Vigorous growth is the most striking reality about Chinese PHE enrollment early in the new century. This vigorous private growth could be seen as a third stage of Chinese Communist higher education sectoral development. For its first three decades Communism banned PHE. For a second stage the regime then lifted the ban in the early 1980s as part of its

massive marketization counter-revolution. Yet for its first two decades, PHE grew only modestly to still just 300,000 in 2000, before the new century's takeoff, marking the third stage. By 2005, PHE enrollment exceeded 2 million, its share leaping from 5.1% to 12.6% in the quinquennium, to be followed by more than a doubling of raw enrollment in the ensuing quinquennium (2005-2010).

Yet the growth picture changes after 2010. In a fourth stage, roughly tracking global tendencies, Chinese PHE has continued strong growth in raw enrollment yet a slowed pace and with relative stagnation in private share of total enrollment.

Nonetheless, our dataset exaggerates the peak private share and, consequently, any subsequent decline in private share. Fortunately, the distortion is limited in both degree and duration. But since (a) Chinese higher education is huge and (b) the data discontinuity inter-relates to PROPHE's switch of principal data source between 2010 and 2015, it behooves us to understand the discrepancy as well as possible, and so doing illuminates linked aspects of private and public in Chinese higher education.

The roots of the dataset discontinuity lie in the UIS's failure to provide PHE data through 2010. Whether this failure traces to a Chinese government ambivalence about owning up to its large private sector, associated perhaps with avoiding the term "private" we cannot say. What is evident is that UIS' China data were seriously distorted, 2000-2010. Chinese total enrollment was understated grossly by the time PHE raced forward in the early 2000s and then again when the UIS's belated addition of PHE made its presented total jump an implausible 8 million enrollments 2013-2014.

Knowing that China in fact had significant PHE that should be included, PROPHE had turned directly to national data. The Ministry of Education (MOE) did show PHE ("non-government"). Oddly, however, it has provided no single total figure for the system (or either of the two sectors). Seeking figures best suited for "higher education," PROPHE included MOE's "undergraduates in regular higher education institutions" and "graduate students," each listed separately for public and private, but PROPHE did not include "web-based undergraduates" or higher education students in "adult higher education institutions." The not-included enrollment was only small in 2000 and modest by 2005 but as it became larger, PROPHE realized that the excluded categories were included in the UIS totals, and rightly so. As the huge majority of this enrollment was in fact public, PROPHE 2000-2010 data understate especially public enrollment, and therefore overstate the private share. By 2015 (the UIS

finally including PHE), PROPHE could make a careful decision to switch to the UIS data though with attention to consequent dataset discontinuity. For 2010, the inclusion of 4,531,443 public “web-based undergraduates” and 5,360,388 public higher education students in “adult higher education institutions,” though also of 102,314 additional private enrollments would yield **4,766,845/33,850,490 =14.1%** for 2010, as opposed to the dataset’s 19.6%. Peeking forward to 2020 reinforces the view that distortion centers on only 2010. From 2015-2020 (at least) there is marked stability in the Chinese private share: as shown in our dataset, the UIS 2015 Chinese data are 5,871,139/43,367,394 for 13.5% private and then, between 2017 and 2020, the private share ranged only between 14.4% and 14.9%, the 2020 figures 7,489,933/50,237,458 for 14.9% private. In sum, with the 2010 data corrected to include especially public enrollment in regular web-based and adult higher education institutions, we see a clear reality of private share takeoff at the century’s onset, followed by an extended period of stable private share amid major raw growth in each sector through 2015, followed (subsequent to our main dataset) by slowed growth in both sectors.

Before deciding whether it was feasible and prudent to switch to UIS over direct MOE data, PROPHE scrutinized the enrollment categories that might be encompassed by MOE data and how their aggregate might or might not approximate UIS higher education figures. Again, a major challenges is that the MOE categories do not specify whether they are counted as higher education nor, we will shortly see, with what weight they are counted. Another challenge emerged from the un-labeled fact that, from the inception of its inclusion of MOE PHE data, the UIS has included it with a one-year lag. In other words, the MOE 2014 PHE data appear as part of the UIS 2015 data.

With all indicated adjustments made, PROPHE remained unable to get exact correspondence between a set of MOE categories and the private and total enrollment obtainable directly from the UIS but could confirm that the figures became close. The consensus of Chinese higher education scholars consulted, as well as functionaries of the Chinese office providing data to UIS, was that PROPHE should indeed switch to the UIS data starting 2015, with little concern for relatively minor data discrepancies. Further questioning aimed at understanding the extant discrepancies were then fruitless. Has private graduate enrollment been incorporated in every year? Can we be sure that all sub- categories (e.g., “short-cycle courses”) that MOE lists under “Regular HEIs” are

counted fully as higher education enrollments? Why do UIS totals for 2014 (when it first incorporates PHE) through 2017 exceed what we calculate from MOE categories and then for 2018-2020 fall short of them?

Particularly thorny territory concerns non-formal higher education, more literally “non-regular” as opposed to regular. A much discussed component of Chinese higher education is “self-study” and yet “classes run by non- state/private HEIs for students preparing for state-administered examinations for self-directed learners” shows only 160,028 enrollments for 2018. In-service training, meanwhile, shows 13.5 million in the same year, obviously far too high to be contemplated within the higher education totals. Foreign students is a smaller but likewise unclear category, including as to private-public distribution. We learn from the government office that all nonformal higher education is counted at roughly a 0.3 formula (which could leave us with, after 0 nonformal enrollment in 2000, roughly 800,000 in 2005 and 1.1 million in 2010) but not why or, more importantly, for exactly which shown enrollment categories. Regarding self-study students one plausible explanation is that they are counted as part of higher education only in the year in which they sit the state exam.

9. Cuba. Cuba remains one of the most striking global examples of 0 PHE and it remains so quite by design, notwithstanding Communist China and Vietnam both long allowing PHE.
10. Democratic People's Republic of Korea (North Korea) remains among those countries that UIS and PROPHE show with zero private enrollment or NA but PROPHE does not count on its list of countries without PHE. Although the notion of PHE appears absurd in such a totalitarian system, the Pyongyang University of Science and Technology has functioned since roughly 2010, founded largely by a wealthy ex-political prisoner with Evangelical and international ties. Receiving no financial help from government, it nonetheless has recognition and is careful prominently to post pictures of government leaders. Apparently, faculty and staff positions are unremunerated, food and board provided. It is unclear whether enrollment (largely of the country's elite) in this “international” university should count as North Korean. <https://www.yustpust.org/pust.php>
11. Democratic Republic of the Congo. PHE was authorized in 1989 though without enabling provisions. We use 2002 private share of 15% from World Bank (2005) for 2010 and estimate private enrollment for 2000, 2005, and 2010 accordingly.

- 12.Djibouti. Higher education lists show only the University of Djibouti, which is public.
- 13.Egypt. We substitute data calculated by Dr. Manar Sabry from the Egyptian Ministry of Higher Education. Although the UIS reports a plausible 18.9% PHE for 2010, it does not show data for prior years, whereas the ministry shows data better over time. For consistency we use the ministry data for 2010 (having to substitute 2011), whereas the UIS shows considerably higher enrollment: 2,645,832, compared to the ministry's 2,192,452. By 2015, however, we shift to what appear reliable UIS data. As the Ministry does not include the American University of Cairo in its national data we omitted it 2000-2010, even though it seems more reasonable to count it as is PHE; in any case it had only about 1,000 students in 2000, 5,000 in 2010, and still under 7,000 as late as 2020, so it would not much affect our percentages.
- 14.Eritrea. Although not usually labeled Communist, the nature of statist repression is consistent with the forcible absence of PHE.
- 15.Gabon. We use the Gabon 2003 figures from Mi-Eya (2003), but UIS still provides no data. Nzinzi (2020) refers to 27,407 students at 3 public university students (2017/2018) and to 2,335 "State grantholders" at PHE institutions (2012/2013). Using these *mismatched* years would yield a private share of 7.8% from a total of 29,742, both share and total obviously far from the figures in our dataset.
- 16.Ghana. We use the Ghana 2004 figures from Mabizela (2007) as its 2005 data. The rest of the data come from UIS and polation
- 17.Greece. Greece remains listed as 0 PHE and that continues to be consistent with constitutional provision forbidding PHE. However, as frequently noted, there is ample de facto and international PHE in Greece, without state recognition, and by 2023 the government promised legislation to authorize national PHE. In part, Greece had to conform to EU provisions regarding business rights.
- 18.India. This note distills the highlights of the detailed analysis the giant Indian case warrants (Quang, Levy, and Matthews, 2022). Special thanks are also due Pawan Agarwal, Seerat Kaur Gill, and Sigdel Shailendra.

(a) 2000-2010. Our 2000-2010 data draws from a 3-way partnership report (<http://ficci.in/sedocument/20244/recommendations-2012.pdf>), itself drawing from the country's University Grant Committee (UGC). Because the Partnership's data

are for 2001, 2007, and 2012, we employ our usual calculation methods to estimate for the three PROPHE dataset years. These data exclude distance education (DE); with DE, the private share would fall from our 58.3% to 53.5%.

(b) 2015 and Forward: Shifting to UIS Data. By 2013 the All India Survey of Higher Education (AISHE) becomes easily the best source for enrollment data and replaces the UGC as PROPHE's main source for academic year 2011). However, AISHE provision of data to the UIS finally enables the UIS to report PHE data, enabling PROPHE to shift to UIS data, though with a discontinuity between its data for 2000-2010 and 2015-forward. The discontinuity springs mostly from the Partnership's apparent inclusion (2000-2010) of non-degree students as well as its exclusion of DE (distance) students whereas the UIS excludes non-degree students while including DE students. However, our analysis of AISHE's own data would leave us close to what UIS provides and PROPHE uses, the former 58.5%, the latter 57.9% (18,583,774/ 32,107,419).

(c) Private Inclusiveness with High Privateness. Indian PHE has two private components--private unaided and private, government-aided. Generally self-financed in independent India's early years, private colleges became mostly government-funded in the 1960s, with accompanying government control and thus fitting our government-dependent category, most common in Europe, and similarly leads to blurring and sometimes confusion over sectoral status. Counting them as private is consistent with the UIS' and PROPHE's general policy of counting as private anything defined nationally as legally private. But although our dataset requires no internal breakdown of the two private subsectors, we nonetheless have interest in such a breakdown for how it enlightens us about the *degree of privateness* within Indian PHE.

The most important discovered fact is the decisive shift from government-aided to unaided PHE. For colleges, by 2007 or so (Agarwal 2008), the unaided share had nearly caught the aided share (34% vs 37%), each surpassing the public share (29%). By 2018, the unaided share more than doubles the government-aided share, 47% to 21%. Private advocates credit their privateness in governance while critics denounce shoddy offerings.

Moreover, by various calculations we can go beyond colleges alone to total enrolment. A key is that private *university* enrollment has been unaided, almost exclusively until very recently. Thus, as of 2018, some 38% of total Indian higher education is private unaided compared to 15% private government-aided, the unaided share of PHE having leapt from 54% in 2007 to 72% in 2018. Shortly thereafter the Indian government announced a huge reform to terminate affiliated colleges, reflecting deep displeasure with decades of rampant private institutional

proliferation. However far the reform might go, the world's largest private sector has been overwhelmingly marked by its privateness.

19. Iraq. UIS shows no data for 2000-2010, though it does for 1999. Furthermore, it puts 0 PHE for 2013 but this is at odds with much evidence of active PHE. Multiple international and domestic web sources show roughly two dozen private institutions, many recognized by the Ministry of Higher Education. For example, 29 "private universities" are listed for 2012 (The Connection, 2012). None of these sources gives enrollment figures, however. We therefore keep the private share (39.5%) the UIS showed in its only prior data year, 1999, while using the UIS's 2013 total enrollment (538,125) along with the UIS 1999 total enrollment to estimate total enrollment for our in between years. Of course figures given for countries suffering huge turmoil must be regarded very cautiously. A 139-page report (+ Appendixes) fails to provide private or public enrollment data, despite noting the existence of private universities since the 1980s and with government recognition (INSPIRE 2021). Other accounts refer to some 20 public universities along with a greater number of technical institutes and perhaps 10 private colleges. Importantly, sources generally ignore Kurdistan, a part of Iraq however disputedly, and a part with considerable PHE, including the American University of Kurdistan.
20. Israel. Israeli data and interpretation come via Dr. Gury Zilkha. Excluded are part-time students at the Open University (over 35,000 by 2010). There are two problems with the UIS data (2000: $218,563/255,891 = 85.4\%$ private; 2005: $262,786/310,937 = 84.5\%$; 2010 $307,213/360,378 = 85.3\%$). The main one is that it counts Israel's universities as private government-dependent. Although incorporated as nonprofit, they are public in the same sense we report for Canada and the UK and in parallel to U.S. state universities. Additionally, the UIS includes (roughly 60,000, 2010) non-academic post-secondary enrollments that should not be considered higher education. For 2015, PROPHE shows continued private growth both in absolute and proportional terms, (44,923/304,189, 14.8%) while the UIS continues to present the inordinately huge private share (84.1%) and private and total enrollments including non-academic post-secondary (314,394/374,048).
21. Kosovo. UIS provides no data on Kosovo, as a divided UN does not officially recognize it, though many countries do. We use raw enrollment data (provided by A. Papadimitriou) from the NORGLOBAL project. But these come from institutional responses at only two universities, and how many higher education

institutions should be included is unclear. However, the NORGLOBAL share (41.2%) approximates Zgaga et al.'s (2013), which reports its sources as national statistics offices. Zgaga does not give raw enrollment but its national shares match or are within 2% of the UIS shares on 5 other West Balkan countries, differing by more only on Montenegro. We use our 2010 PHE share estimate of 41.2% for both 2000 and 2005.

22. Luxembourg remains listed as 0, though it is not clear whether some enrollment should be government-dependent private instead of public. In any case, the country's total higher education enrollment is in our very small category, under 10,000.
23. Mauritania. Although UIS still shows 0 PHE in Mauritania in 2013, several PHE institutions have been created recently (Sawahel, 2015).
24. Myanmar (formerly Burma) shows 0 PHE enrolment in UIS data through 2015, after which the UIS provides no higher education data. But, with heavy international orientation, nonprofit PHE has been functioning. Offering only UK degrees, Myanmar Imperial University claims its private existence since 2004. Its ties with private enterprise, including the jewelry business, and its rhetoric and photo images, suggest semi-elite aspirations. Parami University has its license from a US agency and will seek US accreditation. Its Board of Trustees composition and promotional statements also suggest semi-elite aspirations. Likewise upscale in appearance is Strategy First University, which boasts its international partnerships and variety of offerings. It is not clear, however, whether it is authorized to offer any level 6 degrees, while level 5 degrees are foreign ones. Joseph Education University, founded by a religiously committed businessman, apparently under national business law, was canonically approved by the local archbishop in 2020 and commits itself to Catholic values, as well as to liberal arts; though it seems substantially business-oriented in practice, it has faculty in fields such as missiology. Established in 2015, the small University of Medicine claims state recognition.

By the early 2020s, PHE enrollment was significantly increasing, in part from failures at public institutions, exacerbated by repression after the 2021 military coup, ending the period of public higher education reform. PHE now even includes alternative platforms like Spring University Myanmar (SUM), primarily funded by USAID and other aid agencies, and linked to the country's shadow government democratic government. To be sure, a basic driving force for Spring and other PHE

institutions is job-seeking. Like others, Spring offers short tertiary education courses imparting job skills. Much of Myanmar's PHE is online. Research must determine which private institutions grant state-authorized and recognized degrees (and thus count as having domestic PHE enrollment) as well as whether the many foreign students have their degrees recognized back home.

25. Netherlands. UIS totals for each year in the Netherlands are unproblematic, while private shares are very problematic and would be so regardless of what figures are chosen. The UIS provides the private share for only 2012, 13.4%, without explaining the sudden inclusion or the basis for the 13.4% figure. We use that percentage along with the UIS total to calculate the private enrollment for 2010. OECD provides the figures for 2000, showing a 69.0% private share, which appears consistent with scholarship on the country highlighting similarities to the Belgian case (Geiger 1986). We then estimate the 2005 private share simply (too simply) by taking the mid-point between the 2000 and 2010 private shares, and again we use the UIS total enrollment. Of course the decade did not see the private share decline drastically and steadily in the sense of enrollment shifts between private and public institutions. The numbers' apparent decline comes instead from volatile treatment of whether the bulk (or even entirety) of the institutions are private or public. European datasets do not indicate why their majority private enrollment in 2000 changed in 2003 (OECD and 2004 EUROSTAT) to 100% private or why this flipped to 100% public in 2008 (OECD and 2010 EUROSTAT). The European organizations in question normally follow the breakdown provided by the country, according to the organization's written criteria. But the domestic perspective is complex and ambiguous. Dutch law appears to consider all institutions private, according to expert Gerrit de Jager (personal communication, October 17, 2012) who ultimately concludes that whether now to categorize Dutch higher education as private or public is "a matter of taste." Clearer is that if the institutions are private, they were at least historically government-dependent. Karl Dittrich (2009) of the Dutch accreditation agency reports around 10% as the current private independent figure; this includes the 70 "registered universities" (essentially professional schools), privately funded, while excluding theological ones and universities of applied sciences. This percentage approximates our UIS-based estimate for 2010. Perhaps our 2010 figure represents "independent private" while our 2000 figure represents "government-dependent private." We use UIS 2012 for 2010; OECD 2000 for 2000, and estimate 2005 based on 2010 & 2000 figures.

- 26.Nigeria. Nigerian data—for universities only—from the National Universities Commission's Taiwo Adeola (email 10/30/12) and the University of Ibadan's Segun Olugbenga (emails of September/October 2013).
- 27.Pakistan. We estimated 2000 PHE figures using 2005 and 2010 data. We use UIS 2005 data for Pakistan though Pakistan's HEC shows different numbers: 78,934/521,473, 15.1%. Pakistan's 2010 data are from Pakistan's Higher Education Commission (HEC). These figures include distance education but not colleges, madrassahs, or self-study students. We use HEC for 2010 rather than UIS data partly because the UIS data on colleges likely includes 11th and 12th grade enrollment and mostly because the UIS shows private increases and private shares implausibly high according to expert opinion, including that of Sohail Naqvi, ex-director of HEC. UIS shows a private leap from 2005 to 2008, 8.0 to 32.9% (no data shown for 2006-2007). It is unfortunate that HEC data omits colleges, but the omission probably does not greatly affect the HEC private share. College and university shares were roughly equal in the last year (2006) for which we can see them separately in World Bank's summary of the country's higher education (World Bank, no date shown); that breakdown showed the private share of colleges at only 8.9% (consistent with expert opinion that college enrollment remains decisively public), so the inclusion of colleges in 2010 would not move us far from our 15.0% private figure. (What would significantly change our private percentage from our 14.5% to 25.5% would be exclusion of distance education, all public-- despite now getting less than one-tenth of its income from government). Pakistan is a case in which our substitutions prior to 2015 (when UIS data come to suit our needs) appear to have provided accurate readings.
- 28.Peru. Peru's total higher education data are from UIS. But PROPHE takes the private share (60.5%) 473,795/782,970) directly from national data (Censo Nacional Universitario, 2010) and then calculates a 2010 private number accordingly.
- 29.Saudi Arabia. For Saudi Arabia, the UIS provides private data (as 0) for 2000 but not for 2005; for 2010 it shows 34,944/903,567, 3.9%. Though we could derive 2005 from the UIS' own 2003 figures, the 2003 shows PHE at an improbable all- time high in enrollment (35,440) and share 6.7% (versus its UIS 0.0% 2000 and 3.9% 2010). The Ministry's annual figures show a much steadier increase in private enrollment and share. (Our data include only undergraduate figures; the graduate figures would constitute only a few percent of the total and are erratic).

- 30.Sierra Leone. Some reports indicate as many as 24 PHE institutions operating by 2011 vs 0 in 2004, an authorizing act issued in 2005, but no institution was yet registered with the Tertiary Education Commission. There is also word of one private “university” and with an estimate of 3,758 or 15% of enrollment.
- 31.Slovenia. For Slovenia 2000 we use CEPES’s 5.1% share rather than the UIS’ 97.5%, which strikes experts as implausible and may involve counting as private government-dependent some of what was really public. Based on UIS total and CEPES private share, we calculated 2000 private enrollment number as 4,275. The UIS and CEPES share for 2005 are the same (8.0%). We use the UIS numbers for 2005 and 2010.
- 32.South Africa. PHE data for South Africa 2010 provided by Dr. Shaheeda Essack of the Department of Higher Education and Training and UIS public figures. For 2005, we use 2004 figures from Mabizela (2007).
- 33.Sri Lanka. UIS puts 0 PHE for 2010, with an enrollment figure for only the public sector. For previous years, it gave NA across the board. By 2013 UIS shows figures for each sector, with a 6.5% private share. Thus, Sri Lanka recently left the zero PHE group even though UIS still shows zero for 2010. Full domestic degree-granting authority is not clear until 2017.
- 34.Syrian Arab Republic. UIS provides only total enrollment data. We use the private share of 6% for 2010 from Saïd (2013), based on which we estimate private enrollment for 2000 and 2005.
- 35.Tajikistan. UIS shows that Tajikistan has recently established PHE, though we maintain the UIS’ zero for 2000, 2005, and 2010. PHE is very limited, tottering

on a political-legal edge (Hasanova, 2010). As with Turkmenistan, the near absence of PHE owes to the lack of greater break from the Soviet Communist legacy.

36. Turkmenistan. Although UIS shows no higher education data, we read of the private International Turkman-Turkish University whereas Tursunkulova (2005) says there is no PHE. PROPHE's dataset maintains the UIS zero.
37. Uganda. For Uganda, in accord with our data substituting guidelines, we interpolate UIS data in surrounding years (2009 and 2011 for 2010, and 1999, 2004, and 2008 for 2005 and 2000) but we have two concerns. First, the UIS 2004 public HE enrollment figure (79,443) seems possibly too high compared to later years (64,510 in 2008, 74,187 in 2009, and 74,729 in 2011). If so, then the PHE share (10.1%) for 2005 would be too low. Separate data for 2004 (Mabizela, 2007) likewise indicate (12,400/64,052 for 15.0% private) that the UIS public sum is too high, its private share too low as may a chapter in Varghese (2006) though there are issues about how non-university figures in there. The second concern is that the UIS' private share jumps so drastically, increasing from 10.1% in 2004 to 40.1% in 2009 and 74.2% in 2011. But the World Bank's Peter Darvas advises that their estimates are similarly high and country expert Prof. Vincent Ssembatya of Makerere University thinks the soaring private share may be credible: his email on January 23, 2014 pointing to the recency of the sector and the great attention it started attracting in the mid-2000s.
38. United Arab Emirates. Not until 2016 did UIS show private data (68.6% for 2013 and 67.3% for 2014). In terms of total enrollment, UIS shows higher figures than the National Bureau of Statistics (132,709 for 2013 and 143,060 for 2014 compared to 118,560 and 128,279 respectively). The discrepancy might have been because the national data exclude foreign student enrollment (Ministry of Higher Education and Scientific Research, 2008). While we use the UIS data for total enrollment, we estimate the private share for 2000, 2005, and 2010 based on the national data for 2007 and 2013. The UAE is another example of where, coming to serve fully in 2015, PROPHE's prior substitutions appear appropriate.
39. United Kingdom. For the UK, UIS shows no private-public breakdown and, worse, counts the total enrollment as private. It is one thing to count the UIS' "government-dependent private" enrollment as private in countries like Belgium, where the private reality is long recognized in law and usage. In contrast, in the UK the law is not explicit on the point while both popular discourse and scholarly

treatments have routinely counted virtually all higher education enrolment as public, often noting the exception of one small private university, the University of Buckingham (Geiger, 1986). Neave (1985) declares it erroneous to call U.K. higher education private. Only in 2011 did the UK officially open higher education to additional private providers, however much some had been de facto precursors (Fielden & Middlehurst, 2017; Middlehurst & Fielden, 2011). Allowing both for-profit and nonprofit, even including universities, the policy change created a dual-sector system. To count UK enrolment as 100% private (which the UIS does at least through 2015) because its public universities have charters, governing boards, ample private finance, or other such autonomy- related characteristics would require that we take U.S., Developed British Commonwealth, Israeli, and probably some other countries' public university enrolment as private.

Accordingly, we need to count the UIS as public instead of private for 2000-2010 and then estimate the private enrollment for 2015 (and add that estimate appropriately to the total). For the 2015 estimate, we additionally consult work by Hunt and Boliver (2019), along with Hunt's generous 2019 email commentary. Government data gathering includes only the institutions it funds, which omits especially the relatively smaller private providers (and recent improvements will likely reduce incompleteness only modestly). Meanwhile, eliminating from lists of "alternative providers" those that are public, not operational, or lie outside "higher education," yields 813 for 2017. As only 115 of those receive government funds and thus figure into government counts, their enrollment (58,735) is just part of the real private total. Analysts have then surveyed the other providers to estimate total private enrollment (Shury, Adams, Barnes, Hewitt, & Oozeerally, 2016) – a prominent estimate being 245,000 to 295,000 for 2014, which might be compared to roughly 160,000 for 2011 (Hughes, Porter, Jones, & Sheen, 2013). One might therefore estimate 300,000 for 2015 based on a mid-range 270,000 for 2014 and a simple 2011-2014 growth- line. We opt for a lower estimate. Just as the 115 funded institutions are likely larger on average than the 698 non-funded ones, so those responding to surveys are likely larger than non-responders, and many private institutions include part time and lower than higher education students, as well as courses delivered intermittently and even by distance overseas. (Some such considerations probably apply to many "private providers" in several other countries.) For the UK, Hunt concurs with this reasoning and its consequent private estimate of 250,000 for 2015. We add a mighty asterisk. While we therefore put 250,000 for the private enrollment, we do not add that full number to the U.K.'s total enrollment. That is because the government does count enrollment at private institutions it funds. As that enrollment was 58,735 for 2017,

from which we could roughly estimate 45,000 for 2015, we add 205,000 (rather than 250,000) to the 2015 total. Our 2015 private share of the total is $250,000/2,535,334$ (9.9%).

40.Uzbekistan. Tursunkulova in Altbach and Levy (2005) reports de facto as opposed to legally recognized PHE. Westminster International University in Tashkent is a cross-border institution and degrees are validated by Westminster. As of at least 2012 there was still no domestic PHE, though 1997 legislation permits it (World Bank, 2014).

41.Vietnam. Vietnamese data for 2005 and 2000 are from the Ministry of Education and Training. UIS figures calculate to a modestly different PHE share: 10.2% for 2005 and 13.1% for 2000.

42.Zimbabwe. UIS does not provide Zimbabwe's data prior to 2010. We use the Zimbabwe 2005 data from Mabizela (2007).

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