Schooling and Its Supplements: Changing Global Patterns and Implications for Comparative Education

MARK BRAY

Schooling has become a standard component in the daily lives of families, and education is typically the largest item in government budgets. Many scholars have documented the spread of schooling and have analyzed the implications of that spread. Recent decades have brought great expansion of supplementary education alongside schooling. Some of this supplementary education mimics schooling as a shadow, and some complements schooling with elaborate and/or different curricula. The supplementary education is commonly a substantial component of household budgets. This essay examines the nature of changing patterns of schooling and supplementary education around the world. It views the topic through the lenses of (in)equalities, remarking on bidirectional influences between schooling and its supplements. Among major intensifying forces in supplementary education have been governmental achievements in expansion of schooling and in reductions of inequalities. Supplementary education then to some extent resists reforms by restoring and maintaining inequalities. The essay concludes with remarks about the implications for comparative analysis of both schooling and supplementary education.

Introduction

The field of comparative education permits big-picture analyses as well as more detailed foci on specific settings. This essay, prepared as a contribution to the 61st annual conference of the Comparative and International Education Society (CIES), is concerned with the big picture. The conference theme was "Problematizing (In)Equality: The Promise of Comparative and International Education." The subthemes included:

- Problematizing Teaching and Learning
- Problematizing Development and Innovation

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- Problematizing Inclusion/Exclusion
- Problematizing Neoliberalism and the Market.

The essay will make some remarks under each of these headings, as well as on the overall theme.

Traditionally, CIES presidential addresses have built on their authors' own scholarly work and have charted some directions for the wider field. I shall follow that tradition. I have also followed an established path insofar as part of my preparation commenced with review of the words and wisdom of my forebears.

Among previous presidential addresses, especially pertinent is that by David Baker (2014a), which addressed "consequences of the education revolution" and was elaborated in his book The Schooled Society (2014b). Baker is also known for his work on the so-called shadow education system of private supplementary tutoring (e.g., Stevenson and Baker 1992; Baker and Le-Tendre 2005). The metaphor of the shadow, though imperfect, is widely used because much of the curriculum in the parallel supplementary sector mimics that in regular schooling: as the curriculum changes in the schools, so it changes in the shadow. Part of my own work (e.g., Bray 1999, 2009; Bray et al. 2013) has built on these writings to highlight the global expansion of shadow education, which has far-reaching implications for types of (in) equalities. The present essay has a broader focus than shadow education insofar as it embraces activities that do not mimic schooling and as such may better be called supplementary education rather than (narrowly defined) shadow education. Within that remark, however, are ambiguities that demand careful attention.

Wiseman (2013, xi) is among scholars who have called attention to relationships between schooling and supplementary education. He pointed out that the global expansion of mass education "has been documented and debated as one of the foremost issues in comparative and international education research in the 20th century," but suggested that "the expansion and institutionalization of supplementary education promises to usurp mass education as the most important (and still among the least understood) education phenomena of the 21st century." Whether the expansion and institutionalization of supplementary education will usurp mass education in this way remains to be seen, but the phenomena are indeed of great—and underrecognized—importance.

With such matters in mind, this essay first summarizes aspects of scholarly analysis on the expansion and institutionalization of mass education, and on the reasons for the expansion and institutionalization of supplementary education. The essay then turns to aspects of the nature and implications of supplementary education, and to an agenda for comparative education scholars.

The Spread, Expansion, and Dominance of Schooling

Particularly significant in the extensive literature on the global spread of schooling is the work of Meyer and associates (e.g., Meyer and Hannan 1979; Meyer et al. 1992). For example, Boli et al. (1985, 145) pointed out that "the prevalence of mass education is a striking feature of the modern world. Education has spread rapidly in the last 2 centuries, becoming a compulsory, essentially universal institution. It has even expanded greatly in the poorest countries. Unesco [sic] estimates that about 75 per cent of the children of primary school age in the world are enrolled in something called a school." Since those words were written, the coverage of schooling has spread further. UNESCO (2016, 411, 420) recorded a 2014 global gross enrollment ratio of 105 percent in primary schooling and of 75 percent in secondary schooling. Rates were lowest in sub-Saharan Africa and in South and West Asia, but in all regions huge expansion had been achieved. Education is commonly the largest item in government budgets, typically consuming 10–20 percent of the total (UNESCO 2016, 473–76).

For the CIES, "Revisioning Education for All" was the theme of the 2014 annual conference and related to Mundy's presidential address the following year. Mundy (2016, 4) recognized that the commitments in UNESCO's 1946 Constitution to "full and equal opportunities for education for all," echoed in Article 26 of the 1948 Universal Declaration of Human Rights, had historical roots in the evolution of the modern state. The notion of Education for All (EFA), she added, "emerged as an aspirational statement and as part of the 'embedded liberalism' of the post-World War II architecture" (Mundy 2016, 4). In 2015 the EFA agenda was absorbed into the United Nations Sustainable Development Goals (SDGs). Remarking on trends, UNESCO (2016, 162) observed that: "Despite challenges, the worldwide movement to universalize a long cycle of education and improve learning levels gathers steam. These aspirations are deeply embedded in the aims, policies and plans of almost all countries, regardless of population, location and degree of development." The document noted that, historically, education had served elite interests but that in contemporary times the aim of good quality education for all had become the norm and was driving both national commitments and the work of international agencies.

Baker (2014a, 6) had also remarked on some implications of these patterns. Since the mid-nineteenth century, he observed, "this massive regime of education has produced a powerful culture, transformed most individuals in the world, and created far-reaching consequences for all facets of society." The comment resonated with remarks four decades earlier by Meyer (1977, 55), who had noted that education "restructures whole populations, creating and expanding elites and redefining the rights and obligations of members."

In addition to emphasizing the expansion of schooling, these authors have highlighted similarities in models of schooling. Meyer and Ramirez (2000, 16) ascribed these similarities to "world forces," that is, a "cultural principle exogenous to any specific nation-state and its historical legacy." Among underlying factors, they suggested, were the integrating forces of global communications and exchange, changing normative models of the nature and rights of citizens in nation-states, intensification of professional models of education systems, and the impact of international bodies such as UNESCO, the World Bank, and the Organisation for Economic Co-operation and Development (OECD). These forces are said to have led to isomorphism in which, at least superficially, school systems across the world increasingly resemble each other. However, analysts do note continuing variations (Carney et al. 2012; Tröhler & Lenz 2015). Baker and LeTendre (2005, 170) observed that "basic organization of mass schooling and the assumptions behind it are similar worldwide, but how this gets worked out in practice in nations is far from uniform." Their commentary placed more stress on isomorphism, but they recognized variations in patterns and welcomed continuing discussion. The expansion and evolution of supplementary education add elements that complicate pictures and call for further research and policy studies.

The Parallel Spread and Expansion of Supplementary Education

The opening paragraphs of this essay alluded to definitional challenges in what might be placed under the heading of supplementary education. Forms of shadow education are a useful place to commence. For my 1999 book, published by UNESCO's International Institute for Educational Planning (IIEP), I took the shadow metaphor from three sources in the early 1990s (Marimuthu et al. 1991; George 1992; Stevenson and Baker 1992). I focused on private supplementary tutoring and considered the shadow metaphor appropriate for several reasons: "First, private supplementary tutoring only exists because the mainstream education exists; second, as the size and shape of the mainstream change, so do the size and shape of supplementary tutoring; third, in almost all societies much more public attention focuses on the mainstream than on its shadow; and fourth, the features of the shadow system are much less distinct than those of the mainstream system" (17).

My concern in the book was with activities defined by (20):

• Supplementation: tutoring in subjects already taught in school, and excluding for example language classes for minority children whose families were anxious for new generations to retain competence in languages not taught in their schools.

- *Privateness*: support by individuals and companies for profit-making purpose or at least to cover costs, and excluding supplementary help at public expense and the voluntary assistance of family members.
- *Academic*: languages, mathematics, sciences and other subjects examined by schools, and excluding musical, artistic or sporting skills learned primarily for pleasure and/or more rounded personal development.

These parameters fit the purpose of the 1999 book, which itself built on awareness of hidden household costs of schooling (Bray 1996), though at the time I noted some blurring of definitional boundaries and subsequently expanded that commentary (e.g., Bray et al. 2013; Bray and Kobakhidze 2014). Thus, although some shadow education is indeed precise mimicry of schooling, using the same textbooks and even the same teachers, other classes supplement the mainstream with different books, providers, pedagogic styles, and so on. Also while some people use the word "tutoring" for all types of instruction, including large classes of the type found in Hong Kong and elsewhere (Koh 2014; Yung 2015), others use the word only for one-to-one or small-group instruction. Partly because of such definitional challenges and also because many families, particularly in the upper and middle classes, seek forms of provision beyond strict shadowing, the present essay focuses on supplementary education rather than just shadow education as defined in my 1999 book. This wider focus also permits comments on differentiation of patterns among social and economic groups and in a range of national contexts.

Beginning nevertheless with a relatively narrow focus, the history of private supplementary tutoring in academic subjects is arguably as long as that of schooling itself. As a form of educational provision, in many societies tutoring was an alternative to schooling for certain social strata (see, e.g., Maynes 1985), and it seems likely that over the centuries it has also been a supplement for some academically needy students whose families could afford it. Scholarly literature has documented the existence of private supplementary tutoring at least since the early twentieth century in countries as diverse as Japan, Greece, and Mauritius (e.g., Foondun 2002; Tsiloglou 2005; Sato 2012). During the second half of the twentieth century, private supplementary tutoring became a major activity in such countries as Sri Lanka and the Republic of Korea (Hemachandra 1982; Seth 2002), and since the turn of the twenty-first century it has expanded significantly in all world regions (Bray 2009; Aurini et al. 2013; Park et al. 2016). It is now a standard feature of family life in countries as diverse as Canada (Aurini and Davies 2013; Eckler 2015), China (Zhang and Bray 2016), Egypt (Hartmann 2013), and England (Kirby 2016).

Cross-national data on private supplementary tutoring are difficult to compile not only because of the challenges of collecting information from students, tutors and/or parents but also because of the variations in definition (Bray 2010). Nevertheless, collections of snapshots from various settings provide one basis for comparison at both primary and secondary levels (e.g., Bray 2011, 21–23; Bray and Lykins 2012, 4–7). More systematic crossnational data have been collected through the OECD's Programme for International Student Assessment (PISA). PISA questions on tutoring have been problematic (Bray and Kobakhidze 2014), but those asked in 2012 and 2015 were arguably clearer than in previous rounds. Figure 1 shows the proportions of sampled 15-year-old students who indicated in 2012 that they had received (a) out-of-school classes organized by a commercial company and paid for by their parents, and (b) paid or unpaid personal tutoring. Greece and the Republic of Korea have long been well known for the scale of supplementation, but the figure also indicated high proportions in countries as diverse as Thailand, Brazil, Russia, and Turkey. In most countries the dominant form was personal tutoring (paid or unpaid), but in many countries classes organized by commercial companies were very prominent.

Other literature has highlighted considerable private supplementary tutoring at the primary level. In the Republic of Korea, for example, official statistics indicated that 80.7 percent of sampled elementary school pupils were receiving supplementary private education in 2015 (KOSIS 2016). Much of this provision was in institutions called *hagwons*, though some tutoring was provided by individuals through semiformal or informal arrangements. The scale of supplementary education had increased over time, and a survey of parents indicated that the top reasons related to competition to enter highranking colleges. Parents were not in general critical of their children's elementary schools, and concern about school learning atmosphere and facilities was at the bottom of the list of 12 reasons for seeking tutoring (KOSIS 2016). In the middle of the list (number 5 out of 12) was "Private tutoring is so widespread that I feel uncomfortable if my child does not participate." Similar factors apply in Japan, where a 2007 survey found that 38 percent of grade 6 students and 65 percent of grade 9 students were attending tutorial enterprises called *juku* (Japan Ministry of Education . . . 2008, 13). ² Dierkes (2013) described supplementary education in Japan as an "insecurity industry" since

 $^{^1}$ The figure has been ranked by proportions of paid/unpaid personal tutoring. The precise questions in the English-language version were:

Thinking about all school subjects: on average, how many hours do you spend each week on the following? When answering, include time spent on the weekend too.

c) work with a personal <tutor> (whether paid or not): __ hours per week

d) attend out of school classes organised by a commercial company, and paid for by your parents: _ hours per week

² Bearing these statistics in mind, as well as more recent literature (e.g., Zhang and Yamato 2017), readers might wish to scrutinize the numbers for Japan in fig. 1. Indeed other numbers in fig. 1 may also need to be viewed with caution, given the challenges of collecting such data highlighted in my coauthored 2014 article (Bray and Kobakhidze 2014).

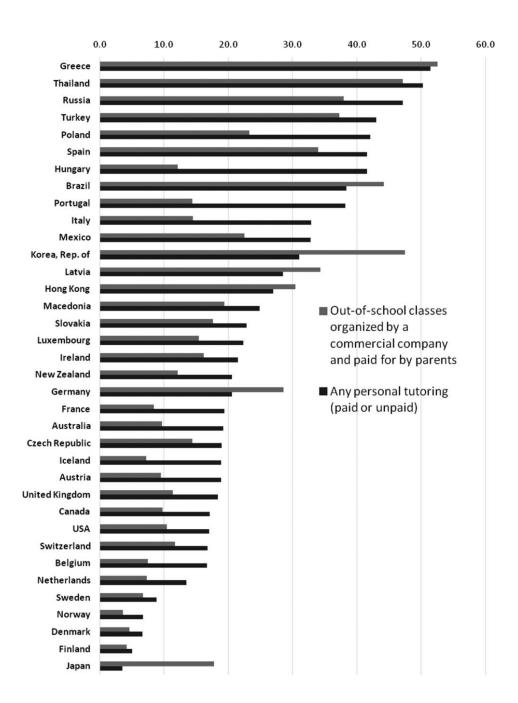


Fig. 1.—Percentages of 15-year-old students receiving supplementary education, 2012. *Source*: Adapted from Park et al. (2016), 233. A color version of this figure is available online.

it feeds on, and to some extent promotes, parental anxieties (see also Entrich 2016).

Low-income regions of India provide a contrasting setting that nevertheless has some similar patterns. Pratham (2015, 270) indicated that in 2014, 58.4 percent of sampled West Bengal rural students in grades 1-5 were receiving private supplementary tutoring and that the figure for grades 6-8 was 76.2 percent. Proportions for urban students would probably have been even greater (Indian Institute of Management Calcutta 2011; Majumdar 2014). Amartya Sen, Nobel Laureate in Economic Sciences, remarked on findings from a 2001/2 survey of primary education in West Bengal that was repeated in 2008/9. The later report showed significant improvements in quality and quantity, but also showed expansion of private tutoring. The survey included focus on both primary schools and Sishu Siksha Kendras (SSKs), which are community-based alternatives to primary schools. Sen (2009, 13) described "a real regression ... on the dependence on private tuition." Proportions of children receiving supplementation had risen from 57 to 64 percent among sampled primary school students and from 24 to 58 percent among SSK children. Again the parents were to some extent driven by competition for entry to the next level of education. Sen reported "an intensification of the general conviction among the parents that private tuition is 'unavoidable' if it can be at all afforded" (13).

Canadian research exemplifies parallels in a very different context. Aurini and Davies (2013, 156) described Canada as "a relative newcomer to supplementary education" but added that these services were becoming increasingly popular as indicated by estimates of 33 percent of parents having purchased some sort of supplementary education and 29 percent of nineyear-old children having received some sort of private tutoring (157). As in the Republic of Korea, demand was not greatly driven by dissatisfaction with schooling but rather by a perception that the supplementary education could increase children's competitive advantage. Because school content and evaluations varied widely in the context of Canada's diversified administrative structures, shadow education providers could not easily secure economies of scale by serving multiple schools. As a result, the larger businesses offered more generic educational instruction. Some called themselves "learning centers," developed their own evaluation materials, and advertised their ability to build children's self-esteem and learning skills (Aurini and Davies 2013, 162).

Examples could be taken from other contexts to show further commonalities and variations. The overall picture is of growth of supplementary education worldwide, notable in only a few countries during the late twentieth century but now becoming a standard feature of daily life for many families. In some countries, the dominant form is close mimicry of regular schooling, but in other countries, particularly for the younger age groups,

it is broader. Juxtaposition of Korea, India, and Canada shows that supplementary education has expanded in countries with very different cultures and economic features.

What Implications for (In)Equalities?

Space constraints preclude detailed analysis of the changing nature of supplementary education across the globe. Nevertheless, some key remarks may be made under several subheadings devised for the 2017 annual conference. Each category deserves more detailed treatment beyond the outlines presented here, and may be part of the scholarly agenda.

Problematizing Teaching and Learning

Initial questions are why parents and students choose to invest time and money in supplementary education and do not see schooling as enough by itself. Of course the answers vary according to the types of supplementary education, the providers, and the consumers. Shadow education may be sought to help students either to keep up with or to stay ahead of their peers. Other forms of supplementary education may be investments in cultural and perhaps social capital (Bourdieu 1986). Consumers may feel pressured by teachers and peers.

Shadow education that completely mimics regular schooling may be particularly problematic. Students who are low-achieving because of a mismatch in curriculum or unfulfilled learning needs with unsympathetic teachers may be subjected to repeat hours with "more of the same." In this case, investments in private tutoring are unlikely to deliver positive returns and could even contribute to boredom and rebellion.

Next along the spectrum would be shadow education with only slight differences from regular schooling. Many Cambodian teachers provide private tutoring to the students for whom they are already responsible in mainstream classes, often in the same classrooms (Brehm and Silova 2014; Bray et al. 2016). The private classes commonly provide exercises to practice and amplify the lessons in regular classes. Students in private classes may also receive tips on how to pass the examinations set by the teachers for their regular classes. Students who do not attend the private classes may feel disadvantaged next to their peers—even to the extent of considering that they do not receive the full government-mandated curriculum that should have been provided to all.

Shadow education that addresses the subjects of regular schooling but in different ways may also be problematic. Kumon was established as a company in Japan in 1955, and now serves 4.26 million students in 49 countries (Kumon 2016). It is especially known for its approach to mathematics that emphasizes drilling with worksheets and formulae rather than understand-

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ing, and may cause dissonance with the pedagogic approaches of mainstream teachers. A different problem arises for example in Taiwan when students gain the materials from their tutors before their mainstream teachers, and are then bored during their mainstream classes (Jheng 2015). Some forms of tutoring elaborate on schooling, stretching high achievers. When some students receive it but others do not, challenges for regular teachers arise from the diversity that it creates within classrooms.

Problematizing Development and Innovation

Because they are in a marketplace that is highly dependent on client satisfaction, tutors may have stronger incentives than regular teachers to perform well. Also, tutors have more flexibility and fewer bureaucratic constraints. Some large tutorial companies, such as Benesse in Japan, have significant research arms (Zhang and Yamato 2017). Large companies of this kind can concentrate abundant financial and human resources on specific educational areas for development and innovation. Clear division of labor may separate teaching from marketing, counseling, and research, with tutors focusing on tutoring rather than development of pedagogy and associated materials. Even at the other end of the scale, self-employed tutors are mindful of their vulnerability if they do not deliver what the clients desire, and are likely therefore to be more client-oriented than teachers who have secure jobs with guaranteed remuneration.

However, such patterns are not always straightforward. The tutoring sector has open gates, meaning that almost anybody can offer service in the marketplace. Many tutors are university students with no pedagogical training, and some are even secondary school students (see, e.g., Ho 2010). In the older age group, many tutors have been unable to secure alternative employment and join the industry as a stopgap. Woodward (2010, 13–14), in a book entitled *How to Start a Business as a Private Tutor*, reported that the most frequent question by people considering careers in tutoring was whether they needed to be qualified teachers. Woodward's answer was:

NO! You do not have to be qualified. The Oxford Dictionary definition of a teacher is as follows: "A person who explains, shows and helps to impart knowledge by way of instruction and example." Do you honestly think you need to go to university and wear a gown and a mortar board and obtain a B.Ed. in order to do this? (13–14)

Woodward added the view that a "reasonably well-educated adult is perfectly able to pass information to a child, probably better than a teacher is" (14). Perhaps unsurprisingly, others in the industry consider this perspective dangerous. Nevertheless, it shows through extreme example some of the potentially problematic dimensions of supplementary education.

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At the other end of the spectrum are tutors in the commercial sector who were originally teachers in regular schools but who were attracted by higher incomes, reduced bureaucratic demands, pedagogical freedom, or other dimensions. When the supplementary industry takes good teachers away from the schools, then the latter suffer. Insofar as schools have become more tightly controlled by accountability measures and managerialism, they have unintentionally dampened innovative teaching and professional growth. The supplementary sector may then become a more dynamic arena than the main body.

Problematizing Inclusion/Exclusion

Some stakeholders, noting that children from low-income families are excluded from fee-charging supplementary education, have proposed voucher systems. In the United States, this was a component of the No Child Left Behind (NCLB) legislation approved in 2001 (Sunderman 2006; Mori 2013). School districts were required to provide Supplemental Education Services (SES) to disadvantaged students, commonly through private providers. In Australia a parallel scheme launched in 2004 was entitled the Tutorial Voucher Initiative, through which eligible parents could spend up to A\$700 (US\$550) on tutoring (Watson 2008). This evolved into a scheme entitled An Even Start, launched in 2007 (Davis 2013, 4).

These schemes have not been unproblematic. In Australia, Watson (2008) and Davis (2013) highlighted variations in take-up rates, shortcomings in monitoring and accountability, lack of evidence of sustainable gains, and inadequate supply of tutors especially in rural areas. For these and other reasons, including political ones, An Even Start was abandoned four years after its launch. The NCLB has sustained a longer history and achieved learning gains particularly among students with disabilities and among African Americans and Hispanics (Mori 2013, 200). However, critics have highlighted inefficiencies and relatively low take-up rates.

Further challenges have arisen from institutional cultures. Koyama (2010, 4) presented a telling remark from one education manager that if schools had "been doing their jobs better all along, then there'd have been no need for NCLB or SES." The manager predicted that as test scores improved and schools emerged from failing status, in part because of the tutoring, then "SES will become a legitimate and necessary part of public schooling even if NCLB loses support." The next stage, the manager suggested, would be that SES would become institutionalized "and its value will go unquestioned just as private tutoring has become commonplace for children in middle- and upperclass families, aiming to get into top colleges." Such remarks might warn advocates of voucher schemes elsewhere. The United Kingdom's Sutton Trust is among them (Davis 2015; Kirby 2016). The logic of the recommendation

is that society becomes more unequal when prosperous families are able to purchase supplementary education and poor families cannot. However, provision of government-sponsored vouchers amounts to official recognition that schooling by itself is inadequate to meet needs, and could imply that all children ought to be receiving some sort of supplementary education through either family or public resources.

Problematizing Neoliberalism and the Market

The expansion of supplementary education is underpinned by increased acceptability of the notion that education is a marketable service. This notion is evident around the world in school sectors in which policy makers have encouraged business models with a goal of making institutions more efficient and sensitive to clients (see, e.g., Apple 2006; Ball 2006; Lubienski and Lee 2013). In contrast to government-initiated reforms, the development of supplementary education has largely been a bottom-up process. Market forces tend to reinforce inequalities, since high-income families can purchase more and better supplementary education than can low-income counterparts. Regulation of the sector has lagged behind that of schooling, in part because Ministries of Education have felt unwilling to enlarge their roles in a domain for which they have limited expertise and control.

Among dimensions of my own work exploring this theme is an Asian regional study (Bray and Kwo 2014). It showed a few countries having strong regulations but many others having minimal or no regulations. The countries with regulations tended to focus more on the business side (registration, contracts, taxation, etc.) and safety (fire escapes, toilets, etc.) than on educational matters such as curriculum and tutors' qualifications. As noted above, the sector has few barriers to entry, and a further problem is that consumers may not be able easily to evaluate the quality of services received.

More detailed research in China has permitted elaboration on these themes (Zhang and Bray 2017). The work addressed patterns of micro-neoliberalism, that is, privatization and marketization at the individual, family, and institutional levels, and identified interactions between the public and private sectors at the confluence of mainstream and shadow education. The research identified four mixing zones, namely kickbacks for teachers referring students to tutorial centers; teachers who also worked as tutors; schools that entered collaborative relationships with centers for students to be tutored; and partnerships between schools and tutorial centers for identification of high-achieving students for school admission. Although the study was in the specific location of Shanghai, it seems likely that its patterns would have counterparts elsewhere in China and more widely. The research identified layers of complexity in the nature of neoliberal forces and the value of microlevel analysis to complement broader work.

Understanding the Global Expansion of Supplementary Education

Returning to the beginning of this essay, it is useful to recall the early work of Meyer (e.g., 1977) and more recent commentators (e.g., Baker and LeTendre 2005; Mori and Baker 2010; Tröhler and Lenz 2015) to identify the forces underlying the global expansion of supplementary education and the implications of that expansion. As noted above, even in 1985 Boli et al. had pointed out that about 75% of primary-aged children across the globe were enrolled in "something called a school" (145). The nature of schools varied considerably between and within countries, but the basic model was clearly recognizable. Supplementary education varies even more, but also has commonalities across the globe. Forms of shadow education that mimic schooling resemble each other precisely because of this mimicry. In format, one-to-one and small-group tutoring seem to be common in all world regions, in part because relatively prosperous parents assume that such individualized instruction is particularly efficacious. Some countries have developed more industrialized models with lower unit costs and therefore prices more easily reached by less prosperous families. At the extreme, "hall tuition classes" in Sri Lanka commonly serve 1,000 students at a time (Pallegedera 2011, 7), and "star tutors" in Hong Kong attract several hundred students to lecture theaters with overflow rooms connected by video screens (Kwo and Bray 2011). Alternative modes include correspondence courses and tutoring through the internet (Ventura and Jang 2010). Thus, the formats of supplementary education are wider than those for schooling, but the focus on academic subjects remains recognizable.

Going further, just as the forces of globalization in economics, social policy, and technology have led to much isomorphism and expansion of schooling, similar forces operate in the supplementary sector (fig. 2). Families across cultures may have similar visions for their children, especially in the elite social strata and increasingly in the middle and lower classes. Education has long been seen as an instrument for social advancement across generations, and when schooling is perceived not to be adequate by itself, families in countries as diverse as Canada, India, and Kenya choose to invest in supplementary education.

Within this framework, however, are variations in the responses of different social classes. Elite families may demand, and can afford, types of supplementary education that go beyond school curriculum—such as art, music, and foreign travel—that are out of range for lower income families. Their demand may be based both on desires for their children to have rounded personal development rather than just being narrowly academic, and on an understanding that these qualities are valued by the types of elite schools, universities, and employers to which the parents aspire. Families in lower social classes may not be able to afford such forms of supple-

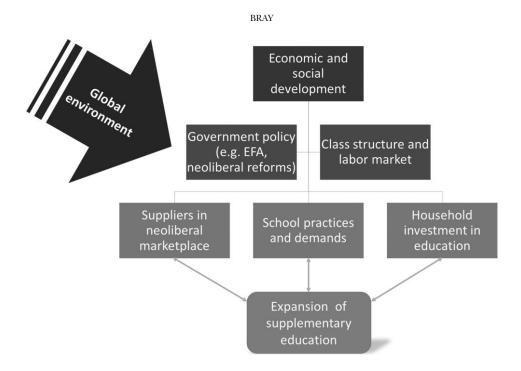


Fig. 2.—Forces in the expansion of supplementary education. A color version of this figure is available online.

mentary education and may also be more oriented toward schools that value examination grades more strongly. These families are therefore more likely to focus on academic forms of supplementary education provided individually or in small groups if they can afford the generally higher prices of such instruction, or in larger classes if they are more constrained by price (and if the families live in locations—mostly urban—in which those larger classes are available).

The question then turns to the consumption patterns of the lowest income groups. Some families feel that they really cannot afford supplementary education and in that sense have lost the race even before they have begun. They set their sights low, enduring the demands of schooling and expecting subsequently to join the labor market in low-income occupations that require little schooling success. Others somehow squeeze their household budgets to find the resources. In this connection, it is pertinent to recall Sen's (2009, 13) report in India about "an intensification of the general conviction among the parents that private tuition is 'unavoidable' if it can be at all afforded."

This remark links to other determinants of supplementary education. In some settings, teachers focus on whole-person development and broad

educational goals, while tutorial centers focus on ways to achieve high scores in examinations and appeal to students on the grounds that they can offer that specialized service (see, e.g., Wang and Bray 2016). In other settings, both the schools and the tutorial centers focus on examinations and therefore look increasingly alike. Again in the Indian context, Majumdar (2014, 8) cited one interviewee who felt that: "If and when [tutorial centers] are authorised to issue certificates, schools will certainly close down.... We already notice the falling attention of students in class. As long as they can pay someone who will show them how to pass their exams, they do not need to attend classes." This remark links on the one hand to questions of efficiency in achieving the objectives of passing examinations and on the other hand to the authority to issue certificates. Since the latter is still controlled by the state, the activities of the state to a large extent still shape the shadow sector.

Nevertheless, various commentators have noted ways in which the shadow sector has ceased to be a shadow and has come to dominate the school sector. This raises the question of which sector is the shadow of which. Students in most countries are compelled by law to attend at least primary and junior secondary schooling, but even at these levels students may choose to give more attention to the shadow sector than to their schools (see, e.g., Jheng 2015). At higher levels students may choose to skip classes to attend private tutoring lessons during school hours. Silova and Kazimzade (2006, 128) indicated that in Azerbaijan teachers and education officials reported empty classes in secondary schools when students left en masse to attend private tutoring classes. Similar observations have been made in Turkey, in which parents have obtained false medical certificates to gain legitimate reasons for their children being absent from school (Altinyelken 2013, 199).

Especially when such supplementary education reaches a large scale, it becomes self-perpetuating. At some point there is a watershed beyond which the supplementary education is no longer just a supplement but becomes a requirement. The commercial sector has ways to market its products, raising anxieties among parents and students and then promising to alleviate those anxieties (Kim 2012; Dierkes 2013; Entrich 2016). Further, when the sector attracts some of the best teachers from the schools, it shifts balances in the effectiveness with which each side can play its roles. Mori and Baker (2010, 40) highlighted a symbiotic relationship between the schooled society and supplementary education in which "as the former intensifies, the logic of the latter expands and heads toward a universal practice." Supplementary education has become a de facto requirement for many families.

Pursuing the Promise of Comparative Education

The theme for the 2017 CIES conference was not only about problematizing (in) equality but also about the promise of comparative education. As

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in other domains, the principal dimensions of promise are in understanding patterns and dynamics, and perhaps in offer of options to policy makers and practitioners. This essay commenced with the expansion of schooling before turning to the expansion of supplementary education. The expansion of schooling has been widely recognized; but particularly in the 1990s and 2000s, when talking about shadow education with personnel from such countries as Egypt, Greece, and the Republic of Korea, I commonly found surprise that the phenomenon was a significant issue elsewhere. Because at that time shadow education rarely featured in the research literature or reports of international bodies, policy makers and practitioners in those countries commonly thought that shadow education on a significant scale was unique to their own settings. Comparative analyses thus showed that counterparts elsewhere faced related issues. Some aspects of the promise of comparative education may be disappointing, namely that forces are complex and the challenges of inequalities can rarely be addressed through simple solutions. Indeed one lesson is that well-meaning initiatives, such as vouchers for low-income families, can have unintended and unanticipated problems. However, it is arguably better to be aware of the complexities than to proceed in simplistic ways.

Nevertheless, to fulfill their roles meaningfully, comparative education scholars need to remedy past neglect. They have been slow to recognize the issues, with the literature on shadow education developing only in the 1990s and after even though shadow education had long been a major phenomenon in various parts of the world; and even now the theme is given inadequate attention. Thus, although UNESCO, for example, did make passing reference to shadow education in its 2015 Education for All Global Monitoring Report (UNESCO 2015a, 202) and in its visionary Rethinking Education: Towards a Global Common Good? (UNESCO 2015b, 74), these were only minor acknowledgments. Similarly, the OECD's annual Education at a Glance (e.g., OECD 2016) does now mention private tutoring among its indicators but has never given the matter detailed attention. The phenomenon has also been absent from core publications of other agencies (e.g., Asian Development Bank 2008; World Bank 2011).

To address this neglect, one major need is for basic factual information. Indicators on schooling have greatly improved during recent decades, though still have major shortcomings (see, e.g., UNESCO 2016, 178–203). Indicators on supplementary education are still in their infancy, arguably comparable to those on schooling several decades ago. Very few governments collect systematic and regular data on the topic, the chief exception being the Republic of Korea (e.g., KOSIS 2016); and data collected by nongovernmental organizations and university-based researchers are patchy in coverage and methodological rigor. Beyond basic questions of how much supplementary education is received by what categories of children, at what seasons, in what

modes, and from what types of tutors, further questions must be asked about curriculum, teaching and learning styles, and much more. In effect, the range of questions and needed answers from the supplementary sector parallels that from schooling.

To investigate such matters, tools can of course be borrowed from investigations of schooling. Studies in specific locations can highlight features that may then be contrasted with patterns elsewhere and contribute to wider understanding. Analysis may usefully focus on units within nation-states as well as on whole countries, including individuals, classrooms, and schools that on the cube developed by myself and Murray Thomas—another former CIES president—would be at the lower levels (Bray and Thomas 1995, 475). Researchers of supplementary education may face challenges of access insofar as tutorial centers may not welcome them, and tutoring in homes may be much harder to access than teaching in schools (Bray et al. 2015). Nevertheless, social scientists already have multiple tools for multiple settings and purposes, and new ones can be developed.

Another purpose of comparative analysis, especially in journals such as the Comparative Education Review, is broader conceptualization. Comparison of patterns across the world provides evidence for such conceptualization and exposes forces that may not be detected so easily when focusing only on individual countries or locations within countries. Boli et al. (1985, 146) remarked that "explaining the rise of mass education involves analyzing the power relations of interest groups in society." This is indeed the case, and also applies to the rise of supplementary education. The interest groups include families, schools, teachers, tutors, universities, and employers. A decade later, Carnoy's (2006) CIES presidential address included focus on the role of the state, which he felt might have deserved more attention in the addresses of CIES presidents during the previous 15 years. Indeed the state was and remains of crucial importance, especially since, as Carnoy noted (p.555), "the way changes take place in educational systems is largely defined by the political relationship of the nation's citizenry to the state and the way that the state has organized the educational system politically." Carnoy also suggested that "even when education is partly 'private' and partly 'public,' it is the state that defines the meaning of private and public education" (555). Yet while this observation seems to apply to schooling, perhaps it does not apply so obviously to supplementary education, much of which develops in a bottom-up way.

Conclusion

The themes addressed above lead to further questions about the directions of change. Mundy (2006, 4) noted that the United Nations Declaration of Human Rights and the UNESCO Constitution were driven by "a shared social imaginary." Developments were taken to their next stages by the EFA

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agenda launched in 1990, the 2000 Millennium Development Goals (MDGs), and the successor, 2015 Sustainable Development Goals (SDGs). Yet ironically, although efforts to reduce social inequalities were a major force behind the movements, they have arguably contributed to demand for potentially unequalizing supplementary education. First, more families receive greater amounts of schooling and therefore find labor market and other opportunities within reach that would previously have been considered unattainable. During eras in which tertiary enrollment rates were low, most families had a mind-set that postsecondary education was for other families rather than for them. Similar remarks applied in earlier eras to secondary education and, before that, to primary education. The expansion of schooling through the EFA agenda and related policies has given families awareness that they can compete for opportunities, but also that they may need supplementary education to compete effectively.

Second, although international agencies, governments, and social reformers may advocate equalization of access and subsequent opportunities, families may have very different views. Recognizing fierce competition in an increasingly mobile and globalized environment, they seek ways to differentiate themselves from others. When governments work hard to equalize schooling, families turn to the less-regulated supplementary sector to secure advantages (Zhang and Bray 2017; Zhang and Yamato 2017). The inequalities thus persist, despite huge efforts by schools, policy makers, and others. It seems that when social inequalities are reduced or eliminated in one sector, they emerge in another. In some respects, patterns seem to resemble the action of a roly-poly doll, which always stands upright again after it has been pushed over.

The beginning of this essay noted Wiseman's (2013, xi) remark that "the expansion and institutionalization of supplementary education promises to usurp mass education as the most important (and still among the least understood) education phenomena of the 21st century." Repeating my own comment on Wiseman's remark, it remains to be seen whether the supplementary sector actually usurps the place of schooling, but it certainly is growing in scale and significance and remains one of the least understood education phenomena of the contemporary era. The sector is diverse in focus, format, and clientele and has corresponding diversity in implications in different locations and among different social groups. Addressing these matters prompts a call for greater attention in the field of comparative education.

References

Altinyelken, Hülya Koşar. 2013. "The Demand for Private Tutoring in Turkey: Unintended Consequences of Curriculum Reform." In *Private Tutoring across the Mediterranean: Power Dynamics, and Implications for Learning and Equity*, ed. Mark Bray, André Mazawi, and Ronald Sultana. Rotterdam: Sense.

- Apple, Michael W. 2006. Educating the 'Right' Way: Markets, Standards, God, and Inequality. 2nd ed. New York: Routledge.
- Asian Development Bank. 2008. Education and Skills: Strategies for Accelerated Development in Asia and the Pacific. Mandaluyong City: Asian Development Bank.
- Aurini, Janice, and Scott Davies. 2013. "Supplementary Education in a Changing Organizational Field: The Canadian Case." In *Out of the Shadows: The Global Intensification of Supplementary Education*, ed. Janice Aurini, Scott Davies, and Julian Dierkes. Bingley: Emerald.
- Aurini, Janice, Scott Davies, and Julian Dierkes, eds. 2013. Out of the Shadows: The Global Intensification of Supplementary Education. Bingley: Emerald.
- Baker, David P. 2014a. "Minds, Politics, and Gods in the Schooled Society: Consequences of the Education Revolution." *Comparative Education Review* 58 (1): 6–23.
- Baker, David P. 2014b. *The Schooled Society: The Educational Transformation of Global Culture.* Stanford, CA: Stanford University Press.
- Baker, David P., and Gerald K. LeTendre. 2005. *National Differences, Global Similarities:* World Culture and the Future of Schooling. Stanford, CA: Stanford University Press.
- Ball, Stephen J. 2006. Education Policy and Social Class: The Selected Works of Stephen J. Ball. Abingdon: Routledge.
- Boli, John, Francisco O. Ramirez, and John W. Meyer. 1985. "Explaining the Origins and Expansion of Mass Education." *Comparative Education Review* 29 (2): 145–70.
- Bourdieu, Pierre. 1986. "The Forms of Capital." In *Handbook of Theory and Research for the Sociology of Education*, ed. John Richardson. New York: Greenwood.
- Bray, Mark. 1996. Counting the Full Cost: Parental and Community Financing of Education in East Asia. Washington, DC: World Bank.
- Bray, Mark. 1999. The Shadow Education System: Private Tutoring and Its Implications for Planners. Paris: UNESCO International Institute for Educational Planning (IIEP).
- Bray, Mark. 2009. Confronting the Shadow Education System: What Government Policies for What Private Tutoring?. Paris: UNESCO International Institute for Educational Planning (IIEP).
- Bray, Mark. 2010. "Researching Shadow Education: Methodological Challenges and Directions." *Asia Pacific Education Review* 11 (1): 3–13.
- Bray, Mark. 2011. The Challenge of Shadow Education: Private Tutoring and Its Implications for Policy Makers in the European Union. Brussels: European Commission.
- Bray, Mark, and Magda Nutsa Kobakhidze. 2014. "Measurement Issues in Research on Shadow Education: Challenges and Pitfalls Encountered in TIMSS and PISA." *Comparative Education Review* 58 (4): 590–620.
- Bray, Mark, Magda Nutsa Kobakhidze, Liu Junyan, and Zhang Wei. 2016. "The Internal Dynamics of Privatised Public Education: Fee-Charging Supplementary Tutoring Provided by Teachers in Cambodia." *International Journal of Educational Development* 49:291–99.
- Bray, Mark, and Ora Kwo. 2014. Regulating Private Tutoring for Public Good: Policy Options for Supplementary Education in Asia. Hong Kong: Comparative Education Research Centre, The University of Hong Kong; Bangkok: UNESCO.
- Bray, Mark, Ora Kwo, and Boris Jokić, eds. 2015. Researching Private Supplementary Tutoring: Methodological Lessons from Diverse Cultures. Hong Kong: Comparative Education Research Centre, The University of Hong Kong; Dordrecht: Springer.

- Bray, Mark, and Chad Lykins. 2012. *Shadow Education: Private Tutoring and Its Implications for Policy Makers in Asia*. Mandaluyong City: Asian Development Bank; Hong Kong: Comparative Education Research Centre, The University of Hong Kong.
- Bray, Mark, André Mazawi, and Ronald Sultana, eds. 2013. Private Tutoring across the Mediterranean: Power Dynamics, and Implications for Learning and Equity. Rotterdam: Sense.
- Bray, Mark, and R. Murray Thomas. 1995. "Levels of Comparison in Educational Studies: Different Insights from Different Literatures and the Value of Multilevel Analyses." *Harvard Educational Review* 65 (3): 472–90.
- Brehm, William C., and Iveta Silova. 2014. "Hidden Privatization of Public Education in Cambodia: Equity Implications of Private Tutoring." *Journal for Educational Research Online* 6 (1): 94–116.
- Carney, Stephen, Jeremy Rappleye, and Iveta Silova. 2012. "Between Faith and Science: World Culture Theory and Comparative Education." *Comparative Education Review* 56 (3): 366–93.
- Carnoy, Martin. 2006. "Rethinking the Comparative—and the International." *Comparative Education Review* 50 (4): 551–70.
- Davis, Anna. 2015. "Almost One in Two Children in London Have a Home Tutor, Figures Reveal." *Evening Standard*, September 3. http://www.standard.co.uk/news/education/almost-half-of-children-in-london-have-a-home-tutor-figures-reveal-a2926251.html.
- Davis, Jenny. 2013. "Educational Legitimation and Parental Aspiration: Private Tutoring in Perth, Western Australia." PhD thesis, University of Western Australia.
- Dierkes, Julian. 2013. "The Insecurity Industry: Supplementary Education in Japan." In *Out of the Shadows: The Global Intensification of Supplementary Education*, ed. Janice Aurini, Scott Davies, and Julian Dierkes. Bingley: Emerald.
- Eckler, Rebecca. 2015. "The New Tutor Dynasty." *Macleans*, April 12. http://www.macleans.ca/education/the-new-tutor-dynasty.
- Entrich, Steve R. 2016. "Shadow Education in Japan: An Instrument to Neutralize Disadvantaged Family Background? The Second Schooling System's Contribution to Educational Opportunities." PhD dissertation, University of Potsdam.
- Foondun, A. Raffick. 2002. "The Issue of Private Tuition: An Analysis of the Practice in Mauritius and Selected South-East Asian Countries." *International Review of Education* 48 (6): 485–515.
- George, Cherian. 1992. "Time to Come out of the Shadows." *Straits Times* [Singapore], April 4, p. 28.
- Hartmann, Sarah. 2013. "Education 'Home Delivery' in Egypt: Private Tutoring and Social Stratification." In *Private Tutoring across the Mediterranean: Power Dynamics, and Implications for Learning and Equity*, ed. Mark Bray, André Mazawi, and Ronald Sultana. Rotterdam: Sense.
- Hemachandra, H. L. 1982. "The Growing Phenomenon of Tuition Classes: The Perceived Reasons and Some Latent Social Factors." *Sri Lanka Journal of Social Sciences*, 5 (2): 39–69.
- Ho, Nga-Hon. 2010. "Hong Kong's Shadow Education: Private Tutoring in Hong Kong." *The Hong Kong Anthropologist* 4:62–85.
- Indian Institute of Management Calcutta. 2011. Restructuring of School Education System in West Bengal. Kolkata: Indian Institute of Management Calcutta.

PRESIDENTIAL ADDRESS

- Japan Ministry of Education, Culture, Science, Sports & Technology. 2008. *Report on the Situation of Academic Learning Activities of Children*. [In Japanese.] Tokyo: Monbukagakusho Hokokusho.
- Jheng, Ying-Jie. 2015. "The Influence of Private Tutoring on Middle-Class Students' Use of In-Class Time in Formal Schools in Taiwan." *International Journal of Educational Development* 40:1–8.
- Kim, Misook. 2012. "Private Institutes as Educational Sedatives." In *No Alternative? Experiments in South Korean Education*, ed. Nancy Abelmann, Jung-An Choi, and So Jin Park. Berkeley: University of California Press.
- Kirby, Philip. 2016. Shadow Schooling: Private Tuition and Social Mobility in the UK. London: Sutton Trust.
- Koh, Aaron. 2014. "The 'Magic' of Tutorial Centres in Hong Kong: An Analysis of Media Marketing and Pedagogy in a Tutorial Centre." *International Review of Educa*tion 60 (6): 803–19.
- KOSIS (Korean Statistical Information Service). 2016. "Private Education Participation Rate by School Level." http://kosis.kr/eng/statisticsList/statisticsList_01List.jsp?vwcd=MT_ETITLE&parentId=C#SubCont.
- Koyama, Jill P. 2010. Making Failure Pay: For-Profit Tutoring, High-Stakes Testing, and Public Schools. Chicago: University of Chicago Press.
- Kumon. 2016. "Kumon Milestones." http://kumongroup.com/eng/about-kumon/background/?ID=eng_about-kumon.
- Kwo, Ora, and Mark Bray. 2011. "Facing the Shadow Education System in Hong Kong." Newsletter of the International Institute for Asian Studies (IIAS), University of Leiden, no. 56, p. 20.
- Lubienski, Christopher, and Jin Lee. 2013. "Making Markets: Policy Construction of Supplementary Education in the United States and Korea." In *Out of the Shadows: The Global Intensification of Supplementary Education*, ed. Janice Aurini, Scott Davies, and Julian Dierkes. Bingley: Emerald.
- Majumdar, Manabi. 2014. The Shadow School System and New Class Divisions in India. London: Max Weber Stiftung.
- Marimuthu, T., J. S. Singh, K. Ahmad, H. K. Lim, H. Mukherjee, S. Osman, T. Chelliah, J. R. Sharma, N. M. Salleh, L. Yong, T. L. Lim, S. Sukumaran, L. K. Thong, and W. Jamaluddin. 1991. *Extra-School Instruction, Social Equity and Educational Quality* [in Malaysia]. Singapore: International Development Research Centre.
- Maynes, Mary Jo. 1985. Schooling in Western Europe: A Social History. Albany, NY: SUNY Press.
- Meyer, John W. 1977. "The Effects of Education as an Institution." *American Journal of Sociology* 83 (1): 55–77.
- Meyer, John W., and Michael T. Hannan. 1979. National Development and the World System: Educational, Economic, and Political Change, 1950–1970. Chicago: University of Chicago Press.
- Meyer, John W., and Francisco Ramirez. 2000. "The World Institutionalization of Education." In *Discourse Formation in Comparative Education*, ed. Jürgen Schriewer. Frankfurt am Main: Peter Lang.
- Meyer, John W., Francisco O. Ramirez, and Yasemin Nuhoğlu Soysal. 1992. "World Expansion of Mass Education, 1870–1980." *Sociology of Education* 65 (2): 128–49.

Comparative Education Review

- Mori, Izumi. 2013. "Supplementary Education in the United States: Policy Context, Characteristics, and Challenges." In *Out of the Shadows: The Global Intensification of Supplementary Education*, ed. Janice Aurini, Scott Davies, and Julian Dierkes. Bingley: Emerald.
- Mori, Izumi, and David P. Baker. 2010. "The Origin of Universal Shadow Education: What the Supplemental Education Phenomenon Tells Us about the Postmodern Institution of Education." *Asia Pacific Education Review* 11 (1): 36–48.
- Mundy, Karen 2016. "Leaning In' on Education for All." *Comparative Education Review* 60 (1): 1–26.
- OECD (Organisation for Economic Co-operation and Development). 2016. *Education at a Glance: OECD Indicators*. Paris: OECD.
- Pallegedara, Asankha. 2011. Demand for Private Tuition Classes under the Free Education Policy: Evidence Based on Sri Lanka. Munich: Munich Personal RePEc Archive. http://mpra.ub.uni-muenchen.de/31969/1/MPRA_paper_31969.pdf.
- Park, Hyunjoon, Claudia Buchmann, Jaesung Choi, and Joseph J. Merry. 2016. "Learning Beyond the School Walls: Trends and Implications." *Annual Review of Sociology* 42:231–52.
- Pratham. 2015. Annual Status of Education Report 2014. Mumbai: Pratham.
- Sato, Yuji, ed. 2012. 100 Years of Juku and 50 Years of Juku Associations. [In Japanese.] Tokyo: Private Tutoring Federation.
- Sen, Amartya. 2009. "Introduction: Primary Schooling in West Bengal." In *Primary Education in West Bengal: Changes and Challenges*. Kolkata: Pratichi (India) Trust.
- Seth, Michael J. 2002. Education Fever: Society, Politics, and the Pursuit of Schooling in South Korea. Honolulu: University of Hawai'i Press.
- Silova, Iveta, and Elmina Kazimzade. 2006. "Azerbaijan." In *Education in a Hidden Marketplace: Monitoring of Private Tutoring*, ed. Iveta Silova, Virginija Būdienė, and Mark Bray. New York: Open Society Institute.
- Stevenson, David, and David P. Baker. 1992. "Shadow Education and Allocation in Formal Schooling: Transition to University in Japan." *American Journal of Sociology* 97 (6): 1639–57.
- Sunderman, Gail L. 2006. "Do Supplemental Educational Services Increase Opportunities for Minority Students?" *Phi Delta Kappan* 88 (2): 117–22.
- Tröhler, Daniel, and Thomas Lenz, eds. 2015. Trajectories in the Development of Modern School Systems: Between the National and the Global. London: Routledge.
- Tsiloglou, Lefteris. 2005. Frontistiria in Greece: Their History and People. [In Greek.] Athens: Kedros.
- UNESCO. 2015a. Education for All: What Have We Achieved? EFA Global Monitoring Report 2015. Paris: UNESCO.
- UNESCO. 2015b. Rethinking Education: Towards a Global Common Good?. Paris: UNESCO. UNESCO. 2016. Education for People and Planet: Creating Sustainable Futures for All. Global Education Monitoring Report. Paris: UNESCO.
- United Nations. 2015. "Sustainable Development Goals." http://www.un.org/sustainabledevelopment/education.
- Ventura, Alexandre, and Sunhwa Jang. 2010. "Private Tutoring through the Internet: Globalization and *Offshoring*." *Asia Pacific Education Review* 11 (1): 59–68.

PRESIDENTIAL ADDRESS

- Wang, Dan, and Mark Bray. 2016. 'When Whole-Person Development Encounters Social Stratification: Teachers' Ambivalent Attitudes toward Private Supplementary Tutoring in Hong Kong." *Asia Pacific Education Researcher* 25 (5–6): 873–81.
- Watson, Louise 2008. "Private Expectations and Public Schooling: The Growth of Private Tutoring in Australia." Conference of the Australian Association for Research in Education (AARE), November 30–December 4.
- Wiseman, Alexander W. 2013. "Foreword." In *Out of the Shadows: The Global Intensification of Supplementary Education*, ed. Janice Aurini, Scott Davies, and Julian Dierkes. Bingley: Emerald.
- Woodward, Graham. 2010. How to Start a Business as a Private Tutor. Lancashire, UK: Universe of Learning.
- World Bank. 2011. Learning for All: Investing in People's Knowledge and Skills to Promote Development. Washington. DC: World Bank.
- Yung, Kevin W. H. 2015. "Learning English in the Shadows: Understanding Chinese Learners' Experiences of Private Tutoring." *TESOL Quarterly* 49 (4): 707–32.
- Zhang, Wei, and Mark Bray. 2016. "Shadow Education: The Rise and Implications of Private Supplementary Tutoring." In *Spotlight on China: Changes in Education under China's Market Economy*, ed. Shibao Guo and Yan Guo. Rotterdam: Sense.
- Zhang, Wei, and Mark Bray. 2017. "Micro-Neoliberalism in China: Public-Private Interactions at the Confluence of Mainstream and Shadow Education." *Journal of Education Policy* 32 (1): 63–81.
- Zhang, Wei, and Yamato Yoko. 2017. "Shadow Education in East Asia: Entrenched but Evolving Private Supplementary Tutoring." In *Routledge International Handbook on Schools and Schooling in Asia*, ed. Kerry Kennedy and John C. K. Lee. London: Routledge.