Reading, Writing, and the Regrettable Status of Education Research in Comparative Politics

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Abstract

Apart from some notable exceptions, education is regrettably understudied in comparative politics. This paucity stems from both a dearth of reliable data on schooling and the fact that education raises analytical issues that fall outside the typical domain of political scientists. In light of education's crucial role in everything from citizen attitudes to earnings to economic growth, we recommend that political scientists pay more attention to education. In particular, comparative researchers should shift from an almost exclusive focus on average levels of schooling to explaining the causes and consequences of educational inequality. To that end, we provide a broad comparative framework for analyzing the politics of education. In our formulation, skill-biased technological change and factor endowments condition the extent to which firms demand human capital. The supply of skills is a function of the interests and institutions that link voters and politicians. We conclude by positing theoretical and empirical puzzles for future research.

INTRODUCTION

Education is integral to many models bearing on cross-country differences in economic growth (Mankiw et al. 1992), income distributions (Goldin & Katz 2008), and technological innovation (Benhabib & Spiegel 2005). At the individual level, school attainment is correlated with economic outcomes such as earnings and assets (Card 2001), as well as political ones such as preferences, civic engagement, and voting behavior (Galston 2001). One could argue that no single policy domain lies more clearly at the heart of the key social, political, and economic dynamics of our age. In public policy, the importance of education is revealed in steadily increasing national budget shares devoted to education (Wolff et al. 2013) and a huge emphasis among foreign aid donors on boosting student attendance and achievement. In academia, the salience of education is reflected in booming research programs in economics and sociology, where the former focuses on the relationship between school inputs and outcomes and the latter emphasizes the interplay between education and social stratification.

Political science, however, is oddly underrepresented among social science disciplines in the study of education. It is hard to identify a community of political scientists who are dedicated to the comparative study of education, and the richest body of work is rather specialized in its focus on the OECD. By contrast, it is common for economics and sociology departments to have faculty who concentrate on domestic and international education, and it is easy to identify the relevant research communities. Alvin Roth, for instance, earned 2012's Nobel Prize in Economics (as cowinner) in part because of his team's efforts to design mechanisms for allocating students to New York, Denver, and Washington, DC, public schools. Economists at MIT's Abdul Latif Jameel Poverty Action Lab have also been highly visible in bringing field experimental methods to education, boasting 95 projects in 27 countries on teacher absenteeism, low student attendance, and the like. There are no comparable initiatives in political science.

The lack of a rigorous comparative political science of education is a problem. It is an intellectual problem because education policy typically reflects the incentives of the politicians and bureaucrats who develop and deploy it. As such, most attempts to identify the causal effects of education independent of those actors are likely to suffer from bias. Because political scientists compose the community of scholars most attuned to the role of interests and institutions in shaping the behavior of political agents, a deeper understanding of education needs us. Yet the lack of larger focus on education also poses a problem for the discipline. Comparativists spend considerable energy researching subjects like redistribution and social insurance, but education is at least as significant in affecting national budget priorities and human outcomes. Scholars make vital contributions to education in other disciplines, but we inch along, despite everyone from parents to donors to firms insisting that education is central to the world's most profound social challenges.

In an effort to solicit more attention to the comparative politics of education, we organize this review around several core themes. First, we survey the existing literature and emphasize its contributions to our understanding of the politics of education. Those contributions aside, we surmise that political scientists more generally have been slow to study education because of both the poor quality of data and the fact that education implicates analytical issues—such as intrafamilial dynamics, social mobility, and residential sorting—that the discipline has been reluctant to tackle. We offer recommendations for addressing the data shortcomings and present some theoretical insights derived from other disciplines. Next, we pivot to what we perceive as the most pressing puzzle in education: the causes and consequences of educational inequality. Comparative studies overwhelmingly concentrate on mean levels of education across countries—on student spending, test scores, or other such metrics. Little research, however, broaches the

wide dispersions of schooling that exist both within and across nations, which are crucial for the well-being of citizens and societies.

Finally, we erect a framework for analyzing the politics of education in comparative perspective. In doing so, we argue that understanding the roots of educational provisions requires attention to both the demand and supply sides of skill formation. The demand for skills is driven by the technologies and factor endowments governing production and the resulting hiring behavior of firms. Therefore, we draw on literature in labor economics to explain the calculations by firms to demand skilled workers and the incentives of families to invest in schooling. The supply of skills is influenced by the interests and institutions that link voters and politicians. Here, we pay particular attention to how social mobility and degrees of decentralization over schools shape the behavior of parents and elected officials and the conditions under which they are likely to promote high-quality education for a broad swath of the population. We conclude by outlining an agenda for future research and discussing why we think the comparative political economy of education constitutes one of the most exciting frontiers for political scientists.

WHY THE PAUCITY OF RESEARCH?

Before drawing attention to the relative scarcity of studies on education in political science, we note three areas where the topic has achieved systematic attention and where researchers have made real progress. First, there exists a long vein of research on the politics of school reform in the United States (Hess 1999, Peterson & West 2003, Howell 2005, Henig 2013). That tradition continues today in centers such as Harvard's Program on Education Policy and Governance, which assembles an interdisciplinary group of scholars, including political scientists, to study topics such as No Child Left Behind, high-stakes testing, judicial involvement in schools, and "equity and adequacy" in school financing. These efforts generally employ sophisticated research designs and act as exemplars for comparative work by focusing on student achievement gaps and the barriers that induce poor and minority youth to disproportionately attend low-quality, under-resourced schools.

Although scholars trace such inequities to many factors, perhaps the most cited is the decentralized nature of American schooling (Fischel 2001, Biddle & Berliner 2002). The logic is that funding schools through local property taxes and granting responsibility for resource allocations to locally elected boards tends to exacerbate educational inequality, particularly against a backdrop of high residential sorting by class and race. This literature informs our own discussion below regarding the salience of where political authority for education is vested (e.g., locally, nationally) and alerts us to the key role of geography in conditioning the incentives of voters and politicians. Yet examining the US education system by itself is limiting. Many features of American education bear little resemblance to those in the rest of the world, and the country's acute social stratification hinders our ability to generalize about the impact of local government autonomy in contexts where race, income, and geography are not so tightly interwoven.

Second, a rich literature on "varieties of capitalism" (VOC) puts skills (if not exactly education) at the center of explaining variation among OECD countries in the nature of comparative advantage (Hall & Soskice 2001, Thelen 2004, Iversen & Stephens 2008, Busemeyer et al. 2011, Busemeyer & Trampusch 2011a, Busemeyer & Jensen 2012). Central to the VOC framework is whether countries rely primarily on vocational or general (i.e., academic) skill systems and how this distinction shapes and complements other areas of national political economies, including unionization, wage distributions, social insurance, and economic competitiveness. Whereas vocational systems (e.g., the Nordic countries) foster rigid labor markets that warrant extensive job insurance and generate sectors requiring "cospecific" investments by firms and workers, general

skills economies (e.g., the Anglo-Saxon nations) promote fluid labor markets that produce sectors with little firm–worker coordination.

The main benefit of the VOC approach is to frame the political evolution of school systems not as the result of isolated government policies but as inextricably fused to a country's broader economic and social environment. This literature offers a useful lens for analyzing skill formation in advanced industrialized democracies, and its emphasis on the hiring behavior of firms and labor market dynamics informs our later discussion of skill-biased technological change and factor endowments. Yet VOC's central advantage—how positive feedback loops ingrain a nation's skill system in its larger productive structure (Thelen 2004, Busemeyer 2009a)—is also a limitation. The notion of reinforcing complementarities offers little room to parse significant educational change in the OECD, including reforms aimed at school choice and curricular laws. Furthermore, VOC's emphasis on unions, partisanship, and social insurance limits its applicability to many nations outside the United States and Western Europe, where parties are less programmatic, social insurance is not as extensive, and unions are weaker.

Third—and most closely approximating a true comparative politics of education—a promising literature has emerged that we can broadly divide into two strands. One focuses on the coalitions that arise among partisan (Boix 1997; Ansell 2008, 2010; Busemeyer 2009b; Busemeyer et al. 2013), economic (Rajan 2006, Kosack 2012), religious (Ansell & Lindvall 2013), and other groups. The presumption—which we build on in our own approach below—is that parents naturally prefer schools that benefit their offspring. How successfully these groups organize dictates how much education society receives. The second strand of literature explores the role of regime type and finds that democracies generally promote higher levels of education than nondemocracies do (Brown & Hunter 1999, 2004; Kaufman & Segura-Ubiergo 2001; Lake & Baum 2001; Stasavage 2005; Ansell 2008). The reason—which we also take as a starting point below—is that elections make incumbents accountable to voters, and because education is universally desired by parents, politicians respond by furnishing it.

The chief contribution of this work is to shed light on how voters rally around educational goals and how democratic institutions induce politicians to respond to their constituencies. Yet this literature mostly leaves unresolved how education is distributed both within and across societies. Although democracies may deliver higher aggregate levels of education, they vary markedly in how schooling is distributed. Many factors could make citizens value education politically more or less than other public goods, and many institutions—e.g., district magnitude, separation of powers, the courts, federalism and decentralization—might affect how politicians respond to different parts of the electorate. The challenge is to discern what variables incentivize citizens to vote and lobby for schooling and politicians to provide education to narrow or broad sets of voters.

Notwithstanding the valuable insights from the above research, education gets much shorter shrift in political science than in cognate disciplines.[1] **Figure 1** compares the number of studies on education that appeared in the flagship journals of political science versus economics and sociology from 1990 to 2013. The top three journals in economics and sociology publish a significantly higher percentage of articles on education than those in political science.[2] But even these numbers

[1]We are not the first to stress this lack of systematic research into the politics of education. Edlefson (2006, p. 772), for example, states that the politics of education "is more appropriately thought of as a subfield of education, rather than of political science." Jakobi et al. (2010, p. xix) call the politics of education a "neglected field," and Busemeyer & Trampusch (2011b, p. 413) decry that "education has long been a neglected subject in political science."

[2]To arrive at the number of articles with "education" in the title as a percentage of the total number of articles published in a journal from 1990 to 2013, we relied on JSTOR's "advanced search function" (**http://www.jstor.org/action/showAdvancedSearch**). We derived the numerator by clicking on a specified journal and searching "articles" containing the

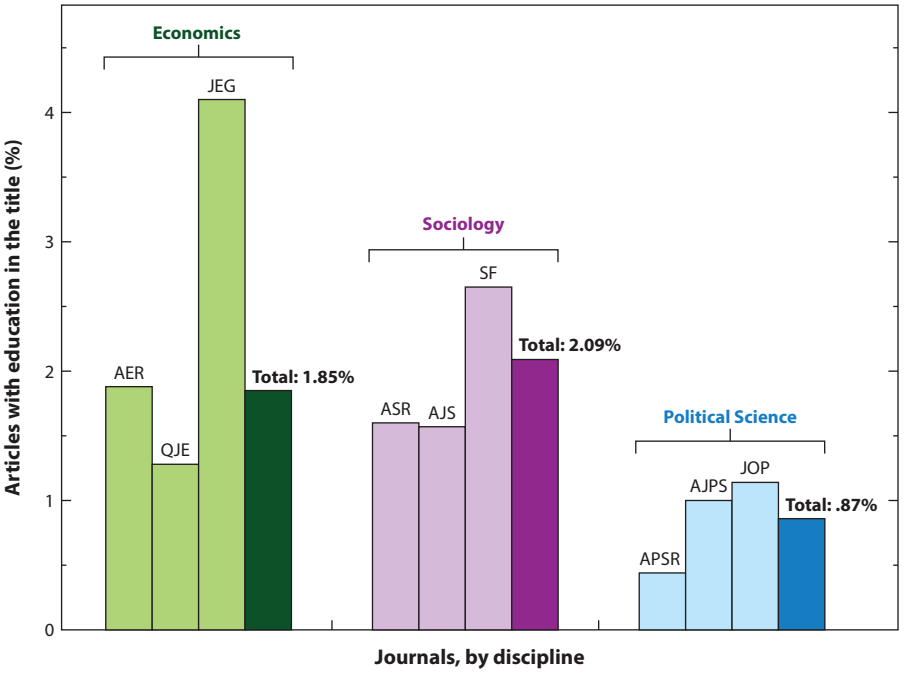

Figure 1

Percentage of articles in top journals with "education" in the title, 1990–2013. In economics, the journals searched were *American Economic Review* (AER), *Quarterly Journal of Economics* (QJE), and *Journal of Economic Growth* (JEG). Journals in sociology were *American Sociological Review* (ASR), *American Journal of Sociology* (AJS), and *Social Forces* (SF). Journals in political science were *American Political Science Review* (APSR), *American Journal of Political Science* (AJPS), and *Journal of Politics* (JOP).

greatly underestimate the true differentials. Unlike political science, economics and sociology also boast several of their own journals dedicated exclusively to the study of education, including the *Economics of Education Review*, *Education Economics*, *Sociology of Education*, and the *Journal of Education and Sociology*, among others.

Why this paucity in political science? For comparativists, our sense is that two main hurdles stand in the way. The first is the inadequacy of data, which has historically plagued most cross-country and much within-country research. Although a problem not confined to the developing world, educational data on low-income countries are particularly sparse. The World Bank's World Development Indicators dataset, for instance, lacks even basic figures—such as educational expenditures, male to female enrollment ratios, and secondary completion rates—for many countries, and data availability falls off precipitously as we look back in time. **Figure 2** shows the percentage of "cells" filled out of eight key educational indicators for non-OECD countries from 1970 to 2011. Although the overall trend is toward increased data reporting [likely the result of multilateral bodies imposing data transparency as a condition for aid financing (Ross 2006)], one can see the

word "education" in the "item title" during the relevant timeframe. We obtained the denominator by entering the name of the journal in quotation marks in the "full text" search item and including that journal's ISSN/ISBN number. We again limited this search to "articles" in the designated time period. The only journal for which JSTOR did not include an identifying ISSN/ISBN was the *American Journal of Political Science*, so we searched for the number of articles published in *AJPS* through the Wiley Online Library (**http://onlinelibrary.wiley.com/advanced/search**), which houses it.

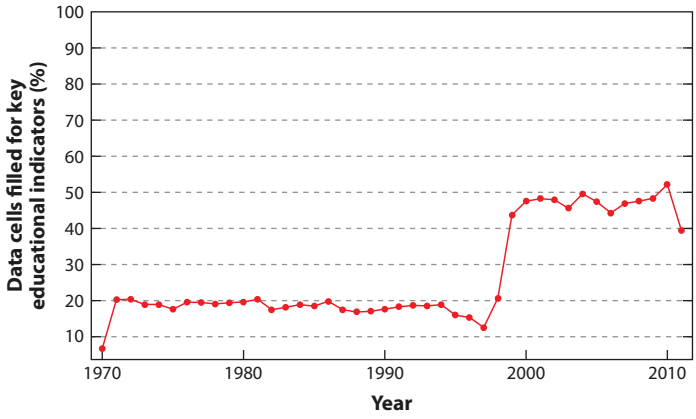

Figure 2

Percentage of data cells filled with regard to eight World Bank World Development Indicators, non-OECD countries, 1970–2011. The eight indicators are as follows: public current expenditure on education as a percentage of total current government expenditure; net enrollment rate (secondary, all programs, total); school life expectancy in years (primary to secondary, total); percentage of repeaters in secondary (all grades, total); out-of-school children of lower secondary school age (total); adult (age 15+) literacy rate as a percentage (total); duration of compulsory education; and gender parity index for gross enrollment ratio (secondary, all programs).

gaping holes in the data. These voids are prevalent at all levels of schooling, from educational metrics covering young children to those on adults.

Aggravating this problem is that most nations do not collect educational data that permit more nuanced comparisons beyond blunt measures of per-pupil expenditures and grade attainment. For instance, few if any datasets provide information on methods of financing education, standards for hiring teachers, regulations governing schools, or the nature of student assessments.[3] Nor do abundant data exist on the role of subnational governments in education—a void that looms large in light of global trends toward federalism and decentralization.[4] Data on achievement are also scant in all but rich, Western democracies. The majority of countries in sub-Saharan Africa do not conduct a national learning assessment. In Central and Eastern Europe, Central Asia, the Arab states, East Asia, the Pacific, South and West Asia, and Latin America and the Caribbean, barely half do (Van Der Gaag & Adams 2010). The Program for International Student Assessment (PISA) and the Trends in International Math and Science Study are in the midst of revolutionizing achievement data around the world, but much work is still to be done.

In addition, comparative household surveys—which explicitly ask about political preferences over education or parental involvement in school governance—are almost nonexistent. The International Social Survey Program's (ISSP) Role of Government Survey, which has been analyzed in a small number of studies (Busemeyer 2012, 2013), is one exception. But it only inquires whether citizens prefer more spending on schools. Because most respondents answer in the affirmative,

[3]The OECD's annual *Education at a Glance* report includes data on the sources (local, regional, central, etc.) of funding, operation, and management of schools. But this information is limited to a small number of countries and years, making it difficult to conduct cross-national, time-series analyses.

[4]As a consequence, most studies on educational decentralization tend only to look at one or a few countries. Cross-national studies generally employ data from non-education-specific sources (e.g., the International Monetary Fund's Government Finance Statistics Database, Regional Authority Index).

there is reason to doubt the utility of these responses.[5] Although many developed countries carry out their own large-scale surveys on education (e.g., the National Longitudinal Youth Survey in the United States, the Longitudinal Study of Young People in England), these typically do not ask parents about politics and are instead only concerned with family behavior (e.g., time spent on homework, extracurricular activities, academic interests). Consequently, they offer little opportunity to discover which voters prioritize education politically and how they express their views.[6]

Still, the low availability and quality of within- and cross-country data are not good reasons for political scientists to ignore education. Indeed, the absence of easily accessible data has not deterred other social science disciplines from undertaking important work. Economists, for example, regularly compile data and extract novel insights from sources such as income surveys not originally designed to study education. The Barro-Lee Educational Attainment Dataset is a case in point: it constructs school attainment estimates from household surveys for 146 countries from 1950 to 2010, disaggregated by sex and age cohorts. The International Institute for Applied Systems Analysis and the Vienna Institute of Demography maintain a similar dataset that extrapolates attainment estimates through 2050. Though still focused on rather rudimentary outcome measures, these efforts provide examples of what political scientists might do with existing sources to gain leverage on understanding education.

At a micro level, scholars in other disciplines also routinely turn to quasi-experiments (Abdulkadiroğlu et al. 2009, Ahn & Vigdor 2013) and randomized controlled trials (Banerjee 2007, Duflo et al. 2012) to collect original data on the impact of school interventions and characteristics. Although existing work largely assesses pedagogical and curricular controversies (e.g., class size, school assignments, teacher quality) that are somewhat removed from the interests of most political scientists, these research designs also offer the potential to inform debates related to civic participation in schools, educational governance, and so forth. Today, scholars increasingly join forces with governments, international donors, nongovernmental bodies, and the private sector to carry out field experiments, expanding the types of questions that can be examined. The wave of decentralization sweeping the globe, moreover, offers a wealth of natural experiments for evaluating how local politics shapes education (Galiani et al. 2008).

For political scientists to capitalize on new data, however, will require commensurate attention to theory. Here, we find a second reason why the discipline has been reluctant to study education: some analytical issues that are foundational to education—and distinguish it from other policy spheres—are rarely addressed within the broader political science literature. At least three issues stand out. First, educational choices reflect intrafamilial dynamics. Parents must make decisions for children, which involve long-term calculations bearing on foregone and future wages (Udry 2006), prospects for marriage and gender dynamics (Chiappori et al. 2009), household debt (where schools charge fees or tuition) (Evans et al. 2009), and the like. Although well-established research exists on the sociology (McLanahan & Percheski 2008) and economics of the family (Guryan et al. 2008), political scientists conduct little work in this area, including how intrafamilial dynamics influence voter demand for government effort.

[5]In the consolidated ISSP Quality of Government Survey covering 1985, 1990, 1996, and 2006, 78% of respondents are in favor of additional spending on education. There are, however, interesting cross-national differences. Whereas only 44% of Finlanders prefer more spending, for instance, 96% of Chileans and Dominicans prefer more. This could be attributable to the fact that some countries already spend more generously on education.

[6]One promising new project hosted by the European Research Council, "Investing in Education in Europe: Attitudes, Politics and Policies," currently has surveys up and running in eight countries that ask questions "focusing on individual preferences towards investments on education, the distribution of expenditure across different education sectors, and the governance of education systems" (**http://www.polver.uni-konstanz.de/en/busemeyer/research/erc-project/**). Its scheduled completion is 2018.

Second, how families think about education is likely shaped by perceptions of social mobility. In sociology, research on social stratification has long taken the role of education seriously (Goldthorpe 1987). In psychology, a considerable body of work examines how envy and esteem condition educational preferences and behavior (Ross & Broh 2000). A branch of economics also investigates how education influences prospects for social mobility (Davies et al. 2005) and inequality (Chusseau & Hellier 2012), which, in turn, affect preferences for taxing and spending (Benabou & Ok 2001). Although political scientists seldom explore such issues, social mobility probably figures in how parents and young adults evaluate the returns to schooling. Where social mobility is low (or perceived to be low), families are likely to believe that success is a result of luck rather than educational effort. Where social mobility is high, education may form a linchpin for success, and parents seem more likely to be politically active on behalf of schools.

Last, educational outcomes in many countries exhibit strong spatial clustering. Given that individuals of similar income, race, and ethnicity tend to group together geographically, and these traits are often collinear with educational outcomes (Coleman 1988, Sun 1999), it is hard to disentangle their independent effects. Particularly where education is financed locally or subject to market pressures, Tiebout forces are apt to be strong. Economists model how the spatial clustering of voters affects education (Epple & Romano 1998), but they mostly ignore political dynamics and do not untangle the ostensibly endogenous relationships between household preferences and institutions such as decentralized governance. When political scientists do study such issues, it is mostly in the context of housing for the poor (Rodden 2011), rather than as a more general effort to understand policies bearing on residential choices and the quality of local schools.

If political scientists are to make innovative contributions to the comparative study of education, they will need to begin filling the data void and trudging into unfamiliar theoretical territory. Empirically, one priority is to introduce original surveys, experiments, and large-scale data collection efforts that speak to the role of political actors, interests, and incentives. Opportunities may also arise to mine existing datasets that were not originally intended to study education but that allow for meaningful investigations into how politics influences educational phenomena. With regard to theory building, political scientists would benefit from serious engagement with work in sociology and economics on the family, social mobility, and residential sorting. The point is not to adopt theories uncritically. Rather, it is that being open to insights from other fields can provide excellent starting points for contemplating how politics shapes educational inputs and outputs.

ACHIEVEMENT GAPS AND EDUCATIONAL DISTRIBUTIONS

To the extent that a comparative politics of education exists, it focuses overwhelmingly on cross-country differences in mean budget shares and average levels of per-pupil spending and student achievement. This is true when education is the dependent variable, and the focus is on tracing schooling to such factors as regime type (Brown & Hunter 1999, 2004; Kaufman & Segura-Ubiergo 2001; Lake & Baum 2001; Stasavage 2005; Ansell 2008), the role of firms (Wolf 2009, Jensen 2011, Kosack 2012), partisanship (Boix 1997, Iversen & Stephens 2008, Busemeyer 2009b, Ansell 2010, Rauh et al. 2011, Busemeyer et al. 2013), and citizen demographics (Poterba 1997, Busemeyer 2007, Cattaneo & Wolter 2009). It is also the case when education is the independent variable, and the goal is to explain the impact of schooling on dynamics like democracy (Barro 1999, Glaeser et al. 2007), economic growth (Hanushek & Kimko 2000, Engelbrecht 2003), and conflict (Thyne 2006, Østby & Urdal 2011).

Average levels of schooling are important, to be sure. They provide an overall indication of how much governments invest in human capital, and political scientists would be well served to concentrate more on both their causes and effects. But they also conceal something critical: how

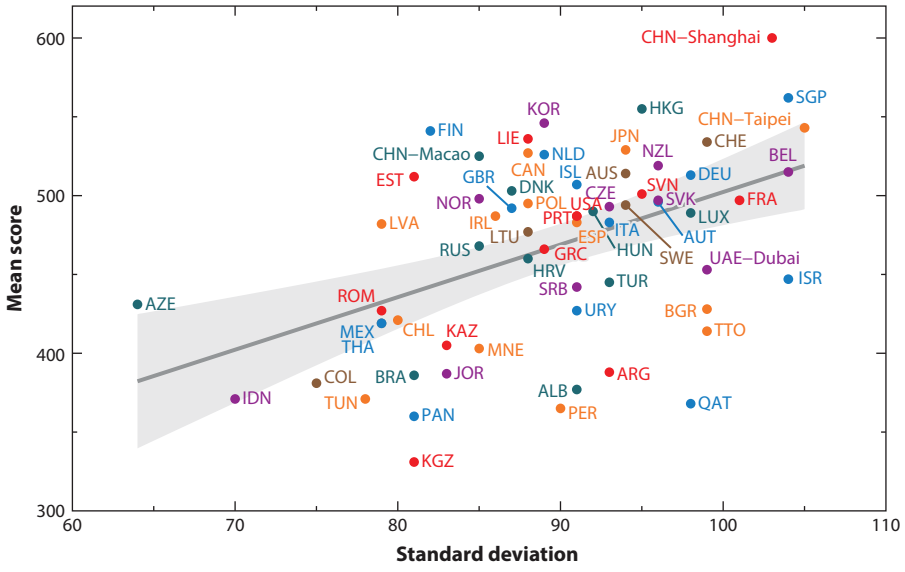

Figure 3

Educational averages versus distributions of 2009 Program for International Student Assessment math scores.

education is distributed within a society and the size of corresponding achievement gaps. It is entirely possible, after all, for some countries to have high or low mean levels of schooling while maintaining very equal or unequal school systems. The sources of these disparities may differ—and fall along economic, racial, ethnic, religious, gender, or other lines—but the result is the same: some young people enjoy access to high-quality schools, while others are relegated to abysmal classrooms (or none at all) that offer little hope for advancement.

Educational inequality matters because it reveals a country's priorities and molds its economic and social future. If we are concerned with whether marginalized citizens can acquire the skills to improve their life prospects, then it is ultimately dispersions of schooling—not just averages—that should be the center of our attention. Research in economics also offers reason to believe that educational inequality has important implications for everything from income inequality to economic growth to political empowerment (Bourguignon & Verdier 2000, Castelló-Climent 2008, Sauer & Zagler 2012). Koichiro Matsuura, the former director-general of UNESCO, laments that "[u]nequal opportunities for education fuel poverty, hunger, and child mortality, and reduce prospects for economic growth" (EFA 2009). Thomas et al. (2001, p. 3) similarly posit, "If people's abilities are normally distributed, then a skewed distribution of education opportunities represents large welfare losses."[7]

To see why educational averages do not capture educational inequality, consider **Figure 3**, which plots average and standard deviations of math scores on PISA for 65 countries. Obviously, there is some positive relationship between mean scores and their variance. Nevertheless, most of the data points fall outside the 95% confidence interval. Students in Azerbaijan and Bulgaria, for instance, both have average scores of about 430. But the standard deviation of Bulgaria's scores

[7]This does not mean that all educational inequality is bad. Indeed, some disparities may be essential to give the most talented students the resources to achieve at elite levels and to power economic competitiveness. But at a minimum, most experts agree that striving for a baseline amount of educational opportunity is a worthy aim.

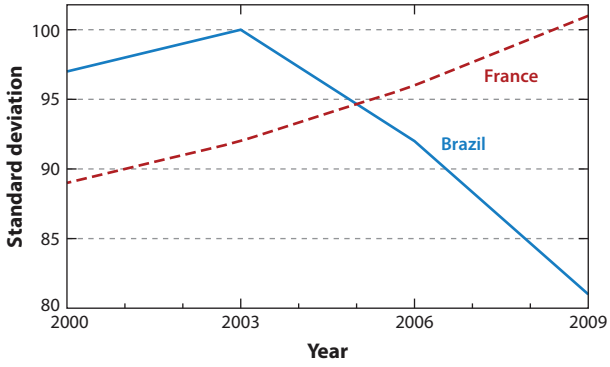

Figure 4

Educational distributions over time: Program for International Student Assessment math scores in France (*red dashed line*) versus Brazil (*blue solid line*), 2000–2009.

is 35 points higher than Azerbaijan's—meaning that Bulgaria has both more over- and more under-performing students relative to Azerbaijan. Or take Tunisia and Qatar. Students in both countries post average scores of about 370, yet the standard deviation of these scores is 20 points higher in Qatar. Although standard deviations are but one measure of educational inequality, it is evident that average levels of schooling only modestly correlate with distributions (the bivariate correlation is 0.47) and that stark differences emerge in how schooling is dispersed.

Just as crucial as variation in educational inequality across countries is what happens within them. As demonstrated in **Figure 4**, which charts the standard deviations in PISA math scores for Brazil and France from 2000 through 2009, distributions of student achievement have evened out in some countries but not others. Brazil, for example, has experienced a dramatic shrinking of the disparity between higher- and lower-performing students, whereas France has seen this gap widen. Achievement gaps, which capture systematic differences in performance across student subgroups (by race, class, etc.) are also subject to fluctuations. In the United States, for instance, the black–white achievement gap in math plummeted in the 1980s, rose sharply in the 1990s, and plateaued in the 2000s (Hanushek 2010). Achievement gaps can also vary across a country's geographic regions. In Maine, for instance, the average high school graduation rate for whites is 54.5 percentage points higher than for blacks, whereas blacks actually have a 1.0 percentage point higher graduation rate than whites in Vermont (EPE Research Center 2013).

What explains both within- and cross-country differences in educational inequality? To the extent that scholars address distributions—rather than average levels of schooling—it is typically only to concede how little we actually know about the topic. Hess & McGuinn (2005, p. 296), for example, note that even as the US federal government embarked on major reform legislation aimed at closing student achievement gaps in the 20th century, "there remained much disagreement over the causes of poverty and educational inequality and what the government should do to address them." "[S]ocial science simply has not found the best solutions or a unified model [to the problem of educational inequality]," notes Portes (2005, p. 6). According to Holsinger & Jacob (2009, p. 2), "educational inequality is highly variable in today's world, thus inviting an explanation to account for this variation." Most recently, Bhopal & Maylor (2014, p. 3) argue that "education and notions of inequality are controversial subjects in which difficult and contested discourses are the norm."

Unfortunately, standard narratives do not get us far in explaining educational distributions. Political scientists generally start with the premises that everyone wants more and better education and that elected officials respond to their electorates to win elections. But, taken together, these

assumptions pose a puzzle: if education is universally valued and politicians serve their constituents, why do we see divergence in educational inequality both within and across countries? From our perspective, answering this conundrum is a—and perhaps the—key challenge for comparativists studying the politics of education. It requires rethinking how interests and institutions combine to shape allocations of schooling. In particular, which parents vote and lobby for education, and under what circumstances? Additionally, what factors condition how politicians respond to their electorates?

The first question is perplexing because it seems axiomatic that all parents want a better life for their children. This makes it hard to fathom why everyone does not make education a political priority. Keefer & Khemani (2003, p. 6), for example, insist that "ignorance of the value of education seems not to be a sustainable thesis." But merely asserting that citizens desire education says nothing about the intensity of their political demand for it. The provision of education comes at the expense of other forms of consumption and government programs. Voting and lobbying for education require time, money, and political savvy. Some households may also gain more from public investments in schooling than others. To discern how these dynamics play out, we need to delve deeper into which voters—when faced with trade-offs about how public dollars should be spent—will champion schooling.

The second question—how politicians respond to their electorates—is also vexing because a long tradition of democratic theory suggests that politicians should appeal to their constituents to win elections. This leads some scholars to declare that investments in education and other policies can be understood "without any need to appeal to. . .political institutions" (Rajan 2006)—or that democracy, by itself, should be enough to motivate politicians to disburse education generously. Yet the idea that elected officials will always court voters contradicts much of what we know motivates politicians. Institutions determine which voting blocs matter most, and the very notion of "swing voters" and "core constituencies" implies that some groups hold disproportionate sway in the political process. To see when politicians will cater to some voters over others, we need to identify the constraints that public officials face with regard to schools and how these arrangements influence their behavior.

A UNIFIED FRAMEWORK

How can comparativists advance the study of education? To address the main theoretical and empirical puzzles laid out above, we argue that political scientists should focus on two factors: the demand for skills that underpin employment opportunities and the supply of skills provided by the education system. The demand for skills implicates the incentives of firms to hire skilled workers and those of parents and students to accrue education; it is largely, but not solely, a market outcome, so our discussion builds on extant work in labor economics. The supply of skills, by comparison, is explicitly political: this is where the interests of voters and politicians converge to define the nature of school systems. Our account concentrates on democracies, and emphasizes social mobility as the central determinant of when families desire high-quality education and the role of decentralization in conditioning how elected officials respond.

The Demand for Skills

We begin with how the demand for labor shapes household decisions to accumulate skills. Generally speaking, the incentives to acquire education are a time-discounted function of the expected wages pursuant to schooling and its costs. Such wages reflect how employers value the skills associated with education. Labor economists generally agree that, in recent decades, the most crucial dynamic underpinning the demand for skills has been skill-biased technological change (SBTC)

(Acemoglu 1998, Galor & Moav 2000).[8] Because much technological progress is skill complementing and labor replacing, it tends to increase the demand for skilled workers at the expense of the unskilled. The ensuing wage premium partly explains rising educational attainment across the world, and although disagreements persist about the precise mechanisms at work, the consensus is that SBTC lies at the core of recent increases in global income inequality (Autor et al. 1998, Goos & Manning 2007).

Although research on SBTC originated in work on the OECD that was concerned with structural shifts from industrial to service economies, two generalizable facts have become clear. First, the effects of SBTC are not confined to wealthy, Western economies (Goldberg & Pavcnik 2007). A naïve interpretation of the Stolper-Samuelson theorem led many experts to expect an uptick in the returns to unskilled labor in the developing world's labor-abundant economies, particularly those that liberalized trade. Yet the skill premium has risen for nearly all developing countries, and most have seen growing shares of skilled workers (Harrison & Hanson 1999, Kijima 2006). In addition, SBTC works primarily through skill upgrading within industries rather than structural shifts across industries, meaning that technological change has its primary impact without inducing a sectoral reallocation of capital and labor (Berman et al. 1998, Hendricks 2011). Put differently, SBTC does not change what countries produce so much as how they produce it.

These observations matter for education because they underscore that the productive capabilities of countries influence how SBTC is manifest in labor markets. What nations produce and trade depends a great deal on their comparative advantage (Golub & Hsieh 2000, Costinot & Donaldson 2012), and their comparative advantage shapes the demand for different levels and kinds of skills. Thus, whether a country produces microprocessors (e.g., South Korea and Costa Rica) or oil (e.g., Venezuela and Nigeria) or agricultural commodities (e.g., Argentina and Rwanda) conditions the nature of SBTC and the incentives of households to pursue education. Where capital-intensive natural resource exploitation is dominant, there are limited employment opportunities and few incentives for the accumulation of skills. The opposite is true where factor endowments require a dynamic pool of skilled workers. As Leamer et al. (1999, p. 5) summarize, "Some endowments attract sectors promoting equality and education and others do not."

The context-specific nature of SBTC implies the need for exploring how a host of public policies affect technological and skill upgrading in different areas of the globe. The VOC literature—which stresses how affinities between social protection, unionization, and workforce training shape the capacity of firms to compete in different sectors and the incentives of workers to pursue general or vocational skills—provides a useful guide for how such research might progress outside the OECD (Estevez-Abe et al. 2001, Iversen & Soskice 2010). In developing nations, for example, grasping how related policy levers influence firm hiring and associated demand for human capital likely requires examining competition, regulatory, and innovation policies. Empirically, it calls for investigating the politics of company hiring and research and development strategies, which can be achieved with underexploited firm surveys by the World Bank, the European Commission, and others.[9]

One feature of the broader economy that seems particularly likely to affect the demand for skills is government intervention in labor markets. In the OECD, active labor market policies are part and parcel of education systems that emphasize specific skills (Iversen 2005). Although few such policies exist elsewhere, labor market regulations are extensive in many developing countries,

[8] For a critique, see Leamer & Collins (1998) and the response by Krugman (2000).

[9] See the World Bank's "Enterprise Surveys" (**http://www.enterprisesurveys.org/**) and the European Commission's "Community Innovation Survey" project (**http://epp.eurostat.ec.europa.eu/portal/page/portal/microdata/cis**).

where they serve to fortify barriers to labor market entry and produce high levels of economic informality (Heckman & Pagés 2003, Wibbels 2012). Given their small size and weak capacity to borrow, informal firms tend to encounter difficulty in making capital investments, rely on antiquated modes of production, and exhibit limited demand for skilled workers. As a result, weak technology and low incentives for educational accumulation go hand in hand, and labor market regulations that promote informality ought to dampen the demand for skills.

Despite the importance of SBTC and related processes in driving hiring decisions, the demand for skills is not exclusively a market outcome. Because education has distributive implications, economic and political agents can have preferences over skills that deviate from best responses to market signals. At a general level, some well-endowed agents might block the implementation of policies that encourage the acquisition of human capital. In some theoretical models, this results from traditional economic elites resisting modernization (Bourguignon & Verdier 2000), and one can find supporting evidence from the US South (Engerman & Sokoloff 1994) and India (Lindert 2003). Schneider & Soskice (2011) also claim that in Latin America, regulation that shields low-skilled domestic industries from competition entrenches a vicious cycle that obviates technological upgrading and thwarts the incentives of households to invest in schooling.

Yet the general demand for skills is not enough to explain educational policies and attainment. In Goldin & Katz's (2008) sweeping history of education and earnings inequality in the United States, for instance, the most important development in recent decades has occurred on the supply side of skills. While technological change rose steadily over the course of the twentieth century, the supply of US skilled workers slowed in the 1970s. The result was a mismatch: more high-skilled jobs than available high-skilled workers. This, coupled with SBTC, explains the burgeoning skill premium and wage inequality that began in the 1980s.[10] In this case, the demand for skills continued upward, but the supply of skills stagnated as young people resisted the monetary incentives to remain in school. Altonji et al. (2008) describe this shortfall as "among the most important empirical issues facing labour economists today."

Scholars have offered several theories to explain why rising skill premia are not always associated with larger numbers of students staying in school longer, particularly in the United States and parts of Europe. These include the possibility that youth face financial constraints (Kane 1996) or that they or their parents are not cognizant of labor market trends that attach greater rewards to skills acquired beyond high school (Avery & Kane 2004, Rouse 2004). Some scholars also offer cultural explanations that focus on the possibility that poor or minority students often lack the "soft skills" to compete for high-paying, white-collar jobs (Heckman & Kautz 2012). Each of these arguments likely holds some merit, but conspicuously absent from the discussion are political dynamics. Clearly, politics mediates the availability and quality of education. Because the supply of educated workers is a product of the education system, understanding it requires that we turn from the demand for skills to its provision via the political system.

The Supply of Skills

Education is a classic valence issue. Almost no citizens purport to want less education, and politicians always declare it a top priority. In some societies, the result is well-funded, high-performing schools that offer students the opportunity to advance in work and life. Parents seek out these

[10]Goldin & Katz (2008) show that the annual rate of technological change was essentially the same in the period from 1960 to 1980 (3.9%) as from 1980 to 2005 (3.8%). By contrast, the supply of skills fell from nearly 4% per year in the first period to just over 2% in the latter period.

communities, and politicians get reelected based on improving—or sustaining—the quality of local schools. Yet in other societies, education does not elicit the same attention, despite promises to the contrary. Alternative policies (or tax cuts) take precedence, and schools are left crumbling, with failing teachers, underfunded classrooms, and low academic standards. If education is inherently political, then the key to understanding these differences lies in how citizens vote and lobby for education, and to whom politicians are held accountable.

Most studies assume that all constituencies want a robust pipeline of education, since the returns to schooling are positive. Yet this assumption is too simple. Conditional on labor market demand and personal characteristics, the marginal returns to education may be higher for some workers than others. Thus, the question becomes which parents will prioritize education politically, when not all children benefit equally from educational investments and when such investments come at the expense of other public outlays (e.g., means-tested entitlements). We argue that this choice ultimately reduces to a cost-benefit analysis: revitalizing schools is desirable, but voters will actively support education only if the long-term labor market gains for children outweigh the short-term benefits from other social spending. This intuition builds on seminal models of human capital formation (Becker & Tomes 1979), which suggest that parents care both about their own utility and that of their children.

Political demand for education should thus be strongly shaped by perceptions of social mobility. Extensive research in economics shows that prospects for upward mobility vary substantially across societies (Solon 2002, Corak 2013). **Figure 5**, for example, displays cross-national differences in the most common indicator of social mobility—intergenerational earnings elasticity—which reveals the correlation between a child's income and that of his or her parents. A strong correlation suggests that one's station in life is heavily determined by family background (low social mobility), whereas a weak correlation implies that children can more readily rise and fall in the income distribution (high social mobility). Where social mobility is low (as in the United Kingdom and Italy), poor parents should be less likely to endorse education as a political issue because the odds of their children scaling the professional ladder are low. By contrast, where social mobility is high (as in Denmark and Norway), everyone should see a promising path for their children and so value education politically.

How much voters champion schools, however, is only part of the equation. In the presence of residential sorting by income and class, we claim that politicians will court voters differently depending on political institutions. Given that education is delivered via local schools in local communities, arguably the most important institutional feature is the degree of decentralization over education. A recent torrent of research on decentralization has coincided with global trends toward devolving authority over government services to regional and local governments (Rodden 2004). In theory, decentralization can bring education "closer to the people," spur innovation, and strengthen accountability (Tiebout 1956, Oates 1972). Yet in actuality, it can also exacerbate inequalities and undermine the quality of public goods when some politicians face limited electoral incentives to provide effective services (Obinger et al. 2005, Volden 2005).

On balance, decentralization over schools will encourage politicians to prioritize citizens in their home district. When decision makers are physically proximate, voters can more closely monitor their actions and, if dissatisfied, either vote the offending politician out of office or drain the tax base by moving. Although this can promote efficiency writ large, it can also yield highly different mixes of policy and spending, particularly in the face of heterogeneous preferences. By contrast, centralized systems are more likely to play an equalizing role in the allocation of education, since politicians are forced to compromise and balance the priorities of citizens throughout a country. The implication is that countries with low social mobility (inducing different voter preferences

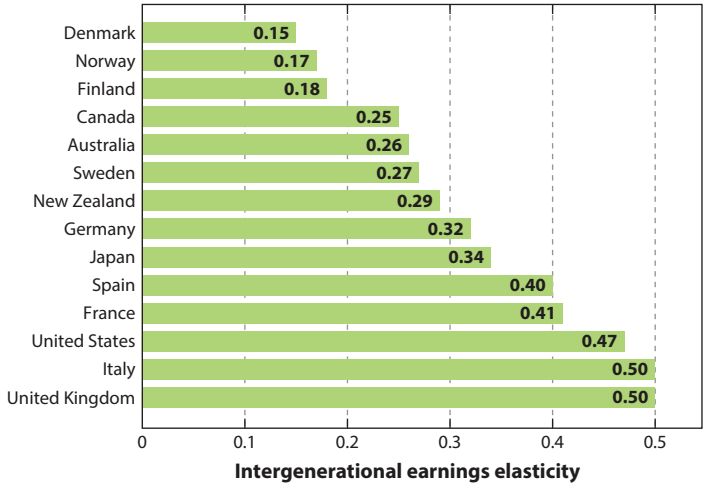

Figure 5

Social mobility in 14 OECD countries (Corak 2012). Intergenerational earnings elasticity refers to the ratio of income that is passed on from parents to their children. Lower scores reflect higher intergenerational mobility.

over education) and decentralized arrangements (promoting responsiveness to geographically concentrated interests) are most likely to experience high educational inequality.

We believe that our framework for examining the demand and supply sides of skill formation can serve as a template for how comparative research on educational politics might progress. The demand for skills depends on the incentives of firms to hire skilled workers; this affects the expected earnings that families derive from schools and maps onto decisions by young people and their families to accrue education. The supply of skills deals with the interests and institutions that link voters and politicians; this reflects how social mobility conditions the preferences of parents to endorse education politically and how decentralization mediates the responsiveness of politicians to parental preferences. Understanding how these forces interact is crucial for probing the nexus of educational politics, spending, attendance, and actual student learning.

Our framework can help political scientists untangle some of the endogenous webs inherent in education by exploiting exogenous variation along its two dimensions. On the demand side, for example, accession to the World Trade Organization and the ratification of bilateral investment treaties may offer opportunities to focus on shocks that fundamentally changed the education–earnings structure. On the supply side, one could similarly identify shocks that led to an abrupt change in social mobility and measure its impact on voter preferences over schools. Examples might include the 1964 Civil Rights Act and the end of apartheid in South Africa. It may also be possible to find shocks resulting in the decentralization (or centralization) of school systems and gauge its impact on dispersions of resources. In 2000, for example, Indonesia decentralized junior secondary (but not upper secondary) schools to local authorities, in part to alleviate fiscal deficits by the central government. These are but a few examples of how political scientists might address endogeneity and improve causal inferences.

CONCLUSION

This article aims to stoke the interest of political scientists in the comparative study of education and to offer some theoretical and empirical guideposts for future work. Education exerts a key

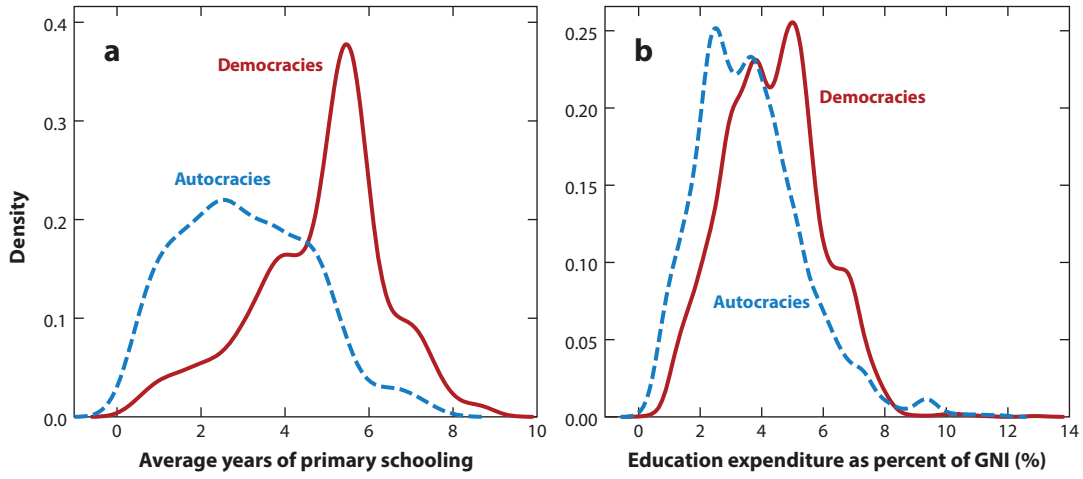

Figure 6

Educational attainment (*a*) and spending (*b*) in autocracies (*blue dashed line*) and democracies (*red solid line*). GNI, gross national income. Sources: World Bank (2013) for spending data; Boix et al. (2012) for regime type data.

influence on major socioeconomic dynamics, and the fact that political scientists know so little about it is both sobering and exciting. It is sobering because in an increasingly brain-based world, it remains unclear why some governments provide education to all their citizens while others privilege a narrow few. This makes crafting policies to boost human capital and mitigate educational inequality daunting. But our lack of understanding about the politics of education is also exciting, as political scientists have only begun to scratch the surface on a wide range of topics that can offer much-needed insight into when schools deliver effective teaching and learning. With our final remarks, we discuss four topics that are particularly ripe for future research. We then turn to a key empirical challenge in the study of education that we hope political scientists will consider more deeply.

First, a recent boom in scholarship on comparative authoritarianism highlights the huge variation in the both the nature and policy outcomes of nondemocratic regimes (Gandhi & Lust-Okar 2009, Svolik 2012). Although most of our discussion has centered on democracies, as **Figure 6** makes clear, autocracies display even greater variation in educational effort and achievement. Such disparities represent a puzzle, given that influential models predict that autocratic elites oppose government spending (Boix 2003, Acemoglu & Robinson 2006) and are particularly resistant to policies that empower the poor or alter the underlying nature of production (Bourguignon & Verdier 2000, Galor 2012). Under what conditions are educational investments consistent with the survival incentives of authoritarian leaders? When are autocrats hostile to the accumulation of human capital? How are their decisions affected by institutional structures and the broader economic and political climate?

Second, just as debates about the escalating costs of attending college have reached a fever pitch in the United States, university education has taken on added salience as many countries recognize its special role in fostering innovation and technological breakthroughs. In much of Europe, this recognition has led governments to try to liberalize higher education with an eye toward introducing more competition and incentivizing research. In middle-income countries like India and China, it has fueled ambitious investments in tertiary school systems aimed at attracting and nurturing international talent. In all of these cases, higher education involves political

controversies about how societies balance the private costs and benefits of universities with their social costs and benefits. When and why do such debates result in larger or smaller roles for public versus private universities? How do societies weigh the dual teaching and research duties of universities? What are the trade-offs between promoting university excellence and breadth of access?

Third, in addition to voters, special interests—particularly teachers unions—can exert considerable muscle in the political arena and influence how governments allocate education (Murillo 1999, Loveless 2000, Moe 2011). Because unions are well equipped for collective action—including backing candidates, mobilizing voters, funding campaigns, and supporting legislation—they often wield large influence in elections. Many scholars lament that union agendas (teacher tenure, limited teacher evaluations, and the like) have little to do with enhancing school quality and are instead only concerned with advancing the interests of their members. Yet other union goals may, under certain circumstances, contribute to improved education (increased spending, higher salaries to attract better teachers, etc.). When and why do the corporate interests of unions align with high educational performance? What are the political dynamics that mitigate the negative effects of unions and encourage their more beneficial tendencies?

Fourth, education involves trade-offs that pit the interests of the young against those of the old. This is particularly salient in wealthy, ageing societies such as Germany, Italy, and the United States, where social security and health care for the elderly consume large and growing portions of public outlays. But it is also a challenge in lower- and middle-income countries that are set to experience demographic transitions, such as China. As societies age (a trend that is happening in countries at lower and lower per capita incomes, courtesy of improvements in global health), they face stark choices over whether to invest in retirement benefits or education. Politics in such settings inevitably resembles an intergenerational war of attrition (Poterba 1997, Lynch 2006, Cattaneo & Wolter 2009). What are the repercussions of demographic change on the voting behavior of the young and old? How do societies balance the needs of the future against those of retired generations? What determines which age groups will possess the most power in the political sphere?

As the discipline begins to study these ambitious questions, arguably the biggest empirical challenge for political scientists—and all scholars who study education—is to disentangle the role of schools from that of families. Education confers many benefits, including skills, credentials, and access to social networks, all of which bear on subsequent wages and parental perceptions of the value of schooling. Isolating the impact of each of these dynamics is difficult, however, because of the inherent selection problem: the best students often come from better-educated, well-off, and connected families; they are also more likely to go to the best schools and accrue the most skills. Future efforts should aim to peel apart which aspects of family background influence educational outcomes and distinguish these characteristics from the impact of schools.

In short, education is too important for there not to be a vibrant stream of comparative political science research that is dedicated to unlocking both the causes and consequences of schooling. Although the subject is fraught with unfamiliar theoretical issues and currently suffers from poor data, we should view these challenges as invitations, not dead ends. Education, of course, is not the only policy with real-world importance that has been relegated to the back burner in political science. Food, housing, health care, and water policy also have immense implications for billions of individuals, yet they too have gone largely untouched by the discipline. We find this state of affairs regrettable and believe that political scientists would benefit from thinking about why we are often slow to study policies that the rest of the world cares so much about. The more political science begins to fill these voids, the more we can understand the complex variables driving the human condition—and what it will take to improve it.

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