

Schools of Thought: Leader Education and Policy Outcomes

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We develop a leader-specific theory to explain economic and political liberalization. We argue that leaders' policy decisions in office depend, in part, on their exposure to classical liberal values while at university, through the content of social science and humanities courses. Variation comes from two sources: across educational institution types and within them via specialization. Educational institutions differ in terms of their autonomy from the state, which determines universities' quality in the social sciences and humanities, and the degree of hierarchy within the classroom (egalitarian vs. authoritarian), which reinforces/hinders students' ability to internalize course content. Within-institution variation comes from specialization: some specializations have a larger curriculum component that emphasizes classical liberal values. Using a novel data set on country leaders' educational attainment and specialization, we show that leaders who attended autonomous and egalitarian universities—particularly those specializing in economics or law—are more likely to implement liberal reform across policy areas.

What are the microfoundations of economic and political liberalization? We develop and test a leader-specific theory to explain liberalization across a range of policy areas. We argue that country leaders' policy preferences and choices depend, in part, on their educational background. Specifically, these preferences are shaped by the leader's exposure to classical liberal values through the content of the courses they took while at university. The content of university curricula, and specifically the emphasis on classical liberal values, varies by a school's strength in the social sciences and humanities. To explain institutional variation in the strength of social science and humanities education, we align educational institutions along a two-dimensional typology. The first dimension—level of institutional autonomy from the state—determines a school's ability to develop excellence in the social sciences and humanities. The second dimension—degree of hierarchy within the classroom (egalitarian vs. authoritarian)—reinforces/hinders students' ability to internalize the content of classes offered in these fields.

A school's position on this typology determines the treatment size—the amount and quality of student exposure to classical liberal values, such as open markets, democratic governance, and respect for individual human rights. As we explain, autonomous and egalitarian institutions tend to have stronger social science and humanities departments, which translates into more extensive general education requirements. As a result, students who attend autonomous and egalitarian institutions are more likely to learn and internalize these values. Moreover, students who specialize in economics, law, and other social science and humanities fields at autonomous and egalitarian universities spend even more time engaging and evaluating classical liberal values. In contrast, students who attend state-controlled institutions with a hierarchical classroom culture are less likely to be exposed to these values through their class content, irrespective of major.

Our theory leads to several novel predictions. First, we explain (and show empirically) that autonomous and egalitarian universities, such as Anglo-American institutions,¹ have a

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Replication files are available in the *JOP* Dataverse (<https://dataverse.harvard.edu/dataverse/jop>). The empirical analysis has been successfully replicated by the *JOP* replication analyst. An appendix with supplementary material is available at <https://doi.org/10.1086/724959>.

1. The higher education literature refers to the “Anglo-American learning model” as a system common in the United States, United Kingdom, Canada, Australia, and New Zealand (e.g., Currie et al. 2003; Marginson 2011, 2022; Pritchard 2006). It is characterized by a market-focused research-intensive

Published online August 29, 2023.

The Journal of Politics, volume 85, number 4, October 2023. © 2023 Southern Political Science Association. All rights reserved. Published by The University of Chicago Press for the Southern Political Science Association. <https://doi.org/10.1086/724959>

unique liberalizing effect, even in comparison to other Western universities (as the latter are characterized by stronger dependence on the state). This prediction is distinct from previous research that has primarily focused on differences between Western and non-Western educational systems.

Second, we explicitly link policy preferences to a leader's field of study. In particular, we group fields of study into theoretically relevant categories based on their emphasis on classical liberal principles: economics, law, other social sciences, the humanities, as well as an "other majors" residual category. While economics has received the most scholarly attention, we find that leaders who majored in law are equally likely to implement liberal reform. Our theory leads us to expect, however, that these specialization effects only hold for autonomous and egalitarian universities. These results highlight significant heterogeneity across majors and underscore the importance of expanding the research focus beyond economics.

Third, we evaluate our theory against several competing explanations, such as those positing the effects of technical competencies or socialization. Theories focusing on acquired technical competencies expect liberalization in policies directly related to a leader's specialization (e.g., trade openness for economists), whereas socialization accounts expect homogeneous effects (e.g., leaders educated in democracies develop a preference for democratic values). In contrast, our theoretical mechanism—the transmission of classical liberal values through course content—posits variation across and within educational institutions.

Finally, we showcase the broad applicability of our theory by testing its predictions on a wide range of distinct policy areas: trade liberalization, judicial independence, financial openness, respect for human rights, and liberal democratization. The results are quite robust, with only minor variations from area to area. More broadly, the remarkable persistence of educational effects highlights the importance of this particular area of research. These results also emphasize the policy implications of different types of educational reform, especially if they alter the relationship between the educational institution and the state.

LIBERALIZATION AND LEADER LIFE EXPERIENCES

Economic and political liberalization is often explained as the result of macrolevel processes. Liberal reforms are treated as a corollary of other domestic transformations, such as eco-

approach that links research productivity to funding, incorporates faculty research into the classroom, commodifies student enrollment and alumni networks, and emphasizes competition among institutions (see, e.g., Marginson 2006).

nomie development (Boix 2011; Mousseau 2003; Urbatsch 2013, 2016), political competition (Acemoglu and Robinson 2006; Lobell 1999), and regional or global diffusion (Chyzh 2016, 2017; Kadera, Crescenzi, and Shannon 2003; Simmons and Elkins 2004).

While institutional and social constraints are important, it is the leaders who ultimately shape their country's economic and political reform. Leaders are key to a number of political and economic outcomes, such as conflict initiation (Chiozza and Goemans 2011; Saunders 2018), crisis bargaining (Lupton 2020; McManus 2021), economic performance (Jones and Olken 2005; Li, Xi, and Yao 2020), and international compliance (Colgan and Lucas 2017). Leader-specific attributes, such as prior life experience, influence their policy preferences and actions (Carter and Smith 2020; Horowitz, Stam, and Ellis 2015).

Previous research has linked policy actions to a number of leader-specific characteristics. Certain psychological traits, such as risk acceptance, are a key predictor of a leader's willingness to use military force (Keller and Foster 2012; Keller, Grant, and Foster 2020). Life experiences, such as military service, are linked with conflict onset (Horowitz and Stam 2014), greater oversight of military operations (Lupton 2017), and legislative agendas (Best and Vonnahme 2021). The interaction of gender, education, and career experiences explains the policy agenda of foreign ministry officials (Bashvekin 2018).

We focus on another type of leader life experience—educational background. While previous work has linked leader education with policy outcomes (e.g., Besley, Montalvo, and Reynal-Querol 2011), the mechanisms for these effects are not well understood (for a recent review, see Krčmaric, Nelson, and Roberts 2020). Two key mechanisms proposed by the literature are socialization and technical expertise. The socialization mechanism holds that students internalize the norms and values of the society in which they are embedded (Atkinson 2010; Spilimbergo 2009). Much of this process takes place through informal interactions with peers and contacts (Martinez Machain 2021; Pettigrew 1998). As a result, a Western degree, for example, comes with a set of ready-formed policy preferences, as well as links to like-minded contacts at influential Western institutions (Gift and Krčmaric 2017).

The technical expertise mechanism focuses on specific skills gained as part of a leader's education. Li et al. (2020), for example, argue that leaders trained in economics have a greater understanding of the complex economic systems in which they operate. These technical skills may also serve as a signal of competency to external actors—particularly those with similar academic training—resulting in greater trust and

making leaders more competitive for targeted assistance (Chwieroth 2007; Nelson 2014).

We build on and advance the existing research by developing a novel unifying theoretical perspective that derives leaders' preferences from the type of educational institution they attended. We focus on how exposure to classical liberal values while at university affects policy preferences. That is, rather than social contacts and interactions, we argue that course content itself is a driving factor in shaping the values that underlie policy decisions. By decoupling educational institutions from regime type or societal-level culture, our theory allows us to generate predictions as to the variation in outcomes within previously unexplored categories, for example, among institutions located within democracies or across Western states. Moreover, while students certainly learn technical skills from their specialization or field of study, we contend that the broader set of classical liberal values explains why and how liberalizing effects may spill over across policy areas. That is, our theory predicts that leaders whose specializations rely more heavily on classical liberal assumptions are more likely to liberalize policy outcomes outside of their technical training.

HOW EDUCATION SHAPES WORLDVIEWS

Our argument is based on a simple premise that students learn the content of the classes they take. The treatment variable is the emphasis on classical liberal values in the content of social science and humanities classes. Variation in the treatment comes from two sources: across institution types and by specialization (within institution types). The cross-sectional variation in the treatment depends on the location of the institution within a two-dimensional typology (autonomy from the state and hierarchy in the classroom). At institutions that are well ranked in social sciences and humanities, courses offered through these departments introduce a number of ethical and social issues—such as inequality, human rights, free market economics, and the value of democratic governance—that prime and shape students' policy preferences on these issues. Courses on individual liberties and open markets, for example, help instill more favorable attitudes toward free trade and globalization (Hainmueller and Hiscox 2006; Han and Zwieg 2010). Within-institution variation comes from specialization: some specializations, such as economics and law, have a larger curriculum component that emphasizes classical liberal values. Our theoretical innovation is that we propose a parsimonious explanation for why educational institutions vary in their liberalizing effect. We derive universities' ability to focus on some rather than other content from the external structural constraints imposed by the state and the internal structural constraints of the classroom.

A two-dimensional typology of educational models

A university's ability and effectiveness at transmitting classical liberal values to students depends on (1) the quality and content of the social science and humanities curriculum and (2) whether the university provides an environment that is conducive to excelling in these areas of study. These two components are mutually reinforcing: the former creates the opportunity for students to engage with certain types of content in the first place, while the latter facilitates this engagement. Both are necessary; neither is, on its own, sufficient.

First, while all schools have an incentive to excel in all areas of expertise, their ability to develop strengths in the social sciences and humanities is constrained, primarily, by their relationship with the state (autonomy vs. dependence). The degree of institutional autonomy from the state is a function of the institution's reliance on the state for funding/governance matters and the degree of state oversight over the curriculum and research (Marginson 2011; Salmi 2011). Even in liberal regimes, the state's goals of training a market-ready labor force and producing patent-ready research outputs are at odds with the institutional goal of building a world-class research facility (Pritchard 2006). Government officials expect immediate payoffs and balk at the vague and impractical objective of knowledge for knowledge's sake. Their expectation of direct and easily measurable returns on public investments leads to a preference for technical and applied fields rather than the social sciences and humanities. The size, quality, and research productivity of arts, humanities, and social science departments are, however, a major part of institutional rankings—equated with prestige—which are key to attracting top talent, among both students and faculty.²

As a result, institutions with greater autonomy from the state have an incentive to devote resources to developing strengths in the social sciences and humanities, even while continuing to emphasize science, technology, engineering, and math (STEM) fields (Cummings 2014). Competitive at attracting top faculty and students, such institutions have larger social science and humanities departments that offer a more diverse selection of courses and are able to contribute to teaching a more comprehensive general education curriculum (Salmi 2011).³ In contrast, institutions with lower autonomy from the state have smaller social science and

2. Two of the main institutional ranking systems—Quacquarelli Symonds and Times Higher Education—treat the arts and humanities and social sciences as two of five equally weighted components.

3. Even well-funded and highly prestigious universities struggle to keep their rankings and attract world-class faculty, unless they can guarantee the freedom to pursue research in one's chosen area. Sergei Guriev's abrupt departure from Russia's Higher Economics School in 2013 is a high-profile example.

humanities departments with less extensive curricula and fewer general education requirements. Thus, students who attend institutions with high levels of autonomy from the state receive a broader and more detailed exposure to classical liberal concepts, such as free market economics, human rights, issues of inequality, and responsive and representative government, as well as related normative and ethical issues. A lack of institutional autonomy creates state-induced pressures to concentrate resources on STEM fields and disciplines/subfields with applied (rather than theoretical) focus and to reduce the general education curriculum (Cummings 2014; Marginson 2011). In illiberal regimes, these pressures often result in limits (through state directive or self-censorship) on social science curricula, especially on the content associated with the classical liberal values, for example, courses on human rights or repression.

Second, students' ability to excel in different areas of study depends on the hierarchical structure of the instructor-student interactions inside and outside of the classroom (egalitarian vs. authoritarian). Ethical, social, and normative issues raised in social science and humanities courses require critical engagement on the part of students and are, therefore, not easily taught from the lectern. A distinct feature of egalitarianism is an emphasis on critical thinking, debate, and individualism, whereas hierarchy favors memorization (Egege and Kutieleh 2004).⁴ The debate-style seminars found in upper-level courses at Anglo-American universities, for example, with instructors serving as moderators whose views, just like those of students, are open to critique, contrast with pedagogies of more hierarchical structures, such as the Soviet/post-Soviet and East Asian models (Durkin 2008). Rather than treating knowledge as absolute, students in more egalitarian systems are encouraged to critique and evaluate theories based on logical consistency and evidence (Durkin 2008; Kember 2001).

The structure of the instructor-student interactions is replicated outside of the classroom. Faculty at more egalitarian institutions are more often available to meet with students during office hours and university events (Huang 2014). Students at egalitarian institutions are more likely to be treated as university stakeholders within the university: they engage with political, economic, and social issues through university-sponsored student organizations and consult on issues of university governance (Ashwin and McVitty 2015; Logermann and Leišytė 2015). This additional contact and engagement reinforces classroom concepts.

4. Hierarchical institutions' emphasis on rote memorization may be more favorable to excellence in math, natural sciences, and some technical fields.

A school's position within the state autonomy–classroom hierarchy space, therefore, determines the strength (e.g., size, research output, prestige, and funding) of its social sciences and humanities programs and the students' ability to engage with the content of courses offered in these fields. The strength of the social science and humanities programs determines the breadth and content of the general education curriculum—a set of required courses usually taken in the first few years of attending university. At autonomous and egalitarian institutions, these courses introduce students to the core social and ethical issues, such as the value of a representative government, free markets, human rights, and equality. These issues are, moreover, discussed and debated, from the classical liberal perspective that emphasizes individualism, opportunity, fairness, and equality before the law. In contrast, at less autonomous and more hierarchical institutions, the general education curriculum is usually less expansive (fewer required classes) and often altogether omits many of these discussions, especially in illiberal regimes. This leads to the first hypothesis:

H1. Leaders who attended more autonomous and egalitarian institutions are more likely to implement liberal reform.

Our theory and its first empirical implication advance on the socialization argument by linking the outcome variable to the specific features of the educational institutions themselves, rather than the political regime of the countries, in which they operate. Doing so allows for deriving more nuanced predictions regarding the variation in outcomes, for example, differences between leaders who attended Anglo-American and other Western universities—something that has not been previously posited or evaluated.

Specialization

Our theoretical focus on exposure and internalization of classical liberal values logically extends to student specializations within universities. While all students at autonomous and egalitarian institutions are exposed to some degree of classical liberal values through their general education requirements, there is heterogeneity across fields of study. Students specializing in the social sciences or humanities receive greater exposure to classical liberal values, as these are the disciplines that most directly engage with the related content. Upper-level social science and humanities courses, in particular, provide in-depth, nuanced treatments of various economic and political models or policy trade-offs, supported by data-based evidence. The centering of individualism and political equality, inherent to most social science and humanities courses, also fosters respect for physical integrity rights and

liberal democracy. A historical emphasis on negative freedoms is enshrined in legal and constitutional texts, which are often taught and debated as a part of a liberal arts curriculum at autonomous and egalitarian universities. Even theories that are critical of liberal principles necessarily start by defining these principles, which gives them a privileged “default” status.

Among the social sciences and humanities, two specializations, in particular, expose their students to the largest treatment of classical liberal values: economics and law. Economics and law place an especially high emphasis on first principles and logical consistency, even in comparison to other social science and humanities specializations. In contrast to other social science and humanities subjects, which are characterized by significant variation in core theoretical tenets, topical focus, and methodological toolkits, economics and law are characterized by a greater disciplinary agreement regarding core assumptions, the range of debate, and appropriate methods of inquiry. This heightened level of agreement allows each specialization to spend more time developing theories and best practices and engaging with classroom material and concepts. Additionally, greater consistency regarding course prerequisites and sequence allows economics and law courses to more readily pick up where a previous course left off, resulting in more material being covered within upper-level courses.⁵ As a result, students in these two fields are especially likely to internalize classical liberal values and principles and incorporate them in their future policy making.⁶ By focusing on these two specializations, we are able to further delineate our theory of liberal value transmission based on course content.

The field of economics has received the most scholarly attention in terms of translating academic subjects into policy action. For example, Weymouth and Macpherson (2012) find that the number of US-trained economists in a country is positively correlated with trade liberalization. Nelson (2014) shows that the number of US-educated economists in high-level economic policy positions within a government is correlated with more favorable terms on International Monetary Fund (IMF) loans. Li et al. (2020) demonstrate that leaders

5. In contrast, fields with less relative agreement, such as political science or sociology, vary more substantially in substantive topics covered—even within the same course, depending on instructor and institution—and devote greater class time to debates over basic assumptions and methodological/ontological approaches. Less consistent course prerequisites and sequence expectations in most social science and humanities specializations result in more class time in upper-level courses being spent covering introductory material to ensure that all students have a sufficient base on which to build.

6. There are trade-offs in the degree of within-subject agreement. Significant agreement on assumptions, topics, and methods may result in a narrow focus with a rigid set of policy tools, while a low degree of agreement may facilitate diverse research and more adaptive policy recommendations.

trained in economics are more likely to liberalize their economies. One explanation for this attention on economics is its relative distinction from other social sciences. Unlike other social sciences, the field is characterized by heavy reliance on evaluating hypotheses using mathematical reasoning and statistical tools (Weymouth and Macpherson 2012) and a shared liberal policy perspective, at least among most Anglo-American universities (Nelson 2014).

The study of law also emphasizes broad understandings of legal theories and philosophies (David and Brierley 1978; Glenn 2007; Mitchell and Powell 2011). A focus on fundamental legal principles and frameworks, rather than specific case law, helps explain why individuals choose to study law at foreign universities rather than in the country where they plan to practice. An understanding of broad legal regimes is especially applicable for leaders, as they often engage in settings with changing economic and technological dynamics (Nieman and Thies 2019, 452–55). Previous research has also found a close link between core liberal principles and economic and political processes and outcomes (Mitchell, Ring, and Spellman 2013; Mousseau 2003; Mousseau and Mousseau 2008; Sunstein 1997). Similar to economics, law schools are characterized by cross-institutional conformity in terms of required courses and their sequence. This contrasts with other social science and humanities majors, which vary substantially across institutions within countries and globally.

Having received the largest treatment dose—the greatest exposure to classical liberal values—leaders educated in economics and law should, on balance, have the strongest preference for liberal reform across a broad set of policy areas rather than only those narrowly related to their specialization. An anecdotal example of a leader who fits this mold is Botswana’s President Seretse Khama, who studied at Balliol College at the University of Oxford before training in law at London’s Inner Temple. In addition to implementing bureaucratic reform in merit hiring and reducing corruption, strengthening the rule of law, and overseeing significant improvements in democratic processes and human rights protections, Khama’s government liberalized trade and encouraged foreign investment. The above logic leads to our second hypothesis:

H2. Leaders who specialized in the social sciences or humanities—and especially economics or law—at more autonomous and egalitarian institutions are more likely to implement liberal reform.

By positing a mechanism for spillover beyond one’s narrow field of specialization, our theory and its second empirical implication differ from the technical expertise argument, which expects no such effect.

RESEARCH DESIGN

We test our hypotheses using an original data set that catalogs the higher education of leaders from non-OECD (Organization for Economic Cooperation and Development) countries between 1946 and 2015. We look at the effect of education across a range of liberal policies, including trade and financial liberalization, judicial independence, human rights protections, and liberal democratic reform.

The unit of analysis is the leader spell—the consecutive period of time that an individual leader is in office. This allows us to look at the change in liberal policies between the beginning and the end of a leader’s tenure. If a leader holds office during multiple nonconsecutive spells, each leader spell is coded as its own observation. National leaders are identified using the Archigos data set (Goemans, Gleditsch, and Chiozza 2009). We limit analysis to leaders of non-OECD countries, since most OECD countries tend to score high—and exhibit very little variation—on each of the liberal policy indicators.

Leader education background

Our data set records the higher-educational experience of 981 national leaders between 1946 and 2015. Data were collected using a variety of online databases and text sources.⁷ We code information regarding (1) educational institution—name, country location, and type (education, military, other)—and (2) area of specialization.⁸

We classify universities into broad education models: Anglo-American, Bonapartist, East Asian, Humboldtian, Latin, Soviet, and post-Soviet. We draw on the higher education literature to align educational models in a two-dimensional space that corresponds to the two theoretical dimensions (autonomy from the state and hierarchy in the classroom), as shown in figure 1. In the top left corner of figure 1—high autonomy and egalitarian classroom—is the Anglo-American model. In the middle of the figure—relatively high autonomy and roughly in the middle between an egalitarian and authoritarian classroom—are the Humboldtian and Bonapartist models. At the bottom center of the figure—low autonomy and moderately egalitarian classroom—is the Latin model. In the middle right—relatively low autonomy and authori-

tarian classroom—is the post-Soviet model. Finally, in the bottom right—low autonomy and highly authoritarian—are the East Asian and Soviet models.

Compared to others models, the Anglo-American model is characterized by greater autonomy from the state in terms of the course offerings and academic freedom afforded to faculty. Academic programs do not require approval by the state but are approved by institutional managers (Huang 2014, 55). With some exceptions, faculty have general discretion over the classes they teach as well as their specific content. Drawing on the Changing Academic Profession survey, Huang (51) finds that, in contrast with other institutions, faculty at Anglo-American universities tend to have a greater role in development of curricula and course materials, and are more likely to address normative and ethical issues in their teaching. Instructor-student interactions at such institutions are characterized by a high degree of egalitarianism: faculty are likely to meet and interact with students outside of class, employ more diversified instructional methods, and evaluate students on independent research and critical thinking as opposed to rote memorization (51–56).

The two most common European models are the Humboldtian (common to Central, Eastern, and Northern Europe) and Bonapartist (France and Mediterranean Europe). These models feature a mix of university autonomy and classroom hierarchy.⁹ The Humboldtian model is defined by a tension between the traditionally valued academic freedom and a corporatist identity stemming from an input-oriented, state-run bureaucracy that is focused on national outlook (Pritchard 2006). Strong state financial support comes in exchange for little differentiation across universities in terms of prestige and student quality, with universities having little role in student selection (Pritchard 2006).

The Bonapartist model is similar to the Humboldtian model in that it is primarily state funded, governed by a state-corporatist management structure, and characterized by equality across institutions. Bonapartist institutions, however, place greater focus on teaching and application than Humboldtian ones (Cummings 2014; Marginson 2006, 2011), at least outside the *grandes écoles*. Traditionally, Bonapartist institutions followed a vertical disciplinary logic, with major decisions regarding curricula or faculty promotion taken at the state or discipline level, with little input from the university (Musselin

7. More information about the data and the data collection process can be found in the appendix.

8. We code *military schools* as those that focus on strategy/tactics training for officers. We expect that military schools, which tend to have shorter programs and often lack the educational curriculum of traditional academic institutions, do not transmit classical liberal values (see the appendix for a list of military schools). Thus, we exclude them from our coding of education models; our results are robust to this decision (see the appendix). We do include *military school* as a student specialization when testing hypothesis 2.

9. This mix is reflected in liberal arts course offerings. As noted by in a Quacquarelli Symonds report, while liberal arts degrees and courses are offered at the vast majority of US universities, this is not the case in Europe: less than half of continental European countries have dedicated liberal arts degree programs, with only three—Germany, Netherlands, and Italy—having more than one such institution (Haidar 2021).

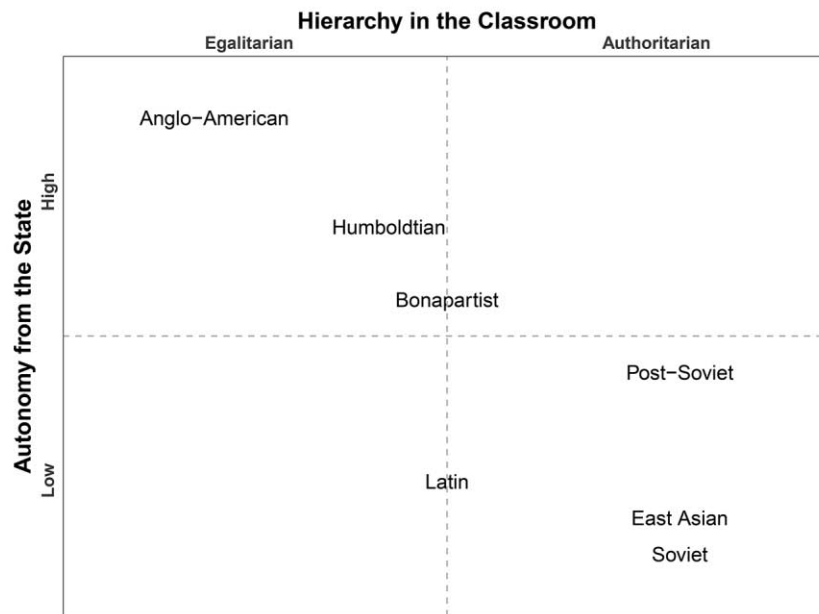


Figure 1. Two dimensions of tertiary education models

2004). These institutions also tend to be more overtly politicized in their management (Marginson 2011, 594).

The bottom right of figure 1 consists of the more hierarchical models. The Latin model—common in Latin America and former French colonies—is a variant of the Bonapartist model. Its primary distinguishing features are low autonomy from the state and a stronger focus on application versus research (Cummings 2014; Marginson 2006). Many faculty at these institutions have full-time employment outside of the university (Cummings 2014).

The East Asian model is characterized by strong state control, which results in a focus on applied research and a pursuit of state-determined policy goals (Marginson 2011). These institutions exhibit a high degree of hierarchy, from classroom interactions to a centralized admission process (Marginson 2011). Instruction is delivered primarily via lecture, with a focus on memorization and practically oriented knowledge (Durkin 2008; Huang 2014); students have few opportunities to interact with their instructors outside of the classroom (Huang 2014, 51–56). Academic programs, curricula, and course materials are developed and evaluated by the government, with very limited input from faculty (Huang 2014).

Finally, the Soviet university model was centrally organized and financed, with significant government intervention, a national curriculum, and an emphasis on vocational, practical training and applied research (Smolentseva, Huisman, and Froumin 2018). The post-Soviet era saw the creation of a nonstate educational sector (private schools), national stan-

dardized entry tests, and a decrease in government funding and intervention, although intervention has increased since the mid-2000s (Smolentseva et al. 2018).

Given these differences, we assign educational models to one of three mutually exclusive groups: Anglo-American, Other Western (Humboldtian and Bonapartist), and Hierarchical (Latin, post-Soviet, East Asian, and Soviet). We treat educational models as a state-level variable because, although higher education is globalizing, universities are ultimately constrained by the state in which they operate (Currie et al. 2003; Marginson 2022). We code institutions in the United States, United Kingdom, Canada, Australia, and New Zealand as *Anglo-American*, as universities in these countries are similar in terms of autonomy from the state and the structure of instructor-student interactions (Marginson 2006, 2011). Our measure of *Other Western* includes institutions that follow the Humboldtian and Bonapartist learning models. This category includes schools in Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Norway, the Netherlands, Portugal, Spain, Sweden, and Switzerland. Finally, universities with low levels of autonomy from the state or hierarchical instructor-student interactions are classified as *Hierarchical*.¹⁰

Table 1 provides descriptive data for leaders attending universities or military schools in states following Anglo-American, Other Western, or Hierarchical education models,

10. It also includes universities from states with educational models that do not fit into the above categories.

Table 1. Leader Educational Background

Education Model	Abroad		Domestic		Total
	University	Military	University	Military	
Anglo-American	204	34	...	...	238
Other Western	61	19	...	...	80
Hierarchical	99	17	273	54	443
No postsecondary	...	...	...	...	220

Note. $N = 981$. There are no domestic Anglo-American and other Western entries, as all states in these categories are OECD members.

as well as figures for those without any postsecondary education.¹¹ Among all leaders with a university education (i.e., excluding military), 32% (204/637) studied at Anglo-American universities. Focusing only on those who studied abroad (excluding military), 56% (204/364) studied at Anglo-American universities.

Table 2 demonstrates the geographical coverage for each educational model. It cross-tabulates leader frequencies by the educational model of the institution attended (Anglo-American, Other Western, Hierarchical, and None) and the leaders' home geographical region (Americas, Asia, Eastern Europe, Middle East/North Africa, Oceania, and sub-Saharan Africa). Important for our analysis, we see that leaders from all regions of the world attend Anglo-American universities. While there is some variation—Eastern Europe has the lowest rate of leaders educated at Anglo-American schools (20 out of 158 leaders, 13%), and Oceania has the highest (11 out of 28 leaders, 39%)—the proportion of Anglo-American-educated leaders is relatively stable across regions.

The table disaggregates these data for each of the five countries that follow the Anglo-American education model. The vast majority of leaders educated under this model attended schools in the United States or United Kingdom; out of the 238 leaders educated at Anglo-American institutions, all but 11 were in the United States or United Kingdom. The United States is the more frequent destination for would-be leaders from the Americas, Asia, and Eastern Europe, while the United Kingdom is the more common destination for leaders from the Middle East, North Africa, and sub-Saharan Africa.

11. The distribution of non-OECD leaders trained by country features a small number of countries with a high frequency and a long tail of countries with few or no leaders. In decreasing order, they are the United States (123), United Kingdom (104), France (53), Russia (30), India (19), Bosnia (12), Guatemala (12), Uruguay (12), Brazil (11), Ecuador (11), Romania (11), and Thailand (11), with all other countries training 10 or fewer leaders.

Institutions in New Zealand are the third-most-frequent destination.

Next, we create variables indicating a leader's specialization. We classify specialization into five categories: economics, law, other social sciences, humanities, and other majors.¹² There are 109 leaders who specialized in economics and 179 leaders who majored in law. Together, economics and law are the two most common majors for non-OECD leaders.

Other social science combines political science, international relations, public policy, public administration, psychology, sociology, and a number of related disciplines. These fields tend to be more heterogeneous in their theoretical and methodological application than economics and law. *Humanities* combines several subjects, such as philosophy, history, literature, and journalism, along with a handful of others. While stressing specific norms and values, the humanities differ from the social sciences in both theoretical and methodological approach. Finally, we code all other majors as *other*. Our theory offers little reason to expect significant differences among STEM, medicine, education, or other majors.

Table 3 reports the distribution of leader specializations by institution type. To maximize frequencies within subjects, we divide universities into Anglo-American and non-Anglo-American institutions.¹³

12. Leaders with more than one major, or who earned an advanced degree in a major different from their BA, are coded by their "most liberalizing" degree and subject. For example, Tanzania's Nyerere, who earned an undergraduate degree in education from Makerere College, Uganda, and an MA in economics and history from Edinburgh, United Kingdom, is coded as having an Anglo-American education with a specialization in economics.

13. Other Western does not, on its own, include enough cases within each subject to recover reliable estimates. Our theory, as well as the results presented in table 4, supports dichotomizing education models into two groups, as only the Anglo-American model is consistently distinct from the others.

Table 2. Regional Distribution of Leader Education Background

	Americas		Asia		Eastern Europe		MENA		Oceania		Sub-Saharan Africa		Total	
Anglo-American	80	(5)	49	(5)	20	(1)	25	(12)	11	(1)	53	(10)	238	(34)
Australia	0	(0)	0	(0)	0	(0)	0	(0)	2	(1)	0	(0)	2	(1)
Canada	1	(0)	0	(0)	0	(0)	0	(0)	0	(0)	1	(0)	2	(0)
New Zealand	0	(0)	0	(0)	0	(0)	0	(0)	7	(0)	0	(0)	7	(0)
United Kingdom	22	(2)	21	(3)	8	(0)	16	(9)	2	(0)	35	(8)	104	(22)
United States	57	(3)	28	(2)	12	(1)	9	(3)	0	(0)	17	(2)	123	(11)
Other Western	15	(1)	5	(0)	2	(0)	6	(1)	0	(0)	52	(17)	80	(19)
Hierarchical	136	(30)	90	(12)	119	(3)	35	(16)	6	(0)	57	(10)	443	(71)
None	32		46		17		36		11		78		220	
Total	263		190		158		102		28		240		981	

Note. Frequencies combine university and military education. Military education in parentheses. MENA = Middle East/North Africa.

Liberal policy implementation

We measure the dependent variable—implementation of liberal reform—in five distinct policy areas: trade liberalization, the rule of law, financial openness, human rights protections, and liberal democracy. Our dependent variables are measured as a first difference, by subtracting the relevant indicator at the beginning from that at the end of the leader's tenure. By looking at multiple policy areas, we are able to examine whether the effect of educational model and specialization on liberal reform is heterogeneous or applies equally across issue types.¹⁴

Trade liberalization measures whether a leader opened domestic markets and significantly reduced trade restrictions. We use data from Wacziarg and Welch (2008), who treat states as closed if they meet any of the following conditions: “(1) average tariff rates of 40% or more, (2) nontariff barriers covering 40% or more of trade, (3) a black market exchange rate that is depreciated by 20% or more relative to the official exchange rate, on average, during the 1970s or 1980s, (4) a state monopoly on major exports, or (5) a socialist economic system” (190). Trade liberalization is coded 1 if none of these conditions are met, and 0 otherwise, and are available between 1950 and 2001. Our sample includes only leaders whose countries were closed when they took office.¹⁵

We operationalize judicial reform as the strength of the rule of law, measured as the degree of de facto judicial independence using data from Linzer and Staton (2015). Linzer and Staton use a measurement model to estimate a state's latent level of judicial independence based on several indicators of direct and

indirect judicial independence from 1948 to 2012. *Rule of law* is measured on an interval between 0 and 1.

Financial openness measures the restrictiveness of a state's financial sector. Financial openness data are obtained from Chinn and Ito (2006), who create a continuous measure of the intensity of a state's capital controls based on reports from the IMF's “Annual Report on Exchange Arrangements and Exchange Restrictions.” The measure ranges from -1.92 to 2.33 , with greater values indicating greater openness. The data are available for 1970–2015.

Human rights relate to a state's level of physical integrity rights protections. Human rights are measured using data from Fariss (2014). Fariss uses a measurement model to estimate latent human rights protections over time, accounting for changing standards in accountability. The data are measured on an interval, ranging between -3.76 and 5.14 , and are available from 1946 to 2015.

Democratic reforms are operationalized using the liberal democracy score from the Varieties of Democracy (V-Dem) project (Pemstein et al. 2020). *Liberal democracy* is a measure of the degree of state protection of negative political rights and is constructed from an index weighing various indicators of electoral processes and government constraints. The resulting measure is scaled between 0 and 1 and is available from 1946 to 2015.

Control variables

We include several statistical control variables. We control for state-level economic factors, such as *Economic development*, measured as logged GDP per capita, using data from Gleditsch (2002), and whether a state is an *Oil producer*, measured as a binary variable equal to 1 if oil exceeds one-third of total exports, extending data from Gibler and Miller (2014). We also

14. Correlations are weak to moderate across these variables in the sample (see the appendix).

15. Trade liberalization is often a quick process with few reversals—only seven between 1950 and 2001—making a binary indicator more appropriate and informative than a continuous measure (Wacziarg and Welch 2008).

Table 3. Leader Specialization at University

Education Model	Economics	Law	Other Social Science	Humanities	Other	Total
Anglo-American	37	44	48	11	64	204
Non-Anglo-American	72	135	40	42	120	409

Note. Subject studied data are missing for 24 non-Anglo-American leaders.

account for domestic institutional and demographic factors. We measure *Executive constraints* using the liberal component index from V-Dem (Pemstein et al. 2020).¹⁶ *Ethnic fractionalization* is measured using data from Dražanova (2020) and Gibler and Miller (2014), while logged *Population* figures come from Gleditsch (2002). We include two indicator variables to account for historical and external influences: *Former British colony* and defense pact with the United States (*US ally*), obtained from Hensel (2014) and Leeds et al. (2002), respectively. Each is taken the year before the leader entered office, to rule out reverse causation.¹⁷ Finally, we include, *Time in office*, an individual-level measure for the length of a leader's tenure (in years).¹⁸

RESULTS

We evaluate our first hypothesis by estimating two sets of models for each of the five outcomes: a model with the full set of control variables and a model with regional and decade fixed effects that excludes the largely time-invariant control variables.¹⁹ The omitted reference category in all of the models is leaders with no university education.

Table 4 presents the results. Consistent with hypothesis 1, only the Anglo-American model is associated with a consistent liberalizing effect across all outcomes: the coefficient on *Anglo-American education* is positive and statistically significant in all models. Neither Other Western nor Hierarchical institutions have consistent effects across all outcomes. *Other Western education* is positive and statistically significant at $p < .05$ (two-tailed) in models 9 and 10 and at $p < .1$ (one-tailed) in models 3 and 7, and, somewhat surprisingly, it is negative and statistically significant at $p < .1$ (one-tailed) in the two financial openness models (5 and 6). *Hierarchical educa-*

tion is positive and statistically significant at $p < .05$ (two-tailed) in models 9 and 10, and at $p < .1$ (one-tailed) in models 1, 3, and 4.

To further evaluate hypothesis 1, and to distinguish across education models, we conduct a series of postestimation Wald tests. These tests indicate that the coefficient on *Anglo-American education* is significantly different (and larger) than *Hierarchical education* in all models, except for model 9.²⁰ The coefficient on *Anglo-American education* is significantly different (and larger) than the coefficient on *Other Western education* in most of the models for the economic outcomes (1, 2, 4, 5, and 6).²¹ The coefficient on *Other Western education* is actually greater ($p < .1$, two-tailed) than that on *Anglo-American education* in model 9 (the liberal democratization outcome). The coefficients on *Other Western education* and *Hierarchical education* are significantly different from each other for the financial openness and democratization outcomes but not for any of the other three outcomes.²²

These results highlight that the effect of Anglo-American institutions is qualitatively different from other educational models, including other Western institutions, and is especially pronounced for economic policies. Notably, the identified differences in effect size between Anglo-American and Other Western provide support for our theory yet contradict the socialization account, which implies no such difference in effects.

Another result that stands out is that all college-educated leaders, irrespective of the education model, are more likely to implement liberal democratic reform than leaders with no college education: the coefficients on all education models are positive and statistically significant ($p < .05$, two-tailed) in both models for liberal democratization. This result suggests that higher education itself makes democratization more likely.

16. *Executive constraints* is a component of the *Rule of law* and *Liberal democracy* measures and is excluded from those models.

17. For new states, we follow Gift and Krčmaric (2017) and use values from the year of independence.

18. *Time in office* is reset if a leader serves multiple times. Varying its functional form did not affect results.

19. The fixed effects specification greatly increases each estimated model's sample size, as leader spells with missing values on one or more control variable remain in the sample.

20. The two coefficients are significantly different at $p < .05$ (two-tailed test) in models 1, 3, 4, and 8, at $p < .1$ (two-tailed) in models 2 and 5, and at $p < .1$ (one-tailed) in models 6, 7, and 10.

21. The two coefficients are significantly different at $p < .05$ (two-tailed test) in models 5 and 6 and at $p < .1$ (one-tailed) in models 1, 2, and 4.

22. The two coefficients are statistically different at $p < .05$ (two-tailed) in model 9, at $p < .1$ (two-tailed) in model 5, and at $p < .1$ (one-tailed) in models 6 and 10.

Table 4. Tertiary Educational Model and Political Outcomes

	Trade Liberalization		Rule of Law		Financial Openness		Human Rights		Liberal Democracy	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Anglo-American education	1.750** (.579)	1.609** (.600)	.032** (.010)	.033** (.011)	.225** (.108)	.152+ (.098)	.161** (.065)	.095* (.057)	.055** (.011)	.049** (.010)
Other Western education	.754 (.663)	.541 (.710)	.018+ (.011)	.012 (.012)	-.195+ (.131)	-.168+ (.116)	.143+ (.088)	.093 (.090)	.087** (.019)	.068** (.017)
Hierarchical education	.658+ (.497)	.561 (.532)	.013+ (.008)	.011+ (.008)	.077 (.095)	.026 (.091)	.071 (.056)	-.027 (.051)	.044** (.010)	.037** (.009)
Economic development	.017 (.242)		.012** (.004)		.042 (.050)		.073** (.026)		.012** (.004)	
Oil producer	-.504 (.559)		-.022+ (.015)		-.061 (.124)		-.159* (.082)		-.019* (.010)	
Executive constraints	2.069** (.968)				.231+ (.163)		.426** (.114)			
Former British colony	-.661+ (.486)		.003 (.010)		-.141* (.081)		-.086* (.049)		-.001 (.007)	
US ally	.008 (.482)		.011* (.007)		.117+ (.085)		-.117** (.050)		.002 (.007)	
Ethnic fractionalization	-.108 (.726)		-.012 (.016)		-.212+ (.155)		-.133+ (.092)		.009 (.011)	
Population	.062 (.140)		-.003* (.002)		-.025 (.022)		-.093** (.017)		-.004* (.002)	
Time in office	.035 (.028)		.0005 (.001)		.019* (.010)		.0002 (.004)		-.001+ (.001)	
DV entering office			-.109** (.021)	-.095** (.018)	-.220** (.029)	-.197** (.026)	-.254** (.031)	-.145** (.018)	-.178** (.027)	-.166** (.024)
Constant	-3.962* (2.283)	-2.649** (.770)	-.013 (.037)	-.013 (.035)	-.247 (.470)	-.090 (.131)	.036 (.264)	-.193** (.097)	-.025 (.039)	.053** (.025)
Observations	240	242	730	745	588	671	850	973	847	958
R ²			.075	.110	.132	.130	.129	.119	.123	.146
Log likelihood	-95.912	-80.302								

Note. Standard errors clustered by country in parentheses. Models 1 and 2 use logistic regression, and models 3–10 use ordinary least squares. DV = dependent variable.

+ $p < .1$, one-tailed.

* $p < .1$, two-tailed.

** $p < .05$, two-tailed.

Next, we evaluate the effect of leader subject specialization on liberal policy reform, conditioned by Anglo-American (AA) and non-Anglo-American (non-AA) institutions, in table 5. The reference category in all models is leaders with no tertiary education. It is evident that studying economics at Anglo-American institutions is associated with a liberalizing effect across policy outcomes.²³ While previous work has found that an Anglo-American economics education is linked with more liberal economic policies, our theory and analysis also highlights its association with improved human rights and democratic reform.

We also find that leaders who studied law at Anglo-American institutions are consistently more likely to implement liberal reform: postestimation Wald tests show that the coefficients on *AA economics* and *AA law* are statistically indistinguishable across models. This result is novel in two ways. First, prior research has focused primarily on the effects of economics training, largely ignoring that other disciplines may exert similar liberalizing effects. Given that legal training is the most common specialization in our sample, this result is also substantively meaningful. Second, these results help separate competing mechanisms related to education training: the similarity in outcomes for leaders with economics and law degrees suggests that it is the amount of exposure to broad liberal values, rather than acquisition of subject-specific technical competencies, that leads to policy reform.

The results for Anglo-American social science and humanities majors are more mixed. Leaders who studied social sciences are associated with increases in the liberal democracy level of their country. Leaders educated in humanities are more likely to improve rule of law and liberal democracy, compared to leaders with no tertiary education. Other (neither humanities nor social sciences) Anglo-American majors are also more likely to implement liberal reform in trade, rule of law, human rights, and democratic reform. Finally, Anglo-American academic subjects are jointly significant in models 1–4, 7, 9, and 10.

As expected, leaders who studied at non-Anglo-American institutions are not consistently associated with liberal outcomes. There are two exceptions. First, leaders from non-Anglo-American institutions are associated with increases in liberal democracy, regardless of specialization, compared to leaders with no tertiary education. Second, leaders with legal degrees from non-Anglo-American institutions are more likely to implement trade liberalization and improvements to the rule of law than leaders with no university education, although this effect is smaller than that of *AA law*. That legal training from both Anglo-American and non-Anglo-American insti-

tutions affects trade liberalization and rule of law, albeit with differing intensities, suggests that law's focus on logical consistency and rule-based applications is distinct from other specializations. These specific aspects stressed across the three main legal traditions (common, civil, Islamic) align with classical liberal values, implying that, while ad hoc, the results for *Non-AA law* are consistent with our specialization argument.

Finally, leaders who attended military schools (irrespective of location) are not consistently statistically distinguishable from leaders with no tertiary education. Leaders with non-Anglo-American military backgrounds are, however, more likely to roll back liberal democracy. In fact, this is the only category of specialization associated with a negative and statistically significant coefficient on any of the five policy outcomes. The null effect associated with *AA Military school*, while consistent with our theory, does run counter to the expectations of socialization theories. Military educators often take great effort to socialize foreign cadets and incorporate them into the host's communities and ways of life, in an effort to build lifelong connections and influence future leader's foreign policy leanings (Martinez Machain 2021, 317). That military education appears to exert little impact on leaders' domestic policy actions suggests that the key factor for the transmission of classical liberal values is course content, rather than interactions with peers and community contacts.

In addition to supporting our hypotheses, the results are substantively meaningful. The probability that a leader educated at an Anglo-American institution liberalized trade was .35, compared to .17 for another Western institution, .16 for a hierarchical institution, and .09 for no tertiary education, all else equal. For leaders who specialized in economics or law at an Anglo-American university, the probability increases to .58 and .52, respectively. We show the substantive effects of the other variables—all of which are measured on latent scales—by first rank ordering the countries within the sample using their 2012 values. Holding all else constant, a country with the median ranking would improve seven spots in its rule of law ranking (out of 153), four spots in its financial ranking (out of 173), four spots in its human rights ranking (out of 196), and 12 spots in liberal democracy (out of 175), if its leader was educated at an Anglo-American university, compared to no tertiary education. These increase further—13 spots in rule of law, nine spots in human rights, and 12 spots in liberal democracy—if that same leader specialized in economics or law.

ROBUSTNESS: SELF-SELECTION AND STRUCTURAL CONDITIONS

Interpreting the above results as causal, rather than mere correlations, is predicated on the assumption that leaders' assignment to educational models is uncorrelated with their preexisting

23. *Financial liberalization* is only significant ($p < .1$, one-tailed) in one of the two models.

policy preferences. There are two potential sources of endogeneity in our sample. First, leaders with liberal predispositions may self-select into Anglo-American institutions. Second, structural conditions may make it more likely that reform-minded leaders are selected. We employ a number of strategies—a review of relevant literature and several robustness checks using alternative research designs—to explore and rule out each of these potential concerns.

Self-selection

Ideology-based self-selection presupposes that, at the time of admission, international students at Anglo-American universities have a stronger liberal predisposition than students who pursue education elsewhere. In particular, this difference must hold for the subsample of students who are likely to become future leaders of their countries, such as the children of current political elites. The evidence, however, points against such a difference.

A key difference between international students at Anglo-American universities and those that study elsewhere is family income: proof of financial support is a key condition on international admissions at Anglo-American universities. Upon receiving the admissions letter, students must provide the university with evidence of sufficient funds to cover a full year of tuition at the international rate, as well as accommodations.²⁴ Students also have to provide this evidence when applying for a student visa. As a consequence of these financial requirements, the offspring of economic and political elites from illiberal regimes are overrepresented among the international students from non-OECD countries in our sample.²⁵

Indeed, educating their children at Anglo-American universities is a common practice among illiberal elites.²⁶ For example, Chinese President Xi Jinping's daughter and former Chinese Communist Party boss Bo Xilai's son each attended Harvard (Zhang 2012). Children of Syria's Assad, Egypt's Mubarak, and Libya's Gaddafi studied in the United Kingdom (Danin 2011). Bahrain's crown prince Salman bin Hamad bin

Isa al-Khalifa earned degrees from both American University and Cambridge (Danin 2011).²⁷

The relationship between Anglo-American education and family power is also systematically found among the leaders in our sample. Using data from Ellis, Horowitz, and Stam (2015), we identify leaders from elite families on the basis of their father's occupation.²⁸ Among leaders with elite backgrounds, 36 out of 155 (23%) attended Anglo-American universities, compared to 70 out of 453 (15%) for leaders with nonelite backgrounds. This difference is statistically significant at $p < .05$ (two-tailed). There are no such differences for other Western or non-Western universities, foreign institutions, or military schools.²⁹ These results are the opposite of what we would expect based on the liberal self-selection logic.

Children of illiberal elites, moreover, are unlikely to have liberal predispositions irrespective of their destination of study. Their families' connection to the regime guarantees their wealth and political power. Parents grooming their children to become future political leaders have no incentive to expose their children to liberal values. If anything, these international students are likely primed to be skeptical of liberal norms and values.³⁰

The preference among illiberal elites to obtain an Anglo-American education for their children is driven, first and foremost, by institutional prestige, then language of instruction, and distance from the home country (Cebolla-Boado, Hu, and Soysal 2018; Kaba 2012; Mazzarol and Soutar 2002; Wojciuk 2018). Parents from all over the world want to send their children to top-ranked institutions, which tend to cluster in a handful of countries, such as the United States (54 of the top 200), the United Kingdom (29 of the top 200), and continental Western Europe (54 of the top 200; Kaba 2012).

Top universities receive thousands of applications and have their pick at what students to admit. Thus, whether a student is admitted to an Anglo-American university is decided by the school, not the student, and is driven by grades, test scores, and extracurriculars, rather than ideology. And given the strong correlation between the family's status-quo bias and the ability to afford to send an offspring to an Anglo-American university, the pool of potential international students from illiberal regimes likely skews illiberal.

24. For the US law, see <https://studyinthestates.dhs.gov/students/financial-ability>; for the British law, see <https://www.gov.uk/student-visa/money>. Unlike domestic students, international students are generally ineligible for off-campus employment and face restrictions for on-campus employment as well.

25. In our sample, only 7% of leaders were in democracies, and 15% in economically open states, when they turned 18 years old, according to data from V-Dem and Wacziarg and Welch (2008).

26. For example, according to Zhang (2012), 90% of Chinese citizens with assets over \$16 million, and 85% of those with assets over \$1 million, say they will send their children to study abroad, with the United States and other Anglo-American institutions being the top choices.

27. Other examples include that Pakistani leader Perves Musharraf's son studied in the United States, as did Lebanon president Saad Hariri, son of former president Rafik Hariri, as well as the daughters of both Philippines leader Marcos and Indonesian ruler Sukarno (Braw 2014).

28. Leaders whose fathers were royalty/nobility, high-ranking government or military officials, or large plantation owners are coded as elite.

29. The full set of results is presented in the appendix.

30. This type of selection effect, of course, would induce a conservative bias in our statistical estimates.

Table 5. Tertiary Educational Model, Subject Studied, and Political Outcomes

	Logistic		Ordinary Least Squares							
	Trade Liberalization		Rule of Law		Financial Openness		Human Rights		Liberal Democracy	
	Subject (1)	FE (2)	Subject (3)	FE (4)	Subject (5)	FE (6)	Subject (7)	FE (8)	Subject (9)	FE (10)
AA economics	2.794*	3.990**	.046**	.044**	.215	.249 ⁺	.228**	.144 ⁺	.059**	.046**
	(1.441)	(1.011)	(.018)	(.018)	(.198)	(.171)	(.111)	(.105)	(.022)	(.020)
AA law	2.567**	3.495**	.039**	.047**	.215	.124	.149*	.164**	.064**	.068**
	(.966)	(1.284)	(.017)	(.018)	(.232)	(.187)	(.084)	(.072)	(.014)	(.015)
AA social science	1.320	.924	.007	.003	.213	.239 ⁺	.038	-.011	.048**	.039**
	(1.065)	(1.322)	(.017)	(.015)	(.167)	(.153)	(.084)	(.072)	(.017)	(.013)
AA humanities	1.785	2.205**	.073**	.076**	.111	.059	-.043	-.049	.054 ⁺	.057 ⁺
	(1.511)	(.998)	(.024)	(.025)	(.302)	(.309)	(.136)	(.112)	(.041)	(.037)
AA other majors	1.894**	2.138**	.040**	.037**	.264 ⁺	.165	.268**	.175**	.032**	.020*
	(.733)	(.879)	(.014)	(.014)	(.173)	(.138)	(.090)	(.075)	(.011)	(.011)
AA military school	.948	.248	.007	-.002	.177	.141	.080	.058	.021	.008
	(.987)	(1.780)	(.021)	(.017)	(.138)	(.116)	(.140)	(.173)	(.017)	(.015)
Non-AA economics	1.060	1.163 ⁺	.020	.017	-.013	-.085	.091	-.024	.052**	.039**
	(.833)	(.868)	(.018)	(.019)	(.151)	(.128)	(.089)	(.088)	(.014)	(.013)
Non-AA law	1.208*	1.878**	.019*	.017*	.061	.091	.087	.065	.057**	.047**
	(.638)	(.630)	(.010)	(.010)	(.121)	(.101)	(.070)	(.060)	(.013)	(.012)
Non-AA social science	.555	.257	.015 ⁺	.010	.030	.055	.110	.012	.038**	.028**
	(1.093)	(1.198)	(.012)	(.011)	(.166)	(.130)	(.114)	(.094)	(.012)	(.012)
Non-AA humanities	.124	-.344	.010	.005	.068	.027	.185*	.060	.033**	.033**
	(1.267)	(1.474)	(.011)	(.010)	(.140)	(.125)	(.112)	(.098)	(.013)	(.017)
Non-AA other majors	.763	.556	.021**	.015 ⁺	.036	.046	.046	-.038	.031**	.023**
	(.738)	(.916)	(.011)	(.010)	(.093)	(.085)	(.069)	(.065)	(.012)	(.011)
Non-AA military school	.577	1.718*	.015	.015 ⁺	-.064	.095	-.016	.016	-.037**	-.038**
	(.750)	(.906)	(.013)	(.011)	(.166)	(.158)	(.097)	(.082)	(.014)	(.013)

Economic development	-.007 (.249)		.011** (.005)		.051 (.053)		.067** (.026)		.008* (.004)	
Oil producer	-.499 (.617)		-.020 ⁺ (.015)		-.074 (.126)		-.159* (.082)		-.017* (.010)	
Executive constraints	2.071** (.996)				.239 ⁺ (.173)		.438** (.112)			
Former British colony	-.746 ⁺ (.566)		.004 (.010)		-.140 ⁺ (.085)		-.089* (.050)		-.006 (.007)	
US ally	-.201 (.500)		.009 ⁺ (.007)		.114 ⁺ (.087)		-.121** (.052)		.003 (.008)	
Ethnic fractionalization	-.134 (.767)		-.010 (.016)		-.246 ⁺ (.153)		-.121 ⁺ (.091)		.007 (.011)	
Population	.050 (.148)		-.004** (.002)		-.023 (.023)		-.093** (.017)		-.004* (.002)	
Time in office	.027 (.027)		.0004 (.001)		.019* (.010)		.0004 (.004)		-.001 (.001)	
DV entering office			-.108** (.020)	-.096** (.018)	-.218** (.031)	-.198** (.026)	-.254** (.031)	-.142** (.018)	-.180** (.028)	-.177** (.025)
Constant	-3.744 ⁺ (2.384)	-3.748** (.966)	-.012 (.038)	-.016 (.036)	-.320 (.483)	-.140 (.128)	.068 (.257)	-.231** (.100)	.023 (.042)	.065** (.026)
Observations	240	242	730	745	588	671	850	973	847	958
R ²			.085	.122	.130	.132	.135	.123	.133	.162
Log likelihood	-94.299	-74.429								

Note. Standard errors clustered by country in parentheses. FE = fixed effects; AA = Anglo-American; DV = dependent variable.

⁺ $p < .1$, one-tailed.

* $p < .1$, two-tailed.

** $p < .05$, two-tailed.

Alternative research designs

We use several research design strategies that allow us to isolate the causal effect of education, even in the presence of possible self-selection in the full sample. First, we take advantage of a natural experiment opportunity resulting from the overwhelming number of applications at highly ranked universities. Essentially, the only part of the school selection process that is under students' control is selecting the schools to which they apply. Any self-selection process would, therefore, take place at the application, rather than the admission, stage: liberally inclined students may submit more applications to Anglo-American or other Western schools than to schools located in various authoritarian regimes.

After applications are submitted, which schools offer a student admission is entirely random as it relates to the student's liberal predisposition—the omitted variable of concern. Once admissions decisions are made, a student may have a choice between a handful of schools, and the largest driving factor of school choice at this point is rankings/prestige (Cebolla-Boado et al. 2018; Mazzarol and Soutar 2002). Even if liberal self-selection were at work during the application process, a student's choice of school is limited as a result of factors uncorrelated with ideology. Depending on the strength of their application, this choice may not even include Anglo-American or other Western institutions—many students ultimately go to school in their home country despite having applied internationally. And when choosing between two Western schools, the student is likely to use ranking, not ideology, as their ultimate decider, especially given that most 18-year-olds are likely unaware of the subtle curricular differences between Anglo-American and other Western institutions.

Thus, there are two stochastic elements that decouple school selection from students' ideological preferences: the admissions stage and the final choice between a handful of schools that offered admission to the student. As a result, whether a student ends up at an Anglo-American or another Western institution—the two institutional types to which a liberally predisposed student may apply—is as-if random with respect to ideology. Therefore, the differences in effect between Anglo-American and other Western institutions in table 4 can be interpreted as causal.

Second, we perform two subsample analyses: (a) on a subsample of elite families only and (b) on a sample matched on observables. The elite subsample constitutes a “hard test” of our theory: leaders from elite families should be the least likely to implement liberal reform, as they and their families derive the greatest benefits from the status quo. If liberal bias is the selective mechanism at work, leaders from these families should be the least likely to be affected. Meanwhile, the matched design allows, under some assumptions, for recovering unbiased

estimates of the treatment effect: although the potentially offending variable—a leader's liberal bias—is unobservable, it may correlate and follow the same empirical distribution as the observed ones, for example, former British colony or US-aligned state. If this assumption holds, an analysis of a sample matched on observable covariates recovers unbiased estimates of the treatment effect (Imai, King, and Stuart 2008, 483–85). The results from each of these analyses support the inferences of the main analysis.

Structural conditions

We also consider whether structural conditions make it easier for liberal-minded leaders to enter office. If this were the case, then our results may be attributing previously initiated policy changes or domestic political actions to the education of subsequent leaders. We assess this in three ways: first, we consider whether reform make it easier for liberal-minded leaders to enter office. To check for this, we test—and find no evidence—that a change in our dependent variable predicts whether the next leader will hold a degree from an Anglo-American institution.

Second, we examine as-if random leadership turnover resulting from leaders dying of natural causes while in office. As the timing of death and succession is independent of structural conditions, this approach allows us to isolate the effect of education (Jones and Olken 2005; Krcmaric et al. 2020). Third, we adopt an instrumental variable approach, using boarding school as an instrument for Anglo-American education.³¹ The results of both analyses support the inferences from the main analysis.

On balance, the results of these additional checks suggest that leader education is not endogenous to policy outcomes. Complete results are reported in the appendix.

CONCLUSION

Our study advances recent research linking leader education to policy outcomes, by highlighting the role of educational models and specializations in leader's policy behavior. Specifically, it provides evidence that the transmission of classical liberal values is a key mechanism in this process. More broadly, our study emphasizes the importance of microlevel explanations for policy change: while macrolevel factors certainly create constraints, policy decisions are ultimately made by individuals.

Our analysis has several implications. One is that leader education affects debates about liberalization and state

31. Data on whether a leader attended boarding school are obtained from Ellis et al. (2015).

development. Some contend that economic development precedes political liberalization and consolidation, while others argue the opposite (cf. Acemoglu et al. 2019; Boix 2011). Our results indicate that Anglo-American educations make both trade liberalization and democratic reform substantively much more likely, with increases in financial openness and improvements in rule of law and human rights protections more moderate. Coupled with a specialization in law or economics, however, the likelihood of liberalization in most policy areas significantly increases.

Another implication is that incorporating educational models improves our understanding of how major powers create and maintain political orders and hierarchies. While previous research has identified several international factors that affect major power alignment (McManus and Nieman 2019; Nieman et al. 2021), their microfoundations are less understood. A leader's educational background may be a crucial link in why states with similar structural conditions choose whether to align with specific powers.

In addition, our study speaks to the diffusion literature. While previous work has focused on the mechanisms of coercion, competition, and socialization as channels of policy transmission (Simmons and Elkins 2004; Thies, Chyzh, and Nieman 2016), our study suggests that tertiary education networks are also an important pathway. Leaders who attended universities promoting similar values and principles are able to speak to one another from a common framework, reducing transaction costs and identifying focal points, which facilitates the spread of ideas.

From a policy perspective, tertiary education of international students should be viewed not only as a tool for generating human capital but also through the lens of power projection. Investment in tertiary education has a long-term payoff in terms of influence over the policy agenda of other states, by changing the underlying interests of these states' elites (Norrlof 2014, 1063). Shared policy preferences not only reduces military conflict (Gallop and Minhas 2021; Nieman 2016) but also increases coordination and cooperation (Henke 2019). Building world-class educational institutions that attract students from all over the world is an important tool of normative and ideational influence.

For liberal states, however, any foreign policy benefits are conditional on both protecting university autonomy from the state and maintaining egalitarian classroom settings. Government interference in university affairs has downstream effects. Efforts to ban specific theories or subject matter from curricula, policies that undermine classroom environments, and prioritizing budgets and endowments over classroom quality may reduce, or even eliminate, the influence of higher education as a foreign policy tool.

ACKNOWLEDGMENTS

The authors thank Vera Troeger and four anonymous reviewers, as well as Olga Chyzh, Florian Hollenbach, and Joowon Yi, for their thoughtful feedback. All remaining errors are our own.

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