Chapter 2
Fostering Economic Competitiveness in China and the US: Untangling the Web of Competing Regulations and Interests

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Abstract Across the globe, governments increasingly view their higher education sector as an important component of their economic competitiveness. This no less true for the world's two largest economies: the United States and China. However, the regulatory frameworks of each nation require that the respective governments take different policy approaches to aligning their colleges and universities to help achieve their competitiveness goals. In the United States, higher education governance is very decentralized, with individual institutions retaining a high degree of autonomy. China, on the other hand, operates a more centralized governance model with institutions having a much lower degree of autonomy from the government. This chapter examines and compares the policy foci of these two nations with respect to higher education. Particular attention is paid toward aligning (or not) higher education policy to support each nation's economic competitiveness.

2.1 Introduction

Sino-American relations may be the most important bi-lateral national engagement in the twenty-first century. The United States and China are, respectively, the first and second largest economies in the world. China has the largest population, while the United States has the third largest. They are the largest set of trading partners in the world and China has become the United States' largest creditor. The relationship between these two nations has often been described not as adversarial but rather as a complex combination of competition and cooperation.

In the era of what Wildavsky (2010) labels the "Great Brain Race", the complex relationship between these two nations also applies to higher education. While the United States has long had what is largely considered the world's

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strongest system of higher education, the Chinese are in the process of rapidly developing their own postsecondary education system—investing millions of dollars into research and teaching initiatives. However, even in the midst of this race toward excellence in education, great cooperation still exists. The United States is the largest receiver of Chinese students studying abroad, and there are now dozens of U.S. colleges and universities operating joint degree programs or international branch campuses within China. In many ways, the United States has been a supporting agent in helping to develop and grow the Chinese higher education system; and yet it is these countries' higher education systems that partially support the growing economic competition between these nations.

In the United States, higher education is organized in a very decentralized way, with the states, not the federal government, having primary control over the regulation and financing of such institutions. Moreover, each institution retains a fairly high level of autonomy relative to many other nations. This has allowed for a high level of innovation to occur across institutions; however, it has also made it difficult to align the higher education sector with any type of focused economic competitiveness policy (not that such a thing exists in the U.S.). China, on the other hand, has retained a high level of central authority in the planning and regulations of its higher education sector. Over the past few years, the government has started to devolve power to its local governments and institutions, yet it retains a strong steering role in the affairs of higher education. This allows for greater coordination; however, it can also temper the types of innovative behavior that have been strengths of the U.S. higher education sector.

The purpose of this chapter is to examine and compare the policy focus of these two nations with respect to higher education, with a particular eye toward aligning (or not) higher education policy to support the nation's economic competitiveness. To be clear, the chapter examines the major policy thrusts of each nation; this is not an implementation study and we recognize that on-the-ground implementation does not always reflect stated policy goals. The examination is guided by the theoretical lens of the principal agent theory, which is a powerful tool for investigating the contractual relationship between two entities, such as governments and public higher education institutions. We undertake this task knowing that a chapter such as this does not allow for a full or comprehensive examination of either nation, let alone two such examinations and a comparison. Inevitably important details will be omitted and such omissions should not be taken as a statement of their importance of value. However, while the description may be brief, the analysis has been more extensive and the intent for this chapter is to provide the reader with a general sense of how national policy shapes the organization of the higher education sectors of the two nations. The chapter starts with a brief overview of agency theory and its application to higher education. We then describe the situation in the United States and China, which is followed by a comparison of the two.

2.2 Government and Higher Education: A Principal Agent Perspective

Over the past two decades, an increasing number of scholars having been using the principal agent theory (PAT) as a framework for studying the relationship between governments and higher education institutions (Lane and Kivisto 2008). In the study of higher education, PAT has been used to examine institutional governing boards (Toma 1986, 1990), state governance mechanisms (Lowery 2001; Nicholson-Crotty and Meier 2003), government accountability and oversight (Lane 2007), and performance-based policy initiatives (Kivisto 2005). This framework has proven useful for higher education analysis as it provides a powerful theoretical base, yet remains flexible enough to apply to multiple settings. PAT has particular utility for this comparative case study as it allows us to compare and contrast the two cases, China and the United States, on the same theoretical dimensions. This section provides an overview of the core aspects of PAT and its adaptation for use by political scientists.

Developed by economists to study the contractual relationship between two actors, the principal and the agent, political scientists have adapted the theory to allow its use in the study of governments. The principal hires the agent to provide a service or product that the principal does not have the time or ability to produce on its own. The theory assumes that the agent is guided by self-interest and will seek to maximize its own benefit in lieu of the principal, such action is referred to as shirking. The agent's ability to engage in shirking is strengthened by the information asymmetry that often exists between the principal and the agent in that the agent usually has more knowledge about its own ability and its propensity to fulfill the contract adequately. In order to rectify the inefficiencies of asymmetry and self-interest, the principal interjects monitoring, inducements and enforcements of the agent's actions (Pratt and Zeckhauser 1985). In other words, the principal must define the terms of the contract, monitor the agent's behavior and stipulate a sequence of rewards to shape the agent's behavior to align more closely with the original definition of the contract.

In order to apply PAT to the study of political relationships a number of adaptations needed to be made from the classical approach (Moe 1984, 1990, 2005). Both the economic and political science approaches assume that the relationship between the principal and the agent are governed by a contract; but where the economic approach is based on an explicit contract, the political relationships are often, though not always, defined by implicit contracts. This means that while there is an acknowledgement that an entity may be an agent of the government, the terms of the contract may not be clear. Moreover, in a political relationship, it may not always be possible for the actors to freely opt in or opt out of the contract. The inability of the principals or the agent to freely leave the relationship directly affects how the two entities interact.

Another key difference between the two approaches is that the economic approach assumes the principal to be a single entity. However, in political

situations, there are often collective and multiple principals. A collective principal is comprised of many individuals, all or most of whom must agree in order for the principal to act. For example, many governments in the United States are comprised of legislatures, made up of dozens of individuals, who make many key decisions. In China, a highly centralized government exercises a great deal of control over the direction of most policy areas, including higher education. In addition to having complex collective principals, governments also have varying amounts of multiple principals. That is, in some political situations, an agent may report to more than one principal or conversely, more than one principal may be vying for political control over an agent. For example, in the United States, the Congress and the President act as multiple agents as neither are subjugated to the other, but both have the ability to direct the actions of the government bureaucracy (Moe 1990). However, for many colleges and universities, and other agents of the state, the existence of multiple principals goes far beyond dueling legislative and executive officers. The vast operations of most higher education institutions means that their activities are often regulated and monitored by many different governments agencies, bureaus, and offices. These multiple threads of accountability can create a spider web of oversight, where no one entity has substantial control over the agent, but collectively they create significant contract expectations (Lane 2007). Indeed, this spider web can be particularly problematic because "In an environment with multiple lines of authority, multiple sources of funding, and multiple sets of priorities, the concept of shirking exists but is exceedingly more complicated than that of a simple principal-agent hierarchy" (Lane and Kivisto 2008, p. 170).

PAT postulates that a combination of rational self-interest and maximized utility will invariably lead the agent to deviate from the principal's interest and the contract. In terms of higher education institutions, utility, or self-interest, is often identified through the pursuit of several goals, namely profits, prestige and social responsibility (Winston 1999; Heyneman et al. 2007). With regards to the contract, theoretically principals and agents are in a symbiotic relationship where the action of the agent commits the principal in ways that are supposed to have been shaped by that principal in the first place. Simon noted that the contract is an agreement with considerable freedom of mobility, a two-way authority relationship wherein the subordinate agent has a "zone of acceptance" within which he allows the employer to direct his behavior (Moe 1984, p. 745). While the agent in a political situation may not be able to freely leave the contract, it does have some ability to direct its own actions and may act in defiance of the principal, though the level of defiance may be directly connected to the potential repercussions for such actions. Finally, agency theory maintains economic efficiency as the ultimate purpose and rationale for close coordination between the principal's need and the agent's action. PAT efficiency justifies contractual hierarchy as an essential element of efficiency in part based on the work established by Coase (1937) and Williamson (1975), in which rational actors utilize hierarchy as a mechanism to reduce transaction costs.

Pursuit of its own utility rather than that of the principal is the heart of the agency problem. Information asymmetry can allow the agent to pursue its own goals, rather than the principal's, and the principal may not be aware of such. This information asymmetry often exists as the agent knows more about the functions it is performing than the principal as the principal may not have the necessary knowledge or the time to oversee all of its activities. The principal compensates for informational asymmetry by creating either a behavior or outcome-based contract (Eisenhardt 1989). Such contracts tie payment or rewards to the activities of the agent. With outcome-based contracts, principals compensate the agent for producing certain services or projects. However, the outcome must be observable and/or measurable. With many political relationships, the product is often a public rather than a private good and is not always as readily measured. The many complex goals of higher education institutions are often difficult to measure and, as Kivisto (2005) observed, one must be careful of the type of outcomes measured. He found that by creating a contract that focused on the number of graduates in a specified field led to a decrease in the quality of the graduates as the programs were incentivized to produce large number of graduates, not large numbers of high quality graduates. When outcomes are not observable or available, some principals opt for behavior-based contracts. Behavior-based contracts require agents to act in a certain way. For example, requiring employees to be in the office a specified period of hours or to teach a certain number of hours. However, for faculty it can be difficult to specify the types of activities that lead to quality teaching or research productivity. The types of contracts that are used by governments can allow us to anticipate the activities of institutions and their staffs.

2.3 Case Studies

We turn now to brief case studies of the United States and China. In each case, we provide a general overview of how the country's higher education sector is organized in relation to the national governments and, secondarily, to the state/local governments. We accept that there will be deviations and exceptions in both nations; however, the attempt here is to provide readers with a general sense of how each sector is situated in relation to the relevant government entities. The focus of each case is on the relationship between federal or national government and the public higher education sector in particular.

2.3.1 Higher Education in the United States

The higher education sector in the United States is comprised over 4,500 degree-granting institutions, serving more than 28 million students in 2011 (National Center for Higher Education Statistics 2012). About 38 % of the institutions are

two-year colleges and 36 % are considered public institutions. The sector is comprised of an array of institutional types, including elite research universities, liberal arts colleges, community colleges, comprehensive colleges, and special-focus institutions. Higher education in the U.S. began prior to the nation's 1776 founding with the creation of Harvard in 1636. Those institutions that were developed prior to the revolutionary war were a combination of private and public institutions, each with its own independent governing board (Duryea 2000). Though often closely connected with the local colonial government, these institutions also retained a high degree of autonomy from external interference. This ethos of institutional autonomy continued even after the creation of a more systematized public higher education sector following the formal adoption of the U.S. constitution. Moreover, because the U.S. government is organized on federalist principles and education is a power reserved for the states, the state governments retain primary authority over higher education institutions; thus shifting the federal government into a secondary role. Indeed, almost all public institutions in the U.S. were created and funded by the state governments. However, because of the focus on fostering national competitiveness, we focus here mostly on the relationship between higher education institutions and the federal (national) government.

For most its history, the federal government had very little direct engagement with higher education; although, in the last century, the government increasingly turned to the nation's colleges and universities to help achieve national needs. This has resulted in the federal government accruing more influence over the higher education sector strengthening its role as a principal in the relationship. Up until the twentieth century, higher education remained mostly decentralized, with very little engagement by the federal government. In fact, it was not until 1979, that the nation even had a Presidential Cabinet level position dedicated solely to education. In the early nineteenth century, the federal government attempted to create a national university, though the initiative was closely defeated in the Congress (Rainsford 1972). Since that time, the federal government has sought to influence the higher education sector through a series of policies and funding formulas rather than creating its own. Starting in 1862, with the passage of the Morrill Land Grant Act, Congress began allocating funding to higher education institutions across the nation; in this case to support the development of research and teaching in the agricultural and mechanical fields (Williams 1991). The intention was to bolster economic productivity in these areas to help the nation respond to the changes being brought about by the industrial revolution.

Until World War I, the federal government's engagement in higher education was mostly limited to institutions that received land-grant funding. During the period surrounding the great war, the government created the National Research Council to coordinate its various support for research and development; the Student Army Training Corp to transform students into military personnel, and passed the Smith Hughes Act of 1917 to support vocational training (Kolbe 1919; Quattlebaum 1960 and Rudy 1996). For the next several decades, the federal government would continue to turn to higher education to help support various national needs (Morse 1966; Russell 1951). During the 1930s, President

Roosevelt, with the 1935 Emergency Relief Act, enlisted the help of colleges and universities to support his New Deal programs and help the nation recover from the Great Depression.

However, "while the First World War transformed the relationship between the federal government and higher education, the Second World War transformed higher education" (Hendrickson et al. 2013, p. 93). The needs of the nation to secure advance weaponry and new surveillance techniques propelled the federal government into the nation's most significant funder of research. During this time, Congress also passed the 1944 Serviceman's Readjustment Act, otherwise known as the GI Bill, which greatly expanded access to higher education by covering the cost of higher education for the nation's millions of veterans. This act propelled the U.S. higher education system from an elite to a mass system of higher education. The emergence of the cold war following the cessation of World War II strengthened the federal government's relationship with the higher education sector. For example, in 1950, it created the National Science Foundation, which would eventually come to invest billions of dollars annually in research at the nation's colleges and universities in an effort to advance the nation's health, prosperity, welfare, and national defense (NSF 2009).

During the 1960s and 1970s, the nature of the relationship began to change as economic prosperity was increasingly viewed as a means for achieving the America Dream (Carnevale and Rose 2012) and the federal government became more involved in making college financially affordable. The Higher Education Act of 1965, and subsequent reauthorizations, was an attempt to consolidate about 25 % of the federal government's involvement with higher education under one act. This legislation also created the federal financial aid programs, which would eventually become the most significant source financing for the nation's aspiring college students. During this period of time, college campuses also became political battlegrounds, with students holding protests on the Vietnam War as well as race and gender inequality. The mass protest came as a shock to much of the public and raised concerns about the lack of knowledge of what was transpiring at these institutions of higher learning. Many citizens and government officials thought college leaders should be doing more to curtail these political outbursts and forcing students to focus more on their studies. It was during this time that state and federal governments took a more active role in actually controlling the activities of college and universities as "higher education [was being] criticized because of student protests and campus upheavals. Increased accountability, it was thought, would bring about greater organizational control over dissident students and faculty" (Hines 1988, p. 36).

While in previous decades governments largely refrained from involving themselves in the inner workings of higher education institutions, the media attention and scrutiny garnered by the protests fostered a widely held belief that governments should take create control over their public colleges and universities, as these institutions were publicly chartered and funded to provide a public good (Carnegie Foundation 1976). Since that time both state and federal governments

have become more actively involved in overseeing activities at public colleges and universities.

One of the primary moves that many state governments undertook during this time was to reorganize the governance of their higher education systems, mostly finding ways to centralize authority under a single coordinating or governing board (Berdahl 1971). During this reorganization, there was greater emphasis placed on the selection of governing board members, which most being with appointed by government officials or being elected by the state's population (Kerr and Gade 1989). Many states went a step further and used their authority to require colleges and universities to be subject to state-level purchase approvals, building inspections, performance audits, civil service regulation, and budget reports (Burke 2005; Lowry 2001; Volkwein 1986; Volkwein and Malik 1997).

Despite the increasing calls for accountability among government leaders, the relationship between both the state and federal governments is primarily defined by the funding mechanisms in place. The extent to which a public college or university can be construed as state agencies, subject to political wills and whims, varies by each state. However, as is the case with many bureaucratically created entities, it is unlikely that a state will be able to dissolve a higher education institution if that institution does not comply with the goals or needs of the state. Instead, the relationship between these principals and agents is mostly based on the exchange of funds and the government's ability to require compliance with the laws and regulations that it makes. At the federal level, the billions of dollars supplied through loans and grants to students to pay for tuition and fees provides significant leverage for the federal government to influence higher education, and the federal government does have some control over how federal research funds are spent; although agencies like the National Science Foundation and the National Institute of Health were established to be largely protected from political interference. At the state level, government appropriations, while shrinking in many states, still provide a not-insignificant form of revenue for most institutions. And, the ability of politicians and other policymakers to make life difficult for institutions and their leaders provides them with a large degree of influence over those institutions. The multiple points of governmental connections at both the state and federal levels, then, greatly diminishes the impact and influence of any one principal on the nation's colleges and universities.

2.3.2 Higher Education in China

Since the establishment of the first modern university in Tianjin in 1895, the current landscape of postsecondary institutions in China has flourished. As of May 2011, the Ministry of Education of the People's Republic of China recognized 2,101 regular institutions of higher education, 386 non-state regular institutions, 356 adult institutions (of which two are non-state) and 309 independent institutions. Both

non-state and independent institutions are considered Minban, or private, institutions. By 2010, full time and part time enrolments in public and private institutions surpassed 30 million students (World Bank 2012). However, even though government spending on higher education increased by about 350 % between 1996 and 2008, the public share of total higher education funding decreased from about 80 to 47 % during the same time; institutions began to supplement revenue streams with tuition and fees paid by students and their families, private contributions and other sources of income (Dong and Wan 2012; Yu et al. 2012). This proliferation of institutions, student enrollments and shift in funding streams exemplifies a fundamental shift in the governance and organization of Chinese higher education: trends toward decentralization and privatization. The previously tightly coordinated hierarchy of Chinese higher education governance has diminished to create more space for a deviance between the principal state's interests and those of the institutions.

From 1949 to 1976, a highly centralized hierarchical model characterized Chinese higher education. The key characteristics of this central model are as follows: the Chinese central government (1) provided core funding for universities; (2) set student enrolments for each institution; (3) approved senior staff appointments; (4) authorized all new academic programs; and (5) managed the student assignment process (Mok 2002, p. 261). Ostensibly, the tightly coupled relationship between the state and the institution did not provide freedom to exit or allow for market efficiencies. With the market reforms of the 1980s (decentralization and privatization), Chinese universities have since been granted more power in deciding matters related to student enrolment, adjustment of academic specialties, appointing and dismissing staff, distribution of wages and the conducting of international cooperation and exchanges. Furthermore, private institutions have emerged to supplement the need for higher education training: the community-initiated *minban*, self-financed second-tier colleges and multinational joint programs (Mok 2009).

The current role of government has concentrated on a strategic regulatory function in establishing system-level plans and policies for higher education institutions and in supervising the implementation of these plans and policies. According to a number of system-reform regulations and laws (see Table 2.1), it appears that, to a large degree, the role of the national government as sole principal has diminished while new principals have emerged; albeit the absolute authority vested in the central government means that it is always retains significant influence over higher education, albeit the absolute authority vested in the central government means that it always retains the ability to significantly influence higher education. These new principals manifest themselves as partners and stakeholders of private higher education provision. The categories of private higher education institutions vary according to different funding suppliers: private owner and private run institutions, private-run and state-assisted institutions, state and private cooperation institutions, shareholder institutions, state owner and private assisted institutions, state owner and private run institutions and state and

Table 2.1 Decentralization policies of higher education in China, by year

Year	Policy
1985	*Decision of the central committee of the Chinese communist party on the reform of the educational system*
	Call for steps to streamline administration, devolve decision-making powers to school unit
1993	*Provisional regulations for the establishment of people-run schools of higher education*
	Encourage and support the creation of non-state *minban*, institutions established and managed by social institutions and citizens
1993	*Mission outline of the reform and development of China's education*
	Commitment to decentralization policy from direct control to managing schools through legislation funding, planning, advice on policies
1995	*Project 211*
	Competitive, incentive-based scheme designed to promote the development of the top 100 universities into world class institutions
1997	Introduction of student tuition fees and need-based scholarships
1998; May	*Project 985*
	Competitive, incentive-based scheme designed to further promote the development of top 39 universities through funding for research centers and international academic exchange
1998, August	*Higher education law*
	Call for diversified modes of educational services, flexibility for local and provincial governments to run higher education
1998, December	*Action plan to vitalize education into the twenty-first century*
	Establish flexibility within educational system to address lifelong learning and economic development. Reaffirmation of strategic importance of *minban* to assist with modernization
2002	*Law of private education promotion*
	Grants legal status and profit-sharing rights to *minban.* Encourage second-tier colleges affiliated with traditional universities
2003	*Regulations of the People's Republic of China on Chinese—foreign cooperation in running schools*
	Promotes transnational higher education, especially multinational joint programs

Source Mok 2002, 2009

foreign cooperation-run institutions (Zhou 2006). Arguably decentralization and privatization policies have introduced multiple principals into the tertiary system.

Since the mid-1980s (known to scholars as the post-Mao era), Chinese governance has been experiencing a sequence of highly regulated, market-based reforms in most sectors, including higher education. While the Chinese case certainly retains Sino-specific characteristics, the overall trends point to a consolidation of centralized state provision of services through privatization accompanied by an increase in regulatory oversight (Mok 2002). Massification of higher education put pressure on institutions as total enrollments in higher education increased from about one million in 1980 to over 13 million by 2001. By 2010, enrollments had grown to over 30 million (Min 2004; World Bank 2012). Institutions were officially encouraged to generate revenue in addition to national

appropriations and subsidies in order to begin to support academic activities, both through charging tuition and fees as well as by establishing profit-oriented ventures in the local business communities. Prior to these financial reforms, there was no systematic incentive for efficiency gains in a strictly controlled finance system.

In the midst of financial reform, the national government introduced several projects designed to enhance and elevate the status of research institutions (Yu et al. 2012). In 1995 the Ministry of Education unveiled Project 211, a incentive-based scheme designed to promote the development of the nation's top 100 universities, with the intent of cultivating strategies for socio-economic development. The focus of the project was on improving the physical infrastructure, developing a public information system that would provide electronic access to Chinese academic literature, connecting with academic databases around the world. It was hoped that these improvements would raise the quality of research, facilitate national technological advancement and create international connections and partnerships. While the program supported institutional growth, it also illustrated the central control of the government, which selected which institutions were to be involved—mostly universities controlled by one of the government ministries. A successor policy, Project 985, was revealed in 1998 in order to target global competitiveness for a select few elite universities, especially with regards to scientific research. The major goals of the project were to raise the quality of interdisciplinary approaches, to enhance the quality of the teaching teams by recruiting highly qualified team leaders and experts, and to become world-class leaders in certain research fields by improving facilities and equipment along with developing interdisciplinary exchanges (Lai 2010).

In addition to profits and prestige, education is heavily involved with value judgments of social responsibility in addition to social development. Social responsibility of higher education manifests itself both in economic terms as well as through social cohesion (Colletta and Cullen 2000; Varshey 2002). On the one hand the purposes of education include economic development through the promotion of human capital, capacity, skills and lifelong labor market training. On the other hand the liberal tradition of education understood as informed citizens and public servants remains important to achieving a more socially harmonious society. In China, higher education was historically oriented around grooming civil servants by preparing scholars for the imperial civil service examination system. The compulsory Confucian curriculum centered on the Four Books, the Five Classics and the Thirteen Classics, a collective cannon which emphasized moral education and Confucian values (Zhou 2006). Although the Chinese system eventually adopted a Western European model of higher education in the nineteenth century, this orientation of education as a social responsibility has remained woven into the fabric of institutional purpose. Parents have remained willing to set aside a large portion of their income for purposes of education and students have identified social values as a key motivator of learning (Gao et al. 2004; Yu et al. 2012). From this discussion it is evident that institutions have at least three modes of utility, or motivation for action: profits, prestige and social responsibility.

Some reforms away from a highly centralized government control structure appear to have opened the door to institutional autonomy; however the market-reforms are couched within a single-party limited market context. China operates under a managed capitalism, in which the state actively intervenes in the market, "government officials blur the lines between public and private spheres by establishing clientelist and corporatist relationships with private businesses, and universal laws are complemented, and sometimes supplanted, by administrative guidance, vertical and horizontal relationships and informal mechanisms for resolving disputes….the government relies upon its licensing power and control over access to loans, technology and other information to steer companies in the direction determined by the state" (Peerenboom 2002, p. 75). For example, most public and private higher education institutions provide continuing or adult education without being able to grant a degree as such a right is only granted to regular higher education institutions (Zhou 2006).

The relationship between the Chinese government and the nation's higher education institutions remains very much influx. Not all initiatives to strengthen institutional autonomy have been well designed and some may actually hamper the implementation of such policies. For example, Wang (2008) suggests that an imbalance of reporting requirements and incentive forces has impaired the further development of the efficiency of public service provision. In other words, while an extensive reporting mechanism has been established in order to observe institutional effectiveness, the outcomes of these reports do not appear adequately linked to additional funding or market incentives. Moreover, the government's attempts to devolve some authority to the higher education institutions, must be balanced against the Chinese government's ability to reverse any such devolution whenever desired.

2.4 A Comparative Perspective: Untangling the Web

Though both have large and diverse higher education sectors, China and the United States have taken very different, although increasingly parallel, developmental paths, with both pursuing more market-based policy approaches. While China has begun a movement toward decentralization of control to the institutions; many governments in the United States have strengthened accountability and reporting mandates; though, institutions in the United States continue to retain significantly more autonomy from government control than their Chinese peers and the relationships remains greatly influenced by the construction of those governments. As a single-party system with a highly-centralized bureaucracy, the Chinese government retains a great deal of influence over institutional activities. In the United States, the federalist system that imbues both the state and federal governments with some influence over higher education and the existence of a decentralized, multi-layered bureaucracy allows public colleges and universities in the United States to retain a high degree of autonomy.

As discussed in this book, one of the goals of both of these nations is to enhance their economic competitiveness. This is a national goal; thus suggesting the need for national direction and leadership. Yet, the evolving relationship between each country's national government and its higher education sector has been in a fluid state and draws into question the extent to which the national government can influence its colleges and universities.

One of the primary differences between China and the United States is the extent to which the national government has had control over the nation's higher education sector. In China, governance of higher education institutions has, historically, been very centralized in the national government. In the era, between 1949 and 1976, the central government provided the funding, set enrollment targets, approved staff hires, authorized changes to the academic programs, and decided where students matriculated. The situation in the United States was vastly different during this time period. The federal government had very little influence over any of the functions just listed. In fact, during this time period, most of the funding for public colleges and universities came from the state government and, in most states, the governments engaged in very little oversight of activities like setting enrollment targets, hiring staff, and deciding academic programs. Moreover, the United States has never had a national or state government clearinghouse to assign students to institutions; students have always had the freedom to choose which institution to attend, so long as they could meet the admission criteria and afford the cost; admission decisions are made at the institutional level. The federal government's involvement during this time was largely sporadic and policy driven; that is the federal government would create policies that provided higher education institutions with funding to provide services needed to the government. However, with very few exceptions, colleges and universities in the US are not considered part of the federal government and could opt out of the relationship at any time.

Since the 1970s, the relationship between the national government and the nation's colleges and universities has changed markedly in both countries. In China, despite some attempts to bolster the authority of institutional leaders, the central government retains power to engage in strategic regulatory functions, including establishing and implementing system-level plans and mandates. For example, institutions have been granted a greater ability to make decisions regarding academic planning, enrollment targets, and staff hires. However, there remains a general awareness of the strong power of the Chinese government, which still owns all the land and has the power to reverse any devolution of authority. In the United States, the federal government has garnered increasing influence and control over the nation's colleges and universities through regulation. One of the primary drivers of this change was the federal government's involvement in providing federal financial aid to many of the nation's students. For example, in 2009–2010, the federal government allocated nearly $31 billion to about 8 million students to offset the cost of their postsecondary education. Much of this money, which is allocated to students to support their education, ends up going to institutions to cover the costs of tuition and fees. In addition, the federal

government is one of the largest funders of research at universities and provides funding through a myriad of other programs across multiple departments and agencies. These increasing revenue streams, and the potential to restrict access to them, have given the federal government significant more ability to influence the activities of the nation's colleges and universities. However, institutions retain the ability to opt out of many of these programs, and some have chosen to do so. This option for institutions not to participate in federal programs continues to limit the federal government's ability to influence institutional activities and behaviors. In addition, there is no central planning agency for higher education at the federal level.

Finally, institutions in both countries have increasingly relied on a market-based approach to attracting new revenue streams, particularly as the governments have reduced block grants to support institutional operations. Instead of providing high subsidies to the institutions, the national governments in both nations have taken an alternative approach, namely a performance based budgeting approach that targets much of the new funding toward achieving particular goals such as increasing access or enhancing research productivity. In terms of the institutions pursuing more market-based approaches this has led institutions to focus their attention on attracting new students and engaging in private activities likely to provide new revenue for the institutions. By reducing funding to core operations, institutions have to become more responsive to student demands as there is increasing pressure to attract and retain students and compete for high-quality students. Diluting the funding streams and forcing institutions to enter into new contracts or shifting the power of the relationship from the agent to the principal, such as can be the case with students and institutions diminishes the control of the national and local governments as the institutions must now respond to many more principals than before.

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