



Faced with declining state support, Arizona State University reasserted its public mission and developed a new operational approach—academic enterprise—as a new “logic” for public higher education.



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Higher Logic



IN THE AFTERMATH OF THE GREAT RECESSION, STATE funding for higher education receded aggressively across the country. According to one report by the Center on Budget and Policy Priorities, states' investments in higher education in the school year ending in 2017 were nearly \$9 billion lower than they were in 2008 (adjusting for inflation), even as the nation's public colleges and universities were educating about 800,000 additional students.

By many estimates, the state of Arizona was among the most severe in its reduction of support. State appropriations for its three public universities were reduced from \$1.12 billion in 2008 to \$588 million this past year, a 47 percent drop over 10 years. Our institution, Arizona State University (ASU), joined the University of Arizona and Northern Arizona University in urging the governor and legislature to reconsider. But in truth, ASU's leadership, staff, and faculty had already begun working with the board of regents (the governing body of Arizona's three public universities) to envision an entirely new university operational "logic" that would facilitate massive change. The new logic—which we call academic enterprise—has enabled ASU to significantly enhance its ability to serve the public by rethinking its longstanding but outdated "public agency" relationship with the state.

Beginning in 2002, ASU adopted a dual access and excellence mission and a multidimensional design-build process to advance the mission. Through the design-build process, university leadership, faculty, and staff meet frequently and in different configurations to plan and implement the changes that seem most urgent, beneficial, or promising. By any account, the first step in the transformation process was the characterization of vision for what ASU *could* become. This vision was submitted to the ASU community in many ways, some formally (such as a foundational white paper) and others informally (such as speaking engagements with university and community groups).

Appeared in the Summer 2018 issue of *Leadership* magazine.

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SUMMER 2018

AGB

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TAKEAWAYS

1 Designing public institutions to serve public interest in a rapidly changing society justifies rethinking the organizational logics that dominate higher education. Arizona State University's new logic—academic enterprise—requires public universities to turn their efforts from conserving resources toward maximizing them through careful investment.

2 Rather than defining their publicness as a function of receiving state funding, academically entrepreneurial universities operating within the academic enterprise logic return to the historical mission of public education: to create social and economic progress in the service of the broader public interest.

3 Academic enterprise offers a new path to public institutions that are oriented toward creating positive social outcomes. It can start with institutional leaders thinking of themselves and faculty as academic entrepreneurs and the state as a potential investor seeking a value proposition.



With the vision came a carefully articulated mission statement: “to establish ASU as the model for a New American University, measured not by those whom we exclude, but rather by those whom we include and how they succeed; pursuing research and discovery that benefits the public good; assuming major responsibility for the economic, social, and cultural vitality and health and well-being of the community.” This mission statement would become the foundation upon which transformation would be carried out. Years later, with the design-build process still underway and with the academic enterprise fully adopted as its operational logic, the leadership, faculty, and staff would codify an evolved version of the mission statement as ASU’s charter.

Long before the financial crisis, ASU realized that achieving its ambitious vision would require doing more for the state without receiving more from the state. Accordingly, the university called upon the logic of academic enterprise from the very beginning. And the desired outcomes followed. Between 2002 and 2017, ASU increased enrollment by 85 percent, from 55,491 to 103,530. A portion of that growth has come from more confident recruitment of out-of-state and international students and the growth of our online education offerings, which have added more than 31,000 students to our enrollment. During that span, we also more than doubled the number of degrees awarded per year, from 11,803 to 23,334.

Moreover, by focusing resources on minority and disadvantaged students, we have grown enrollment to better reflect the demographics of the region: minority freshman enrollment has increased by 263 percent from 2002 through 2017, and minority students now represent over 45 percent of overall freshman enrollment. Along with aggressive expansion of educational access, ASU has increased the quality of its student body. For example, ASU is among the top 10 public universities for enrollment of National Merit Scholars, surpassing UCLA, Duke University, Brown University, and the University of Pennsylvania.

ASU has achieved global recognition for its research programs, allowing us to attract world-renowned faculty in every field. The ASU faculty now includes four Nobel laureates, eight members of the National Academy of Engineers, 11 members of the National Academy of Sciences, and two members of the Institute of Medicine. By revamping ASU’s research enterprise, we grew research expenditures more than four-fold from 2002 to 2017, from \$123 million to an all-time high in excess of \$540 million. With this background, ASU is one of the fastest growing research institutions in the nation, ranking ninth among 719 universities without medical schools (based on the 2016 National Science Foundation’s Higher Education Research and Development Survey) and surpassing schools such as the California Institute of Technology, Princeton University, and Carnegie Mellon

University. All of these achievements and more have come in a relatively short time period during which ASU transitioned from an operational scale of about \$840 million, with about 38 percent coming from the state in 2002, to a model with \$2.4 billion in revenue, with only 12.6 percent coming from the state in 2017.

This scale of radical transformation is not common in higher education, but we suspect emerging and complex interactions between such factors as new technologies, rapidly changing social and economic demographics, and evolving social expectations will require more universities to pursue paths of radical transformation. In our experience, such change requires adoption of new operational logics.

WHAT IS AN OPERATIONAL LOGIC AND WHY DOES IT MATTER?

The *academic enterprise* is a new operational logic for higher education with important consequence for governance. To make this case, we must first establish what we mean by the term “logic” and then characterize the “academic enterprise” as something new in the context of higher education.

To begin, we recognize that the term logic has an abundance of uses. Computer scientists, philosophers, and mathematicians use it esoterically to advance complicated ideas according to specific rules and conventions. However, it is not just a term for those initiated into these small circles of scholarly discourse. It also has an everyday meaning that is used routinely in the conduct of a countless number of important (and even unimportant) prac-

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tical undertakings. What makes logic so powerful is that its many high-minded and abstract uses are, in fact, not altogether different from its many routine uses. In both domains, the term describes a system of principles, reasons, and arrangements through which desired results come about. Described in the context of organizational operations and institutional governance, logics provide the answers to questions such as: What is our purpose? What is our path to achieving it? At what scale are we to operate? In the context of a university, operational logics have critical consequences for virtually every stakeholder, including students, faculty, staff, leadership, and the communities in which they are embedded.

With this background, we can appreciate that the effectiveness of a public institution, such as ASU, is determined not only by how it is governed and managed, but also by the unique organizational logic that animates its mission and trajectory. Public universities are especially critical, as they exist for the express purpose of creating and disseminating knowledge that drives economic productivity and social progress. The governance of public universities is of great importance to university leadership and the board members to whom they are accountable. Although some public universities are governed in a way that allows

them to set their own goals and priorities, others are only given the latitude to determine the best methods for carrying out externally defined governance prerogatives. Even in a context of high external control, however, the adoption of new operational logics allows public universities to offer surprising possibilities for realizing enhanced value for students, faculty, staff, and the communities in which they are situated. The extent to which public universities are able to effectively serve the public is not determined solely by governance mandates, but also by the organizational logic adopted, championed, and implemented by their leadership.

Our discussion of organizational logics in public higher education is taking place in a world where state support for higher education is dwindling. Within this context is the importance of establishing that what makes a university public is not its source of funding, but its mandate to serve the public interest. Therefore, it is ironic that many public universities fall short of achieving their full potential and benefit to society not because of insufficient resources, but because of operational logics that fail to maximize outcomes even in the context of changing resources. For example, many universities operate under the *academic bureaucracy* logic that is marked by rigidity, formalization, and specializa-

Description of Operational Logics in Higher Education

	Academic	Academic Bureaucracy	Market	Academic Enterprise
Animating Purpose	Enlightenment of individual students	Organizational preservation	Profit maximization for owners and shareholders	Social transformation
Path to Achieving Success	Immersive instruction	Efficiency in the achievement of state-specified goals	Efficiency and cost reduction	Connecting instruction and knowledge generation at society-impacting scale
Organizational Scale of Impact	Individual or groups of individuals	Community or state	Indeterminate, any scale from which profit can be derived	Society-wide; national and global reach

Managerial and Governance Considerations for Different Operational Logics in Higher Education

	Academic	Academic Bureaucracy	Market	Academic Enterprise
Faculty Self-Concept	Self-governing professionals	Administrative functionaries responding to rules	Commodity laborers	Knowledge entrepreneurs
Assumptions of Management	Management is drawn from and blended with faculty	Traditional public managers are distinct from faculty	Professional management is distinct from faculty and acting entrepreneurially	Management is drawn from and blended with faculty but acting entrepreneurially
Accountability Mechanisms	Faculty and management professionalism	Audits, public reporting, standardized testing	Student choice, standardized testing	Demonstrated economic and social progress
Primary Funding Mechanisms	Enrollment funding from state, endowments	Enrollment funding from state	Vouchers, performance-based funding from state	Diverse sources arising from institutional entrepreneurship

tion. Through this logic, a bureaucratic university facing reduced resource allocations is not likely to adopt entrepreneurial practices to pursue ambitious, large-scale outcomes. Instead, an academic bureaucracy is more likely to adopt austerity measures and exact reductions in operations (and outcomes) while, in parallel, advocating for increased appropriations in future fiscal terms. Although the academic bureaucracy has been instrumental to the growth of public universities over the past few decades, many universities that want to offer greater value and solutions to a world of increasingly complex problems have unknowingly outgrown it.

We believe that designing public institutions to serve public interest in a rapidly

changing society justifies rethinking the organizational logics that dominate higher education. The faculty, staff, and leadership at ASU have undergone the careful process of adopting a new operational logic and demonstrated that doing so is not only beneficial to the public interest, but also viable.

DOMINANT LOGICS OF HIGHER EDUCATION INSTITUTIONS

Many operational logics have emerged throughout the evolution of the U.S. higher education system, reflecting a wide array of historical contexts, institutional missions, and diverse stakeholders. In our estimation, three remain dominant today. The first is the *academy* logic, which is

largely prevalent at elite and usually private institutions. In the academy logic, an institution is designed to be autonomous and self-governing, driven largely by faculty. Because faculty respond first and foremost to the incentives and professional norms of their disciplines, these universities strive to be elite and excellent. Interactions with students tend to follow modes that are intensive but difficult to scale. Most U.S. public universities were initially established under the academy logic but gradually shifted toward the second logic, *academic bureaucracy*, to accommodate public demand for access to higher education. The academic bureaucracy allows the university to operate similar to a government agency, with large bureaus, organizational formalization, and high levels of specialization.

Under conditions of social and economic stability, the academic bureaucracy logic has proven to be a powerful tool in scaling higher education in the United States, but is also slow to adapt and innovate, making it inherently limited as a viable logic in the face of new challenges and opportunities. Consequently, the *market logic* has emerged, defined by the maximization of profit.

Many of the universities operating under the market logic are established as businesses that answer to shareholders. A small number are even traded on the stock market. While innovation is the pathway to profitability in many industries, higher education businesses operating according to the market logic have, over time, found greater profitability through simpler



channels. For example, many for-profit universities have reached multi-billion-dollar valuations by replicating the degree offerings and tuition prices of traditional universities but with ultra-low-cost structures. An unfortunate consequence of the market logic is that the prioritization of profit often leads to poor student outcomes. As a result, many for-profits have closed.

THE GOVERNANCE CHALLENGE FOR PUBLIC UNIVERSITIES

Many public universities were established according to the academic logic but have evolved into academic bureaucracies. As a result, they grow to function as bureaucratic state agencies, which embody three problematic traits when submitted to the dynamically changing modern higher education context. First, they become overly concerned with narrow conceptualizations of efficiency, leading to an unproductive fixation on resource conservation. With the fear that the state may deem their activities wasteful, academic bureaucracies become preoccupied with managing scarce resources. This can be an enabling trait in times of stability but can stifle innovation and lead to operational rigidity and sluggishness in times of change. Secondly, academic bureaucracies become too focused on the political environment, aiming to please a narrow group of external stakeholders such as legislators, donors, and board members rather than focusing on their core mission of serving the interests of students and society. These two characteristics beget a third, interrelated limitation of the academic bureaucracy: a culture of risk aversion that stymies innovation in teaching and learning that could better serve students and discourages meaningful risk-taking in research.

A comparison of how different operational logics affect the management and governance of organizations demonstrates how the academic bureaucracy logic can become an impediment to public universities' ability to realize their full potential to have an impact on their students and society. To reflect on how these logics compare in terms of their implications for management and governance, we can consider what each logic prescribes for the role of faculty, the assumptions of management,

the mechanisms of accountability, and the mechanisms for funding.

HOW CAN THE ACADEMIC ENTERPRISE HELP?

Academic enterprise presents an alternative to academic bureaucracy that can lead to beneficial outcomes for public university stakeholders. Shifting toward this new logic requires public universities to turn their efforts from conserving resources toward maximizing them through careful investment. Rather than defining their publicness as a function of receiving state funding, academically entrepreneurial universities operating within the academic enterprise logic return to the historical mission of public education: to create social and economic progress in the service of the broader public interest. They act entrepreneurially by cultivating multiple sources of revenue and support beyond state funding, including collaborative and strategic partnerships, commercialization of intellectual property, startups and spin-off companies, innovative fundraising, and optimization of their business models. By diversifying the revenue base, just as a well-run private enterprise does, academically entrepreneurial institutions can lessen their dependency on state governments and refocus their operations on teaching, learning, and research that create positive social outcomes. Decreased dependency upon the state, in turn, allows public universities to take greater risks and operate with less concern for external political pressure as the state's investment comes to represent a smaller proportion of revenues.

In contrast with the centralized leadership that is common to the academic bureaucracy, academic enterprise demands leadership from all corners of the university. This logic requires faculty and administrators alike to take ownership for maximizing rather than conserving resources and have accountability for serving the public interest rather than the professional norms of academic disciplines or shifting political winds. Faculty must be treated as knowledge entrepreneurs who are encouraged to take meaningful risks and seeded with resources that they are expected to grow. They must be given the autonomy to collaborate across disci-

plinary boundaries to find research-based solutions to contemporary challenges. As ASU has demonstrated, fostering a culture of accountability, ownership, and interdisciplinary collaboration makes academically entrepreneurial institutions a magnet for high-performing faculty that drive innovation in research and better outcomes in teaching and learning.

THE PROMISE OF ACADEMIC ENTERPRISE

ASU's transformation has proven that the academic enterprise logic is not only practical but also ideal. Through the unique form of enterprise that only a university can advance, important outcomes for society can be realized. By taking full responsibility for its own growth through entrepreneurial measures and effecting a cultural shift toward institution-wide leadership among faculty and staff, ASU was able to shed the self-imposed, artificial, and unnecessary constraints of academic bureaucracy.

Academic enterprise offers a new path to public institutions that are oriented toward creating positive social outcomes. Although every institution operates in its own unique political, governance, and resource context, the starting point for any public university to adopt the academic enterprise logic is to rethink the fundamental assumptions of faculty, staff, leaders, and governing bodies, as suggested by AGB's 2017 report, *The 21st-Century Presidency: A Call to Enterprise Leadership*. This can start with institutional leaders thinking of themselves and faculty as academic entrepreneurs and the state as a potential investor seeking a value proposition. The shift from a bureaucratic, resource conserver mindset to an entrepreneurial, resource maximization model requires strong leadership not only at the senior level, but also across the institution. Such a transformation may be the best hope that public universities have for reclaiming their mission of advancing the pursuit and dissemination of knowledge in the public interest. ■

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