INTRODUCTION

In late 2015, following the Arizona legislature's decision to curtail all state allocations to the state's two largest community college districts in Phoenix and Tucson—writing them out of the state constitution altogether—a group convened by then chancellor Rufus Glasper at the Maricopa Community Colleges posed three simple questions: (1) How many workers with a college certificate or associate degree will be needed in the county's six fastest-growing industry sectors over the next decade? (2) How might Maricopa best meet those workforce needs? and (3) What will this cost and how will the district pay for it without any state support?

To explore these questions, we (I was a consultant hired to lead the project) embarked upon a collaborative exercise with Arizona State University's Decision Theater, an organization and physical space that helps visualize and test solutions to complex problems. The first of the three questions was relatively easy to answer based on data from environmental scans and economic modeling reports. The following two questions were more complex; they involved numerous stakeholders—students, faculty, administrators, governing board members, policy makers, the business community—but more importantly, answering them necessitated a wholly different approach to community college operations, one that relied less on adapting existing programs to meet external pressures, and more on identifying future opportunities and experimenting with the (perhaps substantial) internal changes necessary to take advantage of them.

As our group and several stakeholder audiences surfaced numerous possible solutions to address how Maricopa might best meet identified workforce needs and how to pay for it, I came to two major realizations. First, if Maricopa is to provide the education and training necessary to meet employment demand, it can no longer rely solely on the community college's three historic revenue sources: state subsidies; local support, primarily through property taxes; and tuition. In Maricopa's case, state subsidies were already gone. In theory, the district could attempt to raise property taxes, but a statewide voter referendum limiting expenditures of taxpayer dollars—as well as an overall aversion to higher taxes in Barry Goldwater's home state—made this option less probable. As well, a governing board ideologically predisposed to maximizing efficiencies before raising revenues made it clear that tuition hikes were off the table. Yet little if any fat remained to be trimmed from the budget; Maricopa, like many other community college districts across the country, would require a more entrepreneurial approach to financing and operations if it was to mitigate state disinvestment and preserve its ability to meet the economic and workforce needs of the community.

My second major realization was that although Maricopa and other colleges may be quite experienced in adapting to external pressures—adding a program here, taking on a new type of student there—historically they have not been particularly well equipped to *innovate*, or to engage in the type of creative, intentional change that may disrupt established ways of doing business. In some states, legislative directives that public colleges should not compete with private industry stymie entrepreneurial impulses. Decades-old budgeting and planning processes tied to full-time-equivalent (FTE) students and available allocations from state and local governments act as barriers to more strategic revenue generation and cost- or need-based budgeting proposals. Tenure and collective bargaining agreements support expansion of the colleges' à la carte model of providing something for everyone but inhibit contraction. And fears of more closely aligning a public institution with corporate interests constrain new ideas about industry partnerships and profit-generating initiatives. Clearly, Maricopa needed to become more entrepreneurial in order to

survive, but lacked a process by which it could identify and evaluate entre-preneurial options and experiment with the internal (strategic, budgetary, organizational) changes necessary to optimize outcomes for stakeholders and reduce dependence on state allocations in ways that do not conflict with the institution's mission and values.

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Maricopa does not face this dilemma alone. Across the country, states have systematically disinvested in public higher education in general and community colleges in particular.[1] Between 2001 and 2011, state and local allocations per FTE community college student decreased by 23 percent; by 2017, states were appropriating roughly $2,000 less per student than they had been in 2001.[2] This trend toward disinvestment—coupled with heightened pressure for workforce credentials and greater educational attainment—has put pressure on colleges to seek out new, more entrepre-neurial approaches to raising money and cutting costs, yet this shift has the potential to upend long-established organizational and financial mod-els and raises fears that the colleges will prioritize profits over students, leading to an erosion of academic values.[3] Therefore, college leaders need a framework for exploring entrepreneurship in an empathic manner, one that ensures that new ventures amplify—rather than sacrifice—the institu-tion's mission and the human needs of its stakeholders.

Design thinking—a fundamentally human-centered process in which a diverse group of professionals seeks a deep understanding of stakeholder needs and then tests the desirability and feasibility of new ideas through hands-on experimentation and prototyping[4]—provides such a framework. The process is exceptionally well suited to the challenge of community college entrepreneurship as it is grounded in empathy for college stake-holders and prioritizes the institution's mission and values throughout all stages of the innovation process, thus heading off one of the major cri-tiques of entrepreneurial activities: that revenue-generating behaviors are antithetical to higher education's commitment to serve the public good.[5] In this book I argue that positioning a college or university's entrepre-neurial actions as *market-oriented*, as many scholars and commentators

critical of such activities often do, creates the false dichotomy that a college either serves students or serves the market. Because design thinking begins by empathizing with stakeholder needs and iteratively prototypes and tests new programs or ideas with those same stakeholders, the process can guide colleges in pursuing a *mission-oriented* approach to fiscal sustainability.

OVERVIEW OF CREATING ENTREPRENEURIAL COMMUNITY COLLEGES

Creating Entrepreneurial Community Colleges is organized in three parts. Part I provides context for the central arguments presented in this book and outlines how design thinking can be a useful framework for community colleges to identify and evaluate entrepreneurial opportunities. Specifically, chapter 1 examines the current state of entrepreneurship in American community colleges, describing fiscal uncertainty and other drivers of innovation, offering definitions and examples, and detailing the major theoretical lenses through which entrepreneurial actions have been understood and critiqued. Chapter 2 examines community college entrepreneurship in a historical context—illustrating how it has been limited by an ever-prevalent *add everything, change nothing* ethos within the colleges. The chapter then explores why this next wave of entrepreneurship might be different and argues that an empathic, mission-oriented approach to organizational change is necessary if community colleges are to transcend their history of incremental adjustments and effectively finance and carry out their education, training, and community-uplift missions in the future. Chapter 3 describes design thinking as an approach to innovation and outlines a process whereby college leaders can identify and evaluate options for entrepreneurship and experiment with the internal changes necessary to optimize outcomes for stakeholders.

Part II, "Stories from the Field," illustrates community college entrepreneurship in action at four community colleges and districts across America: the Maricopa Community Colleges (Arizona), North Iowa Area

Community College, Tarrant County College (Texas), and Valencia College (Florida). Throughout 2018 and 2019, I visited these exceptionally forward-thinking institutions, conducting in-depth qualitative interviews with more than fifty current and former leaders, faculty, and staff.[6] All interviews were audio recorded, transcribed, and coded for adherence or divergence to the central tenets of design thinking as well as the four questions in Jeanne Liedtka, Randy Salzman, and Daisy Azer's 2017 book, *Design Thinking for the Greater Good: Innovation in the Social Sector*, which is used as both an organizational framework and a conceptual framework for this book (and is described in detail in chapter 3). Part II thus comprises four chapters, each dedicated to one of the four questions outlined in Liedtka et al.'s approach: What *Is*, What *If*, What *Wows*, and What *Works*. Stories appearing in these chapters illustrate how these four community colleges have approached entrepreneurship in ways that correspond with the design thinking framework (or do not), as well as their challenges, failures, course corrections, and achievements. Chapter 7, "Understanding What *Works*," also explores the role of institutional leaders in cultivating an entrepreneurial culture, as well as the crucial role of external partnerships in community college entrepreneurship and innovation.

Part III transitions from stories of entrepreneurship at the four colleges highlighted in this book to how community colleges everywhere can begin to innovate in mission-oriented ways. In particular, chapter 8 considers the ways in which colleges might modify organizational structures and financial practices to better support and sustain innovative ideas, explores how institutional size and location affect opportunities for entrepreneurship, and investigates the extent to which entrepreneurial actions have reduced the colleges' reliance on state or other sources of governmental funding. This concluding chapter then looks to the future, offering ideas for how colleges might design the next wave of mission-oriented entrepreneurship on their campuses and how the community college sector as a whole can function as one giant learning laboratory in which the creation, testing, and refining of new ideas can be shared across institutional boundaries and tailored to fit each organization's historical, demographic, political, and cultural contexts.

I hope that readers find the design thinking process to be a useful framework for guiding efforts to engage in mission-oriented change, and that the stories contained within these pages provide inspirational examples of how community colleges can identify opportunities to better serve students and communities and experiment with the sometimes-substantial internal changes necessary to take advantage of them. It is important to emphasize that one need not work for an exceptionally well-heeled community college, or one with a long history of entrepreneurial behavior, to embark on this journey. A culture of innovation can gestate just as quickly in small, rural colleges as it can in large urban institutions, and as this book illustrates, an entrepreneurial mind-set can be cultivated and implemented just as easily by biology or agriculture faculty as those in business departments or administrative suites.

ABOUT THE COMMUNITY COLLEGES HIGHLIGHTED IN THIS BOOK

Stories of entrepreneurial efforts at the four colleges and districts I visited are sprinkled throughout this book, especially in chapters 4 through 7. The following provides a bit of context and background information about these institutions, which share a commitment to entrepreneurship and innovative thinking but differ greatly in size, geographic location, and historical and curricular emphases.

Valencia College, Florida

Valencia College, located in the greater Orlando area, is one of the largest community colleges in Florida, enrolling over 62,000 students per year across its seven campuses, Advanced Manufacturing Training Center, and School of Public Safety. The college's extraordinary growth since its inception in 1967 mirrors that of its surrounding area; driving between Valencia campuses feels like an expedition past newly built apartment and office complexes and ever-expanding infrastructure projects. Since 2000

Valencia has focused on scaling academic and workforce development programs through partnerships with area businesses, educational institutions, and community organizations. These include a guaranteed transfer pathway to the University of Central Florida, the Walt Disney World Center for Hospitality and Culinary Arts, a criminal justice institute, and numerous corporate training partnerships, including with Lockheed Martin, Sysco, and Universal Studios. In 2011, Valencia began offering bachelor's degrees in certain applied areas, including nursing, cardiopulmonary sciences, computing technology and software development, radiologic and imaging sciences, business and organizational leadership, and electrical and computing engineering technology.

Among students enrolled in Valencia's credit programs, more than three-quarters are younger than twenty-five, although adults make up the majority of students in continuing workforce education and adult vocational programs. More than half of Valencia's students are from races and ethnicities historically underserved in institutions of higher education and roughly 65 percent attend part-time.[7] Valencia also has a robust international student population, numbering nearly 1,700 in fall 2017.[8] Since 2000 Valencia College has been led by Sanford (Sandy) Shugart, a charismatic, soft-spoken man whose long career in education and writings on leadership are evident in the near-reverent way his employees speak of him and in the thoughtful manner in which he describes the intentions behind various Valencia initiatives.

North Iowa Area Community College

North Iowa Area Community College—NIACC, for short—sits on a small rise on the periphery of Mason City, Iowa. Surrounded by cornfields and pastures, five hundred acres of which are owned and operated by the college, and with several enormous windmills in the distance, NIACC's agricultural roots are obvious, although one step into the college's new science and math wing or robotics laboratory makes clear that the college is also thinking deeply about how it can best prepare students for the increasingly technical and highly skilled jobs of the future. NIACC is the oldest

community college in Iowa: its three hundred faculty and staff and roughly five thousand credit and noncredit students celebrated its one-hundred-year anniversary in 2018.[9]

NIACC students reflect the surrounding population; the vast majority are white, although historically underserved populations nearly doubled between 2005 and 2014 to 11 percent. More than three-quarters of NIACC students are twenty-two or younger, and over half attend part-time. Like many rural community colleges, NIACC has a robust intercollegiate athletics program as well as on-campus housing, used primarily for athletes, international students recruited to the campus, and those who live on the outskirts of the college's 3,700 square-mile service area.[10]

NIACC is the only community college in the state to operate a John Pappajohn Entrepreneurial Center, which works to spur economic growth by providing programs, services, and resources for aspiring and existing business owners in the surrounding communities. (The other five Pappajohn Centers are located at the University of Iowa, Iowa State, the University of Northern Iowa, and Drake University.) NIACC's Pappajohn Center provides a vital connection between the college and community, and its director, Tim Putnam, works closely with NIACC faculty and administrators to help students learn about and incorporate an entrepreneurial mind-set into their everyday lives. NIACC is led by Steven Schulz. A native Iowan and former K–12 superintendent, Schulz's emphasis on partnerships and creating a collaborative work environment has transformed NIACC into one of the most entrepreneurial colleges in the Midwest. Schulz sits on the board of the National Association for Community College Entrepreneurship (NACCE), a member-serving-member organization dedicated to promoting entrepreneurship through community colleges.

Maricopa Community Colleges, Arizona

One of the largest community college districts in the country, Maricopa's ten colleges and two skill centers are located throughout the greater Phoenix area and serve nearly 200,000 credit and noncredit students each year. Roughly half of all Maricopa students are from races and ethnicities historically underserved in higher education; the vast majority of these

are Latinx. Fifty-three percent of students are the first in their families to attend college; 71 percent attend part-time. The average age is twenty-five.[11]

Under the leadership of Rufus Glasper (chancellor from 2003 to 2016), Maria Harper-Marinick (chancellor from 2016 to 2020), and interim chancellor Steven Gonzales, Maricopa has developed numerous entrepreneurial ventures, including Maricopa Corporate College (MCOR), which holds training workshops, boot camps, and employee development and recruitment programs, as well as the Center for Entrepreneurial Innovation, a full-service business incubator located at the district's GateWay campus. Maricopa has a long history of entrepreneurial innovation, however, dating to the inception of Rio Salado College, one of the first "colleges without walls." In 2016 Maricopa and its sister colleges across Arizona campaigned successfully to make entrepreneurial dollars exempt from legislative expenditure limitations, which in theory (if not yet in practice) will allow the district to utilize revenue from entrepreneurial partnerships and programs to mitigate state disinvestment.[12]

Tarrant County College, Texas

From 1965 to 1999, Tarrant County College (TCC) was known as Tarrant Junior College, and its history as the premier transfer institution in the Fort Worth area has shaped much of its institutional culture. Home to six campuses—including TCC Connect, an online campus established in 2015—TCC enrolls nearly 1 in every 22 Tarrant County residents each year, or roughly 51,000 students. Over half of these are from historically underserved races and ethnicities; 72 percent attend part-time; and 71 percent are twenty-four or younger.[13]

TCC's chancellor, Eugene (Gene) Giovannini, was recruited to the institution in 2016 after serving as the founding president of Maricopa Corporate College, in part to introduce the same kind of entrepreneurial thinking at TCC that he had brought to the Maricopa system. A fast-speaking, gregarious man with a thick New York accent, Giovannini gives the impression that his mind is several chess moves ahead of what is currently occurring, and his enthusiasm for TCC's future as an institution that utilizes entrepreneurship as a method to deliver on its mission is contagious. Under

his leadership, TCC has expanded its corporate solutions and economic development work through customized training at the TCC Opportunity Center, embarked upon an aggressive online education business model with TCC Connect, and is in the process of an organizational and cultural orientation to three basic goals: to operate as one college, to be student-ready, and to serve and partner with the community, including businesses and the workforce. Giovannini is past chair of the board for NACCE.