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Why Do Colleges Become Universities? Mission Drift and the Enrollment Economy

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Abstract This paper analyzes mission drift in baccalaureate colleges. "Becoming a university," defined as a change in organizational name (e.g., Aurora College becomes Aurora University), symbolizes the transition from a liberal arts mission to a comprehensive university mission. Mission drift is conceptualized as a form of "divergent change," which can be studied using institutional theory. This paper develops testable hypotheses about becoming a university by integrating institutional theory literatures on market factors, institutional factors, and network factors. Hypotheses are tested by applying panel methods to a 1972–2010 panel dataset of all private organizations defined as "liberal arts colleges" by the 1973 Carnegie Classification. Results show that colleges became universities in response to declining freshmen enrollments, prior adoption of curricula associated with the comprehensive university model, and when network contacts previously became universities. Organizational age and strong market position lowered the probability of becoming a university. The findings contribute to literatures on organizational change and mission drift. Given that most postsecondary institutions—both public and private—are increasingly tuition reliant, future research should analyze the adoption and the effects of behavioral changes designed to increase enrollment-related revenue.

Keywords Organizational change · Higher education finance · Organizational theory · Panel methods · Curriculum

Historical scholarship argues that dramatic changes in postsecondary organizational behavior are often motivated by the desire to generate enrollment-related revenue. For example, Veysey (1965) and Collins (1979) argued that the modern American university emerged when struggling colleges adopted curricular and marketing reforms designed to increase enrollments. Brint and Karabel (1989) argued that community colleges adopted the "vocational mission" to increase enrollments once 4-year institutions reclaimed

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lower-division, undergraduate coursework. Kraatz and Zajac (1996) showed that liberal arts colleges adopted professional BAs to generate enrollments in response to worsening market conditions.

Clark (1956) argued that institutions beholden to an "enrollment economy" engage in mission drift when enrollments decline. The enrollment economy is the extent to which "school income is largely set by student attendance" (p. 332). Clark (1956) used California adult education institutions as a case study because government funding depended on FTE enrollments. These institutions had a historical mission of basic and citizenship education for immigrants. After 1925, immigration ebbed and enrollments declined. Administrators responded to enrollment decline by broadening the curriculum. Enrollments eventually became the primary criteria by which courses were initiated and continued. The philosophy of educators determining curriculum was abandoned in favor of a curriculum determined by students voting with their feet. Clark (1956, p. 336) concluded that

> value adaptation [mission drift], where purpose is reduced to service, will be pronounced when (a) organizations attached to a precarious value (b) continue to find themselves without a dependable clientele, or more broadly, with no specific outside social forces to sustain them. Then organizational needs of survival and security are likely to propel an adaptation to a diffuse social base, and purpose will be adjusted accordingly.

I argue that contemporary analyses of organizational change should focus on the enrollment economy. While a handful of prestigious institutions generate substantial research, donation, and endowment revenues, most private (and increasingly public) institutions depend predominantly on tuition revenue (Desrochers and Wellman 2011). Therefore, studies of organizational change should analyze how institutions alter their curricula and mission to grow tuition revenue. The present study analyzes why baccalaureate colleges became universities. "Becoming a university," defined as a change in organizational name (e.g., Aurora College becomes Aurora University), symbolizes the shift from a liberal arts mission to a comprehensive university mission.

I review the literature on organizational change in liberal arts colleges (e.g., Breneman 1994; Kraatz and Zajac 1996) and the literature on mission drift (e.g., Baker et al. 2007; Morphew 2002). I develop a conceptual framework by defining mission drift as a form of "divergent change" (Greenwood and Hinings 1996), which can be studied using institutional theory. I create testable hypotheses about becoming a university by integrating institutional theory literatures on market factors (e.g., D'Aunno et al. 2000), institutional factors (e.g., Sanders and Tuschke 2007), and network factors (e.g., Greve 1995). I test hypotheses by applying panel methods to an analysis sample of all private "liberal arts colleges" (as defined by the 1973 Carnegie Classification) and an analysis period of 1972–2010.

I find that colleges became universities in response to declining freshmen enrollments, prior adoption of curricula associated with the comprehensive university model, and when network contacts previously became universities. Organizational age and strong market position lowered the probability of becoming a university. Whereas selective colleges did not become universities, unselective colleges had a high probability of becoming universities and a high probability of death. Therefore, I argue that colleges became universities to grow and diversify enrollments (e.g., add graduate education) so that organizational stability would no longer be dependent on the traditional customer base of full-time, undergraduate students.

Literature Review

In 1973 the Carnegie Foundation released *A Classification of Institutions of Higher Education*. The classification (herein 1973CC) was largely based on 1969–1970 degree completion data and 1970–1971 enrollment data from the Higher Education General Information System (HEGIS). Whereas "comprehensive universities" offered professional degrees and MAs, "liberal arts colleges" were defined as small institutions focused on BAs in liberal arts fields (though some had "modest occupational programs" (p.3)). On the basis of curriculum, liberal arts colleges were also distinguished from "specialist institutions"—theological seminaries, teachers colleges, schools of engineering and technology, schools of business, schools of art, etc.

Many scholars have argued that liberal arts colleges make unique contributions to society (e.g., Bloom 1987; Ferrall 2011; French 1979; McPherson and Schapiro 1999). Breneman (1990, p. 3) described several of these contributions:

> Liberal arts colleges are distinguished by a mission of providing four-year baccalaureate education exclusively, in a setting that…rewards good teaching above all else. [They] are the source of a disproportionate number of graduates who go on to earn doctorates and to pursue academic careers. Their "privateness" means that certain values—religious and otherwise—can inform their mission in ways not possible at state institutions, while their small size makes possible a sense of community among students, faculty, and staff that can rarely be achieved in larger settings.

Beginning in the 1970s, however, changes in the external environment threatened the survival of liberal arts colleges. First, student preferences changed from liberal arts to professional majors (Turner and Bowen 1990). Second, the population of "traditional" college-age students declined after the "baby boom" generation entered college (Mayhew 1979). Third, liberal arts colleges faced increased competition from growing enrollments at public universities (Kraatz and Zajac 1996). Amidst these adverse economic conditions, scholars predicted non-prestigious private colleges (Astin and Lee 1971), and liberal arts in particular (e.g., Mayhew 1979; Zammuto 1984), would become extinct. However, subsequent research showed these fears to be unfounded (Kraatz and Zajac 1996; St. John 1991); enrollments flourished and few colleges closed.

Breneman (1990, p. 3), however, made the "startling discovery" that many liberal arts colleges had transformed into a different kind of organization. He defined liberal arts colleges as organizations that awarded at least 40 % of BAs in liberal arts fields and did not have significant graduate programs (he also defined them in terms of fulltime enrollments and total enrollments, factors that were not used in his initial definition). Applying 1986 HEGIS data to this definition, the population of 600 liberal arts colleges diminished to 212.[1] "My discovery was as simple as it was disturbing: the liberal arts college as we know it is disappearing…and another type of institution—the professional college—is taking its place" (Breneman 1990, p. 3).

Curiously, Breneman's (1994) book-length manuscript analyzed only the 212 colleges that continued to fulfill his liberal arts college criteria. Baker et al. (2012) used cross-sectional descriptive statistics to analyze whether these 212 colleges fulfilled the liberal arts curricula in 2010. Ferrall (2011), using data from 1987 to 2008, showed a trend towards professional education for the sample of 225 colleges ranked in *America's Best Colleges, 2009* by U.S. News. These studies used cross-sectional methods and excluded

[1] His initial sample of 600 liberal arts colleges was based on the 1987 Carnegie Classification.

more than 400 colleges that had ceased to fulfill Breneman's (1990) criteria by 1987, thereby ignoring early wave curricular changes that caused the most dramatic declines in the number of liberal arts colleges.

Therefore, Kraatz and Zajac (1996) made an important contribution by using annual panel data to analyze curricular change in the 1973CC population of liberal arts colleges. At the time, institutional theorists argued that organizations in strong institutional environments were resistant to change, even in the face of adverse economic conditions (DiMaggio and Powell 1983; Meyer and Rowan 1977). Liberal arts colleges provided an ideal test case because their core organizational identity supposedly depended on an exclusive curriculum of BAs in liberal arts fields. Contrary to institutional theory, most colleges adopted professional BA degrees from 1971 to 1986. Though the findings provided a tonic to then prevailing views of organizational stasis, Table 1 suggests that Kraatz and Zajac (1996) defeated a paper tiger; even in 1966, the proportion of BAs awarded in professional programs was 37 % for the median 1973CC liberal arts college, undermining the claim that professional BAs were anathema prior the 1970 s.[2]

Delucchi (1997, 2000), using data from 1993, showed that many organizations continued to claim a liberal arts academic mission despite awarding mostly professional BAs. Drawing on institutional theory, he argued that organizations claim allegiance to missions considered legitimate by external constituents. A central tenet of institutional theory is that organizations "decouple" publicly claimed missions from their actual "technical core" (Meyer and Rowan, 1977). Delucchi (2000) found that 70 % of institutions engaged in decoupling, defined as claiming a liberal arts curriculum despite awarding at least 60 % of BAs in professional fields.

A related literature focuses on mission drift. Some authors discussed mission drift in terms type and level of degrees awarded (e.g., Aldersley 1995; Baker et al. 2007; Gumport and Snydman 2002; Toma 2009). Table 1 shows that most colleges fulfilled Breneman's (1990) criteria in 1970, but that number declined dramatically over time. In contrast, Morphew (2002) defined mission drift as a change in name (e.g., Leslie College becomes Leslie University), and analyzed why "colleges" in 1990 became "universities" by 1998. Drawing on institutional theory (DiMaggio and Powell 1983), Morphew (2002) hypothesized that becoming a university was associated with low selectivity. This hypothesis was supported. Drawing on resource dependence theory (Pfeffer and Salancik 1978), Morphew (2002) hypothesized that becoming a university was associated with low financial resources. This hypothesis was not supported.

Following Morphew (2002), the present study analyzes why colleges changed their name to become universities. Following Delucchi (2000), I conceive of mission as a public statement of organizational purpose. Mission drift is a shift away from an organization's historic mission towards the mission of another type of organization and is symbolized by a change in organizational name (Glynn and Abzug 2002). Recent studies of liberal arts colleges have one or two data points and analyze about 200 colleges (Baker et al. 2012; Breneman 1994; Ferrall 2011). The present study uses annual data from 1970 to 2010 and analyzes all 678 private, non-profit organizations categorized as liberal arts colleges by the 1973CC. However, given that some colleges failed to satisfy Breneman's (1990) criteria in 1970 this study refers to "baccalaureate colleges" rather than "liberal arts colleges."

[2] Author's calculations based on HEGIS/IPEDS data. These 2-digit Classification of Instructional Program (CIP) codes are categorized as liberal arts: 16 = foreign languages, literatures, linguistics, 23 = English language/lit, 24 = liberal arts, general studies, humanitie, 27 = math/statistics, 38 = philosophy/religious studies (academic), 40 = physical sciences, 42 = psychology, 45 = social science, 50 = visual/performing arts, 54 = history.

Table 1 Change over time in curriculum and enrollment statistics for private liberal arts colleges (1970 Carnegie Classification)

	Non-liberal arts BAs as pct of all BAs					Ratio of MAs to BAs awarded				
	10th (%)	25th (%)	50th (%)	75th (%)	90th (%)	10th	25th	50th	75th	90th
1966	1	14	37	56	69	0.00	0.00	0.00	0.00	0.09
1970	1	13	35	54	68	0.00	0.00	0.00	0.00	0.13
1975	8	24	48	64	76	0.00	0.00	0.00	0.00	0.18
1980	9	37	58	72	82	0.00	0.00	0.00	0.01	0.36
1985	8	46	64	77	86	0.00	0.00	0.00	0.08	0.34
1990	11	45	64	77	86	0.00	0.00	0.00	0.16	0.49
1995	12	41	61	74	84	0.00	0.00	0.02	0.20	0.54
2000	14	42	63	75	84	0.00	0.00	0.07	0.35	0.86
2005	18	41	62	74	85	0.00	0.00	0.12	0.42	0.94
2010	17	41	62	75	84	0.00	0.00	0.19	0.52	1.06
	Total headcount (undergrad + grad, FT + PT)[a]					PT undergrad as pct of all undergrad (headcount)[a]				
	10th	25th	50th	75th	90th	10th (%)	25th (%)	50th (%)	75th (%)	90th (%)
1970	316	567	847	1,232	1,705	0	1	3	11	23
1975	353	563	873	1,275	1,888	0	1	4	13	29
1980	392	657	1002	1,474	2,154	2	4	12	25	41
1985	398	672	1056	1,640	2,295	2	5	14	30	49
1990	486	787	1191	1,901	2,633	2	5	15	33	52
1995	579	922	1361	2,024	2,825	2	4	14	31	49
2000	626	986	1525	2,245	3,116	2	4	11	27	44
2005	731	1083	1717	2,568	3,535	1	3	10	22	37
2010	716	1138	1859	2,800	3,932	1	3	9	20	33

Sample sizes: 625 in 1966, 669 in 1970, 675 in 1975, 627 in 1980, 605 in 1985, 582 in 1990, 568 in 1995, 564 in 2000, 546 in 2005, 544 in 2010

Source: Author's calculations based on HEGIS/IPEDS data

[a] Enrollment data is unavailable prior to 1969

The study contributes to the literature on organizational change in liberal arts colleges. Whereas Kraatz and Zajac (1996) argued that liberal arts colleges became more "heterogeneous" with respect to curriculum and Breneman argued that they became small "professional colleges," I argue that many of these organizations were in the process of shifting from the liberal arts mission to the comprehensive university mission (1990).

The study contributes to literature on mission drift. One problem with extant research is conceptual; institutional theory and resource dependence theory share theoretical antecedents (Oliver 1991; Parsons 1956), making it difficult to devise hypotheses that represent one theory but not the other (Mizruchi and Fein 1999). This paper makes a conceptual contribution to mission drift by developing a framework that avoids dichotomizing institutional theory and resource dependence theory. Another problem is methodological; extant quantitative analyses of mission drift typically used two data points and employed cross-sectional methodologies (Aldersley 1995; Baker et al. 2007; Morphew 2002), making it difficult to show how longitudinal change in independent variables affect the dependent variable. This paper makes an empirical contribution by using panel data and panel methods.

Theory and Hypotheses

Organizational Templates

I develop a conceptual framework based on institutional theory. Early contributions to institutional theory explain isomorphism, the process by which organizations within a field become similar over time (DiMaggio and Powell 1983; Meyer and Rowan 1977).[3] Economic theories argue that isomorphism is a function adopting technically efficient practices in order to survive (Chandler 1977). Institutional theory argues that organizations must adopt "legitimate" practices, regardless of their technical efficiency, in order to receive necessary resources from the external environment (DiMaggio and Powell 1983; Parsons 1956). However, institutional rules of legitimate behavior, requisite for resource accrual, often run counter to the technical efficiency requisite for survival. Therefore, organizations practice decoupling, showing symbolic acquiescence to institutionalized rules in the organizational superstructure, while practicing technical efficiency in the organizational core (Meyer and Rowan 1977).

Greenwood and Hinings (1996) defined an "organizational template" as the set of commonly accepted practices associated with organizations in a particular field (e.g., liberal arts colleges, accounting firms, etc.). Organizational templates originate outside the individual organization, but have force over all organizations within the field. To be considered part of a field, individual organizations must display symbolic acquiescence to practices deemed appropriate by the organizational template.

Organizational templates are useful for analyzing organizational change (Greenwood and Hinings 1996). "Convergent change" occurs when organizations in a field adopt new behaviors that are consistent with the existing template. For example, the "no-loan" tuition policies adopted by Princeton and Harvard diffused through the population of elite colleges and universities (McLendon et al. 2010), becoming a ubiquitous component of the organizational template. "Divergent change"—the subject of this study—occurs when organizations move from one organizational template to another, enabling organizations to engage more freely in behaviors that were discouraged in the previous template. Divergent change occurs during periods of heightened opportunities and threats, such as the

[3] What I refer to as "institutional theory" some authors refer to as "neo-institutional theory."

introduction of novel technologies (Schumpeter 1942), dramatic regulatory change (Davis et al. 1994), or adverse market conditions (Kraatz and Zajac 1996). Because divergent change involves a change in organizational mission (Greenwood et al. 2002), I define mission drift as the transition from one organizational template to another.

Breneman (1990, p. 4) describes the organizational template for liberal arts colleges:

> Educationally, these colleges award the bachelor of arts degree, are residential, enroll full-time students in the age range of 18 to 24….They rarely enroll more than 2,500 students; most enroll between 800 and 1,800. The kind of education they provide might be described as pre-professional: many students enroll in graduate or professional programs upon graduation, but the college itself offers virtually no undergraduate professional education.

By contrast, the comprehensive university template encourages enrollment growth, encourages the adoption of professional undergraduate and graduate degree programs, and the enrollment of part-time, older, and commuter students (Carnegie Foundation 1973).

Drawing from Delucchi (2000), the template claimed by organizations is often in conflict with the actual "technical core" (Thompson 1967) of the organization (i.e., degrees awarded, class-size, enrollment size, etc.). Though most colleges fulfilled the criteria of the liberal arts template in 1970 (Table 1), few did as time progressed. Institutional theory states that organizations overcome this conflict through decoupling (Meyer and Rowan 1977), a strategy that Oliver (1991) refers to as "concealment" or "buffering." However, the discrepancy between organizational claims and organizational action can only be stretched so far (Coburn 2004). As a college adopts behaviors associated with the comprehensive university template, it may no longer be credible or desirable to continue the concealment strategy of claiming a liberal arts template. Therefore, the college may pursue an "escape" strategy (Oliver 1991), changing organizational templates to leave one institutional environment and enter another.

I highlight two reasons that a baccalaureate college may choose to become publicly affiliated with the comprehensive university template. First, the previous adoption of certain behaviors (e.g., graduate programs) may be deemed particularly inconsistent with the liberal arts template by important constituents. Therefore, public adoption of the comprehensive university template enables the organization to engage more freely in behaviors discouraged by the liberal arts template. Second, public adoption of the comprehensive university template may increase organizational status vis-à-vis external constituents (Morphew 2002). Whatever the rationale, the college moves from a situation in which the institutional and technical environments are in conflict to a situation in which the institutional and technical environments are in synchrony.

I argue that adverse market conditions rendered the liberal arts template unsuitable to the goal of organizational stability. Beginning in the 1970s, baccalaureate colleges faced adverse market conditions, specifically changing student preferences towards professional majors, a declining college-age population, and growth in competition from public universities. Baccalaureate colleges were highly tuition dependent but their template discouraged many behaviors associated with enrollment growth and discouraged enrollment growth itself. Faced with an organizational template incongruent with market conditions, I argue that many baccalaureate colleges engaged in mission drift, transitioning to the comprehensive university template, which encouraged curriculum and enrollment strategies that would increase organizational stability.[4]

[4] However, becoming a university is one of several ways that colleges changed their mission to increase enrollments. One important strategy, outside the scope of this paper, was same-sex colleges becoming co-educational to increase enrollments (Perretta 2007).

Organizational Name Changes

An organizational name is a public statement. It signals conformity—"symbolic isomorphism"—to the institutional field the organization seeks to identify with, increasing legitimacy vis-à-vis peer organizations and customers (Glynn and Abzug 2002). Name changes are "typically part of a deeper set of organizational changes, involving shifts in strategy, structure, and leadership" (Glynn and Marquis 2007, p. 4). During periods of dramatic environmental change, organizations change names to signal the transition to an organizational template more compatible with the environment (Glynn and Marquis 2007). For baccalaureate colleges, I argue that a name change from "college" to "university" publicly signals the transition from the liberal arts template to the comprehensive university template.

What is the function of a name change? By changing names, organizations decrease "identity ambiguities" (Glynn and Marquis 2007) vis-à-vis internal stakeholders, who are given a clearer sense of organizational direction, and potential customers, who see the organization participating in new market segments. Morphew's (2002) analysis of colleges becoming universities highlights the goal of reaching new market segments:

> As the president of a former college put it, "When you say 'college,' a lot of people attribute that [term] to a relatively small, limited type of institution…. For better or worse, the university designation conjures up in people's minds a much more extensive academic program." (Morphew 2002, p. 210).

Given the literature on ceremonial policy adoption (Weber et al. 2009; Westphal and Zajac 1994, 1998), a salient question is whether name changes are cosmetic or indicative of substantive changes in the "technical core" (Thompson 1967). The technical core of the liberal arts template is concerned with the kinds of degrees awarded, the level of degrees awarded (BA vs. MA), the types of students enrolled (full-time vs. part-time), and enrollment size (Breneman 1990). Though colleges claiming a liberal arts template often award mostly professional BAs (Delucchi 1997), I argue that expansion of curricular behaviors associated with the comprehensive university template increased the probability of becoming a university. Furthermore, I argue that becoming a university was associated with substantive changes in organizational outcomes.

Market Factors of Changing Templates

Whereas early contributions to institutional theory suggested that institutional fields are resistant to change even in the face of market pressures (DiMaggio and Powell 1983; Meyer and Rowan 1977), recent contributions have argued that market factors are the dominant cause of institutional change (D'Aunno, et al. 2000; Davis 2005; Kraatz and Zajac 1996). Changes in external environment factors that typically cannot be controlled by individual organizations—e.g., customer preferences, regulation, and technology—may result in a market that cannot support the existing number of organizations (Davis 2005; Davis et al. 1994). Therefore, organizations are likely to change templates when market conditions become inhospitable.

I argue that changes in customer preferences, the number of customers, and competition undermined the viability of the liberal arts template. First, student preferences shifted from liberal arts to professional curricula (Brint et al. 2005; Labaree 2006; Turner and Bowen 1990). Second, baccalaureate colleges faced increased competition due to the growing enrollment capacity of low-tuition public institutions (Thelin 2004). Third, the population of "traditional" college freshman—defined as ages 18 and 19—declined from a peak of 8.7 million in 1979 to a low of 6.9 million in 1992 (NCES 2010, Table 15). I hypothesize:

H1 Colleges were more likely to become universities following (a) a shift in customer preferences away from liberal arts majors, (b) growth in competition from public universities, and (c) a decline in population of traditional customers.

Second, organizations experiencing declines in their core customer base change templates to seek new customers (Davis 2005). For example, D'Aunno et al. (2000) show that rural hospitals facing declines in patients transformed into nursing homes, drug treatment centers, or outpatient clinics. Most baccalaureate colleges are sensitive to enrollment declines because they generate the majority of their revenue from tuition. I hypothesize:

H2 Declines in freshman enrollments increased the probability of a college becoming a university.

I focus on freshman enrollments because organizational stability under the liberal arts template depends on stable cohorts of freshmen enrollments. In contrast, growth in total undergraduates is expected to have a positive relationship with becoming a university for two reasons. First, colleges may become universities after increasing enrollments by implementing enrollment and curricular strategies that are inconsistent with the liberal arts template (e.g., part-time students, transfer students, and professional BA programs). Second, the very idea of high enrollments is inconsistent with the liberal arts template.

Organizations with strong market position may enjoy sufficient consumer demand to retain their organizational template, even as overall market conditions worsen (Greve 1995). Student demand for prestigious liberal arts colleges remains strong even as demand for liberal arts education wanes nationally. By contrast, organizations with weak market position lack sufficient demand to survive under their existing organizational template.

H3 Colleges with strong market position were less likely to become universities.

Drawing on resource dependence theory (Pfeffer and Salancik 1978), organizations dependent on a single resource are in a precarious position should that resource decline. Resource diversification is the most common response to a decline in an important resource. Most baccalaureate colleges, having modest donation and endowment revenue, are highly tuition dependent. By contrast, colleges that generate substantial non-tuition revenue are less vulnerable to enrollment decline and, therefore, less likely to adopt the comprehensive university template.

H4 Colleges with a high proportion of non-tuition revenue were unlikely to become Universities.

Institutional Factors of Divergent Change

Organizational Age

Proponents of the old institutionalism argue that strong organizational histories buffer organizations from field-level factors (Kraatz et al. 2010; Kraatz and Zajac 2001; Selznick 1949, 1957). Clark (1972) analyzed the concept of "organizational saga" through his case study of three liberal arts colleges—Reed, Swarthmore, and Antioch. He defined organizational saga as publicly expressed beliefs about an organization that (a) are rooted in history, often incorporating a founding myth, (b) claim unique accomplishment, and (c) are held with sentiment by the group:

> As participants become ideologues, their common definition becomes a foundation for trust and for extreme loyalty. Such bonds give the organization a competitive edge in recruiting and maintaining personnel and help it to avoid the vicious circle in which some actual or anticipated erosion of organizational strength leads to the loss of some personnel, which leads to further decline and lose (Clark 1972, p. 183).

An organizational saga is, therefore, a valuable, distinctive resource (Barney 1991). Kraatz and Zajac (2001) posited a "resources as commitments" perspective; distinctive resources provide prolonged competitive advantage, but require a prolonged commitment to obtain. Organizations possessing such resources are reticent change templates in response to potentially fickle market changes. Becoming a university undermines organizational saga because continuity between the contemporary organization and its founding myth is the basis of organizational saga.

The strength of an organizational saga is positively correlated with organizational age because organizational saga is rooted in a storied history. Furthermore, because colleges market themselves based on founding dates (Thelin 2004), organizational age is itself an important component of organizational saga. I hypothesize that:

H5 Older colleges were less likely to become universities.

Prior Illegitimate Change

An "illegitimate change" is a behavior that is inconsistent with the organizational template (Sanders and Tuschke 2007). Sanders and Tuschke (2007) analyzed the adoption of stock-option pay for CEOs in German corporations, a practice that was perceived as illegitimate by the institutional environment. The probability of adopting stock-option pay increased following the prior adoption of other illegitimate practices. Sanders and Tuschke (2007, p. 37) posited two mechanisms for this finding. First, prior success adopting controversial behaviors increases confidence that future controversial practices can be adopted successfully. Second, prior adoption of behaviors linked to a new organizational template increases the likelihood that the organization will complete the transition to the new template.

I hypothesize that baccalaureate colleges were more likely to become universities after previously adopting curricular practices that were illegitimate with respect to the liberal arts template, but consistent with the comprehensive university template. I analyze the effect of four curricular behaviors Breneman (1990) defined as inconsistent with the liberal arts template: adoption of professional BAs, adoption of professional MAs, professional BAs as a proportion of total BAs awarded, and the proportion of part-time students. These curricular behaviors—designed to grow and diversify enrollments—weaken identity with the liberal arts template.

H6 Previous adoption of "illegitimate" curricular practices increased the probability of a college becoming a university.

Network Factors Affecting Divergent Change

Drawing on network theory, I conceive of becoming a university as the "adoption" of a practice. The diffusion of a practice is often affected by network ties, which are tangible communication links between prior and potential adopters (Mizruchi 1994). I analyze the diffusion of the comprehensive university template from prior to potential adopters using

two network ties: membership in inter-organizational consortia (e.g., The Christian College Association); and geographic proximity.

The effect of network ties on diffusion depends on the presence of contagious (Coleman et al. 1966) versus competitive (Burt 1992) forces. First, contagion implies the mimicry of socially proximate peers (e.g., Davis 1991). For example, Greve (1995) argued that abandonment of the "easy listening" radio format suggested that peers had formed a negative opinion of the strategy, leading to abandonment by focal organizations. Second, competition occurs when actors use a common, scarce resource. Radio stations, for example, compete for listeners. Strategy abandonment by competitors makes strategy retention more attractive, even for markets in decline; "the focal organization will have more room in its niche, so abandonment by a same-strategy competitor can be seen as winning a war of attrition" (Greve 1996, p. 451).

The first network-tie, membership in inter-organizational consortia, is used by Kraatz (1998) to study the diffusion of professional BAs. Consortia are defined as multipurpose cooperative arrangements between postsecondary institutions (Kraatz 1998). Consortia are treated as a source of contagion because members meet to discuss issues of strategic importance (Patterson 1979) and because consortium members often compete in different local markets. Second, geographically proximate organizations observe the behaviors of one another and may meet informally to discuss strategic actions (Galaskiewicz and Burt 1991; Strang and Soule 1998), factors consistent with contagion. However, geographically proximate colleges compete in the same market; adoption of the university template by a direct competitor leaves more market space for colleges retaining the liberal arts template. Therefore, when geographic proximity is used as a network tie, forces of contagion may trump forces of competition or vice versa.

H7 A college was more likely to become a university when (a) fellow consortium members become universities and (b) geographically proximate colleges previously became universities.

Finally, the concept of social learning implies that actors learn from the positive and negative experiences of their peers (Rogers 2003). When a network contact improves performance as the result of adoption, focal organizations are likely to follow suit. Furthermore, network ties can facilitate the communication of "know-how," such that successful previous adopters can help potential adopters adopt successfully (Weber et al. 2009). Kraatz (1998) found that liberal arts colleges were more likely to mimic the curricular adoptions of their network contacts if previous adopters increased enrollments as the result of adoption.

H8 The probability of becoming a university increased when (a) fellow consortium members and (b) geographically proximate colleges increased enrollments after becoming a university.

Data and Methods

Method

From a modeling perspective, becoming a university is analogous to the adoption of some practice (e.g., Doyle 2006; McLendon et al. 2006). This paper analyzes adoption using random effects logit panel models. Adoption studies often use hazard models. A "discrete-time" hazard model means the analyst knows only that an event occurred at some point

within a time-interval (e.g., college becomes a university at some point in 1997) (DesJardins 2003). Discrete-time hazard models can be estimated using binary panel models where post-adoption observations are removed from the analysis sample (Allison 1982; Tucker 2008).

Equation (1) shows a general logit panel model for the probability that institution i adopts (i.e., becomes a university) in year t, where x_{it} is a set of covariates that vary across organizations and over time and β is the associated vector of coefficients; z_i is a matrix of independent variables that vary across units but not over time and γ is the associated vector of coefficients; v_i is the "individual-specific error term," which varies across units but not over time; ϵ_{it}—usually not written explicitly in panel logit models—is the "idiosyncratic error term," which varies across units and over time.

$$\Pr y_{it} = 1 \, x_{it}, z_i, \beta, v_i = \frac{e^{v_i + x_{it}'\beta + z_i'\gamma}}{\left(1 + e^{v_i + x_{it}'\beta + z_i'\gamma}\right)} \tag{1}$$

$$E\left[\epsilon_{it} v_i, x_{it}, z_i\right] = 0, \textit{for all } t \tag{2}$$

$$E\left[v_i \, x_{it}, z_i\right] = E[v_i] = 0, \textit{ for all } t \tag{3}$$

Two assumptions are commonly made about the correlation between regressors and components of the error term, v_i and ϵ_{it}. Basic panel models assume some form of strict exogeneity meaning that the idiosyncratic error term, ϵ_{it}, is uncorrelated with x_{it}, z_i, and v_i, as shown in Eq. (2). Relaxing this assumption generally requires an instrument variables approach (Cameron and Trivedi 2005). The random effects assumption, shown in Eq. (3) states that the individual-specific effect, v_i, is uncorrelated with independent variables x_{it} and z_i. If the random effects assumption is true, then v_i can be modeled as part of the composite error term. If the random effects assumption is false then coefficients are biased because part of the error term, v_i, is correlated with the regressors.

Fixed estimators remove the potential correlation between individual-specific effect v_i, and regressors x_{it} and z_i by performing a data transformation that eliminates v_i. The fixed-effect transformation for logit panel models requires within-panel variation in both the dependent and independent variables (Cameron and Trivedi 2005), meaning that non-adopters are excluded from the analysis sample. Because the correlates of non-adoption are of substantive interest, this paper employs random effects logit panel models which do not require within-panel variation in the dependent variable but—like hazard models—rely on potentially suspect random effects assumptions.

Panel models should account for heteroskedasticity and serial correlation. Cluster robust standard errors are unavailable in random effects logit panel models. Instead, Cameron and Trivedi (2005) recommend that users calculate bootstrap standard errors, with 50–200 replications. I performed 100 replications.

Sample and Analysis Period

The initial sample included all 678 private colleges categorized as liberal arts colleges by the 1973 Carnegie Classification, including both "liberal arts colleges I" and "liberal arts colleges II" institutions. I eliminated all 28 public institutions from the analysis sample because some public institutions—e.g., UC Santa Cruz—fulfilled the liberal arts criteria only because they had been founded recently. Additionally, public institutions have less discretion about name changes than private institutions.

I created a panel dataset using data from the Higher Education General Information Survey (HEGIS) and its successor the Integrated Postsecondary Education Data System

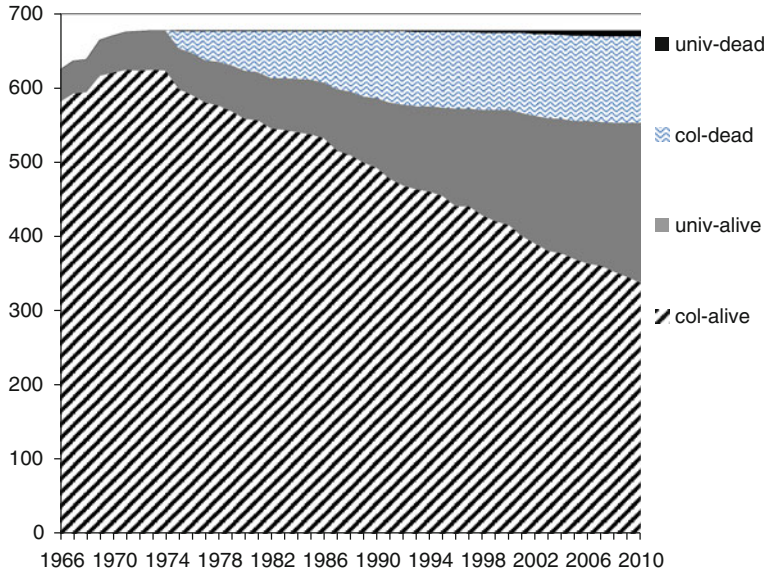

Fig. 1 Becoming a university and organizational death, 1966–2010

(IPEDS) (see Jaquette (2011) for details). Data on degree completions and organizational name were available beginning in 1965–1966 (1966), but the enrollments, finances, and institutional characteristics variables were available beginning in 1970. The effective analysis period was 1972–2010 because time-varying independent variables were lagged 2 years (discussion below). Models with consortia variables used an analysis period of 1972–2000 because Consortia data were unavailable after 2000. Figure 1 shows that, of the 678 private baccalaureate colleges in 1972, 51 were "left censored" (their name included the word "university" by 1971), leaving 627 colleges in the initial analysis sample.

Variable

Dependent Variable

Table 2 provides means, standard deviations, and correlations for the dependent and independent variables. The dependent variable, becoming a university, is a time-varying, dichotomous measure indicating that the organization deleted the word "college" and added the word "university" to its name (e.g., Oglethorpe College becomes Oglethorpe University in 1976). The dependent variable was created using HEGIS/IPEDS survey data. Each name change was manually checked for accuracy.

Independent Variables

Independent variables used 2-year lags, assuming that adoption in the current period was affected by changes in independent variables 2 years earlier. Results were generally robust to alternative lag specifications (available upon request). Following standard practice (Cameron and Trivedi 2005; Hoxby 2000), right-skewed variables used a natural log transformation so that inferences were not based on outliers.

Table 2 Means, standard deviations, and correlations, 1972–2010

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Become a university	0.01	0.09	1.00														
2. Lib arts BAs in state	0.38	0.08	−0.03	1.00													
3. Pub UG FTE in 50mi	36.98	40.32	−0.01	0.36	1.00												
4. Age 15-19 in state	681,697	544,140	0.00	0.39	0.46	1.00											
5. UG FTE non-fresh	853	629	0.04	0.00	0.13	0.11	1.00										
6. UG FTE fresh	272	181	0.01	0.05	0.05	0.07	0.76	1.00									
7. % non-tuition rev	0.44	4.80	0.00	−0.01	0.00	0.00	−0.01	0.00	1.00								
8. tuition price (000 s)	13.16	8.67	0.01	0.15	0.16	0.08	0.26	0.27	0.00	1.00							
9. 1972 Barron's select	2.81	1.08	−0.03	0.22	0.17	0.07	0.18	0.29	0.01	0.41	1.00						
10. organizational age	100	44	−0.02	−0.13	−0.11	−0.11	0.11	0.19	0.01	0.30	0.32	1.00					
11. # prof BA adopted	5.22	3.04	0.05	−0.22	0.02	−0.02	0.34	0.20	0.00	0.26	0.01	0.11	1.00				
12. # prof MA adopted	1.12	1.88	0.08	0.05	0.16	0.08	0.36	0.14	−0.01	0.21	0.02	−0.04	0.37	1.00			
13. % prof BA awarded	0.53	0.26	0.06	−0.33	−0.14	−0.12	0.06	−0.12	0.00	−0.20	−0.49	−0.22	0.31	0.19	1.00		
14. % part-time UG	0.17	0.17	0.04	−0.16	0.16	−0.01	0.06	−0.24	0.00	−0.12	−0.21	−0.25	0.21	0.26	0.39	1.00	
15. % adopt in 100mi	0.09	0.15	0.04	−0.15	0.04	0.14	0.19	0.12	0.00	0.24	−0.05	0.10	0.34	0.22	0.13	0.01	1.00
16. religious affiliation	0.67	0.47	0.03	−0.25	−0.21	−0.19	−0.07	−0.13	0.00	−0.21	−0.32	−0.08	0.06	0.02	0.32	0.12	0.04

Variables excluded from table because of space considerations, FTE chg of local adopter, region of country, urbanization, time % adopting in consortium, FTE chg of consortium adopters

H1 States that external environment factors inhospitable to the liberal arts template increased the probability of becoming a university. For **H1a**, I measured customer preferences as the time-varying proportion of BAs awarded in liberal arts majors in the state. For **H1b**, I measured competition from the public sector as the time-varying logged total enrollments in public universities within 50 miles of the baccalaureate college. Results were robust to radii of 25, and 75 miles. For **H1c**, I measured change in the number of customers as the time-varying logged number of 15–19 year olds in the state (using U.S. Census data). A measure of 18–19 year olds was unavailable for some years.

I tested **H2**, that declines in freshmen enrollments increased the probability of adoption, using logged FTE freshmen enrollments. Logged undergraduate FTE enrollments, net of freshmen enrollments, were included as a control. Following prior research (Kraatz et al. 2010; Kraatz and Zajac 1996), I tested **H3**, that colleges with strong market position were less likely to become universities, using time-varying measures of tuition and tuition squared (2010 CPI). Institutions with strong market position enjoy sufficient demand to charge high prices. Models omitted an alternative measure, 1972 Barron's selectivity, because the highly- and most-selective categories predicted non-adoption nearly perfectly (see Fig. 2), and would thus be dropped from the models. I tested **H4**, that colleges with a high proportion of non-tuition revenue were less likely to adopt, using non-tuition revenue as a proportion of total current revenue. I tested **H5**, that older colleges were less likely to adopt, using the number of years since founding.

H6 States that previous adoption of "illegitimate" practices increased the probability of becoming a university. I defined four illegitimate curricular practices with respect to Breneman's (1990) definition of the liberal arts template. First, following Kraatz and Zajac (1996), I used the number of professional BA degrees previously adopted. However, even by 1966, 87 % of baccalaureate colleges awarded at least one professional BA and 49 % awarded a BA in business (author's calculation), raising doubts about whether professional BAs were inconsistent with the liberal arts template. Second, I used professional BAs as a proportion of all BAs awarded. Third, I used the number of professional MAs previously

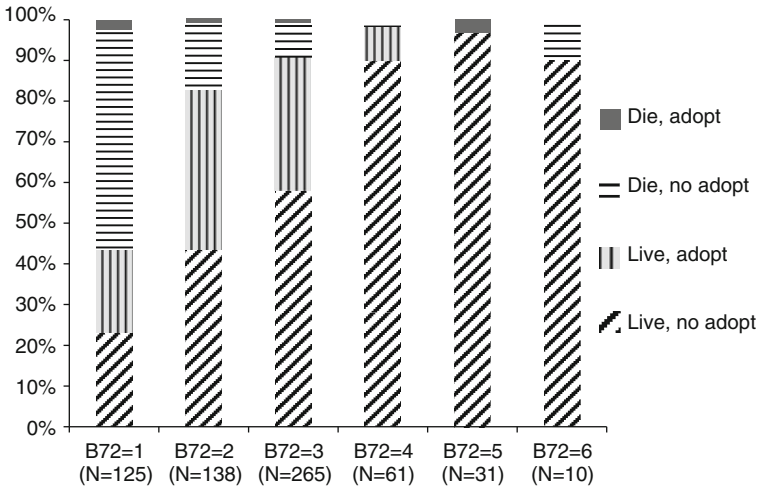

Fig. 2 Rates of adoption and death as of 2010, by 1972 Barron's selectivity. Excludes organizations that were universities in first year observed

adopted. Fourth, I used part-time undergraduate headcount as a proportion of total undergraduate head count.

HEGIS/IPEDS data classify degrees according to the Classification of Instructional Programs (CIP). Degree adoption measures were based on 2-digit CIP codes (e.g., 13 = education) rather than 4-digit (e.g., 13.04 = educational administration) or 6-digit CIP codes (e.g., 13.406 = higher education administration), which were often coded unreliably across institutions. Therefore, the adoption measures identify when a college first began awarding degrees in a broad curriculum area. I consulted the extant literature to categorize degrees as liberal arts versus professional (e.g., Breneman 1990; Turner and Bowen 1990).[5]

H7 States that colleges were more likely to adopt following adoption by (a) fellow consortium members and (b) geographically proximate colleges. Data on inter-organizational consortia were collected in 1971, 1973, 1975, 1977, 1981, 1983, 1986, 1989, 1991, 1996, and 2000 by the Association for Consortium Leadership. If a college was a member of a particular consortium in consecutive years of consortium data collection (e.g., 1991, 1996), then I assumed the college was a member of the consortium during intervening years. There were 276 unique consortia from 1971 to 2000. Examples included the Appalachian College Association and the Association of Chicago Theological Schools. I tested **H7a** using the percent of colleges in the consortium that previously adopted. I tested **H7b** using the percent of colleges located within 100 miles of the focal college that previously adopted. I chose a 100 mile radius (rather than 50 miles for proximity to public universities in **H1**) because organizations of the same type are expected to be aware of one another's actions across a longer distance than organizations of different types (Strang and Meyer 1993).

H8 States that the probability of adoption increased when prior adopting (**a**) consortium members and (**b**) geographically proximate colleges increased enrollments after adoption. I tested **H8a** using the average percent change in total enrollments relative to the year of adoption for previously adopting colleges in the consortium. I tested **H8b** using the percent change in total enrollments relative to the year of adoption for previously adopting colleges within 100 miles.

Control Variables

I included the following control variables: logged undergraduate FTE enrollments net of freshmen enrollments; a 0/1 indicator of religious affiliation; a six-category time-invariant measure of city size; a four-category measure of region (e.g., Northeast); and a measure of the time (in years) and time-squared. Models with consortium variables included a time-varying 0/1 indicator of whether the institution was in a consortium. Models testing **H8** included a time-varying 0/1 indicator of whether any colleges in the (**a**) consortium or (**b**) geographic proximity previously adopted.

Limitations

This paper has several limitations. First, key variables may have been omitted from the models, raising concerns about omitted variable bias. In particular, the old institutionalism views "internal elites" as guardians of organizational values (Kraatz et al. 2010; Selznick 1957). Declines in tenure-line faculty may shift organizational power from faculty to managers who are more oriented to market conditions (Leslie and Rhoades 1995), perhaps making it more

[5] Footnote 2 shows which CIP codes were assigned to liberal arts and professional degrees, respectively.

likely that colleges become universities. Similarly, the probability of becoming a university may be affected by managerial autonomy from the board of trustees or, alternatively, an impetus from the board of trustees. By excluding measures of employees, presidents, and boards of trustees, the paper may overstate the importance of external factors relative to internal organizational power dynamics. Measures of budget deficits were also excluded.

A second potential limitation is that analyses did not utilize an instrumental variables strategy, which could eliminate endogeneity in key independent variables. For example, freshmen enrollments is a potentially endogenous regressor. It may be possible to capture exogenous variation in freshmen enrollments by using external environment variables—e.g., state-level population of "college-age" people—as instruments. This paper entered external environment variables directly into the outcome equation instead of using an instrumental variables strategy. Therefore, models presented here do not satisfy the strict exogeneity assumption (Eq. 2) and cannot make strong causal claims.

A third limitation concerns measurement error in consortium variables. I could not precisely detect organizational arrival to and departure from consortia because these data were not collected every year. Furthermore, consortia have diverse purposes. For example, several consortia were purchasing groups (e.g., the New Orleans Educational Telecommunications Consortium) that did not realistically discuss issues of strategic importance.[6] Due to intermittent measures of consortia data and the inclusion of consortia with diverse purposes, models may have understated the true effect of consortia membership on becoming a university.

A fourth limitation is the assumption that the word "college" implies a connection to the liberal arts curriculum. Although this assumption may not be true for all colleges in the sample, I argue that the assumption is reasonable for *most* of them. The idea of a liberal arts curriculum was a powerful, legitimating institution (Hannan and Freeman 1984; Kraatz and Zajac 1996), especially once the Carnegie Classification was released in 1973 and colleges in the sample were categorized as belonging to this institution. Delucchi (1997, 2000) showed that many postsecondary institutions claimed a liberal arts curriculum despite awarding mostly professional degrees. Additionally, the statistical models provide a test of this assumption; if the expansion of curricular behaviors inconsistent with the liberal arts curriculum was not associated with becoming a university then the assumption is a poor one.

Finally, is name change a reasonable proxy for transition in organizational templates? Certainly, several organizations retained the "college" moniker but behave like comprehensive universities with respect to curriculum. However, the fact that curricular outcomes differ depending on whether the organization changed names (Table 3) suggests that name change was a reasonable proxy for changing organizational templates.

Results

Descriptive Statistics

Dependent Variable

Figure 1 shows change over time in the dependent variable from 1966 to 2010 for the population of private baccalaureate colleges. From 1966 to 2010, 175 organizations became universities, excluding 43 that were already universities by 1966.

[6] Athletic conferences were not included as consortia. Future research could investigate the effect of athletic conferences on diffusion.

Table 3 Change over time in organizational outcomes by 1972 Barron's selectivity and becoming a university

	Barrons72 = 1		Barrons72 = 2		Barrons72 = 3		Barrons72 = 4	
	No adopt	Adopt	No adopt	Adopt	No adopt	Adopt	No adopt	Adopt
Median non-liberal arts BAs as pct of all BAs								
1970	39 %	66 %	47 %	56 %	33 %	43 %	10 %	9 %
1990	59 %	74 %	69 %	75 %	64 %	71 %	30 %	51 %
2010	65 %	81 %	70 %	73 %	60 %	69 %	29 %	40 %
Median PT undergrad as pct of all undergrad (headcount)								
1970	5 %	7 %	5 %	8 %	3 %	9 %	1 %	1 %
1990	15 %	17 %	13 %	20 %	14 %	31 %	6 %	38 %
2010	11 %	17 %	10 %	15 %	8 %	17 %	3 %	23 %
Median total headcount (undergrad + grad, FT + PT)								
1970	356	722	694	841	910	1,025	1,055	744
1990	487	1,216	853	1,526	1,191	1,449	1,214	1,123
2010	831	2,228	1,134	2,571	1,558	2,733	1,668	2,219
Median ratio of MAs to BAs awarded								
1970	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1990	0.00	0.02	0.00	0.05	0.00	0.13	0.00	0.32
2010	0.02	0.38	0.00	0.40	0.10	0.53	0.02	0.95
Mean Barron's selectivity								
1982	1.6	1.9	2.3	2.2	2.8	2.7	3.5	2.8
1992	1.6	1.8	2.4	2.3	2.9	2.7	3.5	3.0
2004	1.8	2.3	2.7	2.8	3.0	2.8	3.8	2.8
N	29	24	60	54	154	86	55	5

This table excludes organizations that were "universities" in the first year observed and organizations that died at some point

Organizational death is another reason organizations leave the analysis sample. I used HEGIS/IPEDS survey data to create a list of potential deaths and then investigated each death using various online resources. I defined mergers as death because, almost without exception, mergers occurred when a healthier organization bought a campus from a struggling organization (Ferrall 2011). Figure 1 shows that from 1966 to 2010, 124 colleges died (including 8 that became universities before death), representing 18 % of the total 678 colleges in the analysis sample. Previous scholarship asserts that very few colleges died (Breneman 1994; Kraatz and Zajac 1996; St. John 1991), but these scholars did not have access to as long a panel.

Figure 2 shows rates of adoption and death as of 2010, categorized by 1972 Barron's selectivity and excluding colleges that were universities in the first year observed. Only 23.2 % of unselective colleges (selectivity = 1) were alive as colleges as of 2010; 20.0 % adopted and 56.8 % died. Adoption rates were highest for "less selective" colleges (selectivity = 2); 39.1 % adopted, 17.4 % died, and 43.5 % remained as living non-adopters. Adoption rates were 32.5 % for competitive colleges (selectivity = 3) and 8.7 % for very competitive colleges (selectivity = 4). Only one highly selective college (selectivity = 5) adopted; Antioch College became Antioch University, died, and has been reborn. No most selective colleges (category 6) adopted, though New College died and has

been reborn. Clearly, selectivity was an important determinant of adoption. However, this measure was unsuitable for regression models because categories 5 and 6 predict adoption nearly perfectly.

Table 3 examines change over time in enrollment and curriculum characteristics for institutions that never adopted versus those that adopted at some point. Table 3 excludes colleges that were universities in the first year and colleges that died at some point. The table controls for 1972 selectivity but not for the timing of adoption; a college that became a university in 1995 would be included in the "adopter" columns for all years. Table 3 shows that adopters and non-adopters—especially unselective colleges—were different prior to adoption in 1970. Adoption was not associated with dramatic changes in the proportion of professional BAs. However, adoption was associated with growth in part-time enrollments, and strongly associated with growth in total headcount and the ratio of MAs to BAs awarded. Unlike Table 3, panel models of the effect of adoption control for the timing of adoption. After controlling for relevant covariates, panel models (not shown) find that adoption had a positive effect on total enrollments, degree production, adoption of professional MA programs, and tuition revenue.

Table 3 shows that, for institutions categorized as unselective in 1972, adoption appeared to be associated with higher subsequent selectivity. For institutions with higher levels of 1972 selectivity (categories 3 and 4), adoption appeared to be associated with lower subsequent levels of selectivity. It is unclear whether adoption had a positive/negative effect on subsequent selectivity or whether the relationship due to non-random selection into adoption. However, triangulating the results from Fig. 2 and Table 3, becoming a university appeared to be attractive option for unselective colleges and an unattractive option for selective colleges.

Modeling Results

Table 4 shows the results of random effects logit panel models of adoption (becoming a university) with bootstrap standard errors calculated using 100 replications. **H1** states that colleges were more likely to adopt following (**a**) a shift in customer preferences away from liberal arts majors, (**b**) growth in competition from public universities, and (**c**) a decline in population of traditional customers. I used state-level proportion of BAs awarded in liberal arts degrees as a measure of customer preferences (**H1a**). Model (1) shows a negative but insignificant relationship between adoption and customer preferences. The coefficient remains insignificant once curriculum variables (e.g., prior adoption of professional MAs) were added in Model (2). Though the coefficient is significant in the hypothesized direction in Model (5), the evidence for **H1a** is weak on the whole.

Growth in undergraduate enrollments at nearby public universities was a measure of competition (**H1b**). In contrast to **H1b**, Model (1) shows that the probability of adoption decreased significantly as competition from public universities increased. This measure of competition may have picked up local population growth—and hence more potential customers—not captured by the state-level measure. The number of 15–19 year olds in the state, a measure of the number of customers (**H1c**), had no relationship with adoption.

Consistent with **H2**, Model (1) shows that declines in freshman enrollments increased the probability of adoption. The coefficient became insignificant once curricular variables were added in Model (2), suggesting that the effect of declining freshmen enrollments on adoption worked through their effect of curriculum. As predicted, growth in non-freshmen enrollments was positively associated with adoption across all model specifications. This

Table 4 Random effects panel logit models of becoming a university, bootstrap standard errors

	(1) Curric	(2) No curric	(3) Curric	(4) No curric	(5) Curric	(6) No curric
L2. % lib arts BAs in state (H1a)	−3.792 (2.060)	−3.991 (2.313)	−3.287 (2.128)	−3.279 (2.168)	−4.096* (2.049)	−4.234 (2.238)
L2.ln pub UG FTE in 50mi (H1b)	−0.107* (0.044)	−0.161* (0.067)	−0.108* (0.043)	−0.162* (0.067)	−0.106* (0.045)	−0.159* (0.067)
L2.ln age 15–19 in state (H1c)	0.093 (0.170)	0.259 (0.190)	0.057 (0.173)	0.226 (0.169)	0.087 (0.177)	0.252 (0.166)
L2.ln UG FTE non-freshmen	1.552*** (0.248)	1.107** (0.372)	1.490*** (0.268)	1.049** (0.389)	1.483*** (0.300)	1.048** (0.389)
L2.ln UG FTE freshmen (H2)	−0.404** (0.127)	−0.161 (0.179)	−0.393** (0.123)	−0.155 (0.186)	−0.404** (0.123)	−0.186 (0.187)
L2.tuition price (000s) (H3)	0.170 (0.089)	0.133 (0.119)	0.176* (0.071)	0.145 (0.119)	0.171* (0.072)	0.134 (0.120)
L2.tuition price^2 (000s) (H3)	−0.008** (0.003)	−0.007 (0.003)	−0.008*** (0.002)	−0.007* (0.003)	−0.008*** (0.002)	−0.007 (0.004)
L2. % non-tuition rev (H4)	−0.003 (0.518)	0.147 (0.561)	−0.003 (0.511)	0.040 (0.775)	−0.003 (0.530)	0.132 (0.764)
Age (H5)	−0.012*** (0.003)	−0.011* (0.004)	−0.012*** (0.003)	−0.010* (0.005)	−0.012*** (0.003)	−0.011* (0.005)
L2.# prof BA adopted (H6)		0.065 (0.053)		0.059 (0.049)		0.068 (0.048)
L2.# prof MA adopted (H6)		0.403** (0.146)		0.391** (0.141)		0.385** (0.142)
L2. % prof BA awarded (H6)		2.843*** (0.631)		2.884*** (0.686)		2.865*** (0.705)
L2. % part-time UG (H6)		0.195 (0.875)		0.342 (0.843)		0.042 (0.798)
L2. % adopt in 100mi (H7b)			1.233* (0.611)	1.950* (0.864)		
L2.# prev adopt in 100mi > 0					0.461* (0.195)	0.586** (0.219)
L2.FTE chg local adopter (H8b)					−0.031 (0.205)	−0.135 (0.273)
Number of panels	588	587	588	587	588	587
Number of panel-years	18,591	18,418	18,591	18,418	18,591	18,418
Max number of years	39	39	39	39	39	39
Avg number of years	31.62	31.38	31.62	31.38	31.62	31.38
Log-likelihood	−804.14	−755.87	−801.64	−750.90	−801.56	−752.23
Sigma_u	0.52	0.78	0.28	0.60	0.01	0.56
Rho	0.08	0.16	0.02	0.10	0.00	0.09

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; covariates not shown: religion, geographic region, urbanization, time

finding reinforces the centrality of the enrollment economy; colleges became universities after pursuing a strong growth trajectory.

H3 States that strong market position, measured by tuition price, decreased the probability of adoption. In Model (1), tuition-squared had a significant negative coefficient,

suggesting that adoption was concentrated in colleges with modest market position. By contrast, colleges with strong market position were unlikely to adopt and Fig. 2 shows that unselective colleges often died. **H4** states that colleges with a high proportion of non-tuition revenue were less likely to become universities. This hypothesis was not supported. However, **H4** was supported in models without curriculum variables when the analyses period was 1976–2010 (not shown). These results suggest that early adoption was not motivated by financial strain but later adopters adopted to grow enrollments when non-tuition revenues were weak. Consistent with **H5**, older colleges were less likely to adopt than younger colleges. This result was robust across models.

H6 States that colleges that had previously adopted "illegitimate" curricular practices were more likely to adopt. I included four measures of curriculum. First, prior adoption of professional BA degrees (e.g., business administration) had an insignificant relationship with adoption. Second, consistent with **H6**, prior adoption of professional MA degrees had a significant positive relationship with adoption. Third, consistent with **H6**, the proportion of BAs awarded in professional majors had a significant positive relationship with adoption. Fourth, the proportion of undergraduates enrolled part-time had an insignificant relationship with adoption. On the whole, the proportion of professional BAs and prior adoption of professional MAs were the strongest predictors in the model.

H7b States that prior adoption by geographically proximate colleges increased the probability of adoption. Consistent with **H7b**, Model (3) shows that the proportion of colleges within 100 miles that previously adopted had a significant positive relationship with adoption. This result remains significant once curriculum variables were added in Model (4). **H8b** states that the probability of adoption increased when geographically proximate prior adopters increased enrollments following adoption. Models (5) and (6) do not support this hypothesis.

Table 5 shows the results of models that included consortium variables. These models were run on the sample of institutions that were ever in a consortium and only for the years 1972–2000, when consortium data were available. Unfortunately, models with bootstrap standard errors did not converge because consortium models used a smaller sample size and bootstrap standard errors are calculated by taking by taking sub-samples of the analysis sample. Therefore, Table 5 is based on models that used conventional standard errors. Bootstrap standard errors tended to be about 30 % larger than conventional standard errors (author's calculation). Therefore, coefficients on the cusp of significance should be viewed with some skepticism.

H7a States that prior adoption by consortium members increased the probability of adoption. Consistent with **H7a**, Model (1) shows that the proportion of colleges in the consortium that previously adopted had a positive relationship with adoption. This finding was significant at the .01 level even when curriculum and geographic proximity variables were included in Models (2) and (6). **H8a** states that colleges were more likely to adopt when prior adopting consortium members increased enrollments following adoption. Consistent with **H8a**, Model (2) shows that the probability of adoption increased following enrollment growth by prior adopting consortium members. This finding was significant at the .05 level without curriculum variables in Model (3) and at the .01 level when curriculum variables were included in Model (4). Further, these findings persisted when geographic proximity variables were included in Models (7) and (8).

Table 5 Random effects panel logit models of becoming a university with consortium variables, conventional standard errors

	(1) No curric	(2) Curric	(3) No curric	(4) Curric	(5) No curric	(6) Curric	(7) No curric	(8) Curric
L2. % lib arts BAs in state (H1a)	−0.719	−0.713	−0.700	−0.260	−0.395	−0.325	−0.607	−0.250
	(2.809)	(2.696)	(2.696)	(2.376)	(2.872)	(2.774)	(2.847)	(2.503)
L2.ln pub UG FTE in 50mi (H1b)	−0.093	−0.117	−0.088	−0.095	−0.095	−0.120	−0.092	−0.100
	(0.069)	(0.067)	(0.065)	(0.052)	(0.070)	(0.067)	(0.070)	(0.065)
L2.ln age 15–19 in state (H1c)	−0.266	0.004	−0.241	0.015	−0.305	−0.036	−0.275	−0.017
	(0.230)	(0.206)	(0.218)	(0.173)	(0.235)	(0.208)	(0.239)	(0.192)
L2.ln UG FTE non-freshmen	1.542***	0.801*	1.526***	0.834*	1.581***	0.829*	1.599***	0.852*
	(0.446)	(0.388)	(0.417)	(0.326)	(0.446)	(0.390)	(0.440)	(0.347)
L2.ln UG FTE freshmen (H2)	−0.334	0.013	−0.394	−0.070 0	−0.366	−0.021	−0.400	−0.094
	(0.263)	(0.312)	(0.240)	(0.273)	(0.264)	(0.314)	(0.259)	(0.295)
L2.tuition price (000 s) (H3)	0.140	0.031	0.103	−0.012	0.159	0.055	0.115	−0.013
	(0.169)	(0.172)	(0.161)	(0.154)	(0.169)	(0.171)	(0.168)	(0.160)
L2.tuition price^2 (000s) (H3)	−0.010	−0.006	−0.008	−0.003	−0.010	−0.007	−0.009	−0.004
	(0.007)	(0.007)	(0.006)	(0.006)	(0.007)	(0.007)	(0.007)	(0.007)
L2. % non-tuition rev (H4)	−0.005	−0.004	−0.004	−0.003	−0.005	−0.004	−0.005	−0.003
	(0.031)	(0.057)	(0.030)	(0.059)	(0.031)	(0.057)	(0.031)	(0.062)
Age (H5)	−0.017**	−0.015**	−0.015**	−0.014***	−0.017**	−0.014**	−0.016**	−0.014**
	(0.006)	(0.005)	(0.005)	(0.004)	(0.006)	(0.005)	(0.006)	(0.004)
L2.# prof BA adopted (H6)		0.067		0.035		0.071		0.043
		(0.066)		(0.053)		(0.066)		(0.059)
L2.# prof MA adopted (H6)		0.489***		0.425***		0.495***		0.452***
		(0.131)		(0.057)		(0.126)		(0.132)
L2. % prof BA awarded (H6)		2.396*		2.377**		2.451*		2.472**
		(0.954)		(0.870)		(0.970)		(0.921)
L2. % part-time UG (H6)		0.292		0.343		0.378		0.299
		(0.982)		(0.806)		(1.006)		(0.928)
L2. in a consortium	−0.094	−0.072			−0.105	−0.088		
	(0.353)	(0.363)			(0.356)	(0.364)		

Table 5 continued

	(1) No curric	(2) Curric	(3) No curric	(4) Curric	(5) No curric	(6) Curric	(7) No curric	(8) Curric
L2. % adopt in consort (H7a)	6.315** (2.263)	6.989** (2.219)			6.270** (2.257)	6.916** (2.196)		
L2.# prev adopt in consort > 0			0.404 (0.377)	0.461 (0.340)			0.386 (0.396)	0.378 (0.368)
L2.FTE chg consort adopter (H8a)			2.250* (0.911)	2.289** (0.723)			2.470* (0.997)	2.536** (0.912)
L2. % adopt in 100mi (H7b)					1.412 (1.322)	1.534 (1.239)		
L2.# prev adopt in 100mi > 0							0.139 (0.343)	0.328 (0.323)
L2.FTE chg local adopter (H8b)							−0.390 (0.478)	−0.366 (0.465)
Number of panels	480	479	480	479	480	479	480	479
Number of panel-years	12,583	12,498	12,583	12,498	12,583	12,498	12,583	12,498
Max number of years	29	29	29	29	29	29	29	29
Avg number of years	26.21	26.09	26.21	26.09	26.21	26.09	26.21	26.09
Log-likelihood	−381.07	−351.51	−377.92	−348.06	−380.47	−350.69	−377.50	−347.37
Sigma_u	1.31	0.92	1.06	0.01	1.36	0.98	1.31	0.53
Rho	0.34	0.21	0.26	0.00	0.36	0.23	0.34	0.08

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; covariates not shown: religion, geographic region, urbanization, time

Discussion and Conclusion

Summary

Clark (1956) stated that mission drift is likely when organizations beholden to an enrollment economy face enrollment instability. I define mission drift as the transition from one organizational template to another, symbolized by colleges becoming universities. I argue that the comprehensive university template offered important advantages as market conditions for the liberal arts template deteriorated. First, the comprehensive university template encouraged enrollment growth, thus allowing for economies of scale. Second, according to resource dependence theory, reliance on a single resource leaves organizations in a vulnerable position should that resource decline (Pfeffer and Salancik 1978). Whereas the liberal arts template relied on full-time students enrolled in liberal arts majors (Breneman 1990), the comprehensive university template encouraged enrollment diversification into part-time students, professional degrees, and graduate degrees.

Model results show that baccalaureate colleges changed templates to increase and diversify enrollments. Colleges were more likely to become universities as freshmen enrollments—a leading indicator of their core constituency—declined. However, colleges were also more likely to become universities following growth in total undergraduate enrollments, suggesting that colleges became universities after the initiation of enrollment growth strategies. Colleges with strong market position were unlikely to become universities; these organizations enjoyed sufficient demand even as market conditions worsened for baccalaureate colleges as a whole. Consistent with the organizational saga literature (Clark 1972), older colleges were less likely to become universities. An organizational saga is source of prolonged competitive advantage that requires continuity between the present organization and the founding myth (Kraatz and Zajac 2001). Changing organizational templates is a break from tradition that undermines organizational saga.

Curricular change was central to the process of becoming a university. The proportion of part-time students and prior adoption of professional BAs were not associated with becoming a university, implying that these two behaviors became consistent with an enlarged liberal arts template. However, the proportion of professional BAs awarded and the prior adoption of professional MAs were strongly associated with becoming a university. Several independent variables (e.g., freshmen enrollments) became insignificant once curricular variables were included in the model; these variables may have affected becoming a university through their effects on the proportion of professional BAs awarded and their effects on the adoption of MAs (Jaquette 2011), which both had direct effects on becoming a university.

Finally, prior adoption by network contacts and the enrollment performance of prior adopting network contacts had a positive relationship with adoption. These results suggest that the mechanism of contagion (Kraatz 1998) trumped the mechanism of competition (Burt 1992). Furthermore, the strength of the results for consortia is surprising given the diverse nature of consortia and the likelihood of measurement error in the consortia measures.

Discussion

Drawing on the mechanism of mimetic isomorphism in institutional theory, Morphew (2002) made a conceptual contribution to the study of mission drift by arguing that colleges become universities to obtain greater legitimacy. He argued that the idea of a "university"

is associated with greater legitimacy/prestige than the idea of a "college." Institutional theory suggests that low-status organizations are particularly likely to adopt symbols associated with high-status organizations. Therefore, Morphew (2002) argued that low-status colleges were particularly likely to become universities.

This study also contributes conceptually to mission drift. I draw on recent institutional theory literature which argues that changes in the external environment cause dramatic changes in organizational behavior, even for organization existing in highly institutionalized fields (e.g., Davis 2005; Greenwood et al. 2002; Kraatz and Zajac 1996; Sanders and Tuschke 2007). In particular, Greenwood and Hinings (1996) argued that organizations in highly institutionalized fields engage in divergent change when environmental conditions become inhospitable to the current organizational template. I conceptualize mission drift as a form of divergent change in which colleges transition from the liberal arts template to the comprehensive university template. Drawing on Glynn and Marquis (2007), I argue that a change in organizational name symbolizes a change in templates. Delucchi (2000) showed that colleges engage decoupling, claiming a liberal arts mission despite awarding mostly professional degrees. Therefore, becoming a university represents a public statement that the organization is changing templates.

In turn, this conceptual framework contributes to the literature on organizational change in "liberal arts colleges." Whereas Kraatz and Zajac (1996) argued that liberal arts colleges became "heterogeneous" with respect to curriculum and Breneman (1990) argued that liberal arts colleges became small professional colleges, the authors did not anticipate that colleges were transitioning to an existing organizational form, the comprehensive university.

Morphew (2002) argued that resource dependence theory provides an "alternative perspective" for why colleges become universities.[7] However, the second wave of institutional theory analyzes organizational change amidst dwindling resources and unstable environmental conditions (e.g., D'Aunno et al. 2000; Davis 2005; Greenwood and Hinings 1996; Greve 1995); organizations engage in divergent change to generate the resources for survival. Furthermore, institutional theory and resource dependence share a theoretical lineage (Clark 1956; Mizruchi and Fein 1999; Oliver 1991; Parsons 1956). I argue that developing alternative hypotheses from resource dependence theory and institutional theory can be counterproductive because it compels researchers to deny this common lineage. Rather than using postsecondary organizations to develop general theory, the field of higher education research uses organizational theory to develop insights about postsecondary organizations. This pursuit benefits most when researchers develop a conceptual framework from a single theoretical perspective—thereby using the whole of that perspective—or when researchers integrate complementary theoretical perspectives, but benefits less from pitting theories that share a common lineage against one another.

Moving beyond discussions of theory, the results suggest strong relationships between selectivity, becoming a university, and death. Highly selective colleges had a low probability of becoming a university and a low probability of death. Unselective colleges had a high probability of becoming a university and a high probability of death, much higher than previous research contends. Conceptually, becoming a university is associated with more freedom to engage in enrollment growth and enrollment diversification

[7] "Resource dependence theory would explain an institution's conversion from a college to a university by exploring whether this behavior could be linked to an organization's attempt to secure continued or increased access to tangible resources such as operating funds, endowments, and research funds" (Morphew 2002, p. 212).

and more visibility vis-à-vis new customers. Empirically, becoming a university was associated with prior enrollment growth and the adoption of curricular patterns associated with enrollment growth. Therefore, similar to Clark's (1956) study of adult education organizations, it appears that becoming a university was motivated by organizational stability.

However, a more complicated relationship between becoming a university and prestige may exist. Baccalaureate colleges and comprehensive universities operate in entirely different prestige markets. Comprehensive universities operate in regional markets; an increase in selectivity from unselective to moderately selective is likely associated with an increase in "local prestige." For baccalaureate colleges, prestige is defined by the characteristics of a handful of elite institutions that compete in a national prestige market (Winston 1999). Non-selective colleges behaving like comprehensive universities fare poorly with respect to a liberal arts template that views Williams College as the ideal-type. Morphew (2002) observed that the idea of the "university" is associated with an increase in prestige and legitimacy for unselective colleges, but selective colleges do not view universities as inherently prestigious. By becoming a university, non-selective colleges make a horizontal leap into a fundamentally different prestige market, one that does not view them from a deficit perspective.

This study leaves several questions unanswered. First, to what extent was becoming a university a "deliberate" or "emergent" process (Mintzberg and Waters 1985)? Although Greenwood and Hinings (1996) argue that divergent change proceeds at a rapid pace, colleges seemed to follow a series of incremental steps prior to becoming a university: first, they adopted professional BAs (Kraatz and Zajac 1996); second, they increased the proportion of professional BAs awarded; third, they adopted professional MAs (Jaquette 2011). While individual administrators are very deliberate (Gioia and Thomas 1996), the process of becoming a university appears to span several administrations. Therefore, future research might assess the extent to which colleges made initial curricular changes with the goal of becoming a university in mind, or whether the momentum of past curricular changes compelled current administrators to consider becoming a university.

Second, though models show that curricular change had a positive effect on becoming a university, this relationship was not deterministic. Why did some colleges become universities after engaging in curriculum change while others did not become universities? This question could be answered by isolating organizations that engaged in similar curricular change and using case studies to analyze why some became universities while others did not. Third, what was the effect of becoming a university on organizational outcomes? Descriptive statistics (Table 3) and preliminary model results (not shown) suggest that becoming a university was associated with larger enrollments, more graduate programs, and higher tuition revenues. However, analyses of the effect of becoming a university face the difficult issue of non-random selection into the "treatment." Furthermore, becoming a university may affect other organizational outcomes, such as class-size, research funding, reliance on adjunct professors, etc. Therefore, future research should address the effects of becoming a university as a central research question.

Conclusion: The Dominance of the Enrollment Economy

Selznick (1957) believed that mission-oriented organizations are important for maintaining societal values. Clark (1956) and Parsons (1956) argued that mission-oriented organizations cannot survive when society is no longer willing to provide resources. In the case of

baccalaureate colleges, an organizational field with a strong institutional identity experienced a decline in societal support such that many organizations transitioned to a more diffuse mission. Similar to California adult education organizations (Clark 1956), baccalaureate colleges were sensitive to the enrollment economy. Both organizational forms replaced a curriculum determined by educators with a curriculum determined by students voting with their feet.

The enrollment economy has important implications for contemporary postsecondary education. Nearly all postsecondary institutions rely on tuition revenue as a primary source of income and this is increasingly true for public institutions (Desrochers and Wellman 2011). As reliance on tuition revenue grows, the enrollment economy increasingly determines organizational decision-making. The goal of serving a distinct mission is replaced by the goal of maximizing tuition revenue through a diversified portfolio of degree programs (Kraatz et al. 2010). Therefore, the dominance of the enrollment economy is associated with a decline in distinctive organizational missions as more institutions attempt to become all things to all people (Birnbaum 1991; Morphew 2009).

Given the importance of the enrollment economy, future research should analyze changes in organizational behavior designed to increase enrollment related revenue. For example, Kraatz et al. (2010) studied the adoption of enrollment management offices by liberal arts colleges. They argued that enrollment management offices subvert organizational values because core processes such as admissions and financial aid are reorganized under the service of growing enrollments from high income, high achieving students. Another important research topic is the adoption and effects of responsibility center management (RCM) budgeting systems. RCM creates incentives for academic units to generate enrollment revenues sufficient to cover costs (Hearn et al. 2006; Priest et al. 2002). Additional projects could analyze why same-sex colleges became co-ed, and why public universities are attempting to increase out-of-state enrollments. In general, the use of organization-level, panel data can yield important insights about changes in organizational behavior that have important effects on opportunities for students.

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