Toward a New Understanding of American Higher Education Institutions: Focus of Educational Offer, Mode of Provision

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This literature review was written by OCLC, in support of a typology of higher education institutions that had been developed by OCLC in partial fulfillment of the University Futures, Library Futures project.

Updated: January 17, 2018

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Executive Summary

The centrality of higher education to US nation-building
Higher education has been central to the project of nation-building at every stage of US history: first as a web of associations linking geographically dispersed and ideologically diverse colleges into a national academic field; then as a multipurpose tool for the advancement of US geopolitical interests, both at hofkameme and abroad; and more recently as a site for the renegotiation of the status of education and academic research as public, private, or plural goods.

Major shifts in higher education student profile
The historically prevalent profile of a financially privileged, young, white, full-time male student has evolved dramatically to include students from multiple socio-economic strata, adult students of various racial and ethnic origins, part-time learners, and, of course, women. In the context of today's labor market's greater opportunities for college-educated workers, both the supply of and demand for higher education have skyrocketed, and researchers predict that, due to stiff competition, the colleges of the future will tap into segments of the population that include students without a high-school diploma, first-generation students, and adults who need training for a first career or who are retraining for a present or an alternate career.

Variations in higher education provision
Responding to growing market demands for an increasingly educated labor force, and in their effort to both cater to a diversifying student population and survive in a highly competitive market segment, many HEIs (higher education institutions) have incorporated the notion of "convenience" mode of provision into higher education, diverging from some of the conventions of higher education. The "student-centric" university model being one application of the "convenience" notion and a different application being a certain emphasis on "alternative credentials," namely non-degree attainments, and recognition of their economic value for both the individual and the national economy.

Existing classifications of higher education institutions
Analytical efforts to impose logical order onto the widely varied universe of US HEIs, have yielded several noteworthy classifications. The two commonly used classifications are based on data from The Integrated Post-secondary Education System (IPEDS), which are collected by the US Department of Education's National Center for Educational Statistics (NCES). The first classification is The NCES Survey of Institutional Characteristics, which cuts data on different variables, most notably sector of control. The second classification is the widely employed Carnegie Classification of Institutions of Higher Education, which consists of a basic classification along with several supplementary classifications.

Key institutional characteristics of higher education institutions
Key institutional characteristics, based on which HEIs may be typologized, are explored. These characteristics include (1) central educational offer: research, liberal education; and (2) mode of provision: residential, distance education, and part time/night/weekend programs.

1. The Changing Landscape of Higher Education

This section relays the main processes and turning points that have shaped the historic and current relationship between US higher education and the US state and market.

Historically, higher education has been an important part of the US state and political development (Stevens and Gebre-Medhin 2016). As political scientists, sociologists, and historians have recognized, the distinctive evolution of the US state is linked to the development of its higher education. Specifically, higher education has been termed the intersection of two of sociology's core concerns: state building and social stratification.

In the next three sections, we follow Stevens and Gebre-Medhin's (2016) account of how three configurations of the US higher education—association, national service, and market—capture core features of the institutional order of US higher education at different stages in its development. Higher education is central to the project of nation-building at every stage of US history: first as a web of associations linking geographically dispersed and ideologically diverse colleges into a national academic field; then, as a multipurpose tool for the advancement of US geopolitical interests, both at home and abroad; and, more recently, as a site for the renegotiation of the status of education and academic research as public, private, or plural goods. In what follows, we describe how each of these three configurations changed over time to contribute to the current shape of higher education in the US.

The fourth and fifth parts of this section focus on the changing profile of higher education student bodies and on some of the new institutional forms in which HEIs have been applying to support their students' success. We first review how the demographic profile of students has shifted over the course of time. No longer representing only the small elite, many of today's and tomorrow's students are first-generation college attendees from low-income families, are over the age of 25, and have a variety of racial and ethnic origins. We then turn our attention to some of the ways in which institutional forms have been adjusted to enable and support students' success and retention.

A. Association

Since their earliest settlements, Americans have used higher education to aggrandize certain ethno-religious groups and geographic regions. Colleges for training clergy, teachers, and missionaries were formed to support pious citizens' pursuit of Christian improvement and

evangelism. Soon after more fundamental needs for human survival had been met, founding fathers on Eastern seaboard settlements and the westward expanding frontier created colleges because they were promises about a place's permanence and prosperity (Geiger 2000, Thelin 2004 as cited in Stevens and Gebre-Medhin 2016).

Over time, the early US colleges had become knitted together in a wide variety of inter-organizational associations (Hawkins 1992 as cited in Stevens & Gebre-Medhin, 2016). Methodist, Baptist, Presbyterian, and other Protestant denominations linked regionally distributed schools into national webs, as did various orders of the Catholic church. The rise of national scholarly associations defined by discipline served to organize instruction (Abbott 1999, 2001 as cited in Stevens & Gebre-Medhin, 2016) and provide clear professional identities to aspiring scholars and organizing distinct labor markets for jobs in disciplinary departments. Athletics was another important associational mechanism, inherited by Americans from the British ideology of commingling academic and athletic pursuits in the development of cultivated men.

In terms of material investments, US colleges were hybrid from the beginning: since their inception and through World War I, gifts of land and other endowments from religious denominations, wealthy individuals, business organizations, and local governments were the primary patrons of individual schools. Beyond the long-standing policy of tax exemption, direct federal contributions to higher education began during the Civil War per the Morrill Acts of 1862 and 1890, making federal lands available for sale by qualifying states to raise money to build and endow public universities within their borders.

B. Nation-building and national service

During the mid-20th century, the associational web became a mechanism for the bureaucratic integration of the US national state and a vehicle for its geopolitical ambitions worldwide. Stevens and Gebre-Medhin (2016) use the term "national service" to describe this configuration because HEIs received abundant government dollars in exchange for doing much of the hard work of nation-building: winning wars, rewarding military service, safeguarding the national labor market, and providing technical and social intelligence for the exertion of US interests in world affairs.

The Servicemen's Readjustment Act of 1944, popularly known as the GI Bill, was a landmark legislation, which rewarded wartime military service with a host of provisions supporting veterans' physical health and economic welfare, including generous subsidies for college attendance. Virtually overnight, demand for higher education expanded dramatically and colleges and universities responded enthusiastically, quickly adding facilities and personnel to accommodate veteran students. By tying college attendance tightly to military service, the GI Bill placed higher education at the very center of US state-building (Mettler 2005, Skocpol 2003 as cited in Stevens & Gebre-Medhin, 2016).

The National Defense Education Act (NDEA) of 1958 and the Higher Education Act of 1965 further linked higher education with nation-building, defining student-centered subsidies for higher education during the Cold War. In the wake of the national panic provoked by the Soviet launch of the Sputnik satellite in 1957, President Dwight D. Eisenhower championed the NDEA to channel funds to students pursuing studies in technical subjects deemed critical to national defense. The passage of the Higher Education Act of 1965, part of President Lyndon B. Johnson's Great Society project, built on the funding mechanism initiated by the NDEA by expanding support to all fields of study. The 1965 act included multiple mechanisms of subsidy: direct grants for infrastructure, need-based financial aid for tuition, work-study employment, and loans. Together the two acts made it possible for virtually all high school graduates to attend college with the financial and symbolic endorsement of the US federal government (Best and Best 2014, Loss 2012 as cited in Stevens & Gebre-Medhin, 2016).

Thus, the post-World War II era saw unprecedented state government resources given to higher education. This costly institution-building, which was paid for with state tax revenues, occurred during a wave of high legitimacy for government activity in the wake of wartime victory and growing national anxiety about communism (Cohen 2003, Zelizer 1998 as cited in Stevens & Gebre-Medhin, 2016). California set a national model for how states could utilize public colleges and universities for economic development and citizen improvement, and, eventually, every US state supported at least one research university. The few states who could afford to invest more resources, and had running records of scientific accomplishment from pre-war contracts, had large advantages in competing for federal dollars. Furthermore, not only particular states (California, Massachusetts, Texas) but also specific regions (the San Francisco Bay Area, Boston/Cambridge, Austin) enjoyed greatly disproportionate receipts of federal research funds (O'Mara 2005 Saxenian, 1996 as cited in Stevens & Gebre-Medhin, 2016).

The massive expansion of the post-secondary sector under the national service configuration transformed the US class structure. Higher education became a primary mechanism through which relatively privileged families passed social advantage on to their offspring and a primary mechanism of social incorporation for women and racial minorities (Roska et al. 2007 as cited in Stevens & Gebre-Medhin, 2016). "College for all" became a national ideology, and, for the first time in world history, college attendance approached the status of a right of citizenship.

Colleges and universities, as well as all the learned professions, benefited from this transformation. They became the purveyors of the very credentials increasingly required for prosperous lives (Brint 1996, Collins 1979, Jencks and Riesman 2001 as cited in Stevens & Gebre-Medhin, 2016).

C. Market and competition

Since its inception, US higher education has had market-like features; no state entity has ever monopolized the provision of higher education in the United States and schools have always competed with one another for public and private patronage, students, and prestige. Even at the peak of national service higher education, the federal government encouraged a market-

like structure for the sector by awarding research grants competitively and by channeling support for instruction through student pocketbooks in the form of grants and loans.

A considerably more forceful trend of marketization, however, has been characterizing higher education in recent decades, for several reasons. To start, the 1980s saw higher education demoted from its heyday privileged position as a budget priority in state legislatures, due to shifting priorities of baby boom voters, the growing federal expenditure on health and eldercare, and the rising costs of incarceration from the President Ronald Reagan era (Gumport and Pusser 1999 as cited in Stevens & Gebre-Medhin, 2016).

In addition, by the 1980s, the declining demographic wave of the baby boom generation, followed by a relative scarcity of students and their tuition influx, meant colleges and universities were more fiercely competing for top academic talent and full-tuition payers. While initially experienced mostly by private schools, this competition has since become nationalized (Duffy and Goldberg 1998, Stevens 2007 as cited in Stevens & Gebre-Medhin, 2016).

Faced with steadily declining appropriations from their state legislatures and the growing efforts to recruit the academically strongest and wealthiest young people in their home regions, public universities increasingly courted out-of-state and international students willing to pay higher tuition. Schools of all types sought new ways of doing business and the 1990s and 2000s witnessed groundbreaking displays of academic entrepreneurship such as the development of satellite campuses both inside and outside the US.

Concurrently, students and their families could no longer presume that a college degree from a low-cost public college would be easily available to them. By the early 2000s, much of the low-cost organizational capacity was being replaced by for-profit schools, many of which very actively recruited students and lobbied Congress to maintain their eligibility to receive federal tuition grants and loans (Fain and Lederman 2015, Gelbgiser 2015 as cited in Stevens & Gebre-Medhin, 2016).

The competition was further propelled by the rise of third-party rankings of college and university quality. What began in the 1980s as simple descriptive statistics and opinion surveys in the emergent college guidebook industry has matured into an accountability regime. For-profit media companies invested heavily in creating ranking and rating schemes to assist those navigating the crowded markets for educational services. Schools, however, reacted by adjusting their internal operations to improve their score on what the rates ranked, e.g., admissions competitiveness, job placement, and earnings returns to undergraduates (Bastedo and Bowman 2010, Espeland and Sauder 2007, Sauder and Espeland 2006, 2009 as cited in (Stevens and Gebre-Medhin 2016).

In 2006 the President George W. Bush administration endorsed such quantitative assessment through publishing a report, produced by Secretary of Education Margaret Spellings, titled *A Test of Leadership: Charting the Future of U.S. Higher Education*, which called for the continued development of clear performance metrics to inform both government funders and tuition

payers in what it called “consumer-driven” higher education (US Department of Education 2006: viii as cited in Stevens & Gebre-Medhin, 2016).

Operations on the research side of universities also changed, with the Bayh-Dole Act in 1980 granting universities ownership over the patents produced through governmental-funded research (versus assigning those to the government, as had been the case). Bayh-Dole enabled enterprising academic parties to develop financially beneficial partnerships with industry, yet substantial material benefits were mostly enjoyed by a small subset of already wealthy and prestigious universities (Powell et. al. 2007, Turk-Bicakci and Brint 2005 as cited in Stevens & Gebre-Medhin, 2016), located in places where venture capital and research capacity alike were plentiful (Powell et. al. 1996, 2002 as cited in Stevens & Gebre-Medhin, 2016). Patronage through patenting also shifted intramural balances of power; as academic units who could generate commodifiable intellectual property reaped the benefits of industrial partnerships, those unlikely to patent scholarly products became relatively weaker players.

According to Stevens and Gebre-Medhin (2016), many have observed, in this historical context, a growing tendency of US HEIs to behave less like civil service organizations and more like self-interested corporations. Higher education is said to be “for sale” to the highest bidders (Shumar 1997 as cited in Stevens & Gebre-Medhin, 2016), increasingly focused on the “bottom line” (kirp 2004 as cited in Stevens & Gebre-Medhin, 2016), and even “in ruins” from the corrosive effects of pecuniary values (Readings 1996 as cited in Stevens and Gebre-Medhin 2016). Others worry that public education’s public purposes need “defense” (Altback et al. 2001 as cited in Stevens & Gebre-Medhin, 2016) lest the sector’s once clear public mission devolve into a competition between “Ivy Islands” (Brint 2012 as cited in Stevens & Gebre-Medhin, 2016) and “Wannabe U” (Tuchman 2009 as cited in Stevens & Gebre-Medhin, 2016). Noteworthy in this debate is the concept of “academic capitalism,” which questions the proliferation of market activities on campuses through research-related innovations as well as new commodified forms of instructional services.

An interesting link can be drawn between public state land-grant HEIs and core academic disciplines. The land grant schools were specifically charged with providing training in agriculture and the mechanic arts alongside the classical curriculum typical of the early US colleges. Indeed, the previous dominance of liberal arts (the core disciplines of the humanities, mathematics, and the natural sciences, and later the social sciences) has shifted to accommodate the co-existence of mechanical and practical arts (Scott 2015). Thus, even within mainstream colleges, since the 1970s, the practical programs, including business, engineering, healthcare, and computer science, have substantially advanced. So much so, in fact, that by 2010 the most commonly selected majors were in the fields of business, management, marketing, personal and culinary areas, and health services (Brint 2002 as cited in Scott, 2015). This change reflects the increasing emphasis on economic values and goals, as education is expected to justify its worth in terms of its contribution to economic development (Scott 2015) and social mobility.

In terms of social stratification, recent scholarship does indicate that college remains US society's "great equalizer" to the extent that attainment of the baccalaureate degree substantially weakens or even eliminates the effects of socioeconomic disadvantage on earning (Torche 2011 as cited in Stevens & Gebre-Medhin, 2016). Nonetheless, a growing body of empirical evidence suggests that such claims to increased equality may be grossly exaggerated and that inequality between society's typical cleavages still prevails. For example, students from families with high socioeconomic status are favored in admission to selective undergraduate schools and graduate programs as well as in earnings returns to graduate degree (Alon 2009, Troche 2011 as cited in Stevens & Gebre-Medhin, 2016). Table 1 summarizes the main features of each configuration.

Table 1: Three historical configurations of US higher education

Erratum

Table 1 Three historical configurations of US higher education

	Purposes	Patronage	Role in US state building	Consequences for stratification	Exemplary state actions
Associational	Promulgation of ethno-religious identity; regional and civic boosterism	Local elites, businesses, and governments; federal seed funding	Germinal: helps coalesce hybrid private/public and local/national organizational web	Germinal: creates basic institutional infrastructure for credential society	Morrill Acts (1862, 1890)
National service	Building a prosperous and globally influential nation	State legislatures, US Congress, federal agencies, regional and national philanthropies	Skeletal: creates basic infrastructure for Cold War knowledge-industrial complex	Transformative: produces stratification formally predicated on school completion	GI Bill (1947); National Education Defense Act (1958); Higher Education Act (1965)
Market	Organizational survival, wealth enhancement, and relative prestige	Full payers, knowledge-intensive industries, multiple sovereigns	Dilutional: US nation building is one among multiple organizational purposes	Exaggerative: enhances effects of affluence/ disadvantage for educational attainment	Bayh-Dole Act (1980); Spellings Commission Report (2006)

Source: Stevens & Gebre-Medhin, 2016, p. 131.

The significant changes that have occurred in key attributes of the landscape of higher education are summarized in Table 2. As seen in Table 2, the vast changes in the landscape of higher education include a lingering decline in state funding for public HEIs; persistent tuition price escalation and an ongoing shift of higher education costs from government to students and their families; an accountability revolution obliging HEIs to measure learning and other kinds of productivity as never before; rapid growth of for-profit HEIs; the proliferation and normalization of distance learning; and an overall change in the cultural meaning of higher education, from a collective project of nation-building to an individual project of income growth and career enhancement (Stevens 2015).

Table 2: The recent Epochs of US Higher Education

	Cold War (1945-1990)	Contemporary (1990-present)
Funding	Massive state and federal investment supplemented by individual/household investment	Diminished state and federal investment supplementing growing individual/household investment
Governance	Highly legitimate peer accreditation based on symbolic review	Peer accreditation facing legitimacy challenge; calls for certification based on precise measurement
Student learning	Rarely measured directly	Increasingly measured directly
Business model	Public and private nonprofits; small for-profit sector	Public and private nonprofits; growing for-profit sector
Mode of delivery	Copresence presumed; minimal options for distance learning	Declining presumption of copresence; rapid proliferation of digitally mediated delivery
Dominant logic	Education for strong and prosperous nation; reward for national service/citizenship	Education for job security and earnings over life course

Source: Stevens, 2015, p. 5.

D. Students: yesterday, today, and tomorrow

Against the backdrop of major changes in the landscape of higher education, demographic shifts in student population have also been occurring. We review some of the main shifts in student population next. The demographic profiles of students in American colleges and universities have greatly diversified over time, as seen below through the depiction of select statistical data on students' age, sex, ethnicity, socioeconomic class, and full as cited in part-time enrollment in degree-granting post-secondary institutions.

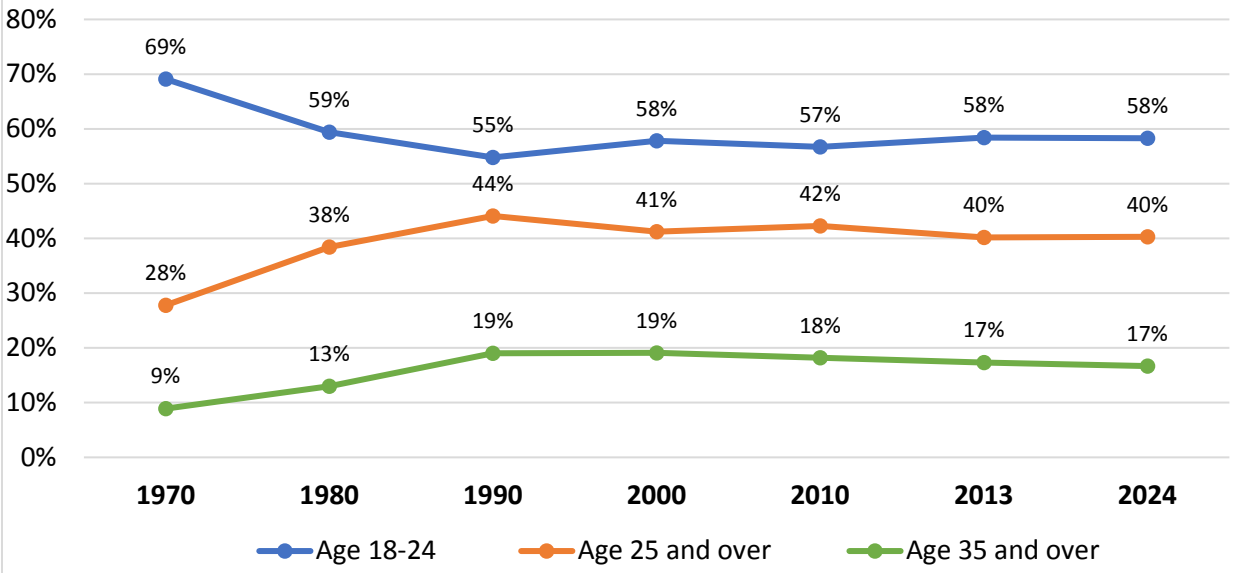
Indeed, nontraditional students or, "the new traditional learners," (Kamenetz 2015) as they are referred to in the literature, have at least one of the following attributes: they have no high school diploma, enrolled more than one year after high school, are financially independent from parents, work full time, or are responsible for children or other dependents. In addition to these student groups, we might add the overlapping populations from the bottom quartile of income, immigrants, and first-generation college students, who have trouble succeeding in college because of lack of comfort, lack of money, or both (Kamenetz 2015). Below, we highlight some of the prominent shifts in student population that have been taking place in recent decades.

1. Age

While most college students have been, and are still, 18- to 24-year-olds, data show that the 1980s and 1990s saw increased cohorts of students in the age groups of 25 and over and 35 and

over enter higher education. After peaking in 1990, these trends have endured over time and are projected to carry on in the next decade, as seen in Table 3.

Table 3: Percent of total fall enrollment in degree-granting postsecondary institutions, by select age groups: 1970-2013 data, 2024 projections



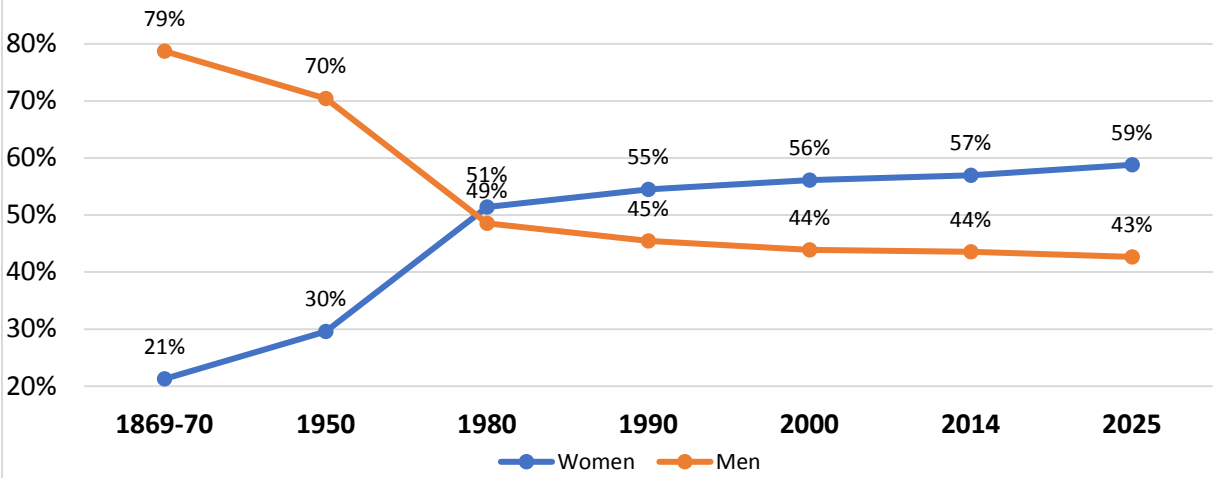
Source: NCES, 2015, OCLC's calculations.

As seen in Table 3, most students in higher education back in 1970 were age 18 to 24, who accounted for 69% of the total enrollment in degree-granting post-secondary institutions, while older students, ages 25 and over, accounted for 28% (NCES, 2015, OCLC's calculations). In the next two decades decreased percentages of 18- to 24-year-olds were enrolling in higher education (55% in 1990), relative to a higher number of enrollees who were age 25 and over (44% in 1990) or age 35 and over (19% in 1990). Neither 2013 data nor 2024 projections show significant changes (2013 data: 58% age 18–24, 40% age 25 and over, 17% age 35 and over; 2024 projections: 58% age 18–24, 40% age 25 and over, 17% age 35 and over).

2. Sex

Back in 1869–70, women comprised only 21% (NCES 2016a) of the total fall enrollment. Their percentage rose only modestly over time and by 1950, women still accounted for only 30% of students. Since 1980, however, women enrolled in higher education in larger numbers than men: 51% women compared to 49% men in 1980, 56% women compared to 44% men in 2000, 57% women compared to 44% men in 2014, and this trend is projected to slightly increase to 59% women compared to 43% men in 2025 (NCES 2016c) (2014 and 2025 percentages are rounded, therefore they seem to exceed 100%). These data are depicted in Table 4.

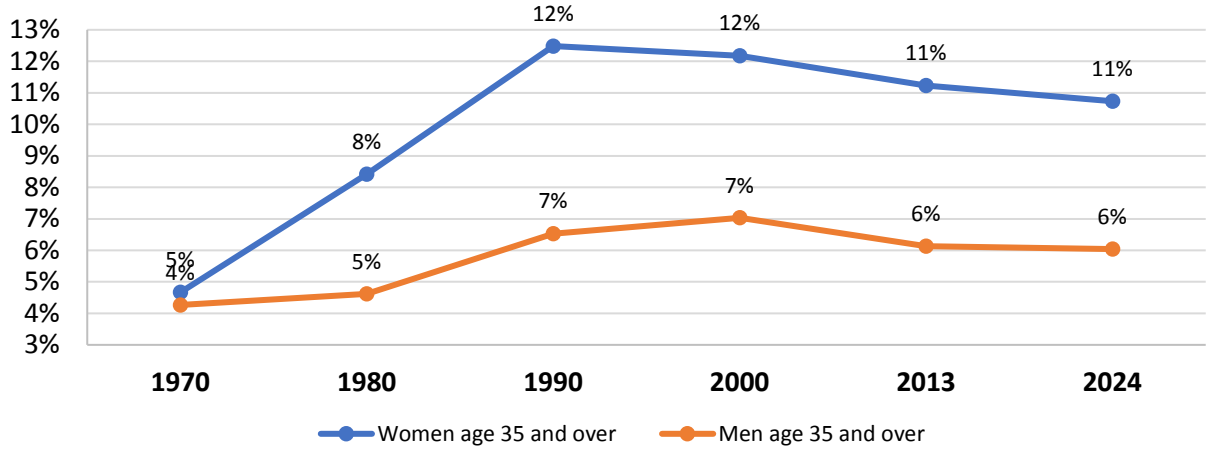
Table 4: Total fall enrollment in degree-granting postsecondary institutions, by sex: 1869-70 to 2014 data, 2025 projections



Source: NCES, 2016a, 2016b, OCLC's calculations.

As of 1970, women age 35 were enrolling in higher education in small numbers, as were same age group men (5% women, 4% men), but over time women age 35 and over have been enrolling in higher education institutions in close to double the percentages as same age group men (NCES 2015b), OCLC's calculations), as seen in Table 5.

Table 5: Total fall enrollment of students age 35 and over in degree-granting postsecondary institutions, by attendance sex: 1970-2013 data, 2025 projections



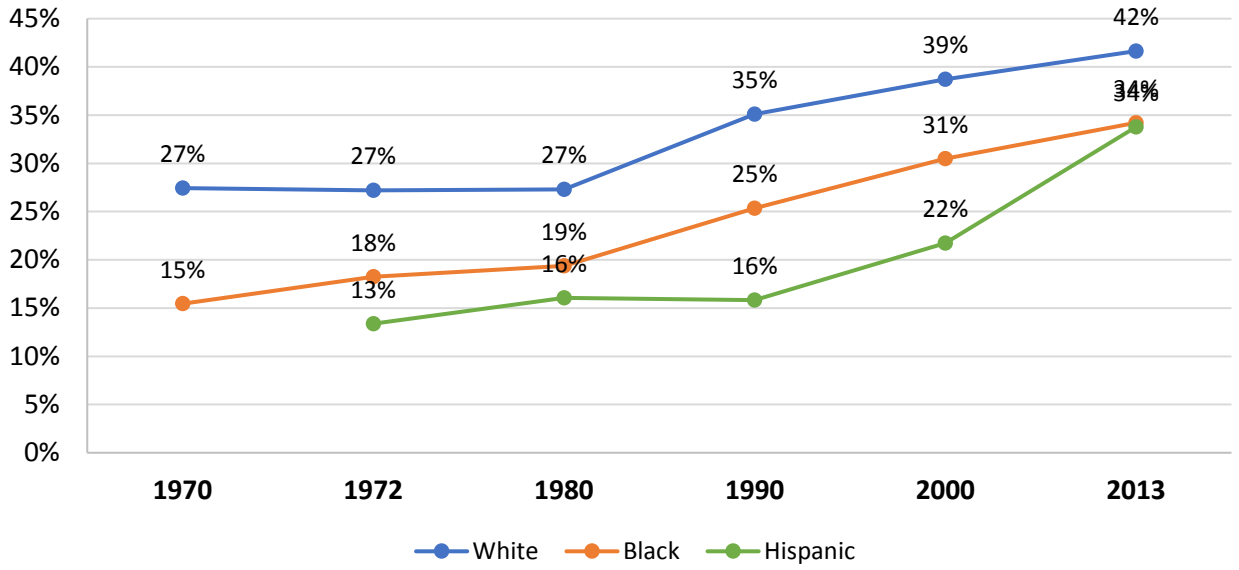
Source: NCES, 2015, OCLC's calculations.

As shown in Table 5, by 1980, women age 35 and over enrolled in close to double the numbers as men in the same age group (8% women, 5% men in 1980)—a trend that has been kept relatively steady through 2013 (11% women, 6% men) and is projected to go on (11% women, 6% men in 2024) (NCES, 2015, OCLC's calculations).

3. Ethnicity

The share of 18- to 24-year-olds who enrolled in higher education has been greater among whites compared to blacks and Hispanics, as seen in Table 6.[1] While increasing shares of 18- to 24-year-olds in these three ethnicity groups have risen, a gap of roughly 8% remains between black and Hispanic enrollment compared to white enrollment. Additionally, the gap between black and Hispanic enrollment, which has persisted for decades, has closed in 2013.

Table 6: Percentage of 18- to 24-year-olds enrolled in degree-granting postsecondary institutions, by race/ethnicity of student: 1970-2013



Source: NCES, 2015a.

In 1970, 27% of the population of white 18- to 24-year-olds in the US were enrolled in degree-granting post-secondary institutions, compared with 15.5% of same age black population. Hispanic students' enrollment was first reported in 1972 to be 13% of the population of this age group, compared to 27% white and 19% black (NCES 2015a). The decade between 1980 to 1990 saw an increase of white and black enrollment (35%, 25%, respectively in 1990) and the succeeding decade saw another increase, this time including Hispanic enrollment (39% white, 31% black, 22% Hispanic in 2000). The most recent available data from 2014 show a modest

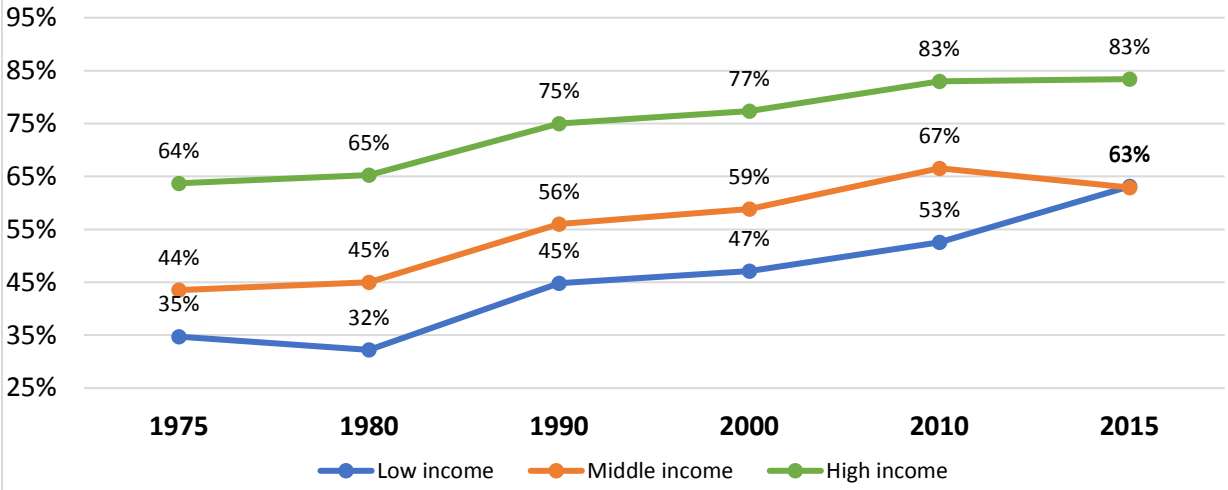
[1] Terms for race in this publication are used according to the US Census Bureau standards. They "must adhere to the 1997 Office of Management and Budget (OMB) standards on race and ethnicity which guide the Census Bureau in classifying written responses to the race question." See their website for full definitions: https://www.census.gov/topics/population/race/about.html

increase in white and black enrollment (42% white, 34% black) and a bigger increase (34%) in Hispanic enrollment. These data show that young adults in all three major ethnic groups are enrolling in greater percentages in HEI.

4. Socio-economic class

In the last four decades, there has been a 20 to 30% increase in the number of recent high school completers who enrolled in two-year and four-year colleges in all family income levels, as seen in Table 7.

Table 7: Percentage of recent high school completers enrolled in 2-year and 4-year colleges, by family income level: 1975-2015



Source: NCES, 2016.

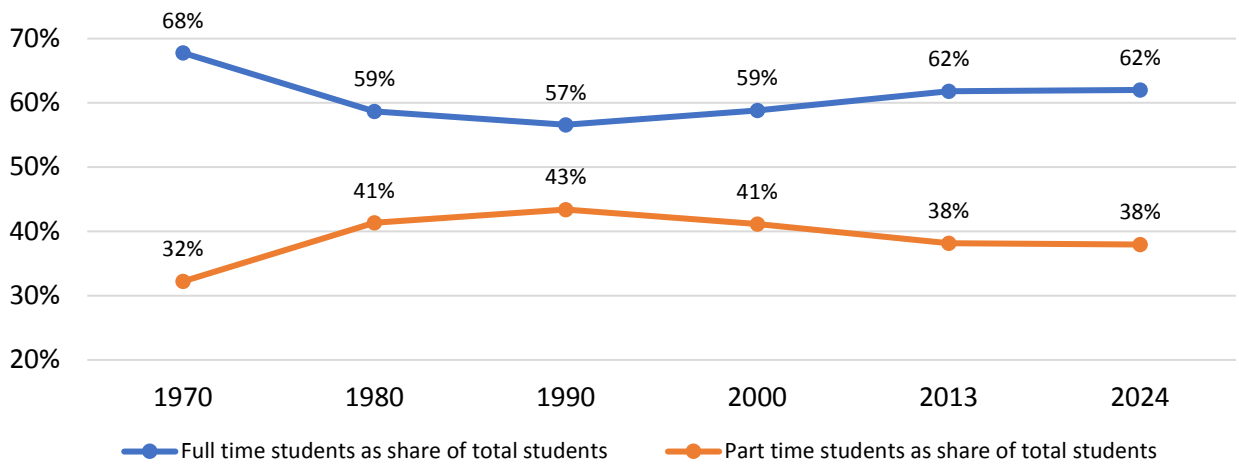
While higher percentages of recent high school completers in all family income level have been enrolling in two-year and four-year colleges in the last four decades, there are clear differences between enrollees from low, middle, and high family income (low refers to the bottom 20% of all family income, high refers to the top 20% of all family income, and middle refers to the 60% in the middle) (NCES 2016b). The highest percentages of college enrollees come from high-income families (64% in 1975 to 83% in 2015), compared to enrollees from low-income families (35% in 1975 to 63% in 2015). Recent high school completers from middle income families have been enrolling at percentages higher than in low-income families but still not as high as in high-income families (44% in 1975 to 63% in 2015). As the data in Table 7 show, the gap between enrollment percentages in low and middle family income, which had persisted for years, closed in 2015, rendering the data consistent with other findings that demonstrate a hollowing out of the American middle class (Pew Research Center 2016).

5. Part time versus full time enrollment

The share of full-time enrollment has been greater than part-time enrollment but part-time enrollment went up between 1970 and 1990, going from 32% to 43%, while full-time

enrollment decreased during those years, going from 68% to 57%, as depicted in Table 8. Since 2000 there has been a modest increase in full-time enrollment compared to part-time enrollment—a trend that is projected to be kept in 2024 (full time 62% in 2013 and 2024 compared to part time 38% in the same years (NCES, 2015b, OCLC's calculations).

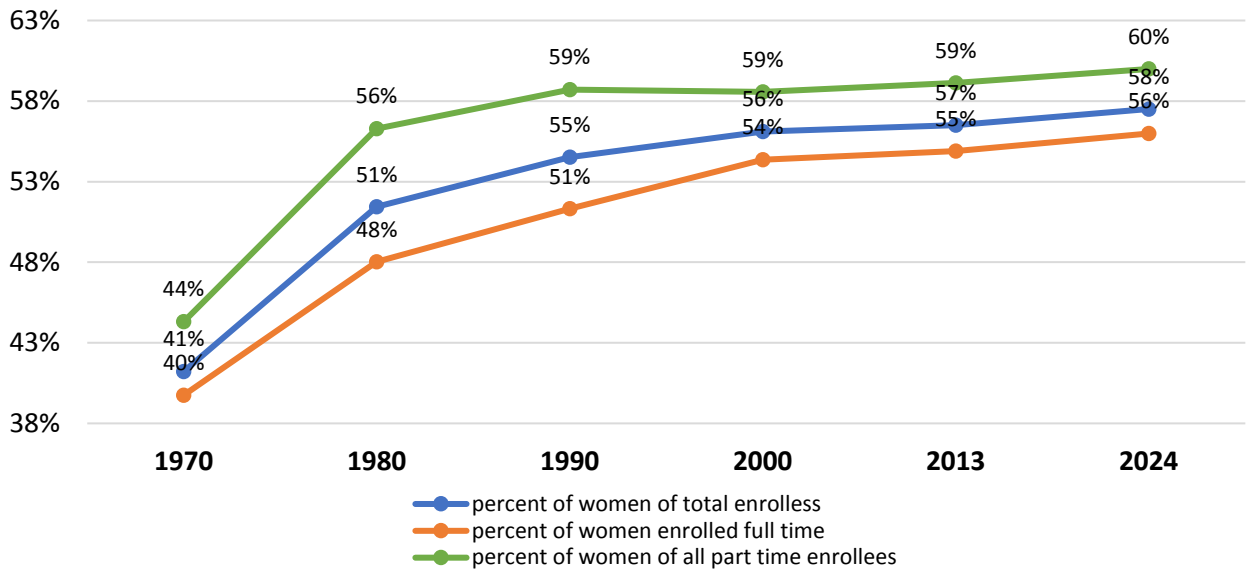
Table 8: Share of full-time and part-time enrollment of total fall enrollment in degree-granting postsecondary institutions: 1970-2013 data, 2024 projections



Source: NCES, 2015b, OCLC's calculations.

As seen in Table 9, the share of women as part of total enrollment, as well as part of full-time and part-time enrollment has risen over time from (women comprised of 41% to 57% of all enrollees in 1970 through 2013, 44% to 59% of all part-time enrollees and 40% to 55% of all full-time enrollees in the same years, with these trends projected to continue into the next decade (NCES, 2015b, OCLC's calculations).

Table 9: Percent of women as part of total enrollment, full-time enrollment, and part-time enrollment of the total fall enrollment in degree-granting postsecondary institutions: 1970-2013 data, 2024 projections



Source: NCES, 2015b, OCLC's calculations.

Given that roughly four in ten students are enrolled part time (as seen in Table 8), and that roughly six in ten part-time enrollees are women, it is apparent that part-time enrollment is particularly prevalent among women.

6. Yesterday's "nontraditional students" are today's and tomorrow's "traditional students"

The historically typical profile of the financially privileged, young, white male student has transformed as reflected in the enrollment trends shown and described above. Furthermore, with today's—and tomorrow's—labor market's greater opportunities for college-educated workers, both the supply of and demand for higher education have skyrocketed. The US Department of Education traced these same trends and projected that they would persist through 2025 (the last year for which projections were made in this report) (Hussar & Bailey, 2017).

Among the implications of the diversification of the student bodies, which are articulated in the literature is the recognition that, at some point in the very near future, minority students will outnumber whites on college campuses for the first time (Van der Werf & Sabatier, 2009). Additionally, Van der Werf and Sabatier (2009: 53) predict that, due to stiff competition, the colleges of the future will tap into segments of the population that include, in their words "high-school dropouts, first-generation students, and adults who need retraining in their present career, for an alternate career, or for a first career." Retirees could also be a segment of the population who might seek higher education, not necessarily for career training but rather for leisure and enrichment.

E. Variations in higher education

Within the largely canonical view of what constitutes HEIs and credentials, two variations have been gaining attention and popularity. One is the notion of "convenience" in higher education, and the "student-centric" university model as one example of it that moves away from traditionally exclusive and selective academic admission patterns. The other is "alternative credentials" meaning non-degree attainments that potentially increase the value for both the individual's earning power and the national economy. We dedicate the rest of this section to these two ideas.

1. Convenience in higher education

Convenience is a term from the world of customer service, consequently, as Kamenetz (2015) notes, some traditional educators may argue against it. Broad-access four-year institutions are a good example of a convenience offering in higher education, and through which some of the issues and concerns related to convenience can be illustrated.

a) The challenges of convenience in higher education

Arum and Roska (2015) point to three major concerns about broad-access higher education institutions. First, broad-access four-year institutions are highly dependent on everyone or almost everyone willing to attend and able to pay, which means these institutions are in a weak position to resist students' preferences. This would not be a problem had students preferred to spend their money on academic elements, but research has shown that only high-achieving students prefer spending their money on academic quality while most students prioritize non-academic spending (e.g., student activities, sports, and dormitories) (Jacob, McCall, & Stange, 2013 as cited in Arum & Roska, 2015).

Second, due to broad-access institutions' chronically under-resourced position, they often seek to decrease labor costs by hiring part-time, non-tenure-track instructors. Since the latter's future employment heavily depends on students' course evaluations, and these tend to be higher for less challenging classes accompanied by inflated grades, the result is a downward spiral in academic rigor.

Third, because broad-access institutions enroll a higher proportion of students who are less well prepared for college-level work, these institutions must compensate for poor academic preparation with remedial coursework in addition to facilitating students' learning and ensuring their progress toward graduation. Government and public pressures to improve graduation rates, which are often low at broad-access institutions, provide additional incentives to lower academic rigor to push more students through the pipeline to completion (Arum and Roska 2015).

b) The opportunities of convenience in higher education

However, broad-access institutions and other forms of convenience higher education offerings are gaining increased attention from innovators who are challenging the bad reputation of

convenience higher education, to better reach underserved students (Kamenetz 2015). Convenience higher education does not stop at broad-access enrollment, online classes, and part-time curricula; it also means cheaper costs to students, meaningful support to students to help them graduate, flexibility in the start date of enrollment, and more. The "student-centric" university is an example of a comprehensive model of a convenience HEI, as described below.

c) The "student-centric" university

With the goal of broadening access and increasing completion in mind, many HEIs have been enrolling students from lower income brackets. Yet, alarmingly low completion rates raise serious concerns about the viability of "college for all" when nearly half of American students who start college will not graduate with a bachelor's degree (Selingo et al. 2013). To meet such concerns and allow more students to graduate, a new "student-centric" approach has emerged among several leaders in HEI. A "student-centric" ideology in higher education places the focus on students: their inclusion, experiences, retention, success, and completion. Other institutional entities, i.e. faculty, administration, and facilities, are there to support students. By focusing on students, this ideology clearly diverges from the traditional ideology of higher education, which places faculty in the center and regards students as means for faculty to obtain resources, research assistance, data, etc.

In a 2013 report titled "The Next Generation University," researchers from the New America Foundation identified six public research universities that exhibited best practices of students' retention and success (Selingo et al. 2013). Following this report, several of those original six universities, together with others, formed The University Innovation Alliance (University Innovation Alliance 2014).

The 11 public research universities that are members of the alliance in 2017, whose combined student population represents 20% of students in large research universities, make it their goal to improve the educational attainment and the economic prospects of students from low-income families. The alliance member institutions do so by methodically testing what works well for their students and scaling those elements that make a positive difference. Examples of such scaled efforts include strategic financial interventions, proactive advising, and predictive analytics. Those practices that prove best would be communicated to the public, to allow them to become adopted nationally.

2. Alternative credentials

Alternative credentials refer to non-degree attainments, which can be divided into two main types: professional and educational. Each of these two types can be further divided in two, as follows: professional credentials include (a) professional certifications and (b) licenses; educational credentials include (a) educational certificates and (b) diplomas.

The interest in alternative credentialing has risen in the US in response to a pressing and still growing national economic need in a more educated, skilled, and qualified labor force. It is estimated that over 65 million people age 18 and older in the US now hold alternative credentials, ranging from those with less than high school diploma through PhD holders (Ewert

and Kominski 2014). An opportunity to increase the pool of alternative credentials holders may lie within the 102 million people in the US who are over age 18 and whose current educational attainments consist of either a high school diploma, some college, or associate's degrees (ibid). It is further surmised that earning alternative credentials, particularly for people with lower levels of income, has the potential to substantially increase people's earning power. The opposite trend has also been shown, meaning that people who do not complete post-secondary education (i.e., alternative and/or degree credentials) are falling out of the middle class (defined as middle four income deciles, which were $30,000-79,000 in 2007) (Carnevale, Smith, and Strohl 2010).

2. Classifications of higher education institutions

This section focuses on classifications of HEI, reviews two of the most prominent classifications, presents the context in which the widely used Carnegie classification has been developed, and related critique.

A. What is classification?

Classification is an omnipresent human activity, an organizing principle, an important aspect of how we perceive and make sense of the world. Classification is a way of seeing, a social construct that directs attention toward selected characteristics and away from others. Classifications "based on different criteria represent different perspectives on, or approaches to, understanding a phenomenon. No absolute standard for the "best" solution exists; rather, the value of a classification is closely linked to its intended use" (Brennan et al. 2016). Thus, for example, in a library, classification per subject matter is much more valuable than alternative approaches, such as grouping books by paper type, typeface, the number of pages, or cover design (some of which might be entirely appropriate in a different context, such as a museum collection).

From an analytical point of view, classifications are vital because they provide rationally meaningful ways of grouping what would otherwise be too wide a universe of items to encompass. Although classifications, of any sort, are inevitably arbitrary to some extent, analyses of any kind of phenomena could not exist without them. Therefore, we next turn our attention to two prevalent classificatory approaches of HEIs.

B. Existing approaches to classify institutions of higher education

Institutions of higher education have been characterized in a variety of ways. A common characterization distinguishes between "elite," "mass," and "universal" systems of higher education (Trow 1974 as cited in (Brennan et al. 2016). Other characterizations identified higher education systems on either "vertical" or "horizontal" dimensions, with the former staggering institutions according to their reputation, status, and prestige (e.g. "world class"),

and the latter emphasizing more functional differences between institutions (e.g., "entrepreneurial") (Brennan et al. 2016).

While one could point to various aspects of HEIs, some researchers argue that the correct 'unit of analysis' for understanding higher education processes and activities is not the institution, but rather, at the micro level, units of analysis could be departments, faculties, research centers, and even individual scholars, or, at the more macro level, the entire national higher education system (Becher and Kogan 1992, Clark 1983 as cited in Brennan, Papatsiba, Sousa, & Hoffman, 2016). In practice, though, the differentiation of higher education systems and institutions is the outcome of the relationship and interaction between these "units."

Either way, the need to classify institutions to "appropriately describe and compare those that are sufficiently similar" (Prescott 2011) has generated numerous detailed taxonomies, two of which are widely employed. Both taxonomies are based on data from The Integrated post-secondary Education System (IPEDS), collected by the U.S. Department of Education's National Center for Educational Statistics (NCES).

1. The NCES Survey of Institutional Characteristics

The NCES itself prepares the first taxonomy by cutting data on post-secondary institutions by several institutional characteristics, most notably ***sector***, which is derived through crossing control of institution (public, nonprofit, or for-profit) and four-year or above, two-year, or less-than-two-year (i.e., public four-year or above, nonprofit four-year or above, for-profit four-year or above, public two-year, nonprofit two-year, for-profit two-year, public less-than-two-year, nonprofit less-than-two-year, for-profit less-than-two-year). While effective for years, concerns have been raised about whether this approach is still adequate for today's policy and practices, which increasingly blur the lines between institutions, given that this approach tends to mix institutions whose mission is exclusively focused on bachelor's programs and above, with those that are predominantly focused on associate's degrees and vocational programs but which offer one or two bachelor's degrees (Prescott 2011).

2. The Carnegie Classification

The Carnegie Classification represents the most extensive, empirically based, and time-tested taxonomy for post-secondary education to date (Prescott 2011). Published in 1973 by the Carnegie Commission on Higher Education and its parent organization The Carnegie Foundation for the Advancement of Teaching, the widely used Carnegie Classification of degree-granting US colleges and universities was initially developed to support the commission's program of research and policy analysis (Indiana University, 2016; (National Science Foundation 2012). The Carnegie Classification utilizes survey data from the Department of Education's IPEDS, the National Science Foundation, The College Board, and the 1994 Higher Education Directory published by Higher Education Publications Inc. (HEP) (Indiana University 2016a).

According to the basic framework of the Carnegie Classification (Indiana University 2016a), ***Doctoral Universities*** include institutions that awarded at least 20 research or scholarship doctoral degrees during the update year (excluding professional practice doctoral-level

degrees, such as the JD, MD, PharmD, etc.) by an aggregate level of their research activity (highest, higher, or moderate). ***Master's Colleges and Universities*** include institutions that awarded at least 50 master's degrees and fewer than 20 doctoral degrees during the update year and are regarded according to their size (larger, medium, or smaller). ***Baccalaureate Colleges*** include institutions where baccalaureate or higher degrees represent at least 50 percent of all degrees but where fewer than 50 master's degrees or 20 doctoral degrees were awarded during the update year; these are divided into arts and sciences focus, and diverse fields. ***Baccalaureate/Associate's Colleges*** Include four-year colleges that conferred more than 50 percent of degrees at the associate's level and are divided into mixed Baccalaureate/ Associate and Associate's dominant. ***Associate's Colleges*** include institutions at which the highest-level degree awarded is an associate's degree. The institutions are sorted into nine categories based on the intersection of two factors: disciplinary focus (transfer, career and technical, or mixed) and dominant student type (traditional, non-traditional, or mixed). ***Special Focus Institutions*** include Institutions where a high concentration of degrees is in a single field or set of related fields. ***Tribal Colleges*** are colleges and universities that are members of the American Indian Higher Education Consortium, as identified in IPEDS Institutional Characteristics.

Currently, the Carnegie Classifications offer six categorizations of US colleges and universities: Basic, Undergraduate, and Graduate Instructional Program, Enrollment Profile and Undergraduate Profile, and Size and Setting (Indiana University 2016b). As Prescott points out, "the fact that the Carnegie Classifications encompass so many different approaches is testament to the fact that the post-secondary education industry in the US resists a single, or even simple, approach to categorization." (Brint 2013).

C. A brief historical context to the Carnegie Classification

Before 1960, higher education in the US was a loosely organized institutional field (Ruef and Nag 2015). The Carnegie Classification was developed at a time when complexity and change in US HEIs were at an all-time peak. The number of colleges and universities grew rapidly over the preceding century, with only 250 schools at the time of the Civil War to about ten times that number by 1970 (Brint 2013). The number of students enrolled in post-secondary institutions in the US tripled between 1950 and 1970 from three million to nine million (Brint 2013). In just the ten years leading up to the activity of the commission that created the Carnegie Classification, the academic profession as much as doubled its size (260,000 faculty members in 1960 compared to 530,000 in 1970 including 383,000 full-time instructors) (Oakely 1997: 47, Thelin, 2004 as cited in Ruef & Nag, 2015).

Cultural changes to higher education were not less evident: while 19th and 20th century students were relatively cloistered from broader societal developments, the social movements of the 1960s and the decline of *in loco parentis* norms resulted in far more permeable organizational boundaries (Aldrich & Ruef 2006: 128 as cited in Ruef & Nag, 2015), through which social issues percolated into HEIs and vice versa. Coursework and academic units in the social sciences, natural sciences, and applied fields proliferated and undermined the traditional

focus on humanities as the academic core of higher education. Changes in admissions policy formed a more diverse student body, in terms of sex, ethnicity, and socioeconomic class, even at elite institutions (Karabel, 2005 as cited in (Brint 2013).

Considering such galloping massification and differentiation, the need for order became increasingly pressing: “It was during this period that the shape of institutions began to change dramatically… For the first time in American higher education history it was necessary to construct a taxonomy that described the varying range of institutional types” (Gumport et al. 1977: 13 as cited in (Indiana University 2016b).

D. Critique of the Carnegie Classification

As higher education in the US continued to evolve over the last four and a half decades since the Carnegie Classification was first published, the Carnegie Foundation has repeatedly issued new classifications. The most recent update of 2015 represents the seventh version of the original schema and features 33 categories in its “basic” classification (Brint 2013). Despite its wide acceptance and utilization, the Carnegie Classification has faced substantial criticism.

One line of criticism points to the *a priori* approach of the classification, which is based on a set of mutually exclusive categories, rather than allowing the categories to emerge from the data. This top-down approach is said to be particularly inadequate for capturing new or emerging organizational forms (e.g., alternative medical schools, distance learning colleges, etc.). Furthermore, the reality of all *a priori* forms of classifications is that they are based on informed intuitions about meaningful differences, which may or may not accurately represent the underlying reality of affinity and distance between institutions (Brint 2013).

In other aspects of criticism, scholars have argued that developing more and more detailed classifications does not necessarily provide additional help in understanding the structure of higher education (Brint 2013). A third critical point observes that while recent developments in organizational studies recognize that membership in categories is often fuzzy and partial (Hannan, 2010 as cited in (Brint 2013): 86), the clear boundaries of mutually exclusive categories do not lend themselves well to such fuzzy and partial membership. Lastly, it has been argued that ranking systems marginalize classification systems. Catering to the competitive traits of high-status institutions, high-achieving students, and their parents, ranking systems all but replace classifications. From a systemic perspective, this is problematic because less competitive institutions have little interest in either rankings or classifications, both of which portray them in poor light. This raises the need for classifications that are less hierarchical and more in line with the values and capabilities of less competitive institutions (Brint 2013).

3. Toward a new understanding of higher education institutions

This section points to key institutional characteristics, based on whom higher education institutions may be typed, beyond the Carnegie classification. These institutional characteristics include central educational offer, and mode of provision.

A. Focus of educational offer

1. Research

Research universities are predominantly focused on generating rigorous scientific research. To accomplish this goal, research universities support their faculty and graduate students' research agenda by providing necessary resources, advanced training, and supporting opportunities for exposure and publication in various ways such as through conferences and in-house university press houses. In addition to producing and supporting the publication of accurate, valid, and timely new knowledge, research universities educate undergraduate and graduate students in various academic disciplines and professions, with significant attention to graduate training to both support present research and create the pipeline of future researchers. Research universities tend to house multiple colleges on their main campuses, offer a wide range of academic and professional programs, offer a substantial number of graduate programs, and usually have larger class sizes, especially at the baccalaureate level.

2. Liberal education

The central educational offer of liberal education colleges revolves around the undergraduate level, including baccalaureate and associate's degrees and sometimes includes some graduate programs. Liberal arts colleges' attention is on teaching undergraduate students the skills of critical thinking and providing well-rounded undergraduate programs. To accomplish this task, and to provide a positive and enriching undergraduate experience, liberal arts colleges offer a wide range of programs that span the arts, humanities, and sciences, tend to have relatively small class sizes, higher faculty to student ratio, and often a strong emphasis on Greek life.

3. Professions

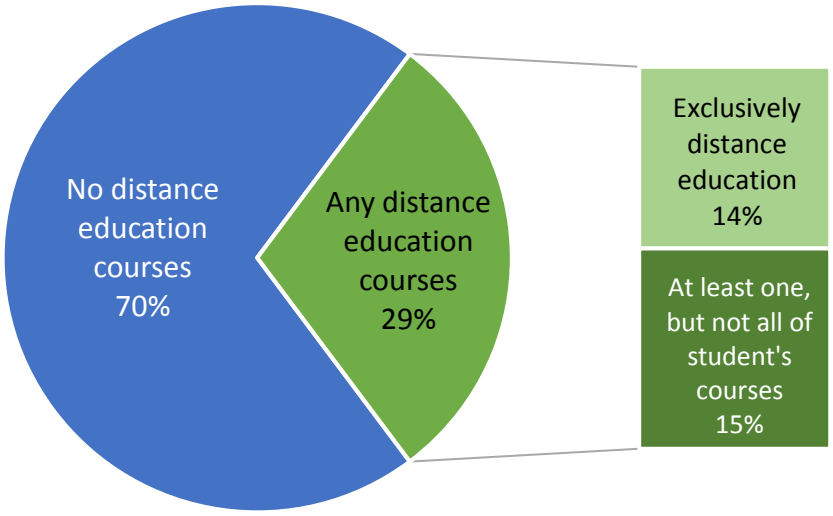
Professions-focused institutions are chiefly aimed at educating and training undergraduate and graduate students in a variety of professions and vocations. To this end, professions-focused institutions tend to offer programs that can be readily translated into employment opportunities (e.g., accounting, health-care, education). Professions-focused institutions may also offer students the opportunity to intern or otherwise associate with industry figures, thus allowing students to start building their hands-on experience and professional network while still attending school, which further supports these institutions' mission to set their students up for successful employment prospects.

B. Modes of provision

1. Residential

Traditionally, young people who wished to benefit from higher education used to "go away to college" to live on or near campus and immerse themselves in a living-learning environment. This mode of provision in higher education is still highly dominant, as seen in Figure 2, with 70% of all students in 2015 attending all their coursework in person, 29% attending any distance education courses, among whom 15% attend at least one, but not all, of their courses online, and 14% study all of their courses online (Stevens 2015).

Figure 2: Percentage of students enrolled in degree-granting postsecondary institutions, by distance education participation: 2015



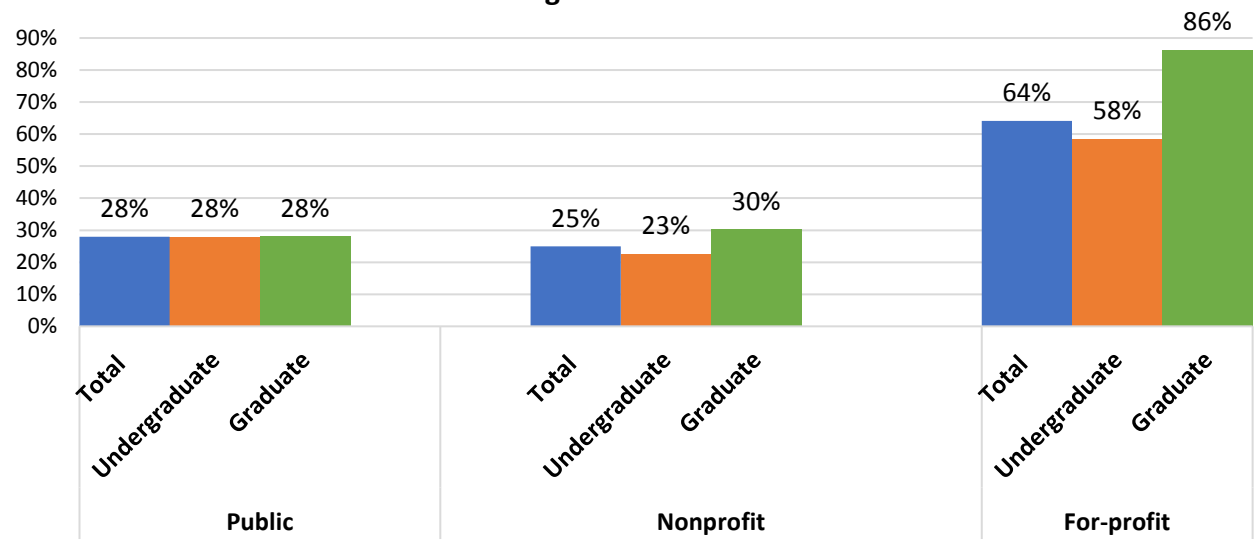
Source: NCES, 2017.

Indeed, the four-year residential education at research universities and liberal arts colleges has long been viewed by many, including educational social scientists, as the ideal expression of higher education (NCES 2017).

2. Distance education (online programs)

The presumption that college requires physical copresence is no longer taken for granted in present day ideas about higher education. The technological developments of recent years have enabled institutions of higher education to develop online programs, also known as distance education, enabling students, for the first time in history, to benefit from academic schooling and attainment without ever having to set foot on campus. As shown in Table 10, about a third of students in public and nonprofit HEIs take at least one, but not all, of their course(s) online, while the respective percentage in for-profit HEIs are about two-thirds total and as much as 86% at the graduate level (NCES 2017).

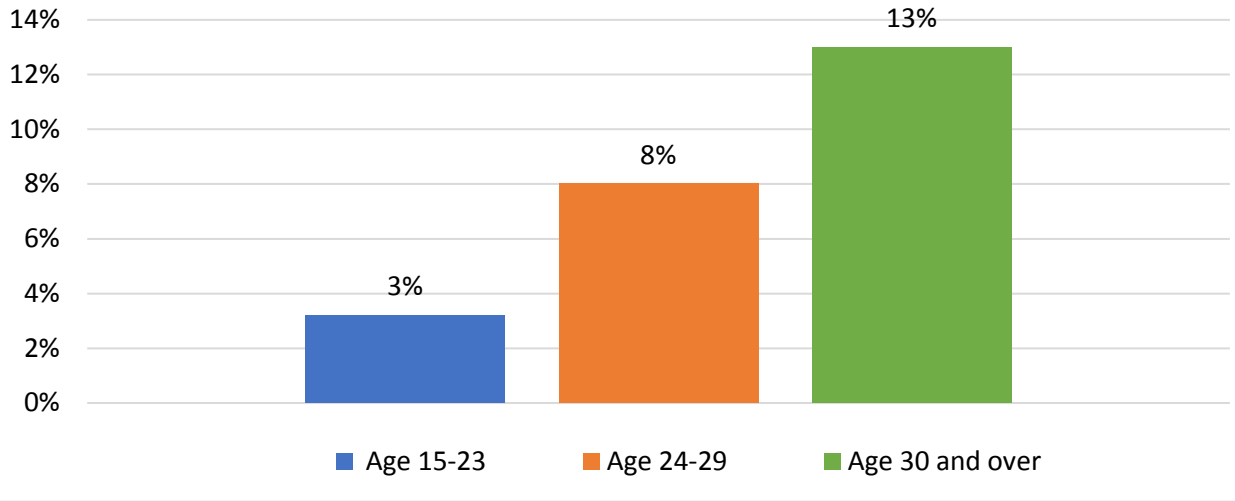
Table 10: Percentage of students enrolled in any distance education course(s) in degree-granting postsecondary institutions, by institutional control and degree level: 2015



Source: NCES, 2017.

In 2015, 28% of all students in public HEIs took at least one online course, with equal percentage of undergraduate and graduate students (NCES 2014). A total of 25% of students in nonprofit HEIs attended at least one of their courses online, comprised of 23% of undergraduate and 30% of graduate students, and a total of 64% of all students in for-profit HEIs who took at least one of their courses online comprised of 58% undergraduate and 86% graduate students, demonstrating that for-profit HEIs make far greater use of distance learning.

Table 11: Percent of students whose entire degree program is online, by age group: 2011-2012



The popularity of online programs among older students, who are more likely to raise families and hold day jobs, is further demonstrated through data from 2011–2012, showing that only 3% of younger students (age 15–23) studied their entire degree online, compared to more than double (8%) of students age 24–29 and more than four times (13%) of students age 30 and over (NCES 2014).

3. Part-time/night/weekend programs

Part-time, night, and weekend programs enable students to participate in higher education learning, reaping the benefits of academic attainment, while not committing their full attention and time to campus life. Being able to hold on to a day job, care for one's family, and pursue other commitments and interests is a distinctly different value proposition compared to the traditional live-on-campus one. In 2011–2012, 32.4% of undergraduate students took at least one night class and 7% took at least one weekend class (NCES 2014). As expected, students' age correlates with increased part-time attendance: in 2011–2012, 29.8% and 5.2% of younger undergraduate students (age 15–23) took at least one night or one weekend class (respectively), compared to 36.6% and 9% or older students (age 24-29), respectively (Ewert and Kominski 2014).

Bibliography

Arum, Richard, and Josipa Roska. 2015. “Measuring College Performance.” In *Remaking College : The Changing Ecology of Higher Education*, edited by Michael W. Kirst and Mitchell L. Stevens, 169–89. Stanford, CA: Stanford University Press.

Brennan, John, Vassiliki Papatsiba, Sofia Branco Sousa, and David M. Hoffman. 2016. “Diversity of Higher Education Institutions in Networked Knowledge Societies: A Comparative Examination.” In *Re-Becoming Universities? Higher Education Institutions in Networked Knowledge Societies*, 115–39. Dordrecht: Springer Netherlands. doi:10.1007/978-94-017-7369-0_5.

Brint, Steven. 2013. “A Priori and Empirical Approaches to the Classification of Higher Education Institutions: The United States Case.” *Pensamiento Educativo: Revista de Investigación Educacional Latinoamericana* 50 (1): 96–114. doi:10.7764/PEL.50.1.2013.8.

Ewert, Stephanie, and Robert Kominski. 2014. “Measuring Alternative Educational Credentials: 2012.” https://www.census.gov/.

Hussar, William J., and Tabitha M. Bailey. 2017. “Projections of Education Statistics to 2025 Forty-Fourth Edition.” Washington, DC. https://nces.ed.gov/pubs2017/2017019.pdf.

Indiana University. 2016a. “The Carnegie Classification: Basic Classification Description.” http://carnegieclassifications.iu.edu/classification_descriptions/basic.php.

———. 2016b. “The Carnegie Classification of Institutions of Higher Education 2015 Edition.” *Indiana University Center for Postsecondary Research*. http://carnegieclassifications.iu.edu/.

Kamenetz, Anya. 2015. “DIY U: Higher Education Goes Hybrid.” In *Remaking College: The Changing Ecology of Higher Education*, edited by Michael W. Kirst and Mitchell L. Stevens, 39–60. Stanford, CA: Stanford University Press.

McCormick, Alexander C, and Chun-Mei Zhao. 2005. “Rethinking and Reframing The Carnegie Classification.” *Change* 37 (5): 50–57. http://macaulay.cuny.edu/eportfolios/hainline2014/files/2014/02/Change-on-Carnegie-classification.pdf.

National Science Foundation. 2012. “Carnegie Classification Technical Notes.” https://sestat.nsf.gov/docs/carnegie.html.

NCES. 2014. “Table 311.20. Number and Percentage of Undergraduate Students Taking Night, Weekend, or Online Classes, by Selected Characteristics: 2011-12.” *National Center for Education Statistics*. https://nces.ed.gov/programs/digest/d15/tables/dt15_311.20.asp.

———. 2015a. “Table 302.60. Percentage of 18- to 24-Year-Olds Enrolled in Degree-Granting Postsecondary Institutions, by Level of Institution and Sex and Race/ethnicity of Student: 1970 through 2014.” *National Center for Education Statistics*.

https://nces.ed.gov/programs/digest/d15/tables/dt15_302.60.asp.

———. 2015b. “Table 303.40. Total Fall Enrollment in Degree-Granting Postsecondary Institutions, by Attendance Status, Sex, and Age: Selected Years, 1970 through 2024.” *National Center for Education Statistics*. https://nces.ed.gov/programs/digest/d14/tables/dt14_303.40.asp.

———. 2016a. “Table 301.20. Historical Summary of Faculty, Enrollment, Degrees Conferred, and Finances in Degree-Granting Postsecondary Institutions: Selected Years, 1869-70 through 2013-14.” *National Center for Education Statistics*. https://nces.ed.gov/programs/digest/d15/tables/dt15_301.20.asp.

———. 2016b. “Table 302.30. Percentage of Recent High School Completers Enrolled in 2-Year and 4-Year Colleges, by Income Level: 1975 through 2015.” *National Center for Education Statistics*. https://nces.ed.gov/programs/digest/d16/tables/dt16_302.30.asp.

———. 2016c. “Table 303.10. Total Fall Enrollment in Degree-Granting Postsecondary Institutions, by Attendance Status, Sex of Student, and Control of Institution: Selected Years, 1947 through 2025.” *National Center for Education Statistics*. https://nces.ed.gov/programs/digest/d15/tables/dt15_303.10.asp?current=yes.

———. 2017. “Table 311.15. Number and Percentage of Students Enrolled in Degree-Granting Postsecondary Institutions, by Distance Education Participation, Location of Student, Level of Enrollment, and Control and Level of Institution: Fall 2014 and Fall 2015.” *National Center for Education Statistics*. https://nces.ed.gov/programs/digest/d16/tables/dt16_311.15.asp?current=yes.

Pew Research Center. 2016. “America’s Shrinking Middle Class: A Close Look at Change within Metropolitan Areas.” http://assets.pewresearch.org/wp-content/uploads/sites/3/2016/05/Middle-Class-Metro-Areas-FINAL.pdf.

Prescott, Brian. 2011. *Western Interstate Commission for Higher Education - Thinking Anew About Institutional Taxonomies*. A paper prepared for the December 1-2, 2011 Mapping Broad-Access Higher Education Convening at Stanford University.

Ruef, Martin, and Manish Nag. 2015. “The Classification of Organizational Forms: Theory and Application to the Field of Higher Education.” In *Remaking College: The Changing Ecology of Higher Education*, edited by Michael W. Kirst and Mitchell L Stevens, 84–109. Stanford, CA: Stanford University Press. https://www.researchgate.net/publication/303297642_The_Classification_of_Organizational_Forms_Theory_and_Application_to_the_Field_of_Higher_Education.

Scott, Richard W. 2015. “Higher Education in America: Multiple Field Perspectives.” In *Remaking College: The Changing Ecology of Higher Education*, edited by Mitchell L. Stevens and Michael W. Kirst, 19–38. Stanford, CA: Stanford University Press.

Selingo, Jeff, Kevin Carey, Hilary Pennington, Rachel Fishman, and Iris Palmer. 2013. “The Next Generation University.” https://static.newamerica.org/attachments/2318-the-next-

generation-university/Next_Generation_University_FINAL_FOR_RELEASE.8897220087ff4bd6afe8f6682594e3b0.pdf.

Stevens, Mitchell L. 2015. “Introduction: The Changing Ecology of U.S. Higher Education.” In *Remaking College: The Changing Ecology of Higher Education*, edited by Michael W. Kirst and Mitchell L. Stevens, 1–15. Stanford, CA: Stanford University Press.

Stevens, Mitchell L., and Ben Gebre-Medhin. 2016. “Association, Service, Market: Higher Education in American Political Development.” *Annual Review of Sociology* 42 (1). Annual Reviews: 121–42. doi:10.1146/annurev-soc-081715-074240.

University Innovation Alliance. 2014. “University Innovation Alliance Vision and Prospectus.” http://www.theuia.org/sites/default/files/UIA-Vision-Prospectus.pdf.

Werf, Martin Van Der, and Grant Sabatier. 2009. “The College of 2020: Students.”Chronicle Research Services.