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BUILDING A COMMUNITY

Using Regional
Comprehensives'
Peer Groups to
Define the Sector

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Using Regional Comprehensives' Peer Groups to Define the Sector

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Scholars, researchers, and practitioners have always faced challenges distinguishing which colleges and universities are regional comprehensive institutions (RCIs) (see Fryar, 2015 for example). In some ways, it is remarkably easy to spot an RCI. Just like one could pick out a liberal arts college for its small, leafy, residential campus (Breneman, 1994) or a research university for its prominent athletics teams or ubiquitous brand, one could identify an RCI through several common traits. An RCI may have a direction in its name (e.g., University of Northern Iowa), or an observer may simply recognize it as their own local, public college (Schneider & Deane, 2015)—an institution deeply embedded in its community, employing a large proportion of its region's population (McClure, 2018; Orphan & McClure, 2019).

It is more challenging, however, to identify RCIs as an entire group (Henderson, 2009). While one could find a liberal arts college based on the proportion of liberal arts baccalaureates it awards or a research university by the number of doctorates it grants (Indiana University Center for Postsecondary Research, 2015), there is no single data point—or set of data points—that mark regionals as a sector. There is a simple

explanation for this: Regional comprehensive colleges and universities are the Swiss Army Knives of higher education. Just as Swiss Army Knives contain different permutations of tools, each RCI comes with its own set of components that has been collected over time to fit local needs. Schneider and Deane said as much in a 2015 book when they attempted to identify RCIs, saying they “considered degree offerings, patterns of student enrollment, and proximity to population centers, but quickly discovered that these institutions operate on a complex continuum” (p. 6). Their adaptability to regional contexts, focus on teaching, and historical service to marginalized populations are RCIs’ greatest strengths but collectively defy classification through quantitative data. Yet identifying which institutions fall into the category of “regional comprehensive” is an important exercise. Finding the boundary between RCIs and other institutions can enable further research on this critical group of colleges and universities and promote public policy that supports their essential mission (Orphan, 2015). Determining which institutions are RCIs can additionally help colleges and universities themselves. Categories help to simplify the landscape of U.S. higher education and give institutions reference points to



which they can turn when looking for allies and new ideas (Arthur, 2016; Glynn & Navis, 2013). The question this paper addresses, then, is how do we identify a group of institutions that is largely defined by mission, rather than by a specific set of datapoints? More to the point, how do we identify RCIs as a sector among U.S. institutions of higher education? RCIs’ local knowledge and belief of which institutions are similar to them can help to answer this question. When aggregated, this local knowledge can identify a cluster of institutions that others view as “fitting together.” Specifically, I rely on institutional comparison groups, in which RCIs name institutions they view as comparable peers. Comparison group data from the Integrated Postsecondary Education Data System (IPEDS) provides insight into which colleges and universities RCIs see as similar to themselves. Analyzing data across the entire field of U.S. higher education using social network analysis techniques can provide insight into which other colleges and universities RCIs believe belong in their group.

What is a Regional Comprehensive Institution?



Regional comprehensive colleges and universities have diverse historical origins (McClure, 2018; Supplee et al., 2017). Many began as state normal schools, later becoming teachers' colleges, and ultimately growing into universities following the second World War (Dunham, 1969; Ogren, 2005). Others began as branch campuses of larger universities, eventually being re-constituted as full institutions unto themselves, while some opened as

private colleges that public postsecondary systems absorbed (Finnegan, 1991). Additional comprehensives were founded following the second Morrill Act, establishing what are now called Historically Black Colleges and Universities (HBCUs) (Thelin, 2011). Collectively, these institutions have readily adapted to shifting circumstances over their histories in order to meet the needs of the students they serve. Many normal schools, for example, offered a liberal arts curriculum that extended past their founding purpose to train educators (Ogren, 2005). HBCUs provided an even wider range of offerings, spanning from elementary to postsecondary education in order to serve formerly enslaved people, for whom a system of chattel slavery and state-sanctioned racism had previously denied formal education (Thelin, 2011; Wooten, 2015). As a sector, then, comprehensives are

marked by their tradition of offering access for marginalized people and have consistently changed and adjusted over time to serve these groups.

This pattern—of adaptability, of service to students, and of offering postsecondary access to marginalized groups—persists to the present day (Warshaw et al., 2020). Some RCIs, for example, award two-year degrees, in addition to baccalaureate degrees, because they are the only postsecondary institutions in their region and must meet a range of students' educational needs (Miller, 2020; Orphan & Miller, 2020). Other RCIs offer doctoral degrees that align with their mission to train educators (Baker et al., 2007). Still others offer both two-year and doctoral degrees alongside four-year programs. RCIs additionally enroll a disproportionate share of students receiving Pell grants and maintain low average tuition prices (Fryar,

2015). For their part, HBCUs remain an integral pathway for Black students entering higher education, awarding 15% of all baccalaureate degrees to Black students (Anderson, 2017). In summary then, RCIs are a diverse array of colleges and universities, purpose-built and shaped over time to fit local circumstances (Orphan, 2020). This is their unique contribution to higher education: not only educating a vast proportion of students who graduate with four-year credentials (Doyle, 2015; Fryar, 2015) but adapting over time to fit the needs of their communities and students. Yet this diversity makes the task at hand—finding the boundary around RCIs—challenging. How can one use metrics to group institutions that award a diverse range of degrees? What is the threshold of tuition price that makes an institution a “comprehensive?” What percentage of an institution’s enrollment must receive Pell grants in order

to be considered accessible to students from low-income backgrounds? These are challenging questions with no ready answer. What is more, to classify regionals using thresholds would be a blunt approach to describing what these institutions do. Indeed, if history has shown us anything, it is that regionals persistently change, and shifts in their activities would quickly yield metric-based definitions obsolete.





A New Strategy for Identifying Regional Comprehensives

To address the outlined problem, I propose a new strategy for identifying RCIs (see Miller, 2020). This strategy relies on self-identified comparison groups that U.S. postsecondary institutions have submitted to IPEDS. Comparison groups are an important institutional decision and demonstrably signal where an institution turns when looking for new ideas (Arthur, 2016; Brint et al., 2006; Miller, 2019). Indeed, they reflect an institution's sense of what it is and what it aspires to be, as well as its understanding of which institutions are similar (Gioia & Thomas, 1996; Glynn & Navis, 2013; Labianca et al., 2001, 2009). They

are, in essence, social identity claims about belonging that give organizational outsiders a way to understand what a given institution does (see King & Whetten, 2008). Faced with the questions, “who are you, and what do you do,” a university president can respond, “we are like the institutions in our comparison group, and we do what they do.” In this sense, comparison groups provide an anchor for an institution, relating it to others.

Taken in aggregate, comparison groups can reveal which institutions others see as fitting together (Lynn et al., 2019; Miller, 2020). See the example below in Figure 1. In this illustration, Institution A and Institution B both select a comparison group. Institution A selects three other institutions: {University 1, University 2, and University 3}. Institution B additionally selects three institutions: {University 1, University 2, and University 4}. This network of peer nominations is depicted in Column A of Figure 1. Looking at these connections from a different perspective, we can imagine an “associational network” in which

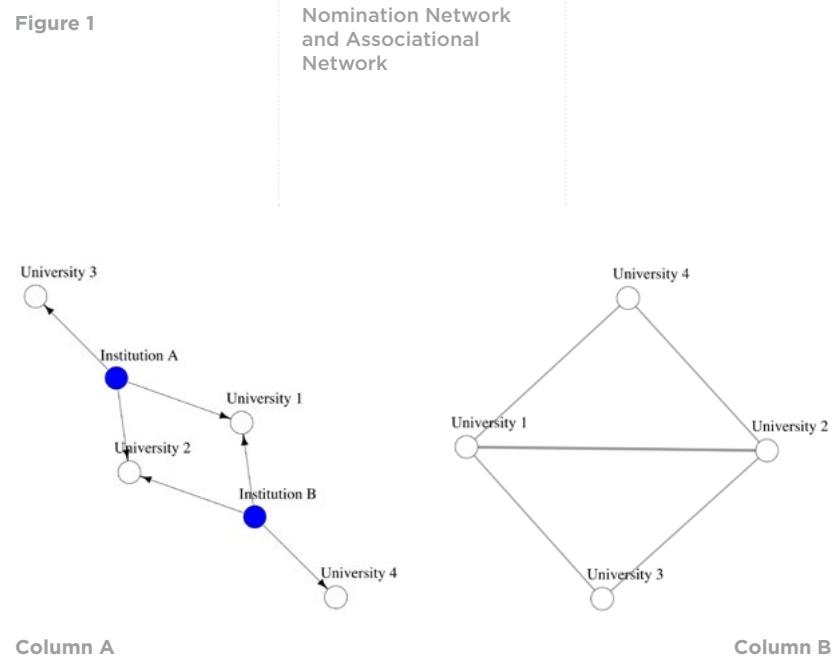


institutions are linked because they are nominated together. Figure 1, Column B shows such a network. In this instance, universities share links if nominated in the same group. Universities 1 and 2 have a thicker connecting line because both Institutions A and B nominated them together, where Universities 3 and 4 do not share a connection because they were not chosen in the same comparison group. Now, consider this process of co-nominating institutions totaled across U.S. higher education. Given many more comparison groups, we could, at one extreme, observe Universities 1 and 2 are frequently co-nominated, where Universities 3 and 4 never are. This pattern would suggest that others see Universities 1 and 2 as similar. In an example from 2019 IPEDS data, the University of North Carolina – Greensboro and Ball State University were co-nominated 10 times (mean = 1.99, sd = 1.58), though UNC Greensboro did not nominate Ball State in its own group. This finding illustrates that, whether or not UNC – Greensboro sees Ball State as a peer, other institutions routinely pair the two together. We thus have a window into which institutions are commonly associated that we could not otherwise observe. Through social network analysis techniques described in the subsequent sections, we can additionally observe which groups of institutions are commonly nominated together.

Data

I use 2019 IPEDS data, the most recent year available, to update an analysis conducted using 2015 data (Miller, 2020). The study's analytic sample includes public and private not-for-profit baccalaureate colleges, master's colleges and universities, and doctoral universities, as designated in the 2018 Carnegie Classifications. Since 2005, IPEDS has offered institutions the opportunity to identify custom comparison groups that form the basis of Data Feedback Reports (DFRs). DFRs provide institutions with comparative data along a range of metrics, situating a given institution among its nominated peers. Not all institutions opt to select a comparison group, though in 2019, of 1,557 institutions in the sample, 1,200 (77%) identified custom groups. The average custom comparison peer group comprised 19.38 nominees ($sd = 13.44$, $min = 3$, $max = 100$). I then converted the network of peer nominations into an associational network, where institutions are linked through co-nominations (see Wasserman & Faust, 1994). Note that in order to be included in this network, institutions do not need to choose a comparison group; they need only be nominated. The full associational network thus includes 1,775 institutions.

Figure 1



Analysis

To find institutional groups, I employed a common technique to detect communities in social networks called modularity maximization (Fortunato, 2010). This method uses algorithms to identify clusters of institutions that are densely connected (i.e., groups that have many connections between them), with sparse connections between clusters (see Miller, 2020 for a full description of this method). The goal is to maximize the modularity statistic (ranging between -1 and +1), which summarizes how many more ties exist within a group than would be expected at random (Newman, 2006).

Which Institutions Are Regional Comprehensives?

The analysis yields eight total clusters in the full associational network. Here, I will focus on two key groups of the eight: RCIs and research universities. Table 1 provides a summary of the institutional profiles comprising each group. The RCI group, relative to research universities, is larger with 497 institutions compared to 171. Identifying RCIs using this strategy includes more institutions than some other methods (e.g., Fryar, 2015, who found 473 or 384 based on two methods) or well-known classification schemas, such as the Carnegie Master's group, which in 2018

included 256 public master's colleges and universities. This is likely because RCI peer groups routinely include a diverse pool of institutions (Orphan & Miller, 2020), so the cluster likely includes baccalaureate colleges, doctorate-granting universities, and institutions that award a mix of baccalaureate and associates' degrees.

A comparison between the two groups yields predictable findings. The RCI community contains a much higher proportion of public institutions. Howard University, an HBCU, several private regional colleges, and two special-focus colleges (culinary arts and health) comprise the nine private institutions. The private institutions in the research university

TABLE 1.

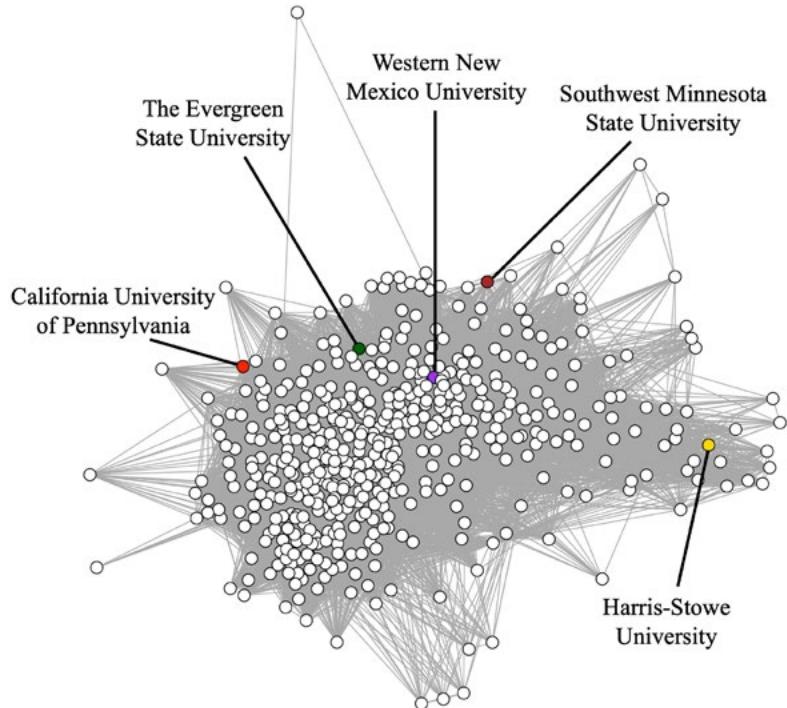
Category Profiles for RCIs and Research Universities

| | GROUP | # | # Public | # HBCU | Tuition Sticker-Price | Associates' Awarded ¹ | Bacc. Awarded ¹ | Masters' Awarded ¹ | Research Doctorates Awarded ¹ | Professional Doctorates Awarded ¹ |
|-----------------------|-------|-----|----------|--------|-----------------------|----------------------------------|----------------------------|-------------------------------|--|--|
| RCIs | 497 | 488 | 41 | 41 | \$9,161 | 123 | 1,527 | 399 | 17 | 29 |
| Research Universities | 171 | 101 | 0 | 0 | \$28,020 | 24 | 3,940 | 1,770 | 291 | 263 |

¹Reported statistics are averages

Figure 2

Network Graph of RCIs



category are well-known, highly selective universities. The RCI group additionally includes HBCUs and, on average, reported lower tuition sticker-prices (\$9,161 versus \$28,021). With respect to degrees awarded, RCIs demonstrated greater focus on undergraduate education and in 2019, on average, awarded 33 baccalaureate degrees for every doctorate awarded. Research universities, on average, awarded 7 baccalaureate degrees for every doctoral degree. It is also notable that the average RCI awarded 123 associates' degrees in 2019, illustrating programmatic breadth. Figure 2 depicts the network of RCIs and identifies several example institutions.

RCIs and research universities also have dramatically different enrollment profiles (see Table 2), demonstrating RCIs' historical

commitments to educational access for groups who have been excluded and marginalized (Fryar, 2015; Ogren, 2005). For example, students receiving Pell grants comprised 47.74% of the average RCI's undergraduate student body in 2019. RCIs as a group, then, enrolled approximately 1.86 million students receiving Pell grants. In comparison, research universities taken together enrolled approximately 863,000 students receiving Pell grants (22.49% of enrollment). We can observe a similar pattern when considering enrollment of underrepresented student groups. Black students, for example, accounted for 15.18% of the undergraduate student body at the average

RCI, compared with only 6.05% at the average research university. Examining each group as a whole, then, RCIs enrolled approximately 590,000 Black students, while research universities enrolled approximately 232,000. Finally, the average RCI enrolled a greater proportion of in-state students in 2019 than

did research universities, though this statistic likely reflects, at least in part, RCIs' lower appeal to out-of-state students. Regardless of the cause, however, it is clear that RCIs are critical institutions that educate a significant proportion of their home states' populace.

TABLE 2.

AVERAGE
ENROLLMENT
PROFILES AT RCIS
AND RESEARCH
UNIVERSITIES

| | RCI | Research Universities |
|---|--------|-----------------------|
| FTE Enrollment | 7,827 | 22,434 |
| Enrollment % Pell | 47.74% | 22.49% |
| Enrollment % In-State | 82.66% | 54.39% |
| Enrollment % Asian | 3.86% | 11.04% |
| Enrollment % Black | 15.18% | 6.05% |
| Enrollment % Indian American/Alaska Native | 1.12% | 0.23% |
| Enrollment % International | 3.29% | 13.94% |
| Enrollment % Latinx | 15.31% | 11.31% |
| Enrollment % Pacific Islander/Hawaiian Native | 0.22% | 0.05% |

Discussion

These findings conform to the historical mission of RCIs: to provide access to postsecondary education and to serve their local communities and regions. Descriptive statistics fit these expectations and align with work finding that many RCIs have maintained and even strengthened their commitments to access and equity over time (Warshaw et al., 2020). More importantly, however, this analysis provides a strategy for identifying which colleges and universities fit in the category of “regional comprehensive.” RCIs have historically defied categorization because they represent such a diverse group. As Henderson (2009) expressed, “No one official grouping of colleges and universities coincides precisely with the [state comprehensive universities]” (p. 5). Many offer a broad range of degrees, spanning from two-year degrees to doctorates, and they all have risen to meet the

needs of their students, communities, and regions over time (McClure, 2018; Orphan, 2015; Orphan & McClure, 2019; Orphan & Miller, 2020). Specific datapoints, as such, are not as helpful for identifying RCIs as they are for finding other groups of colleges and universities. The strategy outlined here, however, develops a definition centered on institutions’ aggregated beliefs and gives researchers, as well as RCIs, a consistent method for identifying which institutions are comprehensives. Identifying which institutions belong to this community is important for ongoing work to understand, investigate, and support these institutions. This analysis allows researchers to track change in the sector over time as institutions and their environments transform. Critically, it can help policymakers to identify the institutions in their state that pursue work in line with the comprehensive mission and to support those institutions as regional and local demands shift. Defining the community of comprehensive institutions can benefit RCIs themselves. Certainly, RCIs know who their peers are. Yet, classifying comprehensives can allow institutions to scan further, finding new peers—indeed, finding the institutions others associate with a given university—and identifying new ideas and programs that can strengthen their own commitment to educational access and equity.

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