ORGANIZING FOR STUDENT SUCCESS:

A PROPOSAL FOR RELATIONAL COORDINATION IN HIGHER EDUCATION

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INTRODUCTION

In August of 2010 U.S. Secretary of Education, Arne Duncan penned an editorial in Forbes Magazine to explain President Obama's new goal of America once again leading the world in college graduates. Secretary Duncan introduced the "2020 Plan" which states, "roughly 60% of Americans will have to earn college degrees and certificates by 2020 to regain our international lead, compared with about 40% today" (2010). The U.S. Department of Education is not the only entity to encourage a new movement for degree attainment. The Bill and Melinda Gates Foundation (n.d.), Lumina Foundation (2012), and the Southern Regional Education Board (2010) all released reports on the importance of educational attainment, and subsequently, set their own goals and initiatives. Specifically, these goals include closing achievement gaps for those most at risk for not completing college such as low-income students, first-generation students, non-traditional aged students, and students of color (Hossler, Dundar & Shapiro, 2013). This movement has been termed *The Completion Agenda* (Shugart, 2013). Pitcher, Cantwell, and Renn (2015) define the completion agenda as, "a set of policy initiatives and institutional practices designed to improve graduate rates, reduce the time to degree, and close degree attainment gaps among students of different racial and socioeconomic backgrounds" (p. 3).

Sanford Shugart (2013), president of Valencia College, shared in his speech to the Southern Association of Colleges and Schools' Commission on Colleges and later published on *InsideHigherEd.com* that, "Learning comes before completion. If more students learned deeply and effectively in a systematic program of study, with a clearer sense of purpose in their studies and their lives, more would graduate and contribute to the local economy and community, and that would be a good thing." Shugart challenges the dominant narrative by arguing that student success is more complex than completion. Nonetheless, graduation is an important measure that

has become the focus of policy discussion and the prevailing definition of "student success." (Renn & Reason, 2013). With learning, persistence and graduation as the ultimate goals, policymakers and students are left to wonder, *is higher education organized for student success?*

Hossler et al's (2013) review of current organizational research on student success concludes "we still know relatively little about institutional policies and practices that really make a difference in student retention efforts" (p. 149). This paper takes up the challenge from Hossler et al (2013) and Bastedo (2012) to provide rigorous research on organizational policies and practices using social networks, relationships, and organizational collaboration and coordination as mechanisms to build institutional coherence toward student success, specifically for students historically and systemically marginalized and disadvantaged in American higher education. This paper seeks to answer these questions using contemporary scholarship and organizational theories, specifically social network and relational coordination theory.

Specifically the paper is arranged in following five parts: *Higher Education Institutions as Complex Organizations* describing the historical and contemporary study of organizational scholarship in higher education; *Social Networks: Theory, Methods, and Application* to explore prior and potential uses of an emerging theory and methodology in education research; *Relational Coordination as a Proposed Framework* to introduce a framework that has been utilized in fields similar to higher education such as nonprofit administration and healthcare management; *Proposed Research* to propose further organizational research to provide institutional leaders with applicable knowledge to enhance college administration; and *Conclusion* to integrate the theory of relational coordination into the research and administration of higher education organizations.

HIGHER EDUCATION INSTITUTIONS AS COMPLEX ORGANIZATIONS

Brief History of Organizational Scholarship in Higher Education

Higher education has grown significantly in size (student body) and scope (mission) over the past 50 years. Peterson (2007) provides a historical perspective of organizational scholarship in higher education. Using a historical perspective requires generalizations, which can be problematic when thinking about the diversity of institutional types in American higher education. For example, Historically Black Colleges and Universities (HBCUs) provided, and continue to provide, access and safe environments for black students when Predominantly White Institutions (PWIs) have not (Palmer & Gasman, 2008). HBCUs may be especially sensitive to societal and contextual political shifts as their mission continues to face public scrutiny (Gasman & Commodore, 2014). Also during the past 50 or so years, the for-profit sector has increased exponentially, online education has allowed institutions to reach past geographical boundaries, and community colleges have expanded rapidly to meet the needs of an increasingly diverse student body (Beach & Grubb, 2011). Considering nuances in the history of higher education, especially those historically underserved by colleges and universities, Peterson traces the history of organizations and organizational scholarship of higher education. He cautions that "any researcher addressing these institutions has been amply forewarned of the complex nature of change in the organizations themselves" (p. 149).

Peterson (2007) calls 1950 – 1965 the *Era of Expansion*. During this time most universities were growing in student population; therefore, organizational structures expanded as well. Regional institutions began broadening their degree offerings and growing in size, while flagship institutions ramped up their research efforts and graduate education offerings. As the student body became more diverse, support services and multicultural student services offices

grew to support student needs and in response to activism (Shuford, 2011). During this time, many scholars researched structural bureaucracy through case study methodology, "but they also viewed colleges and universities as purposive and developed largely internally-oriented models of organization" (Peterson, 2007, p. 155).

From 1965 to 1975, state funding mostly kept pace with student body growth. During national turmoil, colleges often were found in the spotlight in cases such as Jackson State University and Kent State University (Thelin, 2011). Institutions became increasingly complex with structures and administrative functions that developed in both specialized and professionalized ways. The rise of institutional leaders began to play a larger political role in social movements and societal reflections. During this time, organizational scholarship began viewing institutions less as centralized bureaucracies and more as loosely coupled conglomerates (Weick, 1976).

Moving forward into the late 70s, 80s, and early 90s, state funding decreased while postsecondary education became increasingly necessary for participation in the emerging globalized economy. During this time, most policy work was focused on ensuring access (Callan, 2011), while institutions began to be more responsive to "market pressures and needed to increase and improve their efficiency and productivity" (Peterson, 2007, p. 160). Universities began increasing research output in order to acquire primarily governmental grants to fund research that was formerly financed through state subsidy, and to stabilize net revenues and infrastructure improvements. To support research, universities developed new organizational structures that were more similar to government agencies and foundations and functioned to secure, evaluate, and comply with increasing regulation. This effort of higher education

institutions to engage with the economy has been termed academic capitalism (Slaughter & Rhodes, 2005).

From the 90s to the present, universities have continued to see a decline in state funding, especially following the 2008 recession. Many public institutions have aggressively pursued out-of-state students who pay higher tuition (Jacquette, Curs, & Posselt, forthcoming) while other institutions like George Mason University have increased research expenditures to achieve the highest classification through the Carnegie Foundation (George Mason University, 2016). As institutions have continued to change to meet market needs, so have their missions, structures, and policies. Peterson (2007) labels these emerging organizational forms "technomanagerial." According to Peterson, this new organizational form helps institutions to address issues of efficiency and productivity, which have gained attention from external actors such as accreditors, policymakers and potential funders.

Gap in Organizational Research

Organizational research in higher education has been left in an interstitial space between external demands and internal happenings, with little theorizing or understanding of the impact on student success. This gap has left emerging administrative fields, professionalized functions, administrative processes, and organizational structures under-studied while recent scholars, focused on disciplinary legitimacy, have left practical issues to the wayside. Based on their review of recent organizational studies in higher education, Fumasoli and Stensaker (2013) agree that "by focusing the research agenda on policy studies, articles on the transformation of higher education have disregarded somewhat the point of view of practitioners, or, in other words, the needs of those that, within universities and colleges, have to cope with the reforms being

implemented" (p. 48). There is a desperate need to study changes in the internal organization of higher education in response to external demands.

Growing Complexity of Organizational Structures in Response to External Demands

One example of a growing administrative structure is NCAA Division 1 athletic departments. According to Cheslock and Knight (2015), even in those institutions that have a revenue net gain, the departments continue to increase spending levels (many times by adding staff and organizational structures) in order to not "lose" money back to the institution. The authors also provide examples of institutions that once had generous revenues, but after losing seasons or academic scandals, were soon subsidized by the university. The administrative cost of collegiate athletics has created numerous managerial structures including student compliance monitors, marketing specialists, student recruiters, and student affairs professionals.

While very few policymakers or news agencies will criticize the growing athletic complex, student services and other amenities in higher education have become a favorite example of negligent cost increases in popular media (Woodhouse, 2015; Vedder, 2015). While this paper does not cover the economic debates regarding whether decreased government funding or added student amenities have increased tuition (for more information see David Feldman's *Why Does College Cost so Much?)* or the fragmentation and specialization of academic disciplines and fields (Abbott, 1988), it is evident that student services and athletic administration functions have become increasingly professionalized. For example there are associations, conferences, ethical principles, and professional standards for each functional area in Student Affairs and Athletic Administration (for more information see: American Association of Collegiate Registrars and Admissions Officers, AACRAO; National Association of College Athletic Directors Association, NACDA; or National Association of College Personnel

Administrators, NASPA). The increased professionalization and funding of these functions further increases the organizational complexity of higher education.

The professionalization of these fields has positive benefits in the form of support networks for staff, the diffusion of effective policy across multiple institutions, and even political advocacy; however there are also tradeoffs. For example, both athletic administration and student services have grown in both size and scope, inhabiting increasing space in colleges and universities while contributing to the complexity of the mission. While the division of labor has the potential to increase productivity, specialization can also create rifts that obstruct communication and coordination across units (Kogut & Zander, 1996). The professionalization of admissions officers, academic advisors, recreation sports professionals, housing coordinators, and retention specialists creates fragmentation, which in turn creates more structure and bureaucracy. Divisions in responsibilities, reporting structures, and increased professionalization often motivate specialists to retreat to professional cultural norms, making it difficult to create and implement focused mission statements or shared understandings (Biancani & McFarland, 2014).

One way to understand expanding organizational complexity is through *isomorphism.* DiMaggio and Powell (1983) describe isomorphism as the process through which organizations or units begin to adapt and resemble others in their field that are facing similar contextual concerns. This process can be observed both at the sub field level (Department of Resident Life vs. Office of Orientation and Transition Programs) and at the institutional level (Student Affairs Division in College A vs. Student Affairs Division in College B). If you were to look at an organizational chart of similar types of institutions, you would likely find their services would be

organized in a similar fashion, often with layers of management to supervise personnel and resources.

Dysfunctional Bureaucracy and Organized Anarchy

As Birnbaum (1991) describes, bureaucratic organizations are designed to handle multiple tasks that are large in scope and size, while coordinating the work of many individuals. The model is based on the presumed rationality of actors (managers and subordinates) and the presumption of decision-making by leaders. However these assumptions may not hold. For example it is often believed that leaders have authority, but as Birnbaum argues, "Authority is no longer defined by the power of the person giving an order but instead by the willingness of the person receiving it to accept it" (p. 126). As more of the administrative workforce gains professional autonomy and legitimacy, it becomes harder for managers to exercise authority, hence making the bureaucratic model less effective for coordination. In addition, as Kezar and Lester (2009) articulate, "Bureaucratic structures also self-proliferate by hiring more layers of individuals to oversee and standardize work rather than perform specific tasks, thus creating greater costs, separating people, and causing communication challenges" (p. 29). In simpler terms, management begets management.

As sub-units grow in size, professionalization, and specialization, they begin to operate and act in more autonomous ways. Birnbaum (1991) describes the system "where everyone does what they wish" as organized anarchy (p. 153). Birnbaum describes anarchical organizations as having three characteristics: problematic goals, unclear technology, and fluid participation. If student services subunits do not share the same goals, have ambiguous ways of operation, and are left to engage in the through assorted means, it is likely that that students may find organizational structures and policies difficult to navigate. In college bureaucracies, individual

subunits have significant autonomy to the point that they become independent actors in an organizational context. This does not lend itself easily to coordinating efforts for student success.

Effectiveness versus Legitimacy

Despite the fact that these bureaucratic structures are so prevalent at most universities, students and staff take for granted that these organizational structures may no longer be effective. Rather than existing for reasons of effectiveness, these structures may exist for reasons of legitimacy. DiMaggio and Powell (1983) use the example of hospitals to highlight the impact that legitimacy seeking has on organizational structures. They argue that hospitals do not have to offer services that benefit patients, as long as they offer services that help them attract physicians and gain legitimacy in their field. This in turn makes physicians and hospital administrators the consumers, rather than patients. Using a similar understanding, one is left to wonder if *universities are organized to gain legitimacy with other universities and with administrators and faculty, rather than organized to serve students and their success?*

This argument should not be mistaken as an argument for a reversal of the professionalization of important administrative roles, but should cause institutional leaders to think strategically about how to manage, organize, and (as this paper will advocate) coordinate increasingly distinctive, professional, specialized roles, functions, and departments so as to serve students most effectively.

Organizational Drivers of Student Success - A Gap in the Research

The scant literature on organizational policies, practices, and structures that impact student success signifies a sizable gap for both policy researchers and practitioners looking to improve college attainment. In the opening chapter of *The Organization of Higher Education: Managing Colleges for a New Era* (2012), Bastedo laments the lack of research focused on

student success at the organizational level, pointing out that "…our efforts have been almost inclusively at the individual level of students, rather than the rigorous examination of institutional policies, practices, and attempts at organizational change to improve student access outcomes" (p. 13). He goes on to challenge organizational researchers by asserting, "We particularly need an understanding, whatever theoretical framework is used, of the vast differences between campuses in student completion that are not explained by differences in student background or characteristics" (p. 14).

Research related to student success in higher education has typically centered individual student characteristics such as SES, Academic Achievement, Gender, Race, first generation status, etc. (Education Trust, 2015) and the impact of financial aid (Dynarski, 2003) as predictors rather than organizational policies and practices. Student characteristics certainly contribute to persistence, but do not account for environmental and organizational factors that colleges are charged to create for the unique success of their students. The literature on organizational characteristics that contribute to persistence and graduation is more eclectic and sometimes contradictory. For example, institutional size (Ryan, 2004; Titus, 2004), admissions selectivity (Titus, 2004; Gansemer-Topf & Schuh, 2006), and proportion of students living on campus (Ziskin, Hossler & Kim, 2009-2010) are positively associated with student persistence, while percentage of part-time teaching faculty has a negative relationship (Ehrenberg & Zang, 2005).

Investigating institutional expenditures has produced mixed results in regards to student success. The most widely used dataset regarding institutional expenditures is the Integrated Postsecondary Education Data System (IPEDS), but how colleges are organized impacts how they report expenditures in different categories such as "academic support" or "student services" (Jaquette & Parra, 2014). That being said, Gansemer-Topf and Schuh (2006) and Zisk et. al.

(2009-2010) found expenditures on instruction to positively relate to persistence at private institutions, while Ryan (2004) found a positive relationship between graduation rates of public and private colleges, yet another study from Titus (2006) did not produce similar results. Similarly, Webber and Ehrenberg (2009) found student service expenditures to have a positive relationship with persistence, yet other studies found the opposite (Gansemer-Topf & Schuh; Ryan, 2004; Titus 2006). One reason "student services", often aimed specifically at student success, does not have a positive association with retention is because offices such admissions and recruitment are also considered "student services," yet have little impact on students once they are arrive on campus.

Chen (2012) uses both student and institutional characteristics in a multilevel event history model to clarify which institutional variables are significant predictors controlling for individual student characteristics. He found that individual characteristics remain statistically significant in predicting student success (educational aspirations, SES, first year integration), but also found, similar to Webber and Ehrenberg (2009), expenditures in student services provide impactful in student success while instruction and academic support expenditures were not. Most importantly to this paper, Chen (2012) provides an excellent framework for studying student persistence with both student and institutional characteristics. What is not measured through static characteristics is how the institution operates to support students.

Calls for Coordination

The study of organizational dynamics is necessary in order to empirically understand organizational contexts that are designed for student success. On almost every campus, higher education managers and practitioners involved with the achievement of students seek efficient and effective ways to organize seemingly fragmented departments and people into catalysts for

student success. These complex organizational issues are highlighted in *The Fragmented University* (Burke, 2007). Burke invites academic leaders and scholars to explore why institutional fragmentation exists and how to remedy the lack of coordination without advocating for centralization. He draws upon the work from *The Kellogg Commission on the Future of State and Land-Grant Universities*. In the 2000 report, *Returning to Our Roots: Toward a Coherent Campus Culture,* the organizational nature of higher education is described as "mine shafts, where most of the mineworkers are intent on the essential task of deepening the mine without giving much thought to the need to build corridors linking the shafts (and the miners). We have become so poorly connected that we have greatly fragmented our shared sense of learning…" (p. 12). Burke explains that these "mine shafts are caused by disciplinary silos." He explains this conundrum as "academic attitudes [that] stimulate disciplinary change but stifle it at the institutional level" (p. 2). This grim picture of faculty non-participation in organizational change is not quite fair, especially given that institutional leaders create and sustain reward structures that perpetuate socialization geared towards specific outcomes. Nonetheless, it is an appropriate critique of the current state of institutional participation and skepticism from faculty regarding organizational evolution.

Duderstadt (2007) picks up where Burke left off and goes on to explain how disciplinary siloism shapes organizational structure from his perspective as a former campus leader and president. He describes the challenge of institutional leaders to encourage "grassroots activities of the faculty, students, and staff" while trying not to "corral or dictate their behavior from above" (p. 57). He argues for organizational innovation that creates coherence by "building alternative structures – physical, organizational, virtual – that draw together students, faculty, and staff" (p. 59). Regarding innovation, Kezar and Lester (2009) state, "Although many college

campuses may not see the importance of innovation as easily as businesses that create new products and respond to changing markets, there are many functions on campus that do require innovation" (p. 10).

The practical knowledge of students and university employees supports the need for coherence, yet these intuitive understandings have not been explored through research. Due to the nuanced nature of collegiate organizations, it is difficult to parcel out the impact of organizational dynamics from other characteristics that contribute to student success. One of the first attempts to connect organizational structure to student outcomes is in Engle and O'Brien's (2007) Pell Institute report titled, *Demography is Not Destiny: Increasing Graduation Rates of Low-Income College Student at Large Public Universities*. It is one of the few studies that examine institutional policies and practices from fourteen campuses using qualitative, quantitative, and institutional data. Based on their findings, Engle and O'Brien recommend that institutions offer individualized services and support through special programs, create a sense of shared community by promoting student involvement, and coordinate efforts for retention. In particular Engle and O'Brien highlight that, "Higher-performing institutions in this study were characterized by: key administrators who articulated a centralized vision and commitment to retention; a campus-wide coordination and/or collaboration in retention programs, even when offered by separate offices or departments" (p. 52). Based on this research, Engle and Lynch (2011) encouraged campus leaders to "…organize their retention efforts into an intentional, structured, and proactive campus-wide program that requires coordination and collaboration among all units focused on shared goal of improving students success" (p. 169). Providing retention programs that bring together already established resources on campus has been a tactic

to help at-risk students manage the complex organization. Kezar (2005) explains the need for this type of collaboration for retention by elaborating:

> "Although organizations create individual units to handle and manage discrete sets of activities, processes cut across organizational units. Organizations that work across functions better address students' needs, for example by eliminating the need to send a student from advising to financial aid to the TRIO program to obtain a solution to a problem" (p.12).

Exploring the impact of institutional size on student success, Hurtado (2007) found students who attend larger institutions are "less likely to interact with faculty, get involved in student government, participate in athletics or honors programs, or have opportunities to speak up during class " (p. 103). She found that, to be successful, students created numerous ways of coping and navigating complex systems by engaging in "cognitive mapping" to locate themselves in smaller communities within the larger organization. This finding about cognitive reframing might suggest to practitioners the value of building programs and initiatives in which students can engage with peers and experience college as less overwhelming. "Students' ability to make these adjustments successfully suggests that colleges can employ a similar strategy by formally organizing proximal environments that facilitate students' closer connections with their institutions" (Hurtado, 2007, p. 103).

Organizational Collaboration

The complex, bureaucratic nature of higher education organizations and their highly specialized workforces may be inhibiting innovation, such as the ability to offer new and different types of services. Universities are actually quite rich with human resources, intellectual capital, and in many cases financial resources, but many times struggle to implement

collaborative initiatives. The dilemma posed by the intricacy of organizations is - *how to organize people and structures to create adaptive and positive change?* Kezar (2005) began investigating the phenomenon of organizational collaboration through a comparative case study of four institutions that created successful collaborations without an abundance of financial resources. Kezar and Lester (2009) argue that collaboration can "decrease costs and lead to greater efficiency" (p. 12) and can result in "…greater effectiveness, and perhaps most important for higher education, it can enhance student learning" (p. 831). If those potential outcomes are not reason enough to initiate collaborative partnerships on campus, then the ability to gain external funding is an additional potential reward to collaboration. Kezar and Lester (2009) uses the National Science Foundation to show that some external funders require collaborative research projects to receive funding, while "corporations are more likely to give funding if higher education can demonstrate its accountability by providing services in the most efficient and most cost-effective way. Campuses that can demonstrate how they work in non-bureaucratic and responsive ways attract attention from philanthropy and business" (p. 20).

SOCIAL NETWORKS: THEORY, METHODS, AND APPLICATION

From Kezar's (2005) research on collaboration, she developed a model that included three stages: 1) Building Commitment, 2) Commitment, and 3) Sustaining Commitment. These stages were conceptualized linearly, but they were shown to be cyclical in nature (p. 845). Relationship initiating, building, and sustaining were essential in order for collaborations to succeed. She drew on the work of Kanter (1994) that described organizational partnership formation as similar to "courtship:" highly informal and based on chemistry and compatibility. In fact, the only "core element" shared by each of the three stages was "networks."

Biancani, McFarland, and Dahlander (2016) looked more closely at how networks of formal, informal, and what they label "semi-formal" organizations influence the likelihood of collaboration and productivity (without measuring outcomes such as publications and grants for faculty). They define a formal organization as the department that is assigned for the term of employment (i.e. academic department), a semi-formal organization as a voluntary or administrative appointment, and an informal organization as purely social such as a recreational club or sports team. Additionally they identify formal and informal organizations that are "collective" or "bridging." Collective organizations have more defined boundaries where all members have a similar status whereas "bridging memberships differ because they allow a single member to belong to a focus on an exceptional basis" (p. 1310). They find that formal collective memberships (academic departments) are the strongest predictors of collaborative productivity and to a lesser degree, semi-formal collective memberships (such as research center memberships). They found that when controlling for fixed effects, having a joint faculty appointment (formal bridging relationship) had a negative effect on productivity. These data show the potency of organizational boundaries and the intense difficulty of creating collaborative efforts. Overall, Biancani et. al.'s (2016) work found that "although semiformal organization carries little or no weight in administrative decisions affecting its members, it plays a vital role in connecting disjoint nodes and facilitating the spread of information and creation of new knowledge and new ideas" (p. 1321).

Developing internal, unit-level collaborations is not only encouraged, but also necessary for institutions to meet the changing needs of students, faculty, and external constituents through innovative delivery of services and initiatives. As Biancani et. al's (2016) research concludes, collaborative work can be beneficial when supported, yet can also be detrimental when not

intentional and integrated. Kezar (2005), Kezar and Lester (2009), and Biancani, McFarland, and Dahlander (2016) all noted the importance of relationships and networks in their investigation of collaboration. Social Network Analysis (SNA) as a theory and methodology in higher education can illuminate some of the dynamic organizational and relational exchanges that have been taken for granted with other methodologies and past research. Biancani and McFarland (2013) explain that SNA can move higher education research past "methodological individualism that has characterized much of the educational and social scientific research in the past century, broadening and enriching a social understanding of higher education settings" (p. 151). Kezar (2014) further expands on the usefulness of the methodology by stating, "SNA challenges the underlying belief that the formal organization or social system has the most dominant impact on individuals and their choices" (p. 94).

According to Biancani and McFarland (2013), Social Network Analysis shows the relationship between *Nodes* (actors) and *Ties* (relationships between nodes) in a *Network Population* (focus of analysis). "Through description and analysis of the nodes and ties, researchers are able to predict certain outcomes (e.g., social capital, knowledge, or change) or processes (e.g., learning, information sharing) within the network" (Kezar, 2014, p. 95). Nodes, the unit of analysis, can represent a host of actors such as people, departments, organizations, while ties (relationships of nodes) can be presented by coauthoring in faculty publication, communication, social media connections, or self-reported relationships.

When thinking about past literature on student success in higher education, relationships and networks are often important variables. For example, Eckles and Stradley (2012) used student data to determine the impact of retention of student peer group with retention of individual students. The authors analyzed SNA through an *ego network* in which one can

determine the number of degrees of relationships another node has from the ego-node that is being examined. More simply, how far are students X, Y, Z away from the ego-node, A? When looking at ego-network analysis, the authors measured: 1) Centrality: number of relationships, 2) Closeness: number of intermediary actors connecting pairs of actors, and 3) Betweeness: number of times an actor is an intermediary for connecting pairs of actors (Eckles & Stradley, 2012). Using student demographic information, incoming academic achievement scores, peer relationships related to extracurricular activities, place of residence, and attrition data, Eckles and Stradley found that, "The more exposure to retained friends, the more likely the student is to be retained and the more exposure to friends who attrit, the more likely the student is to leave" (p. 175). Logistic regression methodology, often used to predict either admission or attrition, could not have analyzed data as rich as this study. Using regression models, one could have captured the number of friends, but not the ties (relationships) between different actors. The possibilities for SNA in student success research are quite ripe.

In her review, Kezar (2014) identifies ways in which studies have been designed to understand the impact of organizational policies on social networks. However, there is no mention of the way that networks among subunits or mid-level managers impact outcomes themselves. Still much of the SNA literature in higher education has looked at individuals through ego network analysis and has not been able to determine the relationships between offices or units larger than an individual. As higher education institutions continue to interact with more external forces (funders, governmental agencies, donors, businesses, etc.) and seek to understand internal dynamics (between offices, different groups of students, faculty and student connections, staff dynamics, formal and informal leadership, etc.) and engage more online

students (Dawson, 2010), SNA can be a useful theory and methodology to understand and improve the dynamic social environment that institutions of higher education create.

PROPOSED FRAMEWORK: RELATIONAL COORDINATION

There is very little scholarship on the internal organizational dynamics of subunits in higher education and even less on the impact that organizational structures have on the very outcome they exist for - student success. As higher education has expanded in scope and mission, institutions have increased in size, and administrative functions have become more professionalized and specialized, institutional contexts and structures have grown into bureaucratic behemoths that may inhibit student navigation. This is especially true for first generation students who may not be able to rely on their parents for support, low-income students who need financial and other support systems to afford college, students of color who are often underrepresented in numbers and lack emotional safety, and other marginalized students (LGBT students, students with disabilities, etc.) that seek out community and need encouragement. While many institutions highlight the amount of 'resources' they have on campus, if these resources are not accessible or coordinated, what service are they providing to students who need them in order to be successful?

A proposed way to explore whether coordination of student services is indeed linked to student success is through a theory developed in the airline and healthcare industries called *relational coordination theory* (RCT). Relational coordination theory was first developed by Gittell based on her investigation of differences between patterns of communication and relating at Southwest Airlines (then a small, newly-national airline), Continental Airlines, American Airlines, and United Airlines around the flight departure process. Relational coordination is defined a "a mutually reinforcing process of communicating and relating for the purpose of task

integration" (Gittell, 2002, p. 300). For example, in the airline industry there are numerous specialized roles involved in flight departures. These specialized roles (gate agents, pilots, flight attendants, baggage handlers, etc.) must coordinate their work "through relationships of shared goals, shared knowledge and mutual respect" (Gittell, 2006, p. 74) in order to produce a high quality product efficiently. Through her research she found that Southwest Airlines employees had better relationships of shared goals, shared knowledge and mutual respect, supported by frequent, timely and problem solving communication with their fellow workers in other roles, and that these relationships predicted fewer baggage losses, fewer customer complaints, and more on time arrivals compared to competitors (Gittell, 2003).

Relational coordination theory identifies a way of working together across actors and organizational departments, and explains how organizations support it through a hybrid organizational form called relational bureaucracy. Relational bureaucracy is a synthesis of the purely relational and purely bureaucratic organizational forms (Gittell & Douglass, 2012). This organizational type uses formal structures to cut across silos in order to support three reciprocal processes of interrelating: "relational coproduction between workers and customers, relational coordination between workers, and relational leadership between workers and managers" (Gittell & Douglass, 2012, p. 1). All three of these processes are "characterized by the degree to which goals are shared versus fragmented, the degree to which knowledge is shared versus fragmented, and the degree to which respect is mutual versus hierarchical" (Gittell & Douglass, 2012, p. 7). By contrast, purely bureaucratic organizations are not well designed to produce knowledgeable, caring, or timely communication, which creates negative outcomes for consumers, in this case students, but also for managers and workers. For a graphical illustration of relational bureaucracy see Figure 1.

[Insert Figure 1]

Other Applications: Healthcare

> *"Healthcare is complex, with high levels of specialization that are driven-perhaps inevitably-by the complexity of the human body, the human mind, and social world in which we live. The complexity and fragmentation of healthcare make coordination exceedingly difficult. Patients are often required to sort their way through the system, receiving diagnoses and treatments from a fragmented, loosely connected set of providers. Even within the hospital setting, where resources presumably are brought together within a single organization to improve the coordination of their deployment, the responsibility for coordination often falls to the patient and his or her family members."* (Gittell, 2009, p.4).

From airlines Gittell (2009) became interested in a sector similar to higher education; healthcare. The quote above is her framing of the current state of healthcare. One cannot help but see the similarities between these two industries: highly professionalized/specialized workforce, scrutinized for consistently rising costs, lack of product quality, and incredibly complex to maneuver as a consumer. Healthcare and higher education have become stratified along both race and class boundaries and have been subjected to similar critiques.

In Gittell's (2009) work analyzing healthcare she studied numerous types of organizations and multiple roles. For her research on surgical practice, she studied nine hospitals in Boston, New York City, and Dallas. There she surveyed physicians, nurses, physical therapists, social workers, and case managers to determine the strength of relational coordination among these roles. She found that the strength of relational coordination predicted surgical performance including greater patient satisfaction, better clinical outcomes, and shorter hospital

stays. Not only did patients gain from relational coordination, but healthcare providers also reported higher job satisfaction.

Gittell, Weinberg, Bennett, and Miller (2008) performed a study exploring outcomes at a single hospital. Rather than the organization (hospital) being the unit of analysis, Gittell et. al. studied relational coordination at one site for 335 patients in the spring of 2003. Holding other independent variables constant (age, severity of illness, etc.) they found that patients with care providers that were relationally coordinated had smaller hospital bills, were in the hospital for a shorter stay, and were less likely to be readmitted.

Since then relational coordination has been studied in nonprofit and governmental agencies (Khosla, Marsteller, Hsu & Elliott, 2016; Warfield, Chiri, Leutz & Timerblake, 2014), collegiate teaching (Sanches, Heredero & Merodio, 2015; Skakon, 2014), and general healthcare practice (Lundstrom, Edwards, Knudsen, Larsen, Reventlow & Sondergaard, 2014). The results of multiple studies utilizing different units of analysis (organizations or patients), at different sites and using mixed method data, concludes that relational coordination produces more consistent communication with patients (that produce less errors), less redundancy in communication, and a reduction of missing information and delayed communication from colleagues. This theory and the measure associated with it has also evolved and has informed an interventional approach to organizational change (Gittell, 2016) with the potential to create positive results in organizations that have traditionally struggled to produce coherent outcomes.

Relational coordination between workers, or departments, has not been examined in the higher education context to test its effectiveness for achieving desired outcomes. One could predict however that mutual understandings of job responsibilities, boundaries, and formal and informal knowledge could lead departments to collaborate more effectively for student success,

while avoiding the duplication of efforts. For example, if the orientation department and the admissions department were relationally coordinated, incoming students and parents would have a seamless transition into the university. With poor coordination, students may be confused for example about how to register for courses or what type of immunization forms they must complete before starting class. These seemingly minor issues can have significant ramifications for student retention and success.

PROPOSED RESEARCH

Building on the evolution of organizational theory and scholarship, current policy debates and goals regarding student success, and the increased institutionalization and professionalization of subfields in higher education that have created anarchical organizational structures, there is a need to further investigate how organizational polices, structures, and dynamics impact college student success.

Dependent Variable: Relational Coordination as a Predictor of Student Success

Relational coordination in higher education could be investigated from multiple perspectives. We are specifically interested in coordination among non-academic units that are intended to support student success. For example, an Office of Financial Aid is an important unit for a student who relies on aid in order to attend college, and this office performs functions that interact with others units. The financial aid a student receives impacts the ability to live on campus (Office of Residence Life), study abroad (Office of Study Abroad), and eat (Office of Dining Services). While each student has unique needs and may interact with offices differently (a student who does not have a disability may not interact with the Office of Disability Support Services), inter-departmental coordination is expected to impact the student's experience. For

example if the Office of Financial Aid does not understand the financial procedures of Dining Services, Residence Life, and Study Abroad, a student may not be able to access those services.

One could imagine the difficult situation a student may encounter if the housing assignments coordinator does know the financial aid implications of placing a low-income student in a single-occupation residence hall room that is more expensive. The outcome could mean a student will have to pay more than expected and as a result may request to live off campus in cheaper accommodations. These may seem like trivial outcomes, yet they can have deeper implications. Students who live on campus are more likely to be engaged on campus and be retained through graduation. In addition, social stratification could occur if low-income students move off campus while those who can afford on-campus housing continue to reap the benefits, due to a lack of relational coordination between student services units. Relational coordination across units is therefore expected to significantly influence student experience and outcomes.

For this study, student success is defined as student retention to graduation. Typically graduation rates are measured as how many students graduate within four and six years, while retention is measured after the first and second years. These data are made publicly available and contribute to college rankings, consumer decision-making, and institutional accreditation.

Independent Variables: Student and Organizational Predictors of Student Success

As shown above, relational coordination is known to be shaped by organizational structures. In higher education, this is expected to be true as well. For example, middle and executive-level managers of units create and monitor policies that front-line staff then implements when working with students. In addition, relational coordination between units could

differ depending on the amount of staff, organizational structure, physical location, and the degree of interdependence with another unit.

The institutional context also impacts the way units relate to one another. For example, some campuses have faculty members who serve as academic advisers for students, while on other campuses academic advising is performed by specialized professionals. Sometimes academic advising offices report to the Provost and on other campuses they are distributed to individual academic colleges or report to Student Affairs. The diversity of organizational structures could impact the unique relationships units have with one another. If two units share the same supervisor, for example, they are more likely to interact (Birnbaum, 1991), consistent with previous findings regarding the impact of accountability structures on relational coordination (Gittell, 2001; Gittell, Seidner & Wimbush, 2010).

Since there is currently a gap in literature regarding the impact of relational coordination of student services for student success, additional scholarship has identified organizational factors relating to retention and graduation. These characteristics will be used as independent variables in statistical models to provide a rigorous understanding of relational coordination's role in student success (outcome/dependent variable). Using past research on student departure (Braxton, Doyle, Hartley, Hirschy, Jones, & McLendon, 2013) and Chen's (2012) institutional characteristics study, student and institutional characteristics will be used as independent variables (see Table 1).

Table 1: Student and Institutional Characteristics to Inform Research Design

Student Characteristics	Institutional Characteristics
● Gender ● Race ● Income of parents or independent students ● First Generation Status	● Selectivity ● Size ● Percentage of full-time faculty ● Full-time faculty-student ratio ● Instructional expenditure

• High School GPA/SAT	• Academic Support expenditure • Student service expenditure

Controlling for student and institutional characteristics will expose the impact relational coordination of student services offices have on student success.

DATA

Organizations and Units

In order to identify relational coordination as a predictor of student success, similar types of organizations should be included in this study. Two alternative samples are considered here.

The sample could be liberal arts colleagse. According to Birnbaum (1988), liberal arts colleges are likely to be "collegial" in nature. Birnbaum defines a "collegial" organization as one that shares power among faculty and administration. These types of institutions serve as an ideal location to study relational coordination because they typically have fewer staff and fewer distinct department, yet still have complex relationships and provide similar services as their larger counterparts. A sample of 6-10 liberal arts institutions with similar academic and diversity profiles would serve to understand the impact of relational coordination on student success while controlling for student level predictors such as socioeconomic status, first-generation status, and race among others.

Alternatively the sample could be large universities where coordination challenges are likely to be greater. Students at larger institutions struggle to connect with faculty, staff, and to utilize the appropriate resources for success (Hurtado, 2007). Large research institutions that serve multiple missions are an ideal site to understand how organizational structures and multiple units serve students and how these complex institutions can impact organizational navigation, especially for students who may have low college knowledge or cultural/social capital. Because

large institutions are structured to have staff and units that are more specialized, they have greater coordination challenges. Often they have created structures or offices to help students manage the complexity of college life such as Bridge Programs or Trio-funded Student Support Services. These structures and organizations also make for an important site of study to understand the importance of relational coordination for specific student populations at large, complex institutions. A sample of 6-10 large universities with similar academic and diversity profiles would serve best to understand the impact of relational coordination on student success while controlling for student level predictors such as socioeconomic status, first-generation status, and race among others.

In order to capture sufficient information about each organization, a mixed method approach of collecting data would be optimal in order to understand both relational coordination and the mechanisms that may strengthen or weaken it. Quantitatively, the Relational Coordination Survey would capture coordination experiences from the perspectives of staff in each unit of each university, enabling the development of a relational coordination network map, while semi-structured interviews with each unit head and other staff could provide a qualitative understanding of organizational structures and nuances to underlying relational dynamics and mechanisms. Additionally ethnographic observations of how staff interact with each other with regard to student success would be important to understand not only individual perspectives on coordination, but also the actual *act* of supporting students.

Table 2: Potential Units to Be Included in Study

Enrollment Management	General	Engagement	Support
● Admissions ● Bursar ● Financial Aid ● Registrar	● Academic Advising ● Health/Counseling Services	● Career Services ● Community Service/	● Disability Support Services

	● Orientation/Transition Programs ● Residence Life ● Student Conduct	Leadership Programs ● Fraternity and Sorority Life ● Parent Programs ● Student Activities ● Study Abroad ● Recreation Services	● International Student Services LGBT Affairs ● Multicultural Affairs ● TRIO Student Support Services/Bridge Programs ● Veterans Affairs ● Women and Gender Affairs

Student Participants

All students of higher education deserve organizations designed for them to succeed and faculty, staff, and peers who support them in their success. Unfortunately there are distinct differences in the graduation rates of students with different backgrounds. For example, Latinx, Native American, and Black students and low-income students, on average, have lower completion rates than other student populations (Kurlanedar & Felts, 2008). Kurleander and Flores (2005) even found that while most student populations have increased completion rates over a twenty-year period, the graduation rates of Hispanic students actually declined. Because of these differences, it is important that students who are less likely to graduate get increased attention from the institution in order to close achievement gaps.

Specifically for research purposes, students who are part of programs such as TRIO-funded Student Support Services program, institutional bridge/success programs, or disability support services would be an appropriate focus for this study. Students who participate in these programs are identified through admissions processes, or identify themselves in their collegiate career, as potentially needing additional support through advising, cultural experiences, academic resources, etc. Student success units are often seen as connection points to various resources and organizational navigators on behalf of students. Even with additional

support for specific needs, these offices struggle to increase student success due to political and organizational barriers. For example, Dutta, Kundu, and Schiro-Geist (2009) found students with disabilities were frustrated not by the services that were provided, but access to them in messy organizational systems. Their research suggests that students found, "limited coordination of services offered by different university offices and a lack of open lines of communication between the Office of Disability Services staff and faculty" (p. 14). Studying the relational coordination of units and resources necessary for retention and persistence for student populations most at-risk of leaving college would be beneficial both for institutional leaders and practitioners supporting students on their campus and policy-makers responsible for funding vital support services.

Analysis

In order to find whether cross-unit relational coordination indeed impacts student success, hierarchical linear regression modelling would be used to predict retention and graduation rates for students across universities in the sample, controlling for student characteristics and a small number of institutional characteristics. In secondary analyses, the impact of relational coordination on retention and graduation rates would be examined for a more targeted sample, namely student populations most in need of resources such as low-income, first-generation, and students of color.

CONCLUSION: COORDINATED RELATIONSHIPS AS A SOLUTION

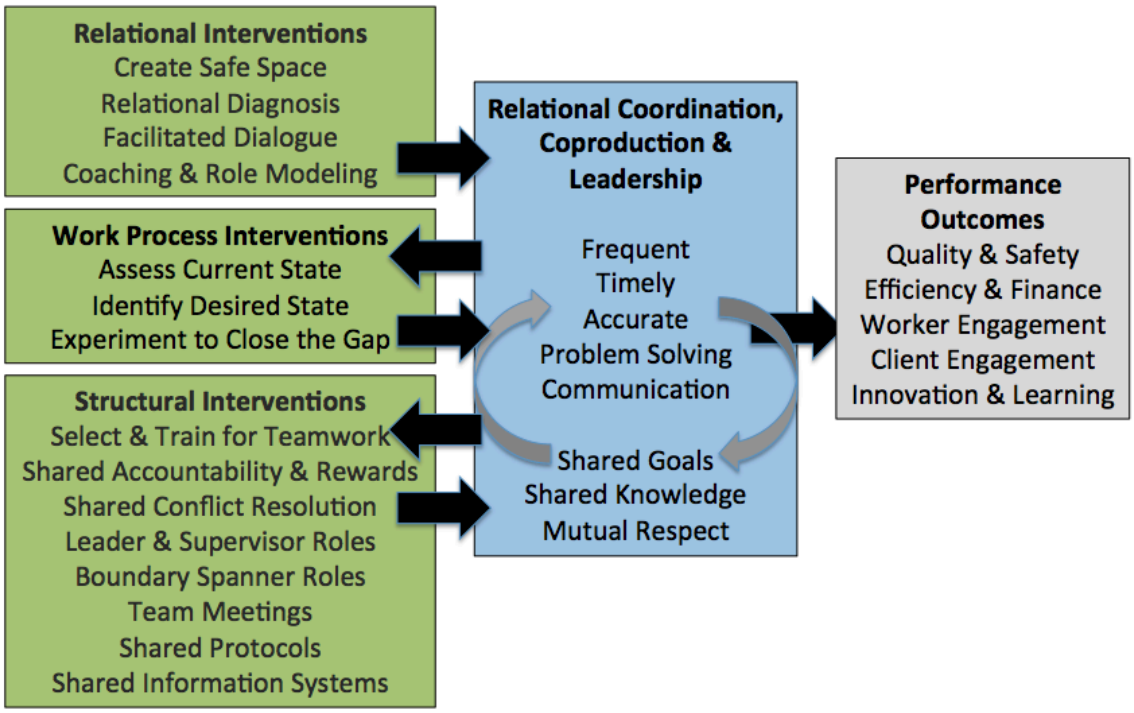
One of the most high profile and tragic events that, when analyzed, involved a lack of coordination of offices at an institution is the mass shooting at Virginia Tech in 2007. After the tragedy an Expert Panel produced a report with numerous findings that highlighted lack of

communication and coordination among different departments that raised concerns for investigators. From the commission report:

> "…There were multiple reports and concerns expressed over Cho's behavior in the dorm, but this was not brought before the Care Team. The academic component of the university spoke up loudly…However, after Judicial Affairs and the Cook Counseling Center opined that Cho's writings were not actionable threats, the Care Team's one review of Cho resulted in their being satisfied that private tutoring would resolve the problem." According to the report, "The Care Team was hampered by a decentralized corporate university structure" (Virginia Tech Review Panel, 2007, p.52).

This is an extreme example of where colleges and universities have been unsuccessful in creating organizational structures that work for students. As government agencies, private foundations, prospective families, and current students are expecting colleges to promote student success, institutions need to examine if they are organized to do so. Coordinating the already existing relationships and tasks for shared goals and commitments could prove to be a low-cost, efficient and effective way to improve institutions of higher education for both their specialized workforce and the success of their students.

Figure 1
Structures, Processes, and Outcomes of Relational Bureaucracy



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