# University Strategic Imperatives: How Strong are the Signals?

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*Inspired by a recent experience of a strategic planning committee member at a Midwest public university, this study tests whether some of the common strategic imperatives selected by large public universities relate to academic reputation. Signaling theory logic was used to build hypotheses and propositions, including the need to mitigate asymmetric information. Data was collected on 119 public universities analyzing the effects of research impact, student retention rates, and external support on a university's academic reputation. Results indicate that student success, good scholarship, and external stakeholder support are positively related to academic reputation. Governance implications were also discussed.*

## UNIVERSITY STRATEGIC IMPERATIVES

Hundreds of colleges and universities form strategic planning committees every five to ten years. The priorities or imperatives derived from this exercise usually emphasize target areas, and consequently, an expected level of success. Reflecting on the recent experience of a strategic planning committee member at a Midwest public university, this study tests whether some of the popular imperatives selected by medium and large public institutions of higher education relate to academic reputation. In so doing, the present paper develops arguments leading to three explicit hypotheses and related propositions. These hypotheses stem from three of the most relevant strategic imperatives emphasized by institutions of higher education: 1) increasing student success, 2) supporting the creation and dissemination of scholarly research, and 3) strengthening external stakeholder support. The results of this study demonstrate a positive relationship between the three stated imperatives and academic reputation. From a practical perspective, these findings imply that the resource allocation decision making of successful universities does meet the expectations of the marketplace. Moreover, the propositions add prescriptive "best practice insights" that may serve universities to enhance their stakeholder stature, and in turn, their academic reputation.

Supported by the extant literature on management, learning and education, and signaling theory insights, the reminder of the paper is organized as follows: First, the study develops hypotheses and propositions for each of the imperatives. A sample of 119 medium and large public universities (averaging 23,088 students) is then utilized to test the proposed relationships. Finally, the study offers a summary of its contributions, limitations, and possible avenues for future research.

## SCHOLARLY RESEARCH AND ACADEMIC REPUTATION

The creation and dissemination of knowledge is a fundamental mandate of a university. Expressions of support for this notion are found at universities worldwide. Congruent with the implications of this mandate, a number of research studies on productivity and rankings (Kumar and Kundu, 2004; Seggie and Griffith, 2009; Linton, J.D., 2012), and the affiliation to accreditation bodies such as The Higher Learning Commission and AACSB International have grown exponentially in the past two decades (Elliot, 2013).

Studies on accreditation bodies or 'legitimation agencies,' as identified by Durand and McGuire (2005), are ubiquitous. Yet, only a minority of these studies explicitly connect the relationship between accreditation and research reputation (Elliot, 2013). Exceptions include Udell, Parker, and Pettijohn (1995), which demonstrate a relationship between AACSB accreditation and publishing output. Roberts et al. (2006) surveyed faculty on their perception of accreditation on research. They find that faculty hired after AACSB accreditation valued research more than faculty hired before accreditation.

Accreditation advocates argue that this process ensures a minimum level of quality (Trapnell, 2007; Romero, 2008). Indeed, AACSB Standard 15[1] directs Business Schools to create precise definitions and objective benchmarks for faculty qualifications. For tenure-track or tenured faculty (labeled scholarly academics), the research component is paramount. However, the rigorousness of the standard varies by school.

On research productivity and rankings (inclusive of journals, individual scholars, and universities), several academics have expressed their uneasiness and even disapproval (Bell 2010; Frey and Rost, 2010; Tourish 2011). Adler and Harzing (2009:72) ask whether university scholarship has gone astray and Wedlin (2010:199) mentions that two decades ago rankings were almost unheard of amongst European academics and business school leaders. Nkomo (2009:106) warns that as a scholarly community "we have succumbed to the seductive power of academic rankings." Accordingly, Morgeson and Nahrgang (2008) suggest that measuring academic reputation might have caused business schools to shift away from their primary mission of educating students – yet, they also establish a relationship between actively publishing faculty and quality of instruction.

While not an advocate for rankings, Zemsky's study (2008:8-9) provides two powerful accounts about how the University of Pennsylvania and Northeastern University increased their academic status, as follows: 1) Upon arriving to Penn's presidency, Judith Robin delivered a simple message to her deans: Choose a comprehensive reputation metric. Absent another recommendation, however, she would pay attention to that from US News & World Report. The results were remarkable. By following this metric, Penn quickly achieved a top-10 overall ranking among national research universities. 2) The President of Northeastern University (Richard Freeland) told his colleagues that the rankings methodology actually informed him what to do. Northeastern became a top-100 university within six years (from 162nd). In light of these accounts, perhaps the process of evaluating reputation (resulting in a ranking) should be understood as a governance mechanism. Indeed, Osterloh and Frey (2010) acknowledge academic reputation (rankings) as the backbone of research governance. While they identify several positive outcomes due to academic reputation metrics, they also provide a detailed set of suggestions to counter the negative consequences of reactivity and commensuration (Espeland and Stevens, 1998; Espeland and Sauder, 2007; Worrell 2009).

The role of university strategic plans as mechanisms that set high research expectations for reputable institutions cannot be overstated. Yet, there is scarce evidence on the relationship between academic reputation and research impact outside the usual pool of private research focused schools (the study by Siemens, Burton Jensen and Mendoza's (2005) may be a possible exception). Nonetheless, it mostly includes prominent private schools and flagship universities. As a result, there remains a need to further "democratize" our understanding of the relationship between creating and disseminating science and academic reputation amongst a larger set of institutions of higher learning. To that end, one of the main contributions of this study is to demonstrate whether this relationship occurs for other medium and large

public universities, which are not often considered in these types of studies. In other words, does it makes sense for all public universities to have an imperative that asks its faculty to enhance its research impact?

Consistent with signaling theory logic, universities that are better at creating and disseminating science are in fact signaling their mandate compliance to their relevant stakeholders (signal receivers). In addition, this continued effort should lead to their producing research with higher impact, which is difficult to imitate (Shrivastava, 1995) and thus valuable (Connelly, Ketchen Jr., and Slater, 2011). Consistent with these arguments, medium and large public universities capable of producing high impact research would be preferred by relevant stakeholders. Thus:

*Hypothesis 1: Academic reputation is positively related to research impact.*

In his influential book Outliers, Gladwell (2008) argues that in order to "win," it is not necessary to have the highest metric to be successful. However, Gladwell suggests that it is indispensable to be above a certain threshold – i.e., to be in the "good enough" group – to be very successful at a particular activity or profession. Illustrative of this point, he mentions that IQ differences for scientists with an IQ of 130 or higher were immaterial to determine their likelihood of winning a Nobel Prize. Similarly, height differences for NBA players are also immaterial after a certain height, depending upon the player's position. Following the logic of a "good enough ethos" – where there is a need to identify a "floor" but not necessarily a "ceiling," – universities meeting their corresponding research threshold should be regarded as academically reputable.

Indeed, many universities already include certain expectations as part of their AACSB accreditation internal documents. For instance, a "Highest Research Activity" Midwest University asks their faculty to produce a certain research output in order to maintain their AACSB accreditation.[2] Thus, universities which are using the AACSB accreditation process as a means to manage the quality of their research output, rather than merely doing it to comply with the norm, should be more likely to enhance their academic reputation than their "merely compliant" peers. Stated more formally:

*Proposition 1: Academic reputation will be positively related to university action plans requiring research impact beyond that of the standard minimums imposed by accreditation agencies.*

## ACADEMIC REPUTATION AND UNDERGRADUATE STUDENT SUCCESS

"A good dissertation is a done dissertation" is a common saying between doctoral students and their supervisors. Perhaps, a related expectation is warranted for the undergraduate student: "A good student is a returning student" (until he or she eventually graduates, on time). Indeed, a quote attributed to Woody Allen states that 80% of success (in life) is *just* showing up. Regarding the effect of "showing up" for undergraduates, Westerman, Perez-Batres, Coffey, and Pouder (2011) demonstrate that class attendance for low cumulative GPA (senior) students was highly related to academic performance. They further suggest that devoting resources to improve student attendance is essential, especially for low performers. Longitudinal studies such as that of Cohn and Johnson (2006) also indicate a positive relationship between class attendance and academic performance over a 5-year period. Other studies showing statistical significance include those from Devadoss and Foltz (1996), Didia and Hasnat (1998), Elmuti (2004), and Taylor (2005), among others.

If dozens of studies demonstrate this relationship, then, why do students miss class? Relatedly, why do some students not attend college at all, or drop out? According to the Pell Institute, about 80% of (high school) students from the highest income quartile enroll in college, compared to just 45% of students from the lowest income quartile – retention rates also trend in that direction. For Bouffard and Savitz-Romer (2012), the problem is that of college-going identity (or lack of thereof). While they acknowledge that student characteristics such as "high self-efficacy" enhance student success, they also propose that institutions supporting identity development (college-going identity) will be more likely to help students see themselves as "college material" and act accordingly.

**Value and Asymmetric Information – and an Analogy**

The evidence suggests there is a need for students to attend their courses, at the very least, to be able to advance and eventually graduate. In addition, millions of students do not see themselves as "college material;" they do not understand what to do to be successful while in college and beyond (Conley, 2008; Savitz-Romer and Bouffard, 2012). Indeed, some universities do not even acknowledge an expected graduation date for their students. This is problematic, as a high percentage of students do not have a firm grasp about the length of the process nor have a solid referent group. What is even more poignant, they may not know how to connect the value of the University experience to their own lives. To that end, many medium and large public universities students have an asymmetric information problem. While millions of these students are "in the know" as far as their ability to navigate college and beyond, there are many who do not possess adequate information to do so.

To better explain the problem and a possible solution, perhaps some "customer education practices" from industry can be observed. Allow us to elaborate through an analogy. In a recent trip to Tequila, Mexico (where Tequila is produced), one of the authors was "educated" in the proper way of experiencing the famous drink. During a tasting tour, you learn to engage two of the senses before drinking. Sight first, you learn to evaluate the color and the way the drink's density behaves within the glass (shot). Smell second, herbal or wooden notes accompanied by other aromas such as vanilla or walnut may be detected. This rite is an absolute necessity as it gives our minds an actual "heads-up" and enhances the drinking experience. Taste third, you learn to breathe while drinking the shot, to enhance one's ability of savoring the complexity of the flavors. Finally, tact is engaged through memory, as you are reminded of a previous experience physically touching an agave plant. After this educational experience, most find the beverage more appealing and valuable. While this education may not be necessary for all potential consumers of this product, it does enhance its stature and value with many. There is a group of students that understand how to succeed. Most of the students in this group would know the length of their studies, the student organizations they need to join to enhance their network and social support, and have a much clearer idea about their academic and professional paths. In other words, these students are well equipped to succeed throughout college and beyond. On the other hand, there is another group of students without the same level of information. This at risk group of ill-informed students has been linked to lower retention rates. Moreover, a report on absenteeism in the nation's public schools (Balfanz and Byrnes, 2012) clearly states that it negatively and strongly affects graduation rates and positively relates to dropout rates. To that end, there is a large and identifiable number of students needing to be educated on the value of the "college experience." Positive referent groups should be cultivated to engage these types of students, alongside other nonacademic factors that can mitigate information asymmetry, such as social support and connectedness to the institution (Lotkowski, Robbins, and Noeth, 2004).

In light of these arguments, medium and large public universities which are able to: 1) attract more students who are knowledgeable about the value of the university experience, or 2) educate misinformed students about the value of the university experience, should enjoy higher retention rates. In turn, higher retention rates would provide a powerful signal to the marketplace about the quality of their overall programs – i.e., about truly developing students or finding students that succeed.

Coincidently, in formulating the tenets of signaling theory, Spence (1973) modeled the signaling function of education. In bundling these insights, we pose the following:

*Hypothesis 2: Academic reputation is positively related to student success*.

There is a need for a deeper conversation about the apparent absenteeism problem in higher education. Whereas some advocate for student freedom, is it not also the responsibility of a public university to inform students that absenteeism leads to lower performance, higher dropout rates, and how absenteeism hinders their success? Perhaps knowing that the retention rate is of consequence to academic reputation will move some institutions to do a better job in this regard. In addition, there is a need for universities to offer proactive advising (Krumm, Waddington, Teasley, and Lonn 2014), identify other relevant non-academic factors (Lotkowski et al., 2001) and develop more consequential courses without

losing academic rigor (Wagner, 2014). For instance, Harvard offers a course on positive psychology[3], which gives insights on life-fulfillment and flourishing. [4] Michigan (Ross) offers courses[5] on positive organizational scholarship and sustainability, which include cultivating individual and collective flourishing. In sum, universities need to develop courses that help students understand how to fulfill their potential as positive human beings and teach them how to thrive. Once students understand the "why am I here?" question, they will be much more likely to thrive and remain in school.

These arguments are also consistent with signaling theory logic (Bird and Smith, 2005; Basurroy, Desai, and Talukdar, 2009) whereby organization insiders (e.g., administrators and faculty) would intentionally communicate positive and observable information to receivers (e.g., students). Signaling should have a strategic effect. In terms of the present discussion, students receiving observable positive information signals from faculty and administrators on class attendance, proactive advising, and enrolling on consequential courses, among other relevant factors, would be more likely to heed that advice once they recognize the benefit and more likely to succeed. Therefore:

*Proposition 2: University attendance policies and a commitment to educating students to understand the value of the university experience (to help them flourish) will be positively related to student success.*

## EXTERNAL SUPPORT AND ACADEMIC REPUTATION

In the advent of corporate social responsibility, stakeholder theory has regained the attention of many scholars. The chief tenet of the theory is that a firm's obligation goes beyond that of its owners or stockholders (Donaldson and Preston, 1995). In addition, (institutional theory) legitimacy arguments are commonly included. For instance, Scott (2001) implies that "role compliance" enhances organizational legitimacy. Congruent with this explanation, the theory usually conveys a negative connotation whereby organizational actors must appease influential stakeholders, or they run the risk of losing legitimacy. In an academic setting, relevant stakeholders are variegated. University stakeholders include students, employees, employers of students, alumni, government agencies, the community at large, etc. To that end, universities have the need to comply with their primary mandate – their raison d'être – to advance knowledge and to educate students. In the process of doing so, a university gains legitimacy and enhances its academic reputation. Thus, we suggest that relevant stakeholder support will vary in accordance with the institution's legitimacy level reflected by its academic reputation. Stated more formally:

*Hypothesis 3: Academic reputation is positively related to external stakeholder support.*

Not all undergraduate business programs are built to develop the same types of entrepreneurs, executives, salespersons, or service the same communities or businesses. Therefore, universities need to provide clear and observable signals to their specific external set of stakeholders. A strategic planning process should include action plans to strengthen a university's relationships with these relevant external stakeholders. Their academic reputation would be positively affected by clearly conveying what the receivers (i.e., their external stakeholders) stand to gain (Connelly et al., 2011). Thus, through refining their signaling, universities are more likely to align with their corresponding stakeholders and enhance their academic reputation. Stated more formally, we propose:

*Proposition 3: Academic reputation will be positively related to university stakeholder alignment.*

## METHODS

### Sample

Data on 119 public universities was collected (Appendix 1). Two main criteria determined inclusion into the sample: 1) ranking as one of the Best Undergraduate Business Programs of the nation by US News and World Report 2012 and 2017 and, 2) affiliation to an athletic conference with at least one

division 1 (D-1) member – to "level the playing field" and avoid sports related reputation effects (Trenkamp, 2009).

Finally, all of the universities appearing in this sample are AACSB accredited.

## Variables

*Dependent*

Academic Reputation corresponds to the percentile score (two to 99) of the "raw" averaged score provided on the Best Undergraduate Business Programs, published by US News and World Report on 2012 and 2017. It is worth nothing that this particular business school sub-ranking is based on the judgement of deans and senior faculty members at peer institutions. Thus, it better aligns with the notion of a perceptual measure.

*Independent*

Research Impact (natural log) refers to the number of citations (natural logarithm) corresponding to the 357 business journals covered by Web of Science within a 5-year period, from January 2012 to December 2016. Student Success is a university's average freshman retention-rate for the years 2011 and 2015, the most recent available data (at the Integrated Postsecondary Education Data System, IPEDS). External support (natural log) is calculated as the average ratio of the overall endowment and student enrollment, for the years 2011 and 2016 – i.e., [(endowment '11 / enrollment '11) + (endowment '16 / enrollment '16)] / 2. This provides a measure of a university's level of endowment funding per student.

*Control*

SAT/ACT Standardized Scores are included in many Academic Reputation calculations – e.g., Bloomberg Business Week, Poets and Quants, Us News and World Report (National University Rankings). The value corresponds to the average score of the SAT/ACT (provided by US News and World Report on their 2012 and 2017 best universities publications) and expressed in percentage terms. To separate the possibility of a halo effect, affiliation to the American Association of Universities (AAU) was included as a dichotomous control variable. Professor salary (natural log) was also included as a proxy for size or resource availability. These figures (professor salary) were obtained from the National Education Association (NEA) published salary reports (2012 and 2016).

## Analysis

OLS regression and robust regression were used to determine the association between academic reputation and the three independent variables – research intensity, student success and external stakeholder strength. All variables reported an acceptable tolerance level. The corresponding descriptive statistics are presented in Table 1.

**TABLE 1**
**DESCRIPTIVE STATISTICS**

| | Variable | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|
| 1 | Academic Reputation | 1 | | | | | |
| 2 | SAT/ACT Scores | 0.85* | 1 | | | | |
| 3 | Professor Salary | 0.81* | 0.78* | 1 | | | |
| 4 | AAU Affiliation | 0.69* | 0.64* | 0.63* | 1 | | |
| 5 | Research Impact | 0.79* | 0.66* | 0.78* | 0.49* | 1 | |
| 6 | Student Success | 0.82* | 0.84* | 0.77* | 0.60* | 0.69* | 1 |
| 7 | External Stakeholder Support | 0.77* | 0.75* | 0.69* | 0.61* | 0.61* | 0.66* |

Note: N=119, $p<0.05$*

## RESULTS

Model 1 includes the control variables, model 2 includes the full set of variables. Model 3 presents robust regression results of the entire set of variables (Table 2).

Hypothesis 1 predicts a positive relationship between academic reputation and research intensity. The results indicate strong statistical significance in Model 2 and Model 3, at the $p < 0.001$ level in both instances; hence, hypothesis 1 is strongly supported. Hypothesis 2 suggests there is a positive relationship between academic reputation and student success (freshman retention rate). The results show weak statistical significance in Model 2 ($p < 0.07$) and statistical significance in Model 3 ($p < 0.04$); in sum, hypothesis 2 is partially supported. Hypothesis 3 suggests a positive relationship between academic reputation and external stakeholder strength (endowment per student). The results show this relationship is statistically significant in both models at $p < 0.02$; thus, hypothesis 3 is supported.

**TABLE 2**
**OLS REGRESSIONS / ROBUST REGRESSION**

| | Model 1 Control OLS | Model 2 Full Model OLS | Model 3 Full Robust |
|---|---|---|---|
| SAT/ACT Scores | 205.9*** | 126.8*** | 124.7** |
| Professor Salary | 53.1*** | 8.4 | 6.2 |
| AAU Affiliation | 11.6** | 10.0** | 9.0* |
| | | | |
| Research Impact | | 5.3*** | 4.9*** |
| Student Success | | 0.5 † | 2.1* |
| External Stakeholder Support | | 3.4* | 2.5* |
| N | 119 | 119 | 119 |
| Adj. $R^2$ | 0.80*** | 0.85*** | *** |

† $p<0.07$, *$p< 0.05$, **$p<0.01$, ***$p<0.001$

## DISCUSSION

### Direct Implications

Most universities develop their strategic plans every five to ten years. As stated from the outset, most plans include three specific mandates: 1) increasing student success; 2) supporting the creation and dissemination of scholarly research; and 3) strengthening external stakeholder support. The results of this study suggest that their successful implementation is associated with higher academic reputation. The results are relevant as they support the notion that resource allocation decisions of higher-ranked universities are meeting the demands of the "marketplace." The three corresponding proxies used: student retention rates, citations on Web of Science business journals, and university endowment are consistent with specific targets derived from university imperatives. To that end, it is refreshing to validate that strategic plans do seem to matter.

Finding support for these hypotheses, moreover, allows for further discussion on the relevance of this topic. Specifically, for retention rates, universities need to "educate" students about the value of the "university experience" and offer more courses of immediate (and long-term) consequence for their lives. Hence, it is fundamental that universities clearly signal a set of academic expectations for students, such as course attendance or joining relevant student organizations. In short, reputable universities (or those aiming to be), either attract students who already know how to be successful and/or teach them how to do so. Likewise, universities need to do a better job of taking advantage of the accreditation process. Those merely focusing on compliance will not seize the opportunity to develop an achievement culture. For instance, regarding student retention, an accreditation process gives universities the ability to develop policies at a much quicker pace to nurture the professional expectations of the student body. The same logic applies to increasing research expectations and strengthening stakeholder relationships, which can come as an extension of student success. Research expectations should be set with a purposeful goal in mind, and in congruency with the university's strategy, as opposed to merely seeking compliance status.

The same is true for stakeholder relationships. Similar to for-profit organizations catering to different sets of customers, different universities offer differentiated ways to suit the needs of a variegated set of stakeholders. Thus, an accreditation process needs to provide enhanced flexibility to include elements of that purposeful choice. In sum, by aiming beyond compliance, successful universities present their students, faculty, and relevant stakeholders with distinctive opportunities.

The three hypothesized relationships may also be interpreted (in Gladwell's rhetoric) as the ingredients to be 'good enough' – the floor within a very successful group of individuals. Likewise, the three proposed relationships may also be interpreted as the bundling of these "necessary ingredients," for unleashing that 'good enough' potential. Upon reflection, the value of the Tequila analogy rests on the notion of a strong signal. In that instance, signalers (i.e., good Tequila producers) send observable information about their product (i.e., a signal), which provides prospective customers with a privileged perspective about its characteristics (i.e., adds knowledge about the Tequila experience). Upon accepting the benefits of this information, receivers will heed the advice of signalers. By the same token, universities are called upon to educate their constituency about the value of their offerings. Students, faculty and peer institutions, and other relevant stakeholders (e.g., alumni) should receive clear and observable signals about the quality of their instruction (inclusive of advice and consequential activities for life, their ability to create and disseminate knowledge and their ability to enhance community value). And as a result, receivers will choose which universities to support. Table 3 provides a brief summary of the hypotheses, propositions, results and implications.

**TABLE 3**
**HYPOTHESES, PROPOSITIONS, RESULTS AND THEORETICAL IMPLICATIONS**

| | Results | | |
|---|---|---|---|
| Hypotheses | Model 2 | Model 3 | Theoretical argument - briefly stated (*Signaling* should have a strategic effect) |
| *Academic reputation is positively related to:* | | | |
| *Student success (Student Retention Rates)* | 0.062 | 0.036 | Sends signal about the quality of the program |
| *Research impact (# Citations on Web of Science Biz Journals)* | 0.000 | 0.000 | Sends signal about quality; because of the difficulty to imitate high impact research |
| *External Stakeholder Support ($University Endowment/#Students)* | 0.017 | 0.013 | Perception of complying with academic mandate enhances legitimacy with stakeholders |
| *Controls* | | | |
| *SAT/ACT Scores* | 0.000 | 0.001 | |
| *AAU Affiliation* | 0.004 | 0.014 | |
| *Prof Salary* | 0.486 | 0.634 | |
| | | | |
| Propositions | | | |
| *Firm attendance policies and a commitment to educating students to understand the value of the university experience (to help them flourish) will be positively related to student success* | | | Signaling should answer the "why am I here" question for the student and give specific information about how to fulfill their potential |

| | | | |
|---|---|---|---|
| *Academic reputation will be positively related to university action plans requiring research impact beyond that of the standard minimums imposed by accreditation agencies* | | | Planning beyond compliance signals a higher commitment to quality |
| *Academic reputation will be positively related to university stakeholder alignment.* | | | By refining their signals, universities can better align with their corresponding set of university stakeholders |

**Rankings as External Governance Mechanisms**

Absent an external market mechanism for organizational control (Jensen 1986; Weir, Laing, and McKnight 2002) for universities, academic reputation may act as a replacement of sorts – see Osterloh and Frey (2010) for an in-depth interpretation on rankings and governance. Despite the many criticisms leveled at academic reputation rankings, they do affect students, faculty and administrators, and external stakeholders. From that perspective, and in addition to other substantial and consequential metrics, it may be wise for many university administrators to embrace them as a governance mechanism.

**Limitations and Future Research**

While the study tests the most relevant proxies, in accordance with the observed imperatives, there is room for enhancing the complexity of these relationships. Fine-grained data on student success beyond the classroom needs to be understood. Likewise, the value of intellectual contributions needs to be explored beyond that provided by academic journals. Indeed, Andy Hoffman's call about the need to be understood by practitioners and the general public is most welcomed – *"If society is to make wise choices, those who create knowledge must find ways to move it beyond the ivory tower"* (Hoffman, 2016:78). University endowment is a very relevant proxy for measuring the university's stature within their stakeholders. Yet there is a need to learn more about the process leading to positive outcomes. In addition, there is a need to incorporate a greater diversity of colleges and universities. In so doing, students, scholars and their respective stakeholders would be better equipped to make decisions about their future and their impact to society.

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## ENDNOTES

1. This item refers to faculty qualifications – Scholarly Practitioner (SP), Scholarly Academics (SA), Instructional Practitioners (IP) and Practice Academics. http://www.aacsb.edu/-/media/aacsb/docs/accreditation/standards/business-accreditation2017update.ashx?la=en. Last accessed on 02/14/2018.
2. https://cba.unl.edu/faculty-and-research/faculty-documents/documents/CBA_AACSB.pdf. Last accessed on 08/31/2017.
3. Positive psychology 1504 taught by Tal Ben-Shahar. https://positivepsychologyprogram.com/harvardpositivepsychology-course-1504/. Accessed on 02/05/2018.
4. Flourishing refers to reaching an optimal state of human functioning and well-being, which included helping others to reach that state. (Keyes 2002; Frederick and Losada, 2005; Ehrenfeld and Hoffman, 2013).
5. For example, positive organizational scholarship (MO 455) taught by Jane Dutton and Monica Worline. https://michiganross.umich.edu/courses/foundations-pos-positive-organizational-scholarship-9643 Accessed on 02/05/2018.

**APPENDIX 1**

**LIST OF PUBLIC UNIVERSITIES IN THE SAMPLE**

| | | |
|---|---|---|
| Appalachian State University | Purdue University | University of North Texas |
| Arizona State University | San Diego State University | University of Northern Colorado |
| Arkansas State University | San Jose State University | University of Oklahoma |
| Auburn University | Southern Utah University | University of Oregon |
| Ball State University | SUNY at Buffalo | University of Pittsburgh |
| Boise State University | Temple University | University of South Alabama |
| Bowling Green State University | Texas A&M University | University of South Carolina |
| California State University, Fresno | Texas State University | University of South Florida |
| CSU, Sacramento | Texas Tech University | University of Southern Mississippi |
| Central Michigan University | University of Akron | University of Tennessee |
| Clemson University | University of Alabama | University of Texas |
| Coastal Carolina University | University of Alabama at Birmingham | University of Texas at Arlington |
| Colorado State University | University of Arizona | University of Texas El Paso |
| East Carolina University | University of Arkansas | University of Texas San Antonio |
| Eastern Michigan University | University of Arkansas at Little Rock | University of Toledo |
| Eastern Washington University | University of California, Berkeley | University of Utah |
| Florida Atlantic University | University of Central Florida | University of Virginia |
| Florida International University | University of Cincinnati | University of Washington |
| Florida State University | University of Colorado Boulder | University of Wisconsin Madison |
| Georgia Institute of Technology | University of Connecticut | University of Wyoming |
| Georgia Southern University | University of Florida | Utah State University |
| Georgia State University | University of Georgia | Virginia Tech |
| Idaho State University | University of Hawaii | Washington State University |
| Indiana University | University of Houston | Weber State University |
| Iowa State University | University of Idaho | West Virginia University |
| Kansas State University | University of Illinois | Western Kentucky University |
| Kent State University | University of Iowa | Western Michigan University |
| Louisiana State University | University of Kansas | |
| Louisiana Tech University | University of Kentucky | |
| Marshall University | University of Louisiana Lafayette | |
| | University of Louisiana Monroe | |
| | University of Louisville | |
| | University of Maryland College Park | |
| | University of Memphis | |
| | University of Michigan | |
| | University of Minnesota | |
| | University of Mississippi | |
| | University of Missouri | |
| | University of Montana | |
| | University of Nebraska - Lincoln | |
| | University of Nevada, Las Vegas | |
| | University of Nevada, Reno | |

| | | |
|---|---|---|
| Miami University | University of New Mexico<br>University of North Carolina<br>University of North Carolina Charlotte<br>University of North Dakota | |
| Michigan State University | | |
| Middle Tennessee State U. | | |
| Mississippi State University | | |
| Montana State University | | |
| New Mexico State University | | |
| North Carolina State | | |
| Northern Arizona University | | |
| Northern Illinois University | | |
| Ohio State University | | |
| Ohio University | | |
| Oklahoma State University | | |
| Old Dominion University | | |
| Oregon State University | | |
| Penn State University | | |
| Portland State University | | |