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# Departments, Schools, Divisions, and Colleges: Organization of Academic Units in Public Master's Institutions in the United States

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#### Introduction

Higher Education institutions are almost always organized into a hierarchical assortment of departments, schools, divisions, and colleges. One would think that, for a given type of institution (e.g., Harris, 2020), there should be some standards for definition and organization of these academic units. When our university undertook a consideration of academic unit reorganization, we searched for such patterns among a handful of peer institutions, but did not find them.

In addition to considerable variation across higher education institutions, organization of academic units is quite fluid within institutions; they are reorganized repeatedly and frequently. Survey data for a separate study (Cherry, Graves, & Grasse, under review), indicate that, among public master's universities in the United States, 78% had reorganized colleges and schools and 84% had reorganized departments in the previous decade. Olson (2010) suggested that half of new provosts entered institutions in the process of reorganization. His claim that such efforts are ubiquitous seems justified. Why are there no best practices for the organization of academic units that are applicable across institutions, or at least within individual institutions for more than a few years?

McKinley and Scherer (2000) suggested that restructuring produces cognitive order for upper administration, but disruption in the organization itself leading to a self-reinforcing loop. External pressures to restructure can occur (Bealing et al., 2011). Gumport and Pusser (1999) suggest that most reorganization within universities results from financial pressures. Almost inevitably, university bureaucracies expand when finances are good, and contract when budgets must be reduced (Mayer, 2011; Olswang, 1982). Additionally, some disciplines grow while others contract over time, creating a need to reallocate resources (Dickeson, 2010; Eckel, 2002). It is often claimed that mergers and shuffling will foster interdisciplinary work and "intellectual synergies" (Capaldi, 2009; Olson, 2010). New administrators bring new ideas and priorities, which can lead to reorganization. As leadership changes, personalities of department heads and deans can cause academic units to grow, subdivide, merge, or implode (e.g., Barnard & Ferren, 2001).

Whatever the impetus for restructuring academic units in universities, there is a significant literature concerning how to manage the process so as to navigate academic politics and bureaucracies (e.g., Bealing et al., 2011; Bettis et al., 2005; Brousseau-Pereira, 2018; Eckel, 2002; Farnsworth et al., 2014; Fernandez & Rainey, 2006; Gumport, 2000; Mayer, 2011; McKinley & Scherer, 2000; Olswang, 1982; Smith & Martinez, 2015). In contrast, there is virtually no literature or data that would help university leaders decide whether they need to reorganize or what their

goals might be based on comparisons with peer institutions. For example, it might be useful to have a data-driven indicator of the extent of academic administrative units that is appropriate, the effects of having an unusually large or small administrative structure, or the types of organizational structures that are most common for a given type of institution. Though reorganization of academic units is widespread and common, each institution essentially "reinvents the wheel" with regard to identifying appropriate numbers and groupings of academic units, based on reactive management of budget issues (Gumport, 2000), political maneuvering (Eckel, 2002), or personal perspectives (Barnard & Ferren, 2001).

This study was initiated when our university undertook a reorganization of academic units. An initial step was to search the scholarly literature for best, or at least common, practices in this regard. The virtual absence of such guidance led us to develop these tools and analyses that may be useful to others involved in reorganization. Our goal was to collect information that would help leaders at public master's universities to make evidence-based decisions in the process of academic unit reorganization. We developed a data base of organizational structures at all public, master's level institutions in the United States. That information was then used to make comparisons of administrative complexity between institutional characteristics. We specifically addressed whether more extensive administrative structures take away from spending on instruction of students, and whether increasing discretionary funds lead to expanded administration.

#### Methods

A list of all Carnegie Classification public master's institutions based on 2017-2018 data was obtained (<u>https://carnegieclassifications.iu.edu</u>). The organizational structure of academic units at each institution was identified by searching institutional web sites during Fall 2018 and Winter 2019. If such information could not be obtained from web sites, the academic affairs office was contacted by telephone to obtain explanation. Colleges, schools, divisions, and departments, as well as nesting of these units within each other were identified.

The number of each type of academic unit at each institution was counted. Other attributes of each institution were obtained from the Integrated Postsecondary Education Data System (<u>https://nces.ed.gov/ipeds/</u>) based on Fall 2017 data. These included fall enrollment of full-time equivalent students (FTES), core revenues, instruction as a percent of total core expenses, and institutional support as a percent of total core expenses. Statistical analyses were run with the 2016 version of the Excel Data Analysis package.

#### Results

Complete data were available for 262 public master's institutions in the United States. The organizational structure of academic units at these institutions is provided as an Excel Spreadsheet in Supplementary Material A. The number of each type of academic unit along with IPEDS data for each institution is presented as a separate Excel spreadsheet in Supplementary Material B.

It is usually clear what colleges and departments represent within a university (the largest and smallest academic units, respectively). The function of divisions and schools is more variable (some

are big departments, some are small colleges, some are something else), but they generally represent a level of administrative hierarchy between department and college. Based on the assumption that departments, divisions/schools, and colleges represent three increasing levels in a hierarchy of academic units, an indicator of Administrative Complexity (AC) was derived by summing the number of departments, plus twice the number of schools and divisions, plus three times the number of colleges. We assume that the extent of AC should increase with the size of an institution, which was quantified as FTES. A regression of FTES as the independent variable and AC as the dependent variable (Fig 1) was highly significant ( $F_{(1, 259)}$ =298.6; p = 5.09<sup>-49</sup>) with a correlation coefficient of 0.73.



Figure 1 Relationship of full-time equivalent students to complexity of academic structure

Residuals for each data point in the above regression indicate the degree to which AC is higher or lower than one would expect for an institution of a given size. These Administrative Complexity Residuals (ACR) for each institution are reported in Supplementary Material B. The distribution of ACRs (SD = 10.18) in Fig 2 suggests that there is significant variation in AC independent of size of an institution.

One could hypothesize that as ACR increases, a larger proportion of an institution's budget would be devoted to institutional support (which includes administration) and a smaller proportion to instruction. In contrast, increasing ACR is negatively associated with institutional support ( $F_{(1, 257)}$ =4.26; p = 0.04; correlation coefficient = 0.13; Fig 3) and positively associated with instructional expenses ( $F_{(1, 257)}$ =9.79; p = 0.002; correlation coefficient = 0.19; Fig 4).

As budgets become larger, administrators must decide where to invest discretionary funds. One could hypothesize that, as budget flexibility increases, those who make budgetary decisions (i.e., administrators) might funnel discretionary funds toward additional administration (Darnley &

Figure 2 Distribution of Academic Complexity Residuals



Figure 3 Relationship between Administrative Complexity Residuals and Instructional Expenses



Rutherford, 2019). If the cost of instruction per student is relatively constant, then increasing Core Revenue/FTES would indicate increasing availability of discretionary funds. A regression of Core Revenue/FTES against ACR was not significant ( $F_{(1, 257)}=0.11$ ; p = 0.74; correlation coefficient = 0.02).



Figure 4 Relationship between Administrative Complexity Residuals and Institutional Support

#### Discussion

Anyone who has been through the process of academic reorganization knows that it takes a large amount of time, money, anguish, and political capital to reorganize academic units in a university. Yet each university organizes the bureaucratic units within academic affairs differently, and they do so repetitively. It is likely that this is at least partially a result of the paucity of information on patterns and variation in these structures. What should be changed and why? What do other institutions do and is it effective? The intent of this project was to begin collecting information to address these issues.

The data base presented here was found to be useful for analyzing the structure of academic units in public master's universities. It can also be employed to address a multitude of questions that may be important for individual institutions when considering reorganization. For example, philosophy programs are often small and so are combined with other disciplines in a single department. One might wonder what combinations are most common? A quick search and sort of the Exel spreadsheet in Supplementary Material A shows that of 113 institutions with a department that has philosophy in the title, 75 have stand-alone philosophy departments, 26 combine philosophy with religious studies, and 10 combine philosophy with some mix of political science, public administration, humanities, geography, sociology, anthropology, psychology, and English. Such

information allows decision makers to identify common practices among peer institutions. It can also be used to identify peer institutions that have adopted some uncommon organizational scheme in order to contact such institutions for discussion of strengths and weaknesses of the approach.

As another example, an institution might consider eliminating colleges, schools, and divisions, and retain only departments. While some might think this unusual, by sorting and searching our data we find that 4.0% of 262 public master's institutions have this type of structure. Further, the distribution by Carnegie size category is 19.0% of 42 small, 3.1% of 65 medium, and 1.3% of 155 large public master's institutions with this structure. Further, one could identify institutions with this structure and contact them for additional information. Clearly, there are a great many questions relevant to restructuring discussions that could be addressed quickly and thoroughly with this data base.

Information in our data was also deemed to be useful when planning for reorganization. Our calculation of AC is a rough approximation, although its high correlation with the size of the educational operation that must be administered suggests that it is a valid representation. Other studies have used the number of administrative staff (Rutherford, 2016), the ratio of administrative staff to faculty positions (Andrews & Boyne, 2014), or a measure of fiscal resources devoted to administration (Darnley & Rutherford, 2019) as indicators of administrative extent. When considering reorganization of academic units specifically, our measure of ACR seems more appropriate. When an institution is considering reorganization, this data can be used to assess that institution relative to peers. Is the institution unusual? Does it have more or fewer colleges, schools, divisions, or departments than peer institutions? From a broader perspective, is the ACR especially high or low, and how many standard deviations from the mean?

With regard to the effects of AC on university budgets, it is interesting that the proportion of the budget spent on instruction increases with increasing ACR. While it is possible that a few outlier data points had a large effect on this regression, it is nevertheless a strong effect. The IPEDS definition of instruction expenses

(https://surveys.nces.ed.gov/ipeds/Downloads/Forms/IPEDSGlossary.pdf) is clearly focused on what institutions actually spend on teaching students. So this is probably not a result of variation in ancillary components of the category. It is possible that institutions that place great emphasis on their teaching mission, invest in that mission directly, as well as in the administrative apparatus to manage it.

Consequently, the negative relationship between ACR and institutional support is also unexpected. The correlation is less strong, but still statistically significant. This relationship may be due to the array of components in the institutional support category. In addition to expenses for general administrative services and central executive-level activities concerned with management, this category includes long range planning, legal and fiscal operations, space management, employee personnel records, logistical services, public relations, and development. Variation in these functions not directly associated with AC could introduce unexplained variation to the relationship, thus reducing the correlation coefficient and statistical significance. Furthermore, the negative correlation between ACR and institutional support could occur because other components of institutional support may decline to a greater extent than the costs of academic administration increase.

It has been proposed that, when administrators have access to more tuition dollars and state appropriations, it is often spent on more administration (Belkin & Thurm, 2012; Darnley & Rutherford, 2019; Rogers, 2013). This hypothesis was not supported; a regression of core revenues/FTES against ACR was not significant. Comparison of ACR to core revenue/FTES suggests that having more money to run a given size of educational operation does not lead to a more complex academic administrative structure. It is possible that larger budgets per student are associated with nonacademic components of the university, such as sports or research.

Higher education is undergoing unprecedented changes for a number of reasons, including changing career opportunities and student interests, increasing competition, new delivery platforms, declining enrollments, and increasing costs. One response to such change is reorganization of academic units. While colleges and universities reorganize frequently, it is often not clear why they do so or what they hope to achieve. As organizations change to address internal and external factors, they need to ensure that structural changes align with intended goals (Fernandez & Rainey, 2006).

Comparison with peer institutions is a good starting point for determining whether reorganization is warranted and developing alternative structures. Without some standard of comparison, reorganization can be based on little more than history, personalities, and guesswork. And what works best? If organizational structure does matter, similar institutions should home in on similar structures. If it does not matter, then why do we repeatedly reorganize? Clearly, much research is needed to inform this process that consumes large amounts of time and resources. The current work is intended to provide information that will be useful for such comparisons. Additionally, this descriptive work can be used as a basis on which to build further empirical analyses of why various organizational structures exist, as well as their strengths and weaknesses.

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#### **Supplementary Materials**

Link to Supplementary Material A:

Electronic Supplementary Mater

Link to Supplementary Material B:



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