

Introduction

Challenges from the public sphere have led to increased scrutiny of what students learn and how they spend their time. To take a step back and look from a macroscopic level, it is arguably equally important to observe how faculty spend their time and how they are exerting effort to develop students. This study creates and examines the different typology of faculty and their characteristics as well as how their institutions and teaching practices vary.

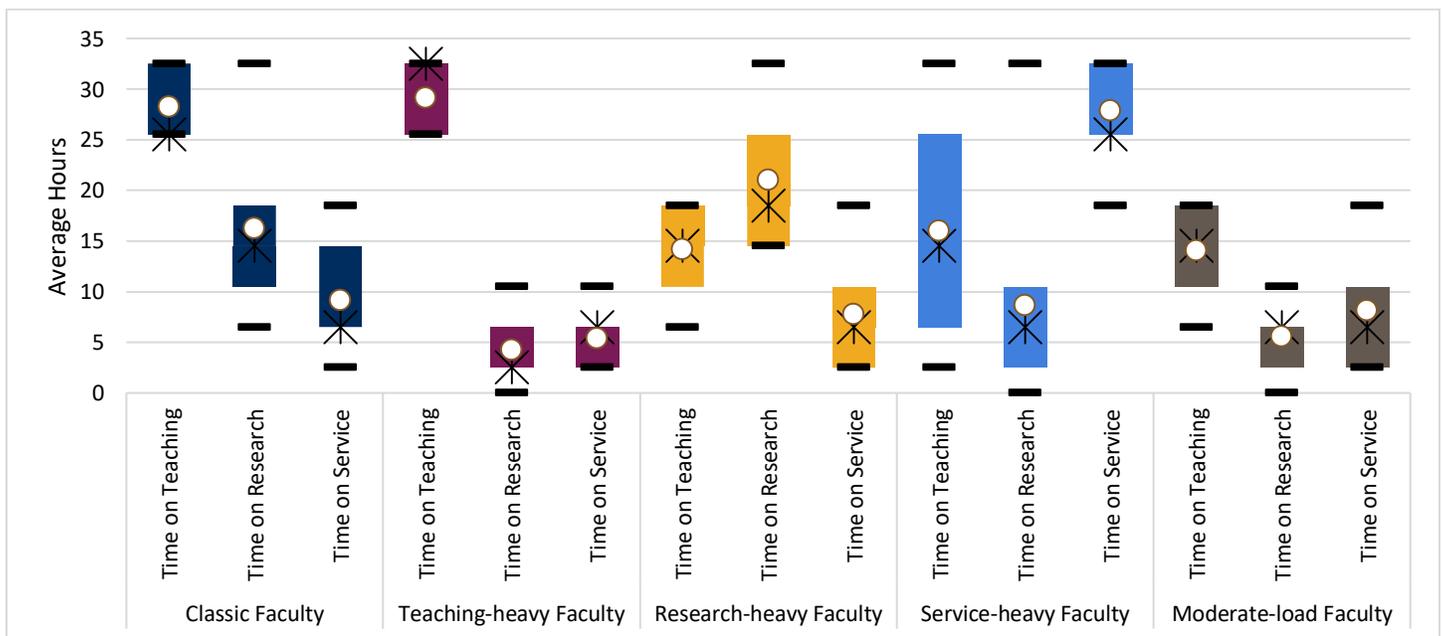
Data & Respondent Characteristics

The data for this study come from the 2017 administration of the Faculty Survey of Student Engagement (FSSE). FSSE focuses on the nature and frequency of student-faculty interactions, faculty emphasis on educational practices that are empirically linked with student learning and development, faculty values for institutional support and high-impact practice participation, and how faculty organize their time both in and out of the classroom. In 2017, FSSE had 16,143 full-time faculty respondents teaching at least one undergraduate course at 154 four-year colleges and universities.

Measures & Analyses

Key variables of interest in this study are faculty time spent on teaching, research, and service. A two-step cluster analysis was conducted and, after an examination of percentile distributions and preliminary clusters of faculty time, a five-cluster solution was selected (Figure 1 and Table 1). A series of Ordinary Least Squares (OLS) regression models were examined, where in each of these models one of eight FSSE Scale measures served as the dependent variable. Outcomes examined included Higher-Order Learning, Reflective & Integrative Learning, Learning Strategies, Quantitative Reasoning, Collaborative Learning, Discussions with Diverse Others, Effective Teaching Practices, and Student-Faculty Interaction. The independent variable of interest was the faculty grouping. Effect coding was used so that coefficients could be interpreted compared to the average faculty member as opposed to a reference group.

Figure 1. Distribution of Time Spent on Teaching, Research, and Service by Faculty Groups



Note: lower bars represent the 5th percentile, upper bars represent the 95th percentile. The shaded box represents the interquartile range. The star represents the median, and the dot represents the mean.

Limitations

Institutions self-select to participate in FSSE and can select their own faculty samples which may limit generalizability. Some groups of faculty were small and were removed from the study while others were grouped together to create larger subpopulations. Removing small groups and collapsing others may lead to results that do not apply to all subpopulations of faculty and this variation should be further examined in future research.

Results

Five distinct groups of faculty emerged based on analyses. Their characteristics vary based on disciplinary area, academic rank, institution type, gender, and race.

Table 1. Five Clusters of Faculty Based on Time Spent on Teaching, Research, and Service

Groups of Faculty	Most Salient Descriptors
Classic	Arts & humanities; full or assistant professors; tenured or tenure track; doctoral (moderate research) and master's-granting (large or medium) institutions; more likely to identify as Asian, Black or African American, or multiracial
Teaching-Heavy	Physical sciences, mathematics, computer science, or health professions; lecturers or instructors; master's-granting (large or medium) and baccalaureate-granting institutions; not likely tenure track; predominantly women; more likely to identify as White
Research-Heavy	Biological sciences, agriculture, natural resources, physical sciences, mathematics, computer science, social sciences, or engineering; full or assistant professors; tenured or tenure track; doctoral institutions; predominantly men; more likely to identify as Asian
Service-Heavy	Less likely to be in biological sciences, agriculture, and natural resources; full or associate professors; master's-granting (medium) institutions; tenured, but less likely to be tenure track
Moderate-Load	Education, health professions, or social service; lecturers or instructors; non tenure track; doctoral (moderate research) institutions; more likely to identify as Black or African American, or Hispanic or Latino

- *Classic Faculty* use all the FSSE Scale teaching practices (Higher-Order Learning; Reflection & Integrative Learning; Learning Strategies; Quantitative Reasoning; Collaborative Learning; Discussions with Diverse Others; Student-Faculty Interaction; Effective Teaching Practices) more than the average faculty member.
- *Service-Heavy Faculty* have more frequent out-of-class interactions with students ($B = .164, p < .001$) than the average faculty member.
- *Teaching-Heavy Faculty* and *Moderate-Load Faculty* use the teaching practices measured by FSSE less than the average faculty member.
- *Research-Heavy Faculty* differences from average were all trivial. Most notable differences were for emphasis on higher-order learning activities ($B = .185, p < .001$) and use of effective teaching practices ($B = .185, p < .001$).
- *Teaching-Heavy Faculty* have less than average out-of-class interactions with students ($B = -.163, p < .001$) and emphasis on higher-order learning activities ($B = -.113, p < .001$).
- *Moderate-Load Faculty* place a less substantial emphasis on higher-order learning activities ($B = -.141, p < .001$) and have a less than average use of effective teaching practices ($B = -.118, p < .001$).

Implications, Future Research, and Conclusions

The results of this study raise many questions. Future research should investigate how or why these divisions in faculty time are created. It may be due to the organizational structure of faculty roles at different institutions and within different disciplines, but it may partially be due to the choices afforded to faculty in how they manage their time. One might assume that faculty who spend most of their time teaching might display a greater frequency of effective teaching practices, but that is not what we find here. There may be explanations based on factors not studied here such as the types of courses these faculty are teaching or the professional development available.