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Faculty Work Activity Dashboards: **A Strategy to Increase Transparency**

By KerryAnn O'Meara, Elizabeth Beise, Dawn Culpepper, Joya Misra, and Audrey Jaeger



In Short

- A main complaint of faculty members who experience workloads as inequitable is that there is little transparency. Faculty do not know what each other are doing, especially in teaching, mentoring, and service.
- The Faculty Workload and Rewards Project is an evidence-based action research project, funded by National Science Foundation ADVANCE, which seeks to address this challenge.
- The project worked with departments and small colleges to collect and analyze faculty workload data and present them in simple dashboards.
- In addition to increasing transparency around what faculty were doing, the act of creating dashboards allowed departments to identify equity issues and design remedies, discuss faculty preferences for different work activities, and create more clarity around expected contributions.



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ach year, national surveys show that many faculty members experience dissatisfaction with their workloads (Collaborative on Academic Careers in Higher Education, 2008; Hurtado, Eagan, Pryor, Whang, & Tran, 2012; Jacobs & Winslow, 2004). Several factors contribute to workload dissatisfaction, including perceptions of increased workload and challenges in work–life integration, among others (Bozeman & Gaughan, 2011; Callister, 2006). Dissatisfaction can lead to lower productivity, lower organizational commitment, and higher turnover (Callister, 2006; Eagan & Garvey, 2015; Mamiseishvili & Rosser, 2011). Colleges and universities therefore have a substantial interest in enhancing workload satisfaction to promote retention and achieve institutional goals.

Although important for all faculty, improving workload satisfaction may be particularly critical for enhancing the recruitment and retention of women and African Americans. Latinos and Latinas, Asian Americans, Pacific Islanders, and American Indian faculty. Social science studies using a variety of methodologies (e.g., time diaries, self-report surveys, review of annual activity reports, qualitative interviews) have shown a pattern where women faculty report spending more time than their peers on teaching, mentoring, and campus service. Similarly, faculty of color report spending more time mentoring students and in diversity-related campus service (Guarino & Borden, 2017; Misra, Lundquist, Holmes, & Agiomavritis, 2011; O'Meara, Kuvaeva, & Nyunt, 2017a; O'Meara, Kuvaeva, Nyunt, Waugaman, & Jackson, 2017b). More time spent on teaching, mentoring, and campus service, and less time spent on research, has been associated with longer time to advancement, higher stress, and greater willingness to leave for women and faculty of color (Callister, 2006; Eagan & Garvey, 2015; Misra et al., 2011). Thus, institutions should also pay attention to faculty workload to promote the retention and advancement of a diverse professoriate (El-Alayli, Hansen-Brown, & Cevnar, 2018; Griffin & Reddick, 2011; Misra et al, 2011).

One of the reasons faculty workload becomes inequitable is because departments lack information and transparency about how work is divided. Faculty within the same department contribute to different work activities at different levels of effort, many of which go unrecorded. Departments often lack mechanisms for faculty to compare their workloads to others. There are rarely data to hold faculty accountable for contributing their fair share. These conditions are part of a "foggy climate" (Beddoes, Schimpf, & Pawley, 2014, p. 4) that can lead to faculty being unsure of what is appropriate or expected of them. Studies show that transparency is one of the most critical conditions for promoting equity and the perception of equity within organizations (Bilimoria, Joy, & Liang, 2008; Daly & Dee, 2006; Neyland, 2007).

In this article, we report on a tested workload intervention, faculty work activity dashboards, to enhance transparency and reduce ambiguity. This intervention is part of the Faculty Workload and Rewards Project (FWRP), a National Science Foundation-funded, action-research project designed to improve equity in how faculty workload is taken up, assigned, and/or rewarded. From 2016 to 2019, we worked with 50 academic departments and other academic units to put in place policies and practices that promoted faculty workload transparency. The FWRP focus was on departments because they are the critical place where academic labor is divided, where faculty are rewarded, and where most faculty express the greatest workload dissatisfaction. However, the issues and strategies we discuss could also apply to colleges or other academic units.

During the project, the units developed work activity dashboards, which were shown in previous studies to be associated with faculty perception of workload fairness (Athena Forum, 2018). Evidence from the FWRP project likewise suggests that creating dashboards helps departments enhance transparency, promote greater clarity, and increase accountability—all necessary conditions for workload equity (see O'Meara, Jaeger, Misra, Lennartz, & Kuvaeva, 2018; O'Meara, Lennartz, Kuvaeva, Jaeger, & Misra, 2019).

This article is intended for faculty and administrators interested in creating faculty work activity dashboards to create more transparent workload conditions and equitable practices. We describe the nature of faculty work activity dashboards, describe the dashboard creation process, and explain how dashboards help departments diagnose workload inequities and promote equity-minded workload reforms. We share feedback from FWRP departments that created faculty work activity dashboards and the outcomes they reported as a result. Finally, we offer recommendations for creating dashboards based on our own experiences leading the project.

CREATING DASHBOARDS

What Is a Dashboard?

A faculty work activity dashboard is an easy-toread display of faculty work areas across different work activities (service, teaching, and sometimes research). A dashboard is intended to be a simple data visual, such as a table, bar and pie chart, or graph.

Kinds of Data to Collect

Various types of data can be represented in work activity dashboards. Some departments choose

to include all major work activities (research, teaching, and service) to gain the "full picture" of faculty contributions. However, other departments may only focus on teaching, advising, and service, because (a) these work activities are often not measured, (b) faculty report the greatest dissatisfaction with the distribution of these work activities, (c) departments are more likely to apportion service and teaching, while research is more-selfgoverned, and (d) promotion and tenure evaluation processes already monitor research contributions.

At the beginning, departments should identify preexisting data sources that are annually updated and systematically collected. For instance, in our project, many FWRP departments used existing institutional data sources, such as annual faculty reports, instructional reports, and annual merit review information, to populate their dashboards. Data legitimacy and standardization are important, so we recommend against asking faculty to selfreport work activities using surveys as a means of data collection, even if that limits the types of activities the dashboard contains in its first draft. In Table 1, we identify the kinds of activities departments might consider analyzing in a draft dashboard. We recommend that dashboards include the work activities noted with an asterisk (*), although additional work activities may be salient for some departments.

Once departments determine the kinds of data they will collect, they must make four main decisions to translate the data into a dashboard. First, departments must decide on which gathered data to display and how to display them. We recommend focusing on the work activities where transparency is most needed. For instance, departments may have little or no information about the number of committees on which faculty serve.

Second, departments must decide on which comparison categories (e.g., rank, appointment type) will be useful for analysis through the dashboard. Many FWRP departments chose to compare faculty by rank and appointment type in a departmentfacing dashboard but also conducted an internal comparison by gender and/or race—if the number of faculty within the department was large enough to provide a meaningful comparison.

TABLE 1. KINDS OF FACULTY WORK ACTIVITIES DEPARTMENTS COULD ANALYZE IN ADASHBOARD

Teaching	Research	Service
 Number of students in courses Level of course *Class size Class type Course preps Course buyouts Independent study *Number of credit hours Number of Distance Education courses <i>Mentoring/Advising</i> *Number of undergraduate, master's and doctoral advisees Number of postdocs Undergraduate research supervised *Member or chair, doctoral committees *Number of Honors theses supervised Graduate advising credits (combined MS thesis, PhD precandidacy, PhD dissertation credits) Student clubs advised 	 Number of journal articles Number of conference presentations Number of books Number of proposals submitted Number of manuscripts in press Annual grant awards Number of research assistants supported Number of postdocs supported 	 Campus Service* Committee chair/ committee member *Number of department-level, college-level, and university-level committees *Graduate admissions committee chair/member *Undergraduate program director Faculty Senate *Low/med/high service commitments Professional service Professional committees Editorial boards Review panels Conference session organization/chair Grant review panels Professional organizations and levels of membership

*Faculty work activities we recommend all dashboards contain.

Third, departments need to decide on a strategy for disseminating the results. Many FWRP departments used simple Excel or Word tables to create their dashboards, although some departments used more advanced data platforms (e.g., R-Shiny). We observed no difference in outcomes based on the platform departments used, as long as the data visualization was simple and easy to read. Most departments published dashboards on an internal website that was only accessible to department members.

Finally, departments must agree on the level of transparency in the displayed data. Departments that create dashboards using *full transparency* report work activities at the individual faculty level with names attached (Table 2). In Table 2 the department calculated total research, teaching, and service products completed by department faculty and percent of the total completed by each faculty

member. *Medium transparency* involves masking each faculty member's identity with a generic identifier (Table 3). In Table 3 each faculty member is given a number (e.g., F-5) and they each get credit for different kinds of teaching toward their course load. In a *limited transparency* model, data are presented in aggregate form (Figure 1). In Figure 1 we see the department has designated committees as high, medium, or low effort; counted the number of such committees on which faculty serve; and analyzed that data by rank.

The level of transparency should be based on the culture of the department and feedback from department faculty. We recommend that department leaders work with faculty to gain consensus about the level of transparency department members feel comfortable with for the first draft, as departments members often need time to be socialized toward using data to make workload decisions.

 TABLE 2. EXAMPLE OF A COMBINED RESEARCH, TEACHING, AND SERVICE DASHBOARD USING

 Full Transparency

	Research		Teaching				Service		
Name	Units	Percent of Total	Spring	Fall	Total	Percent of Total	Units	Percent of Total	
James	35	31	8	5	13	33	7	10	
Mary	7	6	4	4	8	20	23	34	
Jon	0	0	0	4	4	10	3	4	
Delores	18	16	1	2	3	8	15	22	
Linda	32	28	3	1	4	10	2	3	
Robert	21	19	2	1	3	8	5	7	
Kimberly	0	0	1	4	5	13	13	19	
Sum =	113	100	19	21	40	100	68	100	

Rank	ID	100- Level	200- Level	300- Level	400- Level	Grad Seminar	New Prep	Course Release	Total Course Load	Standard Load
Associate	F-1	1		1		1		1	3	4
Assistant	F-2		1	1					2	2
Associate	F-3	1		1	1			1	3	4
Assistant	F-4	2				1		2	3	4
Senior lecturer	F-5	2	2						4	6
Lecturer	F-6			1	1	1		1	3	4
Assistant	F-7			1				3	1	4
Full	F-8					3		2	3	4
Full	F-9			1		1		2	2	4

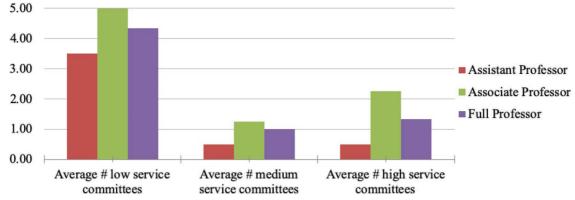


FIGURE 1. DEPARTMENT SERVICE CONTRIBUTIONS BY EFFORT

Low service committees = Committees that average 1-5 hours per semester; medium service committees = Committees that average 6-15 hours per semester; high service committees = Committees that average 16+ hours per semester.

Dashboard Strategies

We suggest departments consider using one (or more) of six visual display strategies as they create the first draft of their dashboards.

- *Benchmarking Work Activity*: Presenting data in a way that allows faculty to compare their performance against others.
- *Differentiating Effort*: Presenting data in a way that accounts for differences in effort (low, medium, high) expended on certain work activities.
- *Making the Invisible Visible*: Displaying data on work activities that are important to the department but typically not counted or shared.
- Assigning Credit: Creating a system wherein faculty are assigned credits for being involved in work activities with different effort levels (e.g., chairing versus serving on a committee) or for activities in which they are more or less involved.
- Seeing the Whole Picture: Analyzing the entire department's total work activities and presenting faculty with a way to see how their activities contribute to the overall total.

Challenges in Creating Dashboards

FWRP departments sometimes experienced challenges in creating dashboards.

• *Gaining consensus on effort levels*: Although FWRP departments generally agreed that being a committee chair required greater effort compared to a committee member, departments often took time to generate consensus on the level of effort required for various types of

service (see Figure 1). In advance of placing committees into certain effort categories, some departments undertook a full audit of service commitments and then collected data on time spent on each committee as context for creating effort categories.

- Addressing differences in contexts: Small departments sometimes argued that analysis by comparison groups (e.g., rank) was not useful given their department's size. These units were encouraged to create dashboards that would give a snapshot of the "average" department contributions and also consider using medium or full transparency (with consensus) or combining categories (e.g., assistant versus associate/full).
- Confidentiality and personnel issues: Some units
 expressed concern that some faculty had low
 performance because of undisclosed impending
 retirements or health issues, which could lead
 to embarrassment or break their confidential ity. Alternatively, some faculty felt that limited
 transparency did not appropriately expose "loafers" who were not contributing their fair share.
 Most departments resolved confidentiality by
 presenting dashboards using limited transparency. Most departments addressed the issue of
 loafing by reducing committee size, publishing committee membership, and creating more
 accountability for committee outcomes.

USING DASHBOARDS TO PROMOTE Workload Equity

Once data have been collected and displayed, dashboards can be used to diagnose areas in which

workload inequities are present (e.g., some faculty engaged in much more teaching, advising, or service). Increased awareness of inequities can then serve as a platform for facilitating department workload reform.

Using Dashboards to Diagnose Equity Issues

FWRP departments used dashboards to identify a range of existing and emerging workload equity issues. The examples that follow highlight some of the common (albeit fictional) ways dashboards revealed workload inequities. We then discuss policies and practices departments could consider putting in place to address the workload inequities revealed by the dashboard.

In Figure 2, Department A calculated the average number of advisees for faculty by gender. The dashboard showed that women faculty had more undergraduate advisees compared to men. Department A decided to put in place a policy that outlines advising benchmarks (e.g., minimum advising loads for faculty according to rank) and rewards faculty members whose advising loads regularly exceed those benchmarks with extra credit that can reduce their effort in another area (e.g., service).

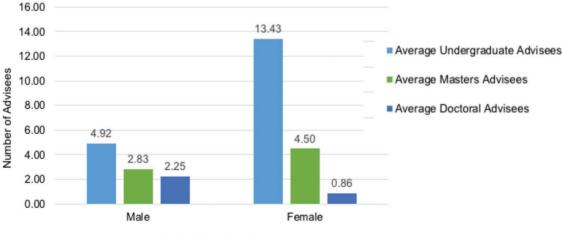
In Figure 3, Department B developed a dashboard that showed the average number of committees on which faculty served by rank. In developing the dashboard, the committee differentiated between committees that required low (1–5 hours per semester), medium (5–15 hours per semester), and high (15+ hours per semester) effort levels. The dashboard revealed that associate professors served on more "high effort" committees than assistants (which was expected) and full professors (which was not). Department B implemented a service rotation, where high-intensity service assignments are regularly rotated among associate and full professor department members.

In Figure 4, Department C calculated each department member's service contributions as a percentage of the department's overall service activities. This dashboard showed some individuals contributed a higher percentage of department service relative to the norm. Department C established a credit system in which faculty whose service exceeds agreed-on performance benchmarks could receive a course release or be exempted from certain committee assignments in subsequent academic terms.

We provided FWRP departments with numerous examples of faculty workload policies that could potentially address these equity issues. These reforms are not the only ones Departments A, B, and C could consider but are illustrative of some of the workload policies and practices FWRP departments put in place after developing dashboards. We intend to report more on these practices in a subsequent article.

Resistance Faced in Dashboard Implementation

As we worked with department teams, and they worked with their department faculty to obtain consensus, we noted three common patterns of resistance. First, some department members felt that creating a dashboard was not necessary, as everyone was working equally hard. These department members felt that the only solution to



Gender of Faculty Member

FIGURE 2. DEPARTMENT A: AVERAGE NUMBER OF ADVISEES, BY GENDER

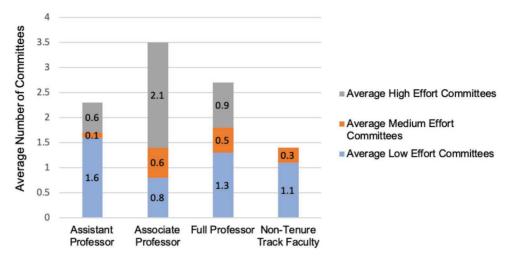


FIGURE 3. DEPARTMENT B: AVERAGE NUMBER OF COMMITTEES SERVED FOR ACADEMIC YEAR, BY RANK AND APPOINTMENT

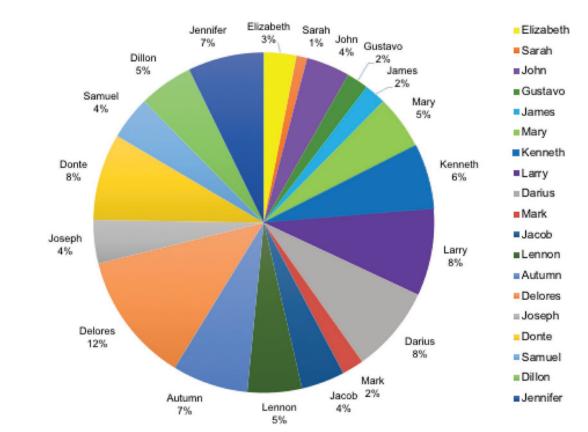


FIGURE 4. DEPARTMENT C: FACULTY SERVICE CONTRIBUTIONS, AS PERCENTAGE OF OVERALL SERVICE

alleviating workload concerns was for the department to acquire more resources (e.g., to hire more faculty). Second, faculty sometimes felt that the department did not need a dashboard because inequities only occurred in other departments; their department, by contrast, was "a family," had a great chair, and workload was fairly distributed (although this was usually not felt by all faculty). Third, faculty sometimes feared that by accounting for work activities at a finer level those activities were de-professionalized or made transactional, and the department was opening the door to being asked to do more.

Our responses to such resistance varied. In some cases, our responses were narrative, arguing alternative positions. For example, most of our departments were not likely to receive more resources and would need to make do with existing faculty. However, the dashboard could become a way to document what was happening in order to make a case for additional resources.

In other cases, our response emerged as part of the dashboard creation process. In one meeting, a department discussed their dashboard, and one person suggested that gender biases were not a department issue. Another faculty member interceded and said that both he and his wife started in the department at the same time. and he could see that she was asked to do more service and advising. This real-life example was only brought to light because the department had begun a conversation about workload. The department subsequently reported that the real-life example, coupled with data and concrete suggestions for solutions to address the issue, were influential in moving the department toward equitable workload reform.

Outcomes

At the conclusion of the FWRP, participating faculty members reported on how they used the dashboard to promote equity-minded workload reform. Many faculty members reported that dashboards opened up discussions about how faculty should, and would, contribute in the future. For example, one participant said:

The dashboard led us to a good discussion about how everyone should be contributing to the department. We ended up having a retreat to discuss teaching and what we wanted our guiding principles and goals to be for assigning future teaching responsibilities. One thing that surprised us was that some people were teaching things that they didn't necessarily want to be teaching, so we reconsidered those assignments. Having the dashboard though made us more aware of how hard everyone was working in different areas.

Across departments, we found that participants felt dashboards promoted accountability, clarity, and reference points for expected contributions.

Some departments observed that analyzing dashboard data dispelled preexisting assumptions, such as the assumption tenured faculty were doing less than pre-tenure faculty, while revealing differences in the kinds of work being completed across ranks. In contrast, other departments found that dashboards affirmed some of the inequities they thought existed but for which they had little evidence prior to the dashboard. One faculty member reported, "The dashboard quantified trends that were already known anecdotally within the department. Several of the inequities were across areas within the department." The faculty member then went on to explain that the dashboard helped reveal differences in advising and mentoring loads, and course preps per year across different areas. The department could then discuss what differences were inevitable and credited better in their workload systems.

Participants reported that one of the major outcomes of implementing dashboards was putting in place a system that could be regularly updated to show how faculty work was divided. For example, one participant said:

I am currently working to align the annual faculty report with the dashboard so that relevant information can be gathered easily and consistently across the department. This apparatus should be sustainable. Data are entirely transparent and are made available to all faculty in the department.... Finally, it has been clearly communicated that these data and categories can be revisited, discussed and revised at any time in the future through departmental conversations and consensus.

This last point about the ability to redesign dashboard categories and reassess strategies based on department needs was key to the design of the project. Dashboards helped departments use data to inform decision making, rather than relying on myths or anecdotes, which promoted evidencebased decision making.

While we recommended that all departmental dashboards display certain work activities within service and teaching, we encouraged each department to create a dashboard that would reflect the context-specific work activities relevant to their discipline and institutional type. This increased buy-in and ownership in the project and made the dashboard more valuable to departments because it was context-specific.

Finally, participants widely reported that dashboards promoted a culture of transparency within their departments. Department leaders felt that providing systematic data was critical to promoting equity within the department, while faculty appreciated that their contributions were more visible.

THE BENEFITS OF OPENING THE CAN OF WORMS

When we first started this project, we visited several universities to recruit department participants. We recall one meeting where an academic leader critiqued the idea of creating faculty work activity dashboards. The academic leader argued that "opening that can of worms" (O'Meara, 2018) could only stir up discontent. This colleague felt faculty were better off "in the dark" about what others were doing. Good department chairs, this person argued, could orchestrate equitable workloads without the help of a dashboard.

Good academic leaders are critical to perceived and real equity in faculty workloads. However, do we want to depend on only one person to ensure fair workload systems? Or, do we want to create conditions and structures that allow all faculty to participate in creating a fairer division of labor together? We found faculty work activity dashboards helped create the conditions for all faculty and leaders to improve the work environment. We hope readers of this article find the same. C

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