

**Academic Instruction Librarians' Feelings of Job Control:
Quantitative Analysis of Responses to a Job Control Inventory**

Abstract

Job control encompasses a range of dimensions that reflect the extent to which employees have the freedom and discretion to make decisions about their work. Job control includes control over tasks, scheduling, work pacing, physical environment, decision-making, interaction, and mobility. A web survey was administered to academic librarians with instruction responsibilities. The survey included a previously developed scale for measuring job control and several key demographic and job characteristic questions that were hypothesized to impact job control. 307 academic instruction librarians completed the job control scale. Analyzing each item in the job control scale, teaching workload, status, income, years at institution and in libraries, teacher training, union representation, and tenure status have statistically significant effects on responses to at least one question in the scale. Through analysis of the average response among academic instruction librarians in the sample, control over decision-making, including allocation of resources and salaries, and interactions appear to be two places where managers and library leaders may focus improvements. Control over the amount of money academic instruction librarians earn and over how their work is evaluated were the lowest across the 22 items in the job control scale. As library leaders and managers consider the practical implications of job control research on their work, earnings, evaluation processes, and interactions or interruptions may be key areas to enact changes or provide further transparency and shared decision-making.

keywords: burnout, job control, academic instruction librarians, agency, organizational psychology

Autonomy may draw some workers to academia, including academic librarianship. However, many in academia may not experience this flexibility and agency. Librarians in particular who may be classified as staff, academic staff, or faculty depending on their institution may face varying restrictions on their own control at work, including anything from a need to staff a service desk to unexplained mandates requiring library workers to spend eight hours at their desks.

Academic instruction librarians require some flexibility to perform their roles, including being able to adjust their own schedules to meet the needs of various classes throughout a term. However, librarians may frequently be flexible with their own schedules while their libraries or institutions are unwilling to extend that flexibility to academic instruction librarians, limiting their autonomy. In some cases, this may make the work of academic instruction librarians difficult. If they're expected to be at their desk but also expected to be in classes, at events, or otherwise connecting with faculty and students, there will always be a competition between these expectations.

As professionals, academic instruction librarians should be afforded greater autonomy, freedom, and control in their work and how they approach their work. However, poor management practices and misunderstandings about the role of librarians and academic instruction librarians in particular may lead library leaders and institutional administrators to restrict academic librarian freedom and agency to the detriment of the librarian, the library, and the institution. Library leaders should consider approaches to provide librarians with greater control as a means of empowering librarians, motivating them in their work, and encouraging them to take ownership of library services and resources as professionals. Library leaders should advocate to institutional administrators for increased autonomy and should reflect on their own expectations and demands of librarians on their teams to avoid unnecessarily restricting librarian agency. Using survey data related to job control, this article explores potential areas to focus efforts for improving librarian autonomy.

Literature Review

Job Control

Job control, which may be synonymous with autonomy, decision authority or latitude, freedom, or agency, encompasses a range of dimensions that reflect the extent to which employees have the freedom and discretion to make decisions about their work. Ganster (1989) defines job control "as the ability to exert some influence over one's environment so that the environment becomes more rewarding or less threatening." Job control includes control over tasks, scheduling, work pacing, physical environment, decision-making, interaction, and mobility.

Task Autonomy

Task autonomy refers to employees' control over how they perform their job tasks. It includes the freedom to set work priorities, make decisions about work methods, and

exercise creativity and problem-solving skills. Task autonomy has been associated with higher levels of motivation, job satisfaction, and performance Spector (1986).

Work Scheduling

Work scheduling refers to an employee's ability to determine their work hours and schedule. Flexible work arrangements, such as telecommuting or flexible hours, provide employees with increased control over their work schedules, which can enhance work-life balance and reduce work-related stress (Golden & Veiga, 2005). Unpredictable schedules, which may arise frequently for academic instruction librarians responding reactively to instruction requests, may also undermine perceptions of security (Lambert et al., 2019).

Work Pacing

Work pacing refers to employees' control over the speed at which they perform their tasks. "Can the individual determine the pace of work, or is it controlled by machine? Can the individual determine the scheduling and duration of rest breaks?" (Ganster, 1989, p. 5).

Physical Environment

Physical environment refers to employees' control over their workspace, including lighting, comfort, equipment, and decorations. The concepts of telecommuting or working from home may touch on an employee's control over their physical environment and their work scheduling. Davis, Leach, and Clegg, in their discussion of the rise of open offices, argue that the office environment "has a powerful role in shaping a diverse range of psychological and behavioral outcomes, including individual work motivation (e.g., Oldham & Brass, 1979), job satisfaction (e.g., Veitch, Charles, Farley, et al., 2007), and patterns of interactions (e.g., Boyce, 1974; Ives & Ferdinands, 1974; Sundstrom & Sundstrom, 1986). Furthermore, the impact of offices upon their occupants' personal productivity has been estimated to be somewhere in the region of 20% (e.g., Leaman & Bordass, 2005)" (Davis et al., 2011, p. 194).

Decision-Making

Decision-making refers to employees' ability to participate in making decisions that affect their jobs or the organization as a whole. Appelbaum et al. (2013) demonstrate that trust is required for participative decision making to be effective and that with insufficient participation in decision-making processes, employees experience reduced job satisfaction and commitment.

Interaction

Interaction refers to employees' control over their social interactions at work, including collaborations with colleagues or work with students, faculty, and staff. Interaction may also be strongly connected to physical environment, where individuals may have less control over interactions and interruptions in shared workspaces or open offices (Davis et al., 2011).

Mobility

Mobility refers to the ability of employees to move within the organization, take on different roles, or have control over career advancement. Employees who experience greater career motivation, including working toward career advancement, may be more satisfied and committed (Alniaçık et al., 2012).

Overall, research has consistently demonstrated the importance of job control in enhancing job satisfaction, motivation, and performance (e.g, Bond & Bunce, 2003; Thompson & Prottas, 2006; Kossek et al., 2006). Tailoring job design to incorporate these dimensions can lead to improved organizational outcomes and employee well-being. Criticisms of job control have suggested that there are limits to the impact of increased job control or that increasing job control is not the most advantageous approach for all situations (Kubicek et al., 2014, Spector, 1986).

Theories Related to Job Control

The notion that increased job control leads to positive outcomes for workers and organizations is supported by several theories and theoretical models, including self-determination theory (SDT), social-cognitive theory (SCT), social exchange theory (SET), and the job demands-resources (JD-R) model.

Self-determination theory

Self-determination theory is a theory of human motivation that differentiates between autonomous (freely motivated by choice, perhaps intrinsic) and controlled (motivated by rewards or power dynamics, perhaps extrinsic) motivation. SDT suggests that autonomy is one of three basic psychological needs (along with competence and relatedness) and that “employees’ performance and their well-being are affected by the type of motivation they have for their job activities” (Deci et al., 2017, p. 20). SDT is a macro or meta theory that encompasses six mini-theories: cognitive evaluation theory (CET), organismic integration theory (OIT), causality orientations theory (COT), basic psychological needs theory (BPNT), goal content theory (GCT), and relationships motivation theory (RMT) (Wehmeyer et al., 2018). Deci, Olafsen, and Ryan (2017), in their discussion of the practical implications of SDT for work organizations, argue that “work settings, in which supervisors acknowledge employees’ perspectives, encourage self-initiation, offer choices for individuals and groups, provide meaningful feedback, assign tasks that are optimally challenging, and give a rationale when requesting a behavior are likely to lead to both high-quality performance and wellness, as mediated by basic psychological need satisfaction and autonomous motivation. At the level of immediate supervisors, the evidence is abundant that when the supervisors are more autonomy supportive there are a range of positive consequences for the employees, including trust of managers higher in the organization” (Deci et al., 2017, p. 38).

Social cognitive theory

Social cognitive theory is another theory of motivation. SCT emphasizes the impact of social environment on motivation and is often discussed in relation to learning and self-efficacy.

Schunk & DiBenedetto (2020) state that “[a] central premise of Bandura’s [social cognitive] theory is that individuals strive for a sense of *agency*, or the belief that they can exert a large degree of influence over important events in their lives. . .Central to this agentic perspective is individuals’ *self-efficacy*, or their perceived capabilities to learn and perform actions at designated levels” (Schunk & DiBenedetto, 2020, p. 2, emphasis in original). In this sense, both SCT and SDT discuss the relationship between motivation and a control-like phenomenon. SDT considers the role of autonomy in motivation, and SDT considers the roles of agency and self-efficacy in motivation.

Job demands-resources model

The job demands-resources model suggests that access to certain resources can buffer the effect of high job demands that may lead to burnout. In the JD-R model autonomy is considered a job resource, suggesting that autonomy contributes to this buffering effect (Demerouti et al., 2001, Bakker & Demerouti, 2007; Bakker & Demerouti, 2017)

Social exchange theory

Social exchange theory is a theory of interpersonal interactions that suggests that specific social behaviors incur reciprocity. Applied in organizational contexts, social exchange theory suggests that employees may act more favorably toward institutions or demonstrate greater commitment as reciprocation when their employers or organizations treat them favorably. For example, Chernyak-Hai & Rabenu (2018) “suggest that the extent to which the organization values the employees’ contributions, organizational caring, and support on the one hand and the employees’ trust that the organization will fulfill its exchange obligations on the other still have direct implications for perceived organizational support and employee loyalty” (Chernyak-Hai & Rabenu, 2018, p. 464).

These four theories and theoretical models provide a basis for understanding the impact of job control on workers and workplaces wherein job control may be related to feelings of agency, autonomy, freedom, and self-efficacy and whereby feelings of control may lead to positive outcomes. In the context of libraries, job control is understudied, though agency and self-efficacy have been discussed in specific contexts of academic library work, including teacher agency and librarian researcher self-efficacy (Baer, 2023; Brancolini & Kennedy, 2017)

Methods

A web survey was administered to academic librarians with instruction responsibilities. The survey included a previously developed scale for measuring job control and several key demographic and job characteristic questions that were hypothesized to impact job control. The survey was part of a project measuring the relationship between job control and burnout among librarians (Author, 2023). 307 academic instruction librarians completed the job control scale.

Sample and Recruitment

The study targeted academic librarians with some instruction responsibilities and recruited participants primarily via email distribution lists. A recruitment email was sent three times (29 August 2022, 13 September 2022, and 28 September 2022) via ALA Connect, a forum and email distribution system maintained by the American Library Association (ALA), to three lists: ACRL Members, which included approximately 7,200 members; ACRL Instruction Section, which included 4,800 members; and Information Literacy Instruction in Academic Libraries, which included 292 members. Concurrent messages were sent via the social media platform Twitter. In the end, 307 survey responses were collected.

Measures

The web survey was created using SpringShare's LibWizard and included demographic questions, questions about the characteristics of the participant's work, and Ganster's (1989) 22-item job control inventory. The survey also included questions related to burnout, which are not discussed in this article.

Ganster's (1989) job control inventory includes 22 questions to measure job control across various dimensions. Scoring for the job control inventory uses a Likert scale with values one through five attributed (Very little = 1; Little = 2; A moderate amount = 3; Much = 4; and Very much = 5). A participant's job control score is their average across the first 21 items. The twenty-second item is used as a control.

The Chronbach's alpha for the 21-item job control scale was 0.89 (n=307). This is similar to Ganster's (1989) report on the scale, which had an alpha of 0.87 (n = 191), and Dywer & Ganster's (1991) study, which also had an alpha of 0.87 (n = 90).

While Ganster intentionally didn't create subscales, the questions are related to different dimensions of job control, which he identifies in the scale development: work tasks, work pacing, work scheduling, physical environment, decision making, interaction, mobility, and predictability. In order to analyze item responses in relation to the different dimensions of job control and identify dimensions where academic instruction librarians may lack control, the author has attempted to categorize each question into a single dimension. Item 22 is a control question that measures general perception. While mobility was included in Ganster's consideration of job control for the scale development, the author couldn't identify a question specifically related to mobility. The categorization is included below. However, since there are no subscales, means for each dimension were not calculated.

Work Tasks: "Can the individual determine the order in which tasks are completed as well as choosing among available methods for accomplishing them? Can the individual choose among a variety of tasks or projects? Can the individual influence the quality or quantity of his or her output?" (Ganster 1989, p. 5)

1. How much control do you have over the variety of methods you use in completing your work?
2. How much can you choose among a variety of tasks or projects to do?

3. How much control do you have personally over the quality of your work?
4. How much control do you have personally over how much work you get done?
5. How much control do you have over how you do your work?

Work Pacing: "Can the individual determine the pace of work, or is it controlled by machine? Can the individual determine the scheduling and duration of rest breaks?" (Ganster 1989, p. 5)

6. How much control do you have over how quickly or slowly you have to work?
7. How much control do you have over scheduling and duration of your rest breaks?

Work Scheduling: "Can the individual determine his or her working hours (flextime) so that non-work demands can be better coordinated with work demands? Can vacations and days off be taken when the individual desires? Does the worker have a choice of shift schedules?" (Ganster 1989, p. 5)

8. How much control do you have over when you come to work and leave?
9. How much control do you have over when you take vacations or days off?

Physical Environment: "Is the individual able to modify, decorate, or otherwise personalize the work station? Does the individual have some control over lighting, temperature, noise, or privacy?" (Ganster 1989, p. 6)

11. How much are you able to decorate, rearrange, or personalize your work area?
12. How much can you control the physical conditions of your work station (lighting, temperature?)

Decision making: "Does the individual have influence concerning organizational policies, goals, or procedures?" (Ganster 1989, p. 6)

15. How much influence do you have over the policies and procedures in your work unit?
16. How much control do you have over the amount of resources (tools, materials) you get?
17. How much control do you have over the amount you earn at your job?
18. How much control do you have over how your work is evaluated?

Interaction: "Can the individual control the amount and timing of contact with other people, such as coworkers or customers/clients?" (Ganster 1989, p. 6)

14. How much can you control when and how much you interact with others at work?
15. How much control do you have over the sources of information you need to do your job?
16. How much can you control the number of times you are interrupted while you work?

Mobility: "Does the individual perceive that he or she can leave the occupation or employer, or does the individual feel locked-in to a particular job?" (Ganster 1989, p. 6)

Predictability: In 1991, Dwyer and Ganster combined the scale for predictability with the overall job control scale (Dwyer & Ganser, 1991).

4. How much can you generally predict the amount of work you will have to do on any given day?
5. How much are you able to predict what results of decisions you make on the job will be?
6. How much are things that affect you at work predictable, even if you can't directly control them?

Perception: This referred only to a single question and was used as a control to compare to the job control score.

22. In general, how much overall control do you have over work and work-related matters?

Statistical Analyses

Analyses were conducted using the R Statistical language [version 4.2.1; R Core Team (2022)] on macOS Monterey 12.5.1 and macOS Sonoma 14.0, using the packages easystats [version 0.5.2; Lüdtke et al. (2022)], plyr [version 1.8.8; Wickham (2011)], ggplot2 [version 3.4.0; Wickham (2022a)], stringr [version 1.4.1; Wickham (2022b)], dplyr [version 1.0.10; Wickham et al. (2022)], tidyr [version 1.2.1; Wickham & Girlich (2022)], MultNonParam (Kolassa & Jankowski, 2023), conover.test (Dinno, 2017a), dunn.test (Dinno, 2017b), and rstatix (Kassambara, 2023).

For each item in the job control scale, the mean, median, and standard deviation were calculated. Additionally, the percentages of responses within each response category were calculated. Null hypothesis significance testing was conducted to determine whether or not the effects of various variables studied on each item in the scale were statistically significant. The variables considered were gender, gender modality, sexuality, disability, time at institution, time since degree, time in libraries, income, status (faculty, staff, or academic staff), individual tenure status, institutional availability of tenure for librarians, union representation, receipt of teacher training, perceived effectiveness of training, and teaching workload. Because the data for each question are not approximately normal and because each individual item uses a Likert scale consisting of ordinal data, the Kruskal-Wallis test for analysis of variance was used. The p values for all Kruskal-Wallis tests conducted are included in Appendix A. For tests with p values less than 0.05, post hoc analysis was conducted using the Conover-Iman test. Dunn's test is a similar test and was conducted as a comparison; however, there was no difference in statistical significance except where noted in the results. Both the Dunn's test and Conover-Iman test were conducted with Bonferroni's adjustment for multiple comparisons to correct for the increased risk of a Type I error. While the Kruskal-Wallis test is used throughout, Evans (1996) argues that "[c]omputer experiments and distribution-simulation tests conducted over the past 30 years or so have revealed that parametric tests generally work well even when certain of their assumptions are violated. In particular, they are robust against violation of the normality assumption when the sample size is 'large' ($N \geq 30$) and against

violation of the equal-variances assumption when the sample sizes are equal and all N 's ≥ 7 . What's more, parametric tests often work adequately even when data are on a nominal or ordinal scale" (1996, pp. 446–447). As such, the p values and effect sizes for parametric ANOVA tests are also included in Appendix A for comparison.

Ethical Considerations

Human research ethics approval was obtained from the Institutional Review Board at the University of California, Los Angeles (IRB#22-001337), which certified the study as exempt. Participants clicked a button labeled "I agree to participate" to signal consent prior to beginning the survey.

Results

Among the questions asked in the job control instrument, the mean score in the sample for 10 questions was lower than the overall mean for job control (3.33) as demonstrated in Figure 1 and Table 1. Among those ten questions, six questions had a mean lower than three, which corresponded to a response of "A moderate amount," which was the midpoint on the five-point likert scale. The question with the lowest mean was "How much control do you have over the amount you earn at your job?" Additionally, this question had the greatest agreement among respondents with 57.5% of respondents choosing very little. The two questions with the second and third lowest means were "How much control do you have over how your work is evaluated?" and "How much can you control the number of times you are interrupted while you work?" These three questions were also the only questions with a median lower than three.

The job control scale isn't designed with specific subscales for each dimension of job control, but the responses from academic instruction librarians may still point to concerns with control over decision-making processes and interactions at work. Reflecting on the dimensions of job control, the two questions where academic instruction librarians appear to have the least control, income and work evaluation, may be related to decision-making, while interruptions are likely related to control over interactions. Similarly, control over the amount of resources one gets (mean = 2.88) and control over policies and procedures (2.95) are likely related to control over decision-making and are similarly low within the sample.

However, the questions that received more positive responses appear to be related to control over work tasks, such as quality of work (mean = 4.34), variety of methods (mean = 4.07), how you do your work (mean = 3.98), and variety of tasks or projects (mean = 3.66). Similarly, academic instruction librarians in the sample appear to have higher degrees of control with regard to work pacing and work scheduling. Questions regarding control over the quantity of work completed (3.76) and the speed at which work is completed (mean = 3.62) and questions regarding scheduling rest breaks (mean = 3.96), vacations (mean = 3.87), and when one comes to work and leaves (3.53) appear to demonstrate greater control.

Interestingly, the two questions regarding control over one's physical environment appear to illicit opposing results with greater control generally over decorating, rearranging, and personalizing one's work area (mean = 4.3) than over the physical conditions of one's work station (lighting, temperature) (mean = 2.56).

Table 1. Descriptive statistics for responses to each question on the job control scale, sorted in ascending order by mean.

Job Control Question	Very little (%)	Little (%)	A moderate amount (%)	Much (%)	Very much (%)	N	Missing	Std. Dev.	Median	Mean
How much control do you have over the variety of methods you use in completing your work?	0.00	3.27	21.63	39.59	35.51	307	0	0.84	4	4.07
How much can you choose among a variety of tasks or projects to do?	1.95	7.49	36.81	35.50	18.24	307	0	0.93	4	3.66
How much control do you have personally over the quality of your work?	0.00	1.22	8.16	45.71	44.90	302	5	0.68	4	4.34
How much can you generally predict the amount of work you will have to do on any	2.62	10.49	41.31	32.79	12.79	305	2	0.91	3	3.38

Job Control Question	Very little (%)	Little (%)	A moderate amount (%)	Much (%)	Very much (%)	N	Missing	Std. Dev.	Median	Mean
given day?										
How much control do you have personally over how much work you get done?	1.31	4.90	33.66	38.56	21.57	306	1	0.87	4	3.76
How much control do you have over how quickly or slowly you have to work?	0.98	7.82	39.41	33.55	18.24	307	0	0.89	4	3.62
How much control do you have over scheduling and duration of your rest breaks?	2.30	7.54	21.31	30.82	38.03	305	2	1.04	4	3.96
How much control do you have over when you come to work and leave?	7.49	13.68	26.38	28.99	23.45	307	0	1.18	4	3.53
How much control do you have over when you take vacations or days off?	2.94	5.56	20.92	43.14	27.45	306	1	0.96	4	3.87

Job Control Question	Very little (%)	Little (%)	A moderate amount (%)	Much (%)	Very much (%)	N	Missing	Std. Dev.	Median	Mean
How much are you able to predict what results of decisions you make on the job will be?	2.31	13.53	50.17	29.04	4.95	303	4	0.80	3	3.20
How much are you able to decorate, rearrange, or personalize your work area?	0.65	2.29	14.71	33.33	49.02	306	1	0.81	4	4.30
How much can you control the physical conditions of your work station (lighting, temperature)?	21.50	28.34	30.62	14.66	4.89	307	0	1.13	3	2.56
How much control do you have over how you do your work?	0.00	3.27	22.86	46.12	27.76	307	0	0.80	4	3.98
How much can you control when and how much you interact with others at work?	3.28	13.77	43.61	27.54	11.80	305	2	0.95	3	3.31

Job Control Question	Very little (%)	Little (%)	A moderate amount (%)	Much (%)	Very much (%)	N	Missing	Std. Dev.	Median	Mean
How much influence do you have over the policies and procedures in your work unit?	11.15	22.95	38.36	21.64	5.90	305	2	1.05	3	2.95
How much control do you have over the sources of information you need to do your job?	3.61	16.07	36.07	35.08	9.18	305	2	0.96	3	3.29
How much are things that affect you at work predictable, even if you can't directly control them?	2.61	10.46	46.08	36.60	4.25	306	1	0.83	3	3.30
How much control do you have over the amount of resources (tools, materials) you get?	7.54	24.92	45.25	19.34	2.95	305	2	0.94	3	2.88
How much can you control the number of times you	21.57	35.95	31.70	9.15	1.63	306	1	0.95	2	2.34

Job Control Question	Very little (%)	Little (%)	A moderate amount (%)	Much (%)	Very much (%)	N	Missing	Std. Dev.	Median	Mean
are interrupted while you work?										
How much control do you have over the amount you earn at your job?	57.52	30.72	11.11	0.33	0.33	306	1	0.75	1	1.58
How much control do you have over how your work is evaluated?	30.79	32.78	27.48	7.62	1.32	302	5	0.98	2	2.16
In general, how much overall control do you have over work and work-related matters?	0.65	9.45	49.19	35.18	5.54	307	0	0.75	3	3.37

Figure 1. A bar chart showing the means for each question on the job control scale sorted in ascending order.

Question	N	NA	Mean †	
JC20. How much control do you have over the amount you earn at your job?	306	1	1.55	
JC21. How much control do you have over how your work is evaluated?	302	5	2.16	
JC19. How much can you control the number of times you are interrupted while you work?	306	1	2.33	
JC12. How much can you control the physical conditions of your work station (lighting, temperature)?	307	0	2.53	
JC18. How much control do you have over the amount of resources (tools, materials) you get?	305	2	2.85	
JC15. How much influence do you have over the policies and procedures in your work unit?	305	2	2.88	
JC10. How much are you able to predict what results of decisions you make on the job will be?	303	4	3.21	
JC17. How much are things that affect you at work predictable, even if you can't directly control them?	306	1	3.29	
JC16. How much control do you have over the sources of information you need to do your job?	305	2	3.30	
JC14. How much control do you have when and how much you interact with others at work?	305	2	3.31	
JC22. In general, how much overall control do you have over work and work-related matters?	307	0	3.36	
JC4. How much can you generally predict the amount of work you will have to do on any given day?	305	2	3.43	
JC8. How much control do you have over when you come to work and leave?	307	0	3.47	
JC6. How much control do you have over how quickly or slowly you have to work?	307	0	3.60	
JC2. How much can you choose among a variety of tasks or projects to do?	307	0	3.61	
JC5. How much control do you have personally over how much work you get done?	306	1	3.74	
JC9. How much control do you have over when you take vacations or days off?	306	1	3.87	
JC7. How much control do you have over scheduling and duration of your rest breaks?	305	2	3.95	
JC13. How much control do you have over how you do your work?	307	0	3.95	
JC1. How much control do you have over the variety of methods you use in completing your work?	307	0	4.05	
JC11. How much are you able to decorate, rearrange, or personalize your work area?	306	1	4.28	
JC3. How much control do you have personally over the quality of your work?	302	5	4.30	

Because the data do not approximate normality, nonparametric tests were used to determine differences between groups. The Kruskal-Wallis test was used followed by the Conover-Iman test with Bonferroni adjustment for multiple comparison as a post-hoc test in cases where the Kruskal-Wallis test was statistically significant. Across all 22 questions included in the job control scale, teaching workload, status, income, years at institution and in libraries, teacher training, union representation, and tenure status had statistically significant effects on at least one question. Table 2 shows the number of respondents in the groups of each of these variables. The following sections present the results of the statistical tests where one of the variables has a statistically significant effect on a particular question. The p values for Kruskal-Wallis and ANOVA tests for each variable tested and each question on the job control scale are included in Tables n and n+1 respectively.

Table 2. Count of participants identifying with each category for the variables considered in the discussion.

Group	N
Teaching Workload	–
Far too light	19
Slightly light	68
Just right	119
Slightly excessive	85
Far too excessive	16
-	
Status	–
Academic Staff	75

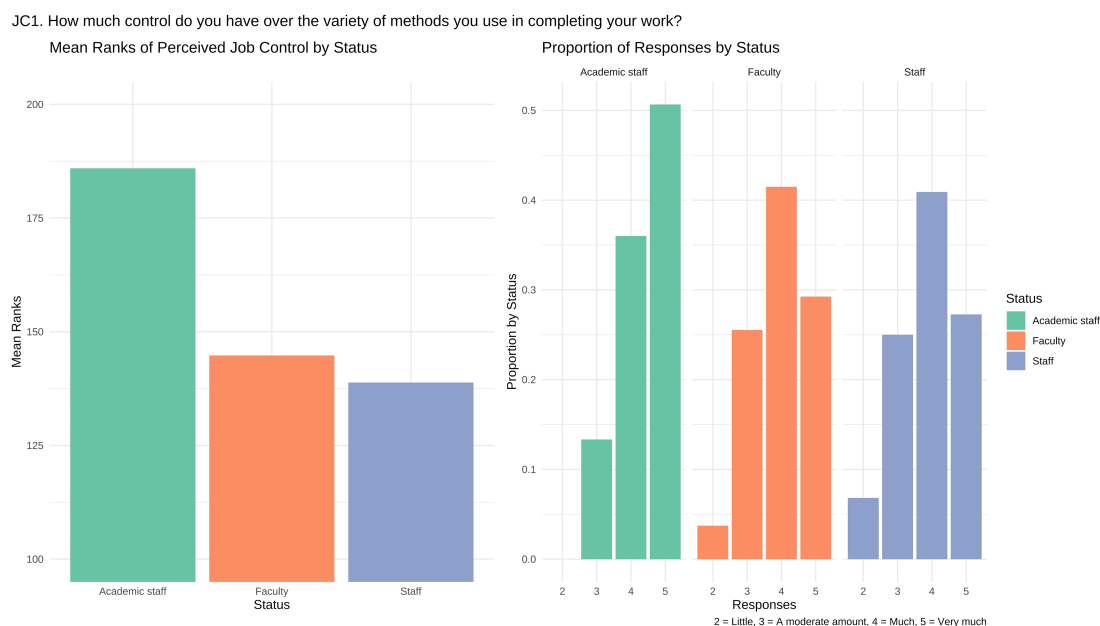
Group	N
Faculty	188
Staff	44
-	
Income	-
\$20,000 to \$34,999	3
\$35,000 to \$49,999	23
\$50,000 to \$74,999	159
\$75,000 to \$99,999	90
\$100,000 or greater	23
Prefer not to disclose	8
-	
Time at Institution	-
Less than 1	39
1 to 5	123
6 to 10	73
11 to 15	27
16 or more	45
-	
Time in Libraries	-
1 to 5	37
6 to 10	72
11 to 15	73
16 or more	121
-	
Teacher Training	-
Yes, only in library school	44
Yes, only on the job	60
Yes, in library school and on the job	112
No	72
Other	19
-	
Union Representation	-
Yes	84
No	212
Unsure	8

Group	N
Other	3
-	
Tenure Status (Individual)	-
Yes	67
No	78
Other	2

How much control do you have over the variety of methods you use in completing your work?

The Kruskal-Wallis test demonstrates that status (academic staff, faculty, or staff) has a statistically significant ($p < 0.001$) and small effect ($\eta^2 = 0.0419$, 95% CI [0.0091, 0.1]) on one perceived control over the variety of methods used in completing one's work (chi-squared = 14.7292, $df = 2$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrates a statistically significant differences between responses from academic staff and those from faculty ($p < 0.001$) and staff ($p = 0.0078$). The mean ranks and proportion of responses are demonstrated in Figure 2.

Figure 2. Column charts showing the mean ranks of perceived job control and the proportion of responses by status for question one in the job control inventory.

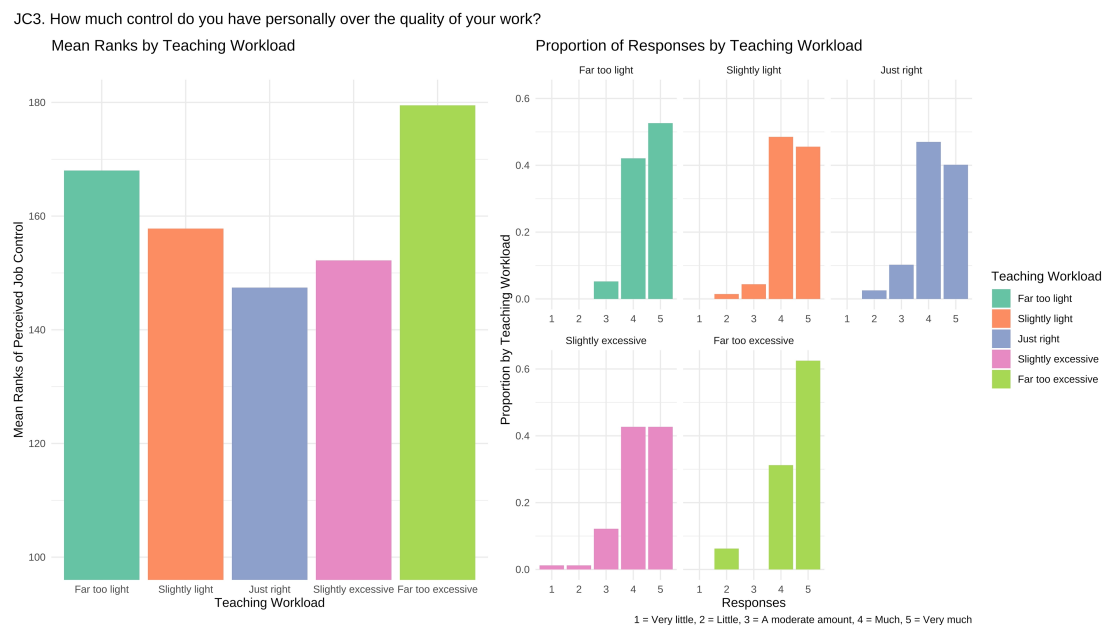


How much control do you have personally over how much work you get done?

The Kruskal-Wallis test demonstrates that teaching workload has a statistically significant ($p = 0.0062$) and small ($\eta^2 = 0.343$, 95% CI [0.0047, 0.1]) effect on one's perceived control over how much one gets done (chi-squared = 14.371, $df = 4$). The Conover-Iman

test with Bonferroni adjustment for multiple comparisons demonstrates a statistically significant difference between respondents with slightly excessive and slightly light teaching workloads ($p = 0.0089$). The mean ranks and proportion of responses are demonstrated in Figure 3.

Figure 3. Column charts showing the mean ranks of perceived job control and the proportion of responses by teaching workload for question three in the job control inventory.

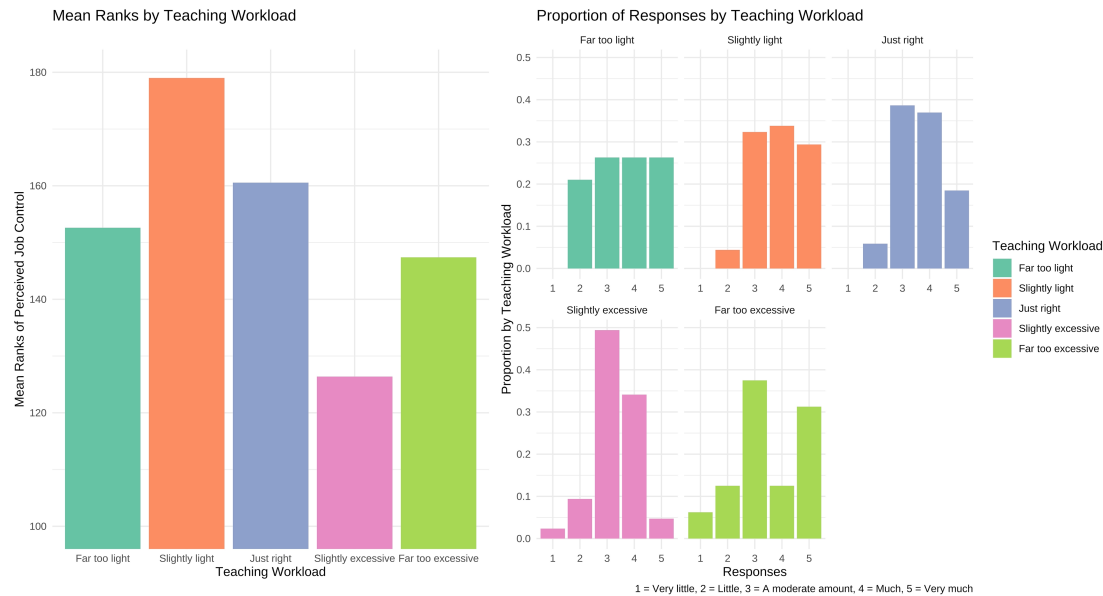


How much control do you have over how quickly or slowly you have to work?

The Kruskal-Wallis test demonstrates that teaching workload has a statistically significant ($p = 0.002934$) and small ($\eta^2 = 0.0399$, 95% CI [0.01, 0.11]) effect on one's perceived control over how quickly or slowly one has to work ($\chi^2 = 16.064$, $df = 4$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrates statistically significant difference between respondents with slightly excessive workloads and those with slightly light ($p = 0.001$) and those with just right ($p = 0.037$) workloads. The mean ranks and proportion of responses are demonstrated in Figure 4.

Figure 4. Column charts showing the mean ranks of perceived job control and the proportion of responses by teaching workload for question six in the job control inventory.

JC6. How much control do you have over how quickly or slowly you have to work?



How much control do you have over scheduling and duration of your rest breaks?

The Kruskal-Wallis test demonstrates that teaching workload has a statistically significant ($p = 0.031$) and small ($\eta^2 = 0.022$, 95% CI [0.00018, 0.09]) effect on one's perceived control over the scheduling and duration of one's rest breaks ($\chi^2 = 10.634$, $df = 4$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrated no statistically significant differences between pairs. The mean ranks and proportion of responses are demonstrated in Figure 5.

Figure 5. Column charts showing the mean ranks of perceived job control and the proportion of responses by teaching workload for question seven in the job control inventory.

JC7. How much control do you have over scheduling and duration of your rest breaks?

By Respondents' Perceived Teaching Workload

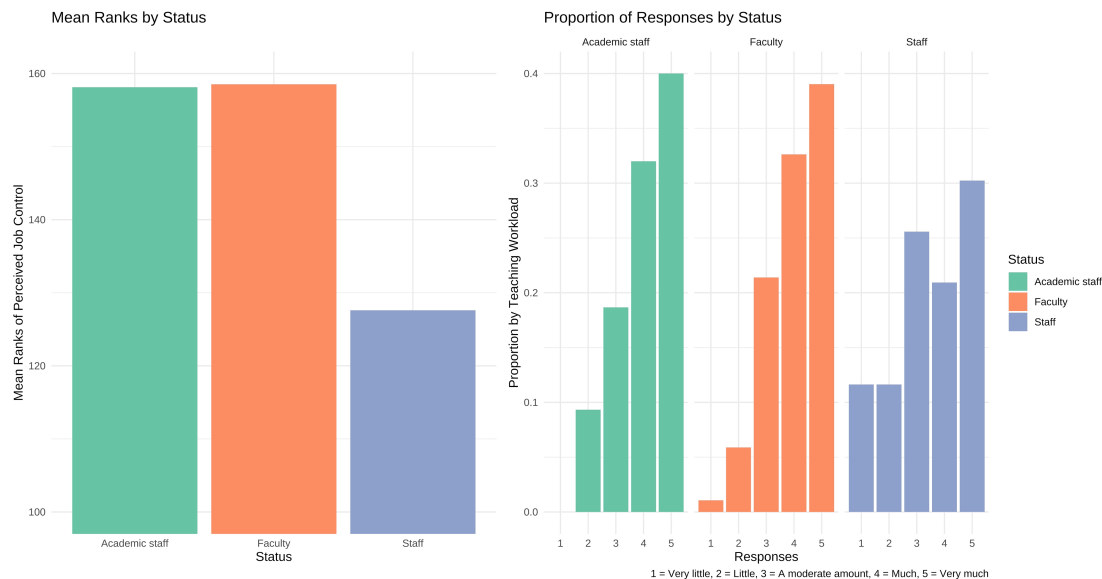


The Kruskal-Wallis test demonstrates that status (academic staff, staff, or faculty) has a statistically significant ($p = 0.04481$) and small ($\eta^2 = 0.0139$, 95% CI [0.00, 0.07]) effect on one's perceived control over the scheduling and duration of one's rest breaks ($\chi^2 = 6.2105$, $df = 2$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrates a statistically significant difference between faculty and staff ($p = 0.047$). The mean ranks and proportion of responses are demonstrated in Figure 6.

Figure 6. Column charts showing the mean ranks of perceived job control and the proportion of responses by status for question seven in the job control inventory.

JC7. How much control do you have over scheduling and duration of your rest breaks?

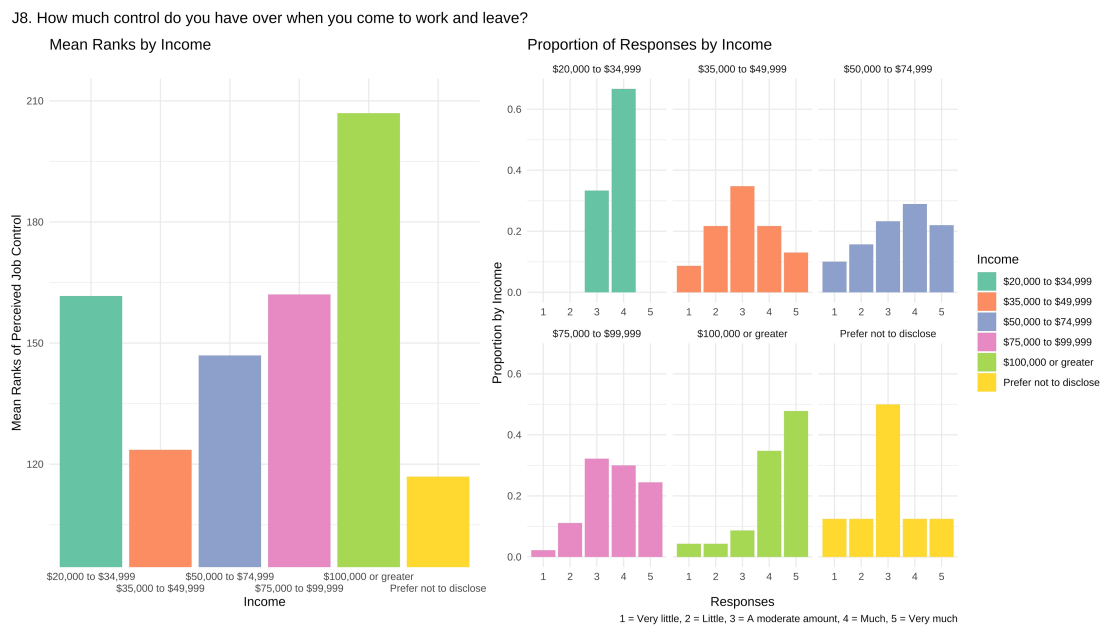
By Respondents' Status as Academic Staff, Faculty, or Staff



How much control do you have over when you come to work and leave?

The Kruskal-Wallis test demonstrates that income has a statistically significant ($p = 0.01024$) and small ($\eta^2 = 0.0333$, 95% CI [0.0039, 0.1]) effect on one's perceived control over when one comes to work and leaves ($\chi^2 = 15.028$, $df = 5$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrates statistically significant differences between participants who make \$100,000 or greater and participants who make either \$35,000 to \$49,999 ($p = 0.0136$) or \$50,000 to \$74,999 ($p = 0.0236$). The mean ranks and proportion of responses are demonstrated in Figure 7.

Figure 7. Column charts showing the mean ranks of perceived job control and the proportion of responses by income for question eight in the job control inventory.

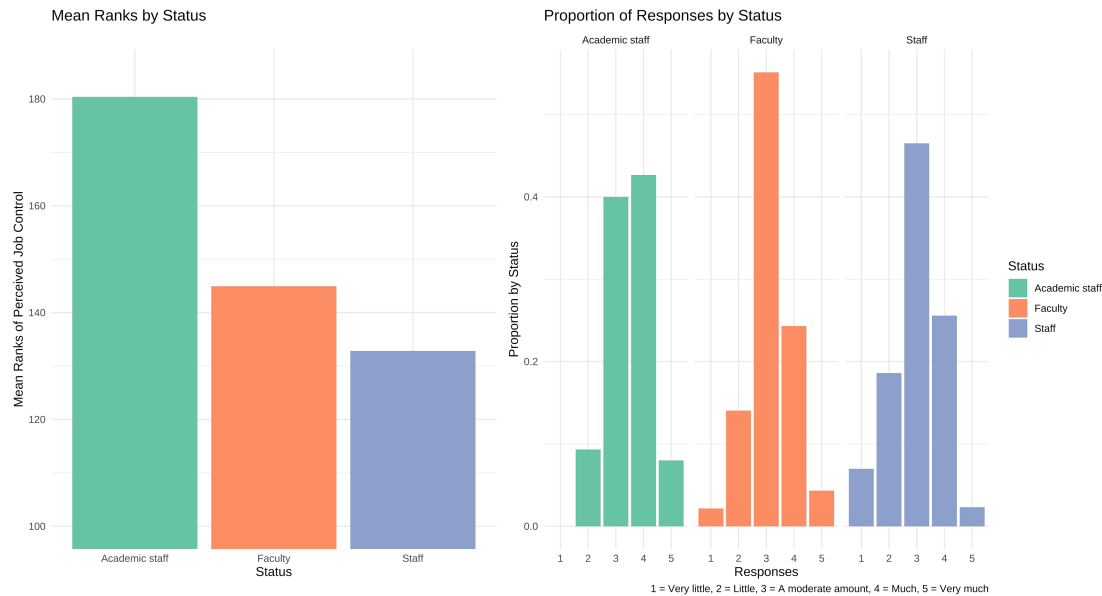


How much are you able to predict what results of decisions you make on the job will be?

The Kruskal-Wallis test demonstrates that status (faculty, staff, or academic staff) has a statistically significant ($p = 0.001382$) and small ($\eta^2 = 0.0367$, 95% CI [0.0049, 0.1]) effect on one's perceived ability to predict the results of one's work decision ($\chi^2 = 13.169$, $df = 2$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrates a statistically significant difference between respondents who are academic staff with respondents who are faculty ($p = 0.0035$) or staff ($p = 0.0055$). The mean ranks and proportion of responses are demonstrated in Figure 8.

Figure 8. Column charts showing the mean ranks of perceived job control and the proportion of responses by status for question ten in the job control inventory.

JC10. How much are you able to predict what results of decisions you make on the job will be?



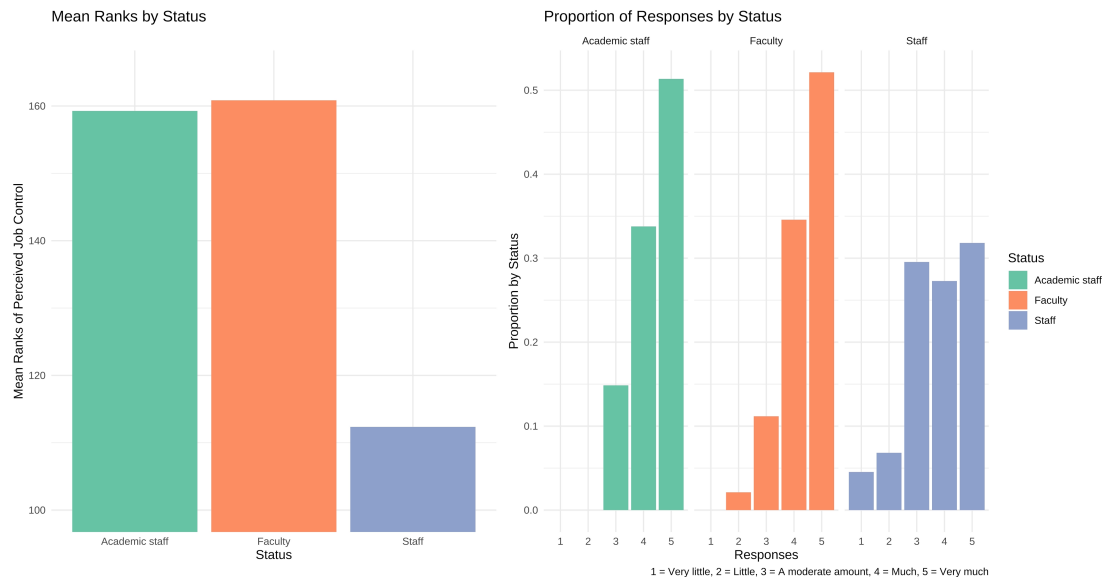
How much are you able to decorate, rearrange, or personalize your work area?

The Kruskal-Wallis test demonstrates that status (faculty, staff, or academic staff) has a statistically significant ($p = 0.001352$) and small ($\eta^2 = 0.0369$, 95% CI [0.0033, 0.1]) effect on one's perceived ability to decorate, rearrange, or personalize one's work area ($\chi^2 = 13.213$, $df = 2$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrates a statistically significant difference between respondents who are staff with both academic staff ($p = 0.0065$) and faculty ($p = 0.001$). The mean ranks and proportion of responses are demonstrated in Figure 9.

Figure 9. Column charts showing the mean ranks of perceived job control and the proportion of responses by status for question eleven in the job control inventory.

JC11. How much are you able to decorate, rearrange, or personalize your work area?

By Respondents' Status as Academic Staff, Faculty, or Staff

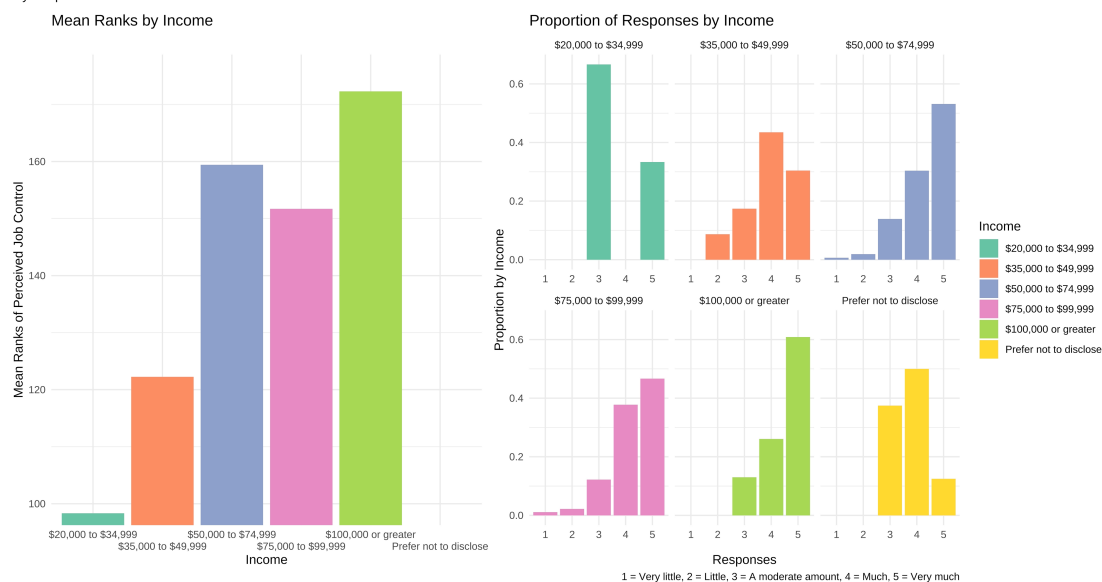


The Kruskal-Wallis test demonstrates that income has a statistically significant ($p = 0.04547$) and small ($\eta^2 = 0.0210$, 95% CI [0.0025, 0.09]) effect on one's perceived ability to decorate, rearrange, or personalize one's work area (chi-squared = 11.316, $df = 5$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrated no statistically significant differences between pairs. The mean ranks and proportion of responses are demonstrated in Figure 10.

Figure 10. Column charts showing the mean ranks of perceived job control and the proportion of responses by income for question eleven in the job control inventory.

JC11. How much are you able to decorate, rearrange, or personalize your work area?

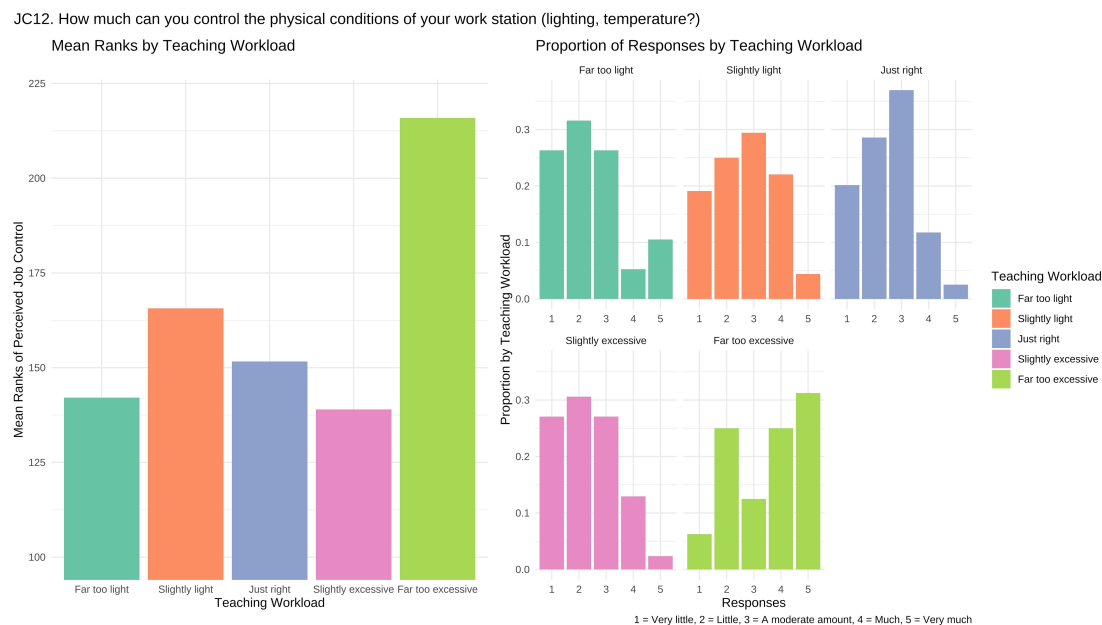
By Respondents' Income as an Interval



How much can you control the physical conditions of your work station (lighting, temperature?)

The Kruskal-Wallis test demonstrates that teaching workload has a statistically significant ($p = 0.01319$) and small ($\eta^2 = 0.0286$, 95% CI [0.0015, 0.1]) effect on one's perceived control over the physical conditions of one's work station ($\chi^2 = 12.637$, $df = 4$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrates statistically significant differences between respondents with far to excessive workloads and those with just right ($p = 0.0464$) or slightly excessive ($p = 0.0095$) workloads. The mean ranks and proportion of responses are demonstrated in Figure 11.

Figure 11. Column charts showing the mean ranks of perceived job control and the proportion of responses by teaching workload for question twelve in the job control inventory.

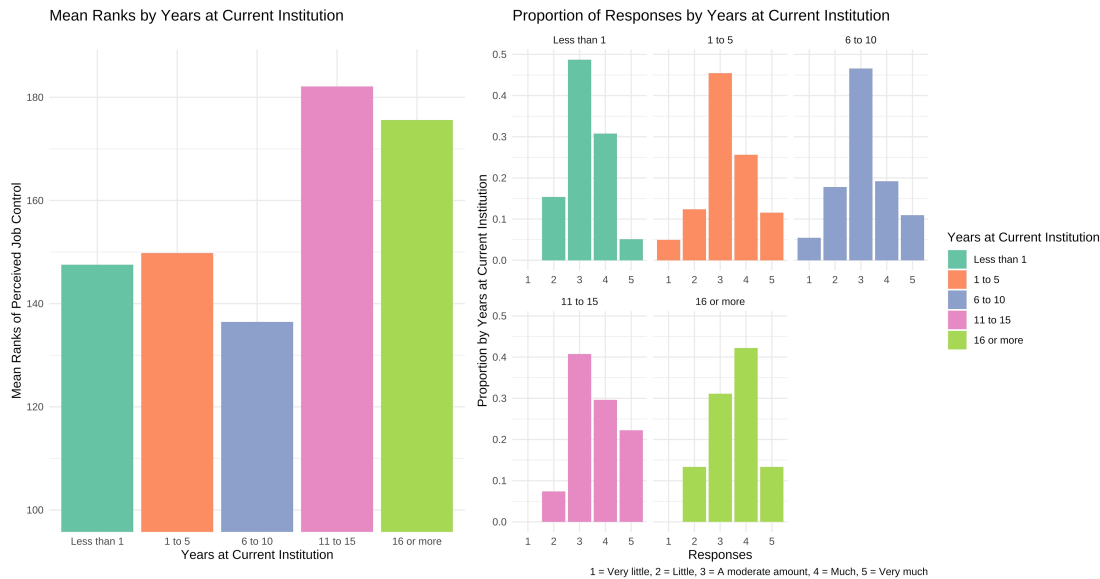


How much can you control when and how much you interact with others at work?

The Kruskal-Wallis test demonstrates that the number of years a respondent has spent at their current institution has a statistically significant ($p = 0.04335$) and small ($\eta^2 = 0.0193$, 95% CI [0.00, 0.08]) effect on one's perceived control over when and how much one interacts with others at work ($\chi^2 = 9.8324$, $df = 4$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrated no statistically significant differences between pairs. The mean ranks and proportion of responses are demonstrated in Figure 12.

Figure 12. Column charts showing the mean ranks of perceived job control and the proportion of responses by number of years at current institution for question fourteen in the job control inventory.

JC14. How much can you control when and how much you interact with others at work?
By The Length of Time (in Years) Respondents Have Worked at Their Current Institution

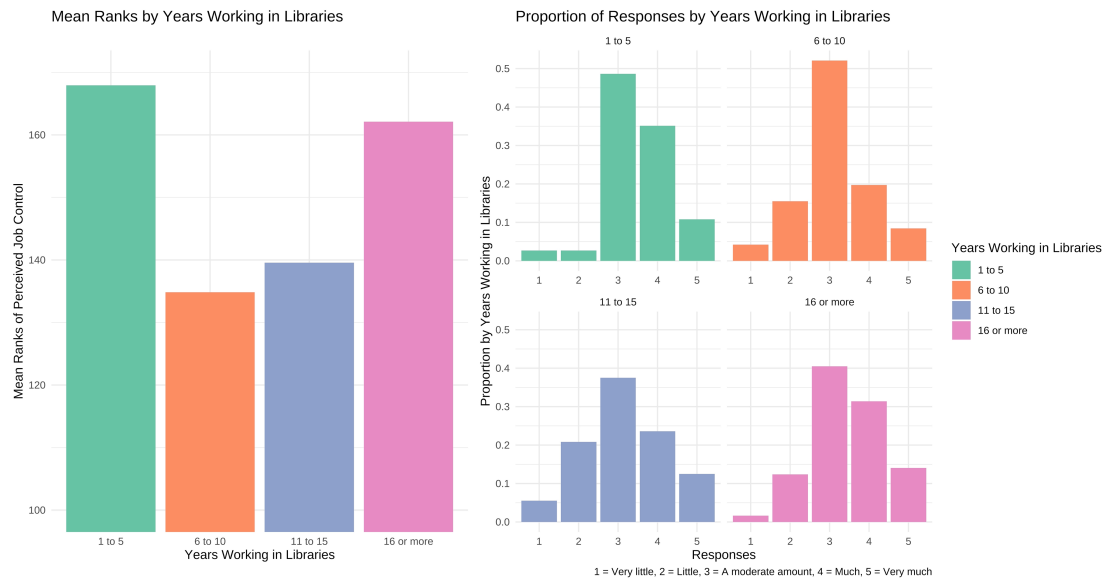


The Kruskal-Wallis test demonstrates that the number of years a respondent has been working in libraries has a statistically significant ($p = 0.04779$) and small ($\eta^2 = 0.0162$, 95% CI [0.00, 0.06]) effect on one's perceived control over when and how much one interacts with others at work ($\chi^2 = 7.9156$, $df = 3$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrated no statistically significant differences between pairs. The mean ranks and proportion of responses are demonstrated in Figure 13.

Figure 13. Column charts showing the mean ranks of perceived job control and the proportion of responses by number of years working in libraries for question fourteen in the job control inventory.

JC14. How much can you control when and how much you interact with others at work?

By The Length of Time (in Years) Respondents Have Spent Working in Libraries

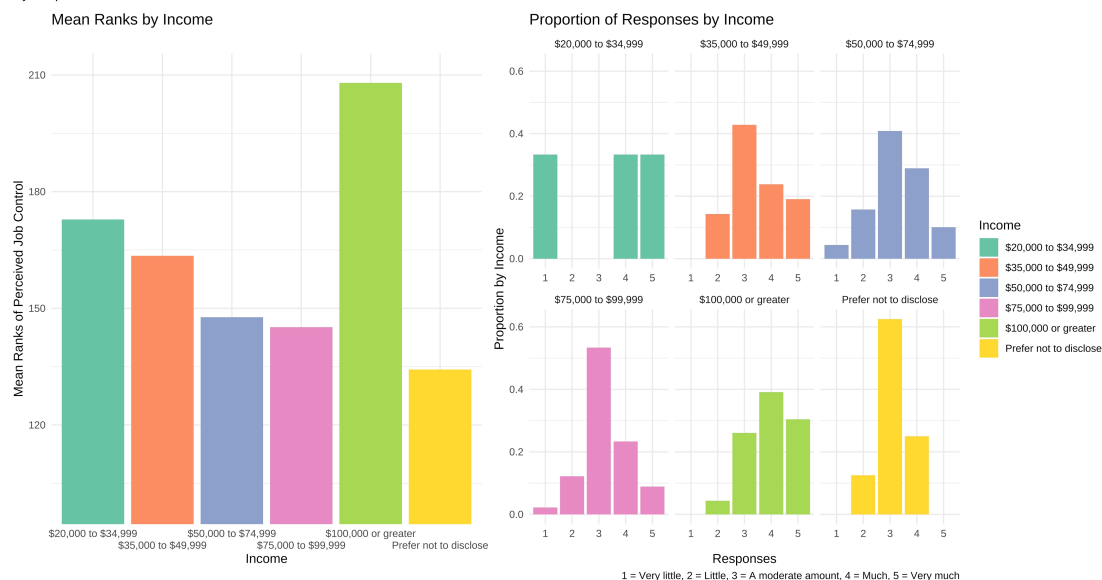


The Kruskal-Wallis test demonstrates that income has a statistically significant ($p = 0.02919$) and small ($\eta^2 = 0.0247$, 95% CI [0.0025, 0.1]) effect on one's perceived control over when and how much one interacts with others at work ($\chi^2 = 12.444$, $df = 5$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrates statistically significant differences between respondents who make \$100,000 or greater per year and those who make either \$50,000 to \$74,999 ($p = 0.0165$) or \$75,000 to \$99,999 ($p = 0.0174$). The mean ranks and proportion of responses are demonstrated in Figure 14.

Figure 14. Column charts showing the mean ranks of perceived job control and the proportion of responses by income for question fourteen in the job control inventory.

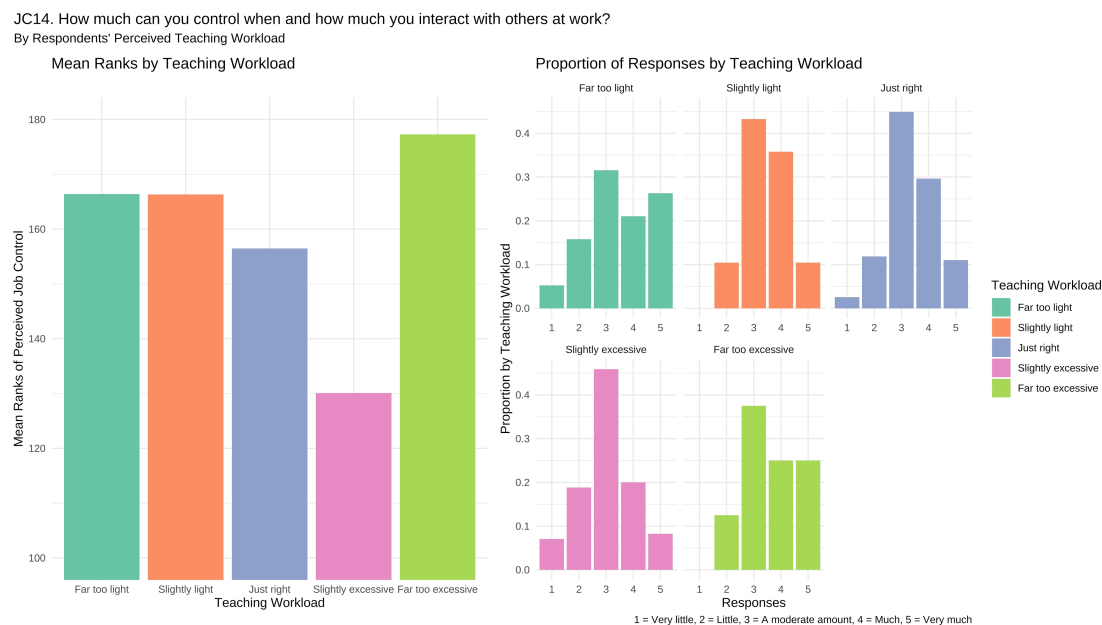
JC14. How much can you control when and how much you interact with others at work?

By Respondents' Income as an Interval



The Kruskal-Wallis test demonstrates that teaching workload has a statistically significant ($p = 0.0371$) and small ($\eta^2 = 0.0205$, 95% CI [0.00, 0.08]) effect on one's perceived control over when and how much one interacts with others at work (chi-squared = 10.206, $df = 4$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrated no statistically significant differences between pairs. The mean ranks and proportion of responses are demonstrated in Figure 15.

Figure 15. Column charts showing the mean ranks of perceived job control and the proportion of responses by teaching workload for question fourteen in the job control inventory.

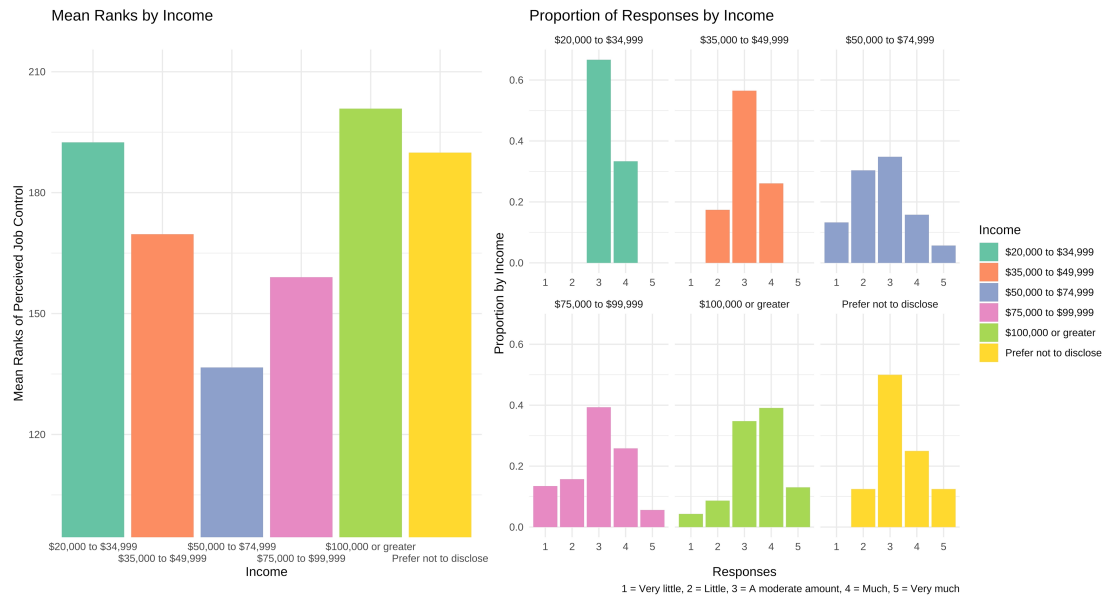


How much influence do you have over the policies and procedures in your work unit?

The Kruskal-Wallis test demonstrates that income has a statistically significant ($p = 0.004655$) and small ($\eta^2 = 0.0396$, 95% CI [0.008, 0.11]) effect on one's perceived control over the policies and procedures in one's work unit (chi-squared = 16.919, $df = 5$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrates a statistically significant differences between those who make \$100,000 or greater per year and those who make \$50,000 to \$74,999 ($p = 0.0085$). The mean ranks and proportion of responses are demonstrated in Figure 16.

Figure 16. Column charts showing the mean ranks of perceived job control and the proportion of responses by income for question fifteen in the job control inventory.

JC15. How much influence do you have over the policies and procedures in your work unit?



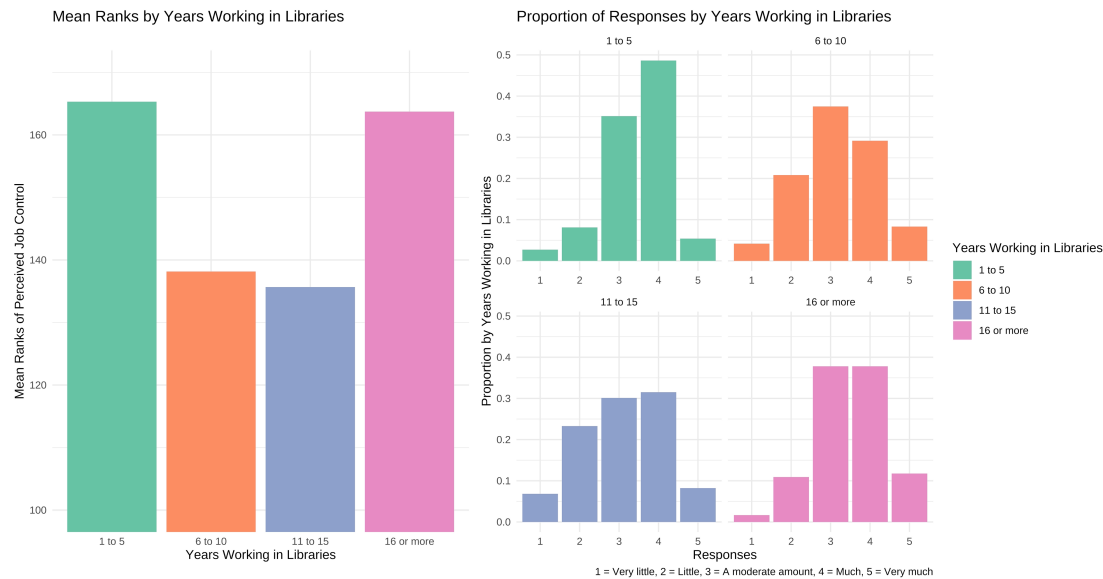
How much control do you have over the sources of information you need to do your job?

The Kruskal-Wallis test demonstrates that the number of years a respondent has been working in libraries has a statistically significant ($p = 0.04302$) and small ($\eta^2 = 0.0170$, 95% CI [0.00, 0.07]) effect on one's perceived control over the sources of information needed to do one's job ($\chi^2 = 8.1497$, $df = 3$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrated no statistically significant differences between pairs. The mean ranks and proportion of responses are demonstrated in Figure 17.

Figure 17. Column charts showing the mean ranks of perceived job control and the proportion of responses by number of years working in libraries for question sixteen in the job control inventory.

JC16. How much control do you have over the sources of information you need to do your job?

By The Length of Time (in Years) Respondents Have Spent Working in Libraries

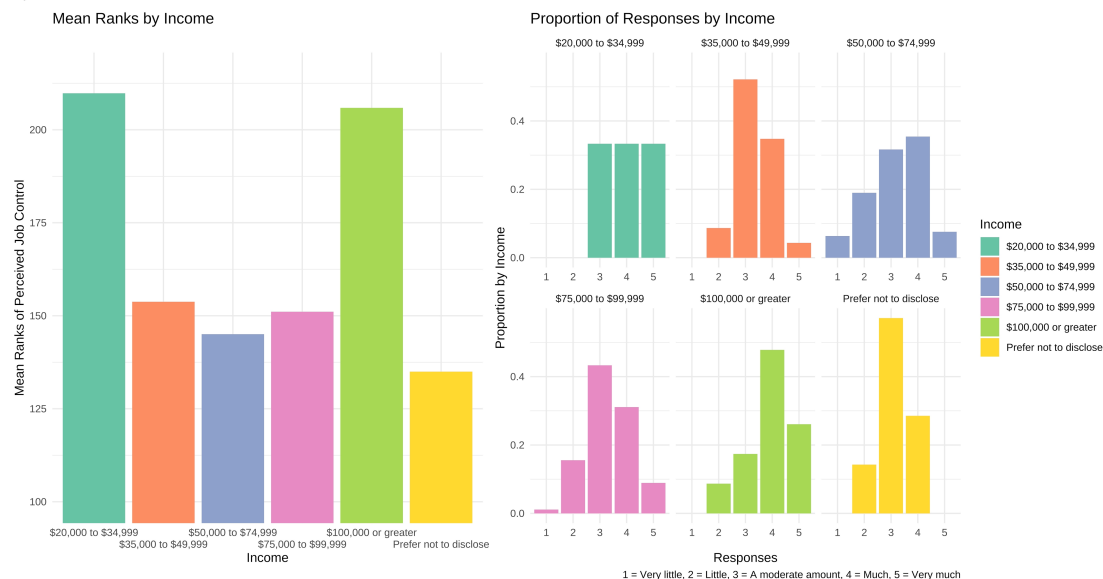


The Kruskal-Wallis test demonstrates that income has a statistically significant ($p = 0.02997$) and small ($\eta^2 = 0.0245$, 95% CI [0.00, 0.09]) effect on one's perceived control over the sources of information needed to do one's job ($\chi^2 = 12.377$, $df = 5$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrates a statistically significant difference between individuals who make \$100,000 or greater per year and those who make \$50,000 to \$74,999 ($p = 0.0162$). The mean ranks and proportion of responses are demonstrated in Figure 18.

Figure 18. Column charts showing the mean ranks of perceived job control and the proportion of responses by income for question sixteen in the job control inventory.

JC16. How much control do you have over the sources of information you need to do your job?

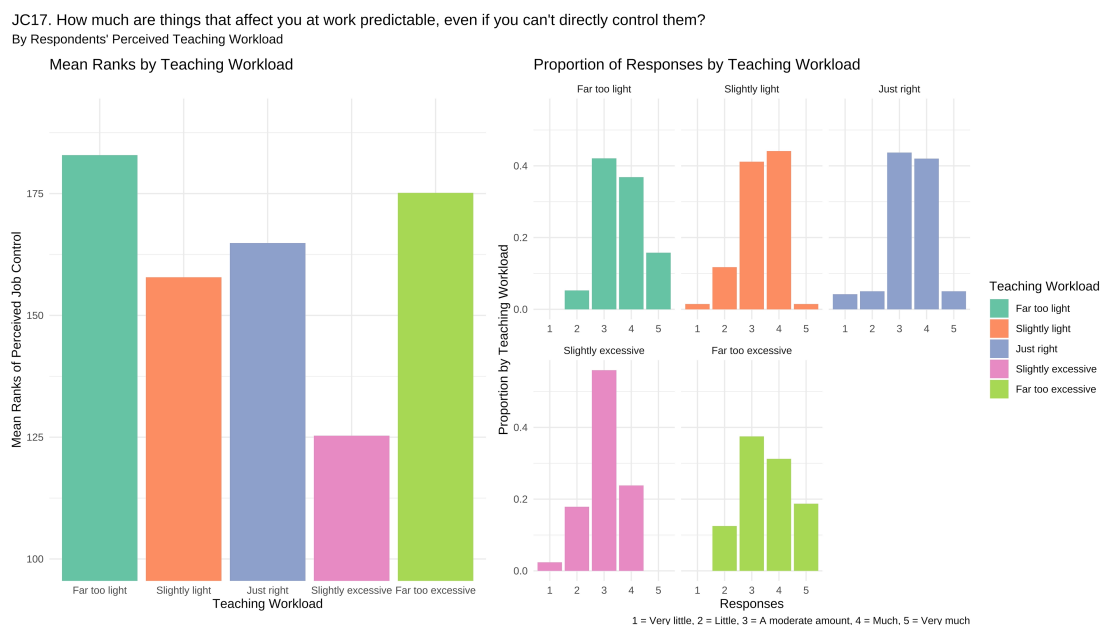
By Income as an Interval



How much are things that affect you at work predictable, even if you can't directly control them?

The Kruskal-Wallis test demonstrates that teaching workload has a statistically significant ($p = 0.00142$) and small ($\eta^2 = 0.0453$, 95% CI [0.02, 0.12]) effect on one's perceived ability to predict things that affect one at work (chi-squared = 17.688, $df = 4$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrates statistically significant differences between respondents with slightly excessive workloads and those with either far too light ($p = 0.0345$) or just right ($p = 0.0029$) workloads. The mean ranks and proportion of responses are demonstrated in Figure 19.

Figure 19. Column charts showing the mean ranks of perceived job control and the proportion of responses by teaching workload for question seventeen in the job control inventory.

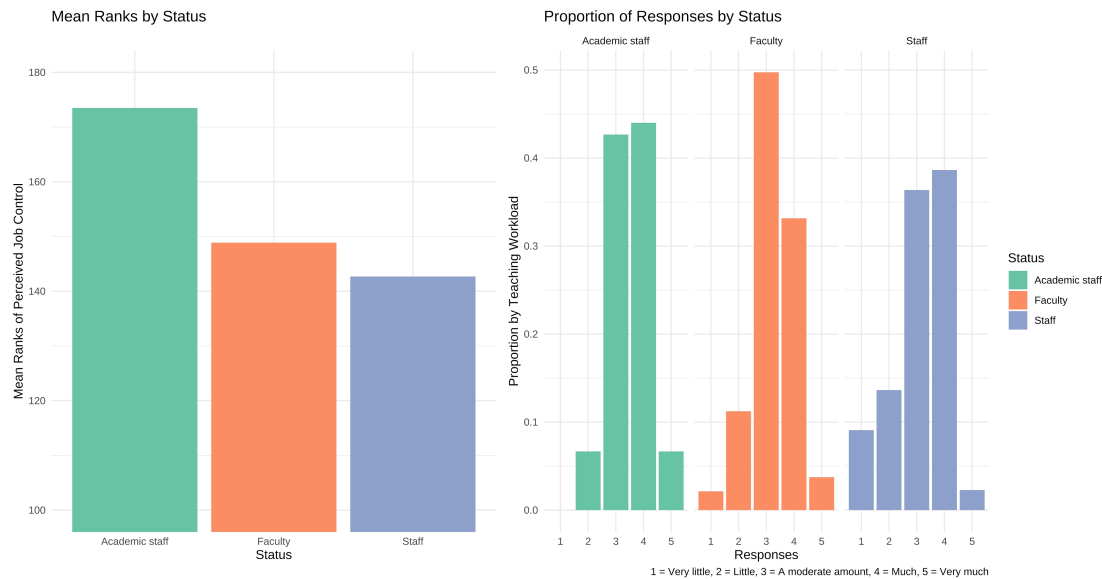


The Kruskal-Wallis test demonstrates that status (faculty, staff, or academic staff) has a statistically significant ($p = 0.0472$) and small ($\eta^2 = 0.0135$, 95% CI [0.00, 0.06]) effect on one's perceived ability to predict things that affect one at work (chi-squared = 6.1067, $df = 2$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrated no statistically significant differences between pairs. The mean ranks and proportion of responses are demonstrated in Figure 20.

Figure 20. Column charts showing the mean ranks of perceived job control and the proportion of responses by status for question seventeen in the job control inventory.

JC17. How much are things that affect you at work predictable, even if you can't directly control them?

By Respondents' Status as Academic Staff, Faculty, or Staff



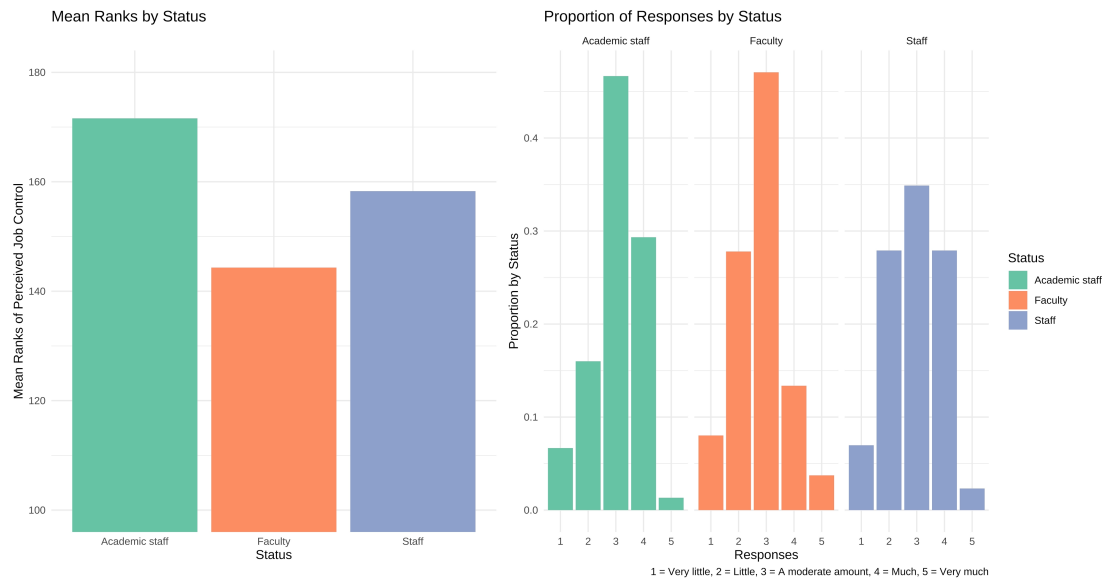
How much control do you have over the amount of resources (tools, materials) you get?

The Kruskal-Wallis test demonstrates that status (faculty, staff, or academic staff) has a statistically significant ($p = 0.04981$) and small ($\eta^2 = 0.0132$, 95% CI [0.00, 0.06]) effect on one's perceived control over the amount of resources one gets ($\chi^2 = 5.9991$, $df = 2$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrates a statistically significant difference between academic staff and faculty ($p = 0.0479$). The mean ranks and proportion of responses are demonstrated in Figure 21.

Figure 21. Column charts showing the mean ranks of perceived job control and the proportion of responses by status for question eighteen in the job control inventory.

JC18. How much control do you have over the amount of resources (tools, materials) you get?

By Respondents' Status as Academic Staff, Faculty, or Staff

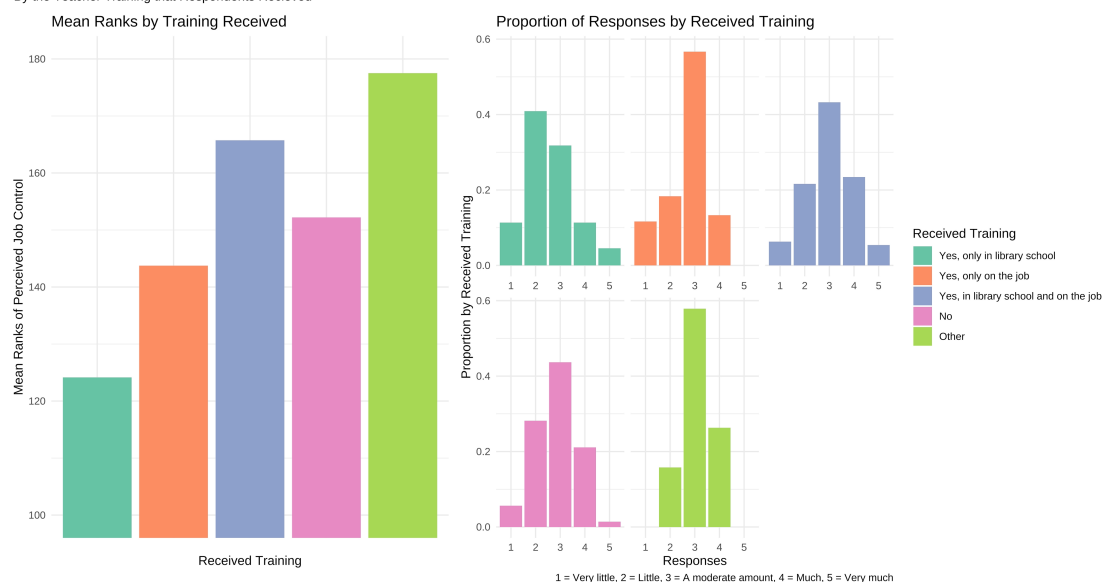


The Kruskal-Wallis test demonstrates that teacher training has a statistically significant ($p = 0.03491$) and small ($\eta^2 = 0.021$, 95% CI [0.00, 0.09]) effect on one's perceived control over the amount of resources one gets ($\chi^2 = 10.351$, $df = 4$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrates a statistically significant difference between respondents who received teacher training in library school and on the job and those who only received teacher training in library school ($p = 0.0476$). The mean ranks and proportion of responses are demonstrated in Figure 22.

Figure 22. Column charts showing the mean ranks of perceived job control and the proportion of responses by teacher training for question eighteen in the job control inventory.

JC18. How much control do you have over the amount of resources (tools, materials) you get?

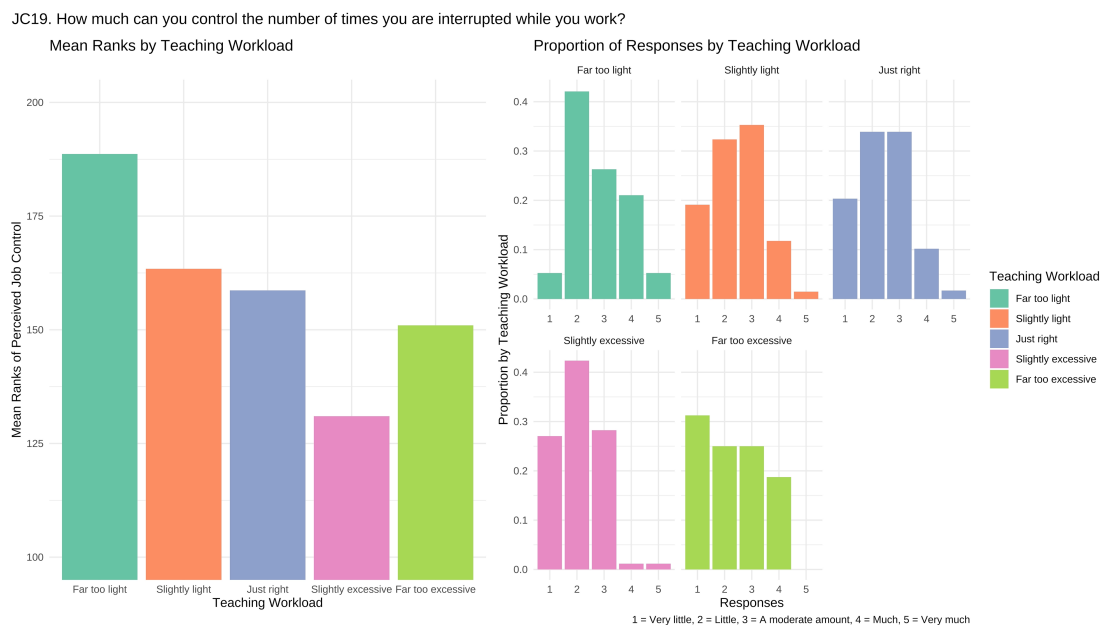
By the Teacher Training that Respondents Received



How much can you control the number of times you are interrupted while you work?

The Kruskal-Wallis test demonstrates that teaching workload has a statistically significant ($p = 0.02997$) and small ($\eta^2 = 0.0222$, 95% CI [0.00, 0.9]) effect on one's perceived control over the number of times one is interrupted while working (chi-squared = 10.715, $df = 4$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrated no statistically significant differences between pairs. The mean ranks and proportion of responses are demonstrated in Figure 23.

Figure 23. Column charts showing the mean ranks of perceived job control and the proportion of responses by teaching workload for question nineteen in the job control inventory.



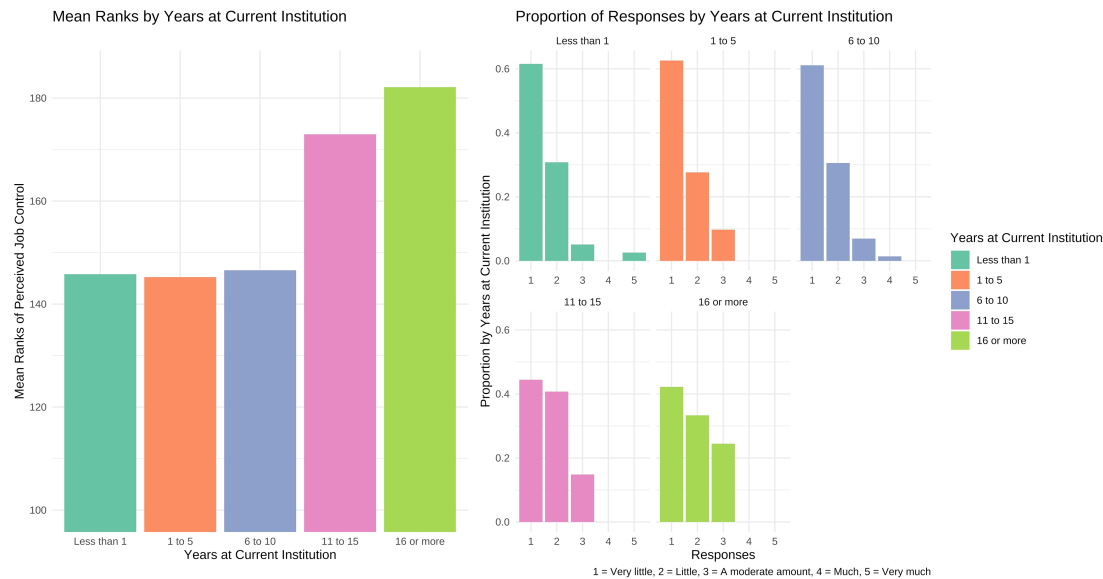
How much control do you have over the amount you earn at your job?

The Kruskal-Wallis test demonstrates that the number of years an individual has worked at their current institution has a statistically significant ($p = 0.03956$) and small ($\eta^2 = 0.02$, 95% CI [0.00, 0.09]) effect on one's perceived control over the amount one earns (chi-squared = 10.052, $df = 4$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrated no statistically significant differences between pairs. The mean ranks and proportion of responses are demonstrated in Figure 24.

Figure 24. Column charts showing the mean ranks of perceived job control and the proportion of responses by years working at current institution for question twenty in the job control inventory.

JC20. How much control do you have over the amount you earn at your job?

By The Length of Time (in Years) Respondents Have Worked at Their Current Institution

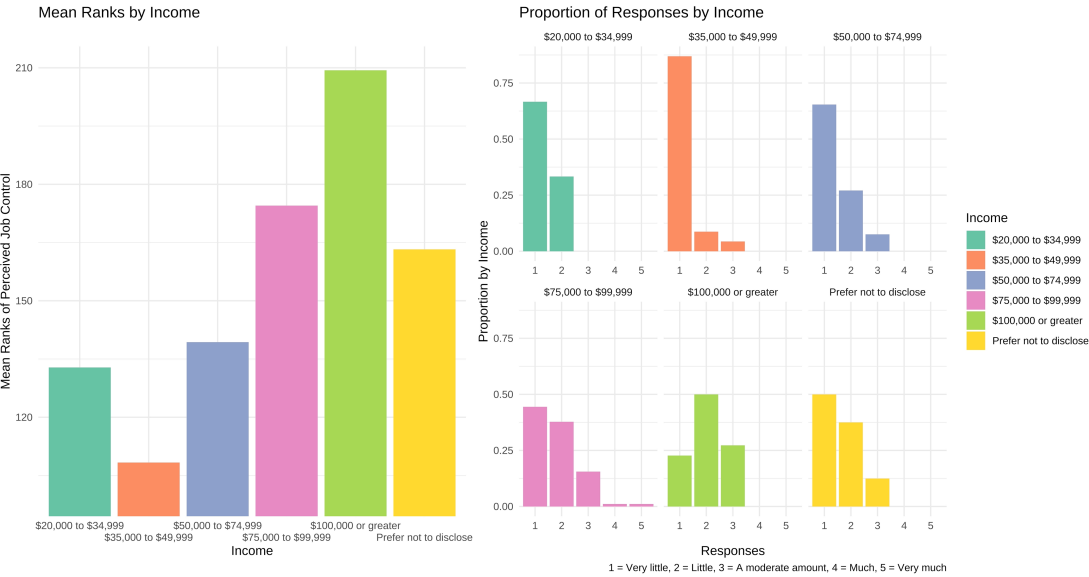


The Kruskal-Wallis test demonstrates that income has a statistically significant ($p < 0.001$) and moderate ($\eta^2 = 0.0869$, 95% CI [0.04, 0.17]) effect on one's perceived control over the amount one earns ($\chi^2 = 31.156$, $df = 5$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrates statistically significant differences between respondents making \$100,000 or greater and those making \$35,000 to \$49,999 ($p = 0.0001$) or \$50,000 to \$74,999 ($p = 0.0007$) and between respondents making \$75,000 to \$99,999 and those making \$35,000 to \$49,999 ($p = 0.0026$) or \$50,000 to \$74,999 ($p = 0.006$). The mean ranks and proportion of responses are demonstrated in Figure 25.

Figure 25. Column charts showing the mean ranks of perceived job control and the proportion of responses by income for question twenty in the job control inventory.

JC20. How much control do you have over the amount you earn at your job?

By Income as an Interval

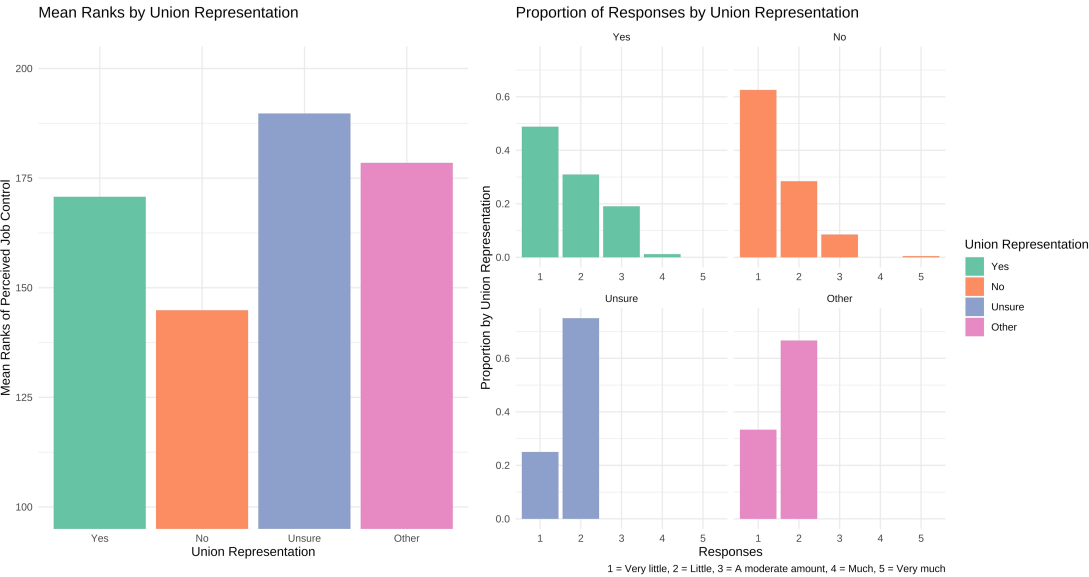


The Kruskal-Wallis test demonstrates that having a union has a statistically significant ($p = 0.03362$) and small ($\eta^2 = 0.0188$, 95% CI [0.00, 0.07]) effect on one's perceived control over the amount one earns ($\chi^2 = 8.6957$, $df = 3$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrated no statistically significant differences between pairs. The mean ranks and proportion of responses are demonstrated in Figure 26.

Figure 26. Column charts showing the mean ranks of perceived job control and the proportion of responses by union representation for question twenty in the job control inventory.

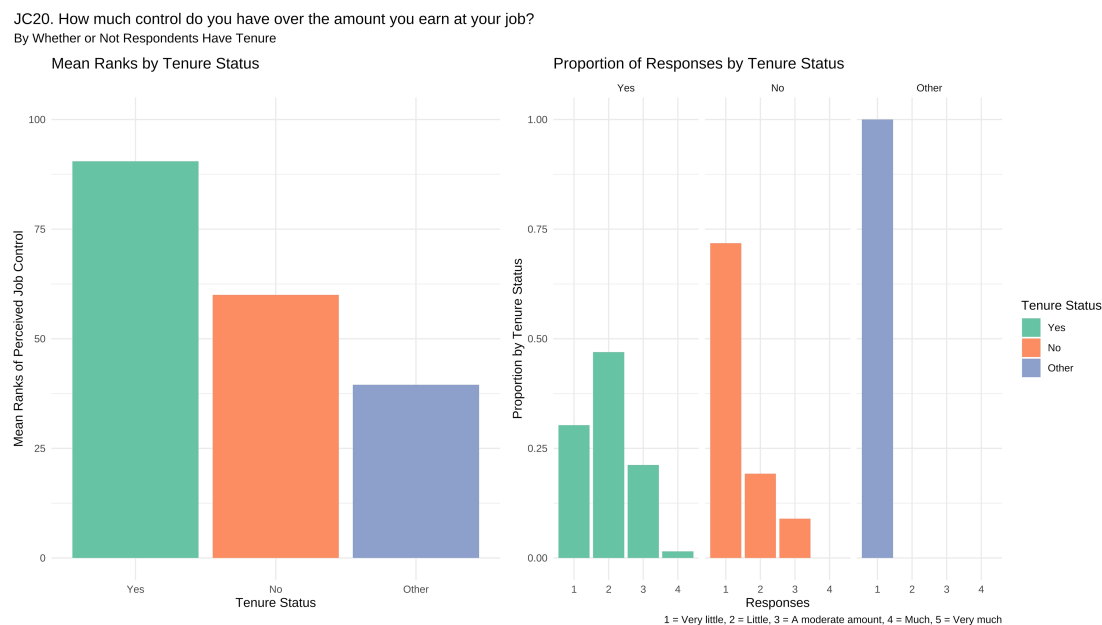
JC20. How much control do you have over the amount you earn at your job?

By Whether or Not Respondents Are Unionized



The Kruskal-Wallis test demonstrates that having tenure has a statistically significant ($p < 0.001$) and moderate ($\eta^2 = 0.0739$, 95% CI [0.03, 0.14]) effect on one's perceived control over the amount one earns ($\chi^2 = 24.473$, $df = 2$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrates a statistically significant difference between respondents who have tenure and those who don't ($p < 0.001$). The mean ranks and proportion of responses are demonstrated in Figure 27.

Figure 27. Column charts showing the mean ranks of perceived job control and the proportion of responses by participant's tenure status for question twenty in the job control inventory.

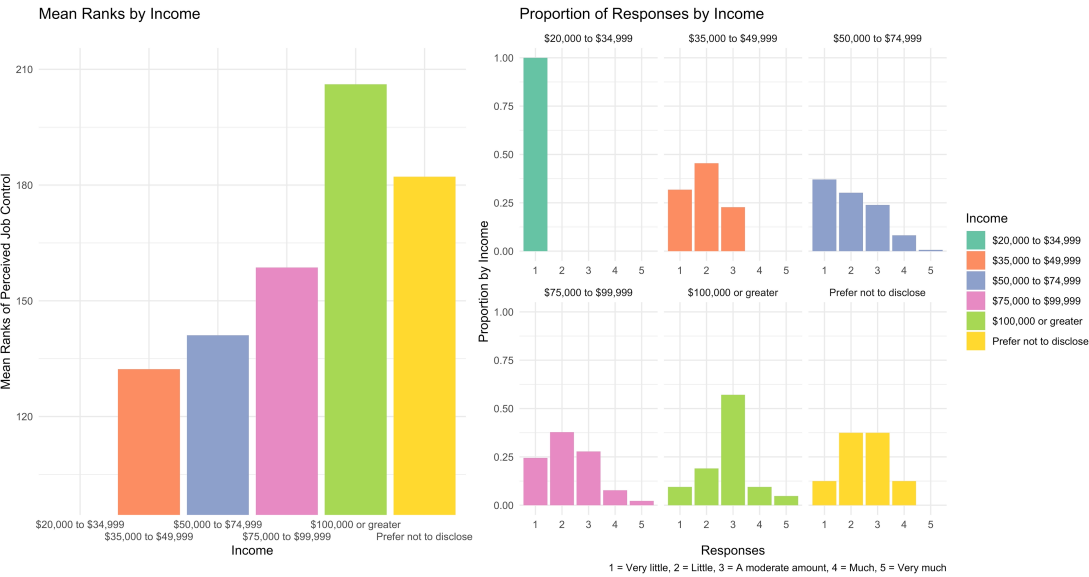


How much control do you have over how your work is evaluated?

The Kruskal-Wallis test demonstrates that income has a statistically significant ($p = 0.006734$) and small ($\eta^2 = 0.0367$, 95% CI [0.0074, 0.1]) effect on one's perceived control over how one's work is evaluated ($\chi^2 = 16.039$, $df = 5$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrates a statistically significant difference between respondents who make \$100,000 or greater per year and those who make either \$35,000 to \$49,999 ($p = 0.0494$) or \$50,000 to \$74,999 ($p = 0.0103$). This was the only test in which the Dunn Test and Conover-Iman test differed in terms of significance. The corresponding Dunn Test found the difference between respondents who make \$100,000 or greater and those who make \$35,000 to \$49,999 to be statistically not significant ($p = 0.0547$). The mean ranks and proportion of responses are demonstrated in Figure 28.

Figure 28. Column charts showing the mean ranks of perceived job control and the proportion of responses by income for question twenty-one in the job control inventory.

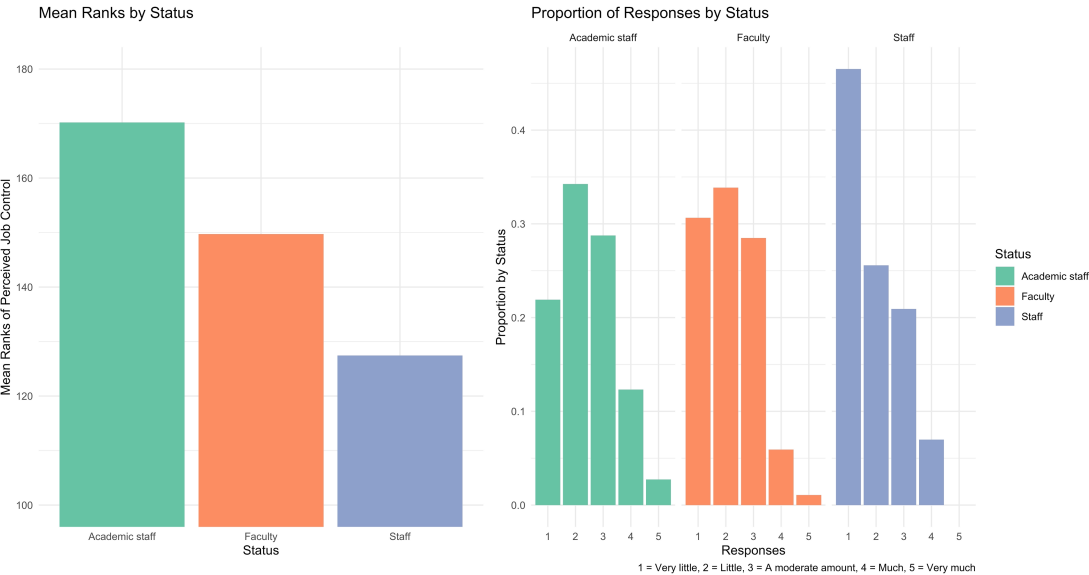
JC21. How much control do you have over how your work is evaluated?
By Income as an Interval



The Kruskal-Wallis test demonstrates that status (faculty, staff, or academic staff) has a statistically significant ($p = 0.02577$) and small ($\eta^2 = 0.0175$, 95% CI [0.00, 0.07]) effect on one's perceived control over how one's work is evaluated ($\chi^2 = 7.3172$, $df = 2$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrates a statistically significant difference between academic staff and staff ($p = 0.0228$). The mean ranks and proportion of responses are demonstrated in Figure 29.

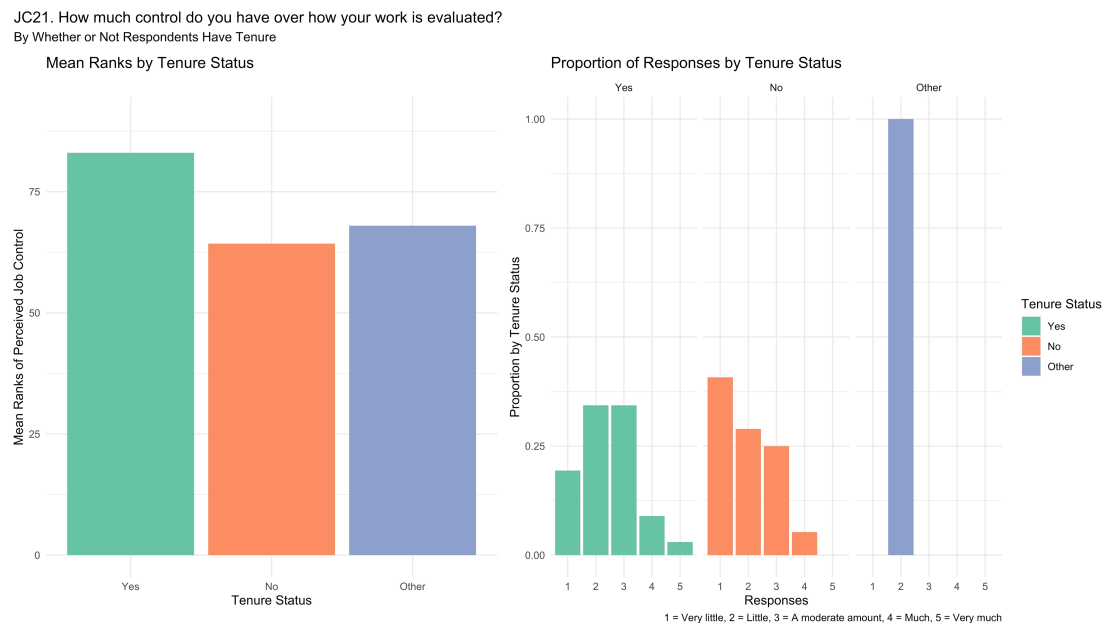
Figure 29. Column charts showing the mean ranks of perceived job control and the proportion of responses by status for question twenty-one in the job control inventory.

JC21. How much control do you have over how your work is evaluated?
By Respondents' Status as Academic Staff, Faculty, or Staff



The Kruskal-Wallis test demonstrates that an individual's tenure status has a statistically significant ($p = 0.02009$) and small ($\eta^2 = 0.0191$, CI [0.00, 0.07]) effect on one's perceived control over how one's work is evaluated (chi-squared = 7.8155, $df = 2$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrates a statistically significant difference between those who have tenure and those who do not ($p = 0.0151$). The mean ranks and proportion of responses are demonstrated in Figure 30.

Figure 30. Column charts showing the mean ranks of perceived job control and the proportion of responses by participant's tenure status for question twenty-one in the job control inventory.

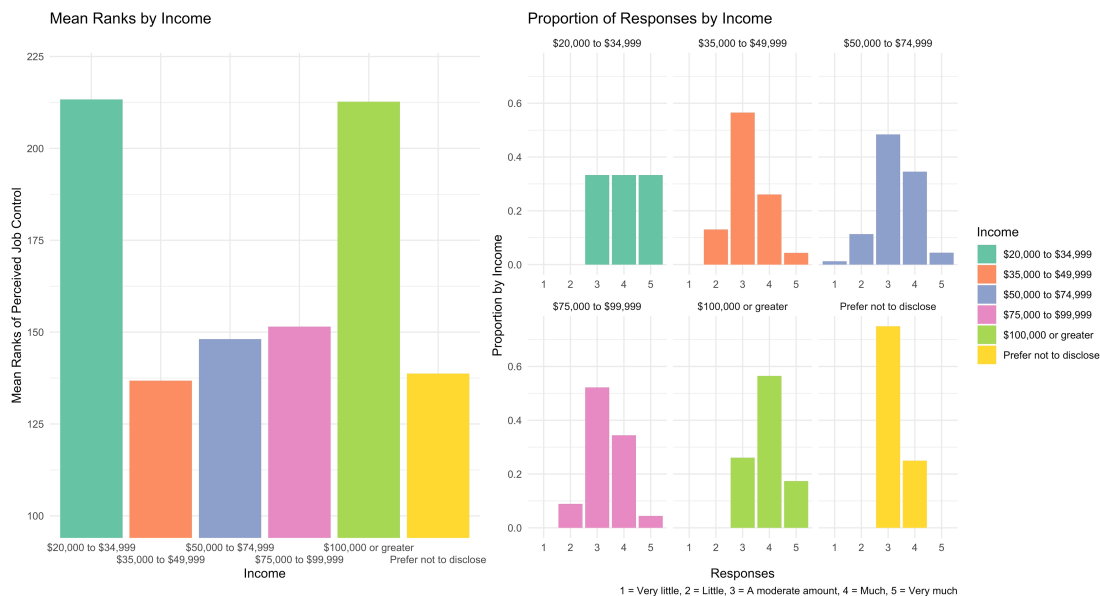


In general, how much overall control do you have over work and work-related matters?

The Kruskal-Wallis test demonstrates that income has a statistically significant ($p = 0.006986$) and small ($\eta^2 = 0.0364$, 95% CI [0.0064, 0.11]) effect on one's general perception of their overall control at work (chi-squared = 15.951, $df = 5$). The Conover-Iman test with Bonferroni adjustment for multiple comparisons demonstrated statistically significant differences between respondents who make \$100,000 or greater per year and those who make \$35,000 to \$49,999 ($p = 0.02$), \$50,000 to \$74,999 ($p = 0.0047$), and \$75,000 to \$99,999 ($p = 0.0164$). The mean ranks and proportion of responses are demonstrated in Figure 31.

Figure 31. Column charts showing the mean ranks of perceived job control and the proportion of responses by income for question twenty-two in the job control inventory.

JC22. In general, how much overall control do you have over work and work-related matters?



Discussion

Author (2023) demonstrated that job control and burnout are inversely correlated among academic instruction librarians, corroborating previous findings among other professions. Hence, job control may predict burnout with individuals with higher job control being more likely to be less burnt out. The present study presents an item-level analysis of the questions from the job control scale used for the same study in Johnson (2023). From that study, looking at the job control score, extent of job control is affected by status (faculty, academic staff, or staff) and teaching workload. Analyzing each item in the job control scale, teaching workload, status, income, years at institution and in libraries, teacher training, union representation, and tenure status have statistically significant effects on at least one question in the scale. Status and teaching workload had statistically significant effects on at least one question in the scale and on the overall score for job control. Status and teaching workload each had statistically significant effects on seven questions, and income had a statistically significant effect on eight questions. Interestingly, income was the only factor measured that had a statistically significant impact on question 22 from the job control scale, which measured participants' own perception of their job control. It's also interesting that income had statistically significant but small effects on responses to eight of the job control scale questions, but income didn't have a statistically significant effect on the overall job control. Further research might continue to consider the impact of income, especially given conventional wisdom that workload and compensation are the key factors for mitigating burnout. However, it's unlikely that income directly impacts job control but rather that there are factors related to income that allow an individual greater freedom and autonomy in their work. For example, library managers and leaders may receive stipends increasing their salaries, and these individuals may experience greater job control especially in the realms of decision-making and interactions, where academic instruction librarians appear to generally lack control.

Through analysis of the average response among academic instruction librarians in the sample, control over decision-making, including allocation of resources and salaries, and interactions appear to be two places where managers and library leaders may focus improvements. Control over the amount of money academic instruction librarians earn and over how their work is evaluated were the lowest across the 22 items in the job control scale. In some cases, evaluation and compensation may also be tied together, such as in the case of merit-based increases for salaries. As such, these are worth considering together. While some library managers may not have the ability to introduce merit-based salary increases, they may consider more transparent or shared processes for salaries and evaluations as one way of increasing librarian job control.

Income and tenure status both had statistically significant effects on responses related to control over evaluation and how much one earns. Individuals with higher incomes and individuals with tenure status generally expressed greater control in these areas. The impact of income on control over income may be circuitous or self-evident, but income may also index other job characteristics that lead one to greater control. In essence, individuals with higher incomes may feel more control over their income because they have more direct input, have more opportunities to increase their income, or have already made decision that have led to their increased income and feel capable of continuing to do so. There may also be a relationship between having tenure and having higher incomes. Additionally, individuals with tenure may be more experienced with the process for evaluating librarians.

In addition to income and tenure status, the number of years an individual has worked at their current institution and their union representation impacted feelings of control over the amount one earns at their job. Unfortunately, the post-hoc test revealed no difference between particular pairs; however, individuals who have been working at their current institutions for 11 or more years generally expressed greater control. These individuals may be more aware of the processes for salary increases or may have greater salaries than newer counterparts and feel a greater sense of control. Additionally, individual who are currently represented by a union generally felt greater control over how much they earn than individuals who were not represented by a union. Further research should be conducted on the impact of union representation and union membership. Such research might also consider differences based on library workers feelings of the effectiveness of their unions, may consider surveying library workers after significant union wins, and could be conducted in collaboration with union leadership.

Regarding evaluation, beyond income and tenure status, participants' status as staff, academic staff, or faculty impacted feelings of control over how one's work is evaluated. The post-hoc analysis demonstrated a statistically significant difference between responses from academic staff and staff. The data show that on average, academic staff felt more control in this area, staff felt the least control, and faculty were in the middle. While it's likely worthwhile to review evaluation process broadly, individuals who supervise librarian staff may consider more transparent or shared approaches to evaluation and consider ways to empower librarians in the evaluation process. However, it is interesting that faculty experience slightly lower control over evaluation given that evaluation is generally part of shared governance for faculty. One possible difference between faculty

and academic staff may be that librarian faculty are held to standards similar to disciplinary faculty or non-librarian faculty and may feel that the evaluation process doesn't match their roles and responsibilities.

While average responses were lowest relating to income and evaluation, academic instruction librarians also appear to have lower control over interruptions, which is related to their interactions at work. Teaching workload in particular had a statistically significant effect; however, the post-hoc analysis revealed no statistically significant differences between pairs. Nonetheless, participants who perceive their workloads as slightly excessive expressed feeling less control over the number of times they are interrupted at work. It's possible that these individuals work with many instructors or students who continually come to them for assistance; however, it's unclear from the present data if academic instruction librarians experience reduced control over interruptions because of interactions with users, such as faculty, staff, and students, colleagues, supervisors, or other individuals. Beyond teaching workload, librarians may experience greater interruptions if they work in open or shared offices or highly visible locations, if they attempt to complete work while on a reference desk or chat service, or if they work in a climate that encourages them to be constantly available and drop everything to support users.

Further research may consider librarians' control over interactions in particular, as interruptions may lead librarians to avoidance behaviors or keep librarians from completing deep work. Future research might look specifically at how interruptions occur, who initiates interruptions, how library climate or culture impacts interruptions, and how library leaders contribute to this culture. Additionally, given the increased availability of remote work or work from home, future research may consider how work location impacts librarian control over interactions, including interruptions. Given that control over physical environment, including where you work from, is one aspect of job control, it may be interesting to see how these aspects of control are related.

As library leaders and managers consider the practical implications of job control research on their work, earnings, evaluation processes, and interactions or interruptions may be key areas to enact changes or provide further transparency and shared decision-making. These changes may result in increased control among librarians on their teams, which may mitigate some degree of burnout. Considering self-determination theory, empowering librarians through increased agency, autonomy, and control, may also support their psychological needs, lead to individual growth, and motivate them to contribute further, in addition to improving their own wellbeing beyond mitigating burnout. Considering social exchange theory, improving job control for librarians may lead to increased commitment to the organization or to librarians exhibiting more positive behaviors when working with users. As such, it's worthwhile for library leaders to consider how their actions and institutional and organizational processes, climate, and culture impact librarian job control. These data demonstrate that earnings, work evaluation, and interruptions are key areas to consider, though managers, leaders, and administrators should interrogate their own workplaces and contexts.

Conclusion

Based on social determination theory, social cognitive theory, social exchange theory, and the job demands-resources model, job control is a significant area for consideration especially in regard to employee motivation and commitment to library organizations and academic institutions as well as other psychological and organizational benefits. Library managers and leaders should reflect on their own practices and organizational cultures to consider the freedom, autonomy, and agency afforded to librarians and how librarians are empowered to take responsibility for their own work and for their participation in the organization. Similarly, unions of library workers, other organizations of library workers, and individual library workers should consider how their leaders and workplaces afford them control and autonomy and find ways to improve procedures, policies, and practices if they identify areas where they may benefit from increased job control. The findings presented in this article suggest that decision-making, including decisions about income and evaluation process, and interactions are significant areas where academic instruction librarians may lack control. Participative or shared decision-making process and cultural shifts that allow librarians greater control over their interactions may produce changes that improve librarian job control leading to greater motivation, effectiveness, and organizational commitment to improve the work of libraries and librarians while supporting librarians' basic psychological needs.

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Appendix A

Table A.1. p values from all Kruskal-Wallis tests

Factor	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Gender	0.37	0.33	0.07	0.11	0.02	0.06	0.05	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.06
Modality	0.76	0.63	0.35	0.05	0.08	0.18	0.14	0.04	0.06	0.04	0.03	0.06	0.05	0.04	0.07	0.04	0.07	0.06	0.07	0.08	0.09	0.00
Sexuality	0.66	0.22	0.00	0.00	0.04	0.03	0.03	0.01	0.05	0.06	0.07	0.01	0.05	0.05	0.08	0.00	0.02	0.09	0.09	0.09	0.01	0.07
	0.44	0.00	0.05	0.09	0.00	0.05	0.05	0.05	0.00	0.04	0.09	0.00	0.00	0.00	0.06	0.05	0.00	0.01	0.07	0.05	0.07	0.08
Gender	0.02	0.04	0.06	0.07	0.03	0.04	0.03	0.09	0.04	0.01	0.01	0.00	0.08	0.08	0.09	0.06	0.04	0.09	0.08	0.05	0.01	0.06
Modality	0.00	0.01	0.00	0.01	0.03	0.03	0.01	0.00	0.09	0.04	0.01	0.06	0.08	0.05	0.08	0.09	0.01	0.04	0.07	0.03	0.01	0.05
Sexuality	0.07	0.03	0.06	0.05	0.01	0.06	0.03	0.04	0.04	0.02	0.07	0.03	0.05	0.02	0.08	0.00	0.06	0.01	0.09	0.05	0.05	0.04
	0.09	0.06	0.00	0.01	0.03	0.00	0.06	0.01	0.05	0.09	0.02	0.01	0.03	0.08	0.04	0.01	0.03	0.06	0.09	0.07	0.03	0.02
Disability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.04	0.03	0.09	0.08	0.05	0.03	0.03	0.00	0.01	0.01	0.07	0.05	0.05	0.07	0.03	0.07	0.04	0.05	0.06	0.08	0.03
	0.05	0.05	0.05	0.08	0.03	0.02	0.03	0.08	0.06	0.09	0.05	0.02	0.05	0.00	0.04	0.00	0.03	0.08	0.08	0.00	0.06	0.00
	0.02	0.07	0.04	0.05	0.03	0.04	0.04	0.02	0.03	0.02	0.03	0.03	0.05	0.04	0.05	0.02	0.05	0.06	0.02	0.08	0.04	0.00
	0.02	0.03	0.06	0.08	0.06	0.03	0.09	0.03	0.09	0.06	0.09	0.05	0.01	0.09	0.05	0.02	0.08	0.05	0.03	0.06	0.09	0.08
Time at Institution	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.01	0.05	0.08	0.03	0.08	0.03	0.09	0.05	0.01	0.03	0.03	0.05	0.04	0.00	0.00	0.01	0.08	0.03	0.05	0.00	0.03	0.02
	0.02	0.03	0.02	0.03	0.09	0.00	0.03	0.09	0.09	0.00	0.07	0.03	0.08	0.04	0.05	0.02	0.07	0.09	0.07	0.03	0.01	0.08
	0.06	0.01	0.09	0.03	0.02	0.06	0.05	0.00	0.05	0.03	0.09	0.05	0.06	0.03	0.03	0.07	0.07	0.00	0.07	0.09	0.08	0.03
	0.01	0.08	0.02	0.03	0.09	0.07	0.09	0.01	0.02	0.09	0.04	0.04	0.06	0.03	0.05	0.06	0.07	0.07	0.07	0.06	0.00	0.02
Time Since Receiving Degree	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.02	0.02	0.06	0.09	0.03	0.02	0.09	0.01	0.07	0.09	0.03	0.00	0.02	0.00	0.00	0.00	0.08	0.04	0.05	0.03	0.01	0.04
	0.05	0.02	0.09	0.07	0.05	0.07	0.04	0.06	0.03	0.08	0.09	0.05	0.09	0.05	0.05	0.08	0.09	0.02	0.06	0.04	0.03	0.00
	0.09	0.08	0.00	0.06	0.09	0.06	0.09	0.02	0.03	0.00	0.00	0.05	0.09	0.07	0.07	0.04	0.08	0.07	0.09	0.00	0.04	0.02
	0.04	0.03	0.09	0.05	0.02	0.07	0.03	0.03	0.02	0.03	0.08	0.00	0.01	0.03	0.08	0.00	0.06	0.05	0.08	0.00	0.01	0.09
Time in	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.03	0.08	0.09	0.04	0.07	0.05	0.01	0.05	0.06	0.05	0.05	0.00	0.03	0.00	0.01	0.00	0.02	0.01	0.03	0.01	0.05	0.05

Factor	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Libraries	952	666	383	434	953	184	982	653	313	513	260	552	398	473	043	450	504	086	025	073	201	272
Income	0.300	0.066	0.066	0.044	0.055	0.063	0.029	0.001	0.028	0.014	0.004	0.017	0.007	0.002	0.003	0.009	0.039	0.093	0.043	0.000	0.000	0.000
	0.072	0.074	0.023	0.061	0.063	0.096	0.090	0.081	0.083	0.054	0.035	0.040	0.072	0.094	0.030	0.024	0.099	0.093	0.044	0.006	0.067	0.070
	0.021	0.008	0.009	0.007	0.006	0.006	0.002	0.008	0.004	0.005	0.003	0.007	0.002	0.007	0.000	0.002	0.008	0.003	0.000	0.007	0.000	0.000
Union Representation	0.069	0.064	0.099	0.079	0.058	0.039	0.058	0.011	0.040	0.026	0.017	0.034	0.041	0.068	0.088	0.018	0.081	0.016	0.023	0.033	0.021	0.000
	0.054	0.049	0.099	0.089	0.089	0.098	0.081	0.000	0.000	0.044	0.059	0.098	0.088	0.088	0.011	0.088	0.011	0.022	0.033	0.038	0.008	0.008
	0.022	0.006	0.004	0.000	0.004	0.003	0.002	0.001	0.007	0.006	0.002	0.005	0.007	0.009	0.005	0.002	0.003	0.005	0.000	0.006	0.008	0.008
Perceived Effectiveness of Teacher Training (If received)	0.011	0.038	0.007	0.015	0.028	0.009	0.008	0.003	0.009	0.006	0.003	0.008	0.002	0.000	0.009	0.005	0.002	0.003	0.000	0.008	0.004	0.002
	0.018	0.008	0.007	0.005	0.008	0.000	0.001	0.000	0.007	0.000	0.003	0.001	0.004	0.009	0.001	0.003	0.009	0.006	0.005	0.000	0.002	0.006
	0.007	0.004	0.001	0.004	0.009	0.008	0.006	0.003	0.001	0.009	0.007	0.000	0.000	0.000	0.009	0.005	0.001	0.006	0.009	0.008	0.006	0.008
	0.002	0.005	0.000	0.002	0.007	0.006	0.009	0.002	0.007	0.007	0.004	0.004	0.000	0.006	0.006	0.009	0.003	0.001	0.008	0.007	0.005	0.004
Teacher Workload	0.009	0.003	0.005	0.008	0.000	0.000	0.003	0.008	0.006	0.008	0.007	0.001	0.003	0.003	0.007	0.007	0.008	0.001	0.002	0.000	0.003	0.001
	0.005	0.006	0.006	0.005	0.002	0.009	0.000	0.006	0.007	0.002	0.006	0.002	0.006	0.001	0.009	0.001	0.004	0.000	0.000	0.003	0.008	0.001
Statistical	0.000	0.001	0.001	0.000	0.001	0.004	0.000	0.002	0.003	0.000	0.000	0.001	0.001	0.000	0.003	0.002	0.000	0.000	0.000	0.006	0.000	0.001
	0.000	0.001	0.002	0.007	0.004	0.001	0.004	0.005	0.007	0.000	0.000	0.001	0.000	0.009	0.009	0.008	0.004	0.004	0.007	0.002	0.002	0.006
	0.000	0.007	0.006	0.003	0.001	0.008	0.004	0.007	0.007	0.001	0.001	0.009	0.009	0.006	0.005	0.002	0.007	0.009	0.002	0.005	0.005	0.001

	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Factor	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2
Quality	2	1	6	1	0	1	8	8	6	7	2	5	1	7	5	3	0	1	4	8	7	1
	5	6	2	2	2	6	3	6	7	9	5	1	7	2	4	6	5	2	0	9	3	0
	3	7	1	1	7	2	6	4	9	2	1	6	1	8	2	2	7	8	1	3	5	2
	2	2	4	1	0	9	8	4	8	6	4	0	9	5	7	5	2	9	0	4	4	0
Disability	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0	4	4	9	8	5	4	3	1	2	3	8	4	4	7	2	8	4	6	4	9	4
	4	6	8	5	4	3	3	5	7	1	3	2	0	4	7	8	4	2	8	7	1	7
	3	1	0	0	0	8	3	0	0	1	8	7	0	1	1	0	2	8	7	1	6	2
Time at Institution	8	1	1	5	7	9	8	1	3	4	6	6	9	5	8	9	0	7	0	7	9	3
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	1	5	9	3	9	2	9	6	4	3	3	5	4	0	0	0	9	5	5	0	4	1
	0	0	2	0	2	6	3	0	2	9	2	5	3	4	6	9	5	5	0	4	0	9
Time Since Receiving Degree	8	9	7	2	1	4	4	5	9	4	0	1	3	2	8	1	1	1	4	7	3	9
	7	8	8	4	2	2	3	9	2	2	7	7	2	9	5	1	8	6	1	1	2	9
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	2	1	9	9	2	1	9	1	7	9	5	0	2	0	0	0	8	4	3	2	0	4
Time in Libraries	1	9	3	7	8	8	5	3	4	9	7	5	0	7	6	8	3	9	9	0	7	9
	1	7	9	1	8	2	3	0	6	0	9	4	9	6	9	4	2	4	5	3	2	2
	9	7	3	6	5	0	5	1	0	6	8	3	8	6	5	4	1	3	2	2	6	2
Income	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	3	0	7	6	4	5	3	0	2	1	0	1	1	0	0	0	9	4	3	0	0	0
	0	7	5	5	5	1	9	1	9	3	7	4	7	2	0	2	7	5	6	0	0	0
	8	0	9	7	9	0	3	2	7	3	1	0	0	7	8	1	6	0	5	0	7	4
Union Representation	2	1	9	3	2	3	9	4	4	3	9	9	7	3	3	3	6	1	2	0	6	7
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	8	6	8	7	7	4	7	6	9	7	1	5	5	3	7	8	7	9	5	0	3	4
	0	7	3	5	7	4	0	5	5	5	8	0	1	2	2	9	6	6	3	4	8	8

[illegible]

Fac tor	X 1	X 2	X 3	X 4	X 5	X 6	X 7	X 8	X 9	X 10	X 11	X 12	X 13	X 14	X 15	X 16	X 17	X 18	X 19	X 20	X 21	X 22
Tea che r	0. 9	0. 4	0. 2	0. 1	0. 3	0. 0	0. 1	0. 5	0. 2	0. 2	0. 4	0. 4	0. 4	0. 7	0. 8	0. 2	0. 4	0. 0	0. 6	0. 1	0. 1	0. 3
Tra inin g	5 8	9 1	0 3	7 1	8 7	0 0	8 4	7 7	6 7	9 8	7 1	6 4	9 6	6 2	4 2	9 1	7 3	2 1	8 3	4 8	8 3	4 2
Rec eive d																						

Table A.3. eta2 values for all ANOVA tests

According to Cohen's (1988) guidelines, $0.01 < 0.06$ is small, $0.06 < 0.14$ medium, and greater than or equal to 0.14 is large.

Except where noted, the 95% CI for eta2 is [0.00, 1.00], which is the full range of possible values for eta2.

Fac tor	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Gen der	0. 0	0. 0	0. 0	0. 0	0.0 39	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0
	2	2	1	4	9	2	1	2	1	1	0	3	0	3	1	1	2	4	2	2	3	1
	8	6	2	8		0	2	2	4	8	3	8	6	6	0	0	4	3	2	4	0	3
	5	0	4	0		3	2	4	2	8	6	3	4	0	6	3	8	6	8	7	8	7
Gen der	0. 0	0. 0	0. 0	0. 0	0.0 13	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0
Mo dali ty	1 5	0 8	0 6	0 6	7	0 9	1 2	0 2	0 6	1 7	1 6	2 2	0 2	0 2	0 0	0 2	1 0	0 1	0 2	0 6	2 1	0 3
	9	5	5	5		4	1	3	2	6	9	5	1	1	5	0	5	4	5	0	5	1
Sex uali ty	0. 0	0. 0	0. 0	0. 0	0.0 92	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0
	6	6	4	7	3	6	3	3	4	3	6	4	6	4	4	5	8	7	5	3	4	7
	3	9	6	4	[0.	9	5	3	2	7	3	9	9	0	9	7	3	3	5	1	0	6
	2	5	0	4	01, 1.0 0]	8	2	4	8	9	5	8	0	7	0	4	7	6	3	6	8	2
Dis abil ity	0. 0	0. 0	0. 0	0. 0	0.0 01	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0
	2	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	0	5	4	0		4	5	6	1	0	7	1	6	5	1	8	1	5	2	5	0	4

[illegible]

[illegible]

Factor	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	0						0			0	0											
	0						0			0	0											
	]						]			]	]											
Tenure	0.	0.	0.	0.	0.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
at	0	0	0	0	01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Inst	2	0	1	0	3	1	0	0	0	0	2	1	0	0	0	0	0	0	0	2	1	0
itut	3	6	6	6		3	5	6	4	1	5	4	1	2	4	5	1	4	9	0	4	4
ion	3	9	4	5		3	1	3	0	4	7	9	2	4	0	6	0	7	8	8	6	0
Partici	0.	0.	0.	0.	0.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
pan	0	0	0	0	04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
t	3	7	1	7	9	5	5	2	0	1	2	4	1	1	2	5	1	2	3	6	7	3
Tenure	5	2	7	4		7	7	1	9	2	9	2	9	9	8	4	1	8	9	0	9	0
Stat	5	5	2	0		7	4	2	1	3	3	1	5	1	6	7	8	3	4	2	4	0
us																				[	[	
																				0.	0.	
																				0	0	
																				6,	1,	
																				1.	1.	
																				0	0	
																				0	0	
																				]	]	
Teacher	0.	0.	0.	0.	0.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Train	0	1	1	2	5	2	2	0	1	1	1	1	1	0	0	1	1	3	0	2	2	1
ing	3	1	6	1		7	0	9	7	6	1	2	1	6	4	7	2	2	8	0	3	5
Received	4	9	5	2		1	7	9	4	5	3	4	9	4	8	4	9	4	5	3	1	0