

COVID-19 Impact Study: Technical Report

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Study Overview

The findings from a series of statistical analyses present compelling evidence that the disruption to campus operations caused by the coronavirus disease 2019 (COVID-19) in March of 2020 impacted faculty perceptions of some aspects of their campus environment. This impact was felt across all institutions that participated in the COACHE Faculty Job Satisfaction Survey (JSAT) for a subset of JSAT benchmarks and specific items. At the same time, some benchmarks and most items were unaffected. The majority of the benchmarks and items that were impacted were related to leadership, governance, and decision-making. Additional analyses of the differences between benchmark scores with and without the presence of post-disruption responses suggest that the degree of change with the inclusion of post-disruption responses is negligible in practical application and do not warrant additional data cleaning for valid interpretation of report findings.

1: Introduction

In mid-March of 2020, college and university campuses across the United States were abruptly disrupted in response to the COVID-19 pandemic. These disruptions included a sudden shift to online learning for the remainder of the spring semester and faculty being required to shift to working from home. Many college and university employees were thrust into a whirlwind of actions including redesigning their in-person courses for fully-online engagement, gathering their belongings from their office spaces, leaving campus, and navigating the work-from-home life while caring for their families and coping with a rapidly-developing nation-wide crisis.

The disruptions caused by COVID-19 came in the middle of the administration of the JSAT Survey. This disruption raised some concerns among COACHE partners about the validity of JSAT data. This study examined the impact, if any, and magnitude of impact that the disruptions caused by COVID-19 had on JSAT benchmark (factor) scores and individual item responses in spring of 2020. The following questions guided the analytical process:

- Did COVID-19 disruption impact faculty perceptions of their campus environment?
 - Did COVID-19 disruption impact any of the 25 JSAT benchmarks?
 - Did COVID-19 disruption potentially impact any of the Likert-type items in the JSAT?
- To what degree does the inclusion of faculty who took the survey after transition to online change an institution's benchmark scores?



2: Benchmark Impact Analysis

2.1: Sample Selection

A series of inferential statistical analyses were conducted on the 25 benchmarks to identify which benchmarks were impacted by COVID-19 disruption. These analyses were conducted using a subset of faculty (tenured and tenure-track, non-clinical faculty) to create a homogenous sample, thus minimizing differences based on varying employment types and work expectations. Inclusion of full-time, non-tenure-track (NTT) faculty in JSAT is made on a campus-by-campus basis, whereas all institutions must include tenure-track and tenured faculty to participate in JSAT. In addition, full-time NTT faculty are a widely heterogeneous group made up of librarians, researchers, clinicians, lecturers, and other categories. They vary widely in their roles within institutions and between institutions. For these reasons, impacts on NTT faculty are unevenly traceable by COACHE. A closer analysis of NTT faculty specifically in COACHE would likely generate different results.

2.2: Study Design

Faculty were assigned to one of three groups: pre-transition faculty, defined as faculty whose last activity in the survey was before March 9, 2020 (the week that “Reminder 2” was sent); post-transition faculty, defined as faculty who did not consent to participate in the survey until March 23 (the week that “Reminder 3” was sent); and in-transition faculty, defined as faculty who interacted with the survey between March 9 and March 22. In-transition faculty were excluded from analyses to gain a clearer picture of how COVID-19 affected all institutions regardless of the timing of institutional actions. I chose March 9 as the cut-off between pre-transition and in-transition because it was that week when the World Health Organization declared COVID-19 a pandemic and the U.S. declared a national emergency.

To begin the process of determining how COVID-19 disruption potentially impacted JSAT data, I first identified benchmarks with statistically and practically significant differences between the perceptions of faculty in the pre-transition group and faculty in the post-transition group (see section 2.3 for an explanation of statistical and practical significance). The dataset was split into a university sample and a liberal arts college sample to better inform the differential impact that COVID-19 disruption may have had on these institution types.

Once benchmarks with statistically and practically significant differences were identified for the 2020 university cohort, I then used 2019 university cohort data to investigate whether the differences found in 2020 were also present in 2019. The purpose of this comparison between 2020 and 2019 was to investigate whether differences between pre- and post-transition groups could be adequately explained by unobserved characteristics of early versus late responders under typical circumstances. Further analyses would have been conducted if comparable effects were found in both administration years (this was not the case). Note that 2019 cohort data were only investigated for university faculty because of a lack of a sufficient number of participating liberal arts colleges in 2019. Thus, the results and interpretations for liberal arts college faculty do not make direct claims about the likelihood of COVID-19 impact.

Benchmarks are *likely* impacted by COVID-19 for university faculty if a) statistically significant differences are found between pre- and post-transition faculty in 2020 but not in 2019 or b) practically significant differences are found in 2020 but not in 2019. For liberal arts college faculty, benchmarks with statistically significant interaction effects or practically significant Transition Group

main effects are only considered *potentially* impacted by COVID-19 without an assessment of a comparable prior year cohort.

2.3: Data Analysis

Before analyses were conducted, differences in sample characteristics between pre-transition and post-transition faculty were investigated in the 2020 university sample, 2019 university sample, and 2020 liberal arts college sample. Table 1 outlines the proportion of pre-transition, in-transition, and post-transition faculty for each sample. In all samples, no practically significant differences (i.e., a magnitude of difference deemed worthy of interpretation and appropriate action) between the pre- and post-transition groups were found on age (t-tests with Cohen’s *d* for effect size), race, gender, tenure status, or rank (all chi-square tests with Cramer’s *V* for effect size).

Table 1
Transition Group Proportions by Sample

Sample	University 2020		University 2019		Liberal Arts 2020	
	n	%	n	%	n	%
Pre-Transition	5,223	67%	5,144	63%	1,142	78%
In-Transition	1,308	17%	1,401	17%	193	13%
Post-Transition	1,208	16%	1,563	19%	122	8%
Total	7,739	100%	8,108	100%	1,457	100%

In each 2020 sample, I conducted two-way fixed effects analysis of variance tests (ANOVAs) for each of the 25 benchmarks. The two factors were Transition Group (pre- and post-transition) and Institution (differing numbers of institutions depending on the sample in question). Institution was introduced into the model to identify benchmarks that may have been impacted by COVID-19 differently across institutions based on individual institutional responses. The two ANOVA effects of interest were the interaction between Transition Group and Institution and, subsequently, the main effect of Transition Group. Power analyses were conducted using G*Power. All samples exceeded the required sample sizes for 80% power.

While the total samples were large enough to pass statistical power requirements, sample data were unbalanced for the pre-transition and post-transition groups. Due to the combination of the large samples (resulting in small p-values) and the data imbalance, the assumption of homogeneity of variances was difficult to accurately assess. Therefore, ANOVA results should be considered with this limitation in mind. Additionally, the family-wise error rate for each two-way ANOVA (testing two of the three effects) is 0.0975, or 10%, meaning there is a 10% probability of finding at least one significant result when both null hypotheses are in fact true. Therefore, it is likely that several of the significant effects found for the 25 benchmarks across the three samples are not actually significant. In the context and application of this work, however, a high type I error is favorable over a high type II error (i.e., we would rather gain a more accurate understanding of the impact of COVID-19 disruption at the expense of including some insignificant effects than constrain the significance threshold and miss important effects).

Any benchmarks with statistically significant interaction effects or Transition Group main effects at a .05 significance level in the 2020 university faculty sample were then examined using the 2019 sample. All sample and ANOVA model specifications made for 2020 data were also made for 2019.

Practical significance (i.e., a statistically significant difference meeting a minimum magnitude threshold) was determined by calculating effect sizes using Cohen's *d*. Following commonly used guidelines (Cohen, 1988), effects less than 0.2 are considered practically insignificant (i.e., negligible) and effects greater than 0.2 are considered having at least a small effect. Cohen's (1988) recommended threshold for medium effect size is *d* greater than or equal to 0.5; however, recent scholars have cautioned against rigid interpretation of the thresholds and advise researchers to interpret Cohen's *d* in relation to other effects in the literature (Thompson, 2007; Lakens, 2013). I made the decision post hoc to interpret effects of greater than or equal to 0.4 as having medium effect considering the common range of effect size estimates for most benchmarks investigated.

2.4: Results

Table 2 outlines results of benchmark analyses for university faculty. Of the 25 benchmarks, 13 (bolded) satisfied criteria to be considered likely impacted by COVID-19 disruption. Benchmarks related to governance and leadership make up most (8) of the impacted benchmarks. The Health and Retirement Benefits benchmark is interpreted as likely impacted by COVID-19 differently across participating COACHE universities. The 12 benchmarks with a Transition Group main effects are interpreted as likely impacted by COVID-19 across all participating COACHE universities.

Table 2
ANOVA Results for Each Core COACHE Benchmark: University Faculty 2020 Results Compared with 2019

Benchmark	adj. R ²	Total df	F	Cohen's <i>d</i>	F (2019)	Cohen's <i>d</i> (2019)
Interaction Effect (Transition Group x Institution)						
Health and Retirement Benefits	0.06	6,341	1.96**	–	1.01	–
Transition Group Main Effect (No Interaction Effect)						
Nature of Work: Research	0.06	6,412	5.8*	-0.20†	4.4*	-0.04
Nature of Work: Service	0.02	6,442	11.1***	-0.20†	9.4**	-0.12
Facilities and Work Resources	0.07	6,401	11.5***	-0.17	3.7	
Personal and Family Benefits	0.06	6,096	7.2**	-0.17	4.9*	-0.04
Senior Leadership	0.07	6,073	16.3***	-0.30†	14.1***	-0.10
Division Leadership	0.03	6,012	5.8*	-0.24†	9.8**	-0.14
Faculty Leadership	0.03	5,772	6.4*	-0.23†	5.1*	-0.06
Governance Trust	0.03	6,105	14.3***	-0.29†	8.2**	-0.08
Governance Purpose	0.04	5,657	15.3***	-0.32†	12.5***	-0.13
Governance Understanding	0.04	6,089	12.5***	-0.30†	18.3***	-0.12
Governance Adaptability	0.04	6,004	15.1***	-0.31†	15.8***	-0.10
Governance Productivity	0.04	5,768	18.9***	-0.30†	14.4***	-0.13
Departmental Engagement	0.01	6,306	4.7*	-0.08	0.3	



Table 2 Continued

ANOVA Results for Each Core COACHE Benchmark: University Faculty 2020 Results Compared with 2019

No Interaction Nor Transition
Group Main Effect

- Appreciation and Recognition
- Collaboration
- Departmental Collegiality
- Departmental Leadership
- Departmental Quality
- Interdisciplinary Work
- Mentoring
- Nature of Work: Teaching
- Promotion
- Tenure Clarity
- Tenure Policies

Note: *p < .05 ** p < .01 ***p < .001

Effect size interpreted by †, where absence represents no practical significance (Cohen's $d < 0.2$) and presence represents a small effect ($d \geq 0.2$).

Bolded benchmarks meet criteria for suggesting COVID-19 impacted faculty perceptions.

Table 3 outlines benchmark results for liberal arts college faculty. Of the 24 benchmarks asked of liberal arts college faculty, 15 (bolded) satisfied criteria to be considered potentially impacted by COVID-19 disruption. Three of the 15 (italicized) met criteria for having a medium effect size, suggesting a moderately-sized difference between pre- and post-transition groups. As with university faculty, benchmarks related to governance and leadership (6) predominated among impacted benchmarks.

Table 3

ANOVA Results for Each Core COACHE Benchmark: Liberal Arts College Faculty 2020 Results

Benchmark	adj. R ²	Total df	F	Cohen's d
Interaction Effect (Transition Group x Institution)				
Facilities and Work Resources	0.10	1,258	1.68*	--
Transition Group Main Effect (No Interaction Effect)				
Nature of Work: Research	0.11	1,261	16.9***	-0.29†
<i>Nature of Work: Service</i>	0.05	1,261	22.1***	-0.47‡
Nature of Work: Teaching	0.06	1,261	13.1***	-0.32†
Personal and Family Benefits	0.07	1,223	8.8**	-0.30†
Health and Retirement Benefits	0.22	1,248	4.8*	-0.07
Interdisciplinary Work	0.03	1,199	7.9**	-0.30†
Collaboration	0.02	1,248	10.22**	-0.24†

Table 3 Continued

ANOVA Results for Each Core COACHE Benchmark: Liberal Arts College Faculty 2020 Results

Benchmark	adj. R ²	Total df	F	Cohen's <i>d</i>
<i>Senior Leadership</i>	0.06	1,227	24.3***	-0.47‡
Faculty Leadership	0.05	1,208	8.0**	-0.24†
Governance Trust	0.07	1,245	19.4***	-0.35†
Governance Purpose	0.09	1,227	21.15***	-0.39†
<i>Governance Understanding</i>	0.07	1,244	25.8***	-0.44‡
Governance Adaptability	0.06	1,235	16.9***	-0.37†
Governance Productivity	0.08	1,231	9.1**	-0.17
Departmental Collegiality	0.02	1,251	5.4*	-0.28†
Appreciation and Recognition	0.02	1,248	6.4*	-0.23†

No Interaction Nor Transition
Group Main Effect

- Departmental Engagement
- Departmental Leadership
- Departmental Quality
- Mentoring
- Promotion
- Tenure Clarity
- Tenure Policies

Note: *p < .05 **p < .01 ***p < .001

Effect size interpreted by † or ‡, where absence represents no practical significance (Cohen's *d* < 0.2), † represents a small effect (*d* = 0.2 - 0.39), and ‡ represents a medium effect (*d* = 0.4 or greater).

Bolded benchmarks meet criteria for suggesting a practically significant relationship between COVID-19 disruption and changes in faculty perceptions.

Bolded and italicized benchmarks have statistically significant differences between the pre-transition group and post-transition group with a medium effect size.

3: Survey Item Response Impact Analysis

3.1: Study Design and Sample Selection

I investigated individual survey items to determine which may be meaningfully impacted by COVID-19 disruption. These analyses were conducted using the same 2020 university and liberal arts college samples that were used in the benchmark analyses. Faculty transition groups were assigned the same as well. No analyses were conducted on 2019 data.

All Likert-type items were examined in each sample separately to identify differences in perceptions between pre-transition and post-transition faculty. Items missing entire columns of data were excluded. Items found to have statistically significant differences were then tested for practically significant differences.

3.2: Data Analysis

Independent two-sample t-tests, adjusted to accommodate unequal variances, were conducted for each Likert-type item. Due to the number of t-tests conducted, the high family-wise error rate was dealt with using a multiple comparisons adjustment. Rather than changing the alpha level a priori for each t-test, the Benjamini and Hochberg (1995) procedure was used post-hoc to control the False Discovery Rate (FDR). Effect sizes were calculated for statistically significant items (after FDR adjustment) using Cohen's *d*; items with at least small effect sizes (≥ 0.2) were considered to have a practically significant (or meaningful) difference between the perceptions of pre-transition and post-transition faculty.

3.3: Results

Of the 201 non-missing Likert-type JSAT items for university faculty, 39 (19.4%) yielded practically significant differences between pre- and post-transition responses. Of the 186 non-missing Likert-type JSAT items for liberal arts college faculty, 65 (34.9%) yielded practically significant differences between pre- and post-transition responses. In alignment with benchmark results, most practically significant items are related to leadership, governance, and decision-making. Full lists of practically significant items are available in the appendix.

4: Descriptive Analysis of Benchmark Score Differences

4.1: Study Design and Sample Selection

The final set of analyses investigated the actual impact that the inclusion of faculty in the combined in-transition group and post-transition group have on overall benchmark scores. These analyses were conducted using all non-clinical faculty from the entire JSAT 2020 cohort. Analyses were conducted for 23 of the 25 benchmarks. Two benchmarks, Tenure Clarity and Tenure Policy, were excluded from this analysis due to the small number of pre-tenured faculty who are asked questions related to these benchmarks. These smaller numbers of faculty yielded relatively larger variances in benchmark scores and thus were generally more difficult to interpret in context with the other 23 benchmarks.

4.2: Data Analysis

For each of the 23 benchmarks, means were calculated within each institution for the pre-transition group (respondents from survey launch to March 8, 2020), the remaining group (respondents from March 9, 2020 until the survey closed), and overall. The difference between the pre-transition group mean and overall mean was then calculated for each institution. The absolute values of the institutional differences were averaged across the cohort to produce the average institutional difference between the benchmark mean without pandemic-disrupted responses and the benchmark mean with pandemic-disrupted responses. These average differences describe the typical magnitude of change that institutions should expect their pandemic-disrupted responses to have on their overall benchmark scores.

4.3: Results

Table 4 describes the average difference between pre-transition benchmark scores and overall benchmark scores across the entire JSAT 2020 cohort. The differences range from 0.024 to 0.065. Given the fact that benchmark scores are measured on a 5-point scale, these results suggest that any changes in benchmark scores due to the inclusion of pandemic-disrupted responses are likely minimal and would not substantively affect the application of JSAT benchmark score data to institutional decision-making and strategic planning.

*Table 4
Average Difference between Pre-Transition Score
and Overall Score*

Benchmark	Average Difference
Nature of Work: Research	0.043
Nature of Work: Service	0.041
Nature of Work: Teaching	0.029
Facilities and Work Resources	0.037
Personal and Family Benefits	0.046
Health and Retirement Benefits	0.035
Interdisciplinary Work	0.052
Collaboration	0.037
Mentoring	0.039
Promotion	0.037
Senior Leadership	0.065
Division Leadership	0.063
Departmental Leadership	0.042
Faculty Leadership	0.050
Governance: Trust	0.057
Governance: Purpose	0.060
Governance: Understanding	0.064

Table 4 Continued
Average Difference between Pre-Transition Score
and Overall Score

Benchmark	Average Difference
Governance: Adaptability	0.058
Governance: Productivity	0.055
Departmental Collegiality	0.024
Departmental Engagement	0.026
Departmental Quality	0.028
Appreciation and Recognition	0.038

5. Discussion of Findings

This study assessed the impact and magnitude of COVID-19 disruption on JSAT benchmarks and individual survey items. Overall, findings from the benchmark impact analyses suggest COVID-19 disruption influenced faculty perceptions of various aspects of their institutional environment. Significant differences were found in 2019 benchmark data between early and late responders. However, unlike with 2020 data, the differences found in 2019 were not practically significant. These findings contextualize 2020 results as being primarily impacted by way of magnitude of differences rather than the existence of differences themselves.

This impact was not observed across all benchmarks. Faculty perceptions related to leadership, governance, facilities, work resources, research, and service were measurably impacted by COVID-19 across all institutions regardless of institution type. Although liberal arts college data were examined in 2020 only, the compelling evidence found with university results suggests practical differences found for liberal arts colleges are likely due to impact from COVID-19 disruption as well. Additional benchmarks were impacted when disaggregated by institution type. A full list of benchmarks by institution type are located in the appendix.

Though measurable differences were observed for a number of benchmarks, descriptive analyses of the actual differences between benchmark means with and without pandemic-disrupted responses suggest any differences are negligible when interpreting and applying survey results to decision-making and strategic planning. This is due to the imbalance in sample sizes, with pre-transition faculty making up 75% of all valid responses. Additionally, benchmark mean scores are based on self-reported survey data from a certain percentage of an institution's faculty population. Each institution's benchmark scores and item means are accompanied by a certain margin of error, the expected variability between the observed statistic and the true population statistic. With this in mind, subtle differences between any two sets of means should be considered in the context of a margin of error. Thus, interpreting the overall means differently than under normal circumstances is ill-advised.

Practically significant differences were observed for quite a few survey items in the university and liberal arts college samples (39 and 65 items, respectively). These items relate primarily to

leadership, governance, and decision-making, and in all cases, faculty in the post-transition group were more likely to rate these dimensions with higher levels of agreement, satisfaction, or frequency. In preliminary discussions, COACHE partners have endorsed this finding based on their experiences leading faculty through the events of March and April 2020. From their perspectives, faculty were generally appreciative of college leadership and the decision-making processes producing decisions that protected their health and safety (e.g., shifting to remote teaching) and career anxieties (e.g., extending tenure clocks and suspending student evaluations of teaching). However, these same COACHE partners hypothesized that attitudes towards leadership and the machinery of governance probably worsened as the pandemic continued.

6: Recommendations

Based on the findings of this study, academic leaders should interpret COACHE benchmark scores and item frequencies and means as they would normally.

For those with access to raw data, institutional researchers may follow the following process for exploration of their data in relation to COVID-19:

1. Review the list of pandemic-disrupted benchmarks and items for their institution type.
2. Select the benchmarks and items that are of interest to their institution's decision-making process or strategic planning efforts.
3. Assess the statistical impact and magnitude of change that COVID-19 disruption had on those benchmarks and items. Respond accordingly based on the results of both analyses.
 - Two-sample t-tests with unequal variances followed by a calculation of effect size with Cohen's d is likely sufficient to determine statistical and practical significance.
 - Actual differences can be identified by calculating the difference between overall means and pre-transition group means.

7: Limitations

A few limitations should be taken into consideration when interpreting the results of the analyses throughout the study. Benchmark and item analyses were conducted using responses from tenured and tenure-track, non-clinical faculty. As such, any conclusions drawn from these analyses are not generalizable to non-tenure-track faculty or clinical faculty. Due to the varying approaches to institutional policy and expectations regarding non-tenure-track and clinical faculty, institutional representatives should examine differences in these populations within their campus context.

The unbalanced nature of the pre-transition group and post-transition group sample sizes hinders interpretation of tests of the homogeneity of variances assumption. The verification of this assumption is important in determining whether t-tests and ANOVAs retain their robustness. To adjust for potentially unequal variances, all item-level t-tests were conducted with the unequal variance adjustment option in STATA 16. Additionally, all benchmarks with statistically significant ANOVA Transition Group main effects were retested in each sample using t-tests with unequal variance adjustments; all results remained substantively equivalent.



Benchmark impact analyses for university faculty were the only analyses conducted with a complimentary investigation of a comparison group (i.e., 2019 cohort data). Thus, interpretations of benchmark analyses for liberal arts college faculty and all item-level analyses are limited to potential COVID-19 impact.

8: References

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9: Appendix

9.1: Benchmarks Likely Impacted by COVID-19 Disruption for University and Liberal Arts College Faculty

Benchmark	University Faculty	Liberal Arts Faculty
Nature of Work: Research	X	X
Nature of Work: Service	X	X
Nature of Work: Teaching		X
Facilities and Work Resources	X	X
Personal and Family Benefits		X
Health and Retirement Benefits	X	
Interdisciplinary Work		X
Collaboration		X
Senior Leadership	X	X
Division Leadership	X	
Faculty Leadership	X	X
Governance Trust	X	X
Governance Purpose	X	X
Governance Understanding	X	X
Governance Adaptability	X	X
Governance Productivity	X	
Departmental Collegiality		X
Departmental Engagement	X	
Appreciation and Recognition		X

9.2: Likert-type Items Potentially Impacted by COVID-19 Disruption: University Faculty

Item	Question	Cohen's <i>d</i>	Interpretation
q188_d	Q188D - My institution's shared governance model holds up under unusual situations - Please rate your level of agreement or disagreement with the following:	-0.36	Small Effect
q189a_d	Q189A_D - Important institutional decisions are not made until consensus among faculty leaders and senior administrators is achieved. - How often do you experience the following?	-0.34	Small Effect
q189b_b	Q189B_B - Engage each other in defining decision criteria used to evaluate options. - How often do faculty leaders and senior administrators...	-0.32	Small Effect
q189b_d	Q189B_D - Follow agreed-upon rules of engagement when there are disagreements. - How often do faculty leaders and senior administrators...	-0.32	Small Effect
q189a_f	Q189A_F - Once an important decision is made, senior administrators communicate their rationale (e.g., data used for decision, weight of faculty input, etc.). - How often do you experience the following?	-0.31	Small Effect
q189b_e	Q189B_E - Have an open system of communication for making decisions. - How often do faculty leaders and senior administrators...	-0.31	Small Effect
q189b_c	Q189B_C - Respectfully consider one another's views before making important decisions. - How often do faculty leaders and senior administrators...	-0.30	Small Effect
q189b_g	Q189B_G - Discuss difficult issues in good faith. - How often do faculty leaders and senior administrators...	-0.30	Small Effect
q180_c	Q180C - My institution's president's/chancellor's: Communication of priorities to faculty - Please rate your level of satisfaction or dissatisfaction with the following.	-0.29	Small Effect
q189b_a	Q189B_A - Have equal say in governance matters. - How often do faculty leaders and senior administrators...	-0.29	Small Effect
q189b_f	Q189B_F - Share a sense of responsibility for the welfare of the institution. - How often do faculty leaders and senior administrators...	-0.29	Small Effect

Item	Question	Cohen's <i>d</i>	Interpretation
q180_a	Q180A - My institution's president's/chancellor's: Pace of decision making - Please rate your level of satisfaction or dissatisfaction with the following.	-0.28	Small Effect
q189a_b	Q189A_B - The progress achieved through governance efforts is publicly recognized. - How often do you experience the following?	-0.28	Small Effect
q180_n	Q180N - My institution's chief academic officer's (provost, VPAA, dean of faculty): Communication of priorities to faculty - Please rate your level of satisfaction or dissatisfaction with the following.	-0.27	Small Effect
q170_c	Q170C - My institution's priorities are acted upon consistently across all levels of leadership. - Please rate your level of agreement or disagreement with the following statements (i.e. president, provost, deans/division heads, and department chairs/heads).	-0.26	Small Effect
q180_l	Q180L - My institution's chief academic officer's (provost, VPAA, dean of faculty): Pace of decision making - Please rate your level of satisfaction or dissatisfaction with the following.	-0.26	Small Effect
q95_g	Q95G - Childcare - Please rate your level of satisfaction or dissatisfaction with the following aspects of your employment.	-0.26	Small Effect
q180_m	Q180M - My institution's chief academic officer's (provost, VPAA, dean of faculty): Stated priorities - Please rate your level of satisfaction or dissatisfaction with the following.	-0.25	Small Effect
q186_a	Q186A - The pace of decision making by my institution-wide faculty governing body - Please rate your level of satisfaction or dissatisfaction with the following:	-0.25	Small Effect
q188_e	Q188E - My institution systematically reviews the effectiveness of its decision making processes - Please rate your level of agreement or disagreement with the following:	-0.25	Small Effect
q189a_e	Q189A_E - Senior administrators ensure that there is sufficient time for faculty to provide input on important decisions. - How often do you experience the following?	-0.25	Small Effect
q245_a	Q245A - The person who serves as the chief academic officer at my institution seems to care about the quality of life for faculty of my rank. - Please rate your level of agreement or disagreement with the following statements.	-0.25	Small Effect
q95_h	Q95H - Eldercare - Please rate your level of satisfaction or dissatisfaction with the following aspects of your employment.	-0.25	Small Effect

Item	Question	Cohen's <i>d</i>	Interpretation
q170_a	Q170A - My institution's priorities are stated consistently across all levels of leadership (i.e. president, provost, deans/division heads, and department chairs/heads). - Please rate your level of agreement or disagreement with the following statements.	-0.24	Small Effect
q185_d	Q185D - My dean's or division head's: Pace of decision making - Please rate your level of satisfaction or dissatisfaction with the following.	-0.24	Small Effect
q185_f	Q185F - My dean's or division head's: Communication of priorities to faculty - Please rate your level of satisfaction or dissatisfaction with the following.	-0.24	Small Effect
q188_a	Q188A - The existing faculty governance structures offer sufficient opportunities for me to provide input on institution-wide policies - Please rate your level of agreement or disagreement with the following:	-0.24	Small Effect
q190_d	Q190D - Effective use of technology - How often do you engage with faculty in your department in conversations about.	-0.24	Small Effect
q60_h	Q60H - The support your institution has offered you to be a good advisor to students - Please rate your level of satisfaction or dissatisfaction with the following.	-0.24	Small Effect
q100_a	Q100A - Budget allocations encourage interdisciplinary work. - Please rate your level of agreement or disagreement with the following statements.	-0.23	Small Effect
q180_b	Q180B - My institution's president's/chancellor's: Stated priorities - Please rate your level of satisfaction or dissatisfaction with the following.	-0.23	Small Effect
q55_b	Q55B - My institution does what it can to help faculty who take on additional leadership roles (e.g. major committee assignments, department chairmanship) to sustain other aspects of their faculty work. - Please rate your level of agreement or disagreement with the following statements.	-0.23	Small Effect
q185_g	Q185G - My dean's or division head's: Ensuring opportunities for faculty to have input into school/college priorities - Please rate your level of satisfaction or dissatisfaction with the following.	-0.22	Small Effect

Item	Question	Cohen's <i>d</i>	Interpretation
q85_b	Q85B - Managing externally funded grants (post-award) - Please rate your level of satisfaction or dissatisfaction with the support your institution has offered you for...	-0.22	Small Effect
q185_e	Q185E - My dean's or division head's: Stated priorities - Please rate your level of satisfaction or dissatisfaction with the following.	-0.21	Small Effect
q186_b	Q186B - The stated priorities of my institution-wide faculty governing body - Please rate your level of satisfaction or dissatisfaction with the following:	-0.21	Small Effect
q188_c	Q188C - My institution has clear rules about the various roles and authority of the faculty and administration - Please rate your level of agreement or disagreement with the following:	-0.21	Small Effect
q189a_a	Q189A_A - The governance committees on which I currently serve make observable progress toward goals. - How often do you experience the following?	-0.21	Small Effect
q85_a	Q85A - Obtaining externally funded grants (pre-award) - Please rate your level of satisfaction or dissatisfaction with the support your institution has offered you for...	-0.20	Small Effect

9.3: Likert-type Items Potentially Impacted by COVID-19 Disruption: Liberal Arts College Faculty

Item	Question	Cohen's <i>d</i>	Interpretation
q60_h	Q60H - The support your institution has offered you to be a good advisor to students - Please rate your level of satisfaction or dissatisfaction with the following.	-0.49	Medium Effect
q175_c	Q175C - My chief academic officer (provost, VPAA, dean of faculty) - In adapting to the changing mission, I have received sufficient support from	-0.48	Medium Effect
q180_c	Q180C - My institution's president's/chancellor's: Communication of priorities to faculty - Please rate your level of satisfaction or dissatisfaction with the following.	-0.46	Medium Effect
q55_b	Q55B - My institution does what it can to help faculty who take on additional leadership roles (e.g. major committee assignments, department chairmanship) to sustain other aspects of their faculty work. - Please rate your level of agreement or disagreement with the following statements.	-0.44	Medium Effect
q189b_c	Q189B_C - Respectfully consider one another's views before making important decisions. - How often do faculty leaders and senior administrators...	-0.42	Medium Effect
q189b_d	Q189B_D - Follow agreed-upon rules of engagement when there are disagreements. - How often do faculty leaders and senior administrators...	-0.42	Medium Effect
q170_a	Q170A - My institution's priorities are stated consistently across all levels of leadership (i.e. president, provost, deans/division heads, and department chairs/heads). - Please rate your level of agreement or disagreement with the following statements.	-0.41	Medium Effect
q180_a	Q180A - My institution's president's/chancellor's: Pace of decision making - Please rate your level of satisfaction or dissatisfaction with the following.	-0.41	Medium Effect
q180_m	Q180M - My institution's chief academic officer's (provost, VPAA, dean of faculty): Stated priorities - Please rate your level of satisfaction or dissatisfaction with the following.	-0.41	Medium Effect
q189a_f	Q189A_F - Once an important decision is made, senior administrators communicate their rationale (e.g., data used for decision, weight of faculty input, etc.). - How often do you experience the following?	-0.41	Medium Effect

Item	Question	Cohen's <i>d</i>	Interpretation
q212_b	Q212B - There is visible leadership at my institution for the support and promotion of diversity on campus - Please rate your level of agreement or disagreement with the following statements.	-0.41	Medium Effect
q170_c	Q170C - My institution's priorities are acted upon consistently across all levels of leadership. - Please rate your level of agreement or disagreement with the following statements (i.e. president, provost, deans/division heads, and department chairs/heads).	-0.40	Medium Effect
q180_b	Q180B - My institution's president's/chancellor's: Stated priorities - Please rate your level of satisfaction or dissatisfaction with the following.	-0.39	Small Effect
q189b_g	Q189B_G - Discuss difficult issues in good faith. - How often do faculty leaders and senior administrators...	-0.39	Small Effect
q180_n	Q180N - My institution's chief academic officer's (provost, VPAA, dean of faculty): Communication of priorities to faculty - Please rate your level of satisfaction or dissatisfaction with the following.	-0.38	Small Effect
q189b_b	Q189B_B - Engage each other in defining decision criteria used to evaluate options. - How often do faculty leaders and senior administrators...	-0.38	Small Effect
q45_d	Q45D - Outreach (e.g., extension, community engagement, technology transfer, economic development, K-12 education) - Please rate your level of satisfaction or dissatisfaction with the portion of your time spent on the following.	-0.38	Small Effect
q189a_c	Q189A_C - My institution cultivates new leaders among faculty. - How often do you experience the following?	-0.37	Small Effect
q60_e	Q60E - The number of students you advise/mentor (including oversight of independent study, research projects, internships, study abroad) - Please rate your level of satisfaction or dissatisfaction with the following.	-0.37	Small Effect
q189b_f	Q189B_F - Share a sense of responsibility for the welfare of the institution. - How often do faculty leaders and senior administrators...	-0.36	Small Effect
q250_b	Q250B - All things considered, your institution as a place to work - Please rate your level of satisfaction or dissatisfaction with the following.	-0.36	Small Effect
q60_a	Q60A - The number of committees on which you serve - Please rate your level of satisfaction or dissatisfaction with the following.	-0.36	Small Effect

Item	Question	Cohen's <i>d</i>	Interpretation
q100_d	Q100D - Interdisciplinary work is rewarded in the promotion process. - Please rate your level of agreement or disagreement with the following statements.	-0.35	Small Effect
q245_d	Q245D - If I had it to do all over, I would again choose to work at this institution. - Please rate your level of agreement or disagreement with the following statements.	-0.35	Small Effect
q70_d	Q70D - The number of students in the classes you teach, on average - Please rate your level of satisfaction or dissatisfaction with the following.	-0.34	Small Effect
q188_d	Q188D - My institution's shared governance model holds up under unusual situations - Please rate your level of agreement or disagreement with the following:	-0.33	Small Effect
q45_c	Q45C - Service (e.g., department/program administration, faculty governance, committee work, advising/mentoring students, speaking to alumni or prospective students/parents) - Please rate your level of satisfaction or dissatisfaction with the portion of your time spent on the following.	-0.33	Small Effect
q180_o	Q180O - My institution's chief academic officer's (provost, VPAA, dean of faculty): Ensuring opportunities for faculty to have input into the institution's priorities - Please rate your level of satisfaction or dissatisfaction with the following.	-0.32	Small Effect
q200_b	Q200B - My institution does what it can to make personal/family obligations (e.g. childcare or eldercare) and an academic career compatible. - Please rate your level of agreement or disagreement with the following statements.	-0.32	Small Effect
q95_j	Q95J - Family medical/parental leave - Please rate your level of satisfaction or dissatisfaction with the following aspects of your employment.	-0.32	Small Effect
q100_a	Q100A - Budget allocations encourage interdisciplinary work. - Please rate your level of agreement or disagreement with the following statements.	-0.31	Small Effect
q190_d	Q190D - Effective use of technology - How often do you engage with faculty in your department in conversations about.	-0.31	Small Effect

Item	Question	Cohen's <i>d</i>	Interpretation
q200_a	Q200A - I have been able to find the right balance, for me, between my professional life and my personal/family life. - Please rate your level of agreement or disagreement with the following statements.	-0.31	Small Effect
q212_a	Q212A - On the whole, my department colleagues are committed to supporting and promoting diversity and inclusion in the department- Please rate your level of agreement or disagreement with the following statements.	-0.31	Small Effect
q245_a	Q245A - The person who serves as the chief academic officer at my institution seems to care about the quality of life for faculty of my rank. - Please rate your level of agreement or disagreement with the following statements.	-0.31	Small Effect
q188_a	Q188A - The existing faculty governance structures offer sufficient opportunities for me to provide input on institution-wide policies - Please rate your level of agreement or disagreement with the following:	-0.30	Small Effect
q189a_e	Q189A_E - Senior administrators ensure that there is sufficient time for faculty to provide input on important decisions. - How often do you experience the following?	-0.30	Small Effect
q220_b	Q220B - I feel that my department is valued by this institution's President/Chancellor and Provost. - Please rate your level of agreement or disagreement with the following statements.	-0.30	Small Effect
q60_i	Q60I - How equitably advising responsibilities are distributed across faculty in your department - Please rate your level of satisfaction or dissatisfaction with the following.	-0.30	Small Effect
q70_h	Q70H - How equitably the teaching workload is distributed across faculty in your department - Please rate your level of satisfaction or dissatisfaction with the following.	-0.30	Small Effect
q80_e	Q80E - The support your institution provides you for engaging undergraduates in your research/scholarly/creative work - Please rate your level of satisfaction or dissatisfaction with the following.	-0.30	Small Effect
q210_a	Q210A - My departmental colleagues "pitch in" when needed. - Please rate your level of agreement or disagreement with the following statements.	-0.29	Small Effect

Item	Question	Cohen's <i>d</i>	Interpretation
q100_g	Q100G - My department understands how to evaluate interdisciplinary work. - Please rate your level of agreement or disagreement with the following statements.	-0.28	Small Effect
q130_c	Q130C - My institution provides adequate support for faculty to be good mentors. - Please rate your level of agreement or disagreement with the following statements.	-0.28	Small Effect
q186_c	Q186C - The communication of priorities by my institution-wide faculty governing body - Please rate your level of satisfaction or dissatisfaction with the following:	-0.28	Small Effect
q189b_e	Q189B_E - Have an open system of communication for making decisions. - How often do faculty leaders and senior administrators...	-0.28	Small Effect
q95_k	Q95K - Flexible workload/modified duties for parental or other family reasons - Please rate your level of satisfaction or dissatisfaction with the following aspects of your employment.	-0.28	Small Effect
q189b_a	Q189B_A - Have equal say in governance matters. - How often do faculty leaders and senior administrators...	-0.27	Small Effect
q60_d	Q60D - How equitably committee assignments are distributed across faculty in your department - Please rate your level of satisfaction or dissatisfaction with the following.	-0.27	Small Effect
q180_l	Q180L - My institution's chief academic officer's (provost, VPAA, dean of faculty): Pace of decision making - Please rate your level of satisfaction or dissatisfaction with the following.	-0.26	Small Effect
q70_f	Q70F - The support your institution has offered you for improving your teaching - Please rate your level of satisfaction or dissatisfaction with the following.	-0.26	Small Effect
q85_e	Q85E - The availability of course release time to focus on your research - Please rate your level of satisfaction or dissatisfaction with the following.	-0.26	Small Effect
q105_d	Q105D - Faculty outside your institution - Please rate your level of satisfaction or dissatisfaction with your opportunities for collaboration with.	-0.25	Small Effect
q185_h	Q185H - My department head's or chair's: Pace of decision making - Please rate your level of satisfaction or dissatisfaction with the following.	-0.25	Small Effect

Item	Question	Cohen's <i>d</i>	Interpretation
q200_d	Q200D - Department meetings occur at times that are compatible with my personal/family needs. - Please rate your level of agreement or disagreement with the following statements.	-0.25	Small Effect
q60_c	Q60C - The discretion you have to choose the committees on which you serve - Please rate your level of satisfaction or dissatisfaction with the following.	-0.25	Small Effect
q60_f	Q60F - How equitably additional service work is compensated in your department - Please rate your level of satisfaction or dissatisfaction with the following.	-0.25	Small Effect
q90_f	Q90F - Computing and technical support - Please rate your level of satisfaction or dissatisfaction with the following aspects of your employment.	-0.25	Small Effect
q215_l	Q215L - Your department head or chair - For all of your work, how satisfied are you with the recognition you receive from...	-0.24	Small Effect
q190_a	Q190A - Undergraduate student learning - How often do you engage with faculty in your department in conversations about.	-0.22	Small Effect
q195_a	Q195A - The intellectual vitality of tenured faculty in your department - Please rate your level of satisfaction or dissatisfaction with the following.	-0.22	Small Effect
q210_c	Q210C - On the whole, my department is collegial. - Please rate your level of agreement or disagreement with the following statements.	-0.22	Small Effect
q250_a	Q250A - All things considered, your department as a place to work - Please rate your level of satisfaction or dissatisfaction with the following.	-0.22	Small Effect
q85_d	Q85D - Traveling to present papers or conduct research/creative work - Please rate your level of satisfaction or dissatisfaction with the support your institution has offered you for...	-0.22	Small Effect
q80_b	Q80B - The influence you have over the focus of your research/scholarly/creative work - Please rate your level of satisfaction or dissatisfaction with the following.	-0.21	Small Effect