

The use of surveys in higher education for assessment and accreditation purposes is steadily increasing, and institutions must provide a variety of evidence on their effectiveness (Kuh & Ewell, 2010). While surveys are a relatively easy means of gathering a large amount of data, the use of self-reports sometimes leads to concerns about the data quality. If there is the potential that certain items will prompt untruthful answers as respondents attempt to provide a socially appropriate response, researchers may want to examine whether social desirability bias is present in the data (DeVellis, 2003). This bias can impact interpretations of survey results, as well as the design of future data collection and analysis. Although encouraging student engagement is not what one might consider a “sensitive” topic, faculty may be aware that answering items in ways that display higher levels of engagement is desired by their institutions and they want to appear to be “good” employees. Therefore, the current study was developed to address the issue of social desirability bias and self-reported engagement behaviors at the faculty level.

### Data

For this study, data from the 2014 administration of the Faculty Survey of Student Engagement (FSSE) was used. In addition to the core survey (including FSSE Scales and faculty demographics), the following analyses use responses from eight additional experimental items on social desirability (Ray, 1984) that were given to a sub-sample of 1,574 faculty members at 18 institutions. A single scale was created from these items (Cronbach’s  $\alpha = .73$ ), with a higher score meaning a greater tendency for social desirability bias. While this was a subset of institutions that participated in FSSE, they were selected by random assignment and the resulting 18 institutions mirrored the overall national landscape when looking at size, Carnegie classification, and control (FSSE Overview, 2014). Of the sample of faculty members, 48% were male and 72% were White. Less than 3% of the faculty members were non-U.S. citizens. Among the faculty, 65% held a doctorate. Combining academic rank and employment status, 27% were full professors, 24% were associate professors, 23% were assistant professors, 13% were full-time lecturers/instructors, and 13% were part-time lecturers/instructors.

### Methods

A series of ten step-wise ordinary least squares (OLS) regression analyses, controlling for certain faculty and institutional characteristics, were conducted. In each of the analyses, selected faculty and institutional characteristics were entered as control variables in step one of the model, as previous research (Nelson Laird, Lambert, Cogswell, & Ribera, 2014; Umbach & Wawrzynski, 2004) suggests that there are differences in experiences based on these characteristics. The faculty characteristics were gender, race/ethnicity, U.S. citizenship, doctorate-earned status, job rank, discipline of appointment, age, and number of years teaching; the institutional characteristics were locale, enrollment size, Barron’s selectivity, and control. All categorical variables were dummy-coded prior to entry in the models. The social desirability scale score was entered as the second step predictor variable by itself. The ten FSSE Scales were the outcome variables in each of the models. The Variance Inflation Factor (VIF) values for each predictor variable in these regression models were all well below 5 (ranging from 1.0 to 3.2), suggesting that multicollinearity was not an issue in the models (Field, 2009).

### Results

Results from the OLS regressions suggest that in all cases, social desirability bias does not seem to be a major factor in faculty members’ responses to the questions involved in the engagement indicator scales (Table 1). For four out of the 10 models, the effect of the social desirability scale is not statistically significant. After controlling for faculty and institutional characteristics, Higher-Order Learning,

Reflective & Integrative Learning, Student-Faculty Interaction, and Supportive Environment were not significantly related to social desirability bias.

In the remaining six cases, while there was statistical significance, the sizes of the coefficients suggest that the effects are not practically significant. Quantitative Reasoning, Learning Strategies, Collaborative Learning, Discussions with Diverse Others, Effective Teaching Practices, and Quality of Interactions had statistically significant (standardized) coefficients ranging from  $\beta = .082$  to  $\beta = .220$ , which are negligible to small when interpreting effect size (Courville & Thompson, 2001). Furthermore, the change in  $R^2$  for the models when the social desirability score was entered as the second step is quite small as well, even for the statistically significant models, ranging from .006 to .041.

Effective Teaching Practices was the most predicted by social desirability scores, which although still small in magnitude ( $\beta = .220$ ) might be partially explained due to the similarity between these items and ones found on course evaluations at many institutions. Faculty might be more likely to over-report how often they do things like “clearly explain course goals and requirements” and “provide prompt and detailed feedback on tests or completed assignments” because when these items are asked of students in the context of course evaluations, there are higher stakes associated with the results. While this is a possible concern for interpreting results from faculty surveys, it should be noted that the practical significance of this connection is low.

Table 1. Regression Coefficients<sup>a</sup> and  $\Delta R^2$  for Social Desirability Predicting FSSE Scales

FSSE Scale	Social Desirability $\beta$	$\Delta R^2$
Higher-Order Learning	0.049	.002
Reflective & Integrative Learning	0.038	.001
Quantitative Reasoning	0.082**	.006
Learning Strategies	0.098**	.008
Collaborative Learning	0.100**	.008
Discussions with Diverse Others	0.100**	.008
Student-Faculty Interaction	0.017	.000
Effective Teaching Practices	0.220***	.041
Quality of Interactions	0.116***	.011
Supportive Environment	0.050	.002

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

<sup>a</sup>Controlling for faculty characteristics (gender, race/ethnicity, U.S. citizenship, doctorate earned status, job rank, discipline of their appointment, age, and number of years teaching) and institutional characteristics (locale, enrollment size, Barron’s selectivity, and control).

## References

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