Faculty, Survey Nonresponse, and Organizational Citizenship Behavior: A Population Profiling Study

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Abstract: This study introduces an organizational citizenship behavior (OCB) framework and the population profiling method to explore survey nonresponse among college faculty. Four OCB subscales are measured and compared among survey respondents, passive nonrespondents, and active nonrespondents under an analytical approach including chi-square, linear regression, and MANOVA.
College and university leaders have come to rely increasingly on surveys of students, staff, and faculty to inform accreditation, compliance, accountability, and improvements to institutional policies and practices (Cote, Frinnell & Tompkins, 1986; Grosset, 1995; Schiltz, 1988; Peterson, Einarson, Augustine, & Vaughan, 1999; Snover, Terkla, Kim, Decarie & Brittingham, 2010). Surveys are favorite tools of higher education researchers, too; in 2010, over half of the articles published in Research in Higher Education used survey methodology to some extent (Barge & Gehlbach, 2012). As surveys have become more prevalent, however, so has nonresponse among both college populations and the general public (de Leeuw & de Heer, 2002; Jones, 1996; Kim, Gershenson, Glaser & Smith, 2011; Porter & Umbach, 2006; Porter & Whitcomb, 2005). Despite the lower rates of return, relatively few scholarly studies (in organizational science, less than 1 in 3) include serious examinations of the presence and potential impact of nonresponse bias on reported outcomes (Dooley & Lindner, 2003; Lindner, Murphy, & Briers, 2001; Rogelberg & Stanton, 2007; Werner, Praxedes, & Kim, 2007), leading one study to call survey nonresponse “a rather neglected stepchild” in organizational behavior (Spitzmüller, Glenn, Barr, Rogelberg & Daniel, 2006, p. 19).

Each survey and every data sample are in some regards unique, so response rates and the effectiveness of techniques to increase them vary depending on the context (Rogelberg & Luong 1998). Although widely considered to be a sui generis population (Blackburn & Lawrence, 1995; Finkelstein, Seal, & Schuster, 1998; O’Meara, Terosky, & Neumann, 2008; Schuster & Finkelstein, 2006), university faculty have been relatively overlooked in studies of survey methodology. Their status, experiences, and settings differ from the usual suspects in survey
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nonresponse research; as a result, little is known today about the substantial proportion of college faculty who do not respond to the many organizational surveys they receive.

This study undertook an examination of faculty survey nonparticipation under an organizational citizenship behavior (OCB) framework in order to evaluate whether nonrespondent characteristics alter what we think we know about faculty. I asked:

RQ1. What is the extent of active and passive nonresponse among college faculty in an organizational survey?

RQ2. Do organizational citizenship behaviors predict survey response intentions?

RQ3. Do faculty respondents, passive nonrespondents, and active nonrespondents differ in their organizational citizenship behaviors?

The findings are intended to help researchers and practitioners to interpret their faculty survey data and to shed light on the scope of limitations to survey research in this population.

METHOD

Population profiling

This study adapts the “population profiling” method from the organizational science domain (Barr, Spitzmüller, & Stuebing, 2008; Rogelberg & Luong, 1998; Rogelberg, Luong, Sederburg & Cristol, 2000; Rogelberg et al., 2003; Rogelberg & Stanton, 2007; Spitzmüller et al., 2006; Spitzmüller et al., 2007). Population profiling relies on the theory of reasoned action, which states that intent to respond at a later date indicates the likelihood of actual response; a substantial body of literature provides evidence that prior survey refusals and the number of previously completed surveys indeed suggest the likelihood of future participation (Bradburn, 1978; Brennan & Hoek, 1992; Couper & Groves, 1996; Goyder; 1986; Stinchcombe, Jones &
Sheatsley, 1981). Furthermore, subjects’ expressed intent to participate in a future survey has been found to influence and to be correlated with actual survey response (Rogelberg et al., 2006).

This study reverses the typical profiling sequence by administering the profile after the organizational survey’s period in the field is complete. Each faculty member’s response status—respondent or nonrespondent—is combined with his or her expressed survey participation intent to create the three categories of the “response profile” dependent variable. “Respondents” are known to have participated in a prior organizational survey and, in the profile, agree that they would participate in a similar survey in the future. Passive nonrespondents are known prior nonrespondents who agree to participate in the future. Finally, active nonrespondents are known prior nonrespondents who disagree that they would ever participate in such a survey.

Two large, public research universities met the criteria for selection. Each participated in an identical, multi-institution survey of faculty workplace attitudes and realized an approximately 50% response rate. Subsequently, these institutions granted me access to administer a 15-minute profiling survey during several routine, on-campus meetings of college faculty—just the “captive audience” that is required for success of this nonresponse analysis technique.

Theoretical framework: Organizational Citizenship Behavior (OCB)

For my independent variables, I adapted a 19-item OCB inventory to the faculty setting (Podsakoff et al. 1990; Barr et al., 2008; Spitzmüller et al., 2007). Participants scored statements designed to assess intentions to engage in OCB conscientiousness, civic virtue, courtesy, and altruism.

Conscientiousness is “a pattern of going well beyond minimally-required levels of attendance, punctuality, housekeeping, conserving resources, and related matters of internal
maintenance” (Organ, 1988, p. 96). Higher incidences of this behavior have been found to produce stronger survey response intentions, but not necessarily to predict survey response (Rogelberg et al., 2003; Spitzmüller et al., 2007).

*Civic virtue* is “responsible, constructive involvement in the political process of the organization, including not just expressing opinions but reading one’s mail, attending meetings, and keeping abreast of larger issues involving the organization” (Organ, 1988, p. 96). Spitzmüller et al. (2007) could not find a place for civic virtue in survey intentions, but they and Youssefnia (2000) found evidence for lower levels of civic virtue in active nonrespondents.

*Courtesy* is a type of helping behavior involving voluntarily taking steps to prevent the creation of problems for coworkers (Podsakoff, MacKenzie, Paine, & Bachrach, 2000). Applied to survey research, an individual’s courtesy trait might lead him or her to see survey participation as a chance to diagnose and prevent institutional dysfunction, like communication problems or other organizational struggles (Spitzmüller et al., 2007). Indeed, research has found a relationship between OCB courtesy and response intentions, and active nonrespondents are less likely than respondents and passive nonrespondents to take steps toward preventing problems with others (Spitzmüller et al., 2007).

*Altruism* in the OCB context describes “discretionary behaviors that have the effect of helping a specific other person with an organizationally relevant task or problem” (Podsakoff et al., 1990, p. 115). In this study’s instrumentation, the intent to participate measure describes a specific instance in which the chief academic officer (CAO) is the originator of the request to respond. Therefore, faculty reporting higher altruistic behaviors could be responding in order to help the CAO perform her job.

**FINDINGS**
Altogether, 27% (n=36) of the analytic sample qualified as active or passive nonrespondents according to established criteria (Rogelberg et al., 2003). Table 1 presents the results across response types for several characteristics of the participants. Chi square tests of differences in group proportions yielded no differences of statistical significance.

Participants’ intentions to complete a survey correlated with their past response behaviors at a significant level (Table 2). An exploratory factor analysis found that the 19 individual dimensions of OCB loaded onto their appropriate four scales. In total, the OCB scales accounted for 52% of the variance across the inventory. A bivariate correlation analysis confirmed the presence of statistically significant relationships between each of the four OCB constructs and survey response intentions; civic virtue behavior demonstrated the strongest correlation. Given the strength of these correlations, all OCB factors could be included in a bivariate linear regression (Table 3) to test the extent to which organizational citizenship behaviors predict response intentions. Overall, the model explained 21% of the variance in survey response intention, with civic virtue being the only significant predictor.

To answer the final research question, this study used one-way MANOVA with the three-level independent variable for response types and four dependent variables for the OCB subscales. This procedure considers the homogeneity of variance across groups and protects against the chances of making a Type I error (Spitzmüller et al., 2007). As long as its assumptions are met, MANOVA accounts (where ANOVA does not) for the covariance among multiple dependent variables—here, the four OCB subscales, which correlate with one another at a statistically significant level (Huberty & Petoskey, 2000). Furthermore, MANOVA produces a canonically-derived OCB measure, useful in illustrating the differences in OCBs overall across response types (Meyers, Gamst & Guarino, 2006).
A priori tests confirmed that the criteria for MANOVA were met, and subsequently, a statistically significant MANOVA effect was obtained. The results implied that 16% of the variance in the canonically-derived OCB scores was accounted for by faculty membership in the respondent, passive nonrespondent, and active nonrespondent groups. Tests showed (Figure 1) that differences in the supervariable means between all groups met a p<.05 or better threshold of statistical significance and were most substantive between active nonrespondents and other groups. With a strong observed power, the MANOVA affirmed that, even given the limitations of analyzing small numbers of nonrespondents, this study’s planned comparisons of OCB dimensions between respondent types were warranted. Table 4 presents the similarities and differences in organizational citizenship behaviors between survey response profiles.

Accounting for the limitation of sample size, the results suggest that, compared to respondents, active nonrespondents rate themselves lower on conscientious and civic virtue behaviors by significant margins (Figure 2). Passive nonrespondents and respondents showed no substantive differences, only a marginal difference, on any of the four OCB subscales in the analytic sample. The standardized discriminant function coefficients in the MANOVA support this finding, that is, that higher scores on conscientiousness and civic virtue account for the greatest share of differences between active nonrespondents, passive nonrespondents, and respondents.
DISCUSSION & IMPLICATIONS

Although the sample was small, the proportion of active nonrespondents identified in this faculty population is comparable to findings by others (Sosdian & Sharp, 1980; Rogelberg et al., 2000; Rogelberg et al., 2003; Youssefnia, 2000) who place this group of hard-core refusers at 15% or less. The cautious analysis that proceeded confirmed a positive relationship between OCBs and survey response behaviors. OCBs differ along survey response behaviors and help explain faculty’s intentions to respond to organizational surveys. These findings suggest that OCB-based frameworks are appropriate for the study of survey nonresponse in faculty.

Among university faculty, civic virtue was by far the greatest predictor of intentions to complete a workplace attitudes survey. This finding differs considerably from that of Spitzmüller et al. (2007), who found civic virtue to be the weakest and courtesy to be the only significant OCB predictor of response intentions among firefighter cadets. Civic virtue outweighed other OCBs in faculty survey behaviors, too. As found by Spitzmüller et al. (2007), active nonrespondents reported that they were less likely than respondents to engage in these optional organizational activities. My study also found among faculty, where findings on other populations were mixed (Rogelberg et al., 2003; Rogelberg et al., 2006; Spitzmüller et al., 2007), that active nonrespondents differ from respondents in that they were less likely to engage in the conscientious behaviors that indirectly contribute to the organization. I found no differences, though prior research has (Spitzmüller et al., 2007), between the three response profiles on helping behaviors directed toward others (altruism) or on taking steps to prevent problems with others (courtesy).

It may not be coincidental that both civic virtue and conscientiousness are weaker in active nonrespondents than in respondents. Together, these dimensions describe behaviors that
are directed toward the organization (OCB-O); courtesy and altruism, on the other hand, are behaviors directed toward individuals (OCB-I) (Hoffman et al., 2007; Williams & Anderson, 1991). This two-dimensional conceptualization of OCB places the faculty experience in sharp relief: service to the institution, not necessarily to one another, is expected of faculty outside the required tasks of teaching and research (Blackburn & Lawrence, 1995). Although performing “for the good of the organization” is required in general, it is at the discretion of the individual faculty member to choose how much time and where to engage in a vast and vaguely-bounded range of assignments (Blackburn & Lawrence, 1995, p. 222).

OCB-O, then, is written in the faculty DNA; opportunities for OCB-I, on the other hand—especially towards other faculty—are limited in the “shrinking collegial atmosphere” of colleges and universities (O’Meara et al., 2008, p. 86). “Competition has replaced collegiality” in institutions made up of “superspecialists,” immersed by their training “in a language all their own,” and left to be “foreigners in their own land” (Blackburn & Lawrence, 1995, p. 3). In today’s university, the norm of service—that vessel of civic virtue and conscientious behaviors—is what drives faculty from their disciplinary “silos” into contact with one another. Only then, as an indirect consequence, might faculty find themselves engaging in the altruistic and courteous behaviors measured by this study’s OCB inventory.

Therefore, in the faculty context—more so, perhaps, than in populations previously studied (Rogelberg et al., 2003; Rogelberg et al., 2006; Spitzmüller et al., 2007)—survey response is associated particularly with civic virtue’s expression of “responsible, constructive involvement in the political process” of the university (Organ, 1988, p. 96). It follows that nonresponse will not be randomly missing data in university surveys about the extent of faculty participation in campus governance. Survey nonparticipation by faculty who disengage from
other forms of service may result in a restriction of range—and a tendency-to-the-positive effect (Taris & Schreurs, 2007)—on estimates of faculty efforts in institutional service. Given this conceptual link between OCB-O and institutional service in the academy, on the one hand, and this study’s findings of a relationship between OCB-O (especially civic virtue) and survey response behaviors, on the other, colleges and universities with strong cultures of institutional service should enjoy higher response rates on their surveys of faculty. Conversely, low response rates in a department, division, or across the university may be interpreted as diagnostic indicators of faculty disengaged in institutional service.

For researchers, this study should draw new scrutiny to survey research utilizing samples supplemented by a pool of past survey completers (e.g., Hurtado et al., 2012) who, as high-OCB individuals, will introduce greater nonresponse error (Peytcheva & Groves, 2009). Because high OCBs correspond with higher job satisfaction and generally more positive attitudes about employees’ organizations, reliance on a supplemental sample of high OCB individuals will produce population estimates that overstate the positive attitudes of faculty toward their institutions and other attitudinal measures in that instrument (Brüggen & Dholakia, 2010; Hoffman et al., 2007; Ilies, Fulmer, Spitzmüller, & Johnson, 2009; LePine et al., 2002; Rogelberg et al., 2000; Rogelberg et al., 2003; Taris & Schreurs, 2007). Therefore, studies that exaggerate the participation of faculty already inclined to be respondents will only aggravate the restriction-of-range effect that bedevils survey research.

More studies of the characteristics and motivations of faculty nonrespondents would help academic and institutional researchers in developing guidelines to encourage broader participation in faculty surveys and to make better statistical accommodations for missing data. New findings could also clarify the magnitude and direction of limitations to survey research on
faculty. Given the survivorship bias suggested by this study, colleges and universities should take greater care to elicit the muted voices of faculty who consistently withdraw from opportunities to influence institutional decision making.
### Table 1. Descriptive characteristics of participants by response behavior and response profile.

<table>
<thead>
<tr>
<th></th>
<th>All participants with known survey behaviors</th>
<th>Analytic sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Respondent</td>
<td>Nonrespondent</td>
</tr>
<tr>
<td>Total N</td>
<td>124</td>
<td>63</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>43%</td>
<td>37%</td>
</tr>
<tr>
<td>Male</td>
<td>57%</td>
<td>63%</td>
</tr>
<tr>
<td>Tenure status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-tenure</td>
<td>17%</td>
<td>14%</td>
</tr>
<tr>
<td>Tenured</td>
<td>83%</td>
<td>86%</td>
</tr>
<tr>
<td>Rank</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assistant</td>
<td>16%</td>
<td>14%</td>
</tr>
<tr>
<td>Associate</td>
<td>33%</td>
<td>48%</td>
</tr>
<tr>
<td>Full</td>
<td>51%</td>
<td>38%</td>
</tr>
</tbody>
</table>

*Note: NR= Nonrespondent.*

### Table 2. Correlation analysis among OCB factors, survey response intentions, and survey response behaviors.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 OCB Conscientiousness</td>
<td>262</td>
<td>.67</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 OCB Civic Virtue</td>
<td>264</td>
<td>.37***</td>
<td>(.75)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 OCB Courtesy</td>
<td>264</td>
<td>.52***</td>
<td>.35***</td>
<td>(.73)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 OCB Altruism</td>
<td>256</td>
<td>.50***</td>
<td>.43***</td>
<td>.53***</td>
<td>(.72)</td>
<td></td>
</tr>
<tr>
<td>5 Response intention</td>
<td>269</td>
<td>.20***</td>
<td>.44***</td>
<td>.20***</td>
<td>.23***</td>
<td>--</td>
</tr>
<tr>
<td>6 Response behavior</td>
<td>187</td>
<td>.09</td>
<td>.22**</td>
<td>.08</td>
<td>-.03</td>
<td>.36***</td>
</tr>
</tbody>
</table>

*Note: Cronbach’s α is reported on the diagonal for OCB composite measures. Correlations reported are Pearson’s r. Response behavior: 0 = did not respond to prior faculty survey, 1 = responded to prior faculty survey. *p<.05; **p<.01; ***p<.001.*
Table 3. Bivariate regression analysis for OCB subscales predicting response intentions (z-score) (n = 247).

<table>
<thead>
<tr>
<th>Variable</th>
<th>SE</th>
<th>B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conscientiousness</td>
<td>.06</td>
<td>.03</td>
<td></td>
</tr>
<tr>
<td>Civic virtue</td>
<td>.06</td>
<td>.41*</td>
<td></td>
</tr>
<tr>
<td>Courtesy</td>
<td>.06</td>
<td>.06</td>
<td></td>
</tr>
<tr>
<td>Altruism</td>
<td>.06</td>
<td>.02</td>
<td></td>
</tr>
</tbody>
</table>

Note: ***p<.001, $R^2 = .21$, adjusted $R^2 = .20$. 
Table 4. Standardized means, standard deviations (SD), and significance levels of differences for OCB subscales by response profile (for the analytic sample) and by survey behaviors (for all participants with a known prior faculty survey status).

<table>
<thead>
<tr>
<th></th>
<th>Analytic sample</th>
<th>All participants with known survey behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(A)</td>
<td>(P)</td>
</tr>
<tr>
<td></td>
<td>Active NR (n = 9)</td>
<td>Passive NR (n = 27)</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>-.95 ± 1.32</td>
<td>-.14 ± 1.04</td>
</tr>
<tr>
<td>Civic virtue</td>
<td>-1.09 ± 1.02</td>
<td>-.22 ± .90</td>
</tr>
<tr>
<td>Courtesy</td>
<td>-.29 ± 1.05</td>
<td>-.13 ± .99</td>
</tr>
<tr>
<td>Altruism</td>
<td>-.12 ± .54</td>
<td>.09 ± .84</td>
</tr>
</tbody>
</table>

Note: NR = Nonrespondents. Effect size is Cohen’s d.

† p<.10, *p<.05, **p<.01.
FIGURES

Figure 1. Central tendency and spread of the canonically derived OCB supervariable (z-score) for respondents, passive nonrespondents, and active nonrespondents.
Figure 2. Central tendency and spread of four OCB subscale estimates (z-scores) for respondents, passive nonrespondents, and active nonrespondents.
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