Office of Institutional Research Research Report: Response Patterns for NSSE 2012 Survey March 12, 2012



Executive Summary: The National Survey of Student Engagement (NSSE) was administered online at Siena College in February 2012. Out of 1551 freshman and seniors who were invited to participate, 350 students responded for an overall response rate of 22.6%. Respondents were more likely to be female than male, more likely to be seniors than freshmen, and more likely to be from in-state than from out-of-state. Also, students with a declared major in the social sciences or STEM fields had higher response rates than students with a business major or an undeclared major. Respondents had a higher average cumulative GPA than non-respondents.

Background: The National Survey of Student Engagement (NSSE) is a nationally normed survey of attitudes and behaviors that are correlated to student engagement and academic success. The NSSE is administered online to freshmen and senior students in the spring semester. Promoting high response rates on an online survey is a challenge; the majority of students who are invited to participate in the survey choose not to do so. This research report examines the demographic and academic characteristics of students who were invited to take the NSSE in the spring of 2012, with comparisons by response status.

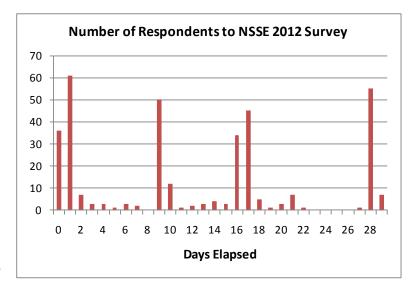
Methodology: In early February 2012, all Siena students who had been classified as freshmen or seniors in the Fall 2011 term received an email invitation to participate in the NSSE survey. (Some of the freshmen had attained sophomore status by the time the survey was administered in the spring; see discussion below.) The emails contained an individualized link to the survey instrument, which allowed for tracking of student response rates. Three subsequent email reminders, each containing an individualized link to the survey, were sent out at approximately one week intervals.

After all responses were processed, a comparison was made of respondents and non-respondents on a range of demographic and academic variables, in an attempt to determine if there were any clear patterns distinguishing students who responded from those who did not respond.

Results: Out of 1551 students who were invited to participate in the NSSE 2012 survey, 350 students responded for a 22.6% response rate. The chart to the right shows the number of respondents as a function of the number of days elapsed since the survey was first deployed.

This chart shows a relatively strong response rate immediately after the initial deployment of the survey, followed by three spikes corresponding to the subsequent reminders that were sent out to students.

The table on the following page shows response rates by demographic categories. Female students were significantly more likely than male students to take the survey (χ^2 =22.75, df=1, p<0.0001). There



were no significant differences in response rate among the four major ethnic groups (χ^2 =0.09, df=3, ns). There was no significant difference in response rate between part-time and full-time students (χ^2 =0.31, df=1, ns). There were significant differences by class, with sophomores and seniors showing higher response rates than freshmen (χ^2 =19.58, df=2, p<0.0001). In-state students had higher response rates than out-of-state students (χ^2 =10.28, df=1, p<0.002).

There were significant differences in response rate by student major. For data analysis purposes, only majors with 10 or more students were included, and all majors were grouped into the following categories: liberal arts/education, social sciences, STEM (math/science), business, and undeclared. Social science majors and STEM majors had relatively high response rates, while business majors and undeclared majors had relatively low response rates (χ^2 =18.12, df=4, p<0.002).

In terms of academic performance, students who took the NSSE had a higher average cumulative GPA (3.22) compared to students not taking the survey (3.03). The difference was statistically significant using a t-test with assumed equal variance

(t=5.35, df=1548, p<0.0001).

Discussion: The overall response rate for the 2012 administration of the NSSE at Siena College was 22.7%. For comparison purposes, the national average for institutions administering NSSE online in spring 2011 was 34%. The reasons for the relatively low response rate at Siena are not clear, although some possibilities can be mentioned. First, no incentives were offered for student participation. Second, students at Siena are subjected to a large number of surveys, which could significantly reduce the overall response rate. Third, the NSSE is administered through the students' Siena email accounts, and many students rarely (if ever) check their Siena accounts.

The response pattern was fairly predictable, with a relatively strong response rate in the first two days following the initial invitation to participate in the survey. There were three additional spikes in response rate corresponding to the release of subsequent reminders, indicating that these reminders were reasonably effective in encouraging participation.

There were some demographic differences between respondents and non-respondents. First, female students were more likely to respond than male students, which is a typical finding in survey administration. Second, in-state students were more likely to respond than out-of-state or international students, although the reason for this difference is not clear. Third, somewhat surprisingly, part-time students had higher response rates than full-time students, although the difference was not statistically significant.

Additionally, seniors were more likely to respond than (true) freshmen. This finding is not surprising, as most seniors are

#in Response Rate Cohort Respondents Gender Female 830 227 27.3% 720 123 17.1% Male Ethnicity Asian 54 12 22.2% Black 43 9 20.9% Hispanic 81 17 21.0% 1303 292 White 22.4% 20 29.0% Other / unknown 69 Status Full-time 1487 334 22.5% Part-time 16 63 25.4% Class Freshman 582 96 16.5% 171 47 Sophomore 27.5% Senior 797 207 26.0% Residency In-state 1252 304 24.3% Out-of-state 233 42 18.0% International 22 18.2% Declared Major Business 492 89 18.1% 177 Liberal Arts 42 23.7% Social Sciences 251 80 31.9% **STEM** 272 72 26.5% Undeclared 242 36 14.9% Total 1551 350 22.6%

preparing to graduate and may be paying more attention to their email account, and might more willing to participate in institutional initiatives. Interestingly, first-year students who had crossed the credit hour threshold to sophomore status had a much higher response rate than true freshmen. Many of these "first-year" sophomores are students who matriculated into Siena having taken college courses in high school, which may indicate a relatively high level of motivation and academic ability.

Finally, there were significant differences in response rates by type of major. Students with majors in the social sciences had the highest response rates, perhaps because these students recognize the importance of surveys within their major fields. Also, some of these students are expected to create their own surveys as part of their course requirements. Students with undeclared majors had the lowest response rates, possibly reflecting lower levels of engagement with college activities in general.

Survey respondents had a somewhat higher average cumulative GPA compared to non-respondents. This difference could reflect higher levels of motivation or engagement among respondents.

Conclusion: The response rate for the 2012 administration of the NSSE survey was somewhat low but adequate to produce valid results. The current report examined demographic and academic factors in relationship to response rates. While some differences emerged, none of the findings provide any major insight into the survey response behaviors of Siena students.