

NDSU

STEPS TO SUCCESS: AN ACADEMIC SOCIAL NORMING CAMPAIGN

www.ndsu.edu/studentssuccess/steps/

PROJECT REPORT

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ON BEHALF OF THE STEPS TO SUCCESS COMMITTEE

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STEPS TO SUCCESS COMMITTEE

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This report summarizes the activities, research, and outcomes related to the NDSU STEPS to Success campaign. The executive summary provides a brief background and main findings from the project. Subsequent pages provide more information about work carried out by the STEPS committee and research related to the project.

EXECUTIVE SUMMARY

Social norms are the unwritten rules about what to do in particular situations. One's perception of what a social norm is can be inaccurate, and social norming interventions aim to identify and correct misperceptions when they exist. As a rule, people tend to overestimate the negative behaviors and underestimate the positive behaviors of others (Berkowitz, 2005). For example, it has been well-documented that college students assume the norm is to use greater quantities of alcohol than is actually the case. Norming campaigns sharing information about *actual* alcohol use, which is less than what is perceived, have been effective in lowering alcohol use overall (see review by Demetriou, 2005).

STEPS to Success applied the social norms approach to behaviors and attitudes related to academic success. The underlying assumption was that students underestimate how much their peers engage in positive academic behaviors and attitudes, and it was this misperception the campaign aimed to address. Since fall 2015, a campus-wide norming campaign has been promoting normative messages about academic behaviors as well as a host of information about study skills and campus support resources.

This evidence-based intervention also intended to address a fundamental challenge: many students arrive at college without having had access to the information, experiences, and support they need in order to learn how to be academically successful at the college level (Bensimon, 2006). Indeed, STEPS results show lower achieving students are less confident and less satisfied with their academic outcomes but are also less engaged in the actual behaviors associated with academic success.

Main Findings

1. Students earning lower GPAs are less satisfied with their academic performance and have lower academic confidence than students earning higher GPAs. However, they may not have a clear understanding of what they need to do to be more academically successful.
2. With few exceptions, students underestimate how much their peers engage in positive academic behaviors and attitudes.
 - This matters because some students may unknowingly align their behavior to be congruent with what they assume the norm to be, leading them to do less than they would have otherwise.
3. Students earning 'A' GPAs (3.5-4.0) report stronger engagement in positive academic behaviors and attitudes than students earning 'C' GPAs (2.0-2.5).
4. There is evidence the academic norming approach has a positive impact on behaviors and perceptions.
 - Students rate themselves as more engaged in positive academic behaviors and attitudes three weeks after hearing a class presentation on norming campaign material (pretest-posttest design).
 - Students familiar with the campus-wide norming campaign report stronger engagement in positive academic behaviors and attitudes than a baseline group of students.
 - Students familiar with the norming campaign rate their peers' level of engagement in academic behaviors and attitudes more favorably (i.e., they see their peers in a more positive light). This suggests a positive shift in perceived academic norms overall.
 - The gap between what students say they do compared to their peers (i.e., they think their peers do less) may get a bit smaller following exposure to the norming campaign, but evidence of this is limited.

STEPS TO SUCCESS BACKGROUND

In fall 2014, a grassroots cross-departmental collaborative of staff, a student representative, and later a faculty liaison, set out to utilize the social norms approach to promote undergraduate student success. While there is a great deal of research supporting the use of the social norms approach to reduce high-risk drinking at the collegiate level (e.g., Perkins, 2002), less is known about applying social norms to other student behaviors (Demetriou, 2005). However, the University of Idaho's Academic Champions Experience (ACE-it) campaign (see LeBeau, 2007) reported successfully using the social norms approach to reduce student academic misperceptions while simultaneously increasing positive academic study skills.

Therefore, starting with the comprehensive ACE-it program guide and other key references, the NDSU team conducted two campus-wide surveys and carried out a host of norming interventions over the past year-and-a-half. Norming interventions, reported in detail on pages 3-4, have included a broad use of print and digital media, email and listserv messaging, dozens of classroom interventions with students, and multiple presentations to staff and faculty. Administrative and financial support has been provided by the Provost, the Vice President of Student Affairs, the Associate Vice Provost for Enrollment Management, Student Success Programs, and the Office of Institutional Research and Analysis.

METHOD

Taking cues from Fabiano (1999; as cited in Demetriou, 2005), the following provided a framework for the campus-wide norming campaign and is used to structure this Method section:

1. Collect data on actual and perceived norms
2. Create normative messages
3. Test the messages
4. Select delivery strategies
5. Evaluate the results

1. Collecting data on actual and perceived norms

Borrowing from established surveys of student engagement (e.g., the National Survey of Student Engagement) and theories of student success (e.g., Kuh et al., 2006), 39 survey items were created to simultaneously assess student ratings of their own behaviors and attitudes (i.e., the actual norm) and their perceptions of the behaviors of their peers (i.e., the perceived norm). This was the method employed by the ACE-it campaign (2007) and similar to that of other alcohol norming campaign instruments (e.g., the Survey of College Alcohol Norms and Behavior, 2001).

A sample item:

d. How often do students seek help for academic work when they need it? (help from professors, instructors, teaching assistants, tutors, peers, etc.)

	Almost Always	Most of the Time	Sometimes	Rarely	Never
YOU	<input type="radio"/>				
Most NDSU Students	<input type="radio"/>				

The survey was administered in spring 2015 ($N = 789$; Cronbach's $\alpha = .84$) and again in spring 2016 ($N = 606$; Cronbach's $\alpha = .86$) to stratified random samples of undergraduate NDSU students. Care was taken to ensure the samples were representative of the undergraduate population in terms of GPA and academic level. Additional survey data were collected in fall 2016 during a classroom intervention. The ACE Learning Services Coordinator delivered an hour-long STEPS intervention in 24 University 189 classes. Norm and perception data were gathered on seven STEPS items

prior to the presentation and then again three weeks later from a sample of these courses. Seventy-two participants completed both pretest and posttest data.

2. Creating normative messages

Gaps between the actual and perceived norms were evaluated for each item using means and effect size analyses. Items for the norming campaign were generally selected by prioritizing those with the largest gap effect sizes. A central goal of the campaign was to more closely align the actual and the perceived norms, so items with the greatest disparities were primary targets for intervention. Table 1 shows an example of this gap analysis.

Table 1. “What percent of the time do students attend class as scheduled?”

	<u>Mean</u>	<u>Scale Value</u>
YOU	1.86	(90-100% of the time)
MOST NDSU students	3.63	(70-80% of the time)
Difference (gap size) =	-1.77***	($p < .001$)
Cohen's d =	1.29	(Large Effect Size)

Normative messages were written using the frequency of responses to each item. For example, in response to the question, “How committed are you to earning a degree from NDSU,” 73% answered very committed, and 21% answered committed. This was translated to the norming message, “9 of 10 students are committed to earning a degree from NDSU.”

3. Testing the messages

Dozens of norming statements were drafted and tested in the process of choosing the final 13 used in the norming campaign. Keeping gap and effect size in mind, members of the STEPS team ranked statements and narrowed the list to 15. Feedback on the statements was then collected from a focus group of student workers from Student Success Programs. Feedback was also gathered in a short campus follow-up survey ($N = 148$) in which students rated the quality of the statements by their clarity and how motivating and informative they were judged to be.

Based on this feedback, the following 13 statements were chosen for the campus-wide norming campaign:

- 9 of 10 NDSU students use a personal calendar to prioritize their academic work
- A majority of students check their NDSU email and Blackboard at least 16 times a week
- 3 of 4 students participate in organized clubs or student groups during a typical week
- 4 of 5 students believe it's important to approach college like a full-time job
- NDSU students spend an average of 13 to 16 hours a week preparing for class
- Most NDSU students start studying at least three days before an exam
- Most students use tutoring or other academic services at least once a month
- 4 of 5 students report attending class at least 90 percent of the time
- 3 of 4 students finish their homework before class at least 90 percent of the time
- 4 of 5 students believe it's important to register for and complete 15 credits a semester
- 19 of 20 NDSU students meet with their academic advisor at least once a semester
- 9 of 10 students are committed to earning a degree at NDSU
- 4 of 5 students meet with faculty at least once a semester to work on special projects, conduct research, or get help with coursework

4. Selecting delivery strategies

An early objective of the STEPS initiative was to introduce leaders, faculty, and staff in the campus community (see Table 2) to the goals and background of the campaign in order to gain their support in assisting to distribute the messages to

students via course lectures, advising/academic conversations, and class syllabi. For example, when professors announce an upcoming exam, they may also add the STEPS statistic “Most NDSU students start studying at least three days prior to an exam” while an advisor could remind their advisees that “19 out of 20 students meet with their academic advisor at least once a semester.”

The STEPS initiative also sought to give students visual reminders of the campaign via a variety of media (see Table 3) across campus. In order to make stronger connections between the statistics and actual practice, LISTSERV emails and 50 minute classroom presentations provided students with additional tips to incorporate the academic strategies and information regarding the importance of implementing such a strategy. For example, the purpose of meeting with an advisor each semester would be helpful in course planning, graduating on time, and avoiding common pitfalls. The STEPS representative may also focus on how to change advisors, find an advisor, or schedule an advising appointment. The presentations were often completed in University 189 classes with the goal of presenting campus norms and study techniques to incoming freshmen who are just beginning to learn about campus culture and norms.

Table 2. Departmental Collaborations and Presentations

- | | |
|---|--|
| <ul style="list-style-type: none"> • Admissions • Faculty Senate • College of Arts, Humanities, and Social Sciences • College of Business • Greek Life • Human Resources and Payroll • Libraries • Memorial Union • NDSU Counseling Center • NDSU 2015 Teaching and Learning Conference | <ul style="list-style-type: none"> • Office of Multicultural Programs • Office of Institutional Research • Orientation • Residence Life • Rising Scholars • School of Nursing • Staff Senate • Student Affairs Directors • Student Government • Student Success Programs |
|---|--|

Table 3. STEPS to Success Printed and Electronic Media

- | | |
|---|--|
| <ul style="list-style-type: none"> • Blackboard Announcements • Bookmarks • Course Syllabi • Electronic Boards (Union, Library, Barry Hall) • Handouts / Brochures | <ul style="list-style-type: none"> • Posters (see Figure 1) • Residence Life Handbook • STEPS Website • Table Tents / Napkin Dispensers • Welcome Week Brochure |
|---|--|



Figure 1. Sample STEPS to Success posters.

RESULTS

Of those surveyed in spring 2016, 78% had seen or heard about the norming campaign, and 80% found the messaging to be “helpful” or “somewhat helpful”. The most common ways for students to be exposed to the campaign included the posters, the student listserv, and campus electronic boards.

1. Students earning lower GPAs are not satisfied with their academic performance and have lower academic confidence than students earning higher GPAs. However, they may not have a clear understanding of what they need to do to be more academically successful.

Figure 2 shows a clear trend: students in lower cumulative GPA groups are not satisfied with their academic performance and do not feel their GPA is a good reflection of their actual academic ability. They also indicate a lower level of confidence in their ability to do well in college. In fact, 61% in the 3.5-4.0 GPA group *strongly* agree that they are confident versus 13% in the 2.0-2.5 GPA group.

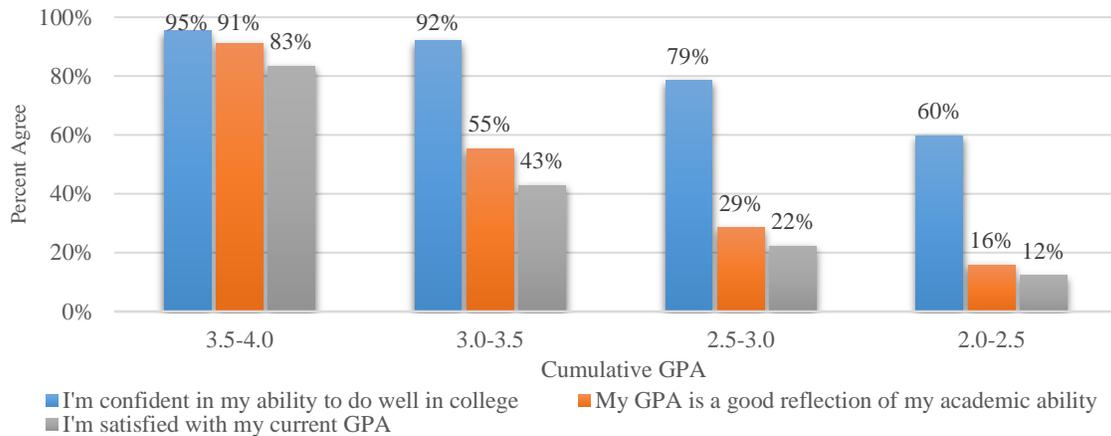


Figure 2. Percent Who Strongly Agree and Agree: Confidence, Academic Ability, and Satisfaction with GPA.

Further, Figure 3 shows that while a majority of all students agree that academic success mainly depends on good study habits and hard work, students in lower GPA groups endorse this idea to a lesser extent.

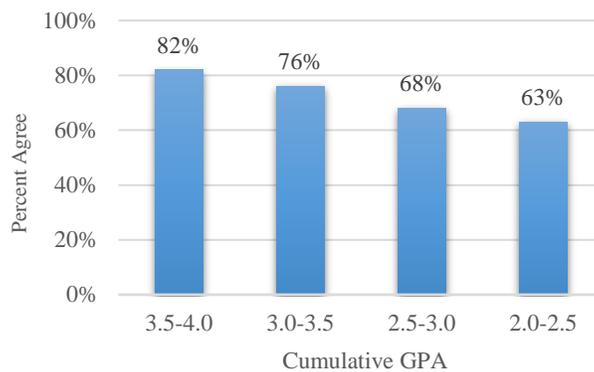


Figure 3. Percent Who Agree: “Academic success mainly depends on good study habits and hard work.”

2. With few exceptions, students underestimate how much their peers engage in positive academic behaviors and attitudes.

At all three data collection points—spring 2015, spring 2016, and fall 2016—students generally report themselves as more engaged in positive academic behaviors and attitudes than their peers. This gap between what students say is true

for themselves (i.e., the actual norm) and what they believe to be true for their peers (i.e., the perceived norm) was consistently statistically significant, oftentimes with medium to large effect sizes. In the 2016 spring survey administration, students rated themselves more positively than their peers on 72% of the items.

Examining how the perceived norm varies by GPA level yields insights as well. Students with higher GPAs correctly assume they are doing more than most students but often overestimate the extent to which this is the case. Students with lower GPAs sometimes assume their behavior is similar to that of their peers when in fact they are doing less in most cases. For example, Table 4 shows lower GPA students report their level of effort as very similar to what they perceive of most students ($M = 2.46$ vs. $M = 2.51$), when in fact, they are putting in a lower level of effort than the three higher GPA groups. This suggests students with lower GPAs, in particular, can benefit from learning that their peers are doing more academically than they realize.

Table 4. "What level of effort do NDSU students put into their academic work?"

<u>Cumulative GPA</u>	<u>YOU</u>	<u>Most Students</u>
2.0-2.5	2.46	2.51
2.5-3.0	2.33	2.57
3.0-3.5	2.09	2.67
3.5-4.0	1.65	2.74

Scale values: 1 = Very High, 2 = High, 3 = Medium, 4 = Low, 5 = Very Low

3. Students earning ‘A’ GPAs (3.5-4.0) report engaging in more positive academic behaviors and attitudes than students earning ‘C’ GPAs (2.0-2.5).

Responses to four survey items were standardized to account for different response scales and then segmented by GPA. A higher z-score means a higher level of engagement in the academic behavior or attitude. Figure 4 shows a consistent trend: engagement in positive academic behaviors and attitudes increases as GPA level increases. This trend is present for the majority of items. In many cases, the practical difference is small. For example, students in the 2.0-2.5 GPA group average about 9-12 hours of time preparing for class while students in the 3.5-4.0 group average 13-16 hours. However, as Table 5 shows, correlations between positive academic behaviors and attitudes and cumulative GPA are positive, and at times, large.

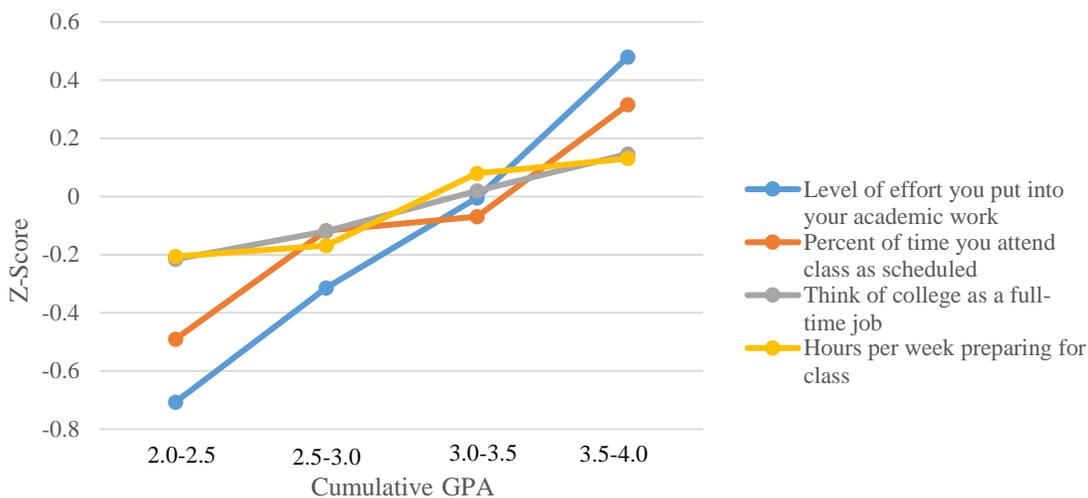


Figure 4. Standardized Scores for Academic Behaviors by GPA.

Table 5. Correlations Between Survey Item Ratings and Cumulative GPA

<u>Survey Item</u>	<u>Correlation</u>
Level of effort put into academic work	.439**
Percent of the time attend class	.271**
Committed to earning degree at NDSU	.221**
Feel it's important to complete 15 credits a semester	.147**
Hours per week spent preparing for class	.145**
Regard attending college as a full-time job	.142**

** $p < .01$ (2-tailed)

4. There is evidence the academic norming approach has a positive impact on behaviors and perceptions.

a. Students rate themselves as more engaged in positive academic behaviors and attitudes three weeks after hearing a class presentation on norming campaign material (pretest-posttest design, no control group).

In fall 2016, the ACE Learning Services Coordinator delivered an hour-long STEPS presentation in 24 University 189 classes. Norm and perception data were gathered on seven STEPS items prior to the presentation and then again three weeks later from a sample of these courses. Seventy-two participants completed both pretest and posttest data.

Six of the seven items showed small movement in a positive direction, with three of the comparisons being statistically significant and two approaching statistical significance. Of note, the percentage of students saying they *strongly agree* that “academic success mainly depends on good study habits and hard work” grew from 40% to 63% ($M1=1.68$ vs. $M2=1.42$, $t(71)=3.24$, $p<.01$). This has been a central message of the norming campaign.

b. Students familiar with the campus-wide norming campaign report more strongly engaging in positive academic behaviors and attitudes than a baseline group of students.

475 of the 606 (78%) students taking the survey in 2016 reported being exposed to the norming campaign via one or more of the advertising strategies. To gauge the campaign’s impact, this group of 475 was considered a “treatment group” and was compared to the original sample of students who took the survey in 2015, prior to any norming campaigning (baseline group). The 131 students taking the 2016 survey who were unfamiliar with the norming campaign were considered a “control group.” The 2016 treatment group was nearly identical to the 2015 baseline group in terms of cumulative GPA, lending confidence to comparisons between the two groups. However, the 2016 control group had a slightly lower mean GPA than the 2015 baseline group (3.11 vs 3.25); GPA was therefore treated as a covariate to control for this difference.

The 2016 treatment group was more strongly engaged in 9 of 13 (69%) norming campaign items than the 2015 baseline group, and nearly always more so than the 2016 control group. Gains tended to be small with a few achieving statistical significance and others approaching statistical significance at the $p < .10$ level.

A clean example of this finding, Figure 5 shows that item means for the 2015 baseline and the 2016 control group are about the same while the 2016 treatment group mean is higher in response to a question asking how many times students attend an appointment with an academic advisor in a typical semester ($F[2, 1391] = 10.61$, $p < .001$). In practical terms, this is not a large difference, but it represents movement in the right direction.

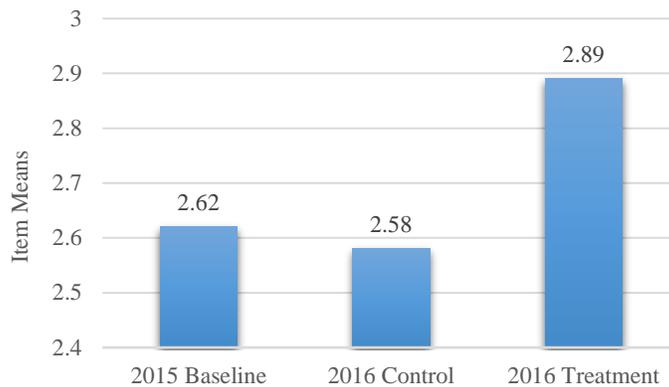


Figure 5. Item Means for Number of Times Attend Appointments with Academic Advisor in a Typical Semester.

Note: Minimum scale value begins at 2.4 on this chart to more clearly show differences between each group.

c. Students familiar with the norming campaign rate their peers' level of engagement in academic behaviors and attitudes more positively (i.e., they see their peers in a more positive light).

Three weeks following the University 189 classroom presentations, students rated their peers more positively on six of the seven campaign items, three of these changes being statistically significant and two approaching significance. Following the presentation, students were seeing their peers as slightly more committed, more engaged, and more understanding of the relationship between study habits and academic outcomes.

This was a general theme for the campus-wide campaign as well. The 2016 treatment group rated their peers more favorably than the 2015 baseline group on 12 of 13 (92%) items. This was the case for the 2016 control group on a few items as well, but to a lesser extent than the treatment group. In all comparisons, the 2016 treatment group rated peers more positively than the 2016 control group. An example, Figure 6 shows that the 2016 treatment group rated their peers more favorably than the 2015 baseline and 2016 control groups on an item measuring how important students think it is to regard college as a full-time job ($F[2, 1391] = 5.33, p < .01$).

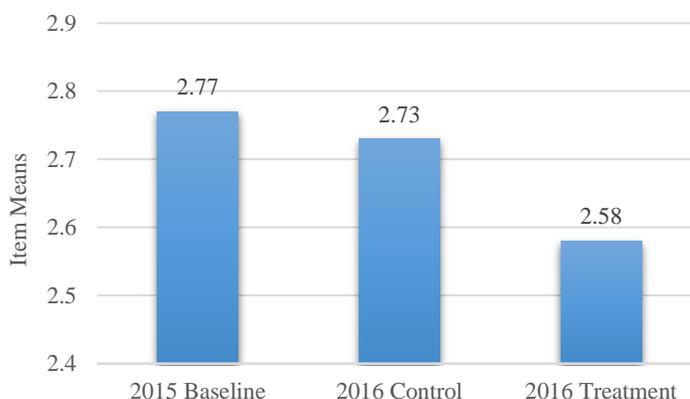


Figure 6. Item Means for How Important MOST Think it is to Regard College as a Full-Time Job.

Scale values: 1 = Very Important, 2 = Important, 3 = Somewhat Important, 4 = Somewhat Unimportant, 5 = Unimportant, 6 = Very Unimportant.

Note: Minimum scale value begins at 2.4 on this chart to more clearly show differences between each group.

d. The gap between what students say they do compared to their peers (i.e., they think their peers do less) may get slightly smaller following exposure to the norming campaign, but evidence of this is limited.

In an examination of the item means for the in-class presentation in fall 2016, gaps between what students say they do compared to what they think their peers do got slightly smaller for five of seven items (71%).

For the campus-wide campaign, changes in the gaps between the actual and perceived norms were examined by testing whether the proportion of students reporting a small to non-existent gap increased from the 2015 baseline to the 2016 treatment group (i.e., Did more students report no gap or a small gap following the campaign?). Gaps for each participant on each item were coded as no gap, small, medium, and large.

Table 6 shows a larger proportion of students in the 2016 treatment group indicating a small to non-existent gap than students in the 2015 baseline group for the item assessing the importance of considering attending college as a full-time job. Seven of the thirteen campaign items fit this pattern to some extent. Changes in gap size were slight; gap size generally remained consistent both before and after the intervention, most likely because students rated themselves more positively in proportion to the amount they rated their peers more positively.

Table 6. Gap Size Between Actual and Perceived Norm
"Important to consider attending college as a full-time job"

<u>Gap Size</u>	<u>2015 Baseline</u>	<u>2016 Treatment</u>
No Gap	23.6%	26.1%
Small	38.7%	45.1%
Medium	35.9%	27.8%
Large	1.9%	1.1%

$\chi^2 (3, N = 1,264) = 10.97, p < .05$

Finally, regression analyses have evaluated the survey's ability to predict cumulative GPA with reasonable accuracy. Of the 13 items used in the norming campaign, five are of particular importance in predicting GPA ($R^2 = .25, F(5, 600) = 40.73, p < .000$):

- Level of effort put into academic work
- Utilization of academic support services
- Percent of the time attending class as scheduled
- Commitment to earning a degree from NDSU
- Percent of the time being prepared for class by having completed assigned reading and homework

CONCLUSIONS

The STEPS to Success campaign has been a positive joint effort between staff and faculty representing both Student Affairs and Academic Affairs. Perhaps more important than the norming messages themselves has been the opportunity to shine a spotlight, as a campus, on student behaviors and attitudes related to academic success. Many faculty and staff have reported promoting STEPS media with students, and others have said the campaign has served as a starting point for deeper conversations with students about things they can do to enjoy success at college.

The campaign has also aimed to address the challenge faced by many students who arrive at college without having had access to the information, experiences, and support they need in order to learn how to be academically successful at the college level. Lower performing students are not satisfied with where they are at, but it should not be assumed that they always know what to do to improve their situation or that poor performance is merely indicative of being "lazy" or not caring. In many cases, there may be legitimate barriers between students with lower GPAs and greater engagement in positive academic behaviors and attitudes. NDSU students with 2.0-2.5 GPAs, for example, work twice as many hours off-campus during a typical week than students with 3.5-4.0 GPAs (14 vs. 8 hours a week) and are generally more

concerned with debt and financial circumstances (OIRA, 2016). Despite these challenges, 90% of students with lower GPAs say they are committed to earning a degree from NDSU. Therefore, a primary goal for the campaign has been to help students understand, and in many cases destigmatize, that it is the norm to spend considerable time tending to academic work, and it is the norm to utilize campus supports when needed. The campus-wide campaign has had a positive impact, but these messages can be even more effectively conveyed by explicitly and concretely helping students understand, one class at a time, one student at a time, how they can be successful in college.

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