

Research Reports

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Boise State University

The Contribution of College to Student Growth: A Boise State University and National Public Colleges Perspective

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ABSTRACT

This study compared the perceptions of Boise State University students to other four-year college enrollees in the areas of importance of educational outcomes, college contributions to reaching educational outcomes, personal growth in a variety of areas, and college contributions to personal growth. BSU students differed from the four-year comparison group mainly in that they were less likely to be graduating soon. They were also less likely to participate in clubs or attend events and were more likely to work and have family responsibilities. Therefore, follow-up analyses were undertaken to see if there was a relationship between these demographics and perceptions of their educational experience.

Among the findings:

- Both groups agreed that acquiring career skills, becoming competent in their major, and learning to think and reason were skills of the utmost importance to attain in college.
- Both also thought that understanding math, appreciating the fine arts, and learning principles for conserving and improving the environment were of the least importance.
- The most important outcomes also were those that BSU students generally felt they had made the most progress in. In most areas BSU students felt their progress was similar to the national group.
- BSU students felt they had grown the most personally in the areas of taking responsibility for their own behavior, increasing their

intellectual curiosity, and becoming academically competent. Again, ratings were similar to the national group. However, most of the personal growth areas showed distinct differences between the lower BSU ratings of college contributions to growth and the higher national ratings.

- Students who had completed more credits felt they had made more progress in reaching academic outcomes. The amount of time spent in classes, however, was unrelated to the

broad personal growth areas Club and organization participation related to perceptions of greater college contributions to personal growth. Students who attended more college-sponsored events rated themselves higher in progress in reaching educational outcomes, personal growth, and the college's contribution to that growth. This indicates that students who take advantage of extracurricular activities find them valuable avenues for helping them grow, especially in non-academic areas.

- No statistically significant relationships between job hours and perceptions of importance of outcomes, college contributions to reaching desired outcomes, perceptions of personal growth, or college contributions in the areas of personal growth could be found. However, statistically significant overall differences on family responsibilities and ratings of the college's contribution to their personal growth were found.

As a final look at student growth and college contributions, seven "effort" variables (credits earned, time spent on course work, other learning experiences, college clubs, college events, off-campus jobs, and family responsibilities) were used to predict student ratings of college contributions to growth in five areas: intellectual, personal, social, preparation for career, and preparation for further study. Time spent in course activities and at off-campus jobs predicted intellectual growth, while time spent in college clubs and at off-campus jobs predicted personal and social growth. More hours on the job was related to less growth, while more hours in course activities and clubs was related to more growth. This was despite the fact that jobs did not appear as a significant factor in all the many individual ratings of outcomes and student growth conducted previously.

Taken as a whole, these findings indicate that that entire college experience is important in order to foster growth in both academic and non-academic areas. Though we often think of college as classes, perhaps more time should be spent acknowledging the importance of out-of-class activities and encouraging further participation in them. Students who are disengaged from campus life due to jobs and family responsibilities will generally see the college as less important to their growth, especially in personal and social areas.

The Contribution of College to Student Growth: A Boise State University And National Public Colleges Perspective

College is an investment in learning. Though faculty and students may not always agree on the specific outcomes of college, both firmly believe that learning is the reason for being in college and that students should grow in a variety of ways during their college years. One measure of institutional effectiveness, therefore, is how students perceive their growth during college and how much of that growth they contribute to the college experience itself. Since some students will indicate that they have grown and developed more than others have, it also is important to understand what experiences are related to perceptions of growth. The picture of effectiveness is further enhanced when comparisons to other external groups are available.

This study used the American College Testing (ACT) College Outcomes survey to compare responses of BSU students to a non-random national group of students who completed the survey at public four-year colleges (see Appendix A for a copy of the survey). A total of 720 BSU students were surveyed in Fall 1996 through a random sampling of fall undergraduate classes. The national norm group consisted of the subset of 6,565 four-year public institution students from a total of 23,601 who were surveyed between January 1, 1993 and January 31, 1995. (A listing of all institutions included in the norm group can be found in Appendix B.)

Questions answered through the study included the following:

- Who are the BSU students who answered the survey? How similar are they to students from other four-year public colleges who took the survey in terms of their demographics and responsibilities?
- What outcomes do BSU students want most from college? Do BSU students have desired outcomes for college that are similar to other four-year students?
- How much progress do BSU students think they have made in reaching their desired outcomes since enrolling? Do BSU students see they have made about the same amount of progress in reaching their desired outcomes compared to students at other four-year colleges?
- How much do BSU students think they have grown personally since entering college? How does this compare to students at other four-year colleges?
- How much do BSU students think the college has contributed to their personal growth? Is this similar to responses from students at other four-year public schools?
- Do students' perceptions of how much they have grown and college contributions to their growth and learning show differences based on activities such as the credits they have completed, time spent on their studies and related activities, and job and family responsibilities?

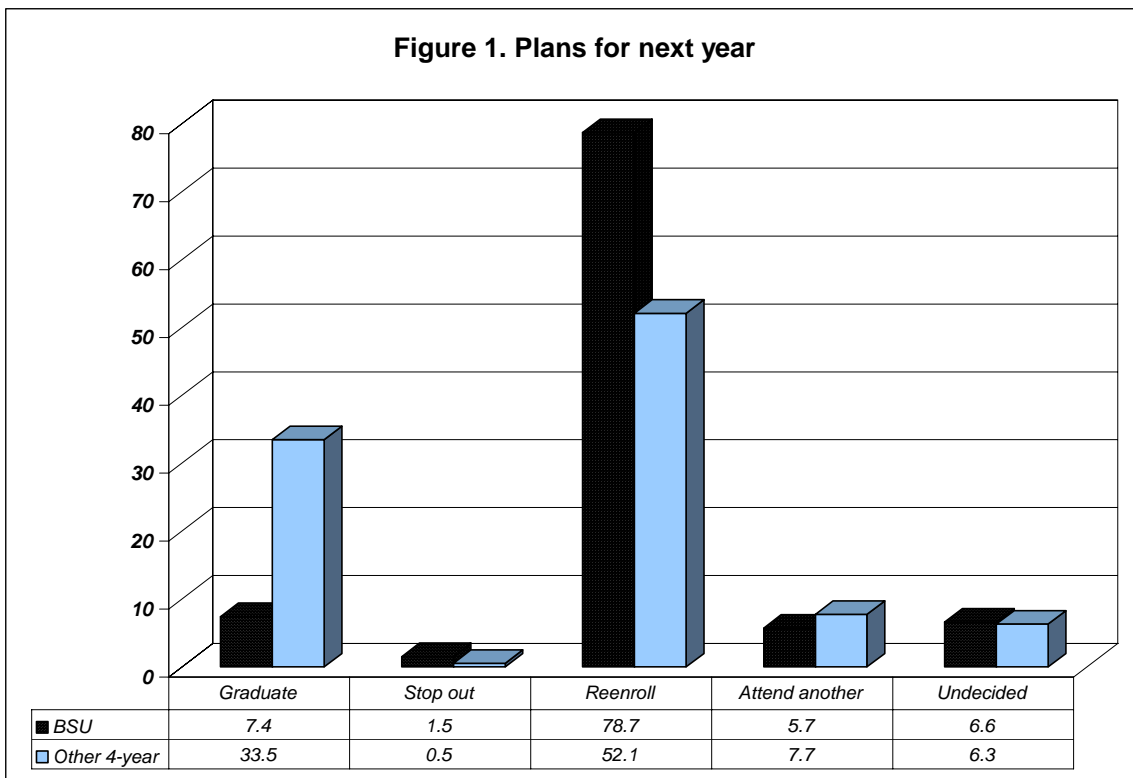
Findings

Demographics and Responsibilities

In general, students who answered the survey reflected the demographics of the undergraduate student body as a whole. Most (71%) BSU respondents were enrolled full-time at BSU, taking

12 or more credit hours, a slightly higher than the percentage than found for the BSU undergraduate student body as a whole. A solid majority had freshmen or sophomore status. As shown by Table 1, most were in-state residents who were white non-Hispanic females. By comparison, the more of the four-year public college group were full-time and out-of-state residents who also had completed more credits than the BSU respondents.

In addition, the four-year public college group was much closer to graduation; one-third planned on not returning to college the next year because they were graduating compared to only 7% of the BSU respondents (see Figure 1). The public four-year college group also was more likely to be pursuing a bachelor’s degree (88% vs. 75%). The two groups were similar in terms of the highest educational attainment of their parents and their cumulative GPA in college. For BSU students, about 40% of the fathers and 45% of the mothers had no college experience. Over half of both BSU and public college respondents reported they had GPAs of 3.00 or better. (See Table 2 for further details.)



BSU students were similar to the national group in the number of hours they spent per week on course-related activities and other learning experiences. About one-third of both groups reported spending over 20 hours per week on course-related activities. Almost half of both groups spent at least some time on other learning experiences such as internships and practicums. This is an interesting finding since the demographics showed that more of the national group was enrolled full-time and the students were closer to graduation--two indicators that would lead one to think that the national group would be spending more time on courses and internships or practicums.

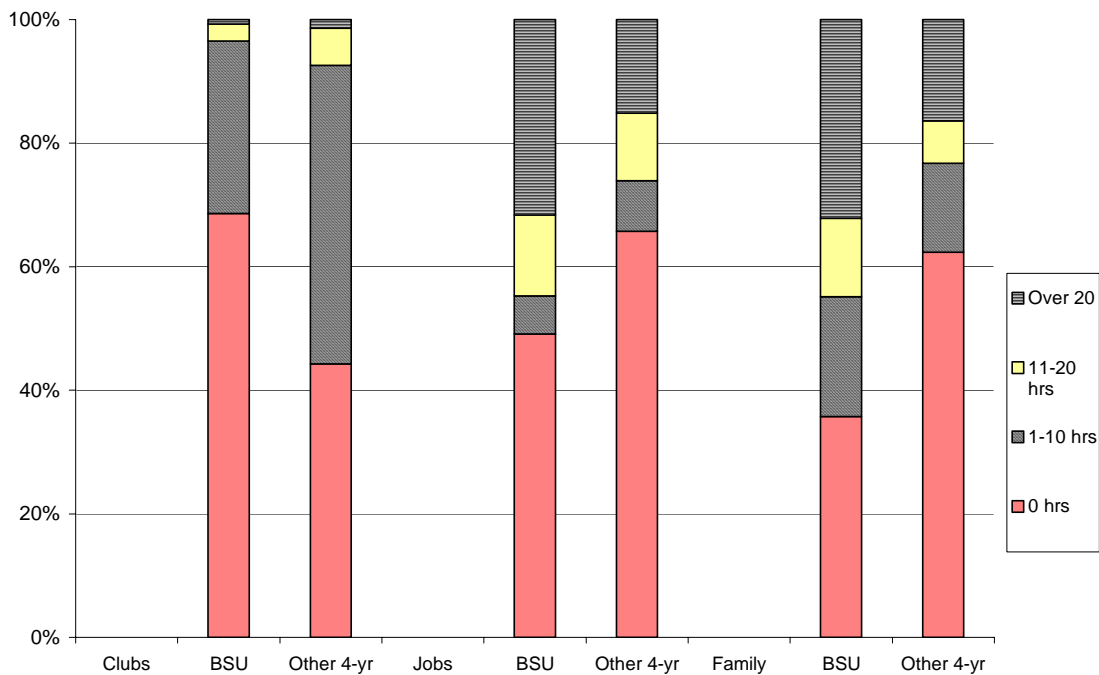
BSU students were less likely than the national group to participate in college clubs or organizations or to attend college sponsored events. While more than half of the national group

indicated they spent at least some time on these activities, only thirty-some percent of BSU students responded similarly. For off-campus community services and cultural events, however, both BSU and four-year students reported that about half spent some time on these activities.

Perhaps some of the differences in participation in non-academic activities could be attributed to job and family responsibilities. While half of the BSU students reported they spent some time on jobs off-campus that were unrelated to their majors, only about 35% of the national group did so. In addition, about 65% of BSU students reported some time spent in care of family (and 26% reported more than 30 hours per week), while only 37% of the national group reported any time spent in this area (and only 13% reported more than 30 hours per week were spent caring for family). See Table 3 for full details on responsibilities and time allocations.

In essence, then, compared to the national group, BSU students were not as far along in their

Figure 2. Weekly hours spent on clubs, job, & family



studies. They were more likely to have the goal of an associate’s degree (though most were seeking a bachelor’s degree). They were less attached to the campus and spent more time on jobs and family than the national group.

Importance of College Outcomes and Progress in Attaining Them

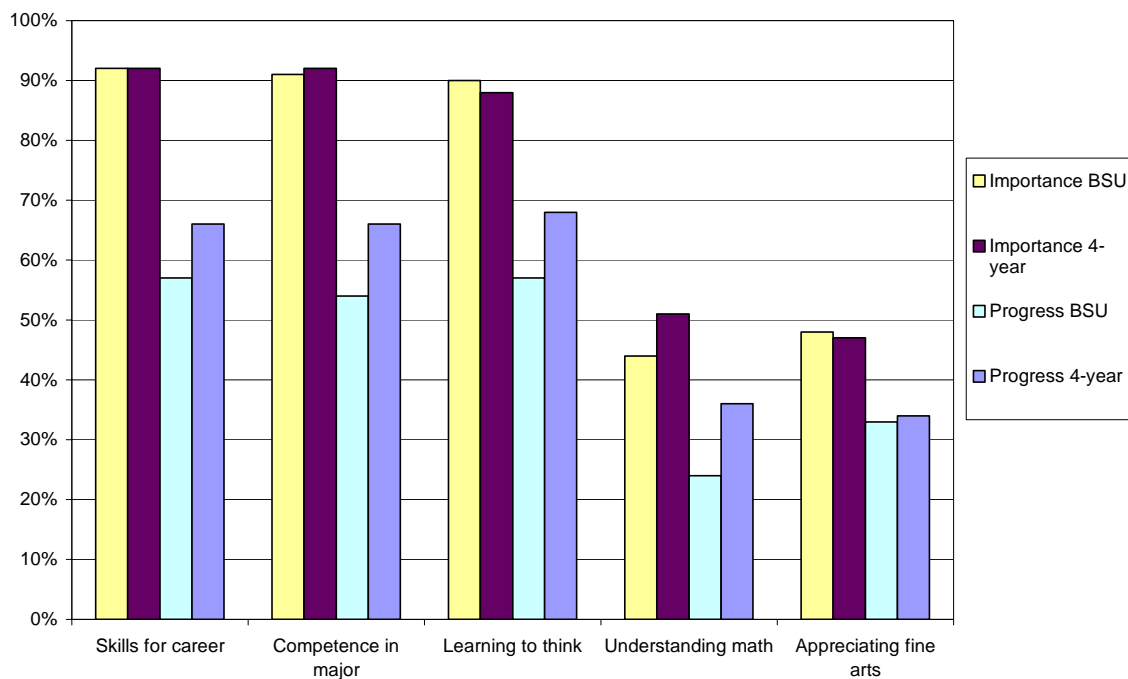
As part of the survey, students were asked to indicate on a 1-5 scale the importance of 26 outcomes and then rate how much progress they felt they had made at the college toward attaining that outcome. Results showed that students thought the specific knowledge and skills associated with a career and the general skills of learning to think and problem-solve were most important. They were less concerned with outcomes that focused on general education.

For BSU students, outcomes which over 80% of the students agreed were of “very great” or “great” importance were:

- Acquiring knowledge and skills needed for a career (mean=4.57)
- Becoming competent in my major (mean=4.57)
- Learning to think and reason (mean=4.47)
- Thinking objectively about beliefs, attitudes, and values (mean=4.31)
- Developing problem-solving skills (mean=4.28)
- Listening to and understanding what others say (mean=4.27)
- Drawing conclusions after weighing evidence, facts, and ideas (mean=4.19)

These ratings were similar to those given by students at four-year colleges nationally (see Figure 3 below and Table 4).

Figure 3. Most & least important outcomes and progress made



Outcomes which fewer than half the BSU students thought were of very great or great importance were: understanding and applying math concepts and statistical reasoning (mean=3.34), appreciating the fine arts, music, literature and the humanities (mean=3.42), and learning principles for conserving and improving the global environment (mean=3.48). Again, these were also among the lowest rated outcomes nationally.

The most important outcomes also were those where BSU students generally felt they had made the most progress (see Table 4). While no educationally significant differences in importance ratings were found between the BSU and national groups (using the criterion of a mean difference of 0.3), in six of the 26 areas BSU students rated themselves as having made significantly less progress than the national group did. The areas were:

- Becoming competent in my major
- Developing effective job-seeking skills
- Learning about career options
- Learning principles for conserving and improving the global environment
- Effectively using technology (e.g., computers, high-tech equipment)
- Understanding and applying math concepts and statistical reasoning

Figure 3 displays the percentage who thought they had “much” or “very much” progress in reaching selected goals.

Most of the differences probably could be explained by the differences in the two groups in terms of how close they were to graduating. However, the environmental and math outcomes are often associated with general education which is (theoretically at least) taken early in the students’ college careers.

Personal Growth and the College’s Contribution to It

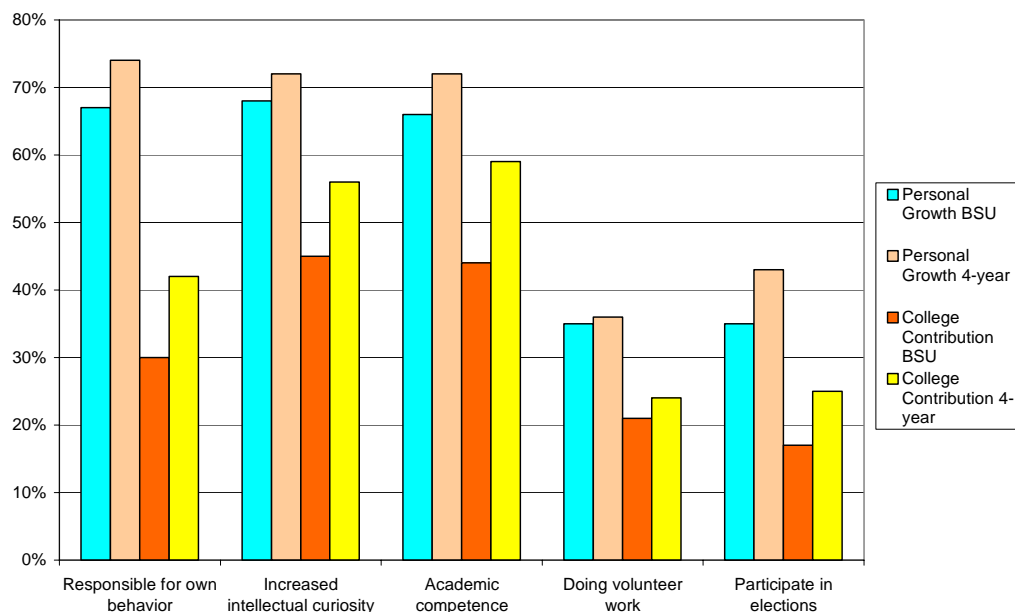
Compared to the outcomes items, the 36 items included in this section focused more on values, attitudes, and beliefs and less on specific academic skills and knowledge. The areas where at least 65% of the BSU students agreed they thought they had grown “very much” or “much” were:

- Taking responsibility for my own behavior (mean=3.89)
- Increasing my intellectual curiosity (mean=3.87)
- Becoming academically competent (mean=3.85)
- Acquiring a well-rounded General Education (mean=3.82)
- Setting long-term or “life” goals (mean=3.81)
- Becoming more willing to change and learn new things (mean=3.78)
- Developing a sense of purpose, value, and meaning for my life (mean=3.78)
- Clarifying my personal values (mean=3.78)
- Developing self-confidence (mean=3.78)

At the bottom were areas where less than 40% of the BSU respondents felt they had grown “very much” or “much”. These were “actively participating in volunteer work to support worthwhile causes” (mean=2.99) and “preparing myself to participate effectively in the electoral process” (mean=3.02)

Again, national ratings were generally similar to those of BSU students. No mean differences that exceeded 0.3 were found in the comparisons on the 36 items. Only the item on the electoral process showed much difference at all, with BSU students feeling they had grown less in this area.

Figure 4. Areas of Greatest and Least Personal Growth



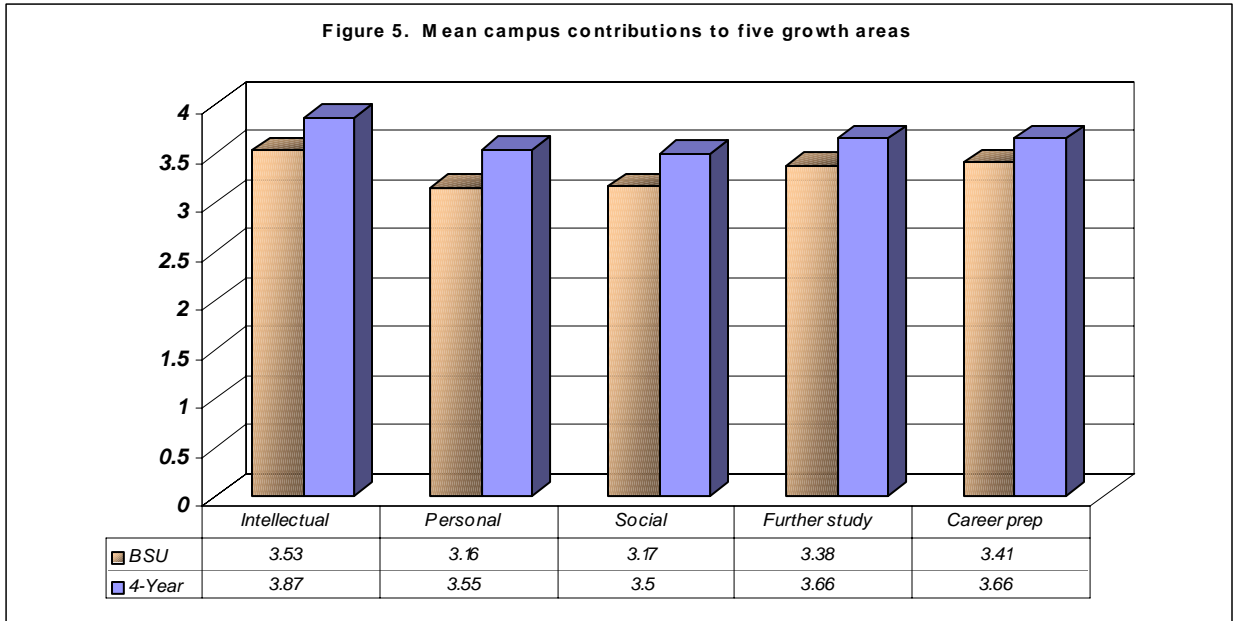
The personal growth areas where BSU students felt they had grown most were not necessarily the same ones where they felt the college had made the greatest contributions to their growth. Only three of the top growth areas previously mentioned were also at the top of the list in terms of college contribution to growth. These covered general education, intellectual curiosity, and academic competence—all skills which are more academic in nature. The percentage of BSU students who felt the college had made a “very great” or “great” contribution to their growth ranged from 44% to 47% for the three areas. The remaining areas, however, were quite variable in the extent that students thought the college had contributed to their growth. See Table 5 for further details. Highlights are displayed in Figure 4.

In addition, three-fourths of the growth areas showed distinct differences between the lower BSU ratings of college contributions and the higher national ratings. Again, it is possible that the demographic differences between BSU and the national survey participants influenced the ratings.

Figure 5 and Table 6 provide a summaries of the campus contribution to student growth and preparation in five areas: intellectual growth, personal growth, social growth, preparation for further study, and preparation for a career. BSU students felt the college had contributed most to their intellectual growth with 53% agreeing the campus contribution was “very great” or “great.” The college made the smallest contribution to their social growth with 34% agreeing the campus contribution was “very great” or “great.” Significant differences between the BSU respondents and the national sample were found for intellectual, personal, and social growth. Smaller, less significant differences were found for the areas of preparation for further study and for a career. This provides a decidedly mixed picture of college contributions to student growth.

BSU Credits Earned And Perceptions Of Growth And Progress

We have speculated that the differences in the BSU responses and the national sample may be due to the smaller numbers of credits BSU students have earned toward their degrees compared



to the national sample. In general, it seems logical to assume that if college is contributing to student growth and learning, then those who have spent more time in college classrooms should have more positive perceptions of how much they have progressed and grown and how much the college has contributed to their progress than those with fewer credits.

To test this assumption, BSU students were divided into five credit groups. Group 1 included students who were quite new to BSU, having completed less than 24 credits. Group 2 included students with 24-47 BSU credits. Group 3 had students with 48-71 credits. Of the remaining groups, group 4 had students with 72-95 credits while group 5 students were seniors with 96 or more credits completed at BSU. A Multiple Analysis of Variance (MANOVA)¹ to test for overall differences was employed for the 26 outcomes items which rated importance, the 26 ratings of progress toward meeting the outcomes, the 36 personal growth ratings, and the 36 ratings of college contributions to the personal growth areas. A significant overall effect was found only for the 26 items which rated progress toward meeting the outcomes (Pillai's Trace=.248, F=1.57, Num DF=104, p=.0004). This means that for BSU students, the amount of time spent in classes was unrelated to the broad personal growth areas.

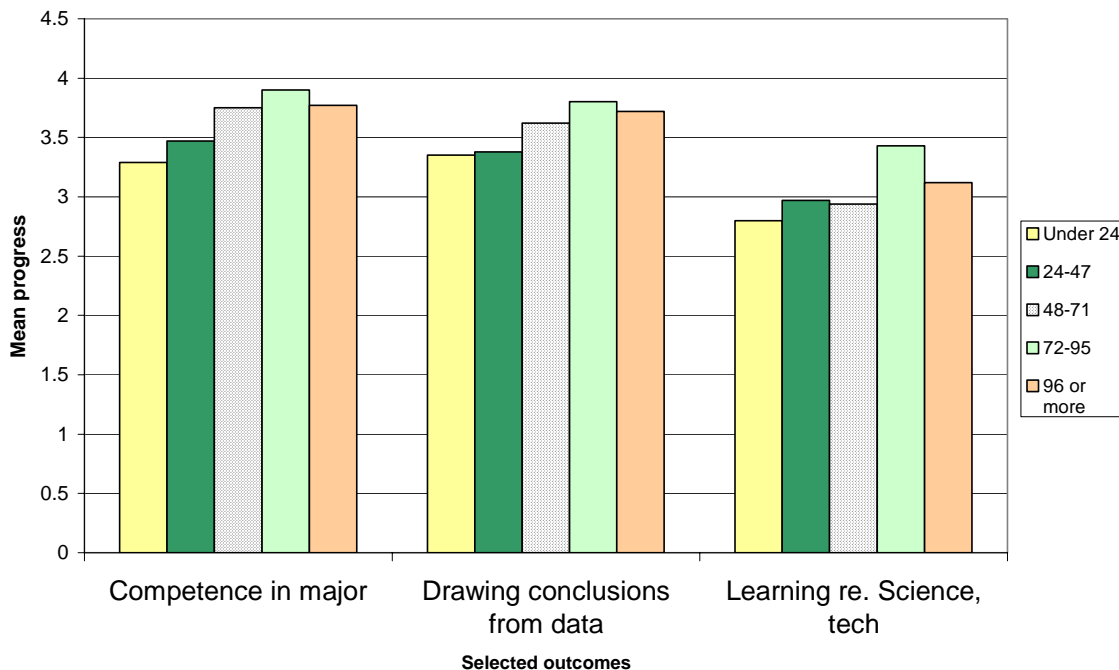
For the more traditional academic knowledge and skills outcomes, however, class time had an effect on perceived progress toward reaching these goals.

In what specific areas do the number of credits earned relate to progress towards reaching these outcomes? Table 7 shows the results of the follow-up ANOVA tests of the 26 outcomes. Statistical significance was found in all but five of the areas. Number of credits completed did not make a difference in progress in formulating lifetime goals, discovering good uses of talents

¹ This procedure eliminates all students who failed to answer any question, thereby producing a common number of observations to all analyses but significantly reducing the number of students included in the study.

and time, learning principles for improving health, developing effective job-seeking skills, and learning about career options. Since these are areas not usually associated with the classroom (with the exception of health which is typically covered in a single course), it is not surprising that these outcomes were unrelated to course credits. The greatest difference among groups were found for the three outcomes displayed in Figure 6.

Figure 6. Progress in reaching outcomes by credits earned



The remaining 21 areas were related to number of credits completed. As shown by Table 8, students in the higher credit groups felt they had made more progress in reaching the outcomes than students in lower credit groups. Outcomes which showed the greatest mean differences among the groups were drawing conclusions from data, thinking objectively, becoming competent in the major, and learning about science and technology.

Job/Family Responsibilities and Perceptions of Growth and Progress

Another way that BSU respondents differed from the national four-year sample was in terms of off-campus jobs and family responsibilities. BSU students were much more likely to be employed and to devote significant amounts of time to their families compared to the national sample. Therefore, checks were performed on these variables to see if amount of time spent on the job and caring for families was related to student perceptions of growth and progress.

To check on the relationship between the amount of off-campus hours spent in employment unrelated to their major, BSU respondents were divided into three groups. One group consisted of students who spent no time working off-campus. The second group included students who worked off-campus 1-20 hours per week. The third group included students who worked off-campus over 20 hours per week. A MANOVA procedure, however, revealed no statistically

significant relationships between job hours and perceptions of importance of outcomes, college contributions to reaching desired outcomes, perceptions of personal growth, or college contributions in the areas of personal growth. This is rather surprising given that research has often found that working is negatively related to retention and academic progress.

To check for differences in perceptions based on family responsibilities, four groups were formed. The first group included BSU students who indicated that they spent no time in care of a family. The second group included students who spent 1-10 hours per week on family care. The third group indicated they spent 11-30 hours per week, while the fourth group indicated they spent over 30 hours per week in caring for their family. A MANOVA procedure showed statistically significant overall differences on family responsibilities and ratings of the college's contribution to their personal growth (Pillai's Trace=0.447, $F=1.298$, Num DF=108, $p=.0292$). No overall differences were found, however, for importance of outcomes, progress toward reaching outcomes, or for personal growth.

Follow-up ANOVAs found significant differences for only one item: the college's contribution in gaining insight into human nature ($F=2.57$, $DF=3,300$, $p=.0542$). Post hoc mean comparisons showed that those students with no family responsibilities thought the college had made more of a contribution in this area than students who had family responsibilities that exceeded 30 hours per week. This finding is unsurprising given the myriad opportunities that family life provides to learn about human nature. No doubt, too, students with more family responsibilities were older and therefore had had more human interactions due to the simple fact of their age.

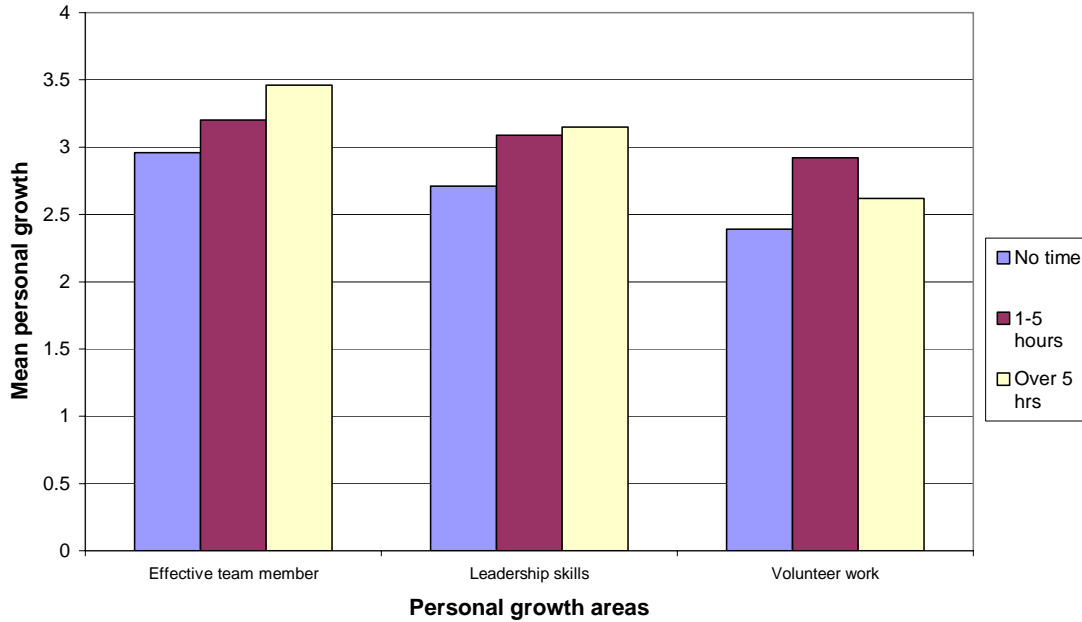
College Clubs/Events and Perceptions of Growth and Progress

BSU students were also less likely to spend time in college clubs and organizations or to attend college-sponsored events such as plays, exhibits, and sports than the national comparison sample. In this case, students were divided into three groups: (1) those who spent no time in clubs or events, (2) those who spent 1-5 hours per week, and (3) those who spent over five hours per week on clubs or events.

In the case of club and organization participation, a significant overall difference was found for college contribution to personal growth (Pillai's Trace=0.316, $F=1.31$, Num DF=72, $p=.0526$) but not for any other area. As shown by Table 9, 12 of the 36 areas showed significant differences with many of these being in the area of interpersonal relations. Students who spent more time in college clubs and organizations attributed more to the college's contribution to their growth (see Figure 7 for examples and Table 10 for details). This indicates that students who take advantage of extracurricular activities find them valuable avenues for helping them grow, especially in non-academic areas.

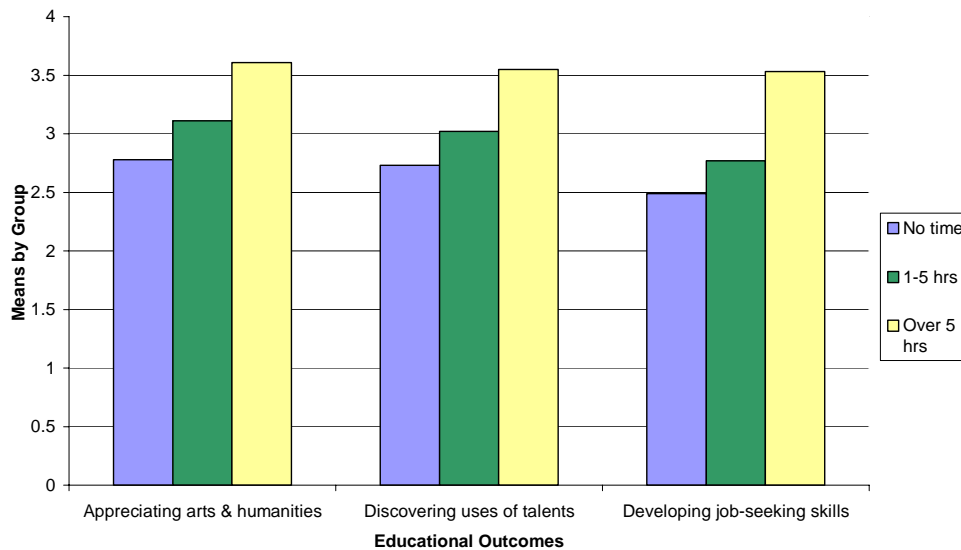
Significant overall differences were found for attendance at college-sponsored events for three areas: progress in reaching educational outcomes (Pillai's Trace=0.156, $F=1.67$, Num DF=52, $p=.0024$), personal growth (Pillai's Trace=.271, $F=1.32$, Num DF=72, $p=.0472$), and college contribution to personal growth (Pillai's Trace=.337, $F=1.43$, Num DF=72, $p=.0158$). No significant differences were found for importance of educational outcomes.

Figure 7. Mean differences in three personal growth areas by time spent in college organizations



For progress in reaching educational outcomes, follow-up ANOVAs revealed statistically significant differences among the groups on all but 5 of the 26 outcome areas (see Table 11). Comparisons of the means for the three groups showed that generally the group that spent more than five hours weekly attending college-sponsored events thought they had made much more progress in reaching the academic outcomes than either of the other two groups (see Figure 8 for some examples and Table 12 for full details).

Figure 8. Differences in Progress reaching selected outcomes by event attendance

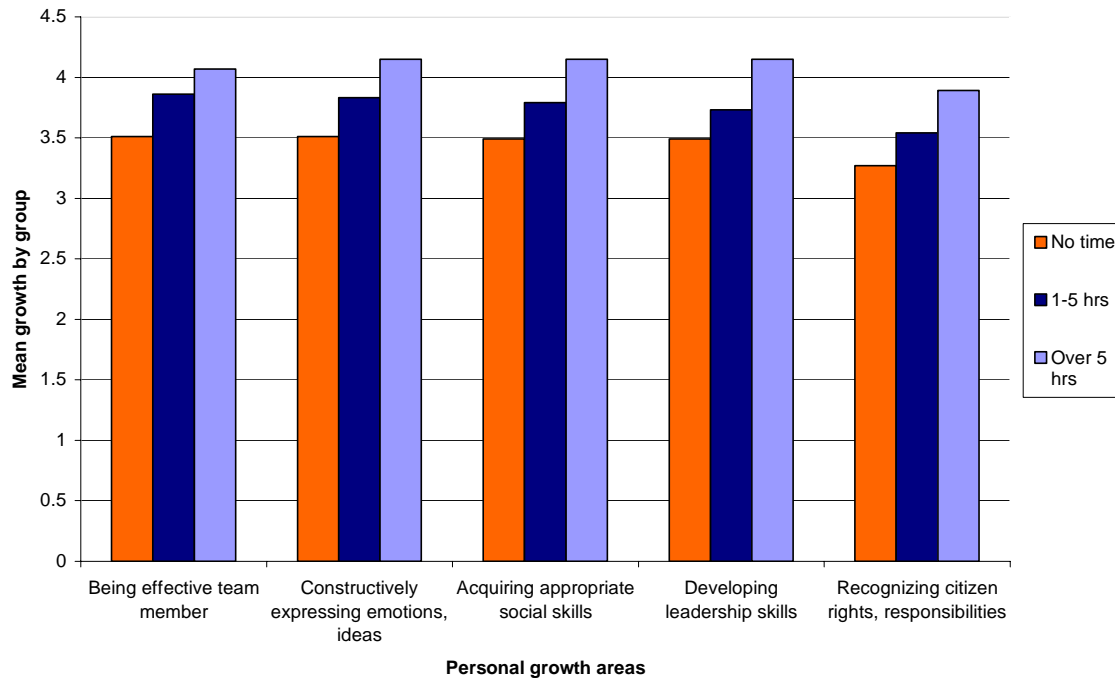


Slightly less than half of the 36 personal growth items showed statistically significant differences among the groups (see Table 13). No particular pattern of growth areas was readily apparent that

differentiated event attenders from non-attenders. Generally, those who spent more than five hours per week attending events felt they'd grown significantly more compared to those who spent no time at all (see Table 14 and Figure 9).

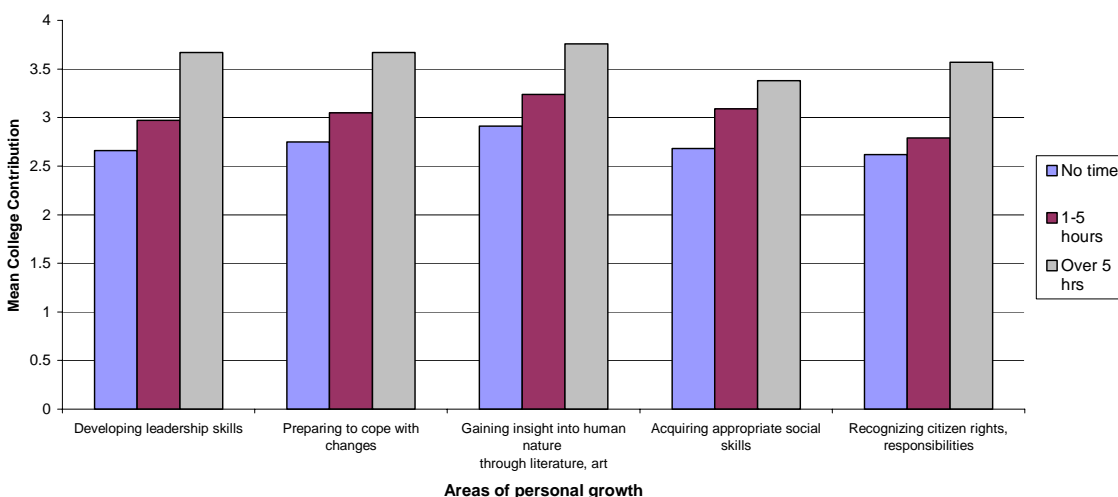
About half of the 36 areas where the college could contribute to personal growth were statistically significant based on event attendance. Many of the items that were significant seemed to relate to the college's contribution to interpersonal or internal growth (see Table 15).

Figure 9. Mean differences in personal growth based on event attendance



It was interesting to note that the two most traditionally academic items—becoming academically competent and acquiring a well-rounded general education—were statistically significant for personal growth but not for *college contribution* to personal growth. This may indicate that students who participated most heavily in events found them academically helpful but not because they had been a college requirement. Again, greater event attendance was always related to greater college contributions to growth, with respondents who spent over five hours per week at events expressing the greatest contributions to college growth (see Figure 10 for the areas of greatest difference and Table 16 for further details). Though we cannot know what these events were, we can speculate that “high attenders” were probably students who were heavily involved in athletics, music, debate and other areas with many outside-class requirements.

Figure 10. Mean differences in college contribution to growth based on event attendance



Student Perceptions of Overall Growth and the Relation to Time Responsibilities

At the end of the survey, students were asked to summarize how much the campus had contributed to their growth in five areas: intellectual (including acquiring knowledge, skills, ideas, concepts, and analytical thinking), personal (including developing self-understanding, self-discipline, and mature attitudes, values, and goals), social (including understanding others and their views, adapting successfully to a variety of social situations), preparation for further study, and preparation for a career. Students could respond that the campus contribution was “very great,” “great,” “moderate,” “little,” or “none.”

We wanted to know whether the amount of time that students said they devoted to classroom activities and other learning experiences, college clubs and events, jobs and family related to their perceptions of the campus’ contribution to their growth in each of these five areas. Therefore, we used seven “effort” variables (credits earned, time spent on course work, other learning experiences, college clubs, college events, off-campus jobs, and family responsibilities) to predict growth in each area. Results indicated that the set of variables was significant for intellectual growth ($F=4.146$, $DF=7, 404$, $p=.0002$, $R^2=.0670$), personal growth ($F=4.744$, $DF=7,404$, $p=.0001$, $R^2=.0760$), and social growth ($F=4.865$, $DF=7,404$, $p=.0001$, $R^2=.0777$). The set of variables did not significantly predict either preparation for further study or preparation for a career.

In each case only two of the seven variables included in the model were significant (see Table 17). Students who indicated they had a greater campus contribution to their intellectual growth also spent more time in course-related activities and less time on jobs off-campus. Students who indicated they had greater personal growth or social growth spent more time on college clubs and organizations and less time on off-campus jobs.

These findings indicate that the time students spent in curricular and extra-curricular activities strengthened the campus contribution to growth. Time spent at off-campus jobs was detrimental to perceiving the campus as instrumental to overall growth in intellectual, personal, and social

areas, even though job time wasn't significant when tested across a multiplicity of individual areas using the MANOVA process. These conflicting findings are probably due to a combination of how the ratings were obtained and the statistical process used to analyze them.

In general, however, this set of variables did not predict much of the variability in student perceptions of how much the campus contributed to their growth. We could speculate that factors such as satisfaction with faculty and programs of study would add to the ability to predict perceptions of campus contributions to growth.

The issue is also clouded by asking students to assess campus contributions to growth rather than growth itself. If students felt they had grown little, then the campus contribution would assuredly be little. However, if students felt they had grown a great deal, they may or may not attribute much of that growth to the campus itself when compared to individual effort.

SUMMARY AND CONCLUSIONS

In this study, BSU respondents were compared to the national group of four-year public college respondents on outcomes and personal growth areas. Both the BSU and national groups agreed that the outcomes they thought were most important involved career and major. They also were concerned with the general skills involved in thinking and problem-solving. Outcomes traditionally associated with general education were at the bottom of the list in importance.

In most outcome areas, too, BSU respondents felt they had made progress that was similar to the national group. Only in six of the 26 outcomes areas, BSU respondents rated themselves as having made less progress than the national group.

Ratings of personal growth also were similar for BSU and the national group. However, similarities ended with the comparison of the two groups on the college contribution to student growth. Consistently, the national group gave their colleges higher ratings on the amount the colleges had contributed to personal growth.

Some of the differences between the two groups could be explained by differences in the type of student who answered the survey at BSU and nationally. In general, the national group was much further along in their academic career. In addition, BSU students indicated they had much heavier job and family responsibilities than the national group and less time for clubs and other activities.

In terms of credits earned, analyses showed that students who had completed more course work felt that they had made more progress in reaching a variety of academic outcomes. Course work was unrelated, however, to personal growth areas. Participation in college-sponsored events was related to higher ratings in both academic outcomes and personal growth, while clubs and organizations added students in personal growth but not progress in reaching educational outcomes. A weaker overall effect was found for family responsibilities and perceived college contributions to personal growth, perhaps because more growth takes place within the family unit.

An overall analysis of intellectual, personal, and social growth indicated that too many hours spent in off-campus work translated into lower ratings of growth in all three areas. More time spent on course activities was related to greater academic growth, while more participation in clubs and organizations was related to greater social and personal growth.

Taken as a whole, these findings indicate that that entire college experience is important in order to foster growth in both academic and non-academic areas. Though we often think of college as classes, perhaps more time should be spent acknowledging the importance of out-of-class activities and encouraging further participation in them. Students who are disengaged from campus life due to jobs and family responsibilities will generally see the college as less important to their growth, especially in personal and social areas. Because Boise State is a metropolitan university with more than the usual number of students who fit this category, we may lag in national comparisons of student growth and satisfaction when the norm group consists of younger, full-time, residential students.

Table 1. Percentage Responses on Demographic Information For BSU and National Survey Respondents

Item and Responses		Boise State University	4-Year Public Colleges
Credit Hours for Which you are Now Enrolled	6 or less	17.2	10.3
	7-11	12.1	11.4
	12 or more	70.7	78.3
Credit Hours Earned at this Institution before this Term	Under 24	36.4	12.5
	24-47	17.6	16.3
	48-71	15.5	16.6
	72-95	12.2	13.7
	96 or more	18.3	40.6
Gender	Male	33.5	46.5
	Female	66.5	53.5
Hispanic/Latino ethnicity	No	93.3	98.2
	Yes	6.7	1.8
Race	White	86.8	81.5
	Other	13.2	18.5
Citizenship and Residence	US in-state resident	92.2	81.7
	US out-of-state resident	5.7	13.0
	Non-citizen	2.1	5.3

**Table 2. Percentage Responses on Educational Information
for BSU and Public College Respondents**

	Boise State University	4-Year Public Colleges
Plans for the next academic year		
Plan not to attend college (graduating)	7.4	33.5
Plan not to attend college (stopping out)	1.5	0.5
Plan to re-enroll at this college	78.7	52.1
Plan to attend another college	5.7	7.7
Undecided	6.6	6.3
Degree you are now pursuing at this college		
Some college	7.7	2.3
Voc/Tech or Associate's Degree	12.1	5.0
Bachelor's	75.4	87.7
Masters, Doctorate/Professional	4.7	5.0
Highest educational attainment of Father (or guardian)		
No high school diploma	14.0	12.3
High school diploma/GED	25.0	27.1
Some college`	14.5	14.4
Vo-tech or associate's degree	11.2	9.6
Bachelor's degree	21.1	20.5
Masters/Doctorate/Professional degree	14.1	16.1
Highest educational attainment of mother (or guardian)		
No high school diploma	10.5	10.0
High school diploma/GED	34.0	34.8
Some college`	19.4	16.6
Vo-tech or associate's degree	11.3	12.5
Bachelor's degree	16.8	15.7
Masters/Doctorate/Professional degree	8.0	10.5
Cumulative college grade average		
A- to A (3.50--4.00)	22.7	22.3
B to A- (3.00--3.49)	32.7	31.7
B- to B (2.50--2.99)	27.9	29.8
C to B- (2.00--2.49)	12.3	14.2
C- to C (1.50--1.99)	2.5	1.2
D to C- (1.00--1.49)	0.7	0.1
Below D (0.00—0.99)	0.2	0.0
Does Not Apply	1.1	0.6

Table 3. Responsibilities and Time Allocations for BSU and National Respondents

Group:	Hours per week spent on each activity						
	0	1-5	6-10	11-15	16-20	21-30	31+
Course-related activities (e.g., class, studying, lab)							
Boise State	0.6	16.7	18.9	16.7	15.2	18.3	13.7
4-Year Public Colleges	2.1	9.7	15.6	16.7	19.8	20.3	15.8
Other learning experiences (e.g., internship, practicum)							
Boise State	53.6	26.6	10.2	3.5	3.0	1.7	1.5
4-Year Public Colleges	53.2	25.2	9.3	4.1	2.7	1.7	3.9
College clubs, organizations (political, social, religious)							
Boise State	68.6	22.7	5.2	1.5	1.3	0.5	0.2
4-Year Public Colleges	44.3	37.3	11.0	3.9	2.1	0.6	0.8
College sponsored events (e.g., plays, exhibits, sports)							
Boise State	61.9	30.6	3.0	2.0	1.0	1.0	0.5
4-Year Public Colleges	48.3	42.3	5.2	1.7	1.3	0.6	0.5
On-campus paid employment related to major							
Boise State	95.7	1.0	1.2	0.7	0.7	0.3	0.3
4-Year Public Colleges	90.5	2.9	2.4	1.5	1.6	0.6	0.5
On-campus paid employment NOT related to major							
Boise State	90.8	1.4	1.7	1.9	2.6	0.7	1.0
4-Year Public Colleges	84.8	3.3	4.7	3.4	2.1	1.0	0.7
Off-campus paid employment related to major							
Boise State	74.0	3.3	2.9	2.2	3.6	4.3	9.8
4-Year Public Colleges	80.7	2.6	2.2	2.3	2.9	2.9	6.4
Off-campus paid employment NOT related to major							
Boise State	49.1	3.1	3.1	4.9	8.2	13.6	18.0
4-Year Public Colleges	65.6	4.2	4.0	4.3	6.6	7.3	7.8
Care of family (e.g., spouse, child, relative)							
Boise State	35.7	12.4	7.0	6.5	6.2	5.7	26.4
4-Year Public Colleges	62.4	9.4	5.0	3.7	3.2	3.1	13.3
Off-campus community services (e.g., religious, civic)							
Boise State	51.2	36.8	8.4	2.1	1.0	0.2	0.3
4-Year Public Colleges	54.4	36.8	5.9	1.5	0.7	0.4	0.3
Off-campus cultural events (e.g., theatre, music exhibits)							
Boise State	45.1	47.9	4.8	1.3	0.7	0.3	0.0
4-Year Public Colleges	48.4	43.0	6.1	1.6	0.5	0.2	0.2

Table 4
Importance of College Outcomes and Progress in Attaining the Outcome
For BSU and 4-Year Public University Respondents

<i>Question</i>	Institution	Mean Importance	Great Importance ¹	Mean progress	Much Progress ²
1. <i>Drawing conclusions after weighing evidence, facts, and ideas</i>	BSU	4.19	81.50%	3.49	48.90%
	Public 4-Year	4.22	82.83%	3.70	59.59%
2. <i>Developing problem-solving skills</i>	BSU	4.28	85.10%	3.43	46.40%
	Public 4-Year	4.31	86.01%	3.70	60.32%
3. <i>Learning to think and reason</i>	BSU	4.47	89.50%	3.64	57.30%
	Public 4-Year	4.48	88.47%	3.85	67.95%
4. <i>Locating, screening, and organizing information</i>	BSU	4.04	74.30%	3.42	46.10%
	Public 4-Year	4.09	76.45%	3.62	55.33%
5. <i>Thinking objectively about beliefs, attitudes, and values.</i>	BSU	4.31	83.60%	3.54	54.60%
	Public 4-Year	4.20	78.61%	3.68	58.23%
6. <i>Developing my creativity, generating original ideas and products</i>	BSU	4.09	75.00%	3.24	38.30%
	Public 4-Year	4.09	75.55%	3.42	45.70%
7. <i>Improving my writing skills</i>	BSU	4.03	72.10%	3.40	48.20%
	Public 4-Year	3.98	69.22%	3.49	50.53%
8. <i>Reading with greater speed and better comprehension</i>	BSU	3.93	67.90%	3.04	32.60%
	Public 4-Year	3.90	66.57%	3.16	63.57%
9. <i>Speaking more effectively</i>	BSU	4.12	77.70%	3.2	41.30%
	Public 4-Year	4.18	79.24%	3.43	49.20%
10. <i>Further developing my study skills</i>	BSU	4.04	74.00%	3.21	39.70%
	Public 4-Year	4.00	71.86%	3.45	48.79%
11. <i>Listening to and understanding what others say</i>	BSU	4.27	84.00%	3.50	49.60%
	Public 4-Year	4.22	81.82%	3.67	58.84%

12. <i>Learning to formulate and re-shape my lifetime goals</i>	BSU	3.92	68.80%	3.19	39.70%
	Public 4-Year	3.97	69.84%	3.45	50.17%
13. <i>Developing openness to new ideas and practices</i>	BSU	4.09	75.20%	3.49	50.40%
	Public 4-Year	4.09	70.40%	3.64	55.93%
14. <i>Acquiring knowledge and skills needed for a career</i>	BSU	4.57	91.90%	3.60	57.00%
	Public 4-Year	4.57	92.36%	3.81	65.69%
15. <i>Becoming competent in my major</i>	BSU	4.57	90.70%	3.53	53.70%
	Public 4-Year	4.57	91.78%	3.84	66.33%
16. <i>Appreciating the fine arts, music, literature, and the humanities</i>	BSU	3.42	47.60%	2.98	32.70%
	Public 4-Year	3.44	47.33%	3.09	33.90%
17. <i>Broadening my intellectual interests</i>	BSU	3.94	69.40%	3.36	44.60%
	Public 4-Year	3.95	70.04%	3.47	48.85%
18. <i>Discovering productive and rewarding uses of my talents and leisure time</i>	BSU	3.80	61.20%	2.90	29.60%
	Public 4-Year	3.80	62.85%	3.15	36.58%
19. <i>Learning principles for improving physical and mental health</i>	BSU	3.94	68.10%	3.05	34.40%
	Public 4-Year	3.79	62.29%	3.15	37.39%
20. <i>Developing effective job-seeking skills (e.g., interviewing, resume construction)</i>	BSU	3.95	71.00%	2.68	25.30%
	Public 4-Year	4.14	77.67%	3.04	35.45%
21. <i>Learning about career options</i>	BSU	4.01	73.40%	2.83	26.60%
	Public 4-Year	4.11	76.63%	3.13	37.18%
22. <i>Applying scientific knowledge and skills</i>	BSU	3.79	61.60%	3.08	32.20%
	Public 4-Year	3.74	58.50%	3.24	38.78%
23. <i>Learning principles for conserving and improving the global environment.</i>	BSU	3.48	49.80%	2.59	19.30%
	Public 4-Year	3.61	54.15%	2.90	28.53%
24. <i>Effectively using technology (e.g., computers, high-tech equipment).</i>	BSU	4.09	76.40%	3.05	36.80%
	Public 4-Year	4.13	77.43%	3.40	47.72%

25. <i>Learning about the role of science and technology in society.</i>	BSU	3.60	55.10%	2.96	31.10%
	Public 4-Year	3.62	54.84%	3.14	35.18%
26. <i>Understanding and applying math concepts and statistical reasoning</i>	BSU	3.34	43.90%	2.69	23.80%
	Public 4-Year	3.53	51.43%	3.04	36.11%

¹Based on the percentage who rated the outcomes of "very great" or "great" importance

²Based on the percentage who indicated they had made "very much" or "much" progress.

Table 5
Personal Growth and College Contributions
For BSU and 4-Year Public University Respondents

<i>Question</i>	Institution	Mean Personal Growth	Great Personal Growth ³	Mean College Contribution	College Contributed Much ⁴
1. <i>Becoming an effective team or group member</i>	BSU	3.63	56.20%	2.99	30.00%
	Public 4-Year	3.77	61.74%	3.35	43.29%
2. <i>Becoming more willing to consider opposing points of view</i>	BSU	3.70	60.20%	3.13	37.10%
	Public 4-Year	3.78	64.67%	3.35	43.67%
3. <i>Interacting well with people from cultures other than my own</i>	BSU	3.63	55.20%	2.96	30.70%
	Public 4-Year	3.67	56.95%	3.30	43.23%
4. <i>Improving my ability to relate to others</i>	BSU	3.76	64.40%	3.08	35.00%
	Public 4-Year	3.85	67.34%	3.39	45.94%
5. <i>Preparing to cope with changes as they occur (e.g., in career, relationships, lifestyle)</i>	BSU	3.71	62.40%	2.80	26.40%
	Public 4-Year	3.82	65.24%	3.16	36.99%
6. <i>Developing leadership skills</i>	BSU	3.57	53.60%	2.76	24.60%
	Public 4-Year	3.77	61.87%	3.28	42.88%
7. <i>Actively participating in volunteer work to support worthwhile causes.</i>	BSU	2.99	34.70%	2.48	20.90%
	Public 4-Year	3.07	35.54%	2.66	24.05%
8. <i>Learning to be adaptable, tolerant, and willing to negotiate</i>	BSU	3.58	55.60%	2.84	25.80%
	Public 4-Year	3.69	58.95%	3.18	36.62%
9. <i>Seeking and conveying the spirit of truth</i>	BSU	3.54	53.90%	2.63	22.60%
	Public 4-Year	3.66	55.89%	2.93	28.45%
10. <i>Becoming more aware of global and international issues/events</i>	BSU	3.34	44.10%	2.83	26.70%
	Public 4-Year	3.56	52.66%	3.10	35.56%
11. <i>Preparing myself to participate effectively in the electoral process</i>	BSU	3.02	35.40%	2.43	16.60%
	Public 4-Year	3.30	42.97%	2.74	25.05%

12. <i>Becoming more aware of local and national political and social issues.</i>	BSU	3.24	41.20%	2.64	23.00%
	Public 4-Year	3.49	50.67%	2.96	31.35%
13. <i>Gaining insight into human nature through the study of literature, history, and the arts</i>	BSU	3.35	45.90%	3.05	35.50%
	Public 4-Year	3.34	43.38%	3.14	36.79%
14. <i>Recognizing my rights, responsibilities, and privileges as a citizen</i>	BSU	3.32	43.70%	2.68	25.70%
	Public 4-Year	3.51	50.88%	2.98	31.26%
15. <i>Becoming sensitive to moral injustices and ways of avoiding or correcting them</i>	BSU	3.49	52.20%	2.77	26.60%
	Public 4-Year	3.58	53.43%	3.02	31.76%
16. <i>Understanding religious values that differ from my own</i>	BSU	3.37	47.50%	2.51	21.10%
	Public 4-Year	3.36	44.91%	2.74	25.83%
17. <i>Taking responsibility for my own behavior</i>	BSU	3.89	66.70%	2.80	30.20%
	Public 4-Year	4.04	74.03%	3.22	41.64%
18. <i>Learning how to become a more responsible family member</i>	BSU	3.66	58.30%	2.41	20.40%
	Public 4-Year	3.76	62.37%	2.65	25.01%
19. <i>Clarifying my personal values</i>	BSU	3.78	66.10%	2.66	24.80%
	Public 4-Year	3.88	67.51%	2.97	30.89%
20. <i>Developing a sense of purpose, value, and meaning for my life</i>	BSU	3.78	65.50%	2.75	27.10%
	Public 4-Year	3.90	68.99%	3.09	35.54%
21. <i>Learning how to manage finances (personal, family, or business)</i>	BSU	3.50	53.40%	2.31	17.10%
	Public 4-Year	3.72	60.75%	2.88	31.36%
22. <i>Dealing fairly with a wide range of people</i>	BSU	3.69	60.60%	2.95	31.40%
	Public 4-Year	3.84	65.66%	2.37	44.21%
23. <i>Developing moral principles to guide my actions and decisions</i>	BSU	3.63	58.70%	2.48	18.10%
	Public 4-Year	3.75	61.49%	2.90	28.83%
24. <i>Acquiring appropriate social skills for use in various situations</i>	BSU	3.62	58.00%	2.82	27.90%
	Public 4-Year	3.76	62.22%	3.19	38.68%

25. <i>Becoming academically competent</i>	BSU	3.85	66.10%	3.29	44.10%
	Public 4-Year	3.99	72.23%	3.67	58.84%
26. <i>Developing productive work relationships with both men and women</i>	BSU	3.61	56.70%	2.80	26.20%
	Public 4-Year	3.83	65.32%	3.25	40.74%
27. <i>Increasing my intellectual curiosity</i>	BSU	3.87	67.60%	3.32	44.90%
	Public 4-Year	3.98	71.71%	3.63	55.93%
28. <i>Setting long-term or "life" goals</i>	BSU	3.81	64.30%	2.97	33.40%
	Public 4-Year	3.93	68.95%	3.29	43.56%
29. <i>Constructively expressing both emotions and ideas</i>	BSU	3.61	55.60%	2.79	25.40%
	Public 4-Year	3.68	58.24%	3.07	33.10%
30. <i>Understanding myself, my talents, and my interests</i>	BSU	3.69	57.50%	2.87	28.00%
	Public 4-Year	3.81	63.98%	3.17	37.00%
31. <i>Developing self-confidence</i>	BSU	3.78	64.90%	2.87	29.90%
	Public 4-Year	3.90	67.76%	3.28	43.23%
32. <i>Becoming more willing to change and learn new things</i>	BSU	3.78	65.00%	3.08	35.30%
	Public 4-Year	3.87	67.92%	3.41	46.76%
33. <i>Developing my religious values</i>	BSU	3.30	46.80%	2.09	13.60%
	Public 4-Year	3.29	43.28%	2.28	15.87%
34. <i>Improving my ability to stay with projects until they are finished</i>	BSU	3.70	60.10%	3.08	36.30%
	Public 4-Year	3.84	65.40%	3.40	47.07%
35. <i>Becoming a more effective member in a multi-cultural society</i>	BSU	3.43	48.10%	2.77	24.90%
	Public 4-Year	3.49	49.24%	3.10	34.41%
36. <i>Acquiring a well-rounded General Education</i>	BSU	3.82	63.40%	3.43	47.00%
	Public 4-Year	3.94	68.53%	3.74	60.19%

³ Based on the percentage who agreed they had grown "very much" or "much"

⁴ Based on the percentage who agreed the college contribution had been "great" or "very great"

Table 6. Campus Contributions to Growth/Preparation

Group:	Percent who thought campus contribution to growth was:					Mean
	Very Great	Great	Moderate	Little	None	
Intellectual Growth (Acquiring knowledge, skills, ideas, concepts, analytical thinking)						
Boise State University	11.3	41.3	38.8	6.5	2.2	3.53
4-year Public Colleges	20.6	49.3	26.8	2.7	0.5	3.87
Personal Growth (Developing self-understanding, self-discipline, and mature attitudes, values and goals)						
Boise State University	9.0	30.1	35.6	18.9	6.5	3.16
4-year Public Colleges	15.8	38.8	32.3	10.4	2.6	3.55
Social Growth (Understanding others and their views, adapting successfully to a variety of social situations)						
Boise State University	3.9	30.5	35.5	19.1	6.0	3.17
4-year Public Colleges	14.8	37.5	34.1	10.8	2.9	3.50
Preparation for Further Study						
Boise State University	8.7	37.5	40.0	10.4	3.4	3.38
4-year Public Colleges	15.5	43.9	33.0	6.2	1.3	3.66
Preparation for Career						
Boise State University	12.1	36.2	36.6	11.2	3.9	3.41
4-year Public Colleges	18.1	41.9	30.2	8.1	1.7	3.66

Table 7. Analysis of Variance Results for Progress in Reaching Outcomes by Credit Group

Outcome	F value	Pr >F	Root MSE
1. Drawing conclusions from evidence	7.35	.0001	0.824
2. Developing problem-solving skills	3.50	.0078	0.886
3. Learning to think and reason	4.33	.0018	0.906
4. Locating and organizing information	4.39	.0017	0.946
5. Thinking objectively about beliefs	5.32	.0003	1.034
6. Developing creativity	3.47	.0081	1.006
7. Improving writing skills	3.95	.0035	1.017
8. Reading with greater speed & comprehension	2.97	.0191	1.073
9. Speaking more effectively	4.19	.0024	1.082
10. Further developing study skills	2.33	.0545	1.019
11. Listening to and understanding others	2.95	.0198	0.947
<i>12. Learning to formulate lifetime goals</i>	<i>1.90</i>	<i>.1089</i>	<i>1.117</i>
13. Developing openness to new ideas	4.42	.0016	1.043
14. Acquiring knowledge & skills for a career	4.68	.0010	0.962
15. Becoming competent in my major	9.08	.0001	0.979
16. Appreciating fine arts & the humanities	2.48	.0429	1.140
17. Broadening intellectual interests	3.44	.0086	0.991
<i>18. Discovering good uses of talents & time</i>	<i>1.85</i>	<i>.1178</i>	<i>1.099</i>
<i>19. Learning principles for improving health</i>	<i>0.93</i>	<i>.4436</i>	<i>1.106</i>
<i>20. Developing effective job-seeking skills</i>	<i>1.02</i>	<i>.3939</i>	<i>1.180</i>
<i>21. Learning about career options</i>	<i>0.53</i>	<i>.7159</i>	<i>1.114</i>
22. Applying scientific knowledge & skills	6.10	.0001	0.980
23. Learning principles to improve the environment	4.71	.0009	1.075
24. Effectively using technology	5.00	.0006	1.113
25. Learning about the role of science & technology	5.37	.0003	1.048
26. Understanding & applying math & statistics	3.36	.0099	1.106

Note: Non-significant results are italicized.

Table 8. Mean Differences in Progress Toward Reaching Outcomes by Credits Earned

Outcome	Credits Earned at Boise State University by Group ⁵					Sig. Diffs. ⁶
	Grp 1: <24	Grp 2: 24-47	Grp 3: 48-71	Grp 4: 72-95	Grp 5: 96+	
1. Drawing conclusions from data	3.35	3.38	3.62	3.80	3.72	4/2, 4/1, 5/2, 5/1
2. Solving problems	3.32	3.45	3.51	3.58	3.70	4/1
3. Learning to think	3.51	3.63	3.87	3.92	3.70	4/1
4. Organizing information	3.27	3.50	3.43	3.72	3.59	4/1
5. Thinking objectively about beliefs, values	3.37	3.58	3.75	3.73	3.83	5/1, 4/1, 3/1
6. Developing creativity	3.37	3.58	3.75	3.73	3.83	5/1
7. Improving writing skills	3.30	3.25	3.56	3.77	3.51	4/1, 4/2
8. Reading better	2.90	2.98	3.16	3.30	3.19	4/1
9. Speaking effectively	3.05	3.11	3.41	3.53	3.36	4/1
11. Listening to others	3.41	3.50	3.56	3.87	3.50	4/1
13. Openness to new ideas	3.30	3.53	3.59	3.83	3.57	4/1
14. Acquiring career skills	3.44	3.55	3.73	3.93	3.70	4/2, 4/1
15. Becoming competent in my major	3.29	3.47	3.75	3.90	3.77	4/5, 4/3, 4/2, 4/1, 5/1, 3/1
16. Appreciating arts	2.82	3.09	3.08	3.20	3.03	4/1
17. Broadening interests	3.23	3.38	3.48	3.60	3.54	4/1, 5/1
22. Applying scientific skills	2.92	3.01	3.19	3.52	3.23	4/2, 4/1
23. Learning to improve environment	2.42	2.63	2.63	2.95	2.81	4/1
24. Using technology	2.87	3.17	3.13	3.28	3.37	5/1
25. Learning about science & technology	2.80	2.97	2.94	3.43	3.12	4/3, 4/2, 4/1
26. Understanding math	2.55	2.72	2.71	3.02	2.89	4/1

⁵ Group 1 had 310 students, group 2 had 97, group 3 had 78, group 4 had 67, and group 5 had 103 students.

⁶ Indicates which pairs of groups differed significantly from one another using follow-up tests and .05 level of significance

Table 9. Analysis of Variance Results for College Contributions to Personal Growth by Club and Organization Participation

College Contribution to Personal Growth in:	F value	Pr >F	Root MSE
1. Becoming an effective team or group member	3.29	.0389	1.078
2. <i>Becoming more willing to consider opposing points of view</i>	1.13	.3244	1.046
3. <i>Interacting well with people from cultures other than my own</i>	0.32	.7248	1.071
4. <i>Improving my ability to relate to others</i>	1.70	.1842	1.085
5. <i>Preparing to cope with changes as they occur</i>	2.12	.1219	1.123
6. Developing leadership skills	3.90	.0213	1.169
7. Actively participating in volunteer work to support worthwhile causes	5.37	.0051	1.180
8. Learning to be adaptable, tolerant, and willing to negotiate	3.57	.0293	1.093
9. <i>Seeking and conveying the spirit of truth</i>	1.56	.2114	1.115
10. <i>Becoming more aware of global and international issues/events</i>	0.16	.8531	1.092
11. Preparing myself to participate effectively in the electoral process	3.44	.0334	1.136
12. <i>Becoming more aware of local and national political and social issues</i>	1.59	.2055	1.144
13. <i>Gaining insight into human nature through the study of literature, history, and the arts</i>	1.41	.2465	1.161
14. Recognizing my rights, responsibilities and privileges as a citizen	5.99	.0028	1.136
15. <i>Becoming sensitive to moral injustices and ways of avoiding or correcting them</i>	0.27	.7626	1.167
16. Understanding religious values that differ from my own	3.47	.0323	1.199
17. <i>Taking responsibility for my own behavior</i>	1.99	.1387	1.242
18. <i>Learning how to become a more responsible family member</i>	1.69	.1871	1.238
19. <i>Clarifying my personal values</i>	1.59	.2053	1.181
20. Developing a sense of purpose, value, and meaning for my life	3.75	.0248	1.183
21. <i>Learning how to manage finances</i>	2.63	.0740	1.189
22. <i>Dealing fairly with a wide range of people</i>	2.77	.0644	1.133
23. <i>Developing moral principles to guide my actions and decisions</i>	1.67	.1894	1.195
24. Acquiring appropriate social skills for use in various situations	3.28	.0390	1.118
25. <i>Becoming academically competent</i>	1.28	.2783	1.122

26. Developing productive work relationships with both men and women	3.12	.0458	1.135
27. <i>Increasing my intellectual curiosity</i>	2.87	<i>.0581</i>	<i>1.115</i>
28. <i>Setting long-term or “life” goals</i>	2.16	<i>.1171</i>	<i>1.197</i>
29. <i>Constructively expressing both emotions and ideas</i>	2.00	<i>.1371</i>	<i>1.140</i>
30. Understanding myself, my talents, and my interests	3.72	.0254	1.173
31. <i>Developing self-confidence</i>	0.98	<i>.3782</i>	<i>1.167</i>
32. <i>Becoming more willing to change and learn new things</i>	0.92	<i>.3980</i>	<i>1.167</i>
33. <i>Developing my religious values</i>	1.47	<i>.2327</i>	<i>1.211</i>
34. <i>Improving my ability to stay with projects until they are finished</i>	0.89	<i>.4117</i>	<i>1.167</i>
35. <i>Becoming a more effective member in a multi-cultural society</i>	2.46	<i>.0874</i>	<i>1.142</i>
36. Acquiring a well-rounded General Education	3.00	.0516	1.140

Note: Non-significant results are italicized.

Table 10. Mean Differences For Perceptions of College Contributions to Personal Growth by Club/Organization Membership

College Contribution to Personal Growth in:	Mean by Club Hours Spent		
	No time (N=188)	1-5 hours (N=75)	Over 5 (N=26)
1. Becoming an effective team or group member	2.96	3.20	3.46
6. Developing leadership skills	2.71	3.09	3.15
7. Actively participating in volunteer work to support worthwhile causes	2.39	2.92	2.62
8. Learning to be adaptable, tolerant, and willing to negotiate	2.81	3.20	3.04
11. Preparing myself to participate effectively in the electoral process	2.41	2.79	2.77
14. Recognizing my rights, responsibilities and privileges as a citizen	2.61	3.07	3.15
16. Understanding religious values that differ from my own	2.46	2.87	2.81
20. Developing a sense of purpose, value, and meaning for my life	2.68	3.09	3.04
24. Acquiring appropriate social skills for use in various situations	2.76	3.08	3.19
26. Developing productive work relationships with both men and women	2.72	3.01	3.19
30. Understanding myself, my talents, and my interests	2.81	3.05	3.42
36. Acquiring a well-rounded General Education	3.35	3.36	3.92

Table 11. Analysis of Variance Results for Progress in Reaching Educational Outcomes by Attendance at College Events

Outcome	F value	Pr >F	Root MSE
1. Drawing conclusions from evidence	3.52	.0303	0.848
2. Developing problem-solving skills	5.67	.0037	0.898
3. Learning to think and reason	5.85	.0031	0.928
4. <i>Locating and organizing information</i>	0.88	.4136	0.982
5. Thinking objectively about beliefs	9.02	.0001	1.058
6. Developing creativity	8.74	.0002	1.027
7. <i>Improving writing skills</i>	0.73	.4809	1.059
8. Reading with greater speed & comprehension	3.54	.0296	1.099
9. Speaking more effectively	9.73	.0001	1.101
10. <i>Further developing study skills</i>	1.73	.1789	1.046
11. Listening to and understanding others	5.63	.0038	0.970
12. Learning to formulate lifetime goals	5.39	.0048	1.129
13. Developing openness to new ideas	6.90	.0011	1.065
14. Acquiring knowledge & skills for a career	3.48	.0314	0.981
15. <i>Becoming competent in my major</i>	1.70	.1831	1.021
16. Appreciating fine arts & the humanities	11.66	.0001	1.129
17. Broadening intellectual interests	5.11	.0064	1.013
18. Discovering good uses of talents & time	11.81	.0001	1.097
19. Learning principles for improving health	11.11	.0001	1.095
20. Developing effective job-seeking skills	14.53	.0001	1.175
21. Learning about career options	10.20	.0001	1.094
22. Applying scientific knowledge & skills	3.44	.0328	1.011
23. Learning principles to improve the environment	4.27	.0145	1.082
24. Effectively using technology	5.19	.0059	1.143
25. <i>Learning about the role of science & technology</i>	1.86	.1561	1.079
26. Understanding & applying math & statistics	4.06	.0177	1.125

Note: Non-significant results are italicized.

**Table 12. Mean Differences for Progress in Reaching Educational Outcomes
by Event Attendance**

Outcome	Mean Progress by Hours at Events		
	No time (N=330)	1-5 hours (N=171)	Over 5 (N=38)
1. Drawing conclusions from evidence	3.50	3.48	3.87
2. Developing problem-solving skills	3.40	3.45	3.92
3. Learning to think and reason	3.59	3.63	4.13
5. Thinking objectively about beliefs	3.42	3.63	4.16
6. Developing creativity	3.14	3.28	3.87
8. Reading with greater speed & comprehension	2.94	3.10	3.39
9. Speaking more effectively	3.07	3.31	3.84
11. Listening to and understanding others	3.42	3.57	3.95
12. Learning to formulate lifetime goals	3.10	3.15	3.74
13. Developing openness to new ideas	3.36	3.51	4.03
14. Acquiring knowledge & skills for a career	3.53	3.68	3.92
16. Appreciating fine arts & the humanities	2.78	3.11	3.61
17. Broadening intellectual interests	3.27	3.42	3.79
18. Discovering good uses of talents & time	2.73	3.02	3.55
19. Learning principles for improving health	2.90	3.09	3.76
20. Developing effective job-seeking skills	2.49	2.77	3.53
21. Learning about career options	2.72	2.93	3.53
22. Applying scientific knowledge & skills	3.02	3.05	3.47
23. Learning principles to improve the environment	2.50	2.61	3.03
24. Effectively using technology	2.94	3.20	3.45
26. Understanding & applying math & statistics	2.59	2.77	3.08

Table 13. Analysis of Variance for Personal Growth Based on Attendance at College Events

Extent of Personal Growth in:	F value	Pr >F	Root MSE
1. Becoming an effective team or group member	7.49	.0007	0.955
2. Becoming more willing to consider opposing points of view	3.48	.0320	0.897
3. <i>Interacting well with people from cultures other than my own</i>	2.09	.1253	1.013
4. <i>Improving my ability to relate to others</i>	1.38	.2540	0.960
5. Preparing to cope with changes as they occur	3.91	.0209	0.965
6. Developing leadership skills	5.72	.0036	1.036
7. Actively participating in volunteer work to support worthwhile causes	3.98	.0196	1.205
8. Learning to be adaptable, tolerant, and willing to negotiate	4.82	.0087	0.948
9. <i>Seeking and conveying the spirit of truth</i>	2.13	.1208	1.069
10. Becoming more aware of global and international issues/events	3.83	.0226	1.030
11. <i>Preparing myself to participate effectively in the electoral process</i>	2.70	.0686	1.206
12. <i>Becoming more aware of local and national political and social issues</i>	1.47	.2319	1.092
13. <i>Gaining insight into human nature through the study of literature, history, and the arts</i>	1.99	.1378	1.104
14. Recognizing my rights, responsibilities and privileges as a citizen	5.61	.0040	1.039
15. Becoming sensitive to moral injustices and ways of avoiding or correcting them	4.38	.0133	1.084
16. <i>Understanding religious values that differ from my own</i>	1.40	.2490	1.123
17. <i>Taking responsibility for my own behavior</i>	1.70	.1840	1.061
18. <i>Learning how to become a more responsible family member</i>	0.56	.5706	1.100
19. Clarifying my personal values	3.38	.0352	0.989
20. <i>Developing a sense of purpose, value, and meaning for my life</i>	0.55	.5790	1.009
21. <i>Learning how to manage finances</i>	1.65	.1939	1.114
22. <i>Dealing fairly with a wide range of people</i>	1.44	.2390	0.983
23. Developing moral principles to guide my actions and decisions	4.07	.0179	1.055
24. Acquiring appropriate social skills for use in various situations	6.93	.0011	1.007
25. Becoming academically competent	2.97	.0529	0.912

Extent of Personal Growth in:	F value	Pr >F	Root MSE
<i>26. Developing productive work relationships with both men and women</i>	<i>2.90</i>	<i>.0563</i>	<i>1.042</i>
<i>27. Increasing my intellectual curiosity</i>	<i>1.59</i>	<i>.2055</i>	<i>0.957</i>
<i>28. Setting long-term or “life” goals</i>	<i>0.78</i>	<i>.4605</i>	<i>1.043</i>
29. Constructively expressing both emotions and ideas	6.94	.0011	1.017
30. Understanding myself, my talents, and my interests	3.22	.0410	0.999
<i>31. Developing self-confidence</i>	<i>1.66</i>	<i>.1921</i>	<i>1.016</i>
<i>32. Becoming more willing to change and learn new things</i>	<i>2.64</i>	<i>.0727</i>	<i>0.964</i>
<i>33. Developing my religious values</i>	<i>2.51</i>	<i>.0828</i>	<i>1.293</i>
<i>34. Improving my ability to stay with projects until they are finished</i>	<i>2.60</i>	<i>.0754</i>	<i>1.054</i>
<i>35. Becoming a more effective member in a multi-cultural society</i>	<i>2.78</i>	<i>.0632</i>	<i>1.111</i>
36. Acquiring a well-rounded General Education	4.20	.0158	1.019

Note: Non-significant results are italicized.

Table 14. Mean Differences in Extent of Personal Growth Based on Attendance at College Events

Extent of Personal Growth in:	Means by Hours of Event Attendance		
	No time (N=198)	1-5 hours (N=115)	Over 5 (N=27)
1. Becoming an effective team or group member	3.51	3.86	4.07
2. Becoming more willing to consider opposing points of view	3.63	3.73	4.11
5. Preparing to cope with changes as they occur	3.63	3.84	4.11
6. Developing leadership skills	3.49	3.73	4.15
7. Actively participating in volunteer work to support worthwhile causes	2.93	3.26	3.44
8. Learning to be adaptable, tolerant, and willing to negotiate	3.52	3.78	4.00
10. Becoming more aware of global and international issues/events	3.30	3.47	3.85
14. Recognizing my rights, responsibilities and privileges as a citizen	3.27	3.54	3.89
15. Becoming sensitive to moral injustices and ways of avoiding or correcting them	3.41	3.65	4.00
19. Clarifying my personal values	3.70	3.91	4.15
23. Developing moral principles to guide my actions and decisions	3.59	3.90	3.96
24. Acquiring appropriate social skills for use in various situations	3.49	3.79	4.15
25. Becoming academically competent	3.77	3.93	4.19
29. Constructively expressing both emotions and ideas	3.51	3.83	4.15
30. Understanding myself, my talents, and my interests	3.61	3.84	4.00
36. Acquiring a well-rounded General Education	3.73	3.79	4.33

**Table 15. Analysis of Variance Results for College Contribution to Growth
Based on College Event Attendance**

Extent of Personal Growth in:	F value	Pr >F	Root MSE
1. Becoming an effective team or group member	4.06	.0182	1.074
2. <i>Becoming more willing to consider opposing points of view</i>	0.87	.4207	1.046
3. Interacting well with people from cultures other than my own	3.25	.0401	1.056
4. Improving my ability to relate to others	5.40	.0050	1.068
5. Preparing to cope with changes as they occur	7.72	.0005	1.098
6. Developing leadership skills	8.03	.0004	1.160
7. Actively participating in volunteer work to support worthwhile causes	6.41	.0019	1.171
8. Learning to be adaptable, tolerant, and willing to negotiate	3.47	.0323	1.098
9. <i>Seeking and conveying the spirit of truth</i>	2.83	.0607	1.106
10. <i>Becoming more aware of global and international issues/events</i>	2.92	.0556	1.083
11. <i>Preparing myself to participate effectively in the electoral process</i>	2.54	.0805	1.142
12. <i>Becoming more aware of local and national political and social issues</i>	2.05	.1306	1.154
13. Gaining insight into human nature through the study of literature, history, and the arts	6.75	.0014	1.142
14. Recognizing my rights, responsibilities and privileges as a citizen	6.70	.0014	1.137
15. Becoming sensitive to moral injustices and ways of avoiding or correcting them	6.24	.0022	1.148
16. <i>Understanding religious values that differ from my own</i>	2.74	.0664	1.200
17. <i>Taking responsibility for my own behavior</i>	2.84	.0599	1.243
18. Learning how to become a more responsible family member	4.11	.0175	1.230
19. <i>Clarifying my personal values</i>	1.60	.2036	1.174
20. <i>Developing a sense of purpose, value, and meaning for my life</i>	1.73	.1798	1.183
21. Learning how to manage finances	6.44	.0018	1.177
22. Dealing fairly with a wide range of people	3.43	.0339	1.135
23. Developing moral principles to guide my actions and decisions	4.10	.0176	1.186
24. Acquiring appropriate social skills for use in various situations	6.75	.0014	1.105
25. <i>Becoming academically competent</i>	1.77	.1729	1.113

Extent of Personal Growth in:	F value	Pr >F	Root MSE
<i>26. Developing productive work relationships with both men and women</i>	2.87	.0584	1.138
<i>27. Increasing my intellectual curiosity</i>	0.79	.4561	1.126
<i>28. Setting long-term or “life” goals</i>	2.09	.1254	1.195
29. Constructively expressing both emotions and ideas	4.08	.0179	1.132
30. Understanding myself, my talents, and my interests	4.92	.0079	1.163
<i>31. Developing self-confidence</i>	2.57	.0786	1.162
<i>32. Becoming more willing to change and learn new things</i>	1.13	.3248	1.166
<i>33. Developing my religious values</i>	0.67	.5107	1.207
<i>34. Improving my ability to stay with projects until they are finished</i>	2.06	.1288	1.173
<i>35. Becoming a more effective member in a multi-cultural society</i>	1.82	.1635	1.153
<i>36. Acquiring a well-rounded General Education</i>	0.54	.5818	1.160

Note: Non-significant results are italicized.

**Table 16. Mean Differences in College Contribution to Personal Growth
Based on Extent of Attendance at College Events**

Extent of Personal Growth in:	Means by hours of event attendance		
	No time (N=179)	1-5 hours (N=91)	Over 5 hrs (N=21)
1. Becoming an effective team or group member	2.92	3.19	3.52
3. Interacting well with people from cultures other than my own	2.96	3.09	3.57
4. Improving my ability to relate to others	2.98	3.19	3.76
5. Preparing to cope with changes as they occur	2.75	3.05	3.67
6. Developing leadership skills	2.66	2.97	3.67
7. Actively participating in volunteer work to support worthwhile causes	2.37	2.70	3.24
8. Learning to be adaptable, tolerant, and willing to negotiate	2.80	3.00	3.43
13. Gaining insight into human nature through the study of literature, history, and the arts	2.91	3.24	3.76
14. Recognizing my rights, responsibilities and privileges as a citizen	2.62	2.79	3.57
15. Becoming sensitive to moral injustices and ways of avoiding or correcting them	2.73	2.85	3.67
18. Learning how to become a more responsible family member	2.41	2.63	3.19
21. Learning how to manage finances	2.41	2.48	3.38
22. Dealing fairly with a wide range of people	2.90	3.04	3.57
23. Developing moral principles to guide my actions and decisions	2.47	2.77	3.14
24. Acquiring appropriate social skills for use in various situations	2.68	3.09	3.38
29. Constructively expressing both emotions and ideas	2.76	3.01	3.43
30. Understanding myself, my talents, and my interests	2.79	2.97	3.62

Table 17. Relationship of Credits Earned and Time Spent in Activities to Intellectual, Personal, and Social Growth

Variable	Parameter Estimate	Standardized Estimate	T for H0	Prob>T
Intellectual Growth				
Intercept	3.070	.000	16.475	.0001
Credits Earned at BSU	0.001	.055	1.120	.2634
<i>Time spent in course activities</i>	<i>0.094</i>	<i>.177</i>	<i>3.592</i>	<i>.0004</i>
Time on other learning experiences	0.031	.044	0.873	.3834
Time spent in college clubs	0.055	.051	1.010	.3130
Attendance at college events	-0.000	.000	-0.009	.9929
<i>Time spent at off-campus job</i>	<i>-0.044</i>	<i>-.125</i>	<i>-2.550</i>	<i>.0111</i>
Time spent caring for family	0.002	.005	0.105	.9162
Personal Growth				
Intercept	2.851	.000	12.758	.0001
Credits Earned at BSU	0.001	.050	1.005	.3157
Time spent in course activities	-0.011	-.017	-0.347	.1706
Time on other learning experiences	0.058	.068	1.373	.1706
<i>Time spent in college clubs</i>	<i>0.200</i>	<i>.153</i>	<i>3.044</i>	<i>.0025</i>
Attendance at college events	0.086	.074	1.470	.1424
<i>Time spent at off-campus job</i>	<i>-0.060</i>	<i>-.142</i>	<i>-2.916</i>	<i>.0037</i>
Time spent caring for family	-0.019	-.045	-0.916	.3600
Social Growth				
Intercept	2.754	.000	12.578	.0001
Credits Earned at BSU	0.001	.046	0.929	.3537
Time spent in course activities	0.033	.053	1.078	.2819
Time on other learning experiences	0.013	.016	0.317	.7513
<i>Time spent in college clubs</i>	<i>0.225</i>	<i>.175</i>	<i>3.493</i>	<i>.0005</i>
Attendance at college events	0.066	.058	1.149	.2511
<i>Time spent at off-campus job</i>	<i>-0.059</i>	<i>-.143</i>	<i>-2.938</i>	<i>.0036</i>
Time spent caring for family	-0.016	-.037	-0.751	.4531

Note: Significant predictors are in bold and italicized.