# Aviation Student Involvement in Campus Based Extracurricular Organizations at a Midwestern University 

Angela R. Olson \& Jeffrey A. Johnson<br>St. Cloud State University


#### Abstract

The purpose of this study was to investigate aviation student involvement in campus based extracurricular organizations at a large Midwestern university. Since 2002, the researchers have noted a steady decline in aviation student involvement, and recently surveyed students with the use of a descriptive survey questionnaire developed for this study to determine the cause of decreased student involvement. The survey was also used to investigate aviation student attitudes and beliefs about various student organizations in addition to soliciting demographic information about the students who completed the survey. The study found that a substantial number of aviation students did not perceive involvement in aviation student organizations as particularly meaningful to their lives. Furthermore, students were not aware of opportunities, through active involvement in campus and civic organizations, to network with aviation industry representatives for internships and employment during school or after graduation. Students also cited various reasons regarding their lack of active involvement in organizations including work, other obligations, and lack of time. Students indicated that some organizations had student leaders who lacked a sense of direction and purpose. Recommendations were made to assist faculty advisors in providing guidance to student leaders of organizations and to develop opportunities to educate students about the benefits of organizational involvement.


## INTRODUCTION

Student involvement in campus-based student organizations contributes to the overall personal development of students engaged in the college life experience in many ways that cannot be measured. According to Huang and Chang (2004), "The concept of campus involvement may transcend the bounds of colors and cultures" (para. 2). The benefits of involvement, for all college students, correlate strongly to success in college. The effect of student's involvement on their academic and personal growth is well known and has been widely studied. College students who are involved internalize a greater feeling of engagement, have higher rates of retention, and manage their time better (Astin, 1984). Researchers have found that active student involvement is a central dynamic in student learning and development (Pascarella \& Terenzini, 1991). The more college students are involved in campus life, the more benefits they receive in terms of learning and personal development. The complexity of college student involvement is often difficult to measure and quantify because assessing personal growth and development can be subjective. According to Pascarella and Terenzini (1998), studies that correlate the effects of experiences or interventions to the characteristics of the student or institution are limited.

One key component in the life of college students is involvement that is consistent, meaningful, and well balanced. Adequate and meaningful involvement is subjective and somewhat ill-defined however Astin (1984) defined it as "the amount of physical and psychological energy that students invest in the college experience" (p. 518). Involvement can take on many forms including both academic and extracurricular. The researchers are trying to distinguish what environmental and psychological influences are affecting student involvement. This will eventually lead faculty and administrators to achieve a more effective learning environment for the students within the aviation department.

## REVIEW OF LITERATURE

Effective student involvement is often ill-defined, subjective, and complex. According to Astin (1984), there are many theories that are used to frame student involvement: subject-matter (content), resource, and individualized (eclectic). The content theory is based on the assumption that "student learning and development depend primarily on exposure to the right subject matter" (Astin, 1984, p. 520). In this theory, the students have a passive role in the learning process and this is a serious limitation according to Astin. The resource theory justifies student success or failure based on the available physical resources. "The resource theory maintains that if adequate resources are brought together in one place, student learning and development will occur" (Astin, 1984, p. 520). The resource theory does not account for the specific use or allocation of these resources and this is a limitation. The individualized theory "attempts to identify the curricular content and instructional methods that best meet the needs of the individual student" (Astin, 1984, p. 521). Any faculty member who has taught a class with more than one student can see some serious limitations with this theory having expensive, time consuming, and limitless pedagogies.

One resource that is not accounted for in the aforementioned theories is the limited amount of uncommitted time the student has available for extra-curricular involvement. In order to maximize student life, it is imperative that students engage in meaningful, relevant, and well orchestrated activities that will enhance their learning and college experience. Astin's theory of student involvement "suggests that the most precious institutional resource may be student time" (Astin, 1984, p. 522).

Researchers Pascarella and Terenzini (2005), in their book How College Affects Students: A Third Decade of Research analyze the multiple impacts of the college experience on students through a metanalysis of the literature. One of the conclusions they draw is significant:

Interaction with peers is probably the most pervasive and powerful force in student persistence and degree completion. It is critical for students to be psychologically engaged to get the most out of college. Other things being equal, the more the student is psychologically engaged in activities and tasks that reinforce the formal academic experience, the more he or she will learn. (p. 119)

Simply showing up at student organization meeting or activity is not truly effective unless there is meaningful active involvement. According to Astin (1999), "Involvement has both quantitative and qualitative features. The extent of a student's involvement in academic work, for instance, can be measured quantitatively (how many hours the student spends studying) and qualitatively (whether the student reviews and comprehends reading assignments or simply stares at the textbook and daydreams)" (p. 519). Likewise, student involvement in non-academic pursuits (extracurricular activities) also has quantitative and qualitative features.

The weakness of this study is the multitude of variables that influence college student involvement were not measured by the survey instrument. Other researchers have explored the phenomena of how students become excessively self-centered. For example, the 2006 Pew Survey of 15-18 year old people "found that only $31 \%$ said 'helping people who need help' was an important goal of their generation, coming in a distant third behind 'getting rich' ( $81 \%$ ) or 'becoming famous' (51\%)" (Twenge \& Campbell, 2009, p. 253). Some authors, scholars, and consultants (Lancaster \& Stillman, 2005) have studied the differences between traditionalists, baby boomers, generation X'ers, and millenials and its effects in the workplace. Another variable that is beyond the scope of this study is the negative effect of excessive involvement: How much is too much? Student involvement in college (or lack of) is not an easy phenomenon to express or quantify. Astin's theory of involvement states: "For a particular curriculum to achieve the effects intended, it must elicit sufficient student effort and investment of energy to bring about
the desired learning and development" (1984, p. 522). The underlying assumption of Astin's theory of student development is motivation and in the context of student success, motivation is a powerful force.

## METHODOLOGY

## Participants

The participants for this study included 123 aviation students from a large Midwestern university. A descriptive type survey questionnaire was developed by the authors to solicit opinions and comments from the aviation students relative to student organizational involvement. Two key assumptions were made about the participants during the study: (a) The representative samples from the aviation students had reasonable knowledge about aviation student organizations whose views reasonably represent the majority of the entire aviation student body and (b) the students responded to the questionnaire with the intent on assisting the authors of this study with minimal bias in determining why aviation student involvement has decreased.

## Research Instrument

The research instrument used to collect the data was a survey questionnaire developed specifically for this study. The survey was distributed to 123 aviation students on campus in the aviation department. The survey was comprised of two sections. The first section utilized a series of questions that solicited the students' views about active involvement in aviation student and civic organizations. The survey questionnaire also asked what frustrates the students who are involved in a student/civic organization. The second section of the survey instrument incorporated a demographic section to develop a profile of student responses based on age, gender, major, full/part time school status, full/part time employment, length of time attending school, and highest pilot certificate held. Responses left blank by the respondents were indicated by $N / R$ (No Report). In evaluating the data presented in the following tables, rounding errors should be taken into consideration.

## DATA ANALYSIS

## Demographics and Analysis

Data from the survey questionnaires were compiled from the software program, Statistical Package for Social Sciences (SPSS) (2007). The research data were analyzed by using cross tabulations, chi-square, and Pearson's correlation of ranks scores. After performing a Pearson chi square test, it was found that some of the data results were extremely skewed or expected frequencies were less than five (SPSS Reference Guide, 1990). As a result, the cells were collapsed into a $3 \times 4$ contingency table and an additional chi-square test was used to examine the significance of the association between the two variables (SPSS Statistics Base 17.0 User's Guide, 2007). The most prominent demographic characteristic was gender. Of the usable 123 respondents reporting gender, 104 students ( $84.6 \%$ ) were male, 15 students $(12.2 \%)$ were female, and 3 students ( $3.3 \%$ ) did not report their gender so any type of statistical inference between gender and student responses was inconclusive.

## Cross Tabulations

The data in Table 1 show cross tabulation results between the respondents' current involvement in student organizations and the organization. It should be noted that out of the total respondents ( $n=123$ ) several individuals were reported to have been actively involved in more than one student organization. Over one-half of all the respondents ( $n=64,52.0 \%$ ) reported they were not actively involved in any aviation organization however the organization with the most active members is the Aero Club ( $n=45$,
$36.6 \%$ ). The next active organization takes a distant second place with eight members ( $6.5 \%$ ) being involved with the Aviation Ambassadors. Fifty-nine students (48.0\%) were not involved in any student organization at all.

Table 1: Comparison Between Student Organization Type and Student Involvement
Current Involvement in a Student Organization

|  | Active Involvement |  | Not Involved |  | Totals |  |
| :--- | ---: | ---: | ---: | ---: | :--- | :--- |
| Organization | $n$ | $\%$ | $n$ | $\%$ | $n$ | $\%$ |
| Alpha Eta Rho | 6 | $4.9 \%$ | 117 | $95.1 \%$ | 123 | $100.0 \%$ |
| Aero Club | 45 | $36.6 \%$ | 78 | $63.4 \%$ | 123 | $100.0 \%$ |
| AAAE | 7 | $5.7 \%$ | 116 | $94.3 \%$ | 123 | $100.0 \%$ |
| Women in Aviation | 7 | $5.7 \%$ | 116 | $94.3 \%$ | 123 | $100.0 \%$ |
| Aviation Ambassadors | 8 | $6.5 \%$ | 115 | $93.5 \%$ | 123 | $100.0 \%$ |
| Other Organizations | 5 | $4.1 \%$ | 118 | $95.9 \%$ | 123 | $100.0 \%$ |
| None | 64 | $52.0 \%$ | 59 | $48.0 \%$ | 123 | $100.0 \%$ |
| No Answer | 2 | $1.6 \%$ | 121 | $98.4 \%$ | 123 | $100.0 \%$ |

Table 2: Comparison Between Student Organization Membership and Level of Education

## Education Level

| Organization | Freshman $n(\%)$ | Sophomore $n(\%)$ | Junior <br> $n$ (\%) | Senior $n(\%)$ | $5^{\text {th }}$ Year or More $n$ (\%) | No Response $n$ (\%) | Total <br> $n$ (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Alpha Eta Rho | 0 (0.0) | 1 (0.8) | 2 (1.6) | 3 (2.4) | 0 (0.0) | 0 (0.0) | 6 (4.9) |
| Aero Club | 5 (4.1) | 11 (8.9) | 12 (9.8) | 15 (12) | 1 (0.8) | 1 (0.8) | 45 (36.6) |
| AAAE | 0 (0.0) | 1 (0.8) | 2 (1.6) | 2 (1.6) | 1 (0.8) | 1 (0.8) | 7 (5.7) |
| Women in Aviation Aviation | 0 (0.0) | 1 (0.8) | 3 (2.4) | 2 (1.6) | 0 (0.0) | 1 (0.8) | 7 (5.7) |
| Ambassadors | 1 (0.8) | 2 (1.6) | 2 (1.6) | 3 (2.4) | 0 (0.0) | 0 (0.0) | 8 (6.5) |
| Civil Air Patrol | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Other | 2 (1.6) | 1 (0.8) | 0 (0.0) | 1 (0.8) | 0 (0.0) | 1 (0.8) | 5 (4.1) |
| None | 14 (11.) | 18 (15) | 19 (15.4) | 8 (6.5) | 3 (2.4) | 2 (1.6) | 64 (52.0) |
| No Response | 0 (0.0) | 1 (0.8) | 1 (0.8) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 2 (1.6) |

Note. Percentage values shown are based on $n=123$ respondents.

The illustration in Table 2 shows cross tabulation results between the respondents' educational level and the student organization and the organization. The highest concentration of students involved are seniors in Aero Club ( $n=15,12.2 \%$ ) followed by juniors in Aero Club ( $n=12,9.8 \%$ ). Conversely, there is a relatively high number of juniors ( $n=19,15.4 \%$ ), sophomores ( $n=18,14.6 \%$ ), and freshman ( $n=14$, $11.4 \%$ ) for a combined total of 51 students ( $41.1 \%$ ) who reported they were not involved in any organization.

Table 3: Comparison Between Student Degree Program and Active Involvement in Student Organizations
Current Involvement in an Aviation Student Organization

|  | Yes | No | Non- <br> Member <br> $n(\%)$ | Total |
| :--- | ---: | ---: | ---: | ---: |
| Degree Program | $n(\%)$ | $n(\%)$ | $n(\%)$ |  |
| BS Aviation (Pro Flight) | $15(12.2)$ | $10(8.1)$ | $12(9.8)$ | $37(30.1)$ |
| BS Aviation (Operations) | $10(8.1)$ | $7(5.7)$ | $11(8.9)$ | $28(22.8)$ |
| BS Aviation (Management) | $7(5.7)$ | $3(2.4)$ | $5(4.1)$ | $15(12.2)$ |
| BAS Aviation (MX Mgmt.) | $0(0.0)$ | $1(0.8)$ | $1(0.8)$ | $2(1.6)$ |
| Non-AVIT Major/AVIT Minor | $1(0.8)$ | $4(3.3)$ | $3(2.4)$ | $8(6.5)$ |
| Elective Studies | $0(0.0)$ | $1(0.8)$ | $1(0.8)$ | $2(2.4)$ |
| Other | $0(0.0)$ | $8(6.5)$ | $16(13.0)$ | $24(19.5)$ |
| No Response | $3(2.4)$ | $1(0.8)$ | $3(2.4)$ | $7(5.7)$ |
| Total | $36(29.2)$ | $35(28.5)$ | $52(42.3)$ | $123(100.8)$ |

Table 3 shows a comparison between current involvement in aviation student organizations and the student degree program. Fifteen students ( $12.2 \%$ ) who reported they are actively involved in a student organization are working towards a Bachelor of Science degree in Aviation with an emphasis in Professional Flight followed by 10 students ( $8.1 \%$ ) who are working on a Bachelor of Science degree in Aviation with an emphasis in Operations. Note there were no actively involved students in student organizations who are working on a Bachelor of Applied Science degree in Aviation Maintenance Management. Due to the small number of enrolled students in this degree program (who all have prior work experience and are typically older than traditional aged students) the data appears to reinforce the researchers' views of low student involvement in this particular major. Almost one-fifth of the students are inactive and non-member students ( $n=24,19.5 \%$ ) who reported Other for their major. The researchers suspect that most of these students are probably first and second year students who are either undecided or in a non-aviation major.

Table 4: Comparison Between Active Student Involvement in Student Organizations and Level of Education

| Current Active Involvement | Education Level |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Freshman $n(\%)$ | Sophomore <br> $n$ (\%) | Junior <br> $n$ (\%) | Senior <br> $n$ (\%) | $5^{\text {th }}$ Year or More $n$ (\%) | No <br> Response $n$ (\%) | Total <br> $n$ (\%) |
| Yes | 4 (3.3) | 7 (5.7) | 10 (8.1) | 11 (8.9) | 1 (0.8) | 3 (2.4) | 36 (29.2) |
| No | 4 (3.3) | 16 (13.0) | 6 (4.9) | 9 (7.3) | 0 (0.0) | 0 (0.0) | 35 (28.4) |
| Non- <br> Member* | 13 (10.6) | 10 (8.1) | 17 (13.8) | 8 (6.5) | 3 (2.4) | 1 (0.8) | 52 (42.2) |
| Total | 21 (17.1) | 33 (26.8) | 33 (26.8) | 28 (22.8) | 4 (3.2) | 4 (3.2) | 123 (99.8) |

Note. Four respondents did not indicate their education level although they specified their current involvement.
*Student is not a member of any aviation student organization.

The data in Table 4 show an overall comparison between education level and current active involvement in an organization. Almost one-half of the respondents ( $n=52,42.2 \%$ ) are non-members which is a very significant increase from the year 2002. Over one-quarter of the students ( $n=35,28.4 \%$ ) reported they are members of at least one organization however they are not actively involved. Collectively, this accounts for a total of 87 surveyed students ( $70.6 \%$ ) who are not actively involved. This finding is also consistent with the trend for decreased student involvement since 2002.

Table 5: Comparison Between Student Employment Status and Active Involvement in Student Organizations

|  | Current Involvement in an Aviation Student Organization |  |  |  |
| :--- | ---: | :---: | ---: | ---: |
|  | Yes |  |  |  |
|  | No | Non- <br> Member <br> $n(\%)$ | Total |  |
| Employment | $n(\%)$ | $n(\%)$ | $n(\%)$ |  |
| Status | $10(8.1)$ | $10(8.1)$ | $16(13.0)$ | $36(29.3)$ |
| Not Working | $20(16.3)$ | $21(17.1)$ | $26(21.1)$ | $67(54.5)$ |
| Work P/T Off Campus | $1(0.8)$ | $3(2.4)$ | $4(3.3)$ | $8(6.5)$ |
| Work F/T Off Campus | $3(2.4)$ | $2(1.6)$ | $5(4.1)$ | $10(8.1)$ |
| Work Study | $34(27.6)$ | $36(29.3)$ | $51(41.5)$ | $121(98.4)$ |
| Total |  |  |  |  |

Note. Two respondents did not indicate their employment status and were not included in the table.

In Table 5, current student involvement is compared with employment status. Note that 21 students ( $17.1 \%$ ) are not actively involved and work part time off campus while 26 students $(21.1 \%)$ are nonmembers and also work off campus. Cumulatively, this translates into 47 students ( $38.2 \%$ ) surveyed work part time off campus and are actively involved. Ironically, slightly less than one-quarter of the students ( $n=26,21.1 \%$ ) are not actively involved and also do not work. For this group of students, how they are spending their free time is unclear however the data clearly indicate that students are not spending time being actively involved in a student organization.

Table 6: Comparison Between Non-Member Involvement and Level of Education
Education Level

| Consider Getting Involved? | Freshman $n(\%)$ | Sophomore $n(\%)$ | Junior $n(\%)$ | Senior $n(\%)$ | $5^{\text {th }}$ Year or More $n$ (\%) | No <br> Response $n$ (\%) | Total $n(\%)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Won't Get Involved Consider Getting | 4 (3.3) | 12 (9.8) | 8 (6.5) | 4 (3.3) | 0 (0.0) | 1 (0.8) | 29 (23.6) |
| Involved | 11 (8.9) | 7 (5.7) | 12 (9.8) | 6 (4.9) | 2 (1.6) | 1 (0.8) | 39 (31.7) |
| Already a Member | 4 (3.3) | 10 (8.1) | 10 (8.1) | 8 (6.5) | 0 (0.0) | 1 (0.8) | 33 (26.8) |
| No Response | 2 (1.6) | 4 (3.3) | 3 (2.4) | 10 (8.1) | 2 (1.6) | 1 (0.8) | 22 (17.9) |
| Total | 21 (17) | 33 (27) | 33 (27) | 28 (23) | 4 (3) | 4 (3) | 123 (100) |

Table 6 shows a comparison between the students' educational level and whether (or not) students would consider getting actively involved in a student organization. From the surveyed students, there appeared to be a normal distribution of total student responses ranging from freshman to seniors (freshman: $n=21,17.1 \%$; sophomores: $n=33,26.8 \%$; juniors: $n=33,26.8 \%$; seniors: $n=28,22.8 \%$ ). The researchers seemed hopeful that almost one-third of the students ( $n=39,31.7 \%$ ) indicated they would consider getting involved in a student organization. Most of the students who expressed interest in getting involved were freshman ( $n=11,8.9 \%$ ) and juniors ( $n=12,9.8 \%$ ). Unfortunately, almost one-quarter of the students ( $n=29,23.6 \%$ ) indicated they would not consider getting involved. For unknown reasons, ten students $(8.1 \%)$ did not respond to the question about getting involved in a student organization.

Table 7: Comparison Between Student Degree Program and Willingness to Get Involvement in Student Organizations

## Non-Member Willingness to Get Involved

|  | No | Yes | Already a <br> Member <br> $n(\%)$ | No <br> Response <br> $n(\%)$ | $n(\%)$ |
| :--- | ---: | ---: | ---: | ---: | ---: |

The data in Table 7 show a comparison of non-member willingness to get involved to the students' degree program. Twenty students ( $16.3 \%$ ) who are non-members indicated their major was Other (undeclared major) which may suggest their lack of interest in getting involved in an aviation student organization. Overall, the data in Table 7 does not appear overly robust. One other noteworthy observation is that 14 non-member students (11.4\%) have a willingness to get involved are BS Aviation (Pro Flight) students. At this institution, the Pro Flight option is still the most popular which may account for more interest in this degree specialization.

Table 8: Comparison Between Member Frustration in Student Organizations and Level of Education

| Student Member <br> Frustration | Education Level |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Freshman $n(\%)$ | Sophomore $n(\%)$ | Junior <br> $n$ (\%) | Senior $n(\%)$ | $\begin{gathered} 5^{\text {th }} \text { Year } \\ \text { or More } \\ n(\%) \end{gathered}$ | No Response $n$ (\%) | $\begin{aligned} & \text { Total } \\ & n(\%) \end{aligned}$ |
| Lack of Direction | 6 (4.9) | 7 (5.7) | 6 (4.9) | 10 (8.1) | 1 (0.8) | 1 (0.8) | 31 (25.2) |
| Leaders Unorganized | 2 (1.6) | 4 (3.3) | 3 (2.4) | 6 (4.9) | 1 (0.8) | 1 (0.8) | 17 (13.8) |
| Advisors Unorganized | 1 (0.8) | 1 (0.8) | 2 (1.6) | 1 (0.8) | 0 (0.0) | 1 (0.8) | 6 (4.9) |
| Lack of Meaningful |  |  |  |  |  |  |  |
| Activities | 4 (3.3) | 8 (6.5) | 4 (3.3) | 9 (7.3) | 1 (0.8) | 0 (0.0) | 26 (21.1) |
| Lack of Funding | 6 (4.9) | 4 (3.3) | 8 (6.5) | 8 (6.5) | 0 (0.0) | 1 (0.8) | 27 (22.0) |
| Little/No Industry |  |  |  |  |  |  |  |
| Networking | 2 (1.6) | 1 (0.8) | 1 (0.8) | 5 (4.1) | 1 (0.8) | 0 (0.0) | 10 (8.1) |
| Club Meets at a Bad Time | 4 (3.3) | 5 (4.1) | 3 (2.4) | 6 (4.9) | 1 (0.8) | 0 (0.0) | 19 (15.4) |
| Other | 0 (0.0) | 4 (3.3) | 5 (4.1) | 4 (3.3) | 1 (0.8) | 1 (0.8) | 15 (12.2) |

In Table 8, educational level is cross-tabulated with student member frustration. Slightly over onequarter of the member students ( $n=31,25.2 \%$ ) complained that student organizations lack direction followed by a lack of funding ( $n=27,22.0 \%$ ). The third complaint is a lack of meaningful activities ( $n=26$, $21.1 \%$ ) which is closely related to a lack of direction. Very few students complained that student organization advisors are unorganized ( $n=6,4.9 \%$ ). There were very few complaints that little or no industry networking opportunities occurred regardless of the students' year in school. This finding is somewhat peculiar as successful entrance into the aviation workplace is often reliant on the student's ability to network.

Table 9: Frequencies and Chi-Square Test Comparison of Responses Between Year in School and Involvement in Student Organizations

## Student Involvement in Organizations

| Year in School | Active Member n <br> Expected Chi-Square | Non-Active Member $n$ <br> Expected Chi-Square | Non Member $n$ Expected Chi-Square | Total |
| :---: | :---: | :---: | :---: | :---: |
| Freshman | 4 | 4 | 13 | 21 |
|  | 5.82 | 6.18 | 9.00 |  |
|  | 0.571 | 0.767 | 1.778 |  |
| Sophomore | 7 | 16 | 10 | 33 |
|  | 9.15 | 9.71 | 14.14 |  |
|  | 0.506 | 4.082 | 1.214 |  |
| Junior | 10 | 6 | 17 | 33 |
|  | 9.15 | 9.71 | 14.14 |  |
|  | 0.079 | 1.415 | 0.577 |  |
| Senior | 12 | 9 | 11 | 32 |
|  | 8.87 | 9.41 | 13.71 |  |
|  | 1.101 | 0.018 | 0.537 |  |
| Total | 33 | 35 | 51 | 119 |

Note. Chi-Square $=12.644, \mathrm{DF}=6, p=.018 .{ }^{*} p<.05$

In Table 9, a chi-square test was conducted between the student educational levels and their student organizational involvement status. The largest relationship (chi-square $=4.082$ ) exists between the observed value of 16 sophomores who are non-active members compared to the expected value of 10 students. The second most significant cell (chi-square $=1.778$ ) is the relationship between freshman who are non members resulting in an observed value of 13 students and an expected value of 9 students. The third cell of significance (chi-square $=1.415$ ) has an observed value of 6 juniors who are non-active members compared to an expected value of 10 students. The fourth cell of significance (chi-square $=$ 1.778) has an observed value of 10 non-member sophomores compared to an expected value of 15 students.

Table 10: Pearson's Correlation of Ranks: Student Responses by Major Classification

| Student <br> Response | Major |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pro Flight$(n=37)$ |  | $\begin{aligned} & \text { BS Operations } \\ & (n=28) \end{aligned}$ |  | Mgmt., MX Mgmt. Non-Avit/E-Studies$(n=51)$ |  | $\begin{aligned} & \text { Total } \\ & (n=116) \end{aligned}$ |  |
|  | $n$ (\%) | Rank | $n$ (\%) | Rank | $n$ (\%) | Rank | $n$ (\%) | Rank |
| Lack of Direction | 11 (29.8) | 2 | 9 (32.1) | 1 | 9 (17.6) | 2 | 29 (25.0) | 1 |
| Leaders Unorganized | 6 (21.4) | 5 | 6 (21.4) | 5 | 4 (7.8) | 5.5 | 16 (13.8) | 5 |
| Advisors Unorganized | 2 (5.4) | 7 | 1 (3.6) | 8 | 2 (3.9) | 8 | 5 (4.3) | 8 |
| No Meaningful |  |  |  |  |  |  |  |  |
| Activities | 9 (24.3) | 3 | 6 (21.4) | 5 | 10 (19.6) | 1 | 25 (21.6) | 2.5 |
| Lack of Funding | 12 (32.4) | 1 | 7 (25.0) | 2.5 | 6 (11.8) | 3.5 | 25 (21.6) | 2.5 |
| Little/No Networking | 3 (8.1) | 6 | 4 (14.3) | 7 | 3 (5.9) | 7 | 10 (8.6) | 7 |
| Org. Meets at Bad |  |  |  |  |  |  |  |  |
| Time | 8 (21.6) | 4 | 6 (21.4) | 5 | 4 (7.8) | 5.5 | 18 (15.5) | 4 |
| Other | 1 (2.7) | ) 8 | 7 (25.0) | 2.5 | 6 (11.8) | 3.5 | 14 (12.1) | 6 |
| No Response | 16 (43.2) |  | 7 (25.0) |  | 30 (58.8) |  | 53 (45.7) |  |

$p=.029$, one-tailed, level of significance $=.97$

In Table 10, a Pearson's Correlation of Ranks test was conducted between the various student majors (who are members of at least one student organization) and their responses. Due to the low number of students who indicated they were majoring in aviation maintenance management, non-aviation major minoring in aviation, elective studies, or other non-aviation majors, these responses were combined prior to the test. There is a significant relationship ( $p=.029$, one-tailed) between the responses from operations majors (see column 2 in Table 10) vs. the other aviation majors indicated in column 3. Specifically, there is a significant difference as No Meaningful Activities reported by the Operations students is ranked number five however; the third category of majors (Aviation Management, Maintenance Management, Non-Aviation students, and Elective Studies students) ranked No Meaningful Activities as number one. Although the data does not suggest why there is a significant difference between the two groups, it is possible that significant differences may result from the fact that Operations students are traditional aged students between 18 and 23 years old while many of the Maintenance Management and Elective Studies students are much older than their traditional age counterparts.

Complaints in the Other category include one student each citing the following reasons: bad morale, bad event times, vague meeting locations, advisors not involved, board members have big heads, poor attendance at meetings, one student did not list anything, two students cited lack of motivation, and four students cited lack of participation/decreasing members.

## CONCLUSIONS

This research paper attempted to determine some of the underlying reasons for a steady decline in aviation student involvement. The results of this study suggest a student's time is a limited resource and this is substantiated by a review of the literature. Of the respondents, $69.1 \%$ of the students surveyed are working part-time or full time. This study also revealed the majority of students are involved or willing to be involved given the opportunity. In addition, $26.8 \%$ of the students surveyed were currently involved in extra-curricular activities and an additional $31.7 \%$ would consider getting involved. This study also supported the notion that students are looking for extra-curricular activities that have direction and are meaningful, as $46.6 \%$ of the students surveyed considered a lack of direction and lack of meaningful activities a source of frustration.

There is no magic formula for motivating students to become involved. Achieving $100 \%$ student involvement is not a realistic goal. Reaching the $31.7 \%$ of students that would consider becoming involved is a realistic goal for faculty advisors and student leaders to achieve. According to Astin (1984), students need a motivating factor to become involved. This motivation may be based on a student's chief concern-obtaining employment after graduation. In light of an unfavorable economy adversely affecting the aviation industry, job prospects after graduation can be daunting and perhaps more than ever, meaningful involvement in student organizations may give a student a strong competitive edge in gaining employment in the aviation industry after graduation.

## RECOMMENDATIONS

There are many demands on a student's time that influence their ability to be involved in campus based extra-curricular activities. Faculty advisors and student organization leaders need to recognize this constraint and plan events that are convenient and valuable for students. After reviewing the results of this survey, a few recommendations can be considered. Faculty advisors and student leaders need to plan events that have intrinsic value to a student's academic and future career. Although bowling and broomball activities can be fun, other value added activities for resume building should be considered like community volunteer work, working with local area K-12 students, CPR/ first aid training, high altitude endorsement training, providing access to industry mentors, etc.

An additional recommendation is that faculty and student organization leaders develop a better understanding of what is important for today's college students and the aviation industry and make recommendations to various student organizations. The goals of faculty and students need to align to a common goal-providing students with a well-rounded and academically challenging educational experience that best prepares them for future employment in the aviation industry. Motivating students to participate in this process beyond the classroom is a challenge that needs to be evaluated in light of the specific needs and concerns of today's college student; however, the responsibility for the level and quality of involvement is also on the student. According to Pascarella and Terenzini (1991), "The impact of college is not simply the result of what a college does for or to a student. Rather, the impact is a result of the extent to which an individual student exploits the people, programs, facilities, opportunities, and experiences that college makes available" (pp. 610-611). The students have a responsibility to engage in meaningful experiences during college that will positively impact their future. Faculty and administrators are also charged with the responsibility to constantly evaluate opportunities to ensure that students have the opportunity to not only receive an education but to actively participate in their education.

## REFERENCES

Astin, A. W. (1984). Student involvement: a developmental theory for higher education. Retrieved September 8, 2009 from
http://www.middlesex.mass.edu/TutoringServices/AstinInvolvement.pdf
Huang, Y., \& Chang, S. (2004). Academic and cocurricular involvement: their relationship and the best combinations for student growth. Journal of College Student Development. Retrieved September 8, 2009 from http://findarticles.com/p/articles/mi_qa3752/is_200407/ai_n9457044/

Jick, T. D. (1979). Mixing qualitative and quantitative methods: Triangulation in action. Administrative Science Quarterly, 24, 602-611.

Lancaster, L. C. \& Stillman, D. (2005). When generations collide: Who they are, why they clash. How to solve the generational puzzle at work. New York, NY: HarperCollins Publishers.

Pascarella, E. T., \& Terenzini, P. T. (1998). Studying college students in the $21^{\text {st }}$ century: meeting new challenges. The Review of Higher Education, 21, 151-165.

Pascarella, E. T., \& Terenzini, P. T. (1991). How college affects students: findings and insights from twenty years of research. San Francisco: Jossey-Bass.

Pascarella, E. T., Terenzini, P. T., (2005). How college affects students: a third decade of research. San Francisco, CA: Jossey-Bass.

SPSS reference guide. (1990). Chicago: SPSS, Inc.
SPSS statistics base 17.0 user's guide. (2007). Chicago: SPSS, Inc.
Statistical Package for Social Sciences (SPSS) (Version 12.0) [Computer Software]. (2007). Chicago, IL: Polar Engineering and Consulting.

Twenge, J. M. \& Campbell, W. K. (2009). Living in the age of entitlement: the narcissism epidemic. New York, NY: Free Press.

