Factors in the College Decision Making Process:
GPA, ACT, Public versus Private Students, Gender, Stress, Satisfaction, and Number of College Applications

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Third Annual
WELS and ELS
Undergraduate Research Symposium
CHARIS Institute of Wisconsin Lutheran College
Milwaukee, Wisconsin 53226

May 3, 2003
Abstract

The descriptive and correlational study examined characteristics of students from a small private liberal arts college in the Upper Midwest. The researcher received data from the freshman class by means of a short survey given during fall classes. Variables included: GPA, ACT scores, attendance at a private or public high school, perceived stress, perceived satisfaction, gender, and the number of schools to which a student applied. The researcher examined these characteristics to gain a better understanding of the decision making process at a time when adolescents typically encounter their first major life choice; choosing a college. Results indicated the following: students with higher GPA and ACT scores were not more likely to apply to a greater number of colleges, students who attended a public high school indicated higher stress than those who attended private high schools, students who attended a public high school applied to a greater number of schools than those students who attended a private high school, females indicated higher satisfaction than males, and stress correlated negatively with satisfaction.
Factors in the College Decision Making Process: GPA, ACT, Public versus Private Students, Gender, Stress, Satisfaction, and Number of College Applications

Researchers have conducted numerous studies on GPA, ACT scores, stress, satisfaction, and their relationship to the decision making process. Adolescents encounter their first life-framing decision when they approach the decision of which college to attend (Galotti & Kozberg, 1996). This process starts two to four years before the adolescent enrolls in an institution. Colleges benefit by being aware of this gradual process and by having a grasp on the specific characteristics of the students that their particular institution attracts. Colleges that market themselves are simply undergoing a matching process between what a student desires and what an institution provides (Bruwer, 1996). Exploring the characteristics of college students and an adolescent’s first major decision is beneficial for two reasons: it enables colleges to plan for the future in developing recruitment strategy, and it reveals tendencies in the decision making process that may ultimately lead to the understanding of how one makes a choice among multiple options.

It could be possible that students with higher GPA or higher ACT scores apply to more schools than those with lower scores. Literature on college applicants supports that the higher GPA of high school students indicates that they are more likely to apply to a college (DesJardins, Dundar, & Hendel, 1997). Students with higher GPA have more options when considering an educational institution and therefore, may apply to more colleges than students with a lower GPA. Different rankings also support this conclusion. Students who score low on the SAT test are 50% less likely to apply to college than students who perform well on the test (Weiler, 1994).
Coinciding with a student's GPA, whether a student attended a private or public high school may also be one of the factors in the number of schools to which a student applies. Students who attend private high schools are more likely to apply to college than those who attend public institutions (DesJardins et al., 1997). It also may be likely that in a study of a population of private college students, those private college students who went to public high schools would have applied to more schools than their private high school counterparts. Weiler (1994) found students were more likely to apply to an institution that was of their preference, private or public (Weiler, 1994). It is possible that if participant’s high school was public and their college was private, they would have considered more options as they chose to attend an institution of different control.

If college students make a change from high school to college as far as the type of institution they are attending, public or private, it is likely that they will experience a greater amount of stress in college. Research maintains that higher levels of stress correlate with job dissatisfaction (Um & Harrison, 1998). Monroe and Johnson (1990) found that large life changes correlated positively with stress. For instance, the greater the change in one’s life, the larger amount of stress that individual reports. Attending a college that is a private when a student is accustomed to a public school environment may constitute as a greater life change than those students who move between two private school environments. Therefore, it is likely that a student who went to a public high school and currently attends a private college will rate a higher level of stress than a student who moves from a private high school to a private college.

Scientists are quick to point out differences that are found between the sexes in the decision making process, but several student characteristics are universal. As the decision making process progressed, both male and female adolescents rated increasing satisfaction with
the process and greater certainty in their choice (Galotti et al., 1996). Galotti (1995) found in her longitudinal study that the complexity of the decision map was very similar among both male and female students. However, males focused more on reputation, admission requirements, and facilities; whereas, females listed criteria such as size, type of school, campus appearance, and dorm quality. Prior research on college campuses reveals that female students tend to rank their satisfaction with college higher than do males. The higher satisfaction ranking of females at college may also be true with a population from a small liberal arts college. In particular, female participants rated their relationship with faculty, their personal intellectuality and their personality growth more optimistically than males rated these aspects (Drew & Work, 1998).

This study examines characteristics of students who attend a small liberal arts college. Prior research indicates hypotheses that link data in a manner which aids future college planners and recruiters. This data examines characteristics that are unique to this population and also investigates characteristics that may be congruent with previous literature on college decision making. Ultimately, testing the following hypotheses may lead to a better understanding of the decision-making process.

1. Students with higher GPA and higher ACT apply to more colleges than those that have lower grade point averages.

2. Students who went to a public high school and now attend a private college will have applied to a greater number of colleges than students who went to a private high school and now attend a private college.

3. Students who attended public high schools and currently attend a private college will report higher levels of stress than students who went to a private high school and now attend a private college.
(4) Female students will have a higher rating of satisfaction than male students.

Method Section

Participants

Participants included 157 freshmen (89 females and 68 males) with ages ranging from 17 to 19 years old and attend a small liberal arts college in the Upper Midwest. With the permission of classroom teachers, researchers approached the freshman students in their respective College 101 class, an entrance course required for all freshmen. Of the 157 participants, 107 listed their nationality as Caucasian, 36 as American, and 14 as “other”. One hundred and forty students were residents at the college and 16 were commuters, with the majority from private high schools (n = 104) and half as many from public institutions (n = 52). Students (n = 157) reported an average high school GPA of 3.54 (SD = .41) and 151 students in this study reported an average ACT of 24.83 (SD = 3.79). However, when verifying high school GPA and ACT with the admissions department at the college, they reported an average GPA of 3.44 (SD = .51) for 151 students and an average ACT score of 22.51 (SD = 3.81) for 156 students.

Instruments

The researcher formed a survey consisting of 18 questions that required participants to write in words or indication of categories (see Appendix A). The survey was one complete page with several questions that asked basic characteristics of events during the past year that lead to students’ enrollment at the small liberal arts college. Due to the subject’s willingness to comply with delicate information, the self-report system for ACT and GPA may be subject to some question of validity. The researcher included a series of four questions developed to assess the college exploration process in which the student participated. The four questions requested information on the number of colleges that students applied, visited, sent ACT scores, and were
accepted. Thus, the researcher could determine in what manners students expressed their interest in a particular college. The survey included two Likert scales designed to allow participants to rate each quality. One scale assessed the stressfulness of students’ college decision while the other rated satisfaction with their college choice.

Procedure

During one class day, in fall semester, the researcher or research assistant visited each section of the College 101 classes (see Appendix B for instructions to classes). There were 12 different sections of College 101 that met during four different times of the day. The researcher distributed and collected the informed consent forms and then distributed and collected the survey. If the researcher could not attend a class, one of two research assistants attended and administered the surveys according to the format that the researcher had previously determined. The participants completed the surveys as an in-class activity. They were informed that this study was one of five studies in which they needed to participate, in order to receive a T-shirt (see Appendix C). Researchers informed the participants of the campus research week, where they could participate in more studies the following week. The researcher announced brief introductions (see Appendix D) and conclusions (see Appendix C) that explained the survey and succinctly debriefed participants. Participants also received a more extensive debriefing via e-mail, at the conclusion of the study (see Appendix E). No participants were recruited outside these College 101 classes.

Results

Data examined correlations of nominal, interval and ratio data, prompting researchers to use the Pearson $r$ correlation to interpret results. The researcher found no significant correlation between the number of schools which students applied ($M = 2.71, SD = 1.77$) and their GPA ($M$
= 3.54, $SD = .41), r = .08, p = .17; and no correlation with the students’ ACT score ($M = 24.83, SD = 3.80), r = -.12, p = .08. Therefore, data does not support the hypothesis that students with higher GPA and ACT will apply to more colleges.

Students, ($N = 157$), listed the number of schools to which they applied ($M = 2.7, SD = 1.8$). Statistics supported the second hypothesis that students who went to a public high school ($n = 51$) and now attend a private college will have applied to a greater number of colleges, $t(152) = -3.04, p < .05$; than did private high school ($n = 103$) students attending a private college (see Table 1 for mean and standard deviation). Statistical significance was also found in every measurement that sought to define a student’s interest in a variety of college options. So extended data also supported the second hypothesis that public high school students who now attend a private college also visit more colleges, $t(152) = -2.10, p < .05$, were accepted at more colleges, $t(151) = -2.69, p < .01$, and sent their ACT score to more colleges, $t(151) = -2.81, p < .01$, than did private high school students attending a private college. Students from public high schools indicated a higher level of stress with their college selection decision than did students from private high schools, $t(146) = -1.8$; however, the relationship was not significant, $p = .08$ (see Table 1 for mean and standard deviation). Therefore, data did not significantly support the third hypothesis, that students from public high schools indicated a higher level of stress with their college selection decision than did students from private high schools.

<table>
<thead>
<tr>
<th>High School</th>
<th>$n$</th>
<th>Applied $M$</th>
<th>SD</th>
<th>Visited $M$</th>
<th>SD</th>
<th>Accepted $M$</th>
<th>SD</th>
<th>Sent $M$</th>
<th>SD</th>
<th>Stress $M$</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>51</td>
<td>3.25</td>
<td>1.86</td>
<td>2.84</td>
<td>1.80</td>
<td>2.88</td>
<td>1.76</td>
<td>4.29</td>
<td>2.04</td>
<td>4.40</td>
<td>1.64</td>
</tr>
<tr>
<td>Private</td>
<td>103</td>
<td>2.41</td>
<td>1.50</td>
<td>2.18</td>
<td>1.84</td>
<td>2.18</td>
<td>1.36</td>
<td>3.47</td>
<td>1.51</td>
<td>3.86</td>
<td>1.82</td>
</tr>
</tbody>
</table>

On average, female students ($n = 89, M = 5.80, SD = .97$) rated a higher level of satisfaction with college than males ($n = 68, M = 5.19, SD = 1.25), $t(155) = 3.43, p < .01$. These
findings support the hypothesis that female students will have a higher rating of satisfaction than male students. Females also rated slightly higher levels of stress at college, than did males, \((M = 3.98, SD = 1.94)\) and female, \((M = 4.06, SD = 1.68)\). However, females’ higher rating of stress is not significant, \(p = .81\). Males applied to slightly more colleges \((M = 2.96, SD = 2.09)\) than females \((M = 2.53, SD = 1.45)\). Higher ACT scores significantly correlated with greater satisfaction among both sexes, \(r = .23, p < .05\). Satisfaction was significantly and negatively correlated with stress, \(r = -.24, p < .05\). Students who were decided upon a major \((n = 75)\) applied to fewer colleges \((M = 2.53, SD = 1.84)\) in comparison with students that were undecided on a major \((n = 82, M = 2.88, SD = 1.69)\).

**Discussion**

After data analysis, the researcher found that the results were greatly affected by the lack of a normal distribution when considering how many colleges to which students applied. Data was overly distributed to the high end of the spectrum, with a range of one to ten \((M = 2.71, SD = 1.77)\). Similar categories that were included in order to avoid errors on the accepted variable (the numbers of schools to which a student was accepted, sent ACT, or visited) also revealed similar results of being skewed to the right. It is in this context that one examines the following tested hypothesis.

DesJardins, Dundar, and Hendel (1997) found those students with higher GPA and ACT scores were more likely to apply to a college. In addition to the previous study, in this data collection, researchers found that even though students with a higher GPA or ACT scores were more likely to apply to college (DesJardins, Dundar, & Hendel, 1997), it was not likely that they would apply to a greater number of schools.
Despite the skewed set of college application data, researchers found that students currently attending a private institution who came from public high schools applied to a greater number of colleges than did students who came from a private high school. Previous studies concluded that students were more likely to apply to an institution of their preference, private or public (Weiler, 1994). As students consider changing the type of institution they attend (public/private), they are more likely to consider more options, and therefore, apply to a greater number of schools. This information, coupled with the indication that public high school students who choose private colleges experience more stress than do private high school students, may be informative for college personnel as they help new students adjust to college living. The indication of higher stress and greater number of college applications sent reveals that students are encountering a tough decision and transition as they switch from a publicly run institution to a privately run institution. The stress measure consisted simply of a Likert scale to indicate participants’ overall perceived stress. More studies are needed in order to explore students’ stress and the particular aspects that are stressful in making the transition from a public to a private setting.

Females rated a slightly higher level of stress than males in their college choice. However, because of the lack of statistical significance, more research is needed before making any substantial conclusions. It is possible that females encounter more challenges in their experience at college, and therefore report a greater amount of stress. It is also possible that females are simply more sensitive to the stresses of going to college. Drew and Work (1998) found that females tend to rank their college experience more optimistically, citing the areas of relationship with faculty, personal intellectuality, and personal growth. More research is needed concerning how far-reaching this optimistic outlook perpetuates. The optimistic outlook of
females in rating their college satisfaction may indicate a tendency for females to rate most experiences with more optimism than their male counterparts. If females consistently rate experiences at a more satisfactory level, the implication on other self-rating studies may be completely slanted compared with their male counterpart, due to feminine optimism. Yet, female’s higher rating of satisfaction may also be due in part to better experiences at college. In this case, schools should be aware and work to improve conditions for male students.

Researchers also found that satisfaction had a negative correlation with stress. Both of these constructs were measured through a rating scale, which asked for participants’ perceptions and thus have restricted internal validity. More studies are needed in order to establish better criteria with which to define stress and satisfaction in college and thus build upon the argument of whether a greater measure of one may cause a lesser measure of the other (Um and Harrison, 1998). The indication that students with high stress have little satisfaction and those with low stress have high levels of satisfaction may establish groundwork of working toward a more satisfying life through the reduction of stressors. In particular, this information may aid college personnel as they work to improve their students’ satisfaction.

Students’ perceived satisfaction also significantly correlated with their ACT. The higher one’s ACT score, the greater they rated their level of satisfaction. Student ACT scores were self-reported, so there was room for error. Follow-up studies should examine files of actual ACT records and also use a more in-depth measurement for satisfaction. One may then be able to move toward the causal argument that higher ACT scores, or intelligence, predict the likelihood of a more satisfying college life.
Resources


Appendix A

Survey

Are you a male or a female?  ______
How old are you?  ______
What nationality are you?  _________________

Are you a resident or a commuter?  __________
What was your Grade Point Average in High School?  ________
What was your ACT score?  ______
Did you attend a public or private High School?  __________

During the time in which you chose a college and including the college you are currently attending:

1. How many different colleges did you **apply** to?  ______
2. How many different colleges were you **accepted** at?  ______
3. How many different colleges did you have an **on-campus visit** with?  ______
4. How many different colleges did you **send** your **ACT** score?  ______

How many miles away from school is your home?  ______
Where did you receive most of your information about college?  ______
Who influenced your college decision the most?  __________

On the scale below rate your satisfaction with your choice of colleges. Circle one.

<table>
<thead>
<tr>
<th>Not at all Satisfied</th>
<th>1 2 3 4 5 6 7 Very Satisfied</th>
</tr>
</thead>
</table>

Have you decided upon a major?  ______
-If so, list your major.  _________________

On the scale below rate how stressful your college decision was. Circle one

<table>
<thead>
<tr>
<th>Not at all Stressful</th>
<th>1 2 3 4 5 6 7 Very Stressful</th>
</tr>
</thead>
</table>
Appendix B

Survey Instructions

Procedure consists of:

1. Introducing informed consent-handing it out and collecting
2. Introducing survey
3. Handing out and collecting survey
4. Brief closing
5. Thanking the professor
Appendix C

Debriefing

The survey that you finished will be used in order to examine characteristics of incoming classes at Wisconsin Lutheran College. The results may be utilized by the admissions board for future planning. However, the main focus of the study is on the decision making process, especially when making a major life decision, like choosing a college. The statistics will explore steps that you took in your choice of colleges, and examine the alternatives that were considered. Your participation contributes to the vast pool of knowledge on decision making in young adulthood. As a way of thanking you for your participation the psychology discipline established a rewards system for participating in research studies on campus. You receive a T-shirt for every four studies you participate in, this study counting as one of those four. You have received an email about the numerous studies that will be held next week and can sign up on-line or just show up for the study of your choice. It’s a great way to learn about yourself and a cheap way to get your hands on the latest fashions in the stylish T-shirt industry. Thanks for your participation.
Appendix D

**Introduction of Survey**  
*(To be read by researcher)*

The survey that you will be given contains one sheet of open-ended questions. Please use a pen or pencil to **print** your answers as neatly as possible. Please do not put your names on the survey. When you are done, I will come around to collect your surveys. Thank you for your participation in this study.
Debriefing

The survey that you finished will be used in order to examine characteristics of incoming classes at Wisconsin Lutheran College. The results may be utilized by the admissions board for future planning. However, the main focus of the study is on the decision making process, especially when making a major life decision, like choosing a college. The statistics will explore steps that you took in your choice of colleges, and examine the alternatives that were considered. The study explores the following statements in question:

1. Students with higher grade point averages apply to more colleges than those that have lower grade point averages.
2. Students with higher ACT scores apply to more colleges than those with lower ACT scores.
3. Students who went to a public high school and now attend a private college will have applied to a greater number of colleges.
4. Students who indicate higher levels of stress while deciding upon a college will cite their parents as primary influences on their choice of college.
5. Female students will have a higher rating of satisfaction than male students.
6. Students who applied to a greater number of colleges will indicate that they are undecided on a major.
7. Women will have applied to a greater number of colleges than men.

You can expect to get another e-mail concerning the results of the study and information about the previous statements in question. Your participation contributes to the vast pool of knowledge on decision making in young adulthood. Thank you for your participation.