

# How Do Their Initial Goals Impact Students' Chances to Graduate? An Exploration of Three Types of Commitment

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*Although previous research has not consistently shown that uncertainty about academic major negatively impacts graduation, commitment is largely believed to affect college students' success. We investigated the impact of institutional commitment, commitment to an educational goal, and commitment to an academic major on the probabilities of graduation for a cohort of first-time first-year students. Results indicate that students with high institutional commitment and commitment to an educational goal were the most likely to graduate within 6 years, while commitment to an academic major was negatively associated with probabilities of degree completion. Suggested implications for advisors include fostering educational development, enhancing a student's bond with the institution, and encouraging students to explore academic major options.*

**KEY WORDS:** decision making, educational objectives, major selection, predictors of attrition, retention

**Relative emphasis:**\* theory, research, practice

Opinions are mixed regarding whether uncertainty about an academic major is detrimental to students beginning their college careers. Early research on this topic painted a rather bleak picture. For instance, Abel (1966) found that students who were rated as having low academic or career certainty had a significantly higher rate of attrition than students who were rated as having a high degree of academic or vocational certainty. Titley and Titley (1980) reported that students who had low certainty regarding their major were significantly more likely to have withdrawn after 2 years than were students who possessed high certainty. Similarly, Foote (1980) found that students who did not change their major over their first 2 years of enrollment were more likely to maintain enrollment after 2 years, have a higher mean grade-point average (GPA), and complete more credit hours than students who had not declared a major.

More recent research, however, has created a slightly different picture. For example, Anderson, Creamer, and Cross (1989) found that students who changed their major were more likely to persist at the institution and graduate than were students who remained in one major as well as students who had entered the institution undecided. In addition, Lewallen's (1995) findings suggest that students who were undecided regarding a career choice were more likely to persist in the institution and achieve higher grades than students who were decided.

It may appear from the differences in the literature that undecided students have somehow changed over the years. However, a recently published 25-year longitudinal study of undecided entering freshmen revealed that advising issues and demographic variables have remained relatively consistent (Gordon & Steele, 2003). Gordon and Steele also found that the levels of uncertainty about an academic major had not significantly changed over 25 years. Therefore, the differing perspectives presented in the empirical literature may not reflect a change in the student population but instead suggest an area that needs further exploration.

A number of authors have addressed, from a theoretical perspective, the issue of committing to a major or career. Chickering and Reisser (1993) discussed the importance of adopting career goals in college. In their model of college student development, "developing purpose" was the sixth of seven vectors. This vector, which encompasses vocational and lifestyle development, involves students' "growing ability to make conscious choices based on clear purpose, and their persistence toward goals, despite barriers" (Reisser, 1995, p. 510).

Tinto's (1993) model of student attrition includes goal and institutional commitment as factors that may affect students' decisions to stay or leave an institution. Tinto wrote that "movements from varying degrees of certainty to uncertainty and back again may in fact be quite characteristic of the longitudinal process of goal clarification which occurs during the college years" (p. 41).

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\* See note on page 4.

These theories suggest that indecision during the early stages of a college career may not be indicative of a problem. Rather, it may be part of a normal developmental process that will, in time, lead to a comprehensive vocational identity. Yet, Tinto (1993, p. 41) linked persistent failure to form commitment with student attrition, stating that “unresolved intentions over a long period of time can lead to departure both from the institution and from the higher education enterprise as a whole.” Levitz and Noel (1989) related goal commitment to first-year students and suggested that students who do not form firm academic or career commitments may simply not care as much about learning as students who have formed such commitments. Students who are uncommitted to academic or career goals may become bored and subsequently drop out. Like Tinto did, Levitz and Noel asserted that these goal commitments may exist independently of academic ability, as undecided students with a high GPA may drop out. However, these same authors also suggested the possibility that freshmen who have formed academic major commitments may be frustrated with seemingly irrelevant material because they are anxious to begin their careers. Overall, the theories suggest that commitment may impact student attrition, but uncertainty about academic major may not have the negative effects that the previous research might suggest.

Student goal commitment may not be a single construct, but instead it may have several components. Students may be committed or certain about a specific academic major or career path. Previous research focused on students undecided about a major has yielded mixed results. Students may also have specific educational goals, such as completing a bachelor’s degree (Tinto, 1993). These more general educational goals may be unrelated to students’ academic major certainty. In other words, a student may be committed to completing a bachelor’s degree and be uncertain about the field of study. Tinto also differentiated between a student’s commitment to personal educational and career objectives (goal commitment) and the motivation to complete these personal objectives at a specific institution (institutional commitment).

According to Tinto (1993), commitment encompasses not only certainty about an academic major but also certainty about educational goals and commitment to a specific institution. Each of these types of commitment—academic major commitment, educational goal commitment, and institutional commitment—may contribute to a student’s persistence in college, and exploration of the dif-

ferent types of commitment may prove useful.

In this study, we investigated three types of commitment. Specifically, we examined institutional commitment, educational goal commitment, and academic major commitment. We used a cohort of first-time freshmen to investigate the predictive significance of the three types of commitment on graduation probabilities.

## Method

### Sample

The participants in this study made up a cohort of first-time, first-year students entering Ball State University, a large, public, largely residential, mid-western institution in the fall 1998 semester. More than 90% of the subjects lived in residence halls because of a freshman residency requirement. These students received the survey at residence hall meetings. Off-campus students received the survey through the mail. Because the survey had unique identification numbers, the surveys were not anonymous. A follow-up mailing was sent to nonrespondents within a month of the first administration. Of the 3,429 students in the incoming cohort, 2,492 completed surveys for a response rate of 73%.

### Dependent Variable

The dependent variable was completion of a bachelor’s degree at the institution within 6 years of matriculation. This information was obtained through university records. Those individuals who had completed a bachelor’s degree were coded as 1, and those who had not were coded as 0; 54% had completed a bachelor’s degree within 6 years of first enrolling. This percentage was similar to that of the entire cohort (Office of Planning, Research and Evaluation, 2004).

### Independent Variables

Two types of independent variables were used in this study. The first type, demographic, included gender, ethnicity, academic aptitude, and first-generation status. Pascarella and Terenzini (1980) suggested that these variables may be important background characteristics in predicting persistence through college. Most demographic information was obtained through university records. Gender was coded as an indicator variable (0 = female; 1 = male). Ethnicity was also coded as an indicator variable with Caucasian respondents coded as 0 and those of an ethnic minority group coded as 1.

One measure of academic aptitude is through standardized tests such as the SAT and ACT (Pascarella & Terenzini, 1980). Students had been

required to submit either SAT or ACT scores as part of the admissions process. Thus, all students had at least one of the two test scores on file in the university records, but neither the SAT nor ACT score was available for all students. A comparison between the sample and the entire cohort population revealed no significant differences. To combine the information from both SAT and ACT, an academic aptitude measure was created. Students were divided into three groups on the basis of the national means and standard deviations for each test as compiled during that calendar year (American College Testing Program, 1999; The College Board, 1999). If a student provided scores from both the SAT and ACT, the higher of the two standardized scores was used for this analysis. Respondents whose score was more than one standard deviation above the mean were coded as 3; those whose score was within one standard deviation of the mean were coded as 2; those whose score was more than one standard deviation below the mean were coded as 1. Subsequently, 12% of the participants were included in the high academic-aptitude group, 83% were in the group with scores in the mean range, and 5% were in the group with the lowest standardized-test scores.

First-generation status was measured with two survey items. Students were asked to respond “yes,” “no,” or “don’t know” to questions regarding whether or not their mother or father had attended college. First generation was coded as an indicator variable, with students who reported “no” to both items coded as 1 (first-generation students) and all other students coded as 0 (not first-generation students). Thirty-one percent of participants reported that neither their mother nor their father had attended college.

In addition to demographic variables, we focused on three types of commitment as independent variables. Specifically, we included data on institutional commitment, educational goal commitment, and commitment to an academic major. Institutional commitment was measured with two survey questions: Respondents were asked to rank the institution among their choices for attendance and to indicate whether they expected to graduate from the institution. The responses were combined into a 3-point scale ranging from 0 (not first choice and did not expect to graduate) to 2 (first choice and expected to graduate).

Educational goal commitment was also measured with two survey items. First, respondents were asked to indicate their immediate educational goal from one of four responses: “take a few courses,” “complete an associate’s degree,” “com-

plete a bachelor’s degree,” or “no definite goal in mind.” Respondents who indicated that their immediate goal was to complete a bachelor’s degree were coded as 1, while respondents who indicated any other response were coded as 0. Second, respondents were asked to select from a series of options outlining the single most likely reason for not finishing a bachelor’s degree: marriage, lack of academic ability, family responsibilities, and it would cost too much. The respondents were also given the option to indicate that they were “absolutely certain that [they] will finish a degree.” Respondents who marked that they were absolutely certain they would finish a degree were coded as 1, and respondents who marked any other response were coded as 0. Educational goal commitment was measured by the sum of the two items.

Academic major commitment was also measured with two survey items. One item asked about commitment to an academic major and the other asked about commitment to a career. Responses were coded into four categories: 1 = low commitment to major or career; 2 = moderately low commitment to major or career; 3 = moderately high commitment to major or career; 4 = high commitment to major or career. The mean of the two items formed the measure of academic major commitment.

## Results

In this study, 38% of the respondents were male and 62% were female. Ninety-three percent of the sample was Caucasian, and 7% of respondents reported being of an ethnic minority group. As shown in Table 1, this breakdown was similar to that for the entire cohort (Office of the Vice President for Student Affairs, 1998).

Table 2 provides the means, standard deviations, and correlations for all variables in the study. Among the demographic variables, only academic aptitude

**Table 1** Demographic characteristics of sample and entire freshman cohort

	Sample	Entire Cohort
Gender		
Female (%)	62	56
Male (%)	38	44
Ethnicity		
Caucasian (%)	93	91
Not Caucasian (%)	7	9
Academic Aptitude		
Mean SAT score	1,019	1,013
Mean ACT score	22	22

*Note.* No significant differences were found.

and first-generation status were significantly correlated with degree completion. Institutional commitment and educational goal commitment were the only two commitment variables associated with degree completion.

We used a logistic regression analysis to determine the predictive significance of the independent variables on probabilities of graduation. The results of this analysis are included in Table 3. The model yielded statistically significant results. Academic aptitude and first-generation status were found to be significant predictors of degree completion. In the model, academic aptitude was positively associated with higher probabilities of degree completion, meaning that individuals who scored higher on the SAT or ACT were more likely to complete a bachelor's degree. First-generation status was negatively associated with higher probabilities of degree completion, meaning that first-generation students were less likely to complete a bachelor's degree.

All three commitment variables were found to be significant predictors of degree completion. In the model, both institutional commitment and educational goal commitment were positively associated with higher probabilities of degree completion.

That is, respondents who reported higher levels of institutional commitment or educational goal commitment were more likely to graduate than those who expressed relatively low commitments to an educational goal or the institution. However, in the model, commitment to an academic major was negatively associated with higher probabilities of degree completion. Therefore, when all three types of commitment were included, those students who were less committed to a major were more likely to complete their degrees.

**Discussion**

*Interpretation*

Overall, the results of this study suggest that higher levels of institutional commitment and commitment to obtaining a bachelor's degree were significant predictors of degree completion. A student's affiliation with the institution may play an important role in helping the student overcome challenges. Similarly, a student's commitment to educational goals may affect the student's persistence when he or she experiences difficulties. Advisors have long known the importance of educational goal development and the student's sense

**Table 2** Demographic means, standard deviations, and correlations (*N* = 2,492)

Characteristic	1	2	3	4	5	6	7	8	<i>M</i>	<i>SD</i>
1. Bachelor's degree	—	-.03	-.01	.15*	-.10*	.17*	.15*	-.00	.54	.50
2. Gender		—	.01	.06*	.01	-.01	-.12*	-.10*	.38	.49
3. Ethnicity			—	-.13*	-.02	.09*	.01	.01	.07	.25
4. Academic aptitude				—	-.09*	.01	.11*	.02	2.08	.41
5. First-generation status					—	.04	-.03	.04	.31	.46
6. Institutional commitment						—	.15*	.14*	1.43	.71
7. Educational goal commitment							—	.26*	1.42	.67
8. Academic major commitment								—	3.02	.86

Note. \* *p* < .01.

**Table 3** Logistic regression analysis for variables predicting retention

Variable	<i>B</i>	<i>SE B</i>	$\beta$	95% Confidence Interval for $\beta$	
Gender	-.134	.09	.88	.74	1.04
Ethnicity	.123	.17	1.13	.81	1.58
Academic aptitude	.735	.11	2.09*	1.67	2.60
First-generation status	-.409	.09	.67*	.56	.80
Institutional commitment	.481	.06	1.62*	1.43	1.82
Educational goal commitment	.335	.07	1.40*	1.23	1.60
Academic major commitment	-.141	.05	.87*	.78	.96
Intercept	-1.17	.22	.33*	N/A	N/A

Note.  $\chi^2 (7, N = 2,492) = 176.49, p = .000.$

\**p* < .01.

of connection to the institution (White, 2000). Thus, this study reinforces advisor's understanding of important elements of retention and supports the value of the academic advising role as described in the NACADA Core Values (National Academic Advising Association, 1994).

Two additional findings of this study relate to the issue of uncertainty about academic major. First, according to this study, commitment to a specific major or career is not related to degree completion. Second, when institutional commitment and educational goal commitment were factored into the model, a high level of commitment toward an academic major was not found to be a significant predictor of degree completion. In fact, individuals who reported relatively high levels of commitment toward a specific career path were less likely to complete a degree in 6 years than were individuals who reported lower levels of commitment.

#### *Limitations and Implications for Future Research*

The present study had a few limitations that could be addressed in future research. First, researchers may want to examine the effects of additional variables to further elaborate the model presented in this study. For instance, Pascarella and Terenzini (1980) have suggested that characteristics such as high-school percentile rank and parental income may be important. Similarly, Koefoed (1984) explored the relationships between specific majors and retention.

Second, our study was conducted on one campus. Future research should examine if the results are valid for other campus environments and other student populations. Some academic environments may be better able to support a student's change in academic major and thus can create retention opportunities. Similarly, the effects of major uncertainty, as well as other types of commitment, may be more problematic for specific subpopulations of students. For example, first-generation college students may struggle with choosing a major in much the same way they struggle more than other students with regard to other aspects of campus acculturation (Penrose, 2002).

Finally, further exploration of subpopulations and undecidedness may also be needed. Many advisors and other practitioners working with these students will caution administrators against program efforts that treat these students as a single group. An advisor's list of assigned students is as likely to include honors-program undecided matriculates trying to decide among the many academic and career options available to them as well as less aca-

demically well-heeled students struggling to identify a single goal. Thus, researchers may also need to examine the various definitions of undecidedness and explore the subpopulations of students who fit into this categorization.

#### *Implications for Practice*

These findings may be of interest not just in discussions of student persistence, but in decision making about college marketing and admission strategies, advising programs, and academic support. Many higher education personnel have long held the belief that freshmen who claim clear career and major goals will be more successful in college than those who do not. Yet those beliefs are not supported by this study or other studies with similar results (e.g., Lewallen, 1995) that suggest undecided students are more likely to persist and graduate at the institution where they began their college studies than individuals who entered college having decided on a major.

Universities with significant general-education curricula required of all students may be providing more than a broad-based liberal arts foundation upon which discipline-specific majors may build. A common core curriculum may also establish a safe academic harbor in which all students can explore academic programs with less concern about wasting classes or failing to make progress toward their degrees. Thus, these institutions may be fostering student success by promoting students' explorations. Of course, if a curriculum is more restrictive, then there may be fewer opportunities available for students to sample diverse disciplines and to engage in the complex process of self-discernment and goal setting. This process, certainly, does not conveniently stop once a student identifies a major. Writing *business major* on the appropriate line of a college application is comforting to a high school senior only until the student realizes that embedded within that decision looms the further task of differentiating among the concentration areas and the various specialties within each.

Goal setting and establishing commitments are, thus, ongoing processes that occur throughout a college career. Institutions that stress the virtues of career goal certainty may be creating undue pressure rather than supporting students. Regardless of the institutional environment, advisors need to remain cognizant of the issues facing students as they form appropriate academic and career goals.

#### **References**

Abel, W. H. (1966). Attrition and the student who

- is certain. *Personnel and Guidance Journal*, 44, 1042–45.
- American College Testing Program. (1999). *The 1998 ACT high school profile report—National data*. Retrieved April 14, 2004, from www.act.org/news/data/98/t1.html
- Anderson, B. C., Creamer, D. G., & Cross, L. H. (1989). Undecided, multiple change and decided students: How different are they? *NACADA Journal*, 9(1), 46–50.
- Chickering, A. W., & Reisser, L. (1993). *Education and identity* (2nd ed). San Francisco: Jossey-Bass.
- The College Board. (1999). *SAT program information—1998 profile of college-bound seniors national report*. Retrieved April 14, 2004, from www.collegeboard.com/sat/cbsenior/yr1998/nat/natbk398.html
- Foote, B. (1980). Determined and undetermined major students: How different are they? *Journal of College Student Personnel*, 21(1), 29–34.
- Gordon, V. N., & Steele, G. E. (2003). Undecided first-year students: A 25-year longitudinal study. *Journal of the First-Year Experience and Students in Transition*, 15(1), 19–38.
- Koefoed, J. O., Jr. (1984). *An evaluation of the use of major selection to predict program completion rates of career oriented liberal arts programs at Kirkwood Community College*. Unpublished doctoral dissertation, Nova University, Fort Lauderdale, FL.
- Levitz, R., & Noel, L. (1989). Connecting students to institutions: Keys to retention and success. In M. L. Upcraft & J. N. Gardner (Eds.), *The freshman year experience: Helping students survive and succeed in college* (pp. 65–81). San Francisco: Jossey-Bass.
- Lewallen, W. C. (1995). Students decided and undecided about career choice: A comparison of college achievement and student involvement. *NACADA Journal*, 15(1), 22–30.
- National Academic Advising Association. (1994). NACADA's core values. In V. N. Gordon & W. R. Habley (Eds.), *Academic advising: A comprehensive handbook* (pp. 409–14). San Francisco: Jossey-Bass.
- Office of Planning, Research and Evaluation. (2004). *Extending educational opportunities off-campus: Enrollment at Ball State University* (Vol. 16, No. 1). Muncie, IN: Ball State University.
- Office of the Vice President for Student Affairs. (1998). *Fall 1998 enrollment synopsis* (Vol. 10, No. 1). Muncie, IN: Ball State University.
- Pascarella, E. T., & Terenzini, P. T. (1980). Predicting freshman persistence and voluntary dropout decisions from a theoretical model. *Journal of Higher Education*, 51(1), 60–75.
- Penrose, A. M. (2002). Academic literacy perceptions and performance: Combining first-generation and continuing-generation college students. *Research in Teaching English*, 36(4), 437–61.
- Reisser, L. (1995). Revisiting the seven vectors. *Journal of College Student Development*, 36(6), 505–11.
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition*. Chicago: The University of Chicago Press.
- Titley, R. W., & Titley, B. S. (1980). Initial choice of college major: Are only the “undecided” undecided? *Journal of College Student Personnel*, 21(4), 293–98.
- White, E. R. (2000). Developing mission, goals and objectives for the advising program. In V. N. Gordon & W. R. Habley (Eds.), *Academic advising: A comprehensive handbook* (pp. 180–91). San Francisco: Jossey-Bass.

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