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ABSTRACT

In response to concern that open admissions was contributing to declining student preparation and institutional reputation, Practical Bible Training School, a small, private college, proposed new admission criteria: an American College Testing Service (ACT) score of 15, a Scholastic Aptitude Test (SAT) combined score of 700, or a 2.00 high school grade point average. For students showing promise but not satisfying these criteria, a special admissions category was also proposed. Because of concern that implementation of the new policy would reduce enrollment, a study was undertaken to compare the full-time-equivalency (FTE) enrollment from fall 1985 to spring 1989 with the FTE enrollment that would have existed had the proposed requirements been in effect during that period. Results indicate that 11 students would have been rejected under the proposed entrance requirements, but also that only one of these students passed sufficient courses to graduate or obtain the minimum grade point average for graduation. Five of the students attended for only one semester. Based on these findings, it is recommended that the college adopt the proposed entrance requirements. Contains 28 references. (MSE)

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**ANALYSIS OF THE ENROLLMENT IMPACT OF IMPLEMENTING  
AN ACADEMIC ENTRANCE REQUIREMENT AT  
PRACTICAL BIBLE TRAINING SCHOOL**

**Politics, Law, and Economics of Higher Education**

by

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**A Practicum Presented to Nova University in Partial  
Fulfillment of the Requirements for the  
Degree of Doctor of Education**

**Nova University**

**March 1989**

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## ABSTRACT

Practical Bible Training School is a small, private college with an open admissions policy. In recent years, the institution has been plagued by both declining enrollment and an increasing share of underprepared students. In the wake of concerns that the open admissions policy is contributing to a poor academic reputation for the institution, an academic enrollment requirement was proposed. Applicants would need either an ACT composite score of 15 (or SAT combined score of 700) or a high school or previous college GPA of 2.00 to be admitted to the institution. For applicants showing promise but not satisfying one of these two criteria, a special admissions category was also proposed with the stipulation that the minimum first semester GPA must be 1.00 for the student to continue at Practical. There has been concern that implementing this admissions policy would result in a significant decline in enrollment.

The purpose of this study was to compare the full time equivalency enrollment (FTE) from fall 1985 to spring 1989 with the FTE enrollment that would have existed if the proposed academic entrance requirements had been in effect over the eight semesters from 1985 to 1989. The significance of differences between the two FTEs was tested at the .05 and .01 level with a one-tailed chi-square test.

Significant differences were found at both the .05 and .01 level when ACT scores, high school or previous college GPAs, or first semester GPAs were used individually as the sole criterion for acceptance. However, when the three criteria were used in combination, with admission granted for anyone who fulfilled one of the criteria, there was no significant difference in FTE enrollment at the .01 level for any of the eight semesters, and at the .05 level for seven of the eight semesters.

Eleven students would have been rejected by the proposed entrance requirement. Only one of these students passed sufficient courses to graduate or obtained the minimum 2.00 GPA required for graduation. Five of the rejected students attended for only one semester.

It was recommended that Practical Bible Training School adopt the proposed academic entrance requirement based on the minimal reduction in enrollment that would be likely as a result of the new standards and the low success rate for students not meeting the entrance requirements.

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## INTRODUCTION

### Underlying Problem

Practical Bible Training School (PBTs) is a small, private college with an open admissions policy. Recently, there has been concern that open admissions is contributing to a growing number of students with serious academic deficiencies. Since PBTs does not provide remedial services, faculty have been pressured to reduce course requirements to keep the number of failing students down. More underprepared students and inflated grades to keep them from failing has resulted in a spiraling decline in academic quality that has seriously jeopardized the reputation of the institution. Several strategies to attract higher quality students have been discussed. The one currently receiving the greatest attention is that of setting an academic entrance requirement to limit enrollment to those students believed to be capable of handling college level work.

### Purpose of the Study

One of the major concerns over implementing an academic entrance requirement is that the lost revenue from turning some students away will be an excessive burden on the college budget. The purpose of this practicum was to assess the impact on enrollment that a recently proposed entrance requirement would have made had it been in effect



over the past four academic years. An objective picture of the enrollment cost of implementing such a policy would provide the board of directors with data to evaluate potential enrollment declines in relation to anticipated program improvements and additional students recruited as a result of an improved academic reputation.

To conduct this investigation, academic records were consulted to identify students who attended PBTS between fall 1985 and spring 1989 but would not have been admitted had the proposed entrance requirement been in effect during this period. Students would have been required to have either a minimum American College Testing Program (ACT) composite score of 15 (or the equivalent Scholastic Aptitude Test (SAT) combined score), a minimum high school grade point average (GPA) of 2.00, or a first semester GPA at PBTS of at least 1.00. Although a broader range of years was desired for the study, PBTS did not require ACT scores for students prior to 1985.

Credit hours attempted by students not fulfilling one of the three admissions criteria were deducted from the total credit hours for each semester and a new full time equivalency (FTE) enrollment was calculated. Original and new FTEs were compared with a chi square test to see if there would have been a significant difference in enrollment by implementing the proposed entrance requirement. Additionally, the academic outcomes of students who would have been rejected by these standards was examined.

## BACKGROUND AND SIGNIFICANCE

### Relation to the Nova Seminar

An analysis of the enrollment impact of implementing an academic entrance requirement at PBTS addresses concerns discussed in the Nova University seminar Politics, Law, and Economics of Higher Education. Since most small, private colleges, including PBTS, are enrollment driven, any policy which restricts the number of potential students will have an impact on the overall operation of the institution.

### Review of Related Literature

The controversy over academic entrance requirements is well documented in the literature. The support for open access is largely based on egalitarian ideals, while college performance provides support for selectivity. Tambe (1984:408) finds that poor retention is a major problem for institutions without entrance requirements, citing the experience of the City University of New York after open admission was implemented. Students who did not meet the academic entrance requirements previously in force were significantly more likely to drop out. Vaughan (1985:20) finds that underprepared students enrolled at universities that are required by law to accept all high school graduates frequently fail out shortly after they are enrolled. Vincent (1981-82:13) suggests that even the best remedial

programs at open admission colleges will not bring attrition down to the level of colleges with selective admission policies.

Braxton and Nordvall (1985:538) point out that selectivity in admissions is highly correlated with other characteristics of institutional quality. Even community colleges, generally associated with open access, seek to maintain quality in many of their programs through selectivity. Vaughan (1985:21-22) finds that community colleges with open admission policies retain entrance requirements patterned after selective senior colleges for their transfer programs.

Breland, Wilder, and Robertson (1986:8-9) compare the distribution of open admission and selective colleges among 2,203 two and four year colleges. Only 9.1 percent of the two year public colleges in 1985 maintained selective admissions policies, compared to 52.0 percent of the two year private colleges. Four year colleges were much more likely to practice selective admissions, with 84.9 percent of the public and 90.1 percent of the private colleges having entrance standards. Breland, Wilder, and Robertson (1986:21) further point out that 35 percent of the two year public colleges and 46 percent of the two year private colleges allow provisional admissions for promising student who do not meet the admissions criteria.

The initial cost in student enrollment from implementing a new academic standard can be significantly

high; however, the long term results seem to favor the change. Nigliazzo (1986:38-39) cites Miami-Dade Community College with the suspension or dismissal of 8,000 students during the first three years after a standard of progress was instituted. Nigliazzo points out that both retention rate and student performance have since improved, and institutional credibility has significantly improved.

Mellander (1986:48-49) relates his personal experience with instituting academic standards at Passaic County College in New Jersey. The poor academic reputation of the institution from 1968 to 1975 resulted in declining enrollment. In 1976, Mellander instituted stringent academic standards, and enrollment dropped 20 percent. The following year, enrollment surpassed previous levels, and has continued to increase each successive year. Mellander cites the return to academic standards as the catalyst for the enrollment increases.

The literature on entrance requirements focuses on two main criteria, SAT scores and high school grades. In 1983, the National Collegiate Athletic Association (NCAA) proposed a minimum standard for freshman eligibility for participation in intercollegiate athletics. Their standard was based on a GPA of 2.00 in core academic subjects and an SAT combined score of 700 or ACT composite score of 15 (Gurney and Stuart, 1987:298). Interviewing admissions officers at 30 colleges and universities, Boyer finds an SAT score of 740 to be typical (Jacobson, 1985:23). McCurdy

(1982:549) reviews the entrance requirements for several institutions, finding a 2.5 high school GPA and 950 SAT score required at Florida State University, a minimum high school GPA of 2.7 required for successful applicants to Western Washington University, and a minimum SAT score of 800 required at the University of Texas at Austin (raised to 1100 in 1982 to halt enrollment growth).

The University of California and California State University have developed an "eligibility index" for admission (California Postsecondary Education Commission, 1987:5). The index is a scale based on the applicant's SAT score and high school GPA. Students with low high school GPAs must have correspondingly high SAT scores. The University of California has a minimum GPA of 2.78, while California State University has a minimum of 2.00.

Minimum admissions standards and criteria have been established by several states. Goertz and Johnson (1985:2-3) find that 24 states in 1984-85 had statewide minimum admissions standards for public colleges and universities. Nine of these states require only a high school diploma or its equivalent, while eight require satisfactory scores on admissions tests. Newell (1984:26) cites Florida with a statewide minimum SAT requirement of 840. According to Newell, the legislative standard was well received by Florida colleges.

The State University of New York (SUNY) system has approved several options for entrance to the SUNY colleges.

While most SUNY colleges use a combination of high school grades, regents examination scores, high school rank, and ACT or SAT scores, SUNY-Fredonia requires a high school GPA of 2.5 and 800 SAT or 18 ACT score (Goertz and Johnson, 1985:22). Standards set for the SUNY system are of great importance to PBTS since this institution is subject to similar opinions and policies set by the New York State Department of Education.

Over 1500 U.S. colleges require SAT scores for college entrance (Crouse, 1986:40). Amberg (1982:536-37) finds that the SAT, ACT, and similar standardized tests are an important admissions factor in 86 percent of four year public colleges and 90 percent of four year private colleges. However, only two percent of the public and one percent of the private colleges consider these tests to be the single most important factor. Dixon (1981:68) finds that 62 percent of the respondents in an American Association of Collegiate Registrars and Admissions Officers study believe the importance of test scores was the same in 1978 as in 1970, and 78 percent said they saw no significant change in the next five years. Amberg (1982:537) finds high school performance to be the single most important factor in 43 percent of public and 39 percent of private colleges.

Most institutions give nearly equal weight to SAT scores and high school grades in their evaluation of applicants. Willingham and Breland (Whitla, 1984:22) studied the admissions policies of nine colleges, finding

that high school rank and test scores are of equal weight in admissions reviews. These two criteria are found to be three times as important as any other single factor. Least significant in the admissions process are social or economic status, extracurricular activities, and interviews with admissions personnel. Whitla (1984:22) finds similar emphasis in studies at Harvard University, although Harvard gives greater weight to personal achievement than did the other institutions cited. High school rank and SAT scores still remain the primary evaluative criteria in the Harvard studies.

The College Board (1986:5) surveyed four year public and private colleges to identify important admissions criteria. High school grades and test scores were listed as very important by 94 and 83 percent of the colleges respectively. Recommendations (49 %), interviewer impressions (36 %), and extracurricular activities (27 %) were also listed as very important at some institutions. Private colleges placed less weight on high school grades and test scores and more weight on other criteria than did public colleges; however, only the scholastic record, test scores, and recommendations were considered very important in admissions decisions at over half of the private colleges.

The performance predictability of test scores and the high school record has been questioned by some researchers. Barney, Fredericks, and Fredericks (1985:318) find no correlation between the academic achievement of

sixty freshman business students and their SAT scores or high school rank. Thornell and Jones (1986:8) find a high correlation between high school rank and first semester freshman GPA, but little correlation between ACT score and freshman GPA.

Critics of the use of SAT scores in the admissions process point to the similarity of results that would be achieved by reviewing applicants through high school grades alone. Crouse (1986:347-48) concedes that predictions of freshman performance based on high school grades plus SAT scores are more accurate than those based on grades alone, but he emphasizes that the difference influences less than ten percent of college applicants. Crouse and Trusheim (1988:51) find that 90.8 percent of 2,781 students in a 1972 study would have been accepted using either high school grades alone or high school grades plus SAT scores. However, Crouse and Trusheim also identify that the difference between these two systems is least when the cutoff point is exactly at the mean test score, and the benefit of using both high school grades and SAT scores increases when the cutoff point is further away from the mean.

Nairn and Sutton (Educational Research Services, 1981:48) find that high school grades plus SAT scores improve college performance predictability by five percent over high school grades alone. Crouse and Trusheim (1988:42-43) find the addition of SAT scores to high school grades to account for an overall improvement of



predictability of six to eight percent in long range studies of students from 1960, 1972, 1980, and 1982.

Bond (1986:72) and Jacobson (1986:8) emphasize that the quality of high school education in America varies so much that SAT scores are necessary as a consistent measure in the admissions process. Even Crouse (1986:347) concedes the benefits of SAT scores where high school records are inconsistent. Morante (1987:57) cautions that high school grades should not be used as the sole criterion in entrance and placement decisions because current abilities of students who have been out of college for years would not be reflected in high school grades, and high school standards vary too much from one institution and program to another. McCurdy (1982:549) points out that grades of "A" doubled in California in the early 1980s while SAT and entrance examinations scores fell.

Willingham and Ramist (1982:207) point out that the predictive ability of the SAT increased from 1972 to 1982 while that of the high school record declined. Furthermore, Willingham and Ramist find the benefit of using SAT scores to predict college performance increases for students with lower high school grades. SAT scores are most beneficial for high risk students, but of marginal value for moderate and high ability students. Baird (1984:271) finds SAT math scores followed by SAT verbal scores, then high school grades, to be the top predictors of college performance. However, Baird also finds that high school grades are better

predictors in institutions with highly traditional liberal arts programs. Baird (1984:275) finds high school rank to be a strong predictor at colleges with a narrow range of high school ranks among the applicants.

The merits of concentrating entrance requirements on SAT scores and high school GPAs are debated in the literature; however, few valid alternatives are suggested for improved prediction of freshman performance. Furthermore, the use of high school grades and ACT or SAT scores as the primary criteria in admissions decisions is highly supported by the practice of other colleges and universities. The importance for institutions to maintain academic standards and entrance requirements is also strongly developed in the literature, suggesting that institutions experiencing enrollment declines need to avoid the temptation to lower standards to increase the student pool. Officials at PBTS would do well to consider these experiences in establishing and maintaining an institutional entrance requirement.

#### Definition of Terms

Day college student. A student admitted to PBTS taking courses for college credit. Day college students are required to complete all admission requirements and must meet admissions criteria to be admitted. They must submit a completed application, three completed reference forms, high school transcripts or Graduation Equivalency Diploma (GED), ACT or SAT scores, and transcripts from any postsecondary

institutions attended. ACT or SAT scores are waived for students who have completed college level work at other institutions before applying to PBTS. All students taking courses for college credit are classified as day college students and must complete the application process. Two exceptions are provided: spouses of students and PBTS staff members may take one course per semester by submitting a completed application form. References, transcripts, and test scores are waived for these individuals.

Special admissions students. Day college students for whom some admissions requirements are waived. Time limitations between application and matriculation, prior college training, exceptional references, extensive personal contact with the institution, mature age, or prior leadership experience have prompted admissions personnel to admit certain students without certain admissions records (e.g., official high school transcripts or ACT scores).

Full time equivalency (FTE). A calculation of student body size used to adjust for parttime and fulltime students in one statistic. FTE is equal to the total number of credits attempted by all students during the semester, divided by the number of credits taken by fulltime students in a normal course load. The normal course load for full-time students at PBTS is 18 hours per semester.

Head count. The student body enrollment based on the total number of individuals registered for one or more credit courses. The head count includes both parttime and

fulltime students, but does not reflect the difference in the number of credits taken by fulltime and parttime students.

Graduation Equivalency Diploma (GED). A standardized test designed to measure subject proficiency at the high school level. It is provided for those who dropped out of high school before graduation. Although the GED provides percentage scores for subject areas as well as verification of minimum competency, PBTS only requires evidence of the diploma for admissions purposes.

Credits attempted. The number of semester hours for which the student was registered beyond the tenth week of class. Withdrawals are not permitted after the tenth week, and a final grade is given for the course. Partial refunds are made for withdrawals through the fifth week of class.

Transcript. An itemized listing of courses taken at an institution, including the letter grade, percentage grade, or quality points earned for each course. High school transcripts generally cover secondary grades nine through twelve. Many high school transcripts also provide the student's rank in the class.

ACT composite score or SAT combined score. The ACT is a standardized multiple choice test administered by the American College Testing Program, and the SAT is a similar test administered by the College Entrance Examination Board. Both tests are designed to measure aptitude rather than subject proficiency, and are traditional instruments used to

predict college performance. The ACT composite score and SAT combined score are statistical scores reflecting overall performance on the various areas covered by the tests. The ACT is based on a total scale of 35, while the SAT is based on a total scale of 1600. The New York State Board of Regents prefers the ACT test over that of the SAT for admissions evaluation in New York colleges.

## PROCEDURES

### Population

All student who were enrolled as day college students at PBTS between fall 1985 and spring 1989 were included in the study. Since day college students are required to have complete applications on file, student records were used to identify this population. ACT scores were first required of students entering PBTS in the fall of 1985; consequently, the population includes students enrolled from that time to the present. Approximately 400 students were enrolled at PBTS as day college students from 1985 to 1989.

### Instrumentation

Student information about high school GPA or GPA at another postsecondary institution, ACT or SAT scores, first semester GPA at PBTS, semesters enrolled at PBTS, and number of credits attempted per semester were recorded on the worksheet in Appendix A. Records were transferred to

an IBM PC/XT computer for analysis, and statistical computations were processed using Lotus 1-2-3 spreadsheet software.

#### Data Collection

High school or previous college GPA, ACT composite score or SAT combined score, and first semester GPA at PBTS were extracted from student records in the registrar's office for each day student who was enrolled for one or more semesters between fall 1985 and spring 1989. The number of credit hours attempted by each student during these semesters was also recorded.

Student records were also used to profile the academic outcomes of students who would not have been accepted if the proposed entrance requirements had been in effect. These additional data included cumulative GPA at PBTS, total number of semesters attended, number of courses leading to graduation completed, and whether or not the student achieved graduation from one of the institution's programs.

#### Treatment of Data

To provide consistency in evaluation, statistical information from different scales was converted to a single system for comparison. SAT combined scores were converted to their equivalent ACT composite score using Educational Testing Service's score equivalency table, found in

Appendix B. For students who had both ACT and SAT scores, the ACT score was used for comparison.

High school grades were found in five different forms: letter grades only, quality points on a four point scale, percentage grade averages with a quality point conversion scale, percentage grade averages without a quality point conversion scale, and individual grades expressed as percentages. Additionally, quality points from non-four point systems were found on some transcripts, supplementing percentage grades. Since percentage grades were available in these instances, conversion of non-four point systems was unnecessary.

For transcripts with letter grades only, grades were converted to quality points based on the four-point scale in Appendix C. Percentage grade averages were converted to quality points using the systems provided for on the transcript when conversion tables were included. When conversion tables were omitted from the transcript, percentage grade averages were converted to quality points using the system most commonly used on New York transcripts for conversion of percentage grades to quality points. This system is provided in Appendix C. For transcripts on which only percentage grades were provided without averages, a mean percentage grade was calculated and converted to quality points using the dominant system in New York state.

Although many transcripts identified class rank, this statistic was not used as an evaluation criteria since

many PBTS student come from private high schools with extremely small graduating classes. Several students were graduates of high school classes with less than ten graduating students.

Two criteria were proposed for regular admissions, with a third criterion included to provide special admissions for those who showed academic promise but did not qualify under the regular admissions requirements. Under the proposed system, a student must satisfy one of the following criteria to qualify for admissions:

1. Minimum ACT composite score of 15 (SAT combined score equivalent of 700).
2. Minimum high school or previously attended college GPA of 2.00.
3. Minimum first semester GPA at PBTS of 1.00 (special admissions category).

The number of credit hours taken by any student not meeting one of the above criteria was deducted from the total number of college credits for each semester beyond the first one that the student was enrolled, and a new FTE was calculated. The original FTE and the new FTE were compared for the eight semesters from fall 1985 to spring 1989.

The significance of differences between the original semester to semester FTEs and the FTEs that would have existed with the proposed entrance requirements in effect was tried at the .05 and .01 levels of significance with a chi-square test. Since only an enrollment decline as a result of new standards was possible, a one-tailed test was used. The null hypothesis was:



There is no significant difference between the original FTE enrollment and the FTE enrollment that would have existed had the proposed academic entrance requirements been in effect.

The alternate hypothesis was:

The original FTE enrollment is significantly higher than the FTE enrollment that would have existed had the proposed academic entrance requirements been in effect.

The special admissions category required completion of one semester at PBTS before achievement of the admissions criteria could be evaluated, so students rejected by both regular and special admissions were not discounted from the new FTE for their first semester of enrollment. This restriction also meant that students not meeting the qualifications for regular admissions and first time enrolling in spring 1989 could not be evaluated under the special admissions category, since the analysis was completed before spring semester grades were available.

The academic outcomes of students who would not have been admitted if the proposed entrance requirements had been in effect was also examined. Cumulative GPA, number of semesters attended, the number of courses leading to program graduation that were completed, and whether or not the student graduated from one of the programs at the institution was examined for each student who would have been rejected by the new admissions criteria. If students rejected through the new entrance requirements were successful in obtaining graduation or high cumulative GPAs, the entrance requirements would be invalid.

### Limitations

The analysis is limited to individuals admitted as day college students and enrolled at PBTS between fall 1985 and spring 1989. The ability of students to meet the stated admissions criteria may be different in other years or at other institutions. The analysis is further limited to FTE enrollment; losses related to total student enrollment (e.g., room and board, fees, etc.) have not been considered. The impact from additional students recruited as a result of improved perceptions of academic quality for the institution has also not been considered. These factors may be very significant.

Analysis is also limited to information from student records. There may be discrepancies between enrollment statistics or admissions criteria published by the college at the time the student enrolled and that found in their academic records.

Since personnel and maintenance policies pertaining to student records have varied over the four year period, information about special admissions circumstances available at the time of a student's admission to the college may not have been retained in the student's permanent record. This is particularly true for high school transcripts and test scores. Although a high school diploma or GED has been a requirement throughout the period under consideration, official transcripts were not consistently required, especially for students who applied close to the beginning

of the semester. Some records only include a photocopy of a high school diploma or a notarized signature from a school official stating that the applicant was a high school graduate. Furthermore, ACT and SAT scores were regularly waived for students who had attended college prior to application to PBTS, and were occasionally waived for others due to limited time between application and matriculation. outstanding references, or other factors.

Consideration of entrance criteria is limited to high school or previous college grades, test scores, and first semester GPA at PBTS. The influence of other factors on admissions decisions has not been taken into consideration. PBTS admissions personnel have historically given high regard to the three recommendation letters, and at one time, based admissions decision solely on the support in those letters. The influence of recommendations will continue to have a significant impact on the rejection of some students and the admission of others in special circumstances.

#### Assumptions

It was assumed that if the proposed entrance requirements had been in effect at the time of application that the same students would have enrolled as those that did enroll during fall 1985 to spring 1989. It was also assumed that students would have registered for the same number of credit hours with or without the new entrance requirements.

It was assumed that whatever special circumstances prompted admissions personnel to admit certain students without ACT or SAT scores or official high school transcripts would have existed even if the evaluation of test scores and high school grades was made part of the admissions policy of the institution. Since test scores and transcripts were required of all students not considered to be special enrollees throughout this period, all students who did not have high school transcripts or test scores on file in their permanent record were assumed to have been accepted as special admissions students.

## RESULTS

A total of 379 day college students were enrolled at PBTS during the eight semesters from fall 1985 to spring 1989. First semester GPAs at PBTS were available for all of these students, except for the nine students first time enrolled in the spring 1989 semester. Only 320 (84.4 percent) of the 379 students had records including high school or prior college GPAs, and 205 (54.1 percent) had records including ACT or SAT scores. Test scores were waived for 66 students who had previously attended college. Thirty students were admitted with neither transcripts or test scores. The distribution of students and available admissions information is given in Table 1.

Students with ACT composite scores or equivalent SAT scores below 15 were segregated out from their peers for

Table 1

Distribution of Students and Available Admissions Information by Semester

Analysis Category	Number of Students by Semester								4-Yr Overall
	F 85	S 86	F 86	S 87	F 87	S 88	F 88	S 89	
Head Count	187	175	169	157	131	118	121	127	379
FTE Enrollment	167.17	157.03	149.92	132.31	114.11	100.61	105.94	114.11	N/A*
Students Admitted Without ACT Scores	115	111	70	69	42	38	31	35	174
ACT Scores Waived Because of Prior College Credit	45	45	27	28	9	10	11	12	66
Students Admitted Without GPA**	20	18	23	24	19	16	23	25	59
Students Admitted Without ACT Scores or GPA**	18	15	11	11	5	5	6	8	30

\*N/A - Not Applicable.

\*\*High school GPA or GPA for previous college credit.

each semester that they attended PBTS. Overall, 72 students had unsatisfactory ACT scores to be admitted to PBTS if this criterion were applied as the sole means of evaluating the academic preparedness of students enrolled during the eight semesters examined. A cutoff of 2.00 was used to identify 26 students with unsatisfactory high school or previous college GPAs.

As a third criterion option, students with first semester GPAs below 1.00 at PBTS were identified. Had first semester GPA been the sole criterion for admission and continuation, 26 students would have been dismissed after their first semester. If students had to satisfy any one of the three criteria to be admitted, all 379 students enrolled through open admissions would have been admitted under the proposed system, but 11 of these would have been dismissed after their first semester. The semester to semester effects of the three entrance requirements on head count enrollment is given in Table 2.

A new FTE count was calculated to reflect the FTE that would have resulted if the enrollment criteria had been in place at the time each student first enrolled at PBTS. The use of ACT scores as the sole admissions criterion resulted in the largest declines in FTEs of any of the criteria examined. FTEs ranged from 19.31 to 33.00 students per semester lower than the original FTEs when ACT scores were used as the sole academic criterion for admission. The declines produced by high school or previous college

Table 2

Head Count Enrollment Resulting from Minimum Entrance Requirements of  
15 ACT Score, 2.00 High School or Previous College GPA,  
or 1.00 First Semester GPA at PBTs

Admissions Criteria	Head Count by Semester						4-Yr Overall		
	F 85	S 86	F 86	S 87	F 87	S 88	F 88	S 89	Overall
Open Admissions	187	175	169	157	131	118	121	127	379
ACT Score Only	162	153	132	126	95	88	93	100	307
H.S. or College GPA Only	170	161	157	146	120	107	115	122	353
First Semester GPA at PBTs Only	181	168	157	148	121	108	108	114	342**
ACT and H.S. or College GPA*	171	161	155	143	115	104	109	116	343
All 3 Criteria*	187	172	167	155	129	115	119	125	368***

\*For admission and continued enrollment, the student must satisfy the requirement in one category.

\*\*353 initially enrolled, 342 enrolled beyond the first semester.

\*\*\*379 initially enrolled, 368 enrolled beyond the first semester.

GPAs used as the sole criterion ranged from 4.11 to 14.73 students, while the first semester GPA standard reduced the enrollment by 5 to 10.39 FTE students. The combined standard of minimum ACT score or minimum high school or college GPA used as the basis for regular admission resulted in an enrollment decline of 5 to 11.56 FTE students.

Adjustments based on the use of all three criteria produced the smallest differences in FTE enrollments, with a maximum decline of 2.78 over eight semesters. For the fall 1985 semester, the original FTE and that resulting from the use of the combination of the three criteria was the same. FTE data are listed by semester for each admissions criterion in Table 3.

A chi-square test was applied to determine the level of significance in the difference between the original FTE for each semester and the FTE resulting from the reduction of students not meeting one or more of the three admissions standards. Results of this test are given in Table 4. The use of ACT scores as the sole evaluation criterion resulted in significant differences at the .01 level for every semester examined. The calculated chi-square values for these data were three to seven times greater than the critical chi-square values. Significant differences at the .01 level were evident for each semester when the criterion of high school or college GPA was added to that of ACT scores. Differences in FTE enrollment resulting from the exclusive use of high school or previous college GPAs were significant



Table 3

FTE Enrollment Resulting from Minimum Entrance Requirements of  
 15 ACT Score, 2.00 High School or Previous College GPA,  
 or 1.00 First Semester GPA at PBTS

Admissions Criteria	FTE Enrollment by Semester							
	F 85	S 86	F 86	S 87	F 87	S 88	F 88	S 89
Open Admissions	167.17	157.03	149.92	132.31	114.11	100.61	105.94	114.11
ACT Score Only	145.19	137.72	116.92	105.92	81.44	74.61	82.56	90.89
H.S. or College GPA Only	152.44	144.86	140.25	123.97	105.11	91.50	101.50	110.00
1st Sem. GPA at PBTS Only	162.17	151.25	139.56	125.94	105.94	93.28	95.56	103.72
ACT Score and H.S. or College GPA*	152.78	145.47	138.25	121.14	99.72	88.61	96.50	105.00
All 3 Criteria*	167.17	154.25	148.25	130.47	112.78	98.44	104.44	112.61

\*For admission and continued enrollment, the student must satisfy the requirement in one category.

Table 4

Significance of Difference Between the Original FTE Enrollment  
and the FTE Resulting from Minimum Entrance Requirements of  
15 ACT Score, 2.00 High School or Previous College GPA,  
or 1.00 First Semester GPA at PBTS

Admissions Criteria	X <sup>2</sup> Values by Semester								
	F 85	S 86	F 86	S 87	F 87	S 88	F 88	S 89	
ACT Score Only	23.53**	20.58**	37.08**	29.31**	38.13**	29.86**	26.28**	25.85**	
H.S. or College GPA Only	15.41**	12.66**	9.99**	8.61**	9.37**	9.54**	4.54*	4.19*	
1st Sem. GPA at PBTS Only	5.08*	5.89**	10.73**	6.53**	8.47**	7.61**	10.92**	10.89**	
ACT Score and H.S. or College GPA***	15.04**	12.00**	12.14**	11.66**	15.36**	12.76**	9.88**	9.49**	
All 3 Criteria***	0.00	2.81*	1.68	1.85	1.34	2.19	1.51	1.51	

\*Significant at the .05 level ( $X^2 \geq 2.71$ , one-tailed).

\*\*Significant at the .01 level ( $X^2 \geq 5.41$ , one-tailed).

\*\*\*For admission and continued enrollment, the student must satisfy the requirement in one category.

at the .01 level for six of the eight semesters, and differences resulting from the exclusive use of first semester GPAs were significant at the .01 level for seven of the eight semesters. Differences in FTE enrollment were not significant at either the .01 or .05 level for seven of the eight semesters when the three criteria were combined.

Eleven students from fall 1985 to spring 1989 did not meet any of the three admissions criteria. Data pertaining to the academic outcomes of these students are found in Table 5. Only one of these students achieved graduation from one of the programs available at PBTS. Two others are currently enrolled. Only the one student achieved a cumulative GPA above the 2.00 level required for graduation. Another student has been enrolled for eight semesters in a six semester program, yet has a cumulative GPA .29 points below the minimum required for graduation at PBTS.

Only two of the eleven students rejected by the admissions standards received passing grades in more than nine courses. Five students passed only two or three courses while at PBTS. Five of the students dropped out of PBTS after one semester, and three others dropped out after two semesters. One student has been enrolled for four semesters, but does not plan to return in the fall to complete the program. Seven of the students had cumulative GPAs below 1.00--less than half the GPA required for graduation at PBTS.

Table 5

Academic Outcomes of Students Rejected by  
the Proposed Entrance Requirements

Student	Admissions Criteria			Academic Achievement					
	ACT Score	H.S. GPA	First Sem. GPA	Total Semesters Enrolled	Total Credits Attempted	Total Credits Passed	Cumulative GPA	Graduation Achieved?*	Currently Enrolled?
Student A		1.85	.92	6	120	114	2.06	Yes	No
Student B			.64	8	128	104	1.71	No	Yes
Student C	5	1.25	.87	4	54	18	.46	No	Yes**
Student D			.80	2	30	24	1.53	No	No
Student E	10		.93	2	31	28	1.07	No	No
Student F	6		0	2	24	9	.70	No	No
Student G		1.57	.98	1	12	9	.98	No	No
Student H	7	1.80	.93	1	9	9	.93	No	No
Student I	14	1.73	.53	1	18	12	.53	No	No
Student J		1.50	.40	1	12	6	.40	No	No
Student K			.33	1	18	6	.33	No	No

Graduation from the three year program requires completion of 108 credit hours with a passing grade and a cumulative GPA of 2.00. Graduation from the one year program requires completion of 36 credit hours with a passing grade and a cumulative GPA of 2.00.

\*\*Student does not plan to return in the fall to complete the program.

## DISCUSSION, IMPLICATIONS, RECOMMENDATIONS

### Discussion

The implementation of entrance requirements at PBTS would be very compatible with that of other institutions with similar funding bases. Breland, Wilder, and Robertson (1986:8-9, 21) identify that entrance requirements are the norm for both private two year and four year institutions, and that over one third of these colleges have special admissions provisions for promising students who do not meet the admissions standards. Furthermore, Willingham and Breland (Whitla, 1984:22) cite the use of ACT or SAT scores and high school grades as the two primary criterion used by colleges for admissions decisions. By implementing a review of ACT scores and high school GPAs for admission to PBTS, the institution would be conservatively selecting the criteria most frequently applied to similar decisions at other institutions.

The cutoff levels for ACT scores and high school GPAs proposed for PBTS are also compatible with that of other institutions. ACT scores of 15 to 18 and high school GPAs of 2.00 to 2.50 are cited by Gurney and Stuart (1987:298), Jacobson (1985:23), McCurdy (1982:549), California Postsecondary Education Commission (1987:5), Newell (1984:26), and Goertz and Johnson (1985:22). Selection of entrance requirements within these levels would

keep PBTS within competitive parameters while improving the perception of selectivity for the institution.

The inconsistency of high school grades cited by Bond (1986:72), Jacobson (1986:8), and Crouse (1986:347) is also found in this study through the difference in the number of students rejected by low ACT scores as opposed to the number rejected by low high school GPAs. Seventy-two students enrolled at PBTS during the eight semesters studied would have been rejected by the ACT minimum of 15, while 26 of the same students would have been rejected by the high school GPA minimum of 2.00. The number of students rejected by unsatisfactory first semester GPAs at PBTS is 37, less than the rejection rate based on ACT scores alone, but greater than that of high school GPAs alone. However, the exclusive reliability of ACT scores is also questionable since there is high disparity between first semester GPAs and ACT scores.

Amberg (1982:536-37), Whitla (1984:22), and the College Board (1986:5) all cite the importance of using multiple factors for admissions decisions. The multiple criteria factor is found to have significant impact in this study as well. Calculated chi-square values exceeded three times that of critical values at the .01 level of significance when the original FTE was compared to that obtained by requiring a minimum ACT score of 15 as the sole academic entrance requirement. The addition of high school or college GPA as an alternative criterion to ACT scores did

not achieve enrollment differences below the .05 level for any semester. Although less dramatic, chi-square values for the high school or previous college GPA criterion were significant at the .01 level for six of the eight semesters and at the .05 level for the remaining two semesters. Similarly, using the first semester GPA as the sole criterion resulted in chi-square values that were significant at the .01 level for seven of the eight semesters, and at the .05 level for the eighth semester. Only the combination of ACT score, high school or previous college GPA, and first semester GPA at PBTS resulted in differences between open admissions FTE and selective admissions FTE that were not significant at the .01 level for any semester. Furthermore, FTE enrollment differences for seven of the eight semesters were not found to be significant at the .05 level when all three criteria were employed.

#### Implications

Restricting admission to PBTS through academic entrance requirements does not have a significant impact on the FTE enrollment when multiple criteria are used to evaluate applicants. The PBTS student constituency is too diverse to make admissions decisions based on single academic factors. The significance of difference between FTEs when ACT scores and high school or previous college GPAs are separately used is evidence of this diversity in identifiable ability. The significance was also too great

when first semester GPA was used to evaluate acceptable enrollment. Only the admissions criterion using multiple academic factors was found to maintain a similar enrollment as that on which current budgets are based.

The ACT score as a single criterion was particularly limiting on enrollment. This may indicate that PBTS students are less proficient at taking standardized tests than are their counterparts at other institutions. Factors influencing this would include the enrollment of more older students at PBTS and students from nontraditional high school backgrounds, including home schooling, private and parochial education, and programmed instruction without teacher intervention (the approach used in Accelerated Christian Education schools). Since these factors contribute to varying levels of performance at PBTS, the ACT score may be particularly valuable for identifying students in need of special services to help them adjust to mainstream approaches to education.

The use of multiple criteria in the entrance requirements results in FTEs that are not significantly different from current FTEs. The reduction of the student body by 11 students over a four year period does not represent a significant decrease, yet may provide opportunity to reassert a commitment to quality education that would result in greater numbers of capable students expressing an interest in PBTS. Furthermore, the academic outcomes of the students rejected by the proposed entrance



requirements do not generally represent successful academic accomplishments in the completion of a program at PBTS, achievement of a satisfactory cumulative GPA, or continuance to graduation.

However, one student was successful in achieving an acceptable cumulative GPA and graduated from PBTS, and this fact needs to be considered in decisions to release students who have not successfully met the entrance requirements. It may be implied that despite the general unsuccessful nature of students not meeting the entrance requirements, some students do achieve academic success as measured by program completion, satisfactory cumulative GPA, and graduation. These students may require additional time to demonstrate their ability and persistence in making satisfactory progress toward graduation.

#### Recommendations

It is recommended that PBTS adopt the enrollment criteria that have been proposed. The use of three separate factors; ACT score, high school or previous college GPA, and first semester GPA at PBTS, limits the probability of any capable student being denied the opportunity to enroll at the college, yet insures that students not prepared for college work are not misled to believe that they can complete a program at PBTS without some type of preliminary academic assistance. The levels of 15 for ACT scores, 2.00 for high school GPAs, and 1.00 for first semester GPAs at

PBTS are low enough that the FTE enrollment impact is not significantly different from what the enrollment would be without academic entrance requirements.

It is further recommended that the admissions committee develop guidelines for reviewing students who do not satisfy the entrance requirements. The decision to reject a student after the first semester of study should be made only after careful deliberation, and an extension to the probationary semester may be necessary to accurately assess a particular student's potential for completing a program at PBTS. Careful efforts need to be made to insure that developing students are not automatically turned away because of statistical requirements applied to what may have been an atypical semester in their overall academic experience.

The merits of establishing a reputation for high academic standards are well documented in experiences at other institutions, and similar benefits should be available to PBTS. Furthermore, the declining enrollment that has paralleled recent declines in student performance may be a byproduct of declining academic standards. Consequently, efforts to improve the academic reputation of the institution should be of interest to all who are concerned about declining enrollment.

It has been demonstrated that the use of three separate academic criteria, in addition to the personal references already used for admissions evaluation, restricts

only the few prospective students who would be unlikely to eventually complete one of the programs at PBTS. From an enrollment perspective, the FTE reduction by implementing these enrollment standards is minimal. Therefore, it is recommended that the board of directors proceed with the implementation of academic enrollment standards without undue concern for significant enrollment declines as a result of this action.

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APPENDIX A  
WORKSHEET FOR DATA COLLECTION

WORKSHEET FOR DATA COLLECTION

Student Identification Code: \_\_\_\_\_

ACT Composite Score: \_\_\_\_\_

or SAT Combined Score: \_\_\_\_\_

High School GPA: \_\_\_\_\_

First Semester GPA at PBTS: \_\_\_\_\_

ADMISSIONS CRITERIA:

- |    |  |     |    |
|----|--|-----|----|
| 1. | Is ACT composite 15 or above<br>(SAT combined 700)?      | YES | NO |
| 2. | Is high school or previous college GPA<br>2.00 or above? | YES | NO |
| 3. | Is first semester GPA at PBTS<br>1.00 or above?          | YES | NO |

Semester Enrolled	Credits
-------------------	---------

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____



APPENDIX B  
SAT COMBINED SCORE TO ACT COMPOSITE SCORE  
CONVERSION TABLE

SAT COMBINED SCORE TO ACT COMPOSITE SCORE  
CONVERSION TABLE

<u>ACT Composite Score</u>	<u>SAT Combined Score</u>
3	450
4	460
5	470
6	480-490
7	500-510
8	520
9	530-550
10	560-570
11	580-590
12	600-620
13	630-660
14	670-690
15	700-710
16	720-740
17	750-770
18	790-800
19	810-830
20	840-860
21	870-900
22	910-930
23	940-970
24	980-1010
25	1020-1050
26	1060-1090
27	1100-1140
28	1150-1190
29	1200-1250
30	1260-1300
31	1310-1350
32	1360-1410
33	1420-1470
34	1480-1540

APPENDIX C  
PERCENTAGE AND LETTER GRADE TO GRADE POINT AVERAGE  
CONVERSION TABLE

PERCENTAGE AND LETTER GRADE TO GRADE POINT AVERAGE  
CONVERSION TABLE

<u>Percentage Grade:</u>	<u>Grade Point Average:</u>	<u>Letter Grade:</u>
95+	4.0	A
94	3.9	
93	3.8	
92	3.7	A-
91	3.6	
90	3.5	
89	3.4	
88	3.3	B+
87	3.2	
86	3.1	
85	3.0	B
84	2.9	
83	2.8	
82	2.7	B-
81	2.6	
80	2.5	
79	2.4	
78	2.3	C+
77	2.2	
76	2.1	
75	2.0	C
74	1.9	
73	1.8	
72	1.7	C-
71	1.6	
70	1.5	
69	1.4	
68	1.3	D+
67	1.2	
66	1.1	
65	1.0	D