The report described one relatively small but extensively researched special admission and compensatory education program at The Claremont Colleges, California. The Program of Special Directed Studies for Transition to College (PSDS) was administered by the Claremont University Center. PSDS was a 5-year experimental project primarily funded by the Rockefeller Foundation. It recruited, selected, and provided a program for students whose high school achievement was inadequate to secure regular admission to the colleges. The program was primarily developed for Mexican American students, although Black, Asian American, American Indian, and Anglo students were included. These students all reflected characteristics of "disadvantage" and "risk". PSDS provided selected students with some $3,800 per year in financial assistance, a special education program, and up to 2 years to qualify for regular college admission. In all, 158 students (61.4% Spanish surnamed) entered the Claremont Colleges through PSDS. Of these, 95 matriculated. The findings tentatively suggested that carefully defined special admission procedures will minimize failure, although the issue of compensatory education effectiveness remains basically unexplored. The findings also suggested that the traditional cognitive measures used to predict academic success for all students are valid only for the student with traditional credentials. Lacking evidence to the contrary, the success of the program at this time may be attributed to selection alone. (KM)
THE PROGRAM OF SPECIAL DIRECTED STUDIES:

A FIVE-YEAR SUMMARY

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INTRODUCTION

Special college and university admission policies for economically disadvantaged, high risk, minority group students have increased significantly in recent years. Less frequently, compensatory higher education programs have been developed to prepare the specially admitted student for competition on an equal basis with regularly admitted students who meet traditional admission standards. The essential assumption of such compensatory programs is that inadequate public schooling, language difficulty, poverty, family instability, and racial and cultural discrimination, all contribute to low levels of academic performance on the part of the student who is culturally different. Given liberalized admission policies, but lacking compensatory programs, a disjuncture reportedly is created where academic goals may be too high for the student with inadequate preparation and a culturally different background, predisposing him to fail.

The literature on the disadvantaged student, in fact, describes a variety of academic deficiencies which generally exclude this student from consideration for college admission, and which predispose him to failure if he is admitted, apparently regardless of compensatory efforts. These deficiencies include basic learning skills, verbal skills, abstract thinking, and cumulative learning ability. It sometimes is suggested that the traditional measures for prediction of academic success tend to be questionable when used with disadvantaged students, yet what seems to be the predominant opinion points in the other direction.
Variables such as high school grade point average and aptitude test scores, both verbal and math, generally are deemed valid for prediction of success with both disadvantaged and non-disadvantaged populations. Findings on the college success of disadvantaged students suggest clearly that standardized tests have the same predictive validity for the educationally disadvantaged and the general population, and a recent conclusion affirms that "... aptitude test scores and high school grades, when employed together, usually predict college grades at least as accurately for disadvantaged applicants as they do for regular applicants." Almost all of this literature is based primarily on studies of Black students.

This report describes one relatively small but extensively researched special admission and compensatory education program at a group of highly selective colleges. The research findings here tentatively suggest that carefully defined special admission procedures will minimize failure, although the issue of compensatory education effectiveness remains basically unexplored and unanswered. The findings suggest that the traditional cognitive measures used to predict academic success for all students are valid only for the student with traditional credentials, while selected non-cognitive measures are perhaps more appropriate to the student from a culturally different background.

THE PROGRAM

The Program of Special Directed Studies for Transition to College (PSDS) was administered by Claremont University Center at The Claremont Colleges, 35 miles east of downtown Los Angeles, California. The Claremont Colleges consist of Claremont Men's College, Harvey Mudd College, Pitzer
College, Pomona College, and Scripps College, all undergraduate institutions, as well as Claremont Graduate School. Based on the Oxford model, each of these colleges has a very different academic emphasis and atmosphere, but they have contiguous campuses and share a number of central services.

Total full-time enrollment is some 4,200 students. Total cost for tuition, room, board, and required fees averages some $4,100 per year (plus books, and incidental living expenses). Admissions standards are highly selective, with limited allowance for academic diversity. The student body essentially is upper-middle class Anglo-Caucasian, although a minority recruiting program has been developed in recent years, and both Black and Chicano Studies Centers are part of the services offered students at all schools.

PSDS was an experimental education project, primarily funded by a grant from the Rockefeller Foundation. Five years of the program now have come to a conclusion, including a final year with a summary research emphasis. PSDS recruited, selected, and provided a program for students whose high school achievement, as measured by grades and standard tests, was inadequate to secure regular admission at The Claremont Colleges. The program was developed primarily for Mexican American students, representing the largest minority in the Southern California area, although Black, Asian American, American Indian, and Anglo students also were included in the program. These students all reflected characteristics of "disadvantage" and "risk," which were specifically defined.

Operational definition of the term "disadvantage" involved the following categories: 1) The student was from a minority racial or ethnic group. 2) He came from a low-income family or a family where
limited income is divided among many dependents. 3) He worked to support his family. 4) He lacked material possessions (books, magazines, etc.) and activities (music lessons, travel, etc.) generally associated with advantaged circumstances. 5) He had no adequate place of study in the home. 6) He had limited facility in English. 7) He attended schools in economically disadvantaged areas. 8) He did not live with both natural parents, his parents both worked, or his family frequently changed residence. 9) He had a police record. (See Melendrez, 1971.)

Minority group background in itself was not taken to mean that a student was "disadvantaged," but PSDS was particularly interested in minority students who also fell into the other categories. The combination of characteristics listed perhaps more accurately described a student who was "culturally different" from those traditionally admitted to selective schools, even if this difference was based primarily on ethnic and economic background.

Operational definition of the term "risk" involved grades and test scores which normally would keep the student out of The Claremont Colleges. The actual risk was to the college and community in terms of time and money invested in a student who, based on statistical predictive measures, was likely to fail. The actual risk also was to the student and his family in terms of the consequences of failure for the student's self-concept, self-confidence, motivation, ambition, and other aspects of personality.

PSDS provided selected students with an average of some $3,800 per year in financial assistance, a special educational program and up to two years in which to qualify for regular college admission. The PSDS students took normal college courses with regularly admitted students.
and one special credit course designed to develop study and research skills, logical reasoning, and improved techniques of communication. They were helped to remedy academic deficiencies in written expression and mathematics. Tutorial assistance was provided, and course loads were adjusted to facilitate success. Members of a Faculty Governing Committee—teaching and administrative staff appointed by the presidents of the colleges—often served as advisors for the students, as did former PSDS students.

At the time of matriculation, acceptance into regular status after passing a full load of courses for one semester, students were given full credit for all academic courses successfully completed while in PSDS, and no permanent record was made of course failures. All services, except for the one special course, essentially were optional.

THE STUDENTS

In all, 158 students entered The Claremont Colleges through PSDS. Of these, 95 matriculated. Nine students transferred directly to other colleges or universities in good standing. Fifty-four students were dropped from the program for academic or other reasons, or withdrew on their own volition. (Many of these students presently are continuing their education once again, at universities or community colleges.) Thus, not including those students who chose to transfer to another school, 65.8 percent of students entering PSDS "succeeded" by completing the program and attaining regular academic status at The Claremont Colleges.

Of the 158 students, 97, or 61.4 percent, were of Spanish surname, primarily Mexican Americans but also other Latins; 37, or 23.4 percent,
were Black; 13, or 8.2 percent, were Other White (Anglo-Caucasian); 9, or 5.7 percent, were American Indian; while there was 1 Asian American student and 1 Other Non-White (Guamanian). Ninety-three students, or 57.6 percent, were male, while 65 students, or 42.4 percent, were female. Median age of all students on entry into the program was 18.8 years, with a range between 16 and 28 years.

The parents of 55.4 percent of the PSDS students were living together, while 42.0 percent were divorced, separated, or widowed; the status of 2.5 percent was unknown. The fathers of PSDS students completed a median of 9.7 years of schooling, while the mothers also completed a median of 9.7 years of schooling. Median annual family income was $5,600, with a range from less than $1,000 to $16,000. The median number of dependents was 5.3 per family.

PSDS students entered the program with a mean grade point average of 2.6 on a four point scale, and with a mean SAT score of 814 (412 verbal and 402 math). Various questionnaires, rating scales, and semi-structured interviews subsequently were employed with the students, including the Cattell Culture Fair Intelligence Test (mean 108.5), Rotter Internal-External Control of Reinforcement Scale (mean 9.9), Mooney Problem Check List (mean 67.7), as well as more traditional achievement tests.

PSDS students did not present a composite profile of extreme economic disadvantage or severe educational deficiency; in fact, apart from ethnicity, they fell quite near the national average on numerous measures. Many even had been accepted at other colleges and universities. It is in comparison with regularly admitted students at The Claremont Colleges, however, that differences were pronounced.
Regularly admitted students, for example, come from families with annual incomes in excess of $15,000, have a mean high school GPA of 3.5, carry mean SAT scores over 600 on both verbal and math sections, and in many other ways indicate a strikingly different family and academic background (Thompson, 1971). In terms of this comparison, then, PSDS students demonstrated significant characteristics of disadvantage and risk, as well as ethnic minority status.

THE RESEARCH

During the first four years of PSDS, study of the program was conducted by a Research and Appraisal unit in the Center for Educational Opportunity at The Claremont Colleges, with both research design and administrative control separated from the program itself. In the fifth year of PSDS, summary research and program direction have been conducted jointly. Some 21 technical reports and 8 informal reports were issued during the first four years, and these publications now have been expanded by 8 technical reports and 1 informal report during the final year of work. Two doctoral dissertations were developed in connection with first year PSDS students alone.

There was extensive testing of all PSDS students on a variety of cognitive and non-cognitive measures, complete records were kept on all students, while both students and faculty completed questionnaires regarding the students, their academic progress, and the PSDS program. Pretesting and posttesting was completed where possible, and during the first year of the program there was extensive testing of a comparison group of non-PSDS students composed of 40 randomly selected regularly
admitted freshmen and a stratified sample of 20 minority group freshmen. Multiple definitions of success were used throughout the research, both because it was felt that a grade point average alone was an inadequate measure of success and because, entering as freshmen and not always completing full course loads, only 13 PSDS students graduated during the first four years of the program.

In fact, the small number of students studied perhaps represents the most significant limitation of the research. A maximum of 158 students were involved, while the most extensive testing was conducted with 40 students and appropriate comparison groups. Extreme diversity in selection procedures for PSDS students, as well as an unmeasurable subjective element in selection, further limits the research, as does a wide spread in the background of the PSDS students: family income, high school records, test scores, other pre-college data, and the definition of academic potential used in each particular case. Uneven ethnic distribution and uneven distribution in terms of other characteristics, attrition from pretests to posttests, and the use of self-report measures provide further problems. As a principal indicator of academic success, the use of matriculation, or transfer from special to regular status, rather than graduation, perhaps represents a limitation in some ways.

Finally, because no research design consistent with the ethics of the PSDS Faculty Governing Committee could be developed to evaluate program effectiveness, all research on the program essentially is post facto correlational study of significant admission criteria, rather than experimental study of admission criteria or program effectiveness. (Experimental study of program effectiveness would have involved random mandatory assignment of PSDS students to differential
"treatment groups": mandatory personal counseling, academic assistance without counseling, no "treatment" whatsoever, etc.)

Cognitive and Non-Cognitive Variables

Hodges and Thompson (1971), in a separately reported joint study of the first 40 PSDS students entering the program in 1968, essentially provided a summary and confirmation of most findings elicited during the period 1968-1972. The 40 PSDS students were contrasted with a control group of 40 randomly selected freshmen and a stratified sample of 20 minority group freshmen. The research design was a pretest-posttest change model using a variety of traditional and experimental measures.

The writers found a general similarity between special (PSDS) and regular admission groups in social and personality test data despite marked differences in socio-economic and educational background. (Also see Spuck, 1969.) These large pre-college environmental differences, primarily resulting from income and ethnicity, did not affect the special students' personal values, acceptance of middle-class values, or social participation in college activities. Differences which occurred within the special group, however, emerged as the best predictors of academic and social success for students in this group, providing some support for the differential validity hypothesis: success criteria and predictors for the disadvantaged student are not the same as those for the traditionally admitted student.

Hodges' predictions of cognitive difference between the special and control groups were not confirmed, and predicted deficiencies in cognitive processes, linguistic disabilities, and low self-esteem were not found. The special students, further, did not reflect a more external view concerning control of reinforcement (on the Rotter Locus...
of Control instrument), and contrary to expectations both groups changed in the direction of demonstrating belief in more externalized control; predicted correlation between internal control and success was not found.

Thompson found that the success of students with traditional pre-college admission credentials was better predicted by these measures, but predictions of college success for students without these credentials, who display promise in some areas, profitably can be pursued with non-cognitive measures. The best predictor of success for the special student was found to be strongly-held religious views by religiously conservative and committed parents. A traditional middle-class emphasis by the student on individual responsibility and achievement, as well as the personal values of conventionality, certainty, personal strength, and independence, also was significant. Success also was strongly related to a supportive family background, with strong student expectation of family understanding and support if he should drop out of college.

The Mexican American Student

Lowman and Spuck (1973), using a multiple regression analysis with data on 120 PSDS students from the first three years of the program, focused on 75 Mexican Americans from this group. They found that scholastic aptitude test scores, verbal and math, were significant only for women, and here only in combination with non-traditional measures. They suggested that non-traditional admission criteria could be identified and combined to account for a large part of the variance in first year college performance. They suggested, further, that Mexican American students who are capable of succeeding in highly selective colleges are likely to
be passed over for admission if only traditional predictors of success are used.

Successful Mexican American females came from low income families yet had an adequate place to study in the home, evidenced difficulty with the English language, had relatively high scholastic aptitude test scores, did not reflect high intelligence test scores combined with underachievement, and had not applied for and been denied regular admission to college. Unsuccessful Mexican American females, on the other hand, came from higher income homes, evidenced no English language difficulty, and demonstrated a tendency toward underachievement. Successful Mexican American males evidenced relatively high high school grades, difficulty with the English language, and a history of work to help support their families; they had applied for and been denied regular college admission. The findings suggested to Lowman and Spuck that in the effect of applications for regular college admission, Mexican American males reflect prior reinforcement for aggressive behavior while females reflect reinforcement for a more passive role.

Despite economic disadvantage and culturally different backgrounds, many of the Mexican American students demonstrated achievement prior to college, although not at the level of the regularly admissible student. For males, success involved more aggressive or competitive behaviors: high school grades, working to help support the family, applying for college without possessing the traditional admission requirements. In all cases, however, non-traditional predictors of success had to be employed if potentially successful Mexican American students were to be identified for admission.
Lack of Significant Predictors

Jaffe (1973b), in a study of all 158 PSDS students over the full five years of the program, examined the relationship between college success and various admission, situational, and environmental variables. Success was defined as matriculation, transfer from special to regular status, at The Claremont Colleges. Given the small sample sizes and ordinal data, Jaffe used the Gamma and Gamma Z statistics to determine level of association and probability of occurrence.

In almost all relationships Jaffe found low explanatory value and low probability of occurrence, in terms of statistical significance, with little justification for predicting college success from any of the variables. Nevertheless, tentative inferences indicated a negative relationship between success and scholastic aptitude test scores and no relationship between success and high school grade point average, intelligence test scores, and economic status of parents. "Cultural deprivation," as measured by the Environmental Participation Index, also was unrelated to success.

Jaffe reported a slight but significant relationship between success and perception of internal fate control, as measured by the Rotter Locus of Control Instrument: those who perceive themselves as more in control of their environment tend to be more successful than those who perceive themselves as more controlled by their environment. It also appeared possible that success was more likely for those students from high schools with lower proportions of Black and Mexican American enrollment.

(Jaffe, 1973a, also provided an informal survey of the 12 PSDS students who graduated from The Claremont Colleges in 1972. Aside from
obvious indicators of success, such as graduation itself, plans to attend selective graduate schools, and aspirations to occupations in the upper portion of the national socio-economic class structure, the survey indicated that the students held a very positive view of The Claremont Colleges and PSDS.)

CONCLUSION

Problems with sample size and various aspects of research methodology limit the inferences which may be drawn from extensive study of the five-year compensatory higher education program which has been described here. Significant correlations, even where available, generate post facto conclusions which remain unconfirmed and have minimum applicability in individual cases. On the other hand, there appear to be few comparable studies on this scale, and the limited results confirm the effectiveness of non-traditional admission criteria and provide a useful starting point for continued research. Further, the data and interpretation for a predominantly Mexican American student group probably are unique. Lack of an experimental design to evaluate program effectiveness, as opposed to the predictive validity of admission measures, perhaps represents the most serious problem in the study.

The students involved in this special program exhibited economic and ethnic differences from their regularly admitted counterparts, as well as differences on traditional academic measures. However, they were not unusually disadvantaged in terms of national averages, but only in comparison with the highly advantaged students with whom they attended school. In fact, they exhibited few characteristics of cultural difference, except those deriving from income and ethnicity,
and in most social and personality attributes, as well as cognitive learning styles, they were similar to the total college population.

Predictors of success for these students, now viewed as relatively disadvantaged and relatively similar to regularly admitted students in most individual characteristics, nevertheless cannot be based on traditional pre-college admission criteria. In most cases, use of these traditional measures would preclude students who do have the potential for success. For such students, the use of non-cognitive measures, perhaps in combination with some minimum level on the traditional measures, provides a more accurate estimate of ability, and more accurate predictors of success within a larger special admission group. However, the significance of such non-cognitive measures—parental religious commitment, for example—still is questionable, and contradictory evidence often has been cited. Further research is required.

The role of the compensatory program, especially therapeutic counseling and the supportive structure of the special program in itself, remains unexplored. Lacking evidence to the contrary, the success of the program at this time may be attributed to selection alone. Such selection was based strongly on the relative strength of pre-college admission criteria, traditional and non-traditional. While it may be suspected that program effectiveness added in no small amount to this success, such speculation presently remains "not proven."

Beyond research results, of course, and beyond the success of the program indicated in matriculation by more than 65 percent of the
specially admitted students who entered these colleges, the value of
the program may be viewed in less quantifiable terms: the opportunity
for 158 students to experience the very different academic and social
environment of selective educational institutions, with the academic,
motivational, and personal growth this hopefully (and often obviously)
stimulated; the diagnosis of academic and personal problems, definition
of needed remediation, and provision of individualized assistance for
each of the students, where needed, often leading to improved performance
at other schools, if not at The Claremont Colleges; the diversity and
challenge which the students brought to a previously homogeneous campus,
including growth in cultural, ethnic, and intellectual awareness for
the regularly admitted students who came in contact with this group.
Such factors must be evaluated in other ways, however, perhaps most
definitively by the students themselves at some later date.
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