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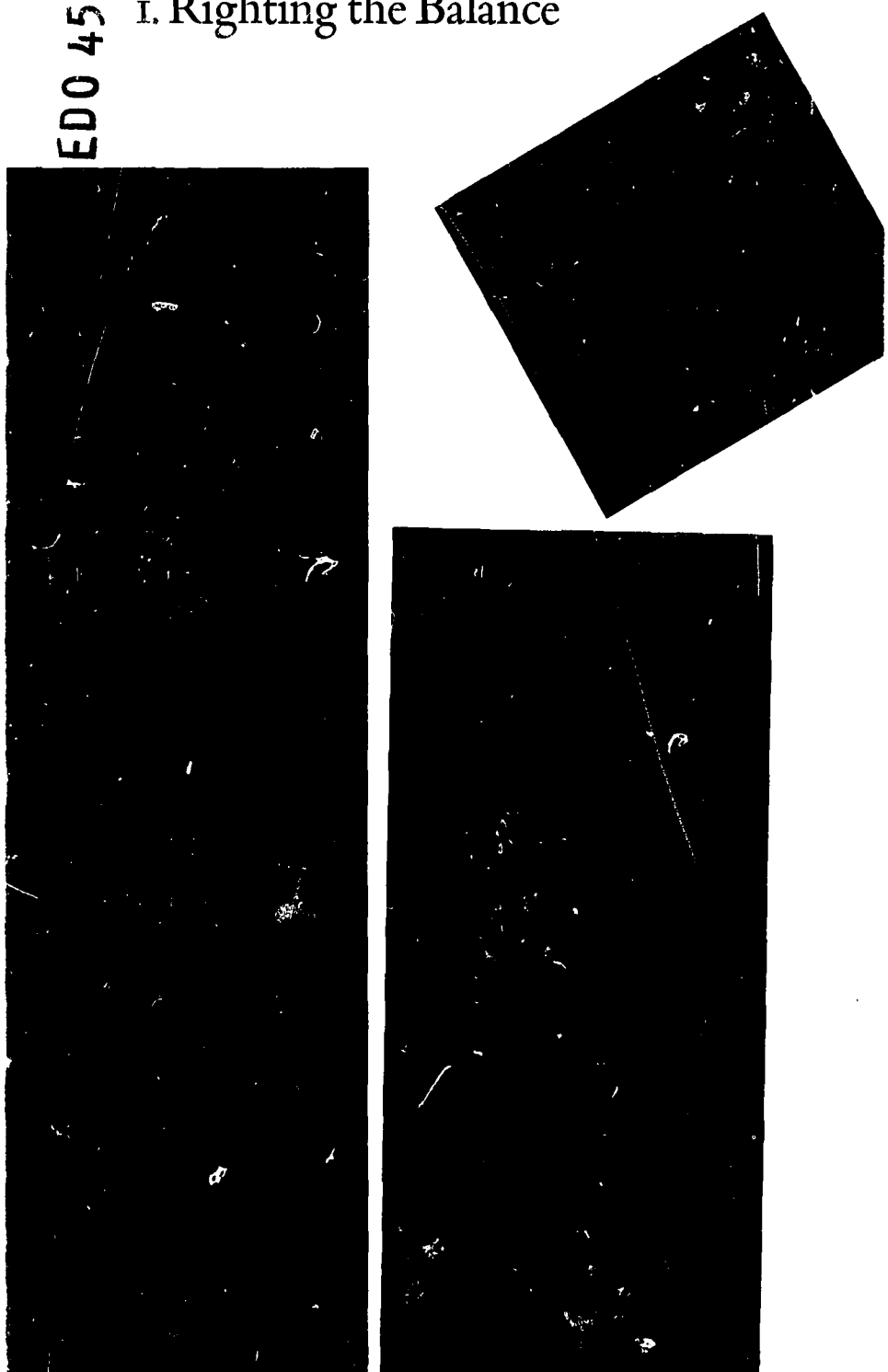
ABSTRACT

The charge of the Commission on Tests was to undertake a thorough and critical review of the College Board's testing functions in American education, to consider possibilities for fundamental changes in the present College Board tests and their use, and to make recommendations to the Board based on its conclusions. After reviewing current criticisms of tests and their use, the Commission concludes that the Board's testing functions and associated services, although needing adjustment and augmentation to hew closer to the public interest, should be continued and could serve three main functions: (1) a "distributive" function by contributing to comprehensive and sensitive descriptions of students, of colleges and their programs, and of the potential relationships between the two as both students and colleges engage in a process of reciprocal choice, (2) a "credentialing" function by certifying demonstrable educational attainment whether acquired by attendance in school or college or not, and (3) an "educative" function by instructing students both in subject matter areas and in the skills and methods of making decisions and choosing. See ED 039 396 for a background paper on the establishment of the Commission. (Author/CK)

Report of the Commission on Tests

I. Righting the Balance



At their meeting on September 24, 1970, the Trustees of the College Entrance Examination Board received the final report of the Commission on Tests and authorized its publication and distribution to the member institutions and to the public at large. To encourage the fullest consideration and discussion of the report within Board councils, the Trustees also asked their Committee on Planning and Development to review the entire document and make such recommendations as may be appropriate.

Report of the Commission on Tests

I. Righting the Balance

Commission on Tests

College Entrance Examination Board, New York, 1970

Publications of the Commission on Tests

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"*While in reality no one can solve anyone else's problems of choice, the College Board can give the students faced with the difficult decisions surrounding the transition out of high school support equal to that which colleges receive. In short, the Commission thinks that a symmetry or balance should obtain between the services that the Board offers to potential entrants and those that it offers to colleges. Just as individual schools and individual colleges rightfully regard their students as clients, so should the member schools and colleges of the College Board have the Board regard all potential entrants in programs offering opportunities for postsecondary education as a clientele whose interests and needs are to be served and met as fully as are those of the Board's institutional clientele.*" (Page 57)

"*American colleges have often been characterized as diverse; it seems clear that they must become more so, both at the institutional level and within their curriculums, if they are to serve nearly all American young people in an increasingly complex society. People are also diverse, more so than colleges have yet learned to take into account in their procedures, their programs, or their instruction. Colleges must change in this respect if everyone is to go to college. The students who go must also take the colleges' and their programs' diversity into account if the resulting encounter is to be beneficial. Both kinds of diversity can be partially described and reported on by tests and associated services. The question is how those descriptions can be made to benefit both the students and the colleges and how those descriptions can avoid reinforcing, in the process of college entry and completion, an apparent and pervasive bias against potential applicants who are not middle class, white, and male.*" (Pages 39-40)

Members of the Commission on Tests

David V. Tiedeman, Professor of Education, Harvard University, *Chairman*
B. Alden Thresher, Director of Admissions Emeritus, Massachusetts Institute of Technology, *Vice Chairman*
Philip H. Abelson, Director, Geophysical Laboratory, Carnegie Institute of Washington
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Richard Pearson, former President, College Entrance Examination Board
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Nancy K. Schlossberg, Associate Professor of Education, Wayne State University
John W. Shirley, Provost, University of Delaware
Patrick Suppes, Professor of Philosophy and Statistics, Stanford University

Charged with

- reviewing the College Board's testing functions in American education

- considering possibilities for fundamental changes in tests and their use

- making recommendations based on its conclusions

the Commission on Tests

- was convinced that the College Board should modify and improve, rather than abandon, its tests and associated services in seeking to serve three functions:

1. a "distributive" function by contributing to comprehensive and sensitive descriptions of students, of colleges, and their programs, and of the potential relationships between the two as both students and colleges engage in a process of reciprocal choice;

2. a "credentialing" function by certifying demonstrable educational attainment whether acquired by attendance in school or college or not;

3. an "educative" function by instructing students both in subject-matter areas and in the skills and methods of making decisions

- generated suggestions about the implications, in a system of mass postsecondary education, of the Board's acting both for its traditional institutional clientele and for an equally valued student clientele

- recommended that the College Board adopt the full range of potential entrants into programs of postsecondary education as a clientele that is as valued as the Board's institutional clientele and thus is due as large a share of service

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Acknowledgments

The Commission wishes to acknowledge first the courage and public-spiritedness implicit in the College Entrance Examination Board's commitment to publish the Commission's report. Unlike other College Board commissions, the Commission on Tests was to address its recommendations to the work of the Board itself. The Commission was also encouraged to make those recommendations in the public interest without regard to how far its vision of the public interest might coincide with the College Board's corporate interests or with the interests of the Board's member institutions. Furthermore, the College Board's officers assured the Commission, even before receiving its recommendation, that its report would be published and made widely available. The Commission acknowledges and commends the Board's disinterested commitment and its willingness to encourage the continued public discussion of its work.

The Commission also wishes to express here its appreciation to all those persons who supported its work. These included many consultants who met with or wrote to the Commission as well as friends and colleagues with whom individual members of the Commission consulted from time to time. Deserving of special thanks are the officers of institutions who were good enough to provide the Commission with sites for its meetings: Kermit Gordon of the Brookings Institution, John Elmendorf of New College, and O. Meredith Wilson of the Center for Advanced Study in the Behavioral Sciences.

More constant support for the Commission's work was of course supplied by the members of its staff who made the many administrative arrangements necessary to gather the Commission in meetings, offered occasional suggestions on procedural matters, handled the transmission of many sets of papers, and oversaw the production of the Commission's two-volume report. The staff director for the Commission during most of its tenure was Winton H. Manning, who kindly continued in a consultative capacity after his resignation as director. Sam A. McCandless, Mr. Manning's successor, in turn took the Commission through the writing and publication of its two reports, a considerable achievement. Charles M. Holloway served cheerfully

and efficiently as the Commission's secretary, producing minutes from truly formidable transcripts of its meetings, and releasing information about the Commission's work to the public as that seemed desirable. Marcia Van Meter, who succeeded Erik Arctander as the Commission's editor, skillfully provided the needed support in the preparation of the Commission's two-volume report. The production of the typescript for it and many other documents was overseen by Ellen W. Anderson who, like Christina L. Conley before her, also brightened some of the Commission's meetings and efficiently attended to innumerable administrative details. These and John M. Duggan, George H. Hanford, and John A. Valentine from the Board's staff; and Richard S. Levine and Robert J. Solomon from the staff of Educational Testing Service met with the Commission, which is grateful for their support, for their ready supply of information, and for their willingness to sit peaceably while the Commission discussed the policies and practices that are the stuff of their professional lives.

Foreword

"The Commission is asked to undertake a thorough and critical review of the Board's testing function in American education and to consider possibilities for fundamental changes in the present tests and their use in schools, colleges, and universities.

"This review is prompted by the fact that the great majority of American youth will expect to enter colleges and universities during the latter third of the present century; perhaps 70 percent of 18-year olds and 80 percent of secondary school graduates. At the same time, the nature of higher institutions is changing, partly in response to enrollment pressure but also for other reasons. The trend is in the direction of a mass movement of students into higher education, under circumstances where colleges and universities are becoming increasingly diverse."

With these words written in January 1967, Richard Pearson, then President of the College Entrance Examination Board, invited David V. Tiedeman and 19 other leading educators to serve on a Commission on Tests.

The trend to which Mr. Pearson referred had already had its effect on the world of the College Board. The collegiate membership of the Board tripled between 1950, when there were slightly more than 100 member colleges, and 1960 when there were 350; it has since grown to over 850. This phenomenal growth resulted primarily from the widespread collegiate adoption in the years since World War II of the College Board's Admissions Testing Program—the Scholastic Aptitude Test (SAT) and the subject-matter Achievement Tests. The teachers, professors, counselors, and admissions officers who as members of examiner and advisory committees oversee the Board's services, the staff of the Board who manage them, and the staff of Educational Testing Service who operate them have all been hard pressed to cope with this sharp increase in demands for service.

The challenge to do so was and is heightened by the fact that the Board's traditional services were not designed for the diverse range of institutions, with their even more diverse range of stu-

dent clienteles, now included in its domain. The Board's attempts in the 1950s and 1960s to develop new programs—and new services in old programs—to serve *its* expanded clientele reflected its determination to respond to new challenges.

All these services, as has always been the case with College Board programs, were and are managed by the Board's staff with the counsel and cooperation of advisory and examiner committees composed of teachers, professors, and student personnel officers from the nation's schools and colleges. However, no one of them had been charged with taking a broad look at the total response of the Board's several testing programs to the problems attendant upon the movement of over half of the nation's high school graduates into over 2,500 institutions offering postsecondary schooling. And no one of them had been charged with attempting to look ahead and see what functions the Board's program of tests and associated services might and should perform in the middle distance—in, say, 10 to 20 years.

But this, it seemed to Mr. Pearson, was precisely what needed to be done and be done for the most part by knowledgeable and concerned "outsiders" who were not involved in the Board's current activities. Consequently, in 1966, Mr. Pearson recommended to the Board of Trustees that a special committee—in College Board tradition a "commission"—be appointed.

The College Board, as an association of schools and colleges, provides a forum for the debate of education policies and practices, and had in the past exercised this forum function in part through the appointment of distinguished commissions to focus attention on important issues. The reports published by the Board of the Commission on Mathematics and of the Commission of English, for instance, will be familiar to readers interested in those fields. These commissions, however, addressed themselves to issues and problems that in the last analysis had to be solved by schools and colleges *as* schools and colleges. The Commission on Tests, by contrast, was to be asked to address itself to issues and problems surrounding the work of the

College Board itself, to issues and problems that could be solved only by corporate action, only by schools and colleges acting in association as members of the Board. The trustees endorsed Mr. Pearson's suggestion and appointed the members of the Commission listed in the front of this book.

The Commission came into being at a time when the interests of various groups in American society were increasingly perceived as being, if not in conflict, at least not in congruence. The members of the Commission quite properly sought—and received—assurances that their advice and recommendations to the Board were to be made in the public interest and without regard to how far their perception of that interest might coincide with the corporate interests of the College Board or with the interests of its individual members. These assurances were given willingly by Mr. Pearson, who had previously realized that the extent and influence of the Board's services were such as to require that they be managed in the public interest.

As the Commission's work proceeded, it became apparent that, in its members' opinion, the Board's traditional services reflected primarily and purposefully the interests of the Board's member colleges; and that, while these were not necessarily inconsistent with the interests of students, the latter, being served secondarily and incidentally, were being served less well. Thus, it seemed likely that the Commission's report would be, at least by implication, critical of the College Board and, perhaps, an embarrassment to it. The officers of the Board assured the Commission that their report would nevertheless be published and encouraged the Commission to make at least part of it appropriate for wide circulation and readership.

The report in hand is the result. The College Entrance Examination Board is both pleased and proud to publish it and hopes that it will be widely read and discussed. The College Board is gratified that the busy members of the Commission thought its work important enough to justify their close attention for more than three years, and is appreciative of their ef-

forts. Their report is a significant contribution to the continuing debate on the Board's work. Its publication and formal presentation will coincide with the inauguration of new leadership at the Board under a new President, Arland F. Christ-Janer. That coincidence augurs well for the College Board as it enters the decade of the 1970s.

George H. Hanford
Acting President

June 30, 1970

Preface

The charge of the Commission on Tests was to undertake a thorough and critical review of the College Board's testing functions in American education, to consider possibilities for fundamental changes in the present College Board tests and their use, and to make recommendations based on its conclusions. About a third of the Commission's members either were or had been formally involved with the Board's examinations, but the rest, in about equal numbers, either had been involved in Board activities that were not directly related to testing or had no connection at all with Board activities.

Consequently, the first task seemed to be one of orientation. Before its initial meeting in March 1967 for the purpose of organizing an attack on its difficult assignment, the Commission received a background paper entitled *The Background of the Commission on Tests*[1] that had been prepared by Richard Pearson, then President of the College Board, and by Winton H. Manning, then College Board staff director for the Commission on Tests. This paper outlined an ambitious program for the Commission:

". . . the work of the Commission should rest on a fourfold assumption.

"1. An explicit set of assumptions, judgments, and observa-

1. Manning, Winton H., and Pearson, Richard, *The Background of the Commission on Tests*. New York: College Entrance Examination Board, 1967. Available from ERIC Document Reproduction Service (EDRS), National Cash Register Company, 4936 Fairmont Avenue, Bethesda, Md. 20014. ED 039 396 MF 25 cents; HC 95 cents.

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tions that will describe the educational conditions under which tests would be expected to operate in the future.

"2. An understanding of diverse groups of young people at different points in their educational careers and the problems they confront.

"3. A reexamination of the theory of testing from the perspective of several fields in the social sciences, together with a review of the empirical evidence relating to testing that has been developed by researchers in these disciplines.

"4. An initial formulation of the desirable properties and functions that should characterize the Board's tests a decade hence.

"The Commission is asked to describe a comprehensive set of testing activities supporting open access to higher education under conditions in which, as stated earlier, 80 percent of high school graduates and 70 percent of 18-year-olds, together with significant numbers of adults, will make up the college-bound population. The exact figures may be debatable, and the time at which this level will be reached may be even more so. The important point is that our reference is to mass higher education and to the full range of people making up the potential postsecondary population."

This assignment turned out to be more than the Commission accomplished in its three-year tenure, perhaps primarily because such a coherent program could be achieved only against a backdrop of an equally complete and coherent view of education and of the society in which it functions. Such a comprehensive and articulated view of society, of education, and of services like those offered by the Board was never attained by the Commission, although some members made valiant efforts to fulfill this expectation.

The difficulties entailed in establishing systematic and rational programs were hinted at in a wry and characteristically insightful speech to the Commission at its first meeting by S. A. Kendrick, then Executive Associate on the Board's staff. Mr. Kendrick commented on the Board's program ". . . as it is seen by

the employed staff on a rainy Monday morning in, say, February"[2] and pointed out how three considerations, capable of appearing as only administrative details, are powerful in limiting or changing rationally planned programs such as those the Commission might devise. These were the effect the form (dates, fees, and the like) of testing programs has on the comfort and working routines of the Board's members and clients, the opportunity tests offer for fighting curricular and other ideological battles within education, and the reactions the tests generate because of the unintended signals they send or the way they act as symbols.

In this first meeting the Commission decided to operate initially much in the style of a Senate investigating committee, with publicly heard testimony and supportive position papers. The Commission was aware that there was much criticism of testing in general and that the College Board's tests in particular had drawn a large amount of it. Consequently, the members asked the staff to prepare for them a summary of published criticism of testing and to invite David A. Goslin of the Russell Sage Foundation to write a background paper summarizing the results of the foundation's studies of testing[3] insofar as they impinged on criticisms of it. These steps were taken, and the requested materials were distributed before the Commission's second meeting, which was held in June 1967 for the purpose of hearing various witnesses on the same theme.

An annotated *Bibliography of Test Criticism* prepared the preceding May by Mrs. A. K. Pasanella, Winton H. Manning, and

2. Kendrick, S. A., *Rainy Monday*. New York: College Entrance Examination Board, 1967. Available from ERIC (see footnote 1, page 1). ED 039 393 MF 25 cents; HC 85 cents.

3. In June 1962, the Russell Sage Foundation initiated a series of studies of the social consequences of standardized intelligence, aptitude, and achievement testing in the United States. Several volumes have so far resulted; those published to date (others are in preparation) are:

Goslin, David A., *The Search for Ability*. New York: Russell Sage Foundation, 1963. (*Footnote 3 is continued on page 4.*)

Nurhan Findikyan of the Board's research staff for the Commission is of course now somewhat dated, but readers who wish to review recent criticisms may find it useful, as did the Commission.[4] Mr. Goslin, who kindly accepted the Commission's invitation to prepare a paper and consult with its members, submitted *Criticism of Standardized Tests and Testing* in an attempt to ". . . bring together all the criticisms that have been leveled against tests and to place them in an analytical framework that would permit a systematic evaluation of their validity."[5] One major conclusion of Mr. Goslin's analysis—and one shared by the Commission—was that it is necessary to ". . . begin thinking about tests in much broader perspective—one that includes consideration of the social effects of tests as well as their validity and reliability."[6] In addition to these background papers, a special issue

(*Footnote 3, continued from page 3*) Brim, Orville G., Jr.; Neulinger, John; and Glass, David C., *Experiences and Attitudes of American Adults Concerning Standardized Intelligence Tests. Technical Report No. 1.* New York: Russell Sage Foundation, 1965.

Brim, Orville G., Jr.; Goslin, David A.; Glass, David C.; Goldberg, Isadore, *The Use of Standardized Ability Tests in American Secondary Schools and Their Impact on Students, Teachers, and Administrators. Technical Report No. 3.* New York: Russell Sage Foundation, 1965.

Goslin, David A.; Epstein, Roberta R.; Hallock, Barbara A., *The Use of Standardized Tests in Elementary Schools. Technical Report No. 2.* New York: Russell Sage Foundation, 1965.

Brim, Orville G., Jr., with Crutchfield, Richard S., and Holtzman, Wayne H., *Intelligence: Perspectives 1965: The Terman-Otis Memorial Lectures.* New York: Harcourt, Brace & World, 1966.

Goslin, David A., *Teachers and Testing.* New York: Russell Sage Foundation, 1967.

Armor, David J., *The American School Counselor.* New York: Russell Sage Foundation, 1969.

4. New York: College Entrance Examination Board, 1967. Available from ERIC (see footnote 1, page 1). ED 039 395. MF 25 cents; HC $2.90.

5. New York: College Entrance Examination Board, 1967. Available from ERIC (see footnote 1, page 1). ED 039 392 MF 25 cents, HC 1.80. Published as "What's Wrong with Tests and Testing." *College Board Review*, No. 65, Fall 1967, pp. 12–18 (Part I); No. 66, Winter 1967–68, pp. 33–37 (Part II). A slightly condensed version was published as "Standardized Ability Tests and Testing" in *Science*, Vol. 159, February 23, 1968, pp. 851–855.

on testing of the *American Psychologist*,[7] and letters from Robert I. Sperber, Superintendent of Schools in Brookline, Massachusetts, and from Kenneth B. Clark, President of the Metropolitan Applied Research Corporation (MARC), were circulated to the Commission's members and to its witnesses.

At the Washington meeting, Messrs. Clark, Goslin, and Sperber were joined by other witnesses or consultants on criticisms of testing. These included Arthur Brayfield, Executive Officer of the American Psychological Association; Albert P. Maslow, Chief, Personnel Measurement Research and Development Center, United States Civil Service Commission; Elting Morison, Acting Master, Ezra Stiles College, Yale University; James Nixon, former student body president of San Francisco State College; Gerald Holton, Codirector of Harvard Project Physics and Professor of Physics, Harvard University; Banesh Hoffmann, Harvard Project Physics and Professor of Mathematics, Queens College; Brandon Sexton of the Education Staff of the United Auto Workers Union and Director of Training for the Citizens Crusade Against Poverty; and John A. Sessions, Staff Representative for Education, AFL-CIO, and Member of the Board of Education of the District of Columbia.

Having in its initial meeting exposed itself to criticisms and commentaries in the public domain on testing, the Commission next turned in its second meeting to a more focused view of the Board's most pervasive tests. In October 1967 the Commission met to hear testimony primarily from representatives of the men and women who, as members of advisory or examining committees, control the development of the Board's most influential tests, and those who, as members of the staff of schools and colleges, use those tests' scores.

In preparation for this meeting the members of the Commission had been sent two background papers, one prepared by

6. Ibid, last page of ERIC manuscript.

7. *American Psychologist*, Vol. 20, No. 11, November 1965.

Sam A. McCandless, a member of the Board's Commission staff, and entitled *A Brief Description of the Historical Background and Current Status of Testing Programs of the College Entrance Examination Board*,[8] the other prepared by William W. Turnbull, Executive Vice President of Educational Testing Service, and entitled *Relevance in Testing*.[9] Mr. McCandless' paper is now outdated because of recent developments in the Board's testing programs, but it provides a useful snapshot of the development of these programs up to the time the Commission began its work. Mr. Turnbull's paper suggested that the Board's program of examinations must be as diverse as the nation's secondary and postsecondary educational programs and their students and provided a provocative conception of how the current testing programs could best be further developed.

Mr. Turnbull was joined as a witness by teachers, professors, high school counselors, and college admissions and placement officers who among them represented the people most responsible for the nature of the Board's most influential tests and for the use of their results. In all, 18 such witnesses gathered before the Commission into panels on the Scholastic Aptitude Test (SAT), on the Achievement Tests in English, on the Achievement Tests in mathematics and science, on the Achievement Tests in foreign languages, on the Achievement Tests in history, on the use of all these tests in schools, and on their use in colleges. Each test was usually represented by the chairman of the appropriate Board examining committee.

Following the October 1967 meeting, the Commission decided that it needed a private meeting in which to discuss the testimony it had heard and the background materials it had read,

8. New York: College Entrance Examination Board, 1967. Available from ERIC (see footnote 1, page 1). ED 039 394. MF 25 cents; HC $2.35.

9. New York: College Entrance Examination Board, 1967. Available from ERIC, (see footnote 1, page 1). ED 039 397. MF 25 cents; HC $1.10. Published as "How Can We Make Testing More Relevant?" in *College Board Review*, No. 67, Spring 1968, pp. 5–10; and as "Relevance in Testing" in *Science*, Vol. 160, June 28, 1968, pp. 1424–1429.

and in which to evolve a strategy for the preparation of its report to the College Board. Such a meeting was scheduled for the following February. Over the preceding semester break, the Chairman and staff of the Commission met with the dispersed members in small groups to ascertain whether sufficient consensus seemed to be emerging to allow part of the February 1968 meeting to be devoted to planning the production of the Commission's report.

Both in these small-group meetings and in the meeting of the full Commission in February 1968 consensus was recognized, and there was considerable sentiment in favor of beginning work on a written report in the near future. Accordingly, the Chairman appointed three other members of the Commission, Messrs. Coleman, Pearson, and Prentice, to join him on an Editorial Committee for the purpose of fashioning an outline for the Commission's report. The outline was completed late in the spring of 1968, and the Commission next met in June 1968. In this meeting subcommittees of the full Commission developed notes on previously assigned chapters of the outline, and at the end of the meeting it was hoped that over the summer these could be developed and integrated into a report of the Commission to the College Board. The next meeting, at which a resulting draft report was to be reviewed, was scheduled to coincide in October 1968 with a Conference on Computer-Based Instruction, Testing, and Guidance jointly sponsored by the College Board and by the Social Science Research Council.[10] However, the draft report prepared from the subcommittees' notes was not thought by the Editorial Committee to be sufficiently close to the members' expectations for it to be reviewed. Consequently, the meeting projected for that purpose was canceled.

10. Holtzman, Wayne W., ed., *Computer-Assisted Instruction, Testing, and Guidance*. New York: Harper and Row, Publishers, 1970, is a report on the Conference, which was chaired by Mr. Holtzman. Two other members of the Commission on Tests, Patrick Suppes and David V. Tiedeman, vere participants, and several members attended as observers.

The Editorial Committee of the Commission met the following December to consider the previous approach to a report and discuss possible alternatives. The staff of the Commission at this stage volunteered the opinion that the difficulty in capturing the consensus that had seemed to be emerging might have been due to the members' opinions having been expressed in terms too general to allow a set of action proposals, which could also enjoy consensus, to be generated from them. If this was the case, it seemed desirable to seek consensus first at the level of recommendations for action directed to specific issues, and to hope that the results could be integrated into a coherent report, even though it was not likely to be a report derived from any unitary view of the nature of education or society and the place of testing within them.

This suggestion had considerable appeal for the members of the Editorial Committee, and after being forwarded to the Commission members for their approval early in 1969, for them as well. Consequently, an outline of the issues that seemed to confront the Commission as a result of the testimony it had heard and of its deliberations to that date was prepared, and individual members were urged to submit to the full Commission "briefs" arguing for recommendations addressed to those issues or to issues of their own choosing.

The response to this request was gratifying; a dozen or so "briefs," some of them in fact rather long, were submitted in time for review at a meeting in March 1969, and a few more briefs were submitted for review at a subsequent meeting in June. Circulated before these meetings, the briefs were discussed by the members in attendance, and their authors revised them insofar as they felt it desirable in order to gain fuller acceptance of their proposals to the Commission.

Following the June 1969 meeting these briefs, with the concluding recommendations that their authors proposed the Commission make to the College Board, were circulated in their final form to the members of the Commission with a request that the

members indicate whether or not they endorsed the proposed recommendations and that they attach to those "votes" whatever memorandums they would like submitted with the briefs by way of comment, reservation, or dissent. By late summer of 1969 this endorsement process was largely complete, and its results were used to formulate a general statement on behalf of the Commission as a whole. This second attempt at a report of the Commission to the College Board was partially successful; the general statement was rewritten after a review by the Commission in November 1969, and the volume in hand, which was approved for submission by the Commission in the summer of 1970, is the eventual result.

The report of the Commission on Tests to the College Entrance Examination Board is then submitted in two volumes. One volume, entitled *Briefs*, contains materials written by individual members of the Commission. Those materials are the foundation of this other volume, which explains the consensus that emerged around, or is implicit in, the members' individually prepared proposals and arguments for them. Readers who wish to examine in detail the individual members' proposals, the rationale behind them, and the extent to which their fellow members expressed endorsement of their suggested recommendations or took exception to them should refer to *Briefs*.[11] A listing of the recommendations that individual members proposed that the Commission make to the College Board, and that the Commission forwarded to the Board as suggestions for its consideration, is given in the concluding summary of this volume of the Commission's report (see pages 110–118).

Two things were clear from the outset of the Commission's work. One was that the Commission was to make to the College Entrance Examination Board recommendations that the Commission's members thought to be in the public interest, and that

11. College Entrance Examination Board, *Report of the Commission on Tests: II. Briefs*. New York: College Entrance Examination Board, 1970. Publications Order Office, Box 592, Princeton, New Jersey 08540. $3 per copy.

these were to be made without particular regard for the Board's corporate interests or for the interests of its member institutions. The other was that the Commission's task was a difficult one because of the complexities of the intersection of tests with education and society and because of the uncertainty of future developments in all three.

The College Board recognized both of these realities. As to the first, it gave the Commission a staff and a budget and let it alone to do its work without intruding the advice of the staff responsible for the management of the current testing programs of the College Board. As to the second, the Board expressed its confidence in the Commission and offered to extend its tenure if necessary.

The Commission has acknowledged its appreciation to its staff; it did not accept the Board's offer to extend its tenure (except insofar as was necessary for preparing and reviewing drafts of its report), not because it feels that it has settled all the many issues surrounding its work but because it feels it has settled all it expeditiously can, and because it feels that the early resolution of some of the issues it has confronted is urgent. The Commission therefore commends its report to the College Board's consideration and hopes that the issues surrounding college entrance testing and its associated services will continue to receive widespread public debate. *Righting the Balance* is the Commission members' collective contribution, and *Briefs* their respective individual contributions, to that debate.

College Entrance Testing and the College Board

The College Entrance Examination Board, known colloquially as "the College Board" and familiarly as "the Board," is an association of schools and colleges that concerns itself primarily with the movement of students into college. The chief purpose of the College Board is to increase access to that movement and to make it more equitable and efficient. To this end the Board offers its services to colleges, to schools, and to students and their families. All operational phases of the College Board's testing programs and other services are conducted by Educational Testing Service (ETS)—a separate and independent nonprofit agency established in 1947 by the College Board, the American Council on Education, and the Carnegie Foundation for the Advancement of Teaching. In addition to its responsibilities for Board programs, ETS conducts a number of its own testing programs and services and administers other national testing programs.

Not all the Board's services have to do with tests: as a membership association the Board provides a forum for the consideration of educational purposes and policies; one of the Board's activities, the College Scholarship Service (CSS), exists to provide an analysis of students' financial need. And not all the Board's testing programs have to do strictly with college entrance. Its College-Level Examination Program (CLEP) is for example intended to be primarily a vehicle for the accreditation of college-level learning however and wherever gained. Nevertheless, the Board's college entrance examinations are predominant in its activities, and to literally millions of students "the college boards" means simply if significantly a battery of tests. By this term they refer to the examinations in the Admissions Testing Program of the College Board, particularly to the two-part—verbal and mathematical—Scholastic Aptitude Test that is better if not fondly known as the "SAT."

The SAT measures the developed verbal and mathematical aptitude of students who aspire to attend one of the approximately 900 colleges that require it of at least some students for admis-

sion. It is also extensively used as a criterion for the award of competitive scholarships, although the amount of the scholarship, once won, is increasingly determined by an analysis of financial need such as that supplied by the College Scholarship Service.

Although the abilities that the Scholastic Aptitude Test measures are developed abilities, those abilities normally develop rather slowly over a long period of time and under the influence of factors not well understood. This means that students cannot late in high school hope to improve their performance on the SAT appreciably by studying for it, despite the claims of "coaching schools" to the contrary.[1] It also means that high schools should be neither proud nor ashamed of their students' SAT scores, since their students' recent schooling had little if any demonstrable effect on them. Nor does practice improve performance on the SAT, at least not for those students who have taken it or similar tests previously—and nowadays virtually all students have. This is not to say that the abilities that are measured by the Scholastic Aptitude Test are impervious to change; it is to say that if verbal and mathematical aptitude, especially verbal aptitude, can be developed within the length of, say, a school year, no one has yet demonstrated a way to do it.

In this respect the SAT differs from the Achievement Tests that accompany it in the Admissions Testing Program. These are tests in various academic subjects; there are at least two Achievement Tests in each of English, mathematics, history, science, and foreign languages. All good teachers know how to prepare students for them, although they sometimes feel that their courses' curriculums are cramped by pressure to do so. The Achievement Tests may be said to be less important than the SAT to students generally, since "only" about 350 of the some 900 colleges requiring the SAT also require at least some applicants to take its

1. College Entrance Examination Board, *Effects of Coaching on Scholastic Aptitude Test Scores*. New York: College Entrance Examination Board, 1968, 28 pp.

subject-matter companions. Even those colleges usually allow candidates for admission to choose 3 tests from among the 14 offered, although the English Composition Test is often required as 1 of the 3.

The pervasiveness, salience, and influence of the examinations —especially the SAT—in the Admissions Testing Program is such that "the college boards" is a household expression in many states. This is a very recent development. The College Entrance Examination Board was founded in 1900, and as late as 1950 its college entrance examinations—the only kind of tests it then offered—were being taken by probably not more than 5 percent of all high school graduates. By 1960 this percentage had quadrupled, and currently the seniors who sit for the SAT are more than a third of their class.

The increasing use of the Scholastic Aptitude Test by high school graduates since 1950 is but part of a larger movement in America toward the use at the point of college entrance of externally prepared and administered examinations. This movement dates from the founding of the College Board, but the examinations used in the early years were radically transformed shortly after World War I, and the increasing use of external college entrance tests has greatly accelerated since World War II.

Both the gradual transformation of college entrance tests between World War I and World War II and the rapid acceleration in their use after World War II are worth more than passing mention. The transformation shows that college entrance tests have undergone fundamental changes in the past because of changes in the prevailing values of educational systems. The values nascent in the universities since the turn of the century and in college entrance tests since the 1920s—values that now pervade virtually all schools and colleges in the wake of the "academic revolution"—may be themselves challenged. As a result of the rapid acceleration in the use of college entrance tests since World War II, such tests are now so pervasive, and they are at least potentially so influential, that such a challenge, via tests,

is certainly an opportunity, and perhaps it is a social imperative.

The rise of academic aptitude testing

American colleges had entrance tests before 1900; in fact until 1870 their use was truly universal, but at that time each college had its own tests. In 1870 the University of Michigan, followed later by most of the state colleges in the (then) West and by many Eastern colleges as well, began to admit students by "certificate" or "diploma." This meant essentially that the colleges and universities—later regional accrediting agencies—approved certain secondary schools; applicants from these schools were then admitted without examination. Even those colleges continued to require entrance tests of some candidates.

Students in the late 1800s were assured of admission to "the college of their choice" as long as they were reasonably diligent —often if they weren't—in preparing themselves for that particular college's examinations. But these examinations were often truly horrors. As written in 1903:

"The college entrance examination as it existed a decade or two ago, before there was general agreement among colleges as to what it should be or how conducted, when each institution was sufficient in itself and was an absolute dictator among a small coterie of preparatory schools, when the examination papers of each college were chiefly bundles of the eccentricities of one or two superannuated professors, full of tricks and puzzles, appealing to memory and guesswork, then the entrance examination was truly an abnormal affair."[2]

To subject students to such an examination was of course outrageous, but then as now students were powerless in the admissions process. Their schoolmasters were not, however, and they together with some influential college presidents, chiefly Nicholas Murray Butler of Columbia and Charles W. Eliot of Harvard, agitated until the College Entrance Examination Board

was founded in 1900 to give a common, and better, set of examinations for college entrance.[3]

These examinations were subject-matter examinations; they prescribed quite rigidly and in great detail what was to be taught and—at least implicitly—how it was to be taught. Colleges used them not only to decide whom to admit but also and primarily to specify what those students who sought admission *had to learn* in order to gain it. Thus the criterion for college admission was in those days an acceptable level of knowledge of a curriculum that varied somewhat from place to place. What mattered most was how much a student knew—not his or her aptitude for the work.

This regard for scholastic accomplishment, and for scholastic aptitude only insofar as it was reflected in specific learning, was early in this century giving way to an increasing emphasis on mental prowess. The College Board's examinations provided a device by which the capriciousness of a few colleges was curbed —its early tests were used primarily by private, Eastern colleges. These examinations also provided a more rational device by which those colleges could control the quality—conceived of in terms of specific and specified subject-matter learning—of the education the secondary schools gave their applicants.

But during the second decade of this century "quality of education" was coming to be conceived of differently in the leading colleges, and there was pressure for the tests to change accordingly. The call was for "comprehensive" examinations—that is

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2. Broome, Edwin Cornelius, *A Historical and Critical Discussion of College Admission Requirements*, the *Columbia University Contributions to Philosophy, Psychology, and Education*. Vol. XI, Nos. 3–4, April 1903. The quote is from pages 121–122 of the College Board's 1963 reprint, copies of which may be ordered from College Entrance Examination Board, Publications Order Office, Box 592, Princeton, New Jersey 08540. $2 per copy.

3. The best reference for the early history of the Board is Fuess, Claude M., *The College Board: Its First Fifty Years*. New York: Columbia University Press, 1950, 222 pp.

for tests not of facts nor of mastery of assigned subject matter but rather of a student's ability to reason and to compare and correlate the material of a broad field of study. Harvard, Yale, and Princeton sponsored the provision of such tests, which were first offered by the College Board in 1916. This radical innovation was bitterly opposed by conservative academicians who correctly perceived that the fundamental basis of their enterprise was shifting, and the "restricted" examinations, as the older ones were aptly called, were continued alongside the newer examinations that emphasized power more than knowledge.

After World War I tests for college entrance were caught up in the testing movement that was also sweeping the elementary and secondary levels of education. This movement consisted of the widespread use of standardized and objective tests of both academic achievement and aptitude for academic work, the latter then as now often being mistaken for general "intelligence." The introduction of such tests into the college entrance process in the United States followed the construction and apparently successful use of the "Army Alpha" test for personnel classification during World War I. Many psychologists—including Carl C. Brigham, who later developed the SAT—participated in that work and were encouraged by their experience with it to try to adapt these new "mental" or "psychological" or "intelligence" tests (as they were variously called) to the selection or placement of college freshmen.

Immediately after the war such tests were constructed and tried out with students at several colleges that were members of the College Entrance Examination Board. These aptitude tests seemed to be a useful means for selecting freshmen, and selecting the most promising students from among more applicants than they cared to accept had been a problem for many colleges since before World War I. However, such tests were expensive to construct since they consisted of relatively large numbers of short questions or "items," each of which had to be perfected by being tried out on a large number of students. There naturally arose an

interest in a single test that was centrally prepared and administered for the use of several colleges.

The American Council on Education (ACE) took the lead in providing an aptitude test for use at college entrance. The College Board, again after some initial resistance from conservative members, followed suit in 1926 when it first offered the SAT alongside its traditional "restricted" subject-matter examinations and its more progressive "comprehensive" subject-matter examinations. The name for the Board's new test was carefully chosen; the committee that developed its first edition under Brigham's direction stated that it used the term "aptitude" ". . . to distinguish such tests from tests of training in school subjects. Any claims that aptitude tests now in use really measure 'general intelligence' or 'general mental ability' may or may not be substantiated."[4]

The question for colleges, however, was whether aptitude tests such as the SAT—whatever they measured—could be useful at or after college entrance in selecting, placing, or advising students. This question was attacked empirically, and the results were positive. Experiments indicated that although high school grades were as might be expected nearly always the best single predictor of college grades, adding aptitude scores to high school grades increased the accuracy of the prediction. So did adding the grades from the Board's restricted and comprehensive subject-matter examinations, but usually not so much. The best set of predictors, and the best coefficients or "weights" for each of them in the prediction equation, were often different for men than for women, and they also varied from college to college, from program to program, and from course to course—mathematics scores were more useful in scientific and engineering schools, and so forth.

This situation has not changed substantially in the past 40

4. Brigham, Carl C., *A Study of Error*. College Entrance Examination Board, 1932.

years. These generalizations hold, at least, for the populations constituting the majority of students applying for college entrance in recent years. The high school average (or class rank) is still the best single predictor of college grades; aptitude test scores such as those the SAT provides add appreciably to the accuracy of that prediction, and scores on tests such as the Board's Achievement Tests in specific subject-matter areas add only a modest amount of predictive power to the combination of high school grades and aptitude test scores. Similarly, aptitude test scores would add only a modest amount of predictive power to a combination of high school grades (or class rank) and achievement test scores. However, if achievement tests carry the burden of providing the larger part of the incremental gain in predictive power over that obtained with school records alone, then schools become increasingly concerned that their curriculums are being overly influenced by the nature of the external tests. And making the SAT wholly, and the Achievement Tests largely, independent of any particular curriculum has been a goal of the College Board since the 1930s when this concern became prominent.

The certainty of such prediction is of course in any individual case always in doubt; surprisingly it has not increased substantially in the same 40 years despite continuous experimentation and development of improved items. This is apparently at least partly because there is a large amount of sheer unpredictability in college grades. They are, in a technical sense, not very *reliable*, something many students have illustrated by giving a paper written for one section of a course to a friend to use in another section of the same course, where it received an entirely different grade. Nevertheless, for a large and heterogeneous group of freshmen, the combination of high school grades and aptitude test scores will usually predict about two-thirds of their freshman grade-point averages within half a letter grade or so.

Such predictions help both colleges to select students and students—when the colleges release the information (unfortunately

not many do)—to select colleges. However, a cautionary note written by Brigham in 1928 is still valid:

"The present status of all efforts of men to measure or in any way estimate the worth of any other men, or to evaluate the results of their nature, or to reckon their potential possibilities does not warrant any certainty of prediction . . . . To place too great emphasis on test scores is as dangerous as the failure to properly evaluate any score or mark in conjunction with other measures and estimates which it supplements."[5]

But the uncertainties of predicting future academic success with aptitude tests added to the conventional predictors were less than the uncertainties of using only high school grades and traditional tests. The older restricted and comprehensive subject-matter tests were kept available alongside the new SAT and still used by the Board's member colleges. However, by the 1930s the older tests were under increasing attack both from the schools, which opposed the constraints such tests placed on the secondary curriculum, and from the colleges, which wanted better predictors of future performance. The colleges also wanted tests that would help place students rather than simply specify their prior preparation, especially since the preparation specified by the Board's subject-matter tests was not available to students from schools in many parts of the country.

There were two chief results of this criticism. One was a vigorous attempt to improve the Board's subject-matter essay examinations and at the same time to make them less restrictive on the schools and more useful to the colleges in placement. The other was to develop objective tests in subject-matter areas as alternatives to the Board's traditional essay examinations. Both tasks were supervised by Brigham whose emphasis on rigorous statistical analysis of tests met much opposition. The resulting controversy was handled by the Board as it had dealt with the earlier schism over the restricted and comprehensive essay tests:

5. Ibid.

parallel programs were offered, and the colleges chose whichever they preferred. They increasingly chose the new objective Achievement Tests—the first of which were borrowed from the American Council on Education, which had again preceded the more conservative Board—and the Scholastic Aptitude Test.

The democratization and nationalization of the College Board

As in the earlier controversy, the more prestigious colleges were in the vanguard of the liberals, this time because they were interested in attracting scholarship candidates from all over the country in order to democratize and nationalize their student bodies. The Board's older essay tests were not suitable for this purpose. Essay tests had never been popular in the West, and the Board's were too tied to a specific curriculum and furthermore to one not generally taught, especially not outside the East. Moreover, the Board's essay tests were given in June, by which time the best candidates might have already committed themselves to colleges nearer home.

In 1937 Harvard, Yale, and Princeton prevailed upon the Board to offer on one day in April a series of entirely objective tests that consisted of the SAT, given in the morning, and the objective Achievement Tests, given in the afternoon—the basic pattern of the tests in the Admissions Testing Program today. This series of tests was originally intended for scholarship candidates only, but colleges began sending all their candidates to it and its popularity grew. At the same time the popularity of the traditional essay tests declined. They persisted until the onset of World War II, when they became obviously impractical because they could not be given in June and read before the wartime summer sessions began. And since they took a full week to administer they could not be given earlier in the year. After the war they were never reinstituted, and the Board's examinations have been almost entirely objective since 1941.

After World War II the colleges were again faced, as they had

been just before World War I, with what seemed to be hordes of candidates. And again, insofar as they were able, colleges chose for the most part to raise their standards for admission rather than expand their enrollments. Some colleges were not sufficiently in demand to be selective, and many state colleges were prohibited by law from being so. The former made do and the latter responded by selecting after admission—first failing and then expelling large fractions of their freshmen. Colleges that could raise their standards for admission preferred students with better high school grades. But grades at one school were of course not always comparable with grades at another, and some private colleges were fishing in a national pool that included thousands of schools, most of them of necessity unknown to the colleges. Scores on standardized examinations provided a common measure for all candidates, and they were increasingly used to improve access to college for students from schools unknown to the colleges. The College Board's examinations were convenient and respected, and their use spread widely and rapidly in the 1950s.

In 1954, use of the examinations became a condition of collegiate membership in the Board. Until after World War II, the Board had had the aura of an exclusive club. From 1906 to 1942 some endowment had been a condition of membership; this was replaced in 1942 by inclusion in the list of institutions approved by the American Association of Universities (AAU). However, a number of nonmember colleges had begun sending first their applicants for financial aid and then all their candidates to the Board's one-day April series of objective tests after they were instituted—primarily for Harvard, Yale, and Princeton—in 1937. The Board recognized that institutions using its services should have a say in the conduct of these services, a principle still in force and through which colleges that use the College Scholarship Service but not the Board's tests may join the Board. After 1946 accreditation by the appropriate regional accrediting association replaced being on the AAU's list as a condition of

membership. In 1959 membership was offered to secondary schools directly rather than only to associations of them, which had always been represented. The membership of schools was however restricted originally to one-third—it is now almost one-half—of the collegiate membership.[6]

In 1939, just after the inauguration of the new one-day April series of objective tests, the collegiate membership of the College Board was 42. These colleges were concentrated in the East, were largely privately controlled, and were uniformly prestigious. By 1950 there were under the relaxed requirements 115 collegiate members; by 1960 there were 350 collegiate members despite the addition of the test-use requirement in 1954; and in 1969 the collegiate membership was over 850.

Such large increases in membership inevitably changed the character of the College Board, and it has become increasingly representative of the universe of all institutions of postsecondary education. This development seems to have stemmed ultimately from the decision in the late 1930s to offer a convenient battery of objective aptitude and achievement tests to aid a few undergraduate colleges of leading universities in their efforts to democratize and nationalize their student bodies. The freshmen admitted to these colleges were consciously selected for the most part on uniformly applied criteria of academic attainment and academic promise. Other colleges followed the same practices insofar as they were able, and many of them were inducted into the Board and into use of its services in the process, although many of them were not prestigious, nor private, nor in the original Eastern domain of the Board. Thus the College Entrance Examination Board became democratized and nationalized in the process of helping its formerly exclusive members make their student bodies so.

6. Noyes, Edward S., "*A History of College Board Membership Policies.*" *College Board Review*, Spring 1967, No. 63, pp. 24–29; Summer 1967, No. 64, pp. 21–26.

Response to an expanded clientele

During its period of most rapid growth—the 1950s and 1960s—the College Board was also diversifying its services generally and its testing programs in particular. As to the former, regional offices of the Board's staff, and regional meetings of its constituency, were established to help that staff to keep in close touch with the rapidly expanding constituency. Financial aid services were added—by incorporating the College Scholarship Service into the Board—to the traditional entrance services, and new testing programs were inaugurated or adopted to meet emerging needs.

The College Board's guidance services evolved from the entrance services provided for colleges. The first edition of *The College Handbook* was published in 1941; the early *Handbooks* were essentially a digest of the member colleges' admissions requirements and procedures, but later editions were expanded to include statements similar to those found in college catalogs. *The Handbook* was supplemented in 1961 and after that by the *Manual of Freshman Class Profiles*, which was intended for guidance counselors and admissions officers only, and which included for some member colleges quantitative descriptions of their applicants and of their admitted and entering freshmen. These data included test-score and grade distributions, so that students—if they could find a counselor who had the *Manual*—could be told how their scores and grades compared with applicants and enrolled freshmen at those colleges that supplied the data. The current *Handbook*, which is still available directly to students, incorporates for the first time data that were formerly restricted to the now discontinued *Manual*. It also includes for some colleges another innovation—descriptions of their college's "climate" or "personality" based partly on Board-supplied questionnaires that their students completed.

Information about the characteristics of colleges' applicants and students is of course of limited usefulness to students unless

they can somehow relate their own characteristics to them, or have that done for them by guidance counselors. For nearly 60 years—until 1958—the College Board told students nothing about themselves nor about their potential relationship to various colleges except through counselors. In that year schools were for the first time authorized to distribute to students their scores on the Board's tests; virtually all the schools are believed to have quickly chosen to do so. Distribution of students' scores is still at the schools' discretion, but few if any schools are believed to withhold them from students.

Scores alone are of course of little use to students; even with the interpretive material that has accompanied them from their first release, students can tell only how they compare with national samples of students in their school grade and with national samples of college freshmen. Such information may help students decide *whether* to go to college at all but is of course not designed to help them to decide *where* they might like to go. Information supportive of the latter decision is, 20 years after scores were first released to students, available to students directly—assuming they have access to *The College Handbook*—for those member colleges that allow the Board to publish it.

However, students take the tests in the Board's Admissions Testing Program late in their junior year or early in their senior year, and that is too late in many cases for constructive planning on their part for college attendance, if not too late for colleges to make their plans. Consequently, in 1959 the College Board converted the Scholarship Qualifying Test (SQT), which it had previously offered for juniors as a screening device for sponsors of competitive scholarship programs, into the Preliminary Scholastic Aptitude Test (PSAT).

A major part of the cost of external college entrance testing programs—now that they are "objective" with computer-graded answer sheets rather than essay tests that require independent readings by several teachers in order to produce reliable scores—derives from the security measures that guarantee the

scores' credibility for institutional users. Since the PSAT produces information used only by students and counselors, security measures can be relaxed, and students can inexpensively take the PSAT as sophomores or early in their junior year to get scores that rather accurately predict the SAT scores they will eventually obtain. The PSAT scores can then be used with *The College Handbook* for educational planning relatively early in their secondary years. Currently over one and a quarter million students take the PSAT each year; this volume compares with the more than one and a half million students who take the SAT, and many of them Achievement Tests as well, in the Admissions Testing Program. These volumes exceed those of other programs but may not do so for long since the Board's still newer programs are aimed at larger clienteles than those for which the SAT and the PSAT are appropriate.

In the middle 1950s the College Board added two entirely new programs. One was the previously mentioned College Scholarship Service (CSS) that was founded to help husband scarce financial aid resources by tying aid to centrally computed need for it. The other, the Advanced Placement Program (APP), grew out of a concern focused first at the Ford Foundation and given later impetus by sputnik and by schools threatened by plans for early—that is, before high school graduation—admission of their most talented students to college. The Advanced Placement Program encourages able students to do college-level work while they are still in high school, and the Advanced Placement Examinations provide a mechanism by which successful students can be placed ahead or awarded credit or both after admission to one of the several hundred participating colleges.

The three-hour AP exams, which are partly essay tests, are currently taken by about 55,000 students—which small volume compared with the millions who take the PSAT and the SAT is nevertheless more than the Board's total examination volume in the years before 1950. The AP candidates include 5 percent of their class, are distributed among over 10 percent of the na-

tion's schools, and enter half its colleges, although the majority of them are concentrated in half of those schools and in 10 percent of those colleges. The latter are for the most part selective and prestigious colleges heavily involved in preparing future candidates for graduate school. In this respect, and in the fact that the AP examinations are written *and* read (the essay sections) by committees of professors and teachers, the Advanced Placement Program is much like the Board's pre-World War II testing program. But with the important difference that the AP examinations are used exclusively for college placement, not for admission as well.

To these programs were added two others in the 1960s, roughly concurrently with the appointment of the Commission on Tests to review the Board's testing functions in American education. One of these newest College Board programs is a response to the increasing importance of two-year community or junior colleges in American higher education; the other results from a concern with "adult" education. Either, if successful, would greatly widen the impact of the Board's testing programs, whereas the PSAT and the Advanced Placement Examinations have mostly the effect of increasing the depth to which the SAT and the Achievement Tests in the Admissions Testing Program impinge on students, schools, and colleges.

The College-Level Examination Program (CLEP) aims at providing instruments through which participating colleges—more than 500 to date—can provide credit for some of the college-level learning now acquired by the millions of people out of school and not affiliated with any educational institution. CLEP's examinations can be used to certify nontraditional college-level education, including independent study, radio, television, and correspondence work. This program is still in its infancy and partially supported by the Carnegie Corporation.

The Comparative Guidance and Placement (CGP) Program includes a complex battery of examinations, some of which are experimental, as well as instruments that gather information about

student interests, goals, and need for financial aid. It is administered to students who are already enrolled in "open-door"—mostly but not exclusively two-year—institutions where the principal decisions to be made are those about choice of program and course placement rather than admissions. In its first year (1969–70) as an operational program—two years of experimentation and developmental work preceded its operational use—it was used by about 37,000 students in some 65 institutions.

That the College Board's examinations, despite their diversification and their remarkable growth in collegiate use and consequently in candidate volume since 1950, did not begin to exhaust the market for externally prepared and administered examinations intervening between high school and college is evidenced by the even more remarkable growth after 1959 of an entirely new college entrance examination service. The American College Testing (ACT) Program[7] was announced in that year and currently tests in its Student Assessment Program as many high school seniors as does the College Board—about one-third, or one million, of them. The two programs do not test exactly the same third—either ACT's or the Board's tests seem to be predominant in a given state—but many students presumably take both batteries. A third national external testing program is operated by the National Merit Scholarship Corporation[8] which currently administers the National Merit Scholarship Qualifying Test (NMSQT) to approximately 800,000 students each year.

This account of the increasing incidence in recent years of externally prepared and administered college entrance testing in general, and of the Board's tests in particular, would be incomplete if it failed to mention the many statewide testing programs

7. For information about ACT's services, write to American College Testing Program, Inc., Box 168, Iowa City, Iowa 52240.

8. For information about the National Merit Scholarship Corporation and about the National Merit Scholarship Qualifying Test write to the National Merit Scholarship Corporation, 990 Grove Street, Evanston, Illinois 60201.

that abound at all levels in the elementary and secondary public schools, and that often have their parallels in nonpublic schools. Such programs serve many uses, generate far more test volume than all the externally offered tests put together, and probably have a greater if less noticeable effect on students' education and opportunities. Some—notably those in Florida, Minnesota, and Washington (state)—are used for college admissions, and many are used for counseling college-going students, for guiding them into college-level programs, or for the award of scholarships. However, it seems likely that the chief effect of the multitudinous school, district, and state testing programs on students' educational and other opportunities is through their use in tracking and generally "typing" students into categories relatively early in their school careers. The crucial decisions about curriculum and course placement for precollege students come too early—at about the seventh, eighth, or ninth grade—to be affected by the results of the national college entrance testing programs, or even by the College Board's anticipatory guidance service.

The importance of college entrance testing

Nevertheless, college entrance testing such as that offered by the Board is extremely important today. Ultimately the Board's tests' importance derives not from the fact that about 1,000 colleges require them and about 2,000,000 students take them each year, but rather from the fact that going to college has come to seem so important. Earlier in this century the Board's tests—or any other agency's—could have been taken by all college freshmen and still not have been as important as those taken by two-thirds of them today. Such tests are so important today because going to college is so important today.

Throughout this century about half of the nation's high school graduates have gone to college; since about 1960 this fraction has been increasing. However, from 1880 until 1950 or 1960 the incidence of college-going among high school graduates was

constant except for fluctuations during the Depression and the World Wars: about half of all white male high school graduates went to college and about 4 in 10 of all white female high school graduates and of all nonwhite graduates of both sexes went to college.[9] But there were, proportionately, so few high school graduates earlier in the century that it didn't make much difference to very many people where half of them went to college or what tests they had to take to do so.

As the incidence of high school graduation has grown so has the incidence of college-going and attendant external college entrance tests, of college graduation, and of graduate or professional school entry. If these trends continue, by about 1980 only 1 young American in 10 will not graduate from high school; well over half—6, perhaps 7—of the other nine will go immediately to college; and virtually all of this college entry will be mediated in part by tests, much of it by tests of the College Entrance Examination Board. Several factors, including geography, sex, social class, race, and high school record have much more to do with who goes where to college than do college entrance tests, of which the SAT is only one. The importance of the SAT in the admissions process probably varies from college to college, and the College Board does not intend that it should be as important as it appears to be for some admissions officers. However, all these determinants are interconnected, and the College Board's program of tests, if not the most important of them, is certainly one of the most salient. The tests are therefore a sort of lightning rod, which results in their drawing both useful criticism and criticism that could with more effect be directed elsewhere, but which also results in their being a convenient focus for discussion of the entire college entrance process and its implications for education generally and for society at large.

Statistics of growth such as those noted above for the rates of

9. Jaffe, A. J., and Adams, Walter, "Trends in College Enrollment." *College Board Review*, No. 55, Winter 1964–65, pp. 27–32.

high school graduation and college entry are usually delivered in a tone of approval in America, especially if they reflect as these seem to at least superficially an increase in educational attainment. However, it is not at all obvious that these trends, together or severally, are entirely desirable. To establish that would require a close look at what lies behind these statistics, and at what lies outside them, to see what are the social consequences of institutionalizing education for so long for so many.

One thing is clear: modern economy and modern society being what they are in the United States, anything—including obviously tests—that mediates college entry helps to determine in the process who will eventually get in which graduate schools, who will eventually (or immediately in the case of those who do not go to graduate schools) get which or no jobs, who meets and eventually marries whom, and so forth. To state it so, and to assert simultaneously that increasingly going to college seems to be the only way to "make it" in America today, implies the obvious: whether or where given students go to college must be a matter of great personal concern to both those students and to their parents.

But this is more than a matter of personal concern, because the mediating factors, including tests, also help to determine what *kinds* of students will eventually get into what *kinds* of graduate schools and will eventually get what *kinds* of jobs, and so on. That is, more status is attached to certain educational patterns than to others and to certain occupational and social roles than to others, and the former—to which people are distributed partly by test scores—are passports to the latter. But the process is apparently circular, because social, including racial, characteristics are related to the distribution of test scores: on the average, white children score higher than nonwhite children; middle-class children score higher than lower-class children, and so forth.

This existing process must be squared with the earlier assertion that the increasing use of the SAT and objective Achievement

Tests had helped some prestigious and formerly socially exclusive colleges democratize their student bodies. More precisely, they helped those colleges make their services accessible—via competition based partly on scholastic aptitude—largely to all the middle class, which of course includes most Americans, whereas they had formerly been restricted largely to the professional and managerial classes whose members could afford, and were disposed, to enroll their children in secondary schools teaching the previously required curriculum.

It is difficult to estimate precisely how much the SAT and similar tests have had or still have to do with providing social mobility via higher education; certainly their increasing use coincides with the increase in the socioeconomic diversity of selective colleges' student bodies. Strictly on the basis of SAT scores, however, the more socially advantaged students would tend to be accepted over the less so because their test scores tend to be higher; similarly whites would tend to be accepted over nonwhites, other than orientals. For example, if all (and only) the high school seniors who scored above the current national average (about 375) on the verbal sections of the SAT went to college, then nearly half of the white seniors of both sexes would go but only perhaps 15 percent of the black seniors would.[10] Thus a strict selection on the basis of scholastic aptitude, which is largely a matter of verbal ability, would promote some young people from modest circumstances and a few from America's "underclass" over more advantaged youth and would make the rate of college entrance for young women equal to that for young men. But rather than removing class and racial biases from American higher education it would reinforce them.

10. Kendrick, S. A., "The Coming Segregation of Our Selective Colleges." *College Board Review*, No. 66, Winter 1967–68, pp. 6–13.

The challenge

Considerations such as these make it clear that the tests and associated services intervening between high school and college, especially those of the College Board that touch directly as they do the lives of over a quarter of the nation's young people, are a matter of some importance, not just to the Board, those young people, and the institutions they attend, but also to society at large. So large and pervasive an enterprise should, as should the educational system it supports, be managed in the public interest. The challenge for the College Board is to discern that interest and effectively serve it.

Functions and Criticisms of College Board Tests

The preceding pages explain how and why the College Entrance Examination Board has come to face the challenge of discerning the public interest and effectively serving it. The charge to the Commission was to advise those schools and colleges which in association are the College Board about what this implies for their organization's testing programs. Specifically, the members of the Commission were asked to undertake a thorough review of the Board's testing functions in American education, to consider possibilities for fundamental changes in the present tests and their use, and to make recommendations based on their conclusions.

The Commission began its work with an examination of the criticisms of current tests and their use. This review left the members of the Commission, without exception, convinced that the College Board should continue, rather than abandon, its testing functions in American education. The Commission concluded, however, that the Board's current tests and associated services are in need of considerable modification and improvement if they are to support equitable and efficient access to America's emerging system of mass postsecondary education.

There are several functions that tests can and currently do serve in education; the Commission joins many critics in being dissatisfied with the ways in which they do so and with the results of the larger educational and educative processes in which they are embedded. The Commission has not concluded, however, that the public interest would be served by the College Board's abandoning its testing functions, nor even that it should reduce their level except insofar as that might result in reducing the multiple testing that some students experience from having to take both the Board's and other agencies' tests.

Rather the Commission's members have suggested a considerable expansion of the Board's testing functions—both in the breadth of its clientele (individual and institutional) and in the depth to which its programs will, if successful, affect that clientele. This suggestion reflects the Commission's conviction that

the College Board's "tests"—broadly construed in this report as any procedure for measuring or assessing abilities, attitudes, knowledge, and so forth—and associated services can be both educationally useful and socially beneficial.

There have been many charges that the Board's current tests and services are not now so. These are debatable, but the Commission's review of criticisms of current tests and their use gave it no reason to think that there is something about tests *as* tests that makes their continued use undesirable. It is true that testing does not necessarily give the kinds of precise measurements that are yielded in the natural sciences, and that the difficulties involved in testing impose strict requirements if tests are to be used responsibly.[1] There is also the danger that testing, like any other technology, may be employed in socially undesirable ways and come to constrict rather than free the systems it is meant to serve.[2]

But any potent device is liable to abuse, and education generally—including the transition from secondary to postsecondary education—is desperately in need of potent devices. If the results of the total educational and educative processes, including college entry, in which the Board's tests and associated services are embedded are often thought unsatisfactory, it is not obvious that extracting the College Board's tests and associated services from those processes would make them any less so. The members of the Commission are convinced that reforming those tests and associated services holds promise of making the results of those processes more satisfactory.

1. As Gerald Holton, codirector of Harvard Project Physics and professor of physics, Harvard University, reminded the Commission when he testified before it. Mr. Holton also testified that educational testing had taken scientific shortcuts, leaving some intermediate research undone, and expressed his concern that rather than being averages of many observations test scores seemed to him to be single measurements.

2. As, for example, Robert I. Sperber, superintendent of schools, Brookline, Massachusetts, told the Commission, the Board's current Achievement Tests restrict the curriculums of secondary schools.

These judgments are not easy to make—and they *are* judgments rather than findings based on empirical evidence. Reviewers of the Commission's work may therefore find themselves in disagreement with the reforms proposed. Whether readers are in agreement or disagreement, the Commission hopes they will make themselves heard.

Because of its nature and its size the College Entrance Examination Board works largely in the public view. One of its members' voting representatives—one exists in each of the Board's member schools and member colleges—must be within reach of everyone concerned with these issues.[3] The voting representatives, on recommendation of the College Board's trustees, must ultimately determine the Board's reaction to the more general issues confronted by the Commission. Reactions at the level of more detailed implementative proposals will be formulated initially by the College Board's advisory committees with the support of the staff of the Board and of Educational Testing Service.

The reforms that members of the Commission have suggested to the College Board can be categorized in several ways. In part they deal with functions that tests and associated services should perform in American education; in part with the clientele for whom those functions are to be performed; and in part with the need to perform those functions for those clienteles in ways consistent with the public interest. This chapter of the Commission's report is concerned with the functions that the Board's tests can and should perform in America's emerging system of mass postsecondary education, the next is concerned with the Board's clienteles, and the last chapters expose the implications seen by the Commission of serving those functions for those clienteles.

Historically, the most pervasive of the Board's several college entrance tests and allied services have served primarily and sys-

3. Lists of the Board's member institutions, trustees, advisory committee members, and staff are given in *Members and Officers*, which may be purchased for $1 from the College Entrance Examination Board, Publications Order Office, Box 592, Princeton, N. J. 08540.

tematically a "selective" function at the institutional level and secondarily and incidentally a "distributive" function at the system level. That is, they have been developed for the most part to produce information that would support officers of individual colleges in deciding whether to admit a given applicant and, to a lesser extent, where to place the applicant in the college's curriculums. Of course, rejecting a given applicant shunts that student, depending on his or her situation and ambitions, either out of the system of postsecondary schooling entirely or to another institution within it, just as accepting a student for one curriculum but not for another does the same within the institution. Thus, although designed to serve primarily a selective function at the institutional level, and to serve to a certain extent a distributive function within it, the tests and services in the Admissions Testing Program have had significant effects on the distribution of students either into or out of the collegiate system as a whole and on their distribution among and within colleges within it.

It is becoming increasingly true that students can opt out of the system of postsecondary schooling entirely only by accepting rather severe disadvantages in terms of their future status and employment opportunities. Until about 1950 or 1960 the rate of college entry among high school graduates seems to have been stable at about 50 percent,[4] but since at least about 1960 this rate has been increasing at an average of about 1 percent a year. Table 1 documents the increase in the press for college entrance. About 6 of every 10 male, and 5 of every 10 female current high school graduates are reported by themselves or a member of their household to be enrolled in college—nearly all of them on a full-time basis—in the fall term following their graduation from high school. According to opening fall enrollment data from the United States Office of Education there are more new freshmen than this, and enough more to make it likely that perhaps 10 or

4. Jaffe, A. J., and Adams, Walter, "Trends in College Enrollment." *College Board Review*, No. 55, Winter 1964–65, pp. 27–32.

*Table 1. Percentage of civilian, noninstitutionalized high school graduates aged 18–24 enrolled in college in the fall term immediately following their graduation from high school**

High school class	Both sexes			By sex	
	Total	Full time	Part time	Male	Female
1959	45.7	42.4	3.3	54.2	38.6
1960	45.1	43.2	2.0	54.0	37.9
1961	48.0	45.4	2.6	56.3	41.3
1962	49.0	47.0	2.0	55.0	43.5
1963	45.0	42.5	2.5	52.3	39.0
1964	48.3	45.7	2.7	57.2	40.7
1965	50.9	47.8	3.2	57.3	45.3
1966	50.1	48.3	1.8	58.7	42.7
1967	51.9	48.8	3.1	57.6	47.2
1968	55.4	53.0	2.4	63.2	48.9

* The data for successive years 1959–1967 are from U. S. Department of Labor. Washington, D. C.: Bureau of Labor Statistics, *Special Labor Force Reports* 5, 15, 21, 32, 41, 54, 66, 85, 100. Those for 1968 are from Vera C. Perrella's "Employment of High School Graduates and Dropouts." *Monthly Labor Review*, June 1969, Vol. 92, No. 6, Table 1, p. 37.

In 1960, 1961, and 1962 another 8 to 10 percent of the graduates of those years were reported enrolled in "special" schools, for example a trade or business school. Enrollment in special schools was not reported in other years, except in 1967 when 100,000 of the some 2,500,000 graduates, or about 4 percent, were so enrolled. This suggests that much of the increase in college entry may be due to the shifting of enrollment from other postsecondary institutions to the rapidly expanding set of comprehensive two-year colleges that often include programs competitive with those of "special" schools.

The standard error of these estimated percentages (which are based on the sample of households in the Current Population Survey) is about 2.0 (except for those under "Part Time" for which it is smaller). Consequently small changes from year to year are not "significant," that is not attributable with much confidence to changes in the population sampled. The trend is clearly up; the average increase for each sex is about 1 percent per year for the past 10 years. Thus the gap of about 15 percent between the rates of male and female college entry (immediate) does not seem to be diminishing. It may of course have been partly maintained in recent years by male students entering college to avoid the draft.

15 percent of the current high school graduates are going to college but delaying their entry past the next fall term after graduation.

It seems then that the current rate of college going (among high school graduates) is about 65 or 70 percent. And to this must be added the unknown but considerable enrollment in postsecondary educational programs that are not housed in colleges but rather in "special schools," for example trade and business schools, industrial training programs, the armed services, and so on.

All in all it seems likely that about three-fourths of current male high school graduates and slightly over half of current female high school graduates are receiving some sort of institutionalized postsecondary education. This hardly amounts to "universal" postsecondary education. For one thing "only" about three-fourths of the school population graduate from high school in the first place. But if past trends continue, by about 1980 only 1 American youth in 10 will not graduate from high school. Of those who do graduate about 8 of every 10 males, and 6 of every 10 females, will soon afterwards be "going to college," if the burgeoning two-year colleges continue to absorb educational programs formerly conducted by institutions not called "colleges."

The institutions, present and prospective, that enroll and will enroll all these students are not now or likely soon to be, even at the state level, differentiated and articulated to the satisfaction of very many people. Certainly at the national level there is nothing approaching the degree of deliberate differentiation and articulation that justifies speaking with much confidence of a national "system" of postsecondary education. Instead there are only poorly understood streams or patterns of education that meander through American society.

But whatever one calls the streams or patterns as a collection, more and more Americans enter and re-enter them and persist longer than formerly in a student role, though perhaps not to

very good effect, even on the "system's" terms. Although the flow of students through these streams is not well understood, it seems clear that less than half of them complete the program they enter or any other. What would happen if they did? If the students encouraged by society to seek a bachelor's degree (and provided no socially viable alternative) all reached their goal, the number of baccalaureates would more than double. What would be done with them all, or more to the point what would they do with themselves that they couldn't have done better without such protracted schooling or with different opportunities? In recent years a lot of successful doctoral candidates have had good reason to consider the effects of a mismatch between the intensive cultivation of one segment of our human resources and the market demand for the credentials for which they labored. It is not just a matter of the dangers of underemploying intellectuals but of the lack of any coherent view of personal and societal needs and of their implications for education. There is consequently good reason for ambivalence and uncertainty about how to best support the transition from school to college.

Nevertheless, the people involved in that transitional process, especially the students, clearly need some effective support in choosing among the many options they have open to them. American colleges have often been characterized as diverse; it seems clear that they must become more so, both at the institutional level and within their curriculums, if they are to serve nearly all American young people in an increasingly complex society. People are also diverse, more so than colleges have yet learned to take into account in their procedures, their programs, or their instruction. Colleges must change in this respect if everyone is to go to college. The students who go must also take the colleges' and their programs' diversity into account if the resulting encounter is to be beneficial. Both kinds of diversity can be partially described and reported on by tests and associated services. The question is how those descriptions can best be made to benefit both the students and the colleges, and how those de-

scriptions can avoid reinforcing, in the process of college entry and completion, an apparent and pervasive bias against potential applicants who are not middle class, white, and male.

The descriptions of the diversity of both students and colleges currently provided by the College Board's tests and associated services are too incomplete and too insensitive to support as adequately as they might equitable and efficient access to a system of mass postsecondary education. Both students and colleges need comprehensive and sensitive descriptions of themselves, of their options, and of what the likely results will be of exercising each option. These results should be stated in terms other than academic success alone. Colleges and systems of colleges need to know what they are selecting out of thei: communities as they select certain students into them. Similarly students, since they are increasingly pressed into the "system" of postsecondary education, have need and a right to know what they are letting themselves in for.

Information systems, in which test scores may be only a part of both "input" and "output," can help to provide richer descriptions of both students and colleges and to support a process of reciprocal choice by students and institutions within mass postsecondary education. The balance of power and responsibility between the two parties for the decisions involved seems to be drifting to the students' side of the fence at the present, although whether their choices are in any significant sense more decisive than formerly may be doubted. Certainly the majority of the members of the Commission feel comfortable with students having a considerable amount of discretion with regard to entering a given college, a given curriculum, or given courses, as long as they have the information they need and want about themselves and their options.

Those options may not be diverse enough to meet the students' needs, and if colleges have for their part no discretion about the composition of their communities, there may be still less diversity. "Open admissions" or "open enrollment" can ap-

parently mean many things. If it means that virtually everyone has access in at least a superficial sense to some college, then some states are rapidly approaching it now.[5] If it means distribution of students once they are within the system without reference to any scholastic variable other than high school graduation, then it probably does not exist either at the institutional level or even at the level of curricular or course placement. Nor should it, because what is needed is not to take less account of the ways students differ, but rather to understand better what is important about the ways people differ, to respect those differences, and to be responsive to them.

What is wrong with "selective admissions" is partly that it has too often been conducted with too little regard for the intersection of socially and psychologically significant variables with scholastically significant variables—and partly that its application has not produced a sufficiently diverse set of colleges. The result is a collection of colleges fraught with crises of various kinds. Trying to solve any of these crises by discarding relevant information is a bad bet. Adjusting the entrance process will not solve all the problems, but it will help. The Commission hopes to see a collection of colleges that embodies an appropriately diverse array of opportunities for postsecondary education, one in which both potential entrants and the colleges in which those opportunities are clustered retain considerable freedom to choose each other in order to combine into communities in which both students and faculties can manifest their own best possibilities.

The Commission believes that tests and associated services can beneficially contribute to the greatly enriched descriptions of students and colleges and their potential relationships needed to support such choices. This is what is meant by saying that one

5. For an estimate of the current state of free access to higher education, see Willingham, Warren W., *Free-Access Higher Education*. New York: College Entrance Examination Board, 1970, 252 pp. May be obtained from College Entrance Examination Board, Publications Order Office, Box 592, Princeton, N. J. 08540. $6.50 per copy.

of the functions that the College Board's tests and services can and should serve in the system of American education is a "distributive function."

While serving a distributive function in the past, incidentally to supporting "selective admissions," the College Board's SAT and Achievement Tests have been much criticized on several counts. One, and one for which Banesh Hoffmann[6] is the Board's best-known critic, is the contention that the tests result in the wrong students being selected. Mr. Hoffmann claims that the nature of forced-response multiple-choice test items with one and only one of the four or five choices said to be "correct" penalizes especially creative or imaginative students. These students are said to see more in the item than the item writers intended to put there and consequently to have more difficulty choosing the "right" answer than do students with a higher tolerance for ambiguity and a knack for taking such tests. The latter, the argument goes, are consequently preferred over the former in the process of college entrance via "selective admissions" to their and society's detriment.

Furthermore, Mr. Hoffmann has charged, the College Board and Educational Testing Service, which operates the Admissions Testing Program for the College Board, counter such charges with an argument that smacks of "scientism" while masquerading as a scientific argument via a maneuver he characterizes as the "statistics show," presumably one that overawes humanists by a display of numbers spuriously attached to a set of artificial constructs.

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6. Readers who are not familiar with Mr. Hoffmann's criticisms and wish a fuller account than that given here will find four references to his published criticisms in the annotated bibliography that was prepared as background information for the meeting of the Commission at which Mr. Hoffmann testified: Findikyan, Nurhan; Manning, Winton. H.; and Pasanella, A. K., *Bibliography of Test Criticism*. New York: College Entrance Examination Board, 1967. Available from ERIC (see footnote 1, page 1). ED 039 395. MF 25 cents; HC $2.90.

Briefly, what the statistical analyses performed by ETS for the Board show is that students who make higher scores on its tests also made higher grades in secondary school and make higher grades in college.[7] In most colleges even not very sophisticated prediction equations that incorporate both high school grade averages (or class rank) and test scores would predict the eventual freshman grade-point averages of about two-thirds of the students within half a letter grade.[8] One-third of them would have their grades predicted either too high or too low by more than half a letter grade. Separate analyses are necessary for some groups—male and female students are routinely analyzed separately—and colleges using such equations should aggressively search for those which may need special analyses.

Now it may be true that especially imaginative or creative students, because of the inclusion of test scores in the predictive equations, are in disproportionate numbers among the students whose grades are underpredicted. It is at least equally plausible to most members of the Commission that such students find normal school work even less appropriate for them than the tests are presumed by some to be. They may in fact have better test scores than grades, and the tests may therefore systematically overpredict their college grades and improve their chances of admission to a "selective" college. But many things are plausible depending on one's personal view of the nature of education and of talent, and these hypotheses cannot be tested until there are

7. An accounting of the many statistical analyses of the Scholastic Aptitude Test (SAT) and of the Achievement Tests is given by William H. Angoff *et al.* in a technical manual, now *in press*, which describes research and development for the College Board Scholastic Aptitude Test and Achievement Tests. May be ordered from College Entrance Examination Board, Publications Order Office, Box 592, Princeton, N. J. 08540. $5.

8. How many colleges even have prediction equations, much less use them in selecting freshmen for admission is not known; perhaps a third of the colleges requiring the Board's tests have recently taken advantage of the Board's free Validity Study Service that generates such equations.

ways found to identify "creative" and "imaginative" students.

The Commission also suspects that such students are recognized both by their teachers and by each other. They along with everyone else are going to be drawn into any system of mass postsecondary education. The current system and the current tests may or may not work in their benefit. It seems unlikely that tests developed on large random samples of students do, since especially creative and imaginative students are by definition both different and rare. But perhaps such students eventually prevail as well as endure in the chinks and gaps of a system designed for students closer to the normative pattern of talents.[9] That they may not concerns the Commission, but its members, like the rest of society, are concerned more with identifiable and palpably existing groups of students for whom postsecondary education, and supportive services such as the Board's, are apparently inappropriate. Partly through the use of tests and associated services, the Commission believes that the lot of formerly neglected students can be improved, and it is not convinced that tests composed of item types likes those which are now in use are so pernicious as to justify recommending that they be abandoned.

A more serious criticism of the tests the Board currently offers in the Admissions Testing Program is that in performing their current selective or distributive function they have corrupted the process of education itself. This is said to happen in various ways. One is by constricting the curriculum of secondary schools by offering curriculum-specific tests such as the Achievement

9. Such at least was the opinion of David A. Goslin, who consulted with the Commission and prepared a background paper for it. New York: College Entrance Examination Board, 1967. Available from ERIC (see footnote 1, page 1). ED 039 392. MF 25 cents; HC $1.80. Published as "What's Wrong with Tests and Testing." *College Board Review*, No. 65, Fall 1967, pp. 12–18 (Part I), No. 66, Winter 1967–68, pp. 33–37 (Part II). A slightly condensed version was published as "Standardized Ability Tests and Testing" in *Science*, Vol. 159, February 23, 1968, pp. 851–855.

Tests for which students must be prepared if they are not to be disadvantaged in the competition for college entrance.[10] College entrance tests have been liable to this charge since the secondary schools became comprehensive and assumed responsibilities other than preparing students for college entry. The response of the College Board has been to make its Achievement Tests less and less specific to any particular curriculum in a given subject. This response coincided with the interest of the professors and teachers on examining committees and in colleges and schools of measuring the students' mental prowess within a given subject more than their knowledge of discrete facts. The result is that the College Board's Achievement Tests have become more like aptitude tests.

There are of course many modes in which mental prowess can be expressed even within a particular subject. Curriculum study and development groups often feel that the Board's tests retard the adoption of their innovations and that they would be a good vehicle for spreading them if they could be "tipped" toward their view of their subject. The Board has tried to take a middle ground, but in taking it has been exposed to criticism both for incorporating innovations too quickly, and thereby dictating the course of development to the schools, and for retarding that development.

To complicate the situation further, the Achievement Tests have always served a dual function of providing information significant both for "selective" admissions at the institutional level and for distribution to courses or placement below it. The more "selective" colleges are taking students with scores toward the top of the SAT score scale. The SAT retains its predictive validity throughout its entire scale, but the Achievement Tests help to

10. Robert I. Sperber, superintendent of schools, Brookline, Massachusetts, pointed out to the Commission that not only is the curriculum constricted, but even where innovative courses are available individual students may avoid them for fear of making lower test scores.

discriminate among students at the very top of it.[11] But some Achievement Tests are also useful for placement in college courses after admission,[12] despite the fact that they are not designed for that purpose and are geared instead to secondary school curriculums, which are not very well articulated with collegiate curriculums. And here another criticism of the Achievement Tests enters; the need now is not for increasingly fine distinctions between the most apt of students, but rather for sensitive placement devices to help colleges successfully instruct all students now going to college.[13] Although the Board is sensitive to that need, it has not yet found a way to have the Achievement Tests both bolster "selective" admissions and at the same time serve satisfactorily the placement function for a broader group of students.

Neither has the Commission, which feels that fine discrimi-

11. Dean K. Whitla, director, Office of Tests, Harvard University, told the Commission that at Harvard College the Achievement Tests provide more useful information on applicants than does the SAT. Readers are reminded, however—as was the Commission by Julian C. Stanley, professor of education at The Johns Hopkins University and Chairman of the Board's Committee of Examiners in Aptitude Testing, of which Mr. Whitla is also a member—that selective colleges such as Harvard realize many of the predictive advantages of the SAT by students selecting or de-selecting themselves on the basis of their PSAT or SAT scores.

12. Scott Elledge, professor of English, Cornell University and chairman of the Board's Panel of Examiners in English, for example, told the Commission that the English Composition Test was superior to the Advanced Placement Examination in English as a placement device. Micheline Dufau, associate professor of French, University of Massachusetts, and chairman of the Board's Commission of Examiners for the French Listening Test, testified that the foreign language tests are useful for placement purposes. J. Alfred Southworth, director of guidance, University of Massachusetts, concurred in his testimony with Miss Dufau's judgment while criticizing the fact that the tests' costs had doubled in the last five years.

13. Richard R. Perry, director of admissions and records, The University of Toledo, made this point most forcefully and endorsed the suggestion of Sister Jacinta Mann, director of admissions, Seton Hall College, that a series of less difficult advanced placement examinations might be very useful.

nations at the top of the aptitude scale are not a pressing problem and which attaches much more importance to the problem of supporting all students—in effect the full cohort of American youth as well as many adults—in finding their way to appropriate programs of postsecondary education. And the Commission does believe it is possible to provide information services appropriate for all students, schools, and colleges, without unduly restricting the schools' curriculums.

There is however another sense in which tests are liable to criticism on the grounds that they restrict the curriculum and modes of instruction, and at the collegiate as well as at the secondary level. This criticism has been pressed by members of the Commission.[14] In essence, it is that tests and their associated services, by accurately identifying those students who will normally "do well" in college in the "natural" course of things, thereby support those colleges in an educationally and socially dysfunctional policy of seeking and enrolling only those students who are likely to make good grades in the standard curriculums as they are usually taught.

Thus highly selective colleges reject students whose particular configuration of talents does not make them easy to instruct successfully by classic methods in traditional subjects, and less selective colleges emulate them insofar as they are able. As a result virtually the entire collection of colleges offers programs, and instruction for them, that are apparently completed by less than half of the college-going population. The other students are pushed from the system after enrollment in institutions and programs where admission is "open."

In the view then of some members of the Commission, current tests and their associated services corrupt the process of education by stultifying its development and also have the unfortunate effect of providing a rationale for its nondevelopment, since

14. See particularly the briefs of David V. Tiedeman and B. Alden Thresher in *Briefs*.

it can always be said of the unsuccessful students that they don't have what it takes—that they are not "college material."

But college entrance has already reached such a high incidence in the population at large that either almost everyone will *have* to be "college material," or the massive system of postsecondary education will stand indicted for offering to most of its students only spurious opportunities. Being "college material" does not of course necessarily mean being a good bet as a prospective baccalaureate. There is no more reason to think that current collegiate curriculums, instructional methods, or credentials are any more appropriate for a system of mass postsecondary education than there is reason to think that the current tests and associated services are.

The question for the Commission was whether the College Board's tests and supportive services by adjustment and development could help some of the colleges become more appropriate, or whether it would be better to simply abandon the tests in hopes that the colleges would more successfully cope with their students without them. Abandonment was rejected; most members of the Commission think the current tests are beneficial, and all members think that reformed tests and services can be beneficial. For example, careful and more thorough use of the statistical analyses included in the current services could reveal the extent to which the current postsecondary programs and instruction in them offer students only illusory opportunities even for advancement toward the credentials they need to "get ahead" on society's terms. This revelation would probably be useful.[15]

15. Kenneth B. Clark, president, Metropolitan Applied Research Center, told the Commission that while he was concerned that predictions using tests might amount to self-fulfilling prophecies, he was opposed only to their uncritical use and would criticize test makers for not having been clear, consistent, and strident enough in preventing tests from being used to reinforce distinctions based on income or race. Mr. Clark went on to say that if he were: ". . . doing any studies now . . . concerned with getting the American people to understand the enormity of the injustice inherent in differential educational equality in our biracial school systems, I would search for the most rigorous, objective, stan-

Even more useful, however, would be a set of tests and services that could help to describe both students and programs with sufficient comprehensiveness and sensitivity for the number of mismatches between student and program to be reduced.

Even if the Commission is correct in thinking that tests and associated services can through such prescriptive use support the distribution of education to people, and of people to colleges, there remains the question of whether such tests and such services mightn't be detrimental to the process of instruction itself.[16] It is claimed by some critics that tests corrupt education in the sense of encouraging students to look for *the* right answer, when in fact they should be considering alternative answers or perhaps even looking for the right questions.

This assertion has some appeal, but most members of the Commission think it unlikely that the few, if admittedly important, College Board tests have much effect on the way students regard and react to their instruction or on the way their teachers offer it compared to the effect of other factors, including classroom tests (which are seldom multiple-choice tests). Nevertheless. there may be some hope that even external tests such as the

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dardized test that was relevant to the question of educational achievement, and administer it to all the children in the public schools. And I would present, without any confusing of the issue, the stark differential results and say to the American people. 'This is what you are doing by way of damming up human potential and human resources.' I would not tolerate any arguments about 'Well, do the tests test this or don't test that?' I would say, 'They test whatever they test, and it is in some way relevant . . . and here are the gaps. You can either continue this and know what you are doing . . . or you can make the necessary changes in the educational system to narrow this gap and, hopefully, even obviate it.' "

16. Elting Morison, acting master, Ezra Stiles College, Yale University, told the Commission that his three years of experience with trying to develop a new history curriculum had convinced him that tests have an extraordinary effect on what is taught and how it is interpreted, and that he would prefer tests to be used to extend the learning process rather than measure its results. He pointed out that learning is not understood theoretically, empirically, or intuitively and that trying to test the results of an ill-understood process might do violence to the process itself.

College Board's and their associated services can contribute positively to what students learn—that they can perform an "educative" function to good effect—and most members of the Commission have endorsed a suggestion of one of them that the Board's tests and services should try to do so. Beyond instruction in specific skills and knowledge, tests and their associated services can, in the course of supplying potential entrants with information about their various options, perhaps teach those students a great deal about decision-making and about the process of choice itself.

How much good the Board's or anyone else's support of educative functions can do as long as so much of education is conducted in a competitive context is debatable. The benefits of competition are rarely extolled today, perhaps because the harmful effects of too much of it are clear, or perhaps because by emphasizing it we have not encouraged and rewarded a wide enough range of talents,[17] at least not until after a protracted apprenticeship in academic institutions. Certainly it is particularly unfortunate that the characteristics that make for success in school work as it is commonly conducted are, if not specific to some segments of society, at least disproportionately distributed among its social classes and its racial and ethnic groups.

As long as competition pervades American society it will surely pervade its education systems. When college entry becomes universal, the competition for preferment in it may be transferred to a higher level. But the same comprehensive and sensitive descriptions of people, of educational programs, and of the potential relationships of the two that the Commission thinks necessary to support a desirable process of reciprocal choice can of course also provide a basis on which competition

17. Scott Elledge, professor of English, Cornell University and chairman of the Board's Panel of Examiners in English, testified to the Commission that the pastoral fantasy of genteel contests in which everyone wins is a deception, and that to reduce student angst their counselors should explain their chances of winning to them so they can become "percentage players."

can be based. And insofar as tests provide a part of those descriptions, they will be used.

This competition results in attitudes and procedures that to many, including some members of the Commission, seem opposed to and corrupting of the process of education and the idea of community. Competition, in this view, encourages relationships that are adversarial and that retard education and frustrate the realization of humane communal values.[18] Students are cast as adversaries of each other in the competition for preferment and of their teachers who must in addition to teaching students evaluate them on terms that allow them to be ranked as competing candidates for success. Similarly the tests that mediate college entry must be given in an adversarial mode, and students can be ranked on the basis of them for the same comparative purposes.[19]

The Board's tests are but one link in this pervasive competition, but they are an "external" one and make the competition fairer, since their scores tend to iron out the differences in grading standards that occur across schools.[20] They also tend to reduce the advantage that girls enjoy in graded school work, since males and females have roughly the same mean scores on the

18. See particularly the briefs of Edgar Z. Friedenberg and B. Alden Thresher in *Briefs*.

19. This could be avoided, thereby shifting competition to other grounds, by replacing "norm-referenced" tests of abstract abilities that encourage competitive comparisons with "criterion-referenced" tests that instead measure candidates against some specific and concrete task.

20. A distinguished consultant to the Commission, who prefers to remain anonymous, suggested that this could be accomplished by measuring *schools* (by sampling their students at intervals with tests) rather than students. Thus students' scores would be used only indirectly (via samples) to adjust their school's grades. This would, however, leave the tests as simply a support of the current values and practices in schools and colleges, and the Commission wants to have tests used to help some schools and colleges adjust their curriculums, methods, and values as is necessary in order for the complete collection of schools and colleges to accommodate the full and diverse range of American youth satisfactorily.

SAT. But they do not tend to reduce the competitive disadvantages of being other than white and middle class; in fact they seem to almost perfectly reflect the bias against "disadvantaged" groups that results in their relatively depressed scholastic attainment. Nevertheless, the tests can be used to identify the disproportionately few students in such groups who can successfully compete with the white and middle-class students on their own terms.

So pervasive a competition with its resultant adversarial relationships would be hard to root out of American life. It preceded the widespread use of college entrance tests, which were adopted at least partly to make the results less class bound, and very likely would easily survive their abandonment. It has operated effectively under both the "selective" and the "open" mode of admission, since colleges practicing "open enrollment" can and for the most part do simply conduct the competition after admission.

All would of course not agree that competition is undesirable, and it would be naive to think that competition for preferment in the transition from secondary school to college could be much reduced very soon via tests. Educational measurement has for some time been "oriented mainly toward the practical problems of educational institutions [in] successively sorting people into hierarchies of talent and accomplishment for the world of work. . . . As a consequence, testing has not progressed as far as it should as a means of assisting students to encounter successfully those problems of self-understanding, choice, and decision-making that they confront as maturing individuals in a modern technological society."[21] It could, though, and while at least one member of the Commission doubts that society will pay the bill that would be incurred at research institutions such as Educa-

21. Manning, Winton H., "The Functions and Uses of Educational Measurement," in *Proceedings of the 1969 Invitational Conference on Testing Problems.* Princeton, N.J.: Educational Testing Service, in draft.

tional Testing Service,[22] all members hope that the College Board, which has access to considerable resources and to the necessary expertise at ETS, might start the movement necessary to identify and foster ". . . the development of measurement functions in education that are uniquely appropriate to the needs of young people and to the traditions of rational, objective, scientific inquiry into the process by which young people are educated."[23]

The successive sorting of people into hierarchies of talent and accomplishment for the world of work mentioned above is at every stage documented by the award of differentially valued credentials. These credentials are in America available for the most part through schools, colleges, and universities that maintain attendance as a prerequisite for their award. To their formal demands for certain defined competencies this requirement of attendance adds a mélange of informal demands, largely in the domains of attitude and behavior, that amount to socialization requirements.

Thus it is possible that many people who are demonstrably competent to meet the requirements of the world of work are denied opportunities to do so by the lack of a route to educational credentials that is not barred to some extent by socialization requirements that are obnoxious to them. Insofar as they are thus denied access, this barrier might be reduced by tests and associated services performing a "credentialing" or credit-by-examination function, which some Board tests already do at the course level within the collegiate curriculum. This function of the Board's tests can be, and a majority of the members of the Commission believe it should be extended so that demonstrable

22. Friedenberg, Edgar Z., "Social Consequences of Educational Measurement," in *Proceedings of the 1969 Invitational Conference on Testing Problems.* Princeton, N.J.: Educational Testing Service, in draft. An adaptation of Mr. Friedenberg's article was published as "The Real Functions of Educational Testing." *Change in Higher Education*, Jan.–Feb. 1970, pp. 43–47.

23. Manning, Winton H., *op. cit.*

competence can be effectively recognized however it is obtained.

In summary, the Commission, after reviewing criticisms of current tests and their use was convinced that the College Board should continue, rather than abandon, its testing functions in American education. The Commission concluded, however, that the Board's current tests and associated services are in need of considerable modification and improvement if they are to support equitable and efficient access to America's emerging system of mass postsecondary education. Furthermore, the Commission concluded that the College Board's tests and associated services —although both need adjustment and augmentation in order to hew closer to the public interest in doing so—could and should serve three functions in America's emerging system of mass postsecondary education:

(1) a "distributive" function by contributing to comprehensive and sensitive descriptions of students, of colleges and their programs, and of the potential relationships between the two as both students and colleges engage in a process of reciprocal choice;

(2) an "educative" function by instructing students both in subject-matter areas and in the skills and methods of making decisions and choosing;

(3) a "credentialing" function by certifying demonstrable educational attainment whether acquired by attendance in school or college or not.

Potential Entrants: Customers or Clients?

It is easy enough to say what functions tests and their associated services can perform in American education, if more difficult to decide which of those functions seem particularly appropriate for tests and services of an agency that incorporates in its membership representatives of both schools and colleges and that has historically concerned itself primarily with the transition of students from one to the other. Before exposing suggestions about how, in the public interest, those functions might be performed more effectively it is useful to consider for whom they are to be performed. Who, that is, of all the people involved in America's emerging systems of mass secondary and postsecondary education, should constitute the clienteles of the College Board?

The historic clientele of the College Board has been the admissions officers of its member colleges. To these have been added, since the Board's incorporation of the College Scholarship Service (CSS), the financial aid officers of the collegiate members of the College Scholarship Service Assembly. And to both of them, and relatively recently, have been added the collegiate officers and faculty members who concern themselves with guiding admitted students to, or placing them within, curriculums and courses with the help of the tests in the Admissions Testing Program—the Scholastic Aptitude Test (SAT) and Achievement Tests—or with the help of tests and services especially tailored for the purpose in the Advanced Placement Program (APP) or in the Comparative Guidance and Placement Program (CGP).

A second clientele of the College Board has been the guidance counselors and principals of secondary schools for whom information and services derivative of those provided to colleges have been produced in the course of providing collegiate services. An experimental guidance service currently being field-tested, if eventually implemented as an operational program, will be the first College Board program specifically designed for this

clientele.[1] The Preliminary Scholastic Aptitude Test (PSAT) is of course of some use to them in counseling students.

An emerging clientele of the College Board and one that should in the Commission's opinion be immediately adopted as a fully valued clientele, is composed of the students and adults out of school who are potentially entrants in programs offering postsecondary educational opportunities. Some of these potential entrants become involved in the Board's services now. As a result they receive some information and supportive services from the College Board, but these are for the most part spun off from the services designed for admissions officers and are provided incidentally to meeting those officers' needs. Being served incidentally, the students are served less well and are essentially captive (and paying) customers rather than an equally valued clientele of the College Board.

Some perspective can be gotten on the situation by imagining that potential college entrants had banded together to form a "Student Entrance Examination Board" to report to them on colleges. They would no doubt have had their Student Board provide them with detailed and dependable information about various institutions (although they might not let the institutions describe themselves in their own terms). Still, in the course of acting on such information the students would generate other information, which if they chose to share it with the colleges would be useful to the colleges in guiding them to students who found their particular institutional configuration of talents and interests attractive, even if the configuration did violence to the colleges' sense of themselves. The students' provision of information to the colleges would therefore be partly in the colleges' interests, if incidentally so and in spite of the students' control-

1. Information about the Experimental Guidance Information System (EGIS), which is now being field-tested in secondary schools in Texas, may be obtained from Office of Guidance Services, College Entrance Examination Board, 888 Seventh Avenue, New York, N.Y. 10019.

ling the terms in which the institutions would be described. And in general the services that the student constituency of this Student Board provided their members for their aid in choosing or not choosing a college would, insofar as they were sound, be in the colleges' interests. Of course, since the colleges are a party to both the reciprocal choice and to the mutual association afterwards, one supposes that there would be a limit on the soundness of the students' unilaterally conceived, designed, and operated services—unless these hypothetical students had the good will and judgment to incorporate into their Board the interests and needs of the colleges.

The reality of course is the inverse of this fantasy. While in reality no one can solve anyone else's problems of choice, the College Board can give the students faced with the difficult decisions surrounding the transition out of high school support equal to that which colleges receive. In short, the Commission thinks that a symmetry or balance should obtain between the services that the Board offers to potential entrants and those that it offers to colleges. Just as individual schools and colleges rightfully regard their students as clients, so should the member schools and colleges of the College Board have the Board regard all potential entrants in programs offering opportunities for postsecondary education as a clientele whose interests and needs are to be served and met as fully as are those of the Board's institutional clientele.

College Board member schools and colleges enroll at both levels students who represent the full range of American youth on all significant social and educational variables. The collegiate membership of the College Board has grown from a small and exclusive band of prestigious, private, and Eastern colleges in 1940 to a nationalized and democratized collection of over 850 postsecondary institutions which is increasingly representative of the diversity of American higher education. The only class of institutions significantly underrepresented is that of the burgeoning comprehensive two-year colleges. The recent inau-

guration of the Board's Comparative Guidance and Placement Program and its acceptance to date promises to increase their membership. The College Board's institutional clientele is already essentially inclusive, and its services for that clientele will continue to be pressed into forms appropriate for the full universe of colleges.

Consequently, the Commission believes that the Board's "student" clientele, which is to say potential entrants in programs offering opportunities for postsecondary education whatever their age or grade (if any), should be equally inclusive and that services offered to them should be equally universal. That is, virtually all American students are now potentially college entrants, and each of them should find in the College Board's collection of tests and associated services some that are appropriate for them and pertinent to their situation. Those Board services that are student-oriented should support potential entrants in choosing among all their options and not just among those in member colleges or any other particular postsecondary institutions.

The Board's advisory Committee on Guidance has recommended that the College Board offer to students a college-locater service that will help students find colleges that meet certain characteristics of the students' choice. The Board's trustees have endorsed this recommendation. This proposed service, if approved by the Board's membership at its next annual meeting, will when it is operational be the first student-oriented service sponsored by the College Board that includes information about students' opportunities in non-Board colleges.

Expanding the Board's projected College Locater Service to make it also a job-locater service in its initial years may or may not be practical. But despite the press toward universal postsecondary education, it is clear that for the near future there are many students who are not likely to be candidates for immediate college entry on a full-time basis. These students need primarily to locate a job, preferably one that includes opportunities for continued education or that at least does not preclude part-time

schooling. Excluding information and services in connection with these options from the Board's student-oriented services can only reinforce disadvantages that these students already suffer by allowing them to choose their future course in ignorance of some of the possibilities open to them. Moreover, more students may in the near future need a much more explicit connection between work and study, because if the rate of college entry is to continue to increase while the level of financial aid is held effectively constant, then it seems likely that many students—perhaps most—will choose a mixture of work and study rather than choose between the two, especially if the present interest in "field work" expands.

In expanding and adjusting both its college-oriented and its student-oriented services to make them equally inclusive and universal the College Board will of course need to reduce the lamentable biases against those potential entrants who are not middle class, male, and white that are reflected in patterns of college entry and completion today. This need, independent of the argument that an inclusive student clientele is implied by an increasingly inclusive institutional clientele, makes it imperative that the College Board's services be appropriate for the full range of potential entrants.

A less inclusive group would be easier to serve, and presumably since scarce resources could be spread less thinly, better served. This last may be an illusion, however, and would in any case be socially irresponsible. Any smaller group would of necessity have to be defined in terms of those potential entrants who now in the "natural" course of things go to college, or go to colleges that are members of the Board, and so forth. The process of college entry and its results are not well understood except in terms of the scholastically significant variables to which the Board's current tests are pertinent. But it is clear that throughout the entire process there are significant interactions of those variables with socially significant variables, and that these interactions result in a bias against those students who are not middle

class and white so pervasive that it may well seem natural. It may also seem natural to some that, relative to young men, young women are so disproportionately underschooled. However, the Board's aptitude tests, on which girls do as well as boys, and the nation's instructors, who consistently reward higher grades to girls with comparable aptitude, make it seem unnatural.

Adopting the potential entrants in programs offering opportunities for postsecondary education as an equally valued clientele due a symmetric share of services need not reduce the amount or value of the services the Board provides institutions. On the contrary, it would likely increase school- and college-oriented services and their value, because just as the current college-oriented services have allowed useful student-oriented services to be spun off from them, so student-oriented services may produce as a side benefit much useful information for colleges. The projected College Locater Service, for example, should tell colleges much about what characteristics its users perceive as desirable in a college. And of course any service to students will be a great boon to already burdened high school guidance counselors who hardly have time to counsel their students much less serve as a one-man or one-woman information service for all students, all colleges, and all potential relationships between the two.

These side benefits to the Board's traditional clienteles are not however among the chief reasons for the Commission's recommendation that the College Board adopt all potential postsecondary students as a clientele, although they may be an incentive for the members to do so. The Commission assumes that the process of college entrance, and of transition out of high school generally, is likely to, and in the public interest should, remain a process of reciprocal choice in which both potential entrants and institutions, educational and otherwise, offer each other differentially valued options or opportunities. This may be obscured by the growing proportion of first-time freshman enrollment that is in two-year institutions. It must be remembered that these

institutions are comprehensive and contain within their various curriculums and programs as many options as students might have formerly found only by traveling a great distance. It must also be remembered that Americans increasingly live in urban areas, within some of which several institutions of varying degrees of comprehensiveness and specialization may be accessible to many students. It may also be that clustering students by geography so they can live at home and spend less will in the long run simply not be perceived as worth the apparent savings. In any case, the Commission hopes that the nation's postsecondary educational programs will have enormous diversity and that the College Board will help to make this possible by contributing to comprehensive and sensitive descriptions of both students and colleges.

Such diversity should increase both the students' and the colleges' options and opportunities. Students have a wide range of options open to them now and will presumably face a greater range in the future; they need more support than they receive in perceiving and choosing among their opportunities. Some of this support can best be provided by an overarching agency such as the College Board.

Students' opportunities are all too restricted now—by geography because many students do not live near colleges with programs accessible to them; by finances because many of them cannot afford to "go away" to college; by racial or class bias because, despite great if insufficient progress, much of postsecondary schooling is effectively accessible on acceptable terms only to white middle-class youth; by sex because not so much is expected of or given to young women; by a value system that assigns a full measure of worth and dignity only to occupations requiring postsecondary schooling; by employers stipulating a credential rather than competence as a condition of employment. But these restrictions can be alleviated, and the Commission hopes they will be. Furthermore, another potent restriction, and one unlike most of the others in that the College Board can at-

tack it directly, is sheer ignorance about available opportunities. Although students have all too few options of any kind, most of them probably have more than they perceive and probably perceive those they know about less clearly than they might.

The Commission doubts that anyone thinks sufficient for decision-making the information available to secondary school students about their postsecondary opportunities, educational or otherwise, and about the likely consequences of their exercising one option rather than another. Decisions must of course always be made in the face of more ignorance and less information than is desirable. Colleges and equally large businesses have mobilized their resources, both "in house" through personnel officers and externally through agencies that multiply their institutional resources to support them in the decisions they must make about students who are potential entrants. Those students, like consumers and clients generally, do not of course find it easy to marshall similar resources. But students and colleges stand in an essentially different relationship from that of most consumers and most enterprises, and the Commission is hopeful that the schools and colleges that are members of the College Board will have the Board mobilize resources and use them for the student-oriented services that a student clientele deserves.

The College Board, because of its dual school- and college-based membership, its already not inconsiderable student-oriented services spun off from what are essentially college-oriented services, its nonprofit status, and the credibility it enjoys on the basis of its reputation of having provided colleges with dependable support for so long, seems to the Commission to be in an advantageous position to provide similar support for students. Unfortunately, the College Board also has a history of having responded to changes in its environment only after considerable and often prolonged agitation by those of its members who themselves felt the pressure first, or only after considerable pressure was brought to bear by outside forces. Nevertheless the Board has responded, however slowly, to initiatives both from

within and from without the membership as ordinarily constituted, and the Commission has no doubt that it can do so again. This is the strength of a membership organization. However, for that strength to be effectively and decisively exercised, the schools and colleges that in association *are* the College Board will have to be as aggressive and as decisive as members of it as they are as individual schools and colleges.

There are of course alternative agencies that might adopt potential college entrants as their clientele—or as their customers since the "education market" receives much attention these days from firms able to mobilize a large amount of money when the prospect of penetrating it successfully seems promising in terms of profits. Some in fact are already trying to market some of the services the Commission suggests the Board should provide. Perhaps the member colleges and schools will think these likely to be as good as College Board services might be. The Commission doesn't think so and furthermore sees great advantages to coordination of the services to all parties in the process of college entrance.

In summary then and as reported in this and the preceding chapter, the Commission, in discharging its responsibility to undertake a thorough and critical review of the College Entrance Examination Board's testing functions in American education, to consider possibilities for fundamental changes in the present tests and their use, and to make recommendations based on its conclusions, took the following steps.

(1) After reviewing criticisms of current tests and their use, the Commission was convinced that the College Board should continue, rather than abandon, its testing functions in American education. The Commission concluded, however, that the Board's current tests and associated services are in need of considerable modification and improvement if they are to support equitable and efficient access to America's emerging system of mass postsecondary education.

(2) The Commission concluded that the College Board's tests

and associated services—although both would need adjustment and augmentation in order to hew closer to the public interest in doing so—could and should serve three functions in American education: a "distributive" function, an "educative" function, and a "credentialing" function.

(3) The Commission recommended that the schools and colleges that in association are the College Entrance Examination Board cause the Board to adopt the full range of potential entrants to programs offering opportunities for postsecondary education as a clientele that is as valued as the Board's institutional clientele and thus is due as large a share of service.

In the remainder of this volume of its report the Commission outlines briefly what a majority of its members believe may be some of the implications of trying to perform these functions for the Board's projected clienteles. These are based on proposed recommendations put forward by individual members and on the reactions of other members to them. Both are published in *Briefs*[2] and there attributed to individual members. The account of the resulting suggestions of the Commission given here is short and intended primarily to be provocative.

Others will no doubt see other implications of the Board's trying, in the public interest, to perform these functions for these clienteles in the context of mass postsecondary education. The Commission hopes they will put them forward for consideration, and that the College Board will move swiftly to implement whatever the optimum combination of all such suggestions seems to be in light of its resources.

The members' proposals vary enormously in their nature and are not equally acceptable to all members. Some recommend developments or adjustments in the Board's current tests and associated services. Others recommend entirely new tests or services, and still others recommend changes in the way in which the Board is governed or its testing programs organized in order to

2. The companion to this volume, which can be obtained as described on p. ii.

provide a more facilitative context for both. The members' proposals also vary enormously in the scale of resources, in the preliminary amount of research and development, and in the time required to implement them. No attempt has been made to rank them in terms of priority since they have varying degrees of endorsement and since ranking would involve judgments about administrative, managerial, and technical matters that the Commission does not feel competent to make.

For purposes of this report these suggestions are sketched in broad outline in the remaining three chapters of this volume by reporting in sequence on: developments or adjustments in current Board programs; new services; and adjustments in the Board's governing or organizational structure.

Changing Current Board Programs and Services

Adopting all potential entrants to programs offering opportunities for postsecondary education as a clientele as valued as its institutional constituents would no doubt have many implications for the development or adjustment of the College Board's current services, as would making those services appropriate for that diverse group. Various members of the Commission have made recommendations about what these services might include, and a majority of the other members have endorsed their proposals with varying degrees of comment, reservation, or dissent as accounted for in some detail in *Briefs*.[1]

As noted previously, those of the potential entrants whom the Board's services currently touch do not receive from the College Board as much information about themselves, about their postsecondary options, or about the potential relationships between themselves and those options as they need in order to make their decisions. Nor do they receive as much information about their collegiate opportunities as the colleges, via the Board, receive about them.

The Commission believes that both the colleges and the students need more information about each other. The schools and colleges that in association are the College Board could signal their intent to have the Board adopt students as a clientele by immediately moving to redress the current imbalance or asymmetry in the information that students and colleges receive about one another. This can be done rather quickly because the Board's current and not inconsiderable student-oriented services provide an existing administrative structure through which information can be directed to students, and because the Board's current college-oriented services and other readily tapped sources already provide for the colleges' use much information that would be useful to students.

In fact the current asymmetry between information generated by the Board for use by students and colleges could be entirely

1. The companion to this volume, which can be obtained as described on p. ii.

corrected by the member colleges acting as individual colleges and without any corporate action. This follows from the fact that the College Board's associational policy has been to place no lower limit on the information that its members provide for potential applicants, and the fact that most member colleges have not yet reached the Board's upper limit. The member schools and colleges have had the Board provide a means—*The College Handbook*—by which member colleges can provide to students as little information as they choose. But not as much as they choose; until the current edition individual colleges were not permitted to exhibit there much of the information that a majority of the members of the Commission believe colleges should provide for students in order to receive from the Board information about students.

Another vehicle, in addition to the *Handbook*, through which the member schools and colleges could have the Board supply students with information about colleges and their potential relationship to their programs is the score report on which students receive their test scores. This is a more certain source, since students may not receive or understand the explanatory booklet that is supposed to be distributed to them with their scores and may not have access to *The College Handbook*.

Adding significant information to the students' score reports would however require corporate action, whereas individual member colleges can increase information about their own colleges in the *Handbook* simply by an effort of will. For example, colleges know or can easily find out through Board services that are free to them (and therefore paid for out of students' test fees) the grade and test-score distributions of their applicants, their admitted students, their entering students, and their enrolled students who persist through various levels of educational attainment. Analyses of these data, also provided by the Board without charge to the colleges, produce prediction equations or expectancy tables that allow the potential entrants' freshman grades to be estimated with some accuracy. This information is

routinely generated according to sex and curricular groupings; other significant variables can also be introduced. Provision is made for reporting all this information in *The College Handbook*, but relatively few member colleges choose to share all of it with students.

The *Handbook* has always contained information about member colleges similar to that found in college catalogs. As explained previously, the 1969 edition contains another innovation in addition to the information described above: an attempt to include information about the "climate" or "environment" of the colleges as the students who live in it say they perceive it. To this end the College Board and ETS in cooperation sent questionnaires to the member colleges and subsequently, if they used them, provided a scoring service. The colleges used the results as they chose in their descriptions in the *Handbook*, but not many used this service at all.

These gaps in collegiate information could be filled without any corporate actions being required, in any subsequent edition of the *Handbook*, by individual member colleges' disclosing the information. To it could be added other information (which some colleges now do include) such as the proportion of dropout and transfer students summarized according to apparent cause and the proportion of students completing programs within various elapsed times; the proportions of graduates of various programs going on to baccalaureate programs, graduate and professional schools, and to various types of occupations; standardized statistics on class size, the number of class hours of teaching per year per faculty member; the student-faculty ratio; budgetary and financial aid practices, particularly insofar as the latter involve test scores or grades; the nature of special programs; opportunities for seminars, for tutorial work, and for work-study experiences; evaluative material on academic departments supplied by students and others, including parents, faculty, administrators, and "feeder" secondary schools; citations, by field of specialty, of particularly distinguished scholars, teachers, and so on.[2]

Potential entrants do not of course categorize their options for postsecondary education according to whether or not the program is housed in a member college of the Board, and if the Board's guidance services are to be offered in the best interests of students they should include information about as many as possible of the options open to those students. In particular, the next edition of *The College Handbook* should be expanded to include all colleges.

In the meantime, a working group that includes representatives of colleges, students, and high schools can be appointed to oversee the systematic collection and distribution of information about colleges.[3] This group should be supported by an ambitious research and development program for the assembly, evaluation, and interpretation of information about colleges and regarded as contributing in stages to the software necessary to undergird a computerized information system. However, pending its incorporation into a computer-based system, the information should be made available to potential entrants in printed form, for example in the *Handbook*, as it emerges so that as much as possible will be available at the earliest feasible time.[4]

Development of an ambitious program of information about colleges to parallel a similar program about students, including tests of the collegiate environment or "climate," will require systematic, scholarly, and imaginative consideration in order to ensure that the information provided is relevant, feasible to provide, and impartial. It may require hard choices to be made about the discriminations that the program of information will allow to be made and about the line of research to be followed. There are at least five rather different approaches to describing collegiate environments in the substantial literature already cre-

2. Detailed suggestions about readily available information about colleges and their programs that could immediately be made available to potential entrants are given in the briefs of James S. Coleman and John Hersey in *Briefs*.

3. Drawn from James S. Coleman's brief.

4. Drawn from C. Robert Pace's brief.

ated on the problem. Colleges have been described: (1) by their students' personal characteristics, (2) by various census or demographic variables, (3) by their programs, (4) by how students behave in them, and (5) by what the students who attend them perceive to be generally true of them. All approaches seem promising at least in part; the important thing is to describe colleges and their programs—and beyond them postsecondary opportunities generally—in terms that are meaningful and important to potential entrants. That surely involves more than predictions of success against the classic criterion of grade-point average, which is apparently being eroded fitfully, but many students are "achievement" oriented even on those terms, and it is in this area that the current asymmetry can be most quickly redressed.

A first step toward a more thorough conception of symmetry can also be made by having the College Board provide potential entrants with mechanisms for presenting themselves on their own terms. For example, students could be given an opportunity to put their best foot forward. They have an enormous range of special skills, sometimes developed to a remarkable degree as a result of a hobby. Present testing programs tend to mask these, leaving the students unable to show what they are best at and failing to give the colleges a full view of their individual capabilities. Although it might be difficult to fit such a supplementary testing program into the confines of the Achievement Tests in the current Admissions Testing Program, the College Board could perhaps find some way to provide potential entrants with the opportunity, through selection from a very wide variety of special and wide-ranging subject-matter tests, to exhibit their special capabilities.[5] These might be small-volume tests, and hence potentially quite different from tests now traditional.

One criticism of the Board's current testing programs is that the tests and their associated services leave too much of the stu-

5. Drawn from James S. Coleman's brief.

dents' individuality out of consideration,[6] and that they therefore encourage the colleges to do so too, even though the Board's information about students was never meant to do more than supplement other sources of information about them. The Board's current tests are pertinent only to certain scholastic variables that are significant in school work at all levels, and the associated services such as statistical analyses that accompany those tests in the programs are usually used only to explore the ways in which those variables impinge on academic attainment. Although it is known that these scholastic variables have significant intersections with other psychological variables and with socially significant variables, the Board's current services provide no very good way for these relationships to be exposed, or for colleges to intervene in the segment of the process of college entry that they experience in order to change its results in terms of socially significant variables or psychological variables other than scholastic aptitude and attainment.

The College Board does not "test" these other psychological variables or social variables, except that students do designate their sex and if they want financial aid do have their need for it "tested" by the Parents Confidential Statement (PCS) provided by the College Scholarship Service (CSS). The Board could of course measure socially significant characteristics such as socioeconomic status and race, and psychologically significant traits other than scholastic aptitude, such as students' attitudes and values, although it probably couldn't do so to any party's benefit unless the students and their parents perceived the provision of such information as being in the students' interests.

There is of course a limit to how useful the Board's services can be to students as long as it knows nothing about them except their scholastic aptitude and attainment, their sex, and where they live, because so simple a description of students would not

6. A frequent criticism and one made before the Commission by Elting Morison, acting master, Ezra Stiles College, Yale University.

allow the Board's services to contribute as much as they might to a comprehensive and sensitive projection of the students' potential relationships to their postsecondary opportunities. The Commission suggests, for example, that the Board consider trying to parallel its "test" of collegiate environments or "climates" with tests of students' personalities, so that both students *and* colleges could make choices on this basis.[7] Such tests, particularly in supplying reliable information about individuals, are in a relatively primitive stage of development compared to tests of scholastic aptitude; some members are concerned about the ways in which they might be used in any case or think colleges would find it difficult if not impossible to use them. The results could of course be given to colleges only after admission, or even only in the form of summary data for all their potential entrants, for their applicants, for admitted applicants, for entering students, and so on, thus preserving individual scores under a cloak of anonymity while at the same time allowing colleges to see, through sequential profiles of summary data, the effect on these variables of selecting students on other variables. At the same time individual students could see their scores and have them related insofar as their reliability allowed to their other personalized data and to a comprehensive and sensitive description of the college.

Other sensitive information, such as race and socioeconomic measures, could be handled the same way if this were thought necessary to prevent institutions from constructing their communities in socially undesirable ways, or if the institutions could not, either by law or on principle, accept such information before entrance. This would allow the College Board to provide information tailored for special groups. For example, interested Afro-American students could be informed of the location and characteristics of black studies programs. It would also allow colleges, even if they received the data only after admission or only in summary form for groups of students, to understand

7. Drawn from Edgar Z. Friedenberg's brief.

how socially significant variables are implicated in the process of college entrance and how they interact with other significant variables. Such an understanding is a first step toward intervening in the process in order to adjust it equitably. A powerful means for that intervention—a student locater service—is discussed in the next chapter of this report.

The most pervasive tests of the College Board—its SAT and the Achievement Tests—are clearly not so appropriate as they might be to support access for the great majority of American youth to a system of mass postsecondary education. These tests support, and support well, selective admissions conducted on an academic criterion among the more apt scholastically of American students. They support less well the distribution of those students to curriculums and courses after the dust of competition for admission has settled. And although the SAT retains its predictive validity throughout its entire range, it is too difficult even for that purpose for most students. Even those students who do relatively well on the SAT may not realize they have since there is a common misconception to the effect that a score of 500 on either the verbal or mathematics sections of it is "average" ("average" makes no sense of course except in terms of some reference group). In fact, the average score of high school seniors on the verbal sections of the SAT is about 375, and 500 is in fact near the average score of those students who successfully complete a baccalaureate program within four years—a rather select group.

Nevertheless, the SAT is an admirable instrument for selecting the likely winners of the more difficult races on academic courses in America. However, while the identification and nurturance of people with highly developed skills in manipulating society's major symbol systems is and will continue to be important, it is also important, and more important in a society determined to have mass postsecondary education, to find ways in which to develop those skills insofar as they are universal requirements for full participation and to find ways to identify and nurture other skills and competencies.

American colleges are seeking for ways to do this, and to its credit the College Board is looking, somewhat belatedly to be sure, for ways to help them do so. The Board's first, and to date its only, operational program that could be so characterized is its recently inaugurated Comparative Guidance and Placement Program (CGP) designed to support open-door colleges and their entrants in the difficult decisions surrounding curricular and course placement in comprehensive institutions. Given after admission, however, CGP can support such distributive decisions only within a single institution. A similarly comprehensive program—in fact a more comprehensive one since it could eventually include materials designed to support students' instruction in decision-making—for students still in secondary school is currently being field-tested experimentally. The program is dependent upon a school's adopting it, at least in initial years, so it will be some time before many students have access to it.[8]

However, the SAT and the PSAT each touch over 1,000,000 students a year, and the Commission suggests that the Board consider for the tests in these programs research and developmental work aimed at their reformation in the interest of making them more appropriate as contributors to more sensitive descriptions of potential entrants that would be useful in a system of mass postsecondary education. The current tests, combined with high school grades, permit colleges to predict which students will after traditional instruction have their study rewarded with relatively high grades. They do not, however, help colleges prescribe educational experiences that will modify that prediction, nor do they delineate traits—cognitive or affective—other than the classic and global ones of verbal and mathematical aptitude that might be exploited by the students and the colleges.

But this, the Commission believes, is precisely what needs to be done. Selection for the traditional instruction against the tra-

8. The Experimental Guidance Information System (EGIS) is currently being field-tested in Texas.

ditional criteria implicated in current grading practices is far from perfect and can no doubt be refined at some institutions through tools already well developed by the College Board (although one wonders how much reliable variance is left to be predicted in the freshman grade-point average). However, one can now identify students predicted to succeed under current conditions much more successfully than one can now prescribe educational experiences for students not predicted to succeed. The latter challenge should absorb the vast majority of the Board's commitment to test development.

To this end, the College Board should explore: (1) the possibilities of having its tests used to describe and analyze behavioral functions in an attempt to better understand the processes by which achievement is developed; (2) the possibilities of using its tests to describe nonstandard achievements that may be equally functional; and (3) the possibilities of using its tests to specify those conditions in the interaction between learner and learning experience that may be necessary to change the quality of future achievements. The development of assessment procedures that lend themselves to descriptive and qualitative analyses of affective, as well as cognitive, adaptive functions should also be explored.[9]

These proposals, at the present stage of development in human appraisal, are very much in the conceptual stage. When effective tests have been developed in these areas they will still of course be useless until instructional methods are sophisticated enough to exploit them. Consequently, although it may more properly be the work of other agencies, the Board should also attempt research that will add to understanding of the ways in which more traditional patterns of instruction will need to be modified to make appropriate use of wider ranges and varieties of human talent and adaptation in education.

In particular, Commission members have suggested changes

9. Drawn from Edmund W. Gordon's brief.

in this direction in the Board's SAT.[10] These can be characterized by saying that the SAT envisioned would provide more specific measurements of the several characteristics or abilities that are or may be relevant to success in different forms of postsecondary education. It would thus be composed of a battery of tests from which colleges could use those they felt appropriate for their own purposes. The discrete instruments provided in such a battery would presumably be more useful for diagnosis than the two measures of developed abilities called verbal and mathematical aptitude that are currently included in the SAT.

From the standpoint of factor-analytic studies, scores on the current SAT reflect at least four "factors" of ability: (1) verbal knowledge—that is, knowledge of vocabulary and ability to understand language; (2) ability to deal with quantitative and spatial concepts; (3) ability to reason with concepts either in verbal or quantitative terms; and, (4) speed in test-taking. The "SAT-V" and "SAT-M" scores reported reflect different proportions of these abilities.

It is also proposed that the speededness of all the Board's tests be reduced, and with regard to the SAT that the quantitative emphasis in it be reduced in favor of measuring developed abilities in that area through other tests such as the mathematics Achievement Tests. The feasibility of separately measuring, and separately reporting on, the verbal knowledge and the reasoning ability of candidates for the SAT should also be investigated. If this can be done, the verbal-knowledge score would mainly give evidence of how well a student can comprehend language, and the verbal reasoning score would indicate how well the student can reason with material already understood. The former would presumably be a function of the student's education and general reading experience, whereas the latter would presumably be less

10. Drawn from the briefs of John B. Carroll and B. Alden Thresher titled respectively, "Possible Directions in which College Board Tests of Abilities and Learning Capacities Might be Developed" and "Diversification in Educational Assessment."

influenced by these factors and more predictive of success for individuals without educational advantages.

The Board should also consider administering some parts of the SAT as listening comprehension tests. Although most of the Board's foreign-language tests are administered in part in an auditory mode, there would of course be administrative difficulties in giving listening comprehension tests in a large-scale testing program. These could be overcome, however, if such tests were sufficiently useful, as would be, for example, a verbal reasoning test that identified large numbers of students with good basic verbal-reasoning ability masked by difficulties with reading.

There is also the possibility that various learning capacities apart from the traditional and more developed abilities could be measured by parts of the SAT. Over the years there have been indications in the research literature that this might be the case, but a concentrated, major effort to develop the necessary instruments has not been made. The College Board should consider developing such tests and adding them to the SAT in the hope that they might better reveal the educational potential of students who have for one reason or another not had the advantage of a good education in conventional terms. Exactly what form such tests of learning capacities as distinguished from developed abilities might take would have to be determined by research, but every effort should be made to reduce the dependence of such tests on educational opportunity, vocabulary knowledge, reading ability, and the like.

Present methods of validating SAT items—that is, of deciding whether or not to add a given new item to the test—militate in favor of items that measure developed abilities specifically useful in the more selective institutions and against items that would measure the potential to develop those abilities or master the tasks not in the traditional liberal arts and scientific curriculums. Other criteria, such as success in two-year institutions, particularly in the vocationally oriented curriculums usually found

there, should also be used, and the criterion for the tests of learning capacities should be one that measures the extent to which a student can develop his abilities.

Thus it is suggested that the College Board investigate the feasibility, and consider the desirability, of recasting the SAT into a system of modular, diagnostic instruments designed to test important competencies in the interests of permitting colleges in their use of various combinations of them a flexibility comparable to that now enjoyed in the assortment of Achievement Tests. If these developments are feasible, then the current SAT can evolve into a battery of tests aimed at indicating students' differential potentiality for various educational programs rather than simply their relative potentiality for the traditional program.

It is hoped that while promoting the developments described above the College Board can at the same time adjust its tests and augment their associated services so as to have them serve an educative function.[11] Every teacher knows that the best time to get an idea across is often right after students have taken a test in it and are keyed up, alert, and questioning. A discussion at this juncture can usually be fruitful because it falls on prepared ground. College entrance tests as now conducted take no advantage of this opportunity to extend and deepen understanding of the particular subject or competency being tested and therefore fail to reinforce in the student the habit of questioning, discussing, developing ramifications of thought, comparing frames of reference, viewing in more than one perspective, and so forth. The present college entrance tests are oriented exclusively toward accurately measuring what a student knows or how apt the student is at certain operations relevant to school work. Neither their construction nor their administration is designed to teach the students anything other than how their performance

11. Drawn from B. Alden Thresher's brief, "A Proposal for Self-Scored, Self-Administered Tests."

compares with others' and what the implications of that comparison are for their future schooling.

However, the College Board could perhaps supplement its present programs with self-administered and self-scored tests, made available to students in great profusion, and accompanied by reasoned discussions about the choice of an answer for each item. Naturally, for tests intended to be educative, curricular validity and teaching merit should be stressed in item selection. This implies a larger role on the part of teachers, and a smaller one on the part of psychometricians, in test construction; teachers, particularly those in secondary schools, should be drawn into large-scale participation in the production of both these and the traditional tests.

The reasoned discussion provided for each item, produced by the same test-construction committee of teachers that generated the item, would go beyond the simple justification of the "right" or keyed answer as is now given for the illustrative question in the explanatory booklets prepared for the current tests. Possible reasons for choosing alternative answers would be discussed, taking account of how a student with a different frame of reference might approach the question. Some item analysis and pretesting statistics might be included.

Depending on the use and purpose of the test, the student's access to the reasoned explanation could be deferred by varying degrees. For truly self-administered and self-scored tests, the discussion could be put at the back of the test booklet and read by the student after the test was finished. If the test was intended to measure the student's knowledge or competence, and if security was necessary for the test's score to be creditable, then the discussion could be distributed to students at the end of the test or even sent to them later.

Accompanying tests with a printed discussion of the questions on them does of course fall far short of the ideal give and take of oral, face-to-face discussion, although it would be an improvement over the present situation. However, the Board could and

should, at least on an experimental basis, invite groups of students who have taken a test to participate soon thereafter in an oral discussion of the tests under the Board's auspices. This would give the Board a valuable opportunity to gauge the psychological and intellectual atmosphere in which tests are enveloped.

There would of course be great expense involved in constructing educative tests on a large scale and problems in making the tests intended primarily to provide accurate measurement to do that no less well while being at the same time more useful for instructional purposes. However, the approach is sufficiently promising and the end sufficiently important to justify its consideration.

The end of course is "education" or "instruction," but the above paragraphs, implicitly at least, construe these words rather narrowly—that is, within the confines of the traditional subject-matter areas. There is a different, or at any rate a larger, sense in which tests together with associated services can serve an educative function.[12] Tests and the larger information systems in which they are embedded (such as the college entrance service discussed in the next chapter) could perhaps be vehicles by which students could be educated to comprehend the process of decision making itself as well as devices designed to support people in making decisions.

This is a heady possibility, since if people can be taught to understand the process by which decisions are made, it may be possible to do so in a way that would liberate them by increasing their sense of mastery of their environment and thereby rolling back their conception of the role that fate plays in their destiny. This might be partially done via tests and supportive services, by teaching students about themselves and about the environment in which they operate in a way that makes it clear that they confront options with attendant consequences and about which they

12. Drawn from David V. Tiedeman's brief.

must make decisions. This kind of teaching might be especially efficacious with adolescents, since such a process would help them discover and define themselves, and thus support them in what is often supposed to be the characteristic problem of modern youth, the formation of an identity.

This educative function of tests would presumably be performed therefore at least partly by the tests that support the distribution of postsecondary education and of high school graduates. The decisions involved in that process are significant and extend over a period of time long enough for the students to explore the various options that confront them, to clarify the probable consequences of each of them, and to make plans for purposeful action after judging the desirability of those consequences against their own values and goals. Students would thus have more control over their lives and would presumably be more inclined to accept responsibility for their situation, especially if they have in the process an opportunity to modify the goals and processes of the institutions through which they must make their way to an adult status and role.

Consciously seeking to perform an educative function, rather than simply trying to keep out of the way of the developing secondary curriculum with its Achievement Tests while at the same time encouraging that development for able students through the Advanced Placement Program, would be a departure for the Board. Another suggestion for development of its programs would by contrast amount to an attempt to extend the "credentialing" function that the Board's tests already serve, especially the AP examinations and the examinations in the College-Level Examination Program (CLEP).[13]

Of course in a sense students' scores on all the Board's tests are credentials or certificates in that they testify to the students' level of competence for academic work as traditionally conceived, conducted, and valued or to their level of knowledge in the more

13. Drawn from Edgar Z. Friedenberg's brief.

traditional scholastic subjects. Students' SAT and Achievement Test scores are however regarded as supplementary to the high school record and are seldom regarded as they might well be as credentials that can stand on their own in lieu of school records as evidence of valued accomplishment.

Sufficiently creditable test scores can be used as credentials and indeed are so used, insofar as the "consumers" of credentials can be convinced that they represent educational experiences that are the equivalent of the experiences that students might otherwise have gained through enrollment in school or college. This supposes of course that, at least as far as the consumers are concerned, it is the academic "outcomes"—and furthermore the *measurable* academic outcomes—of schooling that are the valued part of the credentials conferred by schools. This is not to deny that schooling has other functions, most of which can be subsumed under the heading of "socialization," and that school grades inevitably reflect not only what the students know and can do but also the degree to which they have been, in their school's terms, satisfactorily socialized.

However, many of the consumers of the schools' and colleges' credentials are perhaps relatively indifferent to the socialization factor in those credentials. Such reluctance as there is about accepting those of the Board's examinations that are meant to produce credentials seems to stem from uncertainty about whether they really do adequately measure the substantive outcome involved. And this reluctance the College Board seems to have been successful in overcoming judging from the success of the two of its programs that most explicitly serve the credentialing function.

Through its Advanced Placement Program the College Board seeks to support the articulation of the secondary and postsecondary curriculums by systematically informing high schools about what the colleges' freshman courses in certain subjects are like, by advising them about how to offer such courses to extraordinarily able students while they are still in school, and by provid-

ing the Advanced Placement Examinations to certify such students' success. The result is a credential—a grade on a demanding three-hour examination—that the student can hope to negotiate into college credit and advanced placement on entering college. Whether the student succeeds in doing so is of course up to the college—the Board cannot give the student credit and can only encourage the college to do so. The AP Program's influence should not be underestimated, though: it provided the schools with a viable alternative to "early admissions" that helped them prevent colleges from admitting their best students before they graduated from high school; it provides colleges with students who are not only very able but also demonstrably competent in certain disciplines; and it provides the very able students with curriculums in school that are more suited to their talents and ambitions. The Program also has pervasive effects on the secondary curriculums. Its influence stretches down as far as junior high school, since in order to prepare students for a demanding college course in the twelfth grade, it is in some courses—notably mathematics—necessary to accelerate or enrich their instruction in earlier grades. This may (or may not) result in the students who are not so able or ambitious also receiving instruction more appropriate for them. At the college level the success of the Advanced Placement Program may tend to introduce students ready on entrance for specialization and thereby further vitiate the already tenuous concept of general education in the early undergraduate years.

The Advanced Placement Program was started in the mid-1950s, a propitious time because of Sputnik and the successful—and therefore threatening to the schools—early admissions programs sponsored by the Ford Foundation. A much newer program of the College Board's illustrates the possibilities of an accrediting testing program for a far larger clientele. The College-Level Examination Program (CLEP) was begun about the time the Commission on Tests was appointed. It provides examinations through which participating colleges can provide credit

for the college-level learning now acquired by the millions of people out of school and not affiliated with any institution but studying through independent study programs, radio or television courses, correspondence work, and so forth. A score on a CLEP examination is, again, a credential—but one that a college may or may not honor with credit and that an employer may or may not recognize as the equivalent if the colleges do not. To date the Program's acceptance by both educational institutions and industry encourages those who believe learning should be accredited whether those who have learned have attended institutions or not. Its reliance so far on examinations of the type now traditional concerns both those who think there is (or should be) no substitute for course attendance and classroom assessment and those who distrust the validity of all conventional tests for people from some sectors of society.

These two programs illustrate a deliberate use of tests to provide certification of learning through a test score that is a credential to be taken as at least the rough equivalent of a course grade. This certificatory function of tests is a potent and desirable one, and its extension to a wider clientele should be considered.

The use of tests to certify the competence or attainment of people can provide a valuable alternative to the traditional route of attendance at an educational institution. America seems determined to keep more and more people in school throughout more and more of their lives, and to make such extensive schooling the only road to those adult roles and status which are consistent with dignity and economic security. At the same time the schooling provided for the increasing proportion of American youth is very much the same everywhere for everyone, despite a great deal of rhetoric about differential treatment according to individual differences. The institutions in which students are kept—by law until midadolescence and by social pressure, lack of alternatives, and ambition afterwards—not only cannot, at any rate do not, educate many of them effectively but also have a style and ambiance that is not congenial to many. It is repugnant

to some and may be destructive of the personalities of others, particularly those who are markedly different culturally from the schools' staffs and from the students whom schools traditionally served.

Schools should of course be made compatible with their clientele, but that development may be a long time coming, particularly if that clientele has no alternative to accepting the school other than destroying it. It is possible, even plausible, that many of the students for whom the schools are not appropriate can acquire the necessary learnings outside of school; certainly many of them either cannot or will not acquire them in school. The possibility at any rate could and should be encouraged by the Board's offering high school juniors and seniors, as well as college students intent on transfer or graduate study, the opportunity to take tests for the purposes of obtaining scores, interpretable by reference to national norms in lieu of grades, and if legally possible in lieu of school attendance.

Whatever one may think of the desirability of freeing certain students from institutionalized schooling with its attendant socialization, such a system of certification by tests to supplement the certification that schools and colleges provide has other virtues. It would help all mobile students who are also knowledgeable take credit with them as they move from institution to institution and from one pattern of education to another—say from a postsecondary vocational-technical program to say a technical four-year degree program. And it could save state systems and students' parents a great deal of money, since many of the better-schooled high school graduates know enough in some subjects to justify their not being exposed to redundant material in college along with their less knowledgeable classmates.

Successfully trying to serve an educative function and expanding its performance of the credentialing function via tests and associated services might also add a great deal of testing activity to what already seems an excessive amount to many people. Tests intended to be exclusively educative can be self-administered, as

suggested above, but tests whose scores are to be used as credentials will obviously have to be administered under secure conditions in order to ensure the scores' credibility. And schools already administer more external tests than they care to. Students take more than they care to too, perhaps because they get so little out of most of them that is of direct benefit to them—the scores are mostly used by others to make decisions about them.

That some students are exposed to multiple testing for the purpose of scholarship competitions or college entrance is obvious. How many take multiple external tests is not known. And whether the multiple tests are redundant in the sense that they are producing scores that are or could be, with research, the functional equivalents of each other is also not known. However, it is clear that the College Board's customers for the PSAT and the National Merit Scholarship Foundation's customers for the National Merit Scholarship Qualifying Test (NMSQT) must overlap considerably. And it is clear that the College Board's customers for the SAT and the American College Testing Program's customers for the Student Assessment Program must overlap considerably.

As for the latter both ACT and the Board are each currently testing about 1,000,000, which is over a third, of the nation's seniors; since only about half of all seniors go immediately to college it seems likely that many students are taking both batteries of tests. As for the former, the Board also offers the PSAT so that students can as sophomores, juniors, or seniors, and at relatively little expense, obtain scores that are highly predictive of the SAT scores they are likely to obtain eventually, and make their plans for college entry with that information in hand. The PSAT is taken by some sophomores and by some seniors, but most of its volume is concentrated in the junior class. About 1,000,000 juniors currently take the PSAT in October of each year. Later in the year 800,000 of the juniors take the NMSQT of the National Merit Scholarship Foundation in order to compete for that corporation's scholarships. The scholarships are not awarded on the

basis of the NMSQT; its scores are used to screen the candidates whom schools endorse, and those selected on the basis of them compete for scholarships on the basis of other criteria—including SAT scores.

The overlap between the PSAT candidates and the NMSQT candidates is not known, but the latter know that if they survive the first round of competition, they will have to take the SAT. Since the PSAT anticipates the SAT, and since the PSAT is taken by as many students as the SAT, it seems likely that the PSAT-NMSQT overlap—as in the case of the SAT and ACT's tests—is substantial.

This is a lot of testing, and it is not surprising that the nation's secondary schools, on which the burden of administering all the tests mentioned largely falls, are restive and irritated with it. It would also not be surprising if a lot of this multiple testing for college entry were redundant to boot. Those who care to write the College Board, ACT, and National Merit for a description of their tests will find that on the surface they appear to be tests of different things, or at least of the same things packaged in different ways. Consequently, it may seem plausible that one of the tests is more useful for a given purpose than another, which in turn may look superior for a different purpose, and so on. This may be the case, but it may also be that all the tests given for college admissions and scholarship purposes are about equally useful for those purposes, and that those using them might just as well use one as the other. If so, fewer students would need to take more than perhaps one test in the junior year for preliminary scholarship screening purposes (the Commission does not mean to imply that it endorses this practice) and one in the senior year for admissions purposes. More testing may be redundant for many students, and if so it is an inappropriate imposition for clients, if not for paying customers.

If it is true that multiple testing is redundant, then these tests must be in some sense equivalent to each other, or so nearly so that the results for one could be substituted for the results on the other. However, it is difficult if not impossible to set up accurate

equivalencies among the scores on, say, the SAT and those on the ACT battery (partly because norms for the tests have been based on different populations). A few equivalency tables are in existence, but because of the way they were constructed, they are almost certain to be inaccurate and therefore to be giving an unfair advantage to the students who take one or another of the two tests. Better equivalency tables than those currently in existence could be constructed by basing norms for both tests on national samples of students, but these might still not be adequate.

A different method of establishing equivalencies should be considered, one that involves the use of a third variable in addition to the scores on two (or more) tests. The third variable would be simply the criterion the two tests help to predict. To be more specific, many colleges currently use test scores, in conjunction with high school grades (or class rank), to predict students' freshman grade-point averages after admission. Whatever the difficulties may be in satisfactorily establishing that *in general* certain scores on one test are equivalent to certain scores on another test, it is possible that establishing which scores are equivalent *with reference to a particular criterion* may be feasible. Thus, if a certain configuration of scores on the SAT, for example, and a certain configuration of scores on ACT's tests should both predict for students with the same high school record the same college freshman grade-point average, then those two configurations of scores can be regarded as equivalent for that purpose.

The SAT and the ACT battery have never both been given to one entirely satisfactory sample of students, but when they have been given to the same group of students and the scores' relationship examined, the intercorrelation between the tests has been about as high as the reliabilities of the two tests will allow. This makes one suspect that the two tests are measuring essentially the same things. If so, the predictive validity—for any criterion—of one of them is not likely to be noticeably different from that of the other unless one test is markedly more difficult than the other. This is of course possible, as are other incongrui-

ties, but there is little point in conjecturing at great length about them since these questions can be easily settled by the sort of research routinely performed (free) for colleges by both the College Board and ACT.

Consequently it is suggested that the College Board propose to an organization such as the American Council on Education that it create a Council of College Admissions and Scholarship Testing that would invite the various testing organizations and agencies to join for the purpose of cooperating in research that would lead to mutual agreements among themselves and the higher education institutions concerned whereby colleges would accept scores on different tests as equivalent for admissions purposes.[14]

It is also proposed that the research and development to be sponsored by this council be based on a method of establishing equivalencies in terms of equivalent predictions of criterion variables. Such a method has the advantage of encouraging competition between the various tests in the field. This it is supposed will be healthy and a spur to the various organizations offering tests in their attempts to improve their tests' usefulness.

There is an inherent danger in the implementation of this proposal. Colleges have very different clienteles in terms of test scores and also in terms of the students' interests and ambitions, their social and ethnic background, their sex, and so on. This is easily and therefore well established. It is also true that colleges' curriculums, and the curriculums within the more comprehensive colleges, seem rather varied according to catalogs' course descriptions and other published information. And grading standards vary from college to college, or certainly seem to since the distribution of grades seems to be much the same from college to college and yet the students from college to college do not seem to be equally knowledgeable or competent in the skills the colleges reward with higher grades. What is apparently *not*

14. Drawn from John B. Carroll's brief, "Redundant Testing."

very different from college to college is the way in which students are instructed, or what is perhaps more important, the way in which student performance is valued insofar as those values are implicitly exhibited by colleges' grading practices.

This can be inferred from what is known about college entrance tests and how they relate to college grades. Time and again the predictive efficiency that test scores add to the high school record is due largely to a factor that can be described as "verbal aptitude," whatever the tests that provide it may be called and whatever their items may on the face of things seem to be measuring.

If verbal aptitude were not heavily involved in the high school record, this might not be so worrying, but of course it is: the tests correlate all too highly for comfort with the high school record. The chief effect of adding test scores to that record is apparently to compensate for the various degrees of rigor with which various schools evaluate their students' work. The situation seems similar at the postsecondary level: virtually all colleges, and virtually all curriculums within them, value and reward largely a mixture of perseverance or persistence and whatever it is that the verbal sections of the SAT are measuring. Mathematical aptitude is of course also significant in the more scientific and technical curriculums. Other traits known to be positively associated with academic or scholastic attainment, such as social class, ethnic background, and so on, turn out on inspection to be largely irrelevant when the differential distribution of verbal and mathematical aptitude and high school grades among these groupings is taken into account. Sex is an exception to this since a group of young women with the same configuration of high school grades and test scores as a group of young men will, on the average, perform better than men in college.

Tests are useful then, but the current tests are apparently useful primarily because they accurately document students' verbal aptitude. This trait—and little else other than whatever may be subsumed under "motivation"—seems to be pervasively valued and

rewarded in American secondary and postsecondary education. Most members of the Commission doubt that verbal aptitude would be so pervasively valued and rewarded *out* of school if it were not so inextricably bound up with what is sanctioned *in* school, and if the credentials that schools dispense were not passports—and increasingly the only passports—to the more valued and more highly rewarded social roles after schooling is completed.

And even if this is the case—even if verbal aptitude is as relevant to "adult" roles and responsibilities as it is in school work—then it seems likely that a way will have to be found to have other traits recognized as equally useful. A society that organizes its roles and the differential status of its members so much around a single trait, buttressed by personality characteristics that are congruent with protracted schooling that is everywhere largely of a single style, may be viable (if dull and monolithic). But not apparently in America, because it appears that if America is to have any sort of decent society at all that society must be a pluralistic one in which all major ethnic and social groups feel themselves to be full participants with equal opportunity and a fair share of society's rewards.

One of the best documented social facts is that academic aptitude, which is largely verbal aptitude, as measured by college entrance tests is *not* now distributed randomly with regard to social class or race. This means of course that a system geared to reward scholastic aptitude as currently measured will *not* result in proportionate representation in the various levels of schooling for all classes or racial groups. The Afro-American youth in the major American minority racial group have clearly indicated that they will no longer tacitly acquiesce in such a system, and their attempts to rectify the bias against them inherent in it have precipitated a crisis in American higher education.

A wide range of responses to this crisis is possible; one is research toward the revision of the current concept of verbal aptitude. This is pertinent here since the proposal to eliminate redun-

dant testing by establishing equivalencies among various tests, all of which measure to a large extent verbal aptitude along with its less important mathematical consort, might have the unfortunate result of further solidifying its dominant position in American education.

The Commission, in short, wants college entrance tests changed and has made suggestions to the College Board to that end, but if the Board's and other agencies' current tests are bound together through procedures that establish the equivalency of all college entrance tests, then it may clearly become more difficult to change any of them. That is, an equivalency procedure that encourages competition simply to see who can make the best test of verbal aptitude may at the same time discourage competition to see who can make tests that will allow and encourage academia to reward talents and abilities other than verbal aptitude. This would be a greater evil than the inconvenience that schools currently suffer from having to administer two national college entrance testing programs, and greater than the slight additional expense some of the colleges' currently largely middle-class applicants may incur by taking both of them.

Inaugurating New Board Services

Unlike the last chapter, which was addressed to existing Board programs, this chapter outlines three entirely new services that members of the Commission have recommended that the College Board inaugurate. All three are ambitious proposals, and some members have reservations about whether the College Board can or should try to establish them and if so how long doing so might take. The Commission, however, suggests that the Board consider doing so. Details of the proposals themselves as well as of the members' reactions to them are given in *Briefs*.[1]

A college entrance service[2]

As can be seen in the preceding chapter, Commission members have recommended that the College Board should greatly expand and refine the information bearing on college entrance that is available both to students and to colleges. Even without some of the recommended expansions and refinements in information, simply redressing the current imbalance between what students know about colleges and what colleges know about students would probably soon result in publications so large and so difficult to use effectively that a computer-based information system would be desirable. Indeed the amount of information in the current *College Handbook*, insufficient as it is and restricted to member colleges only, results in a formidable compendium.

After the Commission began its work, the College Board's Committee on Guidance began to consider formally the desirability of the Board's offering a college-locater service to students, perhaps a computer-based one, in the belief that such a service could expand and more clearly illuminate and differentiate students' options for postsecondary schooling. In its simplest form a college-locater service has the considerable advantage of categorizing and indexing students' collegiate options so that the

1. The companion to this volume, which can be obtained as described on p. ii.

2. Drawn from the briefs of John Hersey and David V. Tiedeman.

universe of colleges can be narrowed to their specifications.

A similar service for colleges would consist of a categorized and indexed list of students—a student-locater service—that would assist colleges in finding student populations who, along with their faculties, would enable them to become communities manifesting their own best possibilities. What is suggested here is a College Entrance Service, presumably to be comprised of numerous machines and human beings, that would by welding together a student-locater service and a college-locater service provide a powerful mechanism for the realization of true symmetry of the process of college entrance.

The "input" for such a service would be the most comprehensive and sensitive available descriptions of both students on the one hand and of colleges and their programs on the other hand. Internally it would incorporate procedures that would allow both students and colleges to explore the likely outcomes of their exercising their respective options. Thus the "output" would in addition to providing both parties with focused lists and descriptions of opportunities also provide insofar as possible projections of the likely outcomes of successfully pursuing them. Colleges could, for example, see the consequences, in terms of socially significant variables, of pursuing a "selective" admissions policy on scholastically significant variables. Moreover as both students and colleges used the system they would leave behind them a detailed record of how they successively narrowed the range of their options and, possibly, of why they preferred some of them over others. Such information, now utterly inaccessible, would be invaluable to colleges and systems of them in adjusting their institutions and programs as seems desirable to meet their student clientele's needs and desires. In addition to serving this evaluative function for colleges, such a service could also supply guidance and diagnostic materials on themselves to individual students.

The current state of the technology of computer hardware and of the art of computer programing would permit this much; it

would be a significant and substantial gain over what both students and colleges currently have available to them. As the information that the Board collects and generates about students and colleges is expanded it can be added to the system, and as advances in programing are made much more sophisticated procedures can be embodied in the service.

Although publications might originally be the larger part of a college entrance service and be required for some time in a supplementary capacity, it seems clear that the sheer mass of information to be stored, retrieved, and reported would force an ambitious service to be computer-based. There are essentially two alternatives for a computer-based service: "batch processing" of standard multiple-choice questionnaires filled out by the client; or an "interactive" mode in which the client, in effect, converses with the computer through its programing.

An interactive system would allow the client to explore options and consider alternatives. Such a system lends itself easily to productive repeated interviews, for responses are stored and remembered; the client, in short, is the active agent. These seem significant advantages, especially for the clients, but such a system would be relatively expensive both to develop and to operate, and it would require the client to have access to hardware, either mobile or permanent. A batch-processing system based on questionnaires would, by contrast, be cheaper, more highly standardized, and therefore probably safer, but by the same token, relatively rigid, with less opportunity for the student to take the initiative, to probe, and to consider alternatives.

Perhaps the latter, a technical feasibility now, can be used temporarily without resulting in neglect of the potentialities of the former. Whatever the operational mode chosen for immediate development, the simultaneous development of both operations and research is suggested for the Board's consideration, with the original College Entrance Service making use of printed materials as necessary and of such information as is already available about colleges and students. Considerations of the *best* way to in-

tegrate entrance services for students and entrance services for colleges—and the two will have to be integrated somehow, both conceptually and through information exhibiting the potential relationships between the two clienteles—should not obscure the great need for students to somehow receive soon more information about colleges, about themselves, and about the potential relationships between the two.

There are in the longer run tremendous possibilities inherent in the extension of an interactive computer-based information system that, among other things, links students and collegiate officers through its procedural routines. But these adhere to potential technological advances and to developmental work that is not yet complete, and their exploration should not be allowed to inhibit the concurrent operation of what is possible now even though it may soon seem to be a relatively primitive system.

First of all, the system could be extended over time so that it serves its college entrance function as part of a more general transition-out-of-high-school function and as the natural last stage of more comprehensive guidance functions that began well back in the students' school years. Secondly, these functions could include training and practice in the process of decision-making. Thirdly, the system might become sufficiently flexible and sensitive to allow both the students and the collegiate officers in the college entrance stage not simply to present themselves to each other as choices to be accepted or rejected but actually to share in each others' determinations of goals and expectations.

Moreover, further advances in the software and programing systems that support educational as well as other uses of complex computer-based information systems may make it possible for machines to process free-response as well as forced-choice answers to test questions and might even permit testing of students' ability to form problems as well as to solve them. Similar technological advances might also give the admissions or placement officer of a college the opportunity to construct the sort of test needed by composing tests from "banks" of stored items, and

furthermore to have the applicants' responses summarized and analyzed in various ways, as opposed to the current procedures in which test, responses, and subsequent analysis and reporting are all highly standardized.

Such tests might be embedded in a more comprehensive interactive system that would allow students to simulate the decisions that must be made when they move out of high school as well as to actually engage various colleges, through the computer, in the real choice process. In the course of doing so—given a sufficiently refined information system—each could expose to the other information about their goals and expectations and evidence of their willingness to adjust these in the interests of a satisfying experience should the student actually enter the college. The possibility of such adjustment in a given case could be judged from the records—stored in the computer—of the various parties' success in similar adjustments in the past.

Such a comprehensive and sensitive information system has not yet been constructed, although prototypes of parts of it have been, and may in fact not be a possibility or may be so expensive as not to be feasible. However, the beginnings made to date are promising, and such a system might grow naturally out of the less ambitious College Entrance Service suggested above that is feasible now. Consequently, the suggestion is that the Board consider establishing a small study group to outline how such an ambitious system might serve its clients and to undertake such studies as are necessary to reach within two years a plan for developing it if it is feasible.

Regional centers for guidance in continuing education[3]

It has frequently been mentioned in this report that at the present time about half of the nation's high school graduates enroll on

3. Drawn from the brief of Nancy K. Schlossberg, John C. Hoy, and Edmund W. Gordon.

a full-time basis in college in the fall following their graduation. An additional few percent of those graduates join them on a part-time basis, but these are apparently few in number compared to graduates from earlier years who are entering college after having "delayed" their entry. The latter are in significant ways outside the normative pattern for the continuation of education after high school. In this respect they are similar to many adults who for one reason or another discontinued their postsecondary education and are reentering college. They as well as "delayed" entrants also have something in common with a large number of young people, many of them still in school, who because they are culturally different find that such support as they have from educational institutions is not very helpful to them in making their way to further training or education.

Because all these people have situations that are somehow not congruent with the normative patterns of school and college attendance, the guidance and other services that support college entry are not very helpful to them. Theoretically they could be, but actually the "system" is so hard-pressed to cope with the enormous numbers following the normative patterns, and so solicitous of their problems, that it tends to neglect potential entrants outside those patterns. The computer-based College Entrance Service described previously in this chapter could perhaps have routines built into it that would adequately serve the interests of all potential entrants. But that is at least several years away from realization, and the non-normative clients for such a service would perhaps have as much trouble getting hooked up to that system as they now do getting to the few agencies that are providing fragmented services for them.

In any case, the immediate needs are pressing, and the suggestion is that the College Board consider establishing regional centers for guidance in continuing education with the intent that they serve the needs of the clientele described above. The potential programs that such centers might mount are endless; several in particular should be considered. They are: (1) appraisal and

related advisement services, although the use of formal testing with this clientele should probably not be as extensive as with the normative one; (2) the development of local systems of credit equivalency so that experiences that are the equivalent educationally of classroom work can be validated; (3) offering, in conjunction with local and cooperating universities, courses in guidance for credit; (4) training of staff for guidance work such as that done at the center; and (5) experimentation and research. Student participation should be incorporated into the work of these centers as well as into the Board's national program.

Such centers, especially if each mounts ambitious programs, would be expensive and would return relatively little income from clients' fees because of the nature of their clientele. It is anticipated that the Board would provide leadership but seek funding from other sources too. At the least, pilot programs could be mounted in significant urban centers in the hope of having a wider influence. A model is at hand in the College Assistance Center that the Board has been jointly sponsoring in New York City with New York University and The University Settlement House.

The College Board might consider changing its name to "Continuing Education Entrance Board" in recognition of the fact that it increasingly is, and ought to be, concerned with helping people take advantage of, and helping institutions provide, avenues of entrance into America's opportunity structure and not simply with providing examinations for that purpose.

A program of testing for job entry[4]

Despite a great deal of rhetoric about "universal higher education," it is clear (see Table 1, page 37) that if by this is meant full-time enrollment in a postsecondary educational institution, then we are nowhere near having it and not likely to have it in the

4. Drawn from Sidney P. Marland's brief.

near future. Currently "only" about 75 percent of American youth graduate from high school and the 25 percent or so who do not graduate present challenges not yet solved. Only 5, perhaps 6, out of 10 of those who do graduate go immediately to college on a full-time basis. The other 3 or 4 of the 10 young men and women who graduate from high school—together with the 1 or 2 who don't—must seek employment, enter the armed services, or in the case of the women perhaps, make a home and raise a family.

This "other half" of American youth is relatively neglected today in at least two ways. There are considerable pressures on them to continue their formal or institutionalized schooling, but that schooling is usually still at all levels either essentially what has always been provided to the formerly relatively small proportion of the population preparing for and going to college or a poor substitute for it. Concurrently there is relatively little done to expose them to or prepare them for opportunities other than continuing their schooling. Furthermore, the prevailing status system is such that jobs in occupational clusters that do not require credentials beyond the high school diploma, and educational patterns that lead to them, are perceived as undesirable.

Everyone who wants continued schooling immediately after high school should of course be permitted and encouraged to seek it, but there should be alternative routes to personal dignity and economic security. The point here is simply that some agency should provide more systematic access to those routes comparable to at least that already provided, partly by the College Board, to further schooling. And this should be done by procedures that do not carry with them even an implicit stigma of failure and undervaluation of those students who do not go to college.

Going to college has associated with it implications of higher status than does going to work, and so do all those things associated with going to college, specifically the college preparatory

curriculum and the Board's college entrance examinations and guidance services. It would be naive to think that simply exposing those youth who do not go to college to a job entry program parallel to the Board's college entry program will equalize, or simply in and of itself much affect this difference in the status ascribed to certain roles or the way people are differentially valued. However, such a program for job entry would have other beneficial effects, and might in the long run help to reduce the invidious comparisons currently made between certain occupations and between educational levels and systems associated with them.

Furthermore it can be argued that the Board can do a better job of supporting college entry if it also supports job entry. The College Board is increasingly involved in guidance activities that stretch well down into the secondary level, and wisely so since important decisions that affect college entry opportunities are made early in those years if not sooner. But the nature of guidance is such that it is crucial to expose students to all their options and to what they can do to take advantage of those which have consequences attractive to them. To offer guidance services late in the secondary years to only those students who have already decided to attend college amounts to not encouraging those whose backgrounds, but not their tastes or talents, make college seem a remote possibility.

This seems to imply that the College Board in order to increase effective access to postsecondary education should concern itself with all the colleges' potential clientele as the Commission has recommended—which is to say with practically the full cohort of American youth—and not later than the eighth or ninth grade when important decisions about the secondary course of study are now made. But to simply sift that cohort for those whose competencies would currently predict academic success would amount both to consigning the rest to something thought less worthy and those selected to a class of careers and life styles that might in later years seem to them less desirable than other

alternatives. It would furthermore, given the current preoccupation with college going, encourage the schools to continue to neglect the curriculum of those of their students who will not go immediately to college.

What is needed, of course, is schooling that takes the student somewhere in both personal and career terms, and it need not be to college in order to be thought desirable or to be highly valued. This the College Board can perhaps support and should explore the possibilities of doing so.

The first step would seem to be to find the traits, aptitudes, and competencies that are positively related to the various initial employment opportunities and to the noncollegiate opportunities for further training and education. This effort would of course intersect to a certain extent with the Board's Comparative Guidance and Placement Program which has, among others, the same goal for the various curriculums of the multifaceted two-year institutions of higher education. These curriculums, particularly those called "terminal," are very similar to training offered within many industries on the job. In fact, the distinction between what is "collegiate" and what is not is becoming increasingly blurred, and this development will also likely make it increasingly difficult for the College Board to concern itself strictly with services supportive of college going.

Measures of these skills and learnings can then be integrated with the measures peculiarly useful for strictly academic programs into a comprehensive program of assessment. It seems essential that there *not* be constructed two programs, one for those going to college and one for those not. Such a program of comprehensive assessment could be tried out in cooperation with lively urban school systems involved in curriculum reform. If successful on a small scale it could expand and provide both a beneficial stimulus to the secondary curriculum as well as a mechanism by which students could have their competencies certified and obtain credentials for job entry as well as (or rather than) college entry.

Consequently, the suggestion is that the College Board take steps to greatly increase the scope of its testing programs to include the measurement of student competencies other than those reflected in measures of academic promise for college entrance, and that the Board undertake initially a major study, including a pilot program to develop appropriate materials and procedures, of the feasibility of assessing qualifications and classifications for job entry and for postsecondary technical training.

If the results of the study and the experience with the pilot program are promising, then the College Board should consider expanding its domain as well as its clientele in order to have its tests and associated services serve the same functions for job entry as they serve for college entry, and changing its name accordingly to "Career Entry Examination Board," or such other appropriate name as would accurately reflect its expanded function.

Changing the Board's Governing Structure

Earlier chapters of this report conveyed the Commission's conclusions about the functions that the Board's tests and services could and should perform in American education, its recommendation that the Board adopt the full range of potential entrants to postsecondary educational programs as a fully valued clientele due its symmetric share of service, and its suggestions about what this recommendation seems to imply for the Board's development and augmentation of its current tests and services. This chapter explains the Commission's suggestions about the implications of the Board's expanded role for its organization and governance. These suggestions, like the ones reported in earlier chapters, are presented for the Board's consideration; the proposals from which they are derived, together with the members' reactions to them, are given in detail in *Briefs*.[1]

An organizational suggestion[2]

The first suggestion pertains to the organization of, and to the relationships between, the various testing programs of the College Board. The testing programs intended to supply collegiate officers with information about students have always been the focus of most of the Board's attention, and the programs intended to supply students and their counselors with information have been derived from those college-oriented programs and provided incidentally. The student-oriented program as a natural result provided students with only part of the information they need to make their plans, namely a partial reflection of that needed by colleges. Logically, at least if all potential entrants are to be adopted as a fully valued clientele, the situation should be reversed.

For the most part a college needs only part of the information about a student that the student needs about himself (and the

1. The companion to this volume, which can be obtained as described on p. ii.
2. Drawn from Richard Pearson's brief.

college needs that information later than the student needs it), because a given college is concerned with only a segment of a potential entrant's entire spectrum of postsecondary opportunities. Consequently, if the Board does put its emerging student clientele on a par with its collegiate clientele, then it will provide for the student's use descriptions of himself sufficiently sensitive and comprehensive for him to make his postsecondary plans. And insofar as those plans include collegiate opportunities, the information a college needs about a student can, with the student's permission, be pulled from the information about the student that has already been generated for his use.

Consequently, the suggestion is that the Board consider adopting as its principal policy objective in testing the provision of a broad array of tests and other information designed to assist high school students in educational planning and other decisions with respect to postsecondary opportunities.

This is not intended to upset the recommended symmetry of services to the Board's traditional clientele and to its clientele of potential entrants. Rather it is suggested in recognition of the fact that colleges neither need nor should have information about students that is not shared with the students for their use, and that such information is only a part of that needed by students. The latter, it is suggested, can be stored in a computer-based information bank and, with the students' permission, gained in such a way as to ensure the protection of the students' privacy and reported to colleges as they need it. All colleges will not need the same information; some three to five separate reporting programs—all reporting information resulting from one student-oriented testing program—might be necessary.

Potential entrants who are out of school would need a supplementary testing program for their and the colleges' use, and the requirements of some colleges might make supplementary programs necessary for some students still in school. It is anticipated however that the net effect of such a reorganization of the Board's testing programs would be to reduce the amount of test-

ing that would otherwise be required in order for the College Board to provide both potential entrants and collegiate officers with the information necessary to support a process of college entrance characterized by reciprocal choice.

Governmental suggestions[3]

The Commission recommends that the College Board adopt the full range of potential entrants to programs offering opportunities for postsecondary education as a fully valued clientele. It seems obvious that this cannot be done effectively, or if done, expected to persist satisfactorily as that clientele's needs evolve, without facilitative adjustments in the procedures by which the Board legitimatizes the design of its services and authorizes the operation of them. The Commission has also noted the necessity, in the public interest as well as to serve its clienteles, of the Board's taking particular pains to avoid reinforcing, and insofar as possible to reduce, the unfortunate biases against potential entrants who are not middle-class, white, and male that are reflected in the process of college entrance and completion today. This ambition too has implications for the Board's governance.

Clearly for the Board to serve well all of its several and diverse clienteles it must make sure that representation of their interests in its governmental processes is as pluralistic as they themselves are. Pluralistic participation is of course to some extent guaranteed for the Board's collegiate clienteles through its membership structure.

The College Board's institutional constituency has, for example, never been "segregated" if that term can be applied to an association of institutions. Institutions of higher education in the United States had of course until very recently student bodies that were either almost entirely white or almost entirely black. Afro-American students, by policy or practice, were restricted

3. Drawn from the briefs of John C. Hoy and James S. Coleman.

largely to colleges located principally in the South and called as a group "predominantly Negro colleges." These colleges still enroll about half of all Afro-American undergraduates. Nearly half of them are members of the College Board, as are most large-city school systems, in which nonwhite youth generally are concentrated.

In very recent years some colleges that were formerly almost exclusively serving white students have been vigorously recruiting black students and have begun to give nonwhite—especially black—applicants preferential treatment in the competition for admission that has normally been based on definitions of merit that give white students an advantage. These colleges too are well represented in the Board's institutional constituency. The relatively recent emphasis among the Board's members on providing equal educational opportunity, especially for those students handicapped in a largely white society by their color as well as by poverty and prior educational neglect, has also been, as the Commission suggests it should be, reflected in the governing structure and staff of the Board. The members of the Board's trustees and of its advisory committees, as well as its staff, are Afro-American in about the same proportion as in the national population. The Commission suggests that these groups consider reviewing the Board's present financial commitments and completely analyze available supplementary funds in the area of equal educational opportunity.

In addition to its suggestion that the governance and management of the College Board's tests be participated in by the plurality of the country's racial and ethnic minorities, the Commission is also concerned that the Board's representation and management be sufficiently sensitive to the needs and interests of students—as distinct from those of institutions—in general. The intimate involvement of the College Board's institutional constituency in its services is reassuring in times during which institutions too often seem remote and too seldom seem to consult with their clients in order to serve them according to their own

perceptions of their needs. The Commission suggests that the involvement of the Board's student clientele should be equally intimate, and that the Board should consider modifying its governing structure to embody a symmetry of the interests of potential entrants and the interests of collegiate officers.

The general intent of such a modification would be to place the review and provision of services for potential entrants under those responsible for representing their interests, and to keep the review and provision of services for collegiate officers under those responsible for representing their interests. Each could then decide and have the Board arrange to provide whatever information it wanted about the other. With some reservations as to its necessity, it is suggested that the Board consider guaranteeing compliance by not providing a college with information about students unless the college provides the information specified by a Board committee including representatives of colleges, students, and high schools.

Two ways of accomplishing such a modification have been suggested. One would be simply to have each member school and college select both a voting representative to review services provided for potential entrants and one to review services provided for collegiate officers. Assemblies composed of the two groups could meet and otherwise be consulted separately, at least for some purposes. Alternatively, a parent organization, with no members, could incorporate two subordinate membership organizations, one to represent the clienteles currently represented in the Board and the other to represent the clientele of potential entrants.

While there are various forms that a symmetric governing structure could take, there should be no need for confrontation politics or deadlocks between the two major interests, because the interests of collegiate officers would be the controlling voice in certain decisions while those of potential entrants would be controlling in others.

Summary

The Commission on Tests was charged with undertaking a thorough and critical review of the College Entrance Examination Board's testing functions in American education, with considering possibilities for fundamental changes in the present tests and their use, and with making recommendations based on its conclusions.

After reviewing criticisms of current tests and their use, the Commission was convinced that the College Board should continue, rather than abandon, its testing functions in American education. The Commission concluded, however, that the Board's current tests and associated services are in need of considerable modification and improvement if they are to support equitable and efficient access to America's emerging system of mass postsecondary education.

The Commission also concluded that the College Board's tests and associated services—although both would need adjustment and augmentation to hew closer to the public interest in doing so—could and should serve three functions in American education:

1. A "distributive" function by contributing to comprehensive and sensitive descriptions of students, of colleges and their programs, and of the potential relationships between the two as both students and colleges engage in a process of reciprocal choice.

2. A "credentialing" function by certifying demonstrable educational attainment whether acquired by attendance in school or college or not.

3. An "educative" function by instructing students both in subject-matter areas and in the skills and methods of making decisions and choosing.

The Commission recommended that the schools and colleges that in association are the College Entrance Examination Board cause the Board to adopt the full range of potential entrants to programs offering opportunities for postsecondary education as

a clientele that is as valued as the Board's institutional clientele and thus is due as large a share of service.

The Commission generated suggestions about the implications, in a system of mass postsecondary education, of the Board's acting for both its traditional institutional clientele and an equally valued student clientele.

Recommendations that individual members of the Commission on Tests proposed that the Commission make to the College Entrance Examination Board, and that the Commission forwarded to the Board as suggestions for its consideration are contained in the following list. Arguments for these proposals advanced by individual members as well as the reactions of other members to them are given in detail in *Briefs*, the second volume of this report.

It is recommended that the College Entrance Examination Board:

1.1 Propose to an organization such as the American Council on Education that it create a Council on College Admissions and Scholarship Testing that would invite the various testing organizations and agencies to join for the purpose of cooperating in research that would lead to mutual agreements among themselves and the higher-education institutions concerned, whereby colleges would accept scores on different tests as equivalent for admissions purposes.

1.2 Propose that the research and development to be sponsored by this council be based on a method of establishing equivalencies in terms of equivalent predictions of criterion variables.

(Proposed by John B. Carroll in his brief "Redundant Testing.")

2.1 Support research to investigate the feasibility of recasting the SAT along the following lines:

a. Provision of a section or sections more clearly emphasizing developed verbal skills relating to language comprehension and

learning from language, with the reasoning component de-emphasized;

b. Provision of a section or sections more clearly emphasizing ability in reasoning and inference that does not depend greatly on verbal skills;

c. De-emphasis of the quantitative sections of the tests, with provision for testing of developed ability in this area in specific achievement tests apart from the SAT;

d. Administration of some parts of the SAT in an auditory mode, to reduce dependence of those parts on reading ability;

e. Provision of a section or sections that would measure scholastic learning capacities or potentials as much as possible apart from developed abilities;

f. Validation of SAT materials not only against overall absolute success in higher education (in various types of programs), but also against gains made in developed abilities.

2.2 Introduce on a gradual basis, if the above types of tests prove feasible and acceptable, a new and possibly renamed SAT, with appropriate dissemination of information about the test both to educational institutions and to candidate populations.

(Proposed by John B. Carroll in his brief "Possible Directions in Which College Entrance Examination Board Tests of Abilities and Learning Capacities Might Be Developed.")

3.1 Systematically gather and publish relevant information about colleges, the nature of that information to be determined by a working group including representatives of colleges, students, and high schools.

3.2 Beyond the standardized testing that allows colleges to make direct comparisons of a few characteristics of applicants, provide the applicant with the opportunity, through selection from a very wide variety of special tests ranging in subject from numismatics to algebraic topology, to exhibit his special capabilities,

developed in or out of high school, that may be relevant to the colleges' interest in him.

3.3 Provide colleges and applicants with information about the other only if they are willing to allow information about themselves to be made available.

3.4 Modify its governing structure to embody a symmetry of college and applicant interests.

(Proposed by James S. Coleman in his brief "The Principle of Symmetry in College Choice.")

4.1 Offer not merely achievement and aptitude tests but also diagnostic tests that would permit colleges and students to select each other with due regard for prospective compatability.

4.2 Offer high school juniors and seniors, or college students intent on transfer or graduate study, the opportunity to take tests for the purpose of obtaining scores, interpretable by reference to national norms in lieu of grades and, if legally possible, in lieu of school attendance.

(Proposed by Edgar Z. Friedenberg in his brief "Can Testing Contribute to the Quest for Community Among Students?")

5.1 Explore possibilities for adding to its quantitative reports on the performance of students, reports descriptive of the patterns of achievement and function derived from the qualitative analysis of existing tests.

5.2 Explore the development of test items and procedures that lend themselves to descriptive and qualitative analyses of cognitive and affective adaptive functions, in addition to wider specific achievements.

5.3 Explore the development of report procedures that convey the qualitative richness of these new tests and procedures to stu-

dents and institutions in ways that encourage individualized prescriptive educational planning.

5.4 Explore the development of research that will add to understanding of the ways in which more traditional patterns of instruction will need to be modified to make appropriate use of wider ranges and varieties of human talent and adaptation in continuing education.

(Proposed by Edmund W. Gordon in his brief "Toward a Qualitative Approach to Assessment.")

6.1 Carry the principle of symmetry to its full realization by establishing as soon as possible a College Entrance Service, the purpose of which would be:

a. to guide applying students to colleges that would fit their needs and abilities;

b. to assist institutions in building student populations that, along with their faculties, would enable them to become communities manifesting their own best possibilities;

c. to supply diagnostic and guidance materials on themselves to individual students;

d. to supply evaluative materials on themselves to colleges.

6.2 To this end to undertake simultaneously both operations and research, using both printed and computerized techniques.

(Proposed by John Hersey in his brief "A College Entrance Service.")

7.1 Increase minority-group representation on the College Board staff to a level that more fully reflects the society at large and the commitments already shown by member institutions.

7.2 Change the composition of committee membership to reflect the same pattern.

7.3 Seek to shift the membership of the Board of Trustees in a similar direction.

7.4 Review its present financial commitments and completely analyze available supplementary funds in the area of equal educational opportunity programs, with a view toward a dramatic extension of activity.

(Proposed by John C. Hoy in his brief "Educational Civil Rights and the College Board.")

8.1 Take steps to increase greatly the scope of its testing program to include the measurement of student competencies other than those reflected in measures of academic promise for college entrance.

8.2 Undertake initially a major study, including a pilot program to develop appropriate materials and procedures, of the feasibility of assessing qualifications and classifications for job entry and for postsecondary technical training.

8.3 If the results of the study and the experience with the pilot program are promising, consider expanding its function to serve all high school graduates, including those entering the work force directly as well as those planning to go to college, and changing its name accordingly to "Career Entry Examination Program," or such other appropriate name as would accurately reflect its expanded clientele.

(Proposed by Sidney P. Marland in his brief "A Proposal for a Comprehensive System of Testing for Job Entry.")

9.1 Support a research and development program to assemble, evaluate, and interpret information about colleges, taking into account the kinds of issues, sources, and technical matters described in this brief.

9.2 Regard this program as contributing, in stages, to the necessary software underlying a computerized information system.

9.3 Present information developed from the program in some printed form to be determined by the College Board, pending

its incorporation into a computerized system, so that as much as possible will be available to applicants at the earliest feasible time.

(Proposed by Robert Pace in his brief "A Program for Providing Information about Colleges to Applicants.")

10.1 Adopt as its principal policy objective in testing the provision of a broad array of tests and other information designed to assist tenth- and eleventh-grade high school students in educational planning and decisions with respect to post-high school opportunities.

10.2 Provide factual and scientifically based information about individual colleges and universities for use by prospective applicants. This information should go beyond that now routinely supplied by institutions of higher education and should include ability and performance expectations for admission and for success in particular programs as well as information about the campus environment.

10.3 Make provisions for a series of three to five specialized reporting programs, corresponding to different types of institutions of higher education, for the provision of test results to colleges and universities in connection with institutional decisions about admissions and placement. Further, experimentation should be undertaken with respect to computer storage and retrieval of this information so that it can be made available to the institutions at the time and in the form needed for decisions. Further, standards for protecting the privacy of students should be established so that any test information necessary for students but not appropriate for use in institutional decisions will be reported only to students.

10.4 Be prepared to offer supplementary testing programs for particular groups of colleges and universities and for prospective applicants who may not be enrolled in high school under provisions that would limit redundancy and duplication with the basic program.

10.5 Keep the objectives proposed in this report under continuing policy review and provide adequate empirical research in continuing review in order to assess the extent and timing of the proposed changes.

(Proposed by Richard Pearson in his brief "Education and Testing in a Period of Qualitative Change.")

11.1 Establish regional centers for guidance in continuing education.

11.2 Consider as potential programs for these centers:
a. Offering appraisal and advisement services;
b. Developing a system of credit equivalency;
c. Offering courses in guidance for credit;
d. Using new training methods for staff development;
e. Conducting experimentation and research.

11.3 Incorporate student participation into the regional centers and into the Board's national program.

11.4 Change its name and function to "Continuing Education Entrance Board."

(Proposed by Nancy K. Schlossberg, John C. Hoy, and Edmund W. Gordon in their brief "Regional Centers for Guidance in Continuing Education.")

12.1 Supplement its present programs with self-administered and self-scored tests, made available to students in great profusion, and accompanied, under various degrees of delayed availability, by reasoned discussions about the choice of an answer for each item.

12.2 Draw teachers, particularly those in secondary schools, into large-scale participation in the production both of these tests, and of tests in the conventional "adversary" mode.

12.3 Stress face or curricular validity in the selection of test items, stress items of teaching merit.

12.4 Invite, experimentally at least, groups of students who have taken a test soon thereafter to participate in an oral discussion of the test under the Board's auspices.

(Proposed by B. Alden Thresher in his brief "A Proposal for Self-Scored, Self-Administered Tests.")

13.1 Experiment actively with a system of modular, diagnostic instruments designed to test important competencies; these would, in principle, resemble the present Achievement Tests.

13.2 Make these available to colleges as a means of permitting greater flexibility in the choice of combinations of tests selected by the student, and required or permitted by the college.

13.3 Continue the Scholastic Aptitude Test for the time being, with such improvements as may be possible.

13.4 Encourage member colleges gradually to replace the Scholastic Aptitude Test with its fixed, predetermined parts or modules, by more flexible assortments of modular tests.

13.5 Reduce the speededness of its tests by reducing the number of items per test, even at the cost of some loss of reliability.

(Proposed by B. Alden Thresher in his brief "Diversification in Educational Assessment.")

14.1 Establish a small study group that will outline an admissions machine and undertake feasibility studies needed to reach within two years:

a. A better-grounded decision on the further possibility of developing an admissions machine; and,

b. If then still considered possible, a more detailed financial

and structural plan for implementing what appear to be better lines of its development.

14.2 In appointing this study group, recognize that its report within two years will bear serious financial implications for the Board.

(Proposed by David V. Tiedeman in his brief "Can a Machine Admit an Applicant to Continuing Education?")