This study is a 5-year longitudinal project that commenced in the fall of 1970 and is scheduled to be consummated in the winter of 1975. The research is being conducted on the campuses of five traditionally black colleges who are experiencing a racial shift in their student population. The primary objective of this project is to improve the ability of certain unique, biracial colleges in terms of clear description and interpretation of their program results concerning student development and to employ this improved ability as the basis for rational institutional planning, development, and change. A second objective of this project is to investigate the adequacy and accuracy of the measuring instruments in the evaluation of various cognitive and effective characteristics of black students. To meet these objectives, the study, in conjunction with the colleges, propose to: measure entering characteristics of the students; gather measures of student development and change at certain time points in college careers; document the predominant characteristic of the institutions and patterns of academic and biracial interaction; and develop multivariate descriptions of development by race, retention and withdrawal, and academic program involvement. (Author)
INTRODUCTION

The Behavior Growth in Rapidly Changing Institutions Study was born out of the concern that several educators and behavioral scientists had for a significant phenomenon transpiring on numerous campuses of traditionally Black colleges. This group of individuals was concerned that several predominantly Black institutions of higher learning were gradually and subtly increasing their respective percentages of white student enrollment. Most important, this integration process appeared to be initiated by white students in exclusion of any obvious politically-oriented entities. During the latter decade and with apparent systematic progression, the student bodies of several colleges shifted from predominantly Black to predominantly white. The Institute for Services to Education (ISE) and several officials of schools affected by this situation considered these enrollment transitions. They found that a thorough examination of the white enrollment increase would unequivocally function to the colleges' advantage, as viable institutions of higher learning as well as to the advantage of their students as recipients of intellectual and marketable skills.

When acknowledging implications and consequences related to this situation, countless alternate ways of examining those schools in relation to their "novel" racially diverse student populations could conceivably emerge. The white enrollment transition could be examined in relation to various sociodemographic features of the communities juxtaposed to Black colleges experiencing this change. It would be equally appropriate to examine this "shift" in relation to the admissions and financial aid criteria of predominant white colleges. Examination can be performed in regard to the trend for many white prospective college students to attend school primarily for: the attainment of negotiable skills, with less emphasis placed on traditional school prestige symbols or sociointramural activities. However, neither of these possibilities adequately addresses the issues paramount to the institutions themselves, namely:

- What kind of cognitive and affective characteristics this new racially diverse student body brings to colleges
- How these characteristics change or progress in relation to students' stay at respective colleges

These are among many pivotal issues that the Behavior Growth in Rapidly Changing Institutions Study is addressing in its inquiry.

ABOUT THE STUDY

The Behavior Growth in Rapidly Changing Institutions Study is a 5-year longitudinal project which commenced in the fall of 1970 and is scheduled to be consummated in the winter of 1975. The research is being conducted on the campuses of five traditionally Black colleges who are experiencing a racial shift in their student population.

The primary objective of this project is to improve the ability of certain unique, biracial colleges in terms of clear description and interpretation of their programs' results concerning student development and to employ this improved ability as the basis for rational institutional planning, development, and change.

A natural second objective of this project is to investigate the adequacy and accuracy of the measuring instruments in the evaluation of various cognitive and effective characteristics of Black students.

To meet these objectives, the Behavior Growth Study, in conjunction with the colleges, propose to:

- Measure entering characteristics of the students
- Gather measures of student development and change at certain time points in college careers
- Document the predominant characteristic of the institutions and patterns of academic and biracial interaction
- Develop multivariate descriptions of development by race, retention and withdrawal, and academic program involvement

One of the institutions does not reflect this racial shift, but was welcomed to participate in the study on the basis that pertinent student information would be equally meaningful to this college for the purpose of using such data for making certain student-oriented institutional changes.
Summary:

- Summarize resulting student development as effected by the potential causal factors of race, entering characteristics, college programs and environments, and patterns of biracial involvement.

The specific aims and objectives of the project are best summarized in a partial list of the most important questions to be considered:

1. Are the entering circumstances of Blacks and whites similar (measured academic ability, social-demographic-economic circumstances, self-concept, interpersonal values, anxiety, attitudes toward college and the racial composition of the college, feelings of control, etc.)?

2. Do the students belonging to both racial groups respond in a similar manner to the first critical year of college?

3. Is student performance in both racial groups similar as they continue through college (this may be adjusted by entering ability level, but the important questions may result from differences in entering ability levels)?

4. If there are noticeable differences in growth and progress patterns, do these differences differentially affect such elements as attrition, involvement in school activities, leadership, successful completion of college and development of campus student cultures?

5. If there are differences in either entering growth characteristics or progress patterns, do these differentially affect the students' valuing organization and self-concept?

6. What effects, either differentially or respectively, do difference in entering social-demographic-economic characteristics make in either personality or performance growth patterns?

7. In comparison to measured student characteristics and growth, how do students personally identify or describe the campus climate, do they see themselves competitively in relation to other students, and to what do they attribute success in college?

8. Are there observable different patterns of racial interaction on the respective campuses, and if so, can these different patterns be attributed to either level of biracial enrollment or to programmatic differences; if there are different patterns of racial interaction, what are the effects of these patterns on student development and competitive standing?

9. What effect does the level of biracial enrollment have on the institutional conditions, particularly conditions surrounding formal academic settings; does increased biracial enrollment enhance racial interaction and student development in the classroom?

10. When traditional standardized tests are used for prediction and selection among different racial groups, does it result in poorer prediction in one group rather than in other?

11. Does some difference between criterion scores yield equally desirable candidates from different groups?

12. Can more culturally fair prediction models be developed and used to offset the effects of culturally unfair tests; e.g., addition of a constant factor to minority member's score?

Data gathered in reference to these questions are derived from five general source areas:

- SRA Verbal and Non-Verbal—academic ability testing;
- ACT Achievement Battery—academic ability testing;
- IPAT, SIV, ISE Battery—personality and attitude instruments;
- ISE Battery—background questionnaire
- Direct observation and interviews on respective campuses

The project is slated to follow at least one group of students through the normal 4-year college career and one year beyond to provide the full import of research answers to these questions, and to institutionally internalize both the need for institutional research and its importance to development. Because of the many potentially confounding effects, it is necessary to continue comparative checks on new student groups as they enter the institution and after they complete the first, most critical year. The procedure of adding new groups also increases the institutions' ability to continue a student development investigation in relation to institutional programs after the completion of the project. (See Table I, Testing Schedule.)

**Table 1. Testing Schedule**

<table>
<thead>
<tr>
<th>SCALES</th>
<th>Freshmen</th>
<th>Sophomore</th>
<th>Junior</th>
<th>Senior</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISE Student Questionnaire</td>
<td>X*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Survey of Interpersonal Values</td>
<td>X*</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRA</td>
<td>X*</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IPAT</td>
<td>X*</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACT</td>
<td>X*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CUES</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*X* To be repeated with each Freshman Class for 4 years.
DESCRIPTION OF THE INSTRUMENTS USED IN THE STUDY

Science Research Associates Tests (SRA)
The instruments used for interpreting the measurable general abilities of the students were the Science Research Associates' (SRA) Verbal and Non-Verbal tests.

The Verbal form uses items purported by research to measure ability in thinking with words and numbers. The Non-Verbal form uses items measuring ability to reason out differences in pictorial objects — reasoning (no "reading") is required. As portended by research, recognition of differences is basic to learning aptitude.

The American College Testing Battery (ACT)
The test used for measuring academic achievement was the American College Testing Battery (ACT). This battery was constructed to measure the academic abilities a student has acquired and can be applied to his college course work.

The College and University Environment Scale (CUES)
The College and University Environment Scales (CUES) instrument is a device for obtaining a college description from the students themselves, because they live and are part of the environment. The prevailing campus atmosphere is defined by what the students are aware of, and agree with some unanimity of impression to be generally true.

The basic 100 items comprising the CUES form five scales of 20 items each:

- Practicality — describes an environment characterized by enterprise, organization, material benefits, and social activities.
- Community — describes a friendly, cohesive, group-oriented campus. There is a feeling of group welfare and group loyalty that encompasses the college as a whole.
- Awareness — reflects a concern about the emphasis upon three sorts of meaning — personal, poetic and political.
- Propriety — describes an environment that is, in general, mannerly, considerate, proper, and conventional.
- Scholarship — describes an environment which emphasizes a competitively high academic achievement and a serious interest in scholarship. Intellectual speculation, an interest in ideas, knowledge for its own sake, and intellectual discipline — all these are characteristic of this environment.

In the second edition, which is used in the present study, two subscales have been added. They are:

- Campus Morale — describes an environment characterized by acceptance of social norms, group cohesiveness, friendly assimilation into campus life, and, at the same time, a commitment to intellectual pursuit and freedom of expression.
- Quality of Teaching & Faculty/Student Relationships — defines an atmosphere in which professors are perceived to be scholarly, set high standards, be clear, adaptive, and flexible, and at the same time, this academic quality of teaching is infused with warmth, interest, and helpfulness toward students.

ISE Student Questionnaire
The ISE Student Questionnaire is an assessment questionnaire which asks the student to record pertinent information concerning his background, attitudes towards college, and self-concept in various situations.

Survey of Interpersonal Values (SIV)
The Survey of Interpersonal Values (SIV) purports to measure one aspect of the value domain, an individual's relationships to other people as well as their relationships to him. The values ranking in this domain are important in the individual's personal, social, marital, and occupational adjustment.

The scores of the SIV are defined in terms of high to low. A high score indicates that an individual values the traits of a particular scale, whereas a low score simply indicates the individual's lack of value for the traits. On the average, the males in the normative group scored higher on Independence (having the right to do whatever one wants, being free to make decisions, being able to do things in one's own way) and Leadership (being in charge of others, having authority over others, being in a position of leadership or power). The females scored higher in Support (being treated with understanding, kindness and consideration, receiving encouragement from others), Conformity (doing what is socially correct, accepted and proper, following regulations closely, being a conformist) and Benevolence (doing things for others, sharing and being generous with others). For Recognition (being looked up to and admired, being considered important) there were no significant sex differences.

IPAT Anxiety Scale
The IPAT Anxiety Scale is a brief, non-stress, clinically-valid questionnaire for measuring anxiety, applicable except in the lowest educational levels, and appropriate for ages 14 or 15 years through the adult range.

There are five anxiety scores for the IPAT but in our interpretations we will only work with the total score.

2 Academic achievement is defined as the degree of accomplishment in some particular educational/training experience. It focuses on performance behavior and not on the letter grade assigned in reference to manifest academic productivity.

The scores for the IPAT can be interpreted by stens or by percentages. The sten scores 1, 2 and 3 (1 to 11%) for college population, show the individual or group to be stable and in "good" mental health. Sten scores of 4, 5, 6 and 7 (23 to 77%), still indicate a person within the normal range as long as no other psychological disorders are present. A sten score of 8, 9 and 10 (89 to 99%) shows a definite need of counseling for situational or characterological problems, if this score remains high through additional retesting over a time period.

For our purposes in dealing with a college population, there is a slight negative reaction between anxiety and academic achievement. Keep in mind that this is only slight as other personality factors show much higher relationships; and the relation between anxiety and learning seems to be extremely sensitive to the kind of content learned, the personality characteristics of learners, the condition under which the learning occurs, etc.

A REPORT ON SOME PRELIMINARY PSYCHOLOGICAL AND ATTITUDDINAL FINDINGS

Comparisons in each of the five schools in the study were made by using variables of generation and/or race. To ascertain differences a t-test was conducted: only those categories where the significance was to the .01 level (t = 2.56 for infinite degrees of freedom) or .05 (t = 1.96 for infinite degrees of freedom) levels will be reported. Additional sex and race comparisons on these scales are provided graphically.

School 1: Fall Testing

In comparing generation 1, Black males scored higher than white males on the SIv in Conformity, to the .01 level. This indicates more Black males placed a higher value on doing what was socially correct, following regulations closely, etc.

Black females in generation 2 scored higher than white females in Conformity while the reverse was true in Benevolence, both to the .01 level. The Black females studied put a stronger emphasis on Benevolence, such as doing things for others, sharing with others, etc.

Spring Testing

In spring testing, generation 1 Black males again scored higher than white males in Conformity to .01 level.

In comparing generation 1 and 2 Black males, generation 1 Black males scored higher in Conformity and Benevolence, to .01 level. Generation 2 Black males scored higher in Recognition and Leadership, to .05 level.

These comparisons portend a slight attitudinal change in the type of Black males who attended this school. The Black males of generation 1 scored consistently higher in Conformity than their white counterparts before and after one year of school. This was not the case in the Black-White male generation 2 comparison. In addition, in comparing generation 1 and 2 Black males, after each had completed one year of school, it was found that they tend to emphasize opposite values—Conformity (generation 1) vs. Leadership (generation 2); Benevolence (generation 1) vs. Recognition (generation 2).

School 2: Fall Testing

In the generation 1-2 Black males comparison, generation 1 males scored higher in Support and Benevolence to .05 level, and in Recognition, to .01 level. Generation 1 males scored higher in complimentary areas; Support, wanting to be treated with consideration, and Benevolence: Recognition lends strength to Support since it is defined as wanting to attract favorable notice, being looked up to and admired. Of course, this does not mean the generation 2 Black males are exactly the opposite, they merely did not record as high a value on these traits.

Generation 1's Black females were higher in Conformity (.01 level) and Benevolence (.05 level) than generation 2's Black females. The latter, however, had a higher anxiety level (.01 level). Generation 1's Black females appear to reinforce the norms group trends, because they placed a higher value on conforming to peer groups and society, as well as doing things for others.

Spring Testing

Generation 2's Black females again had a higher anxiety level than generation 1's Black females, to .01 level. These figures do not reflect that either generation had a very high or low anxiety level, but rather that generation 2's Black females had a higher manifested anxiety level than generation 1 both prior and subsequent to their first year of college.

School 3: Fall Testing

White males in generation 2 scored higher (to .01 level) than those in generation 1 in their desire to be looked up to and admired, attracting favorable notice, etc. (Recognition).

Black females of generation 2 scored higher than those in generation 1 in their desire to be in charge of others and to have authority placed over them (Leadership), to .05 level.

The data contained in this section will pertain to analyses performed on the IPAT and SIv only. If interested in obtaining additional information, write Institute for Services to Education, in care of the Behavior Growth Study.

The schools will not be named; they will be coded by number.

Generation is defined as the year that a body of students enters a given school: Generation 1-1970-71 freshmen; Generation 2-1971-72 freshmen.
The Black and white females in generation 1 tended to compliment each other: white females scored higher in Benevolence (.01 level), while the Black females scored higher (to .01 level) in Leadership.

The white males in generation 2 scored higher than Black males in their desire to be treated with understanding and receiving encouragement (Support) as well as wanting the right to do what they choose in their own way (Independence). This could explain part of the reason for having a higher anxiety level. All three scales were to .05 level. The Black males scored higher (to .01 level) in Conformity.

The generation 2 Black females scored higher (to .05 level) in their desire to have authority over and be in charge of others (Leadership) while the generation 2 white females reflected a preference to be able to do their own thing (Independence), to .05 level.

Spring Testing

After one year of school the generation 2 Black males were the students who placed a greater value on Independence (.01 level) vis-a-vis the white males, who recorded a higher score in Independence in the fall.

In generations 1 and 2, the Black females had a greater need for Leadership when compared to their white counterparts. When compared to each other, generation 2 had a higher need for Leadership than did generation 1.

The generation 2 Black and white males tended to value traits that were somewhat opposite those traits valued in the fall testing. The white males placed a higher value on Independence while the Black males valued Conformity. After one year of school, however, the Black males had a greater need for Independence.

School 4: Fall Testing

Generation 2’s Black males scored higher in their desire to do what was socially correct and follow regulations closely (Conformity, .01 level). They also sought to be looked up to, admired, and desired to be considered important (Recognition, .05 level) more so than generation 1 Black males.

The Black females in generation 2 reflected their need to follow regulations and conform to what was socially correct (Conformity, .01 level) whereas the Black females in generation 1 wanted to be free to make their own decisions (Independence, .05 level).

The white females of generation 2 had a higher score on the IPA Anxiety Scale (.05 level) than did those in generation 1.

In generation 1, the white males test score indicated a preference to be in charge of others as well as help them (Leadership, .05 level; Benevolence, .05 level) more than generation 2 white males.

The white females of generation 1’s test score reflected a need to be conformists, to do what is socially correct and accepted (Conformity, .05 level) than did the Black females of the same generation.

Spring Testing

In comparing the Black males in generation 1 and 2, generation 1 indicated a need to do what was socially correct and accepted (Conformity, .01 level) and do things for others, to share with others (Benevolence, .01 level) than did generation 2.

In the comparison of the Black females of generation 1 and 2, the scores indicated that generation 2 wanted to be treated with understanding, kindness and consideration (Support, .05 level) more than did generation 1.

In the fall testing, the Black males of generation 2 reflected a greater need for Conformity; but after completing one year of school generation 1 showed the need for a greater Conformity.

The entering characteristics of the Black females were opposite when comparing generation 1 and 2. Generation 1 showed a greater need to be independent whereas generation 2 reflected conformity. This difference was not evident after each had completed one year of school.

School 5: Fall Testing

The scores of generation 1 Black males reflected a greater need to be treated with understanding, kindness, and consideration (Support); a higher need to do what was socially correct and accepted (Conformity); to be looked up to, admired, and considered important (Recognition); in addition, they want to do things for others and share with them (Benevolence). They scored higher in these needs, to .01 level, than the generation 2 Black males.

The score of generation 1 white males reflect a preference to be in charge of others as well as help them (Leadership, .05 level; Benevolence, .05 level) more than generation 2 white males.

Black females in generation 1 wanted to help others and to be generous (Benevolence, .01 level) more than generation 2 white males.

The test scores of white males in generation 1 signified a greater need to be treated with understanding, kindness, and consideration (Support, .05 level) whereas the Black males in generation 1 had a greater need to do what was socially correct and accepted (Conformity, .05 level).

White females in generation 1 had a higher test score value than the Black females on being treated with kindness and understanding (Support, .01 level) as well as being looked up to and admired (Recognition, .05 level).
The test scores of white males in generation 2 reflected a greater value in receiving encouragement, being looked up to, and considered important (Support and Recognition, .01 level) and has a higher, to .05 level, anxiety level than did the Black males.

As suggested by their test scores, Black females in generation 2 wanted more to be in charge of other people (Leadership, .05 level). The white females in generation 2 wanted to receive more encouragement (Support, .01 level), to do things for others (Benevolence, .01 level), to be considered important (Recognition, .05 level) and to be able to do their own thing (Independence .05 level) than did the Black females. The white females also had a higher anxiety level than did the Black females, (to .01 level).

Spring Testing
Black males in generation 2 placed greater value on conforming to society (Conformity, .01 level) and helping others (Benevolence, .01 level) than did the Black males in generation 1.

Generation 2 white males wanted to “be their own man” more so (Independence, .05 level) than did the preceding generation (1).

The white females in generation 2 had a higher anxiety level, to .05 level, than generation 1, as measured by the IPAT.

The Black females in generation 1, had a greater preference to be in charge of others and have authority over them (Leadership, .05 level) than the white females.

The white males in generation 2 had a higher need for Support as well as a higher need for Recognition. The Black males had a higher need for Conformity and Benevolence, to .05 level.

In generation 2, the white females had a higher need for Support; the Black females reported a higher need to be in a position of Leadership, (to .01 level).

There was a general trend in the fall testing for Black males, white males, and Black females of generation 1 to place a high score value on Benevolence. There was also a tendency for generation 1 and 2 white males and females to have a high need for Support. The white females also tended to value Recognition.

After one year of school, generation 2 Black males placed a higher value on Conformity while the same generation’s white males valued Independence. Both generation 1 and 2 Black females placed a higher value on Leadership than did the white females of the same generations.

In analysing fall and spring consistencies and inconsistencies, generation 1 Black males highly valued Conformity and Benevolence. At the end of one school year, generation 2 Black males reported the higher value of Conformity and Benevolence on these scales. The white males of generation 2 placed a higher value on Support and Recognition than did the Black males of the same generation, both before and after the first full year of school. The generation 2 females reflected a similar occurrence. The Black females upheld their value of Leadership while the white females upheld their value of Support.

The graphs on pgs. 7-9 illustrate mean scores of students by school, with race and sex as variables, on the Survey of Interpersonal Values and on the IPAT Anxiety Scale for Fall and Spring Testing.

CONCLUSION
As the resume of significant results suggest, there are several interrace-and intergeneration differences in anxiety levels and interpersonal values, as measured by the IPAT and SIV instruments. Due to the varying economic status and socio-heterogeneity of the two racial groups (though not made available in this report) certain value domain test score disparities were expected. These differences coupled with those emerging in the intergenerational comparisons suggest that in regard to reported values and manifested anxiety, each of the colleges participating in the investigation are serving several somewhat distinct “sub-student” bodies. However, it is only appropriate to consider these distinctions in relation to other variables present in this investigation in order to gain more composite profile of the type of students in attendance of the participating institutions in this study and how such students change in relation to their stay in college.

Although the most significant findings emanating from this study are not expected to surface until the project has actualized its longitudinal schema, the authors are encouraged by the fact that some of the participating colleges are using information, now available, as a springboard to engage in other related institutional research. Keeping in mind that the collection of such data is not an end in itself but only a diagnostic means for identifying specific student and institutional-related problems.

In considering the casual effects that attitudes and anxiety level have on human behavior and how such predispositions, in turn, are affected by subsequent socialization, it is earnestly believed that unless research on issues related to academic performance consider the possible effect of various intervening and confounding variables, their results will be far from being conclusive. More energy must be expended in researching academic performance in ways that go far beyond attributing success/failure to aptitude/ability test scores exclusively. More credence must be given to the many psychological and interpersonal factors which might help provide partial answers to the questions:

- Why certain student populations achieve in college in spite of their low ability test scores?
Figure 1. Survey of Interpersonal Values—Total Black-White Population Mean Scores of Fall Testing

Figure 2. Survey of Interpersonal Values—Total Male-Female Population Mean Scores of Fall Testing
Figure 3. Survey of Interpersonal Values—Total Black-White Population Mean Scores of Spring Testing

Figure 4. IPAT Anxiety Scale—Total Black-White Population Mean Scores of Fall Testing
Figure 5. IPAT Anxiety Scales—Total Male-Female Population Mean Score of Fall Testing

Figure 6. IPAT Anxiety Scale—Total Black-White Population Mean Scores of Spring Testing
Why many students who test well fail to succeed in college?

College must be viewed as an ecological setting that is as responsible for shaping mental health disposition as it is for providing students the mechanism for transforming their intellectual potential into observable academic achievement. Student academic excellence is indeed the consequence of numerous factors, many of which delay fruition until after students are assured of both their academic competency and of the college environment in which they are expected to compete.

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The MIS Research Profile is a periodic reporting service of the TACTICS Management Information Systems Directorate of the Institute for Services to Education, Inc. The purpose of this Research Profile is to make use of the data contained in the MIS Data Bank (containing figures on Black higher education), by researching and reporting on relevant issues of interest to developing institutions. You may subscribe to this reporting service by contacting:
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