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ABSTRACT

To address the lack of academic and social preparation that many rural Alaskans have when they first arrive at college, in 1985 Sheldon Jackson College (Sitka, Alaska) initiated the Early College Incentive Program (ECIP) to expose junior high students to college learning and living requirements, reduce cultural shock (Sheldon Jackson's student body is 72% Alaskan and 56% Native Alaskan), and excite students about college opportunities. From 125 applicants, 38 were selected to attend the 2-week summer program on campus; 36 successfully completed the program. This 1986 study's objective was to determine whether participation in the ECIP had had a significant effect on participants' preparation for college and attitudes about college. The number of college preparatory courses taken, the grade point average (GPA) for the college preparatory courses, and participants' attitudes about college were compared with the same measures for two 9th-grade control groups. Findings showed that although there were no significant differences at the .05 level between the groups in course selection or college planning, there was a significant difference at the .05 level in GPAs. Continuation of the program is warranted, and the study and evaluation are being used in development of future programs. (JMM)

EVAL ATING THE EARLY COLLEGE INCENTIVE PROGRAM

Seminar - Research and Evaluation

by

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ABSTRACT

In order to address the problems of preparation that many rural Alaskans have when they first arrive at college, Sheldon Jackson College has developed a program, the Early College Incentive Program, designed to expose students to the learning and living requirements of college. The objective of this study was to determine whether participation in the Early College Incentive Program had a significant effect on participants' preparation for college and attitudes about college. The study compared the number of college preparatory courses taken, the grade point average for the college preparatory courses, and attitudes about college of participants with the same measures for two 9th grade control groups. The first null hypothesis was that there is no significant difference in the number of college preparatory courses taken by the participants and the two control groups. The second null hypothesis was that there is no significant difference in the grade point average of the participants and the control groups. The third null hypothesis was that there is no significant difference in attitudes about college of the participants and the two control groups. The study found that although there were no significant differences at the 0.05 level between the participants and the control groups in course selection or college planning, there was a significant difference at the 0.05 level in the Grade Point Average. The results warrant continuation of the program, and the study and evaluation are being used as guides in the development of future programs.

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Chapter 1

INTRODUCTION

Evaluating the Early College Incentive Program

The Problem of Academic Preparation

Sheldon Jackson College is a small (FTE 276) liberal arts college located in Sitka, Alaska. Its educational objective as stated in the college catalog (Sitka: 1985) is to provide a college education for all Alaskans, and its historic mission has been to serve Alaska Native (Indian, Aleut and Eskimo) students. The present study body is 72% Alaskan and 56% Native Alaskan.

Since it has an open-door admissions policy, Sheldon Jackson has had to deal head-on with many of the problems facing rural Alaskans as they venture to college. Most of these students come from small village schools with limited faculty and curriculum, and limited counseling services. This year 75% of the students entertaining Sheldon Jackson College are enrolled in developmental courses in English, reading, or mathematics; 75% in pre-college English; 35% with reading levels below 9th grade level in special reading classes; 43% in pre-college mathematics; 23% are enrolled in all three courses.

According to the Office of Registration and Records many students drop out of college because of inadequate preparation: preparation for college level courses, preparation for living among people of many cultures, preparation for living away from home, preparation for living

in a climate quite different from their own, and preparation for the relative freedom of college life.

The Solution

To address these problems, Sheldon Jackson College developed a program designed, as spelled out in the Institution's Minority Education Appropriation Request, to "expose students to the learning and living requirements of college, reduce cultural shock, and excite students about the opportunities that await them if they meet college academic standards." (Caven, 1984:1)

In 1985, Sheldon Jackson College instituted a two-week academic Early College Incentive Program for students from towns and villages in rural Alaska. The initial program, entitled "Survival '85", was held from June 16th to 29th on the campus of Sheldon Jackson College and was designed to provide reinforcement for students who had expressed a desire to prepare themselves for entry into college or advanced training.

The objectives of the program for the college are: (1) an increased number of students who are academically prepared for college, (2) an increased number of students who reamin in college, and (3) an increased number of students attending Sheldon Jackson College. (Caven, 1984:3)

Funding from the Presbyterian Church allowed the college to select 40 8th graders to participate in the program, 20 from Southeastern Alaska and 20 from the Northwest and Bering Sea regions of the state (Map, Appendix A). Students were asked to write a brief essay telling why they were interested in the program and in college and to submit

the name of a teacher, principal or counselor who would recommend them. The essays and recommendations (Appendix B) provided the basis for selection.

One-hundred twenty-five students applied for the program. Forty-one were accepted, 35 were put on a priority wait list, and another 49 were rejected. Thirty-eight attended and 36 successfully completed the program.

Sheldon Jackson College has been funded to continue the program next summer and has applied for additional funds for 1987. To justify continued funding, the college has had to evaluate the effect of the program.

The Evaluation Procedure

The procedure was designed to test the hypothesis that the Early College Incentive Program (ECIP) motivates students to prepare for and pursue higher education.

In order to measure the effect of participation in the Early College Incentive Program on preparation for and attitudes about college, a research questionnaire was prepared and submitted to three separate groups: (1) participants in the ECIP program, (2) students who were wait-listed for the program, and (3) two groups of 9th grade college preparatory students, one from Klawock High School in Southeast Alaska and one from the Northwest Arctic School District in Northern Alaska. The questionnaire was designed to measure the effect of participation in the Early College Incentive Program on (1) preparation for college as determined by (a) the number of college preparatory courses taken, and (b) the grade point average for the college preparatory courses,

and (2) attitudes about college as determined by a numerical assessment of (a) college planning, (b) college selection, and (c) career selection. The answers to the questionnaire were then tallied and results compared in order to determine whether there was a significant difference between ECIP participants and comparable students who did not take part in the program.

Chapter 2

BACKGROUND AND SIGNIFICANCE

The ECIP Student Population

The Early College Incentive Program (ECIP) is modeled on the national Upward Bound program. The major differences are that Upward Bound serves students identified as "first generation college students" and "low-income," and ECIP serves students who are perceived as having "high academic potential" and are from "rural schools." Students in both groups are drawn largely from minority populations.

The Program is for 8th grade students from "rural Alaska," defined by the college as being towns or villages with populations under 2,000. In 1985, 20 students were selected from the Bering Strait, Lower Kuskokwim, Northwest Arctic, and Southwest School Districts in Northern Alaska, and 20 were selected from rural districts in Southeast Alaska. They had to have academic potential and an expressed interest in attending college. Both of these criteria were measured by a brief essay written by applicants and a recommendation form (Appendix B) completed by each student's teacher or counselor. For the 1985 program, English faculty read the essays for content and usage and ranked each essay on a 1, 2, or 3 point basis - 1 being awarded to the best essays and 3 to the poorest. Program staff read the essays to assess expressed interest in the program and also ranked them 1, 2, or 3. The final selection factor was the recommendation by teacher or counselor. Students selected to participate in the program had scores of 1 by both English instructors and ECIP staff and excellent ratings by their teacher or

counselor. Students who were wait-listed also had excellent ratings and scores of 2 or higher. Students with any score of 3 were not considered.

The National Concern

The national concern with the education of disadvantaged students is expressed in the enactment of Public Law 89-329, as amended by Public Law 96-374--October 3, 1980 (U.S. Department of Education, 1984:28). The law provides "Special Programs for Students from Disadvantaged Backgrounds" and authorizes the Secretary of the Department of Education to:

(1) ...carry out a program...designed to generate skills and motivation necessary for success in education beyond high school,

(2) ...provide services such as

(a) instruction in reading, writing, study skills, mathematics and other subjects necessary for success beyond high school;

(b) personal counseling

(c) academic advice and assistance in high school course selection;

(d) tutorial services;

(e) exposure to cultural events, academic programs, and other activities not usually available to disadvantaged youth;

(f) activities designed to acquaint youth participating in the project with the range of career options available to them;

(g) instruction designed to prepare youth participating in the project for careers in which persons from disadvantaged backgrounds are particularly under represented;

(h) on-campus residential programs...

The Program addresses 7 of the 8 services mentioned in the above list and, in using rural Alaska as a criteria for selection, meets Upward Bound's concern that each "participant has a need for academic support in order to pursue successfully a program of education beyond high school."

The U.S. Department of Education requires that Upward Bound projects:

> (1) Generate academic skills and motivation that will enable the participants to complete a secondary educational program and to subsequently gain admission to postsecondary institutions;
>
> and
>
> (2) Enable the participants to attain those academic skills ...that are essential to postsecondary education and in which the participants are deficient.

The Program addresses the first requirement and motivates students to achieve the second. The Program serves students of perceived high academic potential; it does not look for students with deficiencies. This is not to say that such deficiencies may not occur during high school if the student does not enroll in college preparatory programs or the high school does not provide them.

Importance to Alaska

As reported in the October 24, 1985, edition of the Daily Sitka Sentinel, Alaska State Senator John Sackett, an Athabascan Indian and Chairman of the powerful Senate Finance Committee, in his address to the Alaska Federation of Natives Convention meeting in Anchorage, called for a "resolution in Native education." He said, "Educators ...must strive to teach Native youth ...to live happily without going to college..." Sackett cited statistics from the University of Alaska which

stated that only 4% of rural Native students get degrees and called the education system's goal of sending pupils on to college "unrealistic."

What Sackett (who is himself a college graduate) failed to consider is why only 4% of the rural students graduate from college. He assumes that only 4% are college material, an assumption that fails to address the questions of proper preparation and sufficient motivation.

A phone interview on November 2, 1985, with Bill Denkinger, Principal of Mt. Edgecumbe High School, shed a different light on the problem. Mt. Edgecumbe, which is located in Sitka, is a state operated boarding school designed to provide an alternative education for students from all of rural Alaska. Its 9th grade curriculum - English I, Algebra I, Ocean Science, Foreign Language, Alaska History, Computer Literacy - is definitely college preparatory. But many of the students - who have come to Mt. Edgecumbe because they want a college preparatory program - are woefully unprepared for the program. They are thus required to take developmental courses before they can enroll in the college preparatory classes. They are motivated, but not adequately prepared.

These two instances speak to the need for such programs as ECIP and to the need to evaluate the programs to determine whether they do indeed motivate students to prepare for college.

Review of the Literature

Method of Review

The Nova University Information Retrieval Service was used to locate research studies or reports on programs similar to the Early College Incentive Program. A search of the ERIC file using such concepts as College Bound Students, College Preparation, Early College Incentive, Upward Bound, Positive Reinforcement, Motivation Techniques, and Student Attitudes and Self Esteem produced a total of 103 items. Of these, 35 studies seemed in some way related to the Early College Incentive Program. Most of the studies related to Upward Bound Programs which were designed for economically disadvantaged youth. Twelve of the studies were reviewed in detail.

Literature Relevant to the Study

Studies relevant to this practicum include the study by The American Institute for Research in the Behavioral Sciences, "Model Programs in Compensatory Education: the College Bound program, New York, New York," Exum and Young's "Longitudinal Assessment of Academic Development in an Upward Bound Summer Program," Tanner and Lachia's "Discovering the College Potential of Disadvantaged Youth," Steel and Schubert's "The Effectiveness of Upward Bound in Preparing Disadvantaged Youth for Postsecondary Education," and Lang and Hopp's "Assessment of REAP-Upward Bound." All but the College Bound program address Upward Bound programs and students who are economically disadvantaged, which is not a consideration of ECIP, although many ECIP participants might qualify.

Most of the studies deal with students from minority populations, as were the majority of the students in the 1985 program.

The College Bound Program (1972:6) was initiated in the summer session of 1967 as an attempt to help disadvantaged students complete high school and enter and succeed in college. The objectives of the school year program were: (1) to increase the number of pupils completing college preparatory requirements and being admitted to college, (2) to improve the quality of academic work of pupils in the program, and (3) to improve pupils' attitudes toward education. The objectives of the summer program were to: (1) raise the ability levels of incoming students in English, mathematics and foreign languages, (2) to provide a transition between junior and senior high school, (3) to provide motivation for learning, (4) to improve study skills, (5) to help resolve individual and home difficulties affecting learning and (6) to add to cultural background. All but two (numbers 1 and 5 of the summer program) of the above objectives are similar to those of the Early College Incentive Program. In fact, the programs are similar enough that additional information about the College Bound Program is being sought.

Although there are differences in the student populations described in the remaining studies, the evaluation measures are the same as those used for this project. For example, Steel and Shubert (1983:11-12) assess academic abilities, high school performance, attitudes and motivation toward school, educational plans and aspirations, and post-high school plans and aspirations, and compare program participants with non-participants. The Rutgers REAP-Upward Bound assessment (Lang and Hopp, 1967:7) rates students' attitudes about the importance

of college graduation, the feasibility of college, and compares Grade Point Averages and Postsecondary Plans for REAP students and control students to determine if there are significant differences. Tanner and Lashia (1967:23) also compare scores of participants and non-participants on a number of tests including the Stanford Achievement Test and the Differential Aptitude Tests, again to determine if there are significant differences between the groups. Exum and Young (1981:340) ask similar research questions: Is the achievement development significant? What are the effects and outcomes of participation in the program? Do the outcomes warrant continuation of these compensatory educational programs?

Tanner and Lashia (1967:111-112) compared the means of academic averages and achievement scores for summer and non-summer enrollees at five different centers and discovered a significant difference at the .05 level for 4 of the 5 centers.

The REAP study (Lang and Hopp 1967:8) found that although nationally the positive effect of summer programs for Upward Bound students is offset by the negative effects of the academic year period, this was not the case for the REAP program. Lang and Hopp concluded that the continued positive effect may have been because of the follow-up.

Steel and Shubert (1983:12-13) discovered that although there was no significant difference between the Upward Bound students and the control group on standardized tests or grade point averages, the Upward Bound students had significantly higher grades in English and mathematics, were more likely to be taking college preparatory courses, and more likely to be planning to attend and complete college. They also were more likely to be taking advanced courses.

Exum and Young (1981:340-41) studied, among other things, the degree of academic achievement of a representative group of Upward Bound students and used pretest and post test scores on the California Achievement Test Battery to assess the program. They found that there were no significant gains in reading and spelling, but that program results did indicate significant achievement in both language arts and quantitative skills. They concluded that the program was successful in meeting its goals and objectives.

Review of Statistical Methods

In determining which statistical test would be used to compare the participants to the two control groups, three techniques explained by Isaac and Michael (1984: 176-183) were considered: the T-test, the Analysis of Variance, and the Analysis of Co-Variance. Had there been a significant difference between the participants and Control Group I on the Writing Level Analysis (Appendix C) of their application essays, an Analysis of Co-variance would have been used. Since there was no significant difference the T-test was a satisfactory choice. If Control Group II respondents had included both Northern and Southeastern representatives, the Analysis of Variance could have been used to compare all three groups. Since only the Southeastern representatives of Control Group II responded, the decision was made to make separate comparisons of all of the participants with Control Group I and only the Southeastern participants with Control Group II, using in all instances the two-tailed T-test.

Definition of Terms

FTE (full time equivalency) refers to the total number of credits generated divided by 12. Since Sheldon Jackson College is a 4-1-4 institution (a Fall semester, followed by a four week Winter Interim followed by a Spring Semester), one-half of the Interim credits are included in the total.

The independent variable or treatment was participation in the two week academic summer program, Survival '85.

The dependent variables were (1) number of college preparatory courses in which each student is enrolled, (2) grade point average for first quarter grades in college preparatory courses, and (3) the degree of planning for college.

Limitations

The first limitation the college faced in evaluating the program was the limited number of participants (36) and the limited number of students in Control Group I (35 on the priority wait-list, 2 who did not complete the program, 3 who dropped out prior to the program). However, because of advance notice and scholarship incentives, 22 participants and 19 members of Control Group I responded to the questionnaire. Control Group II was to have been made up of representative groups from Southeastern and Northern Alaska. Since only Klawock High School in Southeast Alaska responded, the only comparisons that were done with Control Group II were between Southeastern participants and the Klawock respondents.

A second limitation was in curriculum. A college preparatory student at Sitka High School (community population: 8,000) will be in: 9th grade English, French I or II, World Geography, Algebra I or Geometry, and Physical Science. If s/he's in the Gifted Program, s/he may be in Accelerated Algebra or Accelerated Geometry. A student at Mt. Edgecumbe High School (the state boarding school for college preparatory students from rural areas) may take: English I, Algebra I, Ocean Science, Foreign Language, Alaska History, and Computer Literacy.

These options were not available to many rural students, especially those from Northern parts of the state, so the evaluation of what courses they were enrolled in had to be tested in light of what courses they could be enrolled in.

Chapter 3

PROCEDURES FOR COLLECTING DATA

Method of Evaluation

Sources of Data

The sources of data for evaluating the Early College Incentive Program were:

(1) Participants - the 36 students who successfully completed the 1985 program entitled "Survival '85",

(2) Control Group I - the 35 students who were wait-listed for the program coupled with 5 students who were selected for the program but either did not attend or did not complete the program, and

(3) Control Group II - two sets of students enrolled in 9th grade college preparatory classes at rural high schools (one group from Klawock High School in Southeast Alaska and one from the Northwest Arctic School District in Northern Alaska). It should be noted that 18 students from Southeast Alaska completed the program and 18 from Northern Alaska.

The significance of the program was to be measured by comparing the participants first to Control Group I and then to Control Group II.

As noted earlier, no response was obtained from the Northwest Arctic School District, therefore the only comparisons for Control Group II were between the participants from Southeast Alaska and the students from Klawock High School.

Protection of Human Subjects

The confidentiality of student records at Sheldon Jackson College is maintained through adherence to the Family Educational Rights and Privacy Act of 1974. Students participating in this study are protected by the policy. Questionnaires are stored in a separate and locked file in the office of the Program Director and upon completion of the study will be transferred to the Office of Registration and Records where they will also be stored in a locked file.

Data Collection Instrument

The data collection instrument was a simple questionnaire (Appendix D) which asked the students to check off the courses they were enrolled in against a list of 9th grade courses a college preparatory student at Sitka High School or Mt. Edgecumbe High School would be enrolled in. If there was a college preparatory course they were not enrolled in because it was not offered at their school, they were asked to so indicate. If they were not taking a course because they were not interested in it or because they were not prepared for it, they were also asked to so indicate.

Next they were asked to list their first quarter grades in all their courses. Only their college preparatory courses were used in computing their GPA.

Finally they were asked if they were still planning to go to college and to indicate if they had made any plans for a specific college or a specific course of study.

Procedure for Treatment of Data

The first null hypothesis stated that there would be no significant difference in the number of college preparatory courses taken (the first dependent variable) by participants and comparable students who were not in the program. To test the hypothesis a study was made of the number of college preparatory courses enrolled in by the Survival '85 students as compared to the students in Control Group I, and a second comparison was made of the Southeastern participants with the Klawock students. Each student received one point for each 9th grade level college preparatory class she/he was enrolled in, an additional point for each higher level class she/he was enrolled in (e.g. Geometry or French II), and had one point subtracted from his or her total for each college prep course she/he was not enrolled in because of lack of preparedness or lack of interest. No points were subtracted for courses not taken because they were not available or not offered to freshmen. This study was used to assess preparation.

The second null hypothesis stated that there would be no significant difference in the grade point average (the second dependent variable) of the participants and comparable students who were not in the program. To test the hypothesis a second study compared the self reported grade point averages of students in the Survival '85 group to GPA's of students in the two control groups. As mentioned above, only grades in college preparatory courses were used in computing the averages. This study also assessed preparation.

The third null hypothesis stated that would be no significant difference in the attitudes about college (the third dependent variable)

of participants and comparable students who were not in the program. To test the hypothesis the study compared attitudes as indicated by present class choices and future plans. One point was awarded each student who planned to attend college, an additional point was awarded each student who had a specific college in mind, and a third point if a course of study was listed. It may sound unrealistic to expect such decisions at age 14, but a number of Survival '85 students completing the descriptive questionnaire (Appendix E) that was administered at the end of their two weeks on campus indicated they had specific colleges in mind. From the above points, a point was subtracted for each college course not taken because the student was not interested. This study assessed attitudes.

Null Hypotheses

Null Hypothesis I was that there would be no signi icant difference in the number of college preparatory courses taken by the students who participated in Survival '85 and the students in the two control groups, those who were recommended for but did not participate in the program (Control Group I), and college preparatory students who are of the same age, grade, and rural setting, but who were not involved in the program (Control Group II). Null Hypothesis II was that would be no significant difference in the grade point averages of the participants and the two control groups. Null Hypothesis III was that there would be no significant difference in attitudes about college of the participants and the two control groups.

Statistical Analysis

The data was graphed and analyzed using the T-test for independent samples at a probability level of .05 on a two-tailed T-test. The analysis instrument was Madigan and Lawrence's computer program Stats Plus, distributed by Human Systems Dynamics, Northridge, California. Instrument results included means, standard deviations, t-ratio, exact p-value, and the estimate of standard error used in the test. The program was also used to develop (but not print) descriptive statistics for the results. A total of six comparisons were made. Since the writing level analysis of the writing samples of the participants and wait-listed students who responded showed no significant difference between the participants and Control Group I at the outset there was no need to use an analysis of co-variance to compare the two groups.

Basic Assumptions

One basic assumption was that there was no significant difference before the program between students who were selected for the program and students who were wait-listed or who were not involved in the program at all. The assumption was that if they were in a college preparatory program and in the same grade, they would be the same age and of like intelligence and they would be subject to the same limitations of a rural school program.

Another assumption was that attitudes had not been significantly influenced by instructors or situations they had encountered since they completed the program.

A third assumption was that course selection had not been significantly influenced by parents or counselors. Related to that was an assumption that students had been able to upgrade their courses since participating in Survival '85.

Chapter 4

RESULTS

Statistical Results

Course Selection

Examination of the data resulted in the following findings. The participants had scores ranging from a high of 6 to a low of 2 on the assessment of college preparatory courses, with a mean score of 3.667. Wait-listed students had a high score of 5 and a low of 1, and a mean of 3.105. Students with scores of 5 and 6 were either enrolled in the full spectrum of college preparatory courses or were in accelerated courses. Students with scores of 2 or below were usually involved in lower level courses (e.g., general math) or had chosen not to take college preparatory courses because they were not interested.

Table 1

Means and Standard Deviation of College Preparatory Courses and the Sample Size for Each of the Groups Included in the Study

Group	Mean	Standard Deviation	Number
Participants	3.67	1.05	24
Wait-List	3.11	1.20	19
SE Participants	3.79	1.31	14
Klawock	4.29	0.76	7

Grade Point Average

The most significant contrast was in the grade point average of the three groups. Participants had GPA's ranging from a high of 4.0 (straight A's) to a low of 2.0 (a C average) with a mean score of 3.44. Of the 24 participants who responded, 9 had straight A's. Wait-listed students had GPA's ranging from 4.0 to 1.3, with a mean score of 2.861. Only one wait-listed student had a 4.0 and 2 had scores below 2.0. Southeastern participants had GPA's ranging from 4.0 to 2.7 with a mean of 3.657. Klawock scores ranged from 4.0 to 2.24 with a mean of 2.94. 7 of the 14 Southeast participants (50%) had straight A's, only 1 of the Klawock students (20%) had a 4.0.

Table 2

Means and Standard Deviation of GPA and the Sample Size For Each of the Groups Included in the Study

Group	Mean	Standard Deviation	Number
Participants	3.44	.60	24
Wait-List	2.86	.72	19
SE Participants	3.66	.43	14
Klawock	2.94	.69	5

College Plans

Scores on college plans ranged from a high of 3 (the maximum possible) to a low of 0 for participants and a high of 3 to a low of -2 for wait-listed students. Southeastern participants had scores ranging from 3 to 0 and Klawock scores also ranged from 3 to 0. Only small

numbers of students had made thorough plans for college, 5 of the participants, 4 of the wait-listed students, and 2 of the Klawock students. Students with 0 or negative scores had either decided not to go to college or had decided not to take one or more of the recommended college preparatory courses.

Table 3

Means and Standard Deviation of Degree of College Planning and the Sample Size for Each of the Groups Included in the Study

Group	Mean	Standard Deviation	Number
Participants	1.79	.83	24
Wait-List	1.42	1.30	19
SE Participants	1.86	.86	14
Klawock	1.43	1.27	7

Null Hypotheses

The data was analyzed using the T-test for independent samples at a probability level of .05 on a two-tailed T-test. A total of six comparisons were made using Madigan and Lawrence's Stats Plus. Below are the results.

Null Hypothesis I

A comparison of course selection by 24 participants and 19 wait-listed students (Table 4) resulted in a T of 1.637 which is not significant at a frequency of 41 at the 0.05 level of probability. The hypothesized difference was 0; the obtained difference .561. The level of probability was 1.056. Thus, the null hypothesis is accepted.

Table 4

T-test Comparing Course Selection of Participants and Wait-Listed Students

Hypothesized Difference: 0
Obtained Difference: .561
T (41) = 1.637 P = 1.056

A comparison of course selection by 14 Southeastern participants and 7 college preparatory students at Klawock High School (Table 5) resulted in a T of -.927 which is not significant at a df of 19 at the 0.05 level of probability. The hypothesized difference was 0; the obtained difference 0.5. The level of probability was 0.766. The null hypothesis is accepted.

Table 5

T-test Comparing Course Selection of Southeast Participants and Klawock Students

Hypothesized Difference: 0
Obtained Difference: 0.500
T (19) = -0.927 P = 0.766

Null Hypothesis II

A comparison of grade point average of 24 participants and 19 wait-listed students (Table 6) resulted in a T of 2.908 which is significant at the 0.005 level of probability as well as the 0.05 level. The hypothesized difference was 0; the obtained difference 0.0538. The null hypothesis is rejected.

Table 6

T-test Comparing GPA of Participants
and Wait-Listed Students

Hypothesized Difference: 0
Obtained Difference: 0.0538
T (41) = 2.908 P = .005

A comparison of the grade point averages of 14 Southeast participants and 5 Klawock students (Table 7) resulted in a T of 2.721 which is significant at a df of 17 at the 0.014 level of probability as well as the 0.05 level. The hypothesized difference was 0; the obtained difference .717. The null hypothesis i rejected.

Table 7

T-test Comparing GPA of Southeast
Participants and Klawock Students

Hypothesized Difference: 0
Obtained Difference: 0.717
T (17) = 2.721 P = 0.0140

Null Hypothesis III

A comparison of college plans by 24 participants and 19 wait-listed students (Table 8) resulted in a T of 1.132 which is not significant at the 0.05 level of probability. The hypothesized difference was 0; the obtained difference .371. The probability level was .2633. The null hypothesis is accepted.

Table 8

T-test Comparing Degree of College Planning of Participants and Wait-Listed Students

Hypothesized Difference: 0
Obtained Difference: .371
T (41) = 1.132 P = .2633

A comparison of college plans by 14 Southeastern participants and 7 Klawock college preparatory students (Table 9) resulted in a T of 0.916 which is not significant at the 0.05 level of probability. The hypothesized difference was 0; the obtained difference 0.429. There was not a significant degree of probability at any level. The null hypothesis is accepted.

Table 9

T-test Comparing Degree of College Planning of Southeast Participants and Klawock Students

Hypothesized Difference: 0
Obtained Difference: 0.429
T (19) = .916 Not a significant degree of probability

Frequency Distribution

Figures 1 through 6 depict the frequency distribution of the data graphed by percentages. Figure 1 compares the number of college preparatory courses selected by the 24 participants to course selection by the 19 respondents from Control Group I. More than 95% of the participants were enrolled in 3 or more college preparatory courses as compared to 74% of Control Group I. None of Control Group I was enrolled in 6 courses as compared to 12.5% of the participants.

Figure 2 compares the number of courses selected by the Southeastern participants to course selection by 7 Klawock students constituting Control Group II. Here the Control Group outdistanced the participants. One hundred percent of the Klawock students were enrolled in four or more college preparatory courses, as compared to 42.8% of the participants.

Figure 3 compares the grade point average of participants to that of Control Group I. Eighty-three percent of the participants had an average of 3.0 (a B) or higher, as compared to 52.7% of Control Group I. Forty-seven percent of the Control Group had averages of 2.0 (a C) or lower, as compared to only 16.7 percent of the participants.

Figure 4 compares the Grade Point Average of the Southeastern participants to that of 5 respondents from Control Group II. Fifty percent of the participants had a 4.0 (A) average as compared to only 20% of the Klawock group. Sixty percent of the Klawock group had a 2.0 (C) average, but only 7.1% of the participants.

Figure 5 compares the degree of college planning of the participants to that of Control Group I, and Figure 6 compares the planning of the Southeastern participants to that of 7 respondents from Control Group II. Some planning was done by all but 4.2% of the participants and 10.6% of Control Group I. Approximately the same percent from both groups, 20% of the participants and 21.1 of Control Group I, had made decisions about the type of college they would attend and their expected major. Ninety-two percent of the Southeastern participants had done some planning as compared to 71.5% of Control Group II. Twenty-eight percent of the Control Group had done no planning as compared to only 7.1% of the Southeastern participants.

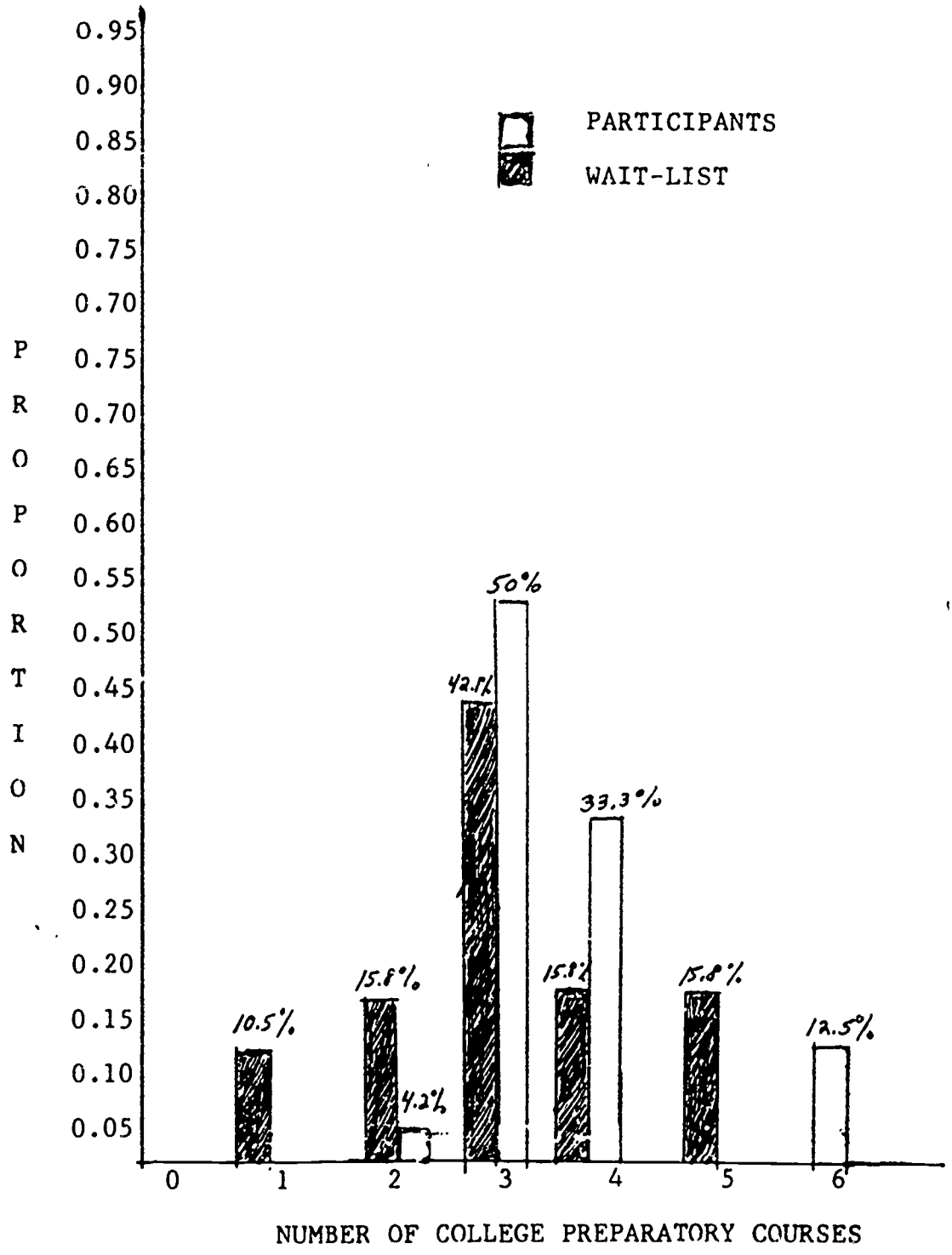
PARTICIPANTS
WAIT-LIST
PROPORTION
0.95
0.90
0.85
0.80
0.75
0.70
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
10.5%
15.8%
4.2%
42.1%
50%
15.8%
33.3%
15.8%
12.5%
0
1
2
3
4
5
6
NUMBER OF COLLEGE PREPARATORY COURSES

FIGURE 1

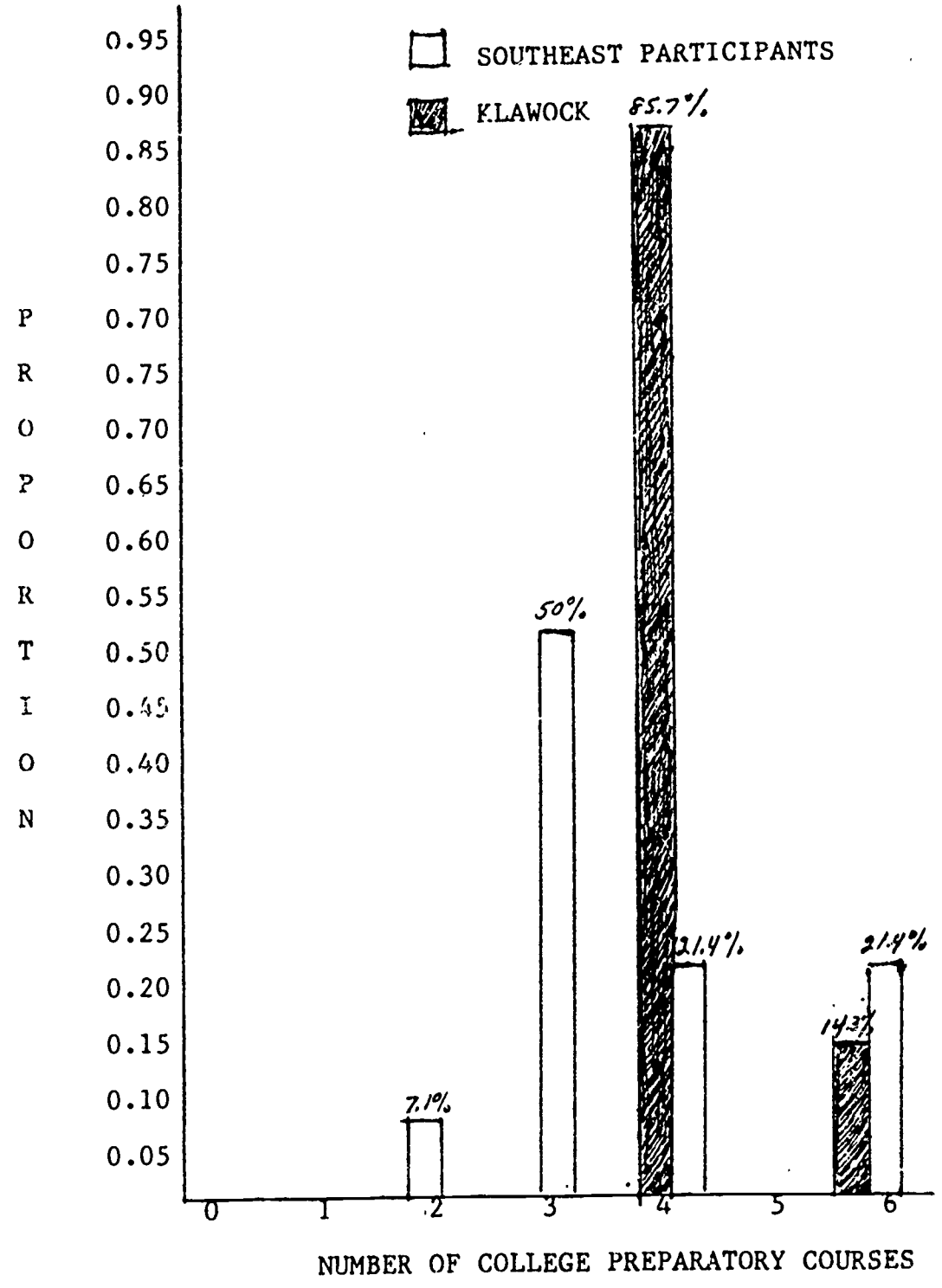
SOUTHEAST PARTICIPANTS
KLAWOCK
85.7%
50%
21.4%
21.4%
14.3%
7.1%
PROPORTION
0.95
0.90
0.85
0.80
0.75
0.70
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0
1
2
3
4
5
6
NUMBER OF COLLEGE PREPARATORY COURSES

FIGURE 2

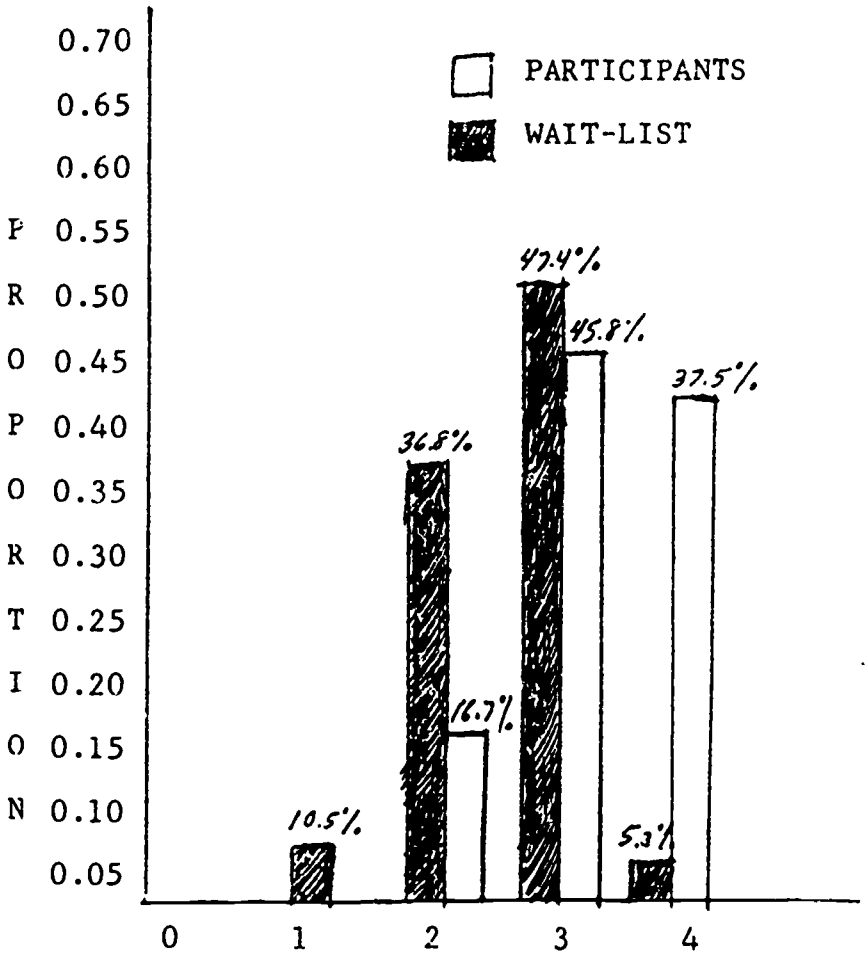
0.70
0.65
0.60
P 0.55
R 0.50
O 0.45
P 0.40
O 0.35
R 0.30
T 0.25
I 0.20
O 0.15
N 0.10
0.05
PARTICIPANTS
WAIT-LIST
10.5%
36.8%
16.7%
47.4%
45.8%
5.3%
37.5%
0
1
2
3
4
GRADE POINT AVERAGE

FIGURE 3

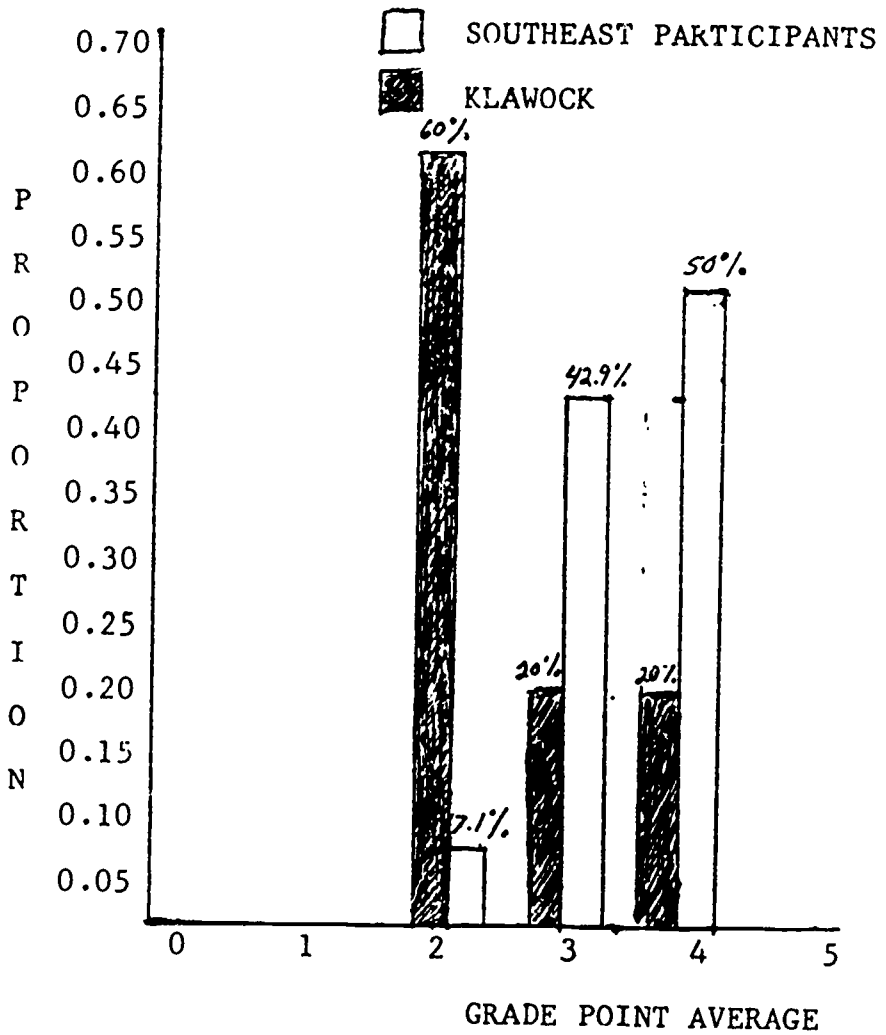
SOUTHEAST PARTICIPANTS
KLAWOCK
PROPORTION
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
60%
7.1%
20%
42.9%
20%
50%
0
1
2
3
4
5
GRADE POINT AVERAGE

FIGURE 4

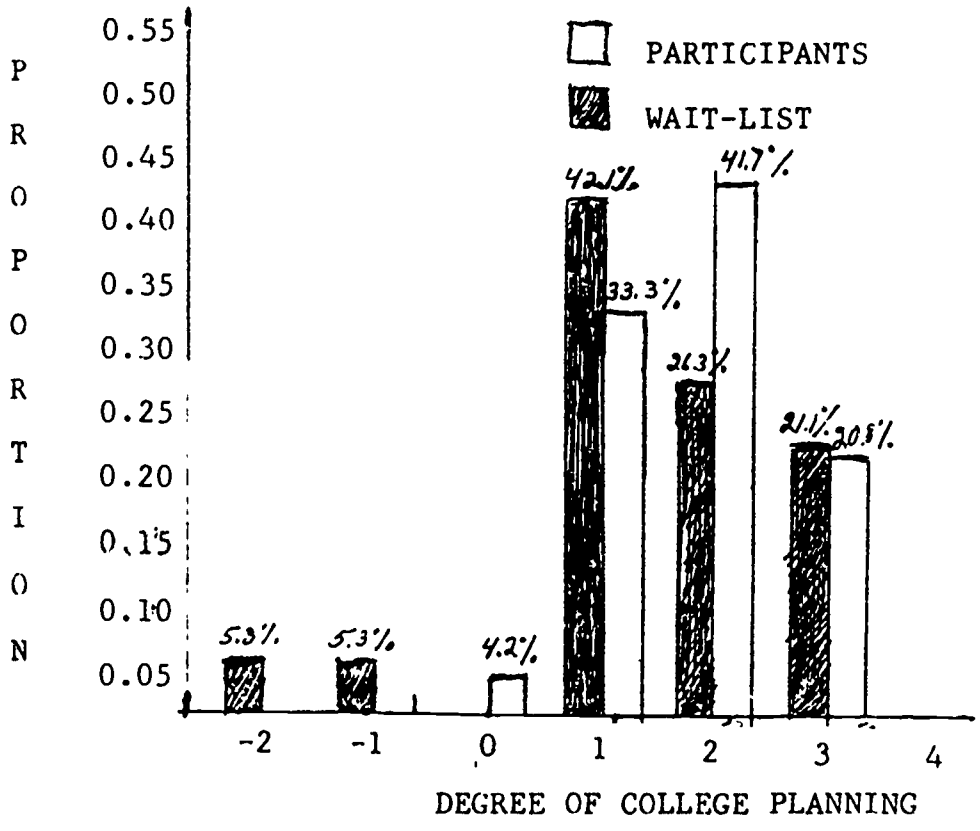
PROPORTION
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
PARTICIPANTS
WAIT-LIST
5.3%
5.3%
4.2%
42.1%
33.3%
41.7%
26.3%
21.1%
20.8%
-2
-1
0
1
2
3
4
DEGREE OF COLLEGE PLANNING

FIGURE 5

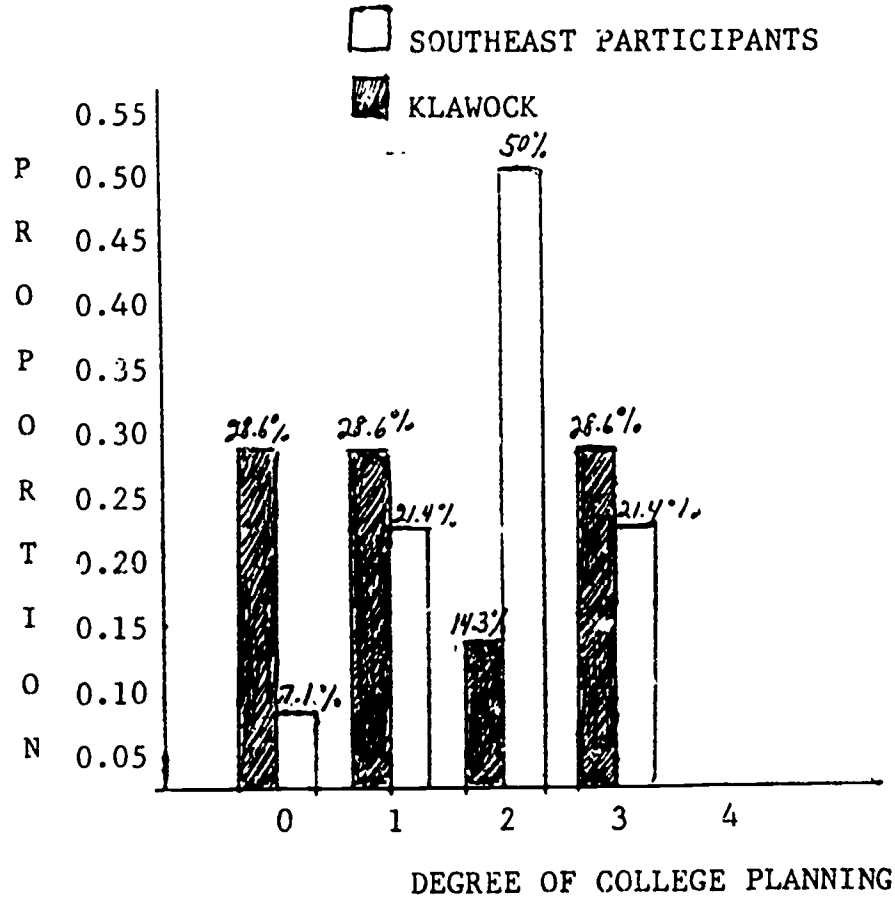
SOUTHEAST PARTICIPANTS
KLAWOCK
PROPORTION
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
28.6%
7.1%
28.6%
21.4%
14.3%
50%
28.6%
21.4%
0
1
2
3
4
DEGREE OF COLLEGE PLANNING

FIGURE 6

Chapter 5

DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS

Discussion

While the Early College Incentive Program has not had a significant effect on the courses selected or the college plans of the participants as compared to the two control groups, it seems to have had a significant effect on grade point average.

Course Selection

One important factor may have affected the courses selected. Thirty-two of the 43 participants and wait-listed students responding indicated that one or more of the listed courses were not available to freshmen. The majority of these were precluded from taking foreign language and computer science, and 10 were precluded from taking Algebra I. Neither foreign language nor computer science was available to freshmen students at Klawock High School. Obviously student choices were limited by local circumstances. A follow-up study next year may see an increase in the availability of, hence the enrollment in, specific college courses. However, some students are already precluded from some course combinations, e.g., mathematics through the level of calculus.

College Planning

The scores for college planning were not significantly different, but there were some interesting patterns among the groups. Only one of the participants and one of the wait-listed students had decided not to go to college. Exercising the option to take college preparatory courses was one aspect of the assessment of college planning, and only 3 from each group lost points because they had chosen not to take one or more of the college preparatory courses. It is to be expected that a long-range study of the groups will show increased planning as they get closer to college entry. This conclusion is supported by the U.S. Office of Education's 1979 report that Upward Bound participants showed greater persistence than their match group of non-participants.

Grade Point Average

The significant difference in the grade point average is in itself grounds for continuation of the program. One concern might be the meaningfulness of the grades, since occasionally high school valedictorians at Sheldon Jackson College are so poorly prepared that they must enter the developmental program. Still the GPA was computed using only college preparatory classes, and there are significant differences between the participants and the control groups. It is expected that a long-range study of the groups will see the differences increase.

Implications

Educational Implications

There is at least one implication that goes beyond the limits of this study; that is the course restrictions placed upon the students in some of the smaller schools. For Sheldon Jackson College and, in fact all colleges in the state with an open enrollment policy, this means a continuation of (or implementation of) a developmental program. Present developmental courses at Sheldon Jackson College include Communications Core 100 (a program for students with reading and writing deficiencies), English 101 (pre-college writing), Math 100 (Basic Math), Math 110 (Beginning Algebra), and Math 118 (Intermediate Algebra). Similar courses are in place at Islands Community College is Sitka and may be in place at other community colleges in the state.

For the student whose needs are not being met by the local school, it means a look at alternative places for education. Already one ECIP participant is attending Mt. Edgecumbe High School, another has been sent by his parents to school in Fairbanks.

School districts must find ways to provide these courses to their college preparatory students. Obviously one and two teacher schools cannot provide the range of studies offered at even small schools like Klawock High School with its student enrollment of 45 and teacher population of 8. Teleconferencing is one option. Encouraging the college preparatory students to attend Mt. Edgecumbe is another option. These and other options need to be seriously considered.

Program Implications

At the outset, the objectives of the Early College Incentive Programs for Sheldon Jackson college were addressed. These are: (1) an increased number of students who are academically prepared for college, (2) an increased number of students who remain in college, and (3) an increased number of students attending Sheldon Jackson college. These are long-range goals and cannot be assessed until the participants in the 1985 Program, Survival '85, begin college in 1989. However, several of the student objectives can be assessed to a limited degree.

Enrollment in College Preparatory Courses

Forty-five percent of the participants are taking four or more college preparatory courses. While this percentage is not small, it needs to be increased and should be addressed by faculty and staff planning Survival '86.

To address the needs of students from districts with limited college preparatory offerings, the program should continue the on-site visit to Mt. Edgecumbe High School which it offered in 1985, and a discussion of Mt. Edgecumbe as an educational alternative should be part of the visit.

Grade Point Average

Eighty-three percent of the participants have grade point averages for their college preparatory classes of 3.0 or higher. This is significant and should be recognized by college or Program personnel in their contacts with the school districts.

College Planning

The relatively low scores on college planning indicate a need for the Program to provide more information about colleges and college preparatory programs as part of the general orientation.

Recommendations

It is recommended that there be continued monitoring of the program. The full impact of a program such as the Early College Incentive Program will not be felt until Early College Incentive students begin entering college in 1989. Longitudinal studies should be made of the 1985 participants and their Control groups. Studies of the 1986 and 1987 classes should be planned. School districts should be alerted now to the studies so that better response from the Northern districts for the studies can be obtained. Although the monitoring in and of itself may have a positive effect on student performance, the objective improved student performance will still be served.

New sources of funding should be sought. Since funding of the Program by the Presbyterian Church is expected to phase out by 1987, the college must begin immediately to locate new sources of funding. Federal sources, such as the Upward Bound Program, are not recommended since they are limited to students who are economically disadvantaged, but funding from the State Department of Education should be considered. Funding from corporations and foundations should be explored. Since one school district (North Slope) which was not included in the current program has asked to provide funding for four of its students to be included in Survival '86, a viable funding source for future programs may be the school districts themselves. The districts could

provide funding for a certain number of students, and the integrity of the program could be maintained by the selection of the students being made, as it is now, by the Program faculty and staff.

The program should be expanded. Last year, enrollment was limited to 40 students, 20 from Southeast Alaska and 20 from four school districts in Northern Alaska. For 1986, enrollment was originally set at 40, with 16 from Southeastern Alaska and 24 from six school districts in Northern Alaska. With the addition of four students from the North Slope School District (funded by that district), enrollment will increase to forty-four. The college needs to plan now for additional expansion and must determine whether there should be one session with an increased enrollment and faculty or two sessions with a limit of forty students in each session. Either option would provide for a maximum teacher-student ratio of one to twenty.

An advanced program should be instituted. When the program was originally planned, the idea of bringing the participants back to campus between their junior and senior years of high school was suggested. Exum and Young (1981:339) noted that the impact of Upward Bound was found to be incremental. Two or three years participation was recommended for the most significant impact. This was the pattern in several of the Upward Bound programs that were studied. This idea should be pursued and funding for it sought along with funding for the introductory program.

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APPENDIX A

MAP OF ALASKA WITH REGIONS SERVED

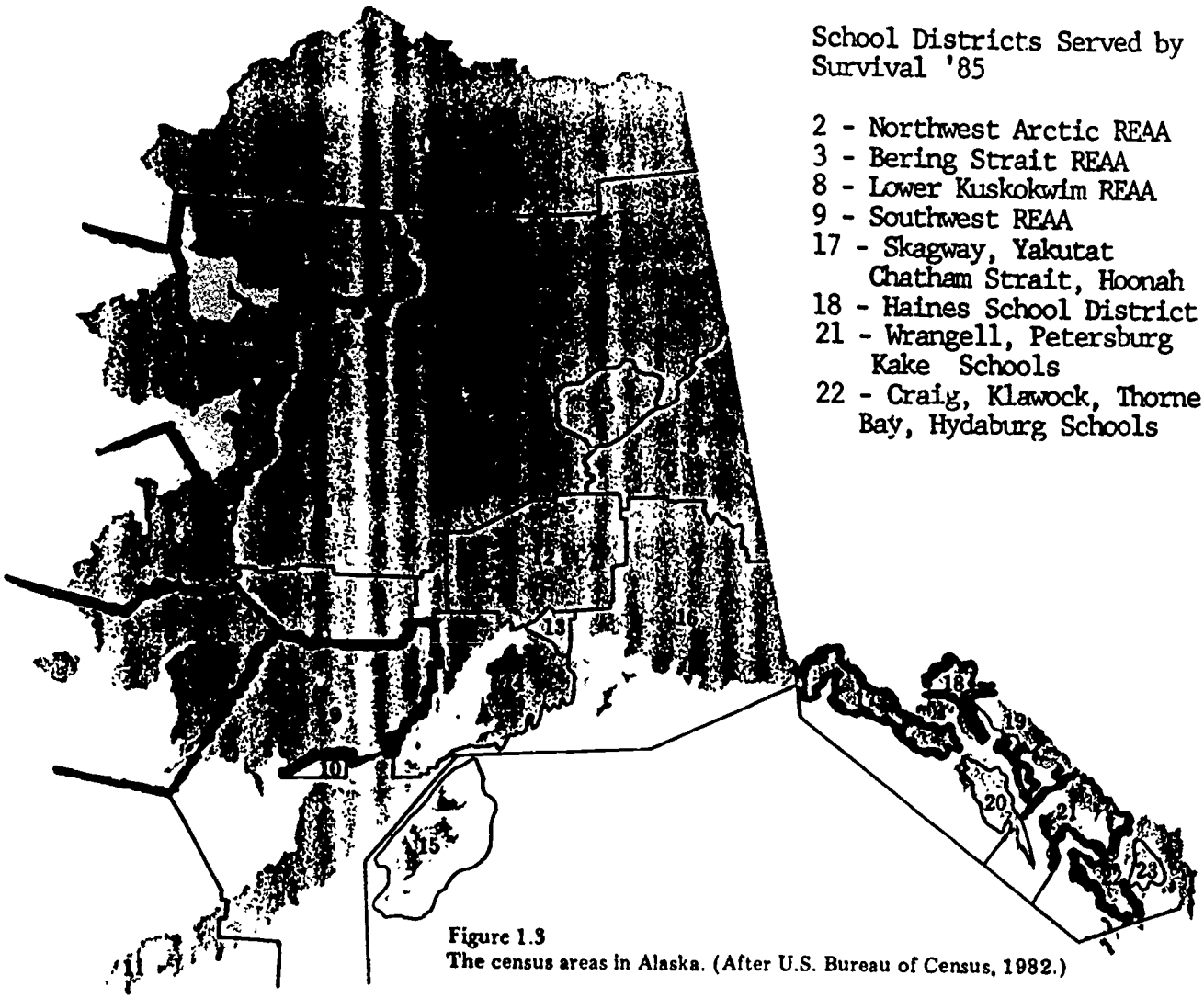

Figure 1.3
The census areas in Alaska. (After U.S. Bureau of Census, 1982.)

APPENDIX B

SURVIVAL '85 RECOMMENDATION FORM

SURVIVAL '85
STUDENT RECOMMENDATION

Student's Name _____

School _____

To the teacher/counselor/principal: The above student has chosen you to evaluate his/her performance. Please evaluate this student in the areas below as they apply within the classroom or school. This information is confidential and will help us better meet the needs of the students during Survival '85.

Survival '85 which will be held from June 16 to 29 on the campus of SJC, is a two week summer program for students who will be entering 9th grade in Fall '85, designed to introduce students to college life and to give them some idea of what it is like to live and study on a small college campus. Subjects to be covered include natural science, literature, writing, art, music, drama, mythology and legends, swimming, first aid, intro to CPR, computers, and wellness. We will recommend that students receive endorsement for 1/2 unit of Carnegie credit upon successful completion of the curriculum.

To what extent does this student:	excellent	good	fair	poor
Follow directions?	___	___	___	___
Follow through on rules/guidelines?	___	___	___	___
Cooperate with adults?	___	___	___	___
Display acceptable conduct?	___	___	___	___
Require additional supervision/guidance?	___	___	___	___

(If so, please explain).

Academic Performance: Please indicate below your assessment/recommendation of this student's level of academic ability. Consider his/her work habits, group participation, college potential.

What are this student's particular academic or social strengths or weaknesses that we should be aware of as we try to help him or her have a positive experience in Survival '85?

Health: Does the student have any health limitations that would interfere with his/her participation in the program?

Additional comments or concerns:

(Signature)	(Job Title)	(Date)

THANK YOU FOR YOUR ASSISTANCE!

Return to: Jan Craddick, Director
Survival '85
P. O. Box 479
Sitka, Alaska 99835

Recommendations need to be returned no later than March 30th.

APPENDIX C

WRITING LEVEL ANALYSIS

WRITING LEVEL ANALYSIS STUDENTS ACCEPTED AND WAIT-LISTED FOR SURVIVAL '85

ANALYSIS INSTRUMENT: Hardy, Norman D., Max E. Jermain, and John F. Kropf, Reading Level Analysis, Version 3.3 , Berta-Max Inc.

The writing level was computed by using the above instrument which measures the reading level of the writing using Dale-Chall, Fog, Flesch, Fry, and Smog measures and computing an average of those scores.

Participants	Wait-Listed
11.2	12.9
10.5	11.6
10.3	11.0
10.3	10.8
9.7	8.5
9.5	8.4
8.7	8.1
8.4	7.9
8.3	7.5
8.3	7.5
8.3	7.1
8.1	6.5
8.1	6.4
7.9	6.3
7.8	5.8
7.8	5.8
7.6	5.7
7.5	5.6
7.5	143.4
7.4	
7.3	
7.1	
7.0	
6.2	
200.8	

Total Participants: 24
Mean Participants: 8.367
Standard Deviation: 1.261

Total Wait-listed: 18
Mean Wait-Listed: 7.967
Standard Deviation: 2.2222

A T-test for independent samples at reveals a T score of 0.739. The level of significance at probability level of 0.05 with df of 40 is 2.021. Thus there is no significant difference between the two groups.

APPENDIX D

PROGRAM QUESTIONNAIRE

Name _____ Address _____

School _____ Year in School _____

I. In which of the following courses are you enrolled? Check yes or no and give a brief description of the course if necessary.

English I	Yes ( ) No ( )	
Algebra I	Yes ( ) No ( )	
History or Geography	Yes ( ) No ( )	Describe _____
Science	Yes ( ) No ( )	Describe _____
Foreign Language	Yes ( ) No ( )	Describe what language and what level? (for example, French I or Spanish II) _____
Computer Science	Yes ( ) No ( )	

For any of the above courses that you answered "no" to, check why you're not enrolled.

Course	Taking a higher level course	Taking a lower level course	Course not available to freshmen	Not interested in course
English I	( )	( )	( )	( )
Algebra I	( )	( )	( )	( )
History or Geography	( )	( )	( )	( )
Science	( )	( )	( )	( )
Foreign Language	( )	( )	( )	( )
Computer Science	( )	( )	( )	( )

Are you enrolled in a study hall? Yes ( ) No ( )

Is it required? Yes ( ) No ( )

Are you taking any Sophmore level courses? (For example French II or Geometry) Yes ( ) No ( )

Describe _____

Are you enrolled in an enrichment class or program? Yes ( ) No ( )

Describe _____

II. Please list all the courses you are taking this year and your grades from your most recent report card.

Course _____ Grade _____
Course _____ Grade _____
Course _____ Grade _____
Course _____ Grade _____
Course _____ Grade _____
Course _____ Grade _____
Course _____ Grade _____

III. Please tell us about your college plans.

Are you planning to go to college? Yes ( ) No ( )

If yes, have you decided what college or type of college you want to attend? Yes ( ) No ( )

If yes, explain _____

Have you made any career plans or decided what you're going to major in? Yes ( ) No ( )

Is yes, explain _____

This information will help us in the evaluation and continued development of the Early College Incentive Program. Please mail the form to me no later than December 1st in the enclosed envelope.

Thank you for your help.

Jan Craddick, Director, ECIP

APPENDIX E

STUDENT EVALUATION FORM FOR SURVIVAL '85

STUDENT EVALUATION FORM
SURVIVAL '85

Please fill out this form as completely as you can. It will help us evaluate what we've done this year and improve our program next year.

EVALUATION OF THE PROGRAM

1. Did you enjoy being part of Survival '85? Yes ( ) No ( )
   Explain why or why not.

   _____

   _____

   _____

2. I would recommend this program to my friends. Yes ( ) No ( )

3. My 3 favorites classes or activities were:

   (1) _____

   (2) _____

   (3) _____

4. My least favorite classes or activities were:

   (1) _____

   (2) _____

   (3) _____

5. My favorite academic class was: _____

   Explain why you liked it: _____

   _____

6. Were the instructions clear:

   Before your arrival? Yes ( ) No ( )

   For Orientation? Yes ( ) No ( )

   For your classes? Yes ( ) No ( )

7. What subjects would you like to have added next year? _____

   _____

   _____

8. What subjects would you delete? _____

_____

_____

9. Has this program changed your ideas about:

College: Yes ( ) No ( )

High school classes to take: Yes ( ) No ( )

People from other areas of the state: Yes ( ) No ( )

EVALUATION OF THE COLLEGE

1. I am planning to go to college: Yes ( ) No ( )

2. I would like to go to college at Sheldon Jackson: Yes ( ) No ( )

Explain why or why not: _____

_____

_____

GENERAL:

Please add general comments or ideas about this program or future Survival programs: _____

_____

_____

_____

Thanks for your help. I hope to see you in 1989!

Jan Craddick, Director
Survival '85