

A STUDY OF THE SCHOLASTIC FATES OF 231 TRANSFER
STUDENTS IN OREGON STATE COLLEGE

by

LOUIS EARL EDWARDS

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APPROVED:

Redacted for Privacy

Professor of Educational Psychology
in Charge of Major

Redacted for Privacy

Head of School of Education and

Chairman of School Graduate Committee

Redacted for Privacy

Chairman of State College Graduate Council

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CHAPTER I

Introduction

The principal problems considered in this thesis are the scholarship records and the final educational destinations of 231 students who transferred their college credits earned elsewhere to the Oregon State College at the beginning of the college year 1936-1937 and who, as far as can be ascertained, completed their formal undergraduate preparations at that institution. Secondary problems are: (a) what process of selection of new students has seemed to yield the best results; (b) could these transfer students have been better selected; (c) what schools within the College did these students enter; (d) if they later transferred to other schools within the College, to which schools did they transfer; (e) how many of them completed their courses; (f) would educational guidance have improved their scholastic records; and (g) would educational guidance have assisted more of them to the completion of their courses?

The small amount of scholarship improvement that occurs during the usual four years of college or university work has been pointed out in the University of Pennsylvania study (31) and by Watson (48). This may or

may not be apparent in the grades or marks given by the faculties of the institutions. If the comparative marks of transfer students are either clearly above or clearly below the marks of the whole group of students, the investigator should seek the causes. Obvious causes are (a) selection, (b) industry, and (c) acquaintance with special procedures. The problem is one of the worth of transfer students to the College as well as that of the worth of the College to the transfer students. This touches the administrative side of the College's work because students who do not complete their courses to the point of graduation are held to represent a loss to the institution and to the State. The loss to the students may be equally great, or greater. This problem touches also, upon the effectiveness of any provisions for the guidance of students which the College may have.

Two hundred thirty-one undergraduate transfer students who entered the Oregon State Agricultural College at the beginning of the college year 1936-1937 make up the subjects of this study. It was first believed that one hundred in-state students and the same number of out-of-state students taken alphabetically would give a fair selection among the transfer students of that year and, in turn, an average picture of the transfer students of all recent years. A few more were taken, however, so

that when the count was made it was found that information had been obtained on 116 in-state transfer students and 115 out-of-state transfer students. It is recognized that, perhaps, more cases might have given a better selection and also that fewer cases might have given the same results. No particular significance has been attached to the number of students studied. It was also believed that, in taking the students who transferred in during that year, these students would have completed their formal training by the summer of 1939--the time at which these data were compiled. The Oregon State College does not welcome transfer students with less than one year of collegiate work elsewhere; but it does, on the other hand, require that all students who are graduated from the College must have at least one year of residence on its campus. This is in conformity with the general procedure among colleges.

The majority of transfer students entered the Oregon State College with either one or two whole years of work in other institutions and should, thus, have arrived at their educational destinations by the end of the three years covered in this study. The data are recent enough, as well, to indicate any trends in the operation of forces affecting them at the present time. As far as this writer can ascertain, 1936-1937 was a normal year

in the history of the College and of the Nation, and does not present any special conditions that would prevent the application of any conclusions which may be drawn from the study to other years which are not too far distant in time from 1936-1937.

The transfer students were studied in two groups--those who were residents of Oregon and who transferred from other Oregon institutions and those who were residents of other states and transferred from college institutions outside of Oregon. The reason for this separate investigation of the two groups is that "out-of-state" students, both transfer and freshmen, are admitted only after selection by a faculty committee which may accept or reject any individual applicant for admission as it deems best. In contrast, Oregon residents, especially those who have attended other Oregon colleges or universities have to be admitted unless they have been dishonorably dismissed from the institution last attended. Theoretically at least, the scholastic records in the Oregon State College of the out-of-state students should have been superior to those of the Oregon residents among whom there was only what one might call "a natural selection." Later in the study, the two groups were combined and studied as a whole,

especially in comparison with the records of the entire student body.

The writer hopes that the reading of this thesis will show that there is a considerable place in colleges, such as the Oregon State Agricultural College, for a functional and dynamic program of guidance for transfer students and, perhaps, other students in order that the volume of wasted energy, wasted time, and of blighted hopes of students may be made less and that the scholastic, social, and sociological attitudes and attainments of students may be improved. This is an economic problem as well as a psychological and educational question because society in general must pay the bills and must accept these students as full-fledged members at the close of their college lives however long and satisfactory, or short and unsatisfactory, these may be.

The second chapter of this thesis deals with the theoretical and historical backgrounds of the problems involved. Because the connoted questions are so many and the published material is so extensive, only a partial survey of these backgrounds can be presented in this paper.

CHAPTER II

A Brief Discussion of Trends in the Guidance Movement

Transferring students select the Oregon State Agricultural College for the continuance of their educations for a number of reasons. Perhaps the first that might be considered is the types of education offered. While not all transfer students enroll in the Schools of Forestry, Engineering, Agriculture, Home Economics, Secretarial Training and the Industrial Arts Department, most of them do enter these schools considered by many as outstanding on the Pacific Coast at least. These departments are well-staffed and well-equipped, and have a reputation for being able to place their graduates in positions which offer relatively good salaries and chances for advancement. These factors attract students who are interested, or who think they are interested, in these fields.

Another reason which attracts out-of-state students is the low cost of attendance at the Oregon State College. Although "out-of-state" students are required to pay special fees, they can do this and yet pay total tuition and registration fees below the costs of the larger colleges in California, more particularly. It is believed also, and with considerable foundation in fact that, in general, living and social costs are lower

at the Oregon State Agricultural College than in the larger colleges and universities of neighboring states. In addition, students may work at remunerative jobs at the Oregon State College without any loss in social status among the students as a whole. As a matter of fact, a majority of the student-selected leaders are partially self-supporting. This is not as true in the other larger colleges and universities on the Pacific Coast as it is at the Oregon State College.

Another reason is the smaller student body at the Oregon State College in comparison with the large California and Washington schools. This offers to individual students opportunities for participating in and achieving leadership in fraternal and student life, holding office in student organizations, and expression of the normal desires for individuality, as well as opportunities for personal contact with faculty members not found in the larger schools.

Another reason for transferring to Oregon State College might be the lure of the unknown, the desire to get away from home where one can make new contacts and friends, and the belief that a poor start (56) in one institution can be offset in a new situation.

A large number of students register from junior colleges which they have found, or imagine they have

found, to be just two more years of high school. Often, these junior colleges have been in the same building as the high schools and staffed with the same teachers. Many students desire a school with more prestige in athletics, fraternity life, and traditions than most two-year institutions would have. In addition, a principal problem of young people who have always lived at home is the establishment of their own identities and the discoveries of their own powers and limitations. This they can usually do better away from home than at home and among the surroundings of their childhoods.

Undoubtedly some students transfer to Oregon State College because they have friends there or because someone whom they respect or admire is either a graduate of the College or has recommended it to them.

Johnston's study (23), at Minnesota, has shown that "Only 44 per cent of the migrants who have come to the college of liberal arts at Minnesota since 1922 have done satisfactory work". From this study, support can be given to the opinion of many faculty members that the presence of a group of students who have entered a college with advanced standing constitutes a somewhat serious college problem.

The question arises as to whether the institution from which the student came is to blame for his success

or failure. Johnston says, (23) "College instruction really does not have that much influence; more importance should be attached to the native ability, traits, and personality of the individual student."

If these are to be the important points for consideration, then it would seem that there is a definite need for selection and guidance for transfer students. The following questions naturally arise as to the status of these students at the time they apply for admission:

1. Have they brought with them or had forwarded satisfactorily complete and accurate cumulative records, containing personal data from their secondary schools and colleges?

2. Have the students adequate financial backing?

3. Are they acquainted with the costs of the complete training they anticipate taking?

4. Have they appropriate perspectives on their educational programs, such as, training for more than one field, chances of employment, permanence of chosen field?

5. Do their measured interests correspond with their abilities?

6. Do their claimed interests coincide with their measured interests?

7. Do they know how to study?

8. Do they have the proper motivation or ambition for their work?

9. Have they the necessary ability to carry through the work they contemplate to its appropriate consummation?

10. Have they specific deficiencies, such as slow reading speed, lack of reading or general comprehension, inability to master mathematics, speech defects, etc.?

11. Is there sufficient elasticity in the standard curricula to take care of their needs?

At this point it might be well to introduce a brief review of the history of the guidance movement, its present trends, and the progress of other colleges or universities in the development of a guidance program.

According to Maverick (33), guidance seems to have started in this country with the work of Parsons in 1908 when he established in Boston his bureau for young people. Parson's bureau had no collegiate connections. Its purpose was that of securing jobs, and it was not until three years later that a faculty committee at Stanford University "started a self-analysis of guidance activities within its colleges and departments". (53) After the completion of this survey, a questionnaire was sent to leading colleges and universities to learn what was being done in the guidance field in these other

institutions. After this data had been gathered, the Stanford faculty committee made its report and recommended that recognition and support be given to the continuance of guidance functions at Stanford University. (33)

According to Williamson and Darley (52), a program of guidance spread from these two geographical points among high schools and colleges generally. Today, nearly all such institutions have guidance programs, at least on paper. Later, guidance was introduced into the junior high schools, and may have hastened the development of the junior high school as a school organization. Guidance, in its earlier days, seems to have taken three forms, depending upon the time, the institution, and the local interests. The first was a purely vocational type of information which would induct pupils who were graduating or dropping out into a suitable vocation. This type of guidance used various techniques (51), again depending upon the locality, such as the following: try-out experience, vocational information, courses in vocations, interviews, observational trips, hobbies, studies of claimed interests, school grades, lectures and other advice from parents and friends, and vocational testing. In a short time, this was augmented by placement bureaus for the placement of full-time workers from

the school. This was often followed by efforts at part-time placement of pupils and by the use of "co-ordinators" who followed the work of fully employed former pupils to protect them from exploitation on the one hand and to protect employers on the other. These co-ordinators continued the guidance of these employed former pupils, even moving them from job to job in trying to locate them in positions for which they were better suited than those then held. The books on guidance of the time minimized both the desirability and the responsibility of the schools in maintaining placement bureaus. This seems to the writer to be a very short-sighted and undesirable policy.

In time (38), a large group of educators came to believe that "vocational guidance" should be divided into two phases or into a preliminary period of educational guidance to be followed by vocational guidance. The child was to be tested to discover, if possible, his individual capacities, his special interests, and any other contributing personal factors; then he was to be advised in health, social, and character-building activities; in civic training; and then encouraged to take certain school courses to provide a background training for his future vocational choice.

This latter group (52) of educators differed from the first group who stressed vocational information in that they emphasized the use of mental tests (not available earlier), achievement tests (also not available to the earlier workers), cumulative records, rating scales, aptitude tests, vocational interest tests, and personality measurements. They were able to do this because psychologists were, for the most part, uninterested in the guidance movement as such, and contributed studies in individual differences and testing without much thought about their close application to people as individuals. It should be stated here, however, that the published conceptions of "guidance" have frequently been vague and that there has been much obviously futile quibbling over terms. If one were to study carefully all the claims and procedures advocated by each group, he would often have difficulty in knowing which phase or trend in the guidance movement he was reading about. As an example of this confusion, the following (28), supplied a good illustration in which the expression "vocational guidance" takes on new meaning:

"The seven phases of vocational guidance. Vocational guidance in the United States has been essentially a school concern. Other agencies, notably welfare organizations and public employment offices, have to some

extent, adopted vocational guidance procedures, but, by and large, it has remained for the schools to take the responsibility. What constitutes an American school guidance program? Essentially it includes

(1) the careful maintenance and continued use of cumulative records, records which give detailed data regarding the school, home, and leisure life of each child;

(2) the administration and interpretation of tests of intelligence, of achievement, and of vocational aptitude, ability and interests;

(3) the holding of individual interviews or conferences for the purpose of discovering those characteristics and eliciting such information as becomes available only through personal give and take of counselor and counselee;

(4) the programing of students for varied vocational experiences, usually through what are known as tryout shops;

(5) the presentation through class instruction, through printed matter, and other devices, of occupational information;

(6) the finding of jobs at graduation or at any time when pupils may find it necessary to leave school, that is to say, Placement is a phase of guidance;

(7) follow-up of school leavers (including graduates) for the purpose of assisting them to advance in their occupations, finding jobs for other students, and evaluating and improving the guidance service for the school."

Because of increased emphasis on individual differences, the terms, vocational guidance and educational guidance, have been gradually supplemented by the terms personal guidance or student personnel work. This term replaced, in part, what was earlier called social guidance or emotional guidance and was considered a third phase of the guidance movement. Student personnel work today is a vague term, meaning about whatever its user desires it to mean. It tends to place its main emphasis on personal guidance although it continues to use sources of occupational information and to give attention to selection of courses and revision of the curriculum. The pupil's capacities, abilities, interests, and character traits are first studied in relation to a given vocation and later made known to him. They are further studied in the light of what was earlier called educational guidance and vocational guidance in an attempt to make a coherent whole. In the analysis of guidance or student personnel systems in practice, a great many

variations of emphasis and limitations of objectives may be found.

Student personnel work may have originated or grown out of combining educational guidance practices and the type of personal guidance that good teachers interested in the students as individuals have always used, that is, where the proper rapport has existed between students and teachers. The teachers, because of their more mature judgment, experience, knowledge of students' strengths and weaknesses, and knowledge of the requirements of the particular vocation or vocations under consideration, were able to advise the students about ways of bringing about the desired results.

"Youth (51) must be taught to approach the problem of choosing a vocation realistically by means of a guided and professional inventory of personal assets and liabilities and a frank appraisal of job requirements and opportunities." (51) Perhaps the admonition ascribed to Socrates for his students, "Know Thyself," explains this thought about as well.

As viewed by this writer, there are two general schools of thought on guidance programs, and, there are naturally many variations of these two schools. The two main phases of the concept of guidance are (a) the distributive, and (b) the adjustive. In carrying out

the second phase, the aim is that of helping the individual to make the optimal adjustment to educational and vocational situations.

The first school, or central idea of guidance, might be characterized as the one that tends toward the centralization of guidance. This centralization (52) takes many forms, from the type using untrained, uninterested faculty members forced into home-room situations by administrative pressure to that using the highly trained personnel worker, well-grounded in psychology, research, statistics, and clinical procedures and one who possesses a personality capable of handling face-to-face situations. The advantage claimed for the personnel specialist is that guidance is raised to a professional plane comparable with that of medicine and one which utilizes the clinical procedures which Williamson and Darley (52) divide into six steps.

"First, clinical analysis, by which the counselor endeavors to learn whether the student possesses the necessary requirements basic to the work he is considering. At the end of the analysis, the counselor will have a mass of material consisting of numerical test scores, interest test patterns, impressions, and interview records, medical data, grade reports, and socio-economic case history items.

"The second step is that of clinical synthesis, by which the counselor attempts so to organize this information that the student's strong and weak points can be seen and plans can be formulated for the next step.

"The third step is that of diagnosis, by which the counselor attempts to learn the student's weaknesses or what is wrong with him if he has failed to show satisfactory adjustments in his particular situation.

"The fourth step is that of prognosis, by which the counselor makes principal and alternate recommendations for the choice of the student and explains to him the basis upon which the predictions or recommendations were made.

"The fifth step is that of treatment, by which is meant whatever is done by the counselor, student, or institution to put into operation the set of recommendations chosen in the fourth step.

"The sixth step is that of follow-up, which tries to ascertain whether the procedures as outlined are being followed, whether problems arise, whether the treatment is having the desired effect, as well as to evaluate the effectiveness of the counseling."

As previously stated, there are many variations of this type of centralized guidance. In some schools, the dean may have a large group of students to whom he

gives such advice as he can. In others, faculty members are either assigned or volunteer to take part in the program. In others, the teachers and counselors work together. In the main, all of these variations tend toward the study of the student for the purpose of introducing him to certain prescribed courses of study, to different and preferably needed social activities, or to special measures designed to bring about the desired change or training.

The second principal school of thought regarding guidance is represented in the writings of Jones (27), Hand (27), and Kefauver (27).

These writers object to the idea that courses should be established and the student be guided and fitted into them to solve his problems. As stated by Jones and by Hand, (27), "If we may be permitted an overstatement for the sake of emphasis, we may say that in general the picture is that of a youth, with his goals all nicely wrapped up into neat parcels and prettily labelled, 'distributing' himself to predefined, relatively unflexible courses in accordance with the labels on his parcels."

The beliefs as applied to guidance by this group are that the school is a unit; that administrators, guidance workers, and teachers should focus their

attention primarily upon the needs and purposes of their students rather than upon subject matter; that the teacher-dominated, subject-matter centered school should give way to a school in which the purposing, planning, executing, and evaluating of learning experiences are to be regarded as cooperative ventures involving both students and teachers; that the emphasis of the school should be on self-directed pupil activity and upon the function of the teacher as a guide in learning.

"If education (27) is to be effective, it must start with the child as he is, with his abilities, desires, and interests, his needs and problems, his pattern of life and conduct, and help him so to organize his experiences in meeting these needs that he will gradually develop a fundamental life purpose or goal that will be socially desirable and personally satisfying."

Many books have been written and much space has been given in professional journals on the above philosophy of education. Very little has been written about it in practice. In fact, there is not much agreement about what is and is not 'practice' on this point. Suffice it to say here, however, that the following illustration of a total school situation illustrates, at least in part, their point of view. This illustration

was (27) taken from "A College Curriculum Based on Functional Needs of Students".

"In attempting to set up a program of individualized instruction it was assumed that there are differences in the needs of students and that adjustments should be made to these differences. The assumption was made also that students should be given opportunity to develop skill in self-direction, including the ability to evaluate their own needs and to set up valid goals for their own efforts and activities. Further reference has been made to clarity and self-validation of goals as essential to an increased efficiency of learning.

"Since it is believed that there should be an adjustment of instruction to individual differences, that there should be increased opportunity for self direction, and that clarity and self-validated goals would add to the efficiency of learning. It may be concluded that no faculty can prepare a list of desired educational outcomes for any particular student. The student must discover his own needs and plan for himself in terms of desired outcome.

"Time is set aside for the student, with the help of the faculty and other students, to plan his college experiences in terms of his abilities, his achievements, and his personal goals; and upon the basis of an

understanding of the abilities, knowledges, understandings, and appreciation of value which are essential to effective participation in the four major areas of relationships."

The four major areas of relationships here referred to are as follows:

"(1) the area of social relationships, which includes the life of the individual as a citizen in the community, in the state and nation, and in world relationships;

"(2) the area of family relationships, which includes life in the home of parents or guardian, life in the new home which the student will help to build as husband or wife, and the many adjustments necessary as the student is weaned away from the childhood relationships of home and prepared for the new home of the future;

"(3) the area of personal relationships which includes those varied phases of his life which do not directly involve relationships to other people in the community or home but which are particularly related to his life as an individual; and

"(4) the area of vocational relationships which involves adjustments to professional life, business life, or other forms of employment.

These needs are defined cooperatively by students and faculty and provide the basis for the instructional activities. In the core course, all students deal with the problems common to the group. The core courses for the freshmen year were given the titles of 'Social Process', 'Freshmen Orientation', and 'Physical Education'. These core courses are supported by 'service' courses to develop proficiency in the tools of reading, written expression, oral expression, and functional mathematics. In addition there is opportunity for one elective each term."

With these two broad fields of thought as applied to guidance briefly stated, the writer believes that-- before turning to the study of the 'educational fates of 231 transfer students to Oregon State College'-- it might be well to consider the thought taken from Kefauver (27) as typical of many writers in the field of education and guidance at the present time.

"The critical observer of the program of many educational institutions will be impressed with the degree of separation obtaining between the program of instruction and the program of guidance. The guidance staff carry on activities designed to discover the characteristics and needs of the student and to assist him in planning of his life and his program of education. The

course offerings of the institution are frequently not analyzed to discover whether or not the existing courses serve the needs of students, whether or not other courses might be appropriately added to the program, whether or not existing courses might be modified to make them more effective. The discovery of student needs may not be entirely without value in itself, but the value is certainly limited if the training activities are not related to the discovered needs.

"Teachers, guidance specialists, and administrators should collaborate in the planning of a total educational program that represents the best cooperatively developed conception the staff can formulate. Through this cooperative study the understandings of all participants should be extended. The interests, goals, and needs of students being served constitute the most promising points of departure in any such program of cooperative study. The guidance staff should be of special help in interpreting the characteristics and needs of students."

This discussion of the guidance movement may serve to show how far away from the pupils themselves many of the writers have gone. After all, there can be no guidance without pupils and without knowledge of facts about these pupils. In the literature of education and psychology may be found a very large number of papers

treating various phases of guidance on a factual basis, especially proposed plans for the selection of students as freshmen or as transfer students. Since there are so many of these papers and because they treat so many phases of student selection and guidance, only a few which have appealed strongly to the writer will be reviewed in this thesis.

One of the most pertinent of these papers (11), showed that the grades earned by transfer students to the Leland Stanford Junior University were superior to those of the four-year students when the marks given by the Stanford University instructors to both groups were studied. They also brought with them higher marks than the average of the Stanford student body during their first two years. On the other hand, another study (43) likewise made at Stanford University, showed that while the junior college transfers had made higher marks than the Stanford students during the first two years for both groups; after the transfer had been made and both groups were in the upper division or last two years of the four-year course in Stanford, the Stanford four-year students received the higher marks. A similar study made at the University of Arkansas (16) showed that the junior college students received higher marks for the four semesters they were in junior college than the students

in the University of Arkansas lower division did; but in fifth to eighth semesters for both groups when they were all in the same institution, the junior college transfers received lower grades. The first semester after transfer showed the largest decline in marks, showing that a period of adjustment was taking place and indicating a possible need for guidance for these transfers.

Wrenn (53) also found that junior college transfers to Stanford University required a period of adjustment similar to that of freshmen and needed guidance in a similar manner. Both are new students and need help over a considerable period of time. Johnston (23) at the University of Minnesota found: (a) "migrating students present no problem if they are of at least average college ability and if they have definite purposes in their "migrations." Each such student should be studied as an individual. (b) 44 per cent of these transfer students did satisfactory work at the University of Minnesota. (c) 68 per cent of these students with marks above average in the institutions from which they came did satisfactory work at the University of Minnesota. (d) Only 26 per cent of those who brought marks below the averages of the schools from which they came achieved satisfactory marks at the University of Minnesota."

Because there is relatively so little material on transfer students in contrast with other students, the writer now turns to some of the problems of student selection at large. One of the most thoroughgoing studies in this field was that of Jones and Laslett (25). In their summary of the conclusions which could be drawn from the literature published at that time, they found that:

"(a) A high standard of scholarship in high school is normally followed by a high standard of work in college.

"(b) A low standard of college work normally follows low scholarship in the high schools.

"(c) The average high school mark is the best (single) criterion of college success.

"(d) There is not enough difference in the predictive values of the different high school subjects to warrant weighting them in the prediction of college success.

"(e) Intelligence test scores are less valid in predicting college success than high school grade averages.

"(f) Principals' ratings on industry, leadership and citizenship are all positively and materially correlated with college marks, but not in a sufficient degree to

furnish, alone, a useful basis for the prediction of college marks.

"(g) College marks may be predicted only roughly by means of any one type of data.

"(h) Very little may be gained in the accuracy of prediction of college scholastic success by the addition of any other criteria to the high school average made and the score on a good intelligence test.

"(i) Since the correlation coefficient between the first quarter's marks and the second quarter's marks is only about 0.70, one can predict a student's college success almost as well from his high school record and freshman entrance test score (before he ever enters college) as one can from his first quarter's marks."

Their conclusions from their own study were:

"(a) College scholastic success is dependent upon ability and upon industry. Prediction of college scholastic success must be based upon these factors if it is to be satisfactory. The psychological test is an index of ability. The high school grade average is an index of habits of industry.

"(b) College scholastic success can be predicted before a student enters college nearly as well as it can at the end of the first quarter.

"(c) The size of the Oregon high school attended bears little relation to the marks made at Oregon State College."

They worked out a simple formula for combining equated high school marks and the American Council on Education examination scores for the prediction of college scholastic success. Checked against 350 four-year grades and 150 three-year grades, they found that it predicted the grades actually received in almost all cases within half a grade point. The correlation between predicted and actual grades was found to be plus 0.65.

The findings of other writers on the means of selection of able students are not in much agreement. Beatley (1), for example, believed that the relative standings or ranks of prospective students while they were still secondary school pupils were of better predictive value than comprehensive examinations at entrance; but stated that both together were more satisfactory than either alone. Clark (8) used both the average of high school marks and the ranks of the prospective students in their graduating classes as measures of prediction. He found that neither had a consistent superiority over the other; the two correlating with each other plus 0.80. Lauer and Evans (30) wrote that high school grades rather than high school ranks should be used with intelligence test

scores in the prediction of college scholastic success because neither can be profitably omitted from the prediction. Jones (24) found that over a five-year period the correlation between women's average high school marks and their college marks was plus 0.43. That of the men over the same period was plus 0.29. He believed that women are usually more serious in their school work than the men and that they tend to spend less time than the men in outside activities. Douglass (14) found a correlation between general high school marks and average college marks of plus 0.58 for the women and of plus 0.49 for the men. Scores on the American Council on Education test and college marks showed a correlation of plus 0.49 for the women and of plus 0.42 for the men. He (14) concluded that women earn marks more nearly proportionate to their abilities than men do.

While Byrns (5) found a correlation of plus 0.73 between first and second quarter college marks, this is a higher correlation than other writers have found and does not show the relation between these marks and high school marks or these marks and freshman entrance scores. It does give some indication, however, of the values of these predictive measures with first quarter or first semester marks. This is not a great value, since the

correlations are comparatively low. Toops (47) found a correlation of plus 0.66 between first and second quarter marks in sixty-six American Universities. However, Lauer and Evans (30) found that the correlations between intelligence test scores and college grades increase as students advance through college. Still further complicating the picture is a paper by Williamson (50) which states that data gathered between 1929 and 1935 show decreasing correlations between college aptitude tests or high school scholastic marks on the one hand and college scholarship on the other. Williamson advances two possible reasons for this apparent change: (a) the limited difficulty of the courses designed for low aptitude students, and (b) the failure of teachers to adjust their marking standards to the improved quality of students generally. This last is of very doubtful accuracy in regard to either the native ability or the scholastic preparation of the students. Potthoff (37) found that students who do poor work during their first quarters continue to do poor work for the remainder of the two-year period in junior college.

Bolenbaugh and Proctor (4) found a correlation of plus 0.37 between average high school marks and college marks. Cleeton (10) found a correlation of plus 0.50 between the Thorndike College Entrance Test and freshman

scholarship. Dilley (13) has stated that the scholastic records of students who continued their college work after having failed a general intelligence test show that the tests are not accurate means of selecting capable college students. He does not, however, justify his use of the word "fail". Freeman (15) has written: "The results on the American Council on Education Psychological Examinations can be used only as supplemental information." In studying the comparative values of the American Council on Education Test and the University of Iowa High School Content Examination as given to college freshmen for the prediction of their later scholarship, Bell (2) found little evidence that one was superior to the other. Johnston (22) found a correlation of plus 0.50 between the University of Minnesota entrance test and later scholarship. He (22) believed prediction to be improved when both the intelligence test scores and the high school scholarship ranks were combined.

Bishop (3) found a correlation of plus 0.52 between Terman Group Test of Mental Ability scores and freshman grades. He found that the freshman students who did not return for their sophomore year and those who did return had the same average scores in intelligence as shown by this test. Stuit (45) sent a questionnaire to the freshmen of the Teachers College of the University

of Nebraska who did not return as sophomores. The returns from this questionnaire seemed to show the need of better pre-college guidance of these students to prevent curricular maladjustments and even to discourage some of these students from entering college at all. The university scholastic achievements of the group not returning was lower than those of the students who did return, but there was much over-lapping between the two groups. McNeely's study (34) of college mortality in a group of more than 15,000 students in twenty-five universities showed that forty-five per cent left these universities before securing their degrees. The higher rates of mortality were found in the higher age groups and among the students whose homes were more distant from the universities. Laslett (29) studied the educational fates of the students who fell into the two lowest deciles of the American Council on Education Psychological Examination in an entire freshman class. Twenty-four per cent of these 133 students were ultimately graduated, but practically all of these had exceptionally favorable home environments back of them.

Cuff (12) found the average intelligence of students who dropped out without obtaining degrees to be lower than the intelligences of those who completed their courses. O'Brien (36) believed that dropping out

involved more than mental aptitude. He blamed the content and the effectiveness of college instruction, the usual methods of measurement of student achievement in colleges, and the quality of the training in the high schools quite as much as he did the quality of the student aptitude in causing drop-outs. Jordan (26) found that "students leave for the most part because they do not get the right start in their subjects of instruction." The students (26) who leave have poorer high school records, somewhat poorer intelligence test scores, and have made poorer grades in the university. He (26) believed that he had found the first semester to be the best single predictive measure of college scholastic success for university men. Snyder (41) found that the group which dropped out had lower ability than the group as a whole. Work and illness were the two most frequently stated reasons for dropping out. About thirty per cent of the withdrawals could have been avoided if more forethought had been exercised at registration time.

Among the students of the effects of formal discipline on the one hand and the proponents of vocational education on the other, there has long been dispute about the relative values of the different high school subjects in preparing students for later study. Gowen and Gooch (18) found that all generally accepted high school

courses appear to have approximately equal training value in relation to college success; but Hadsel (19) found a positive correlation between the number of years of Latin studied in high school and the scores obtained in freshman entrance tests, English tests, and reading tests. He found, also, that students who have had Latin in high school make better scholarship records in college than those who have had equal amounts of modern foreign languages: but MacPhail (32) found no significant difference in college scholastic success between students presenting four years of Latin for college entrance and those presenting none at all. Bolenbaugh and Proctor (4) found that "not enough difference exists between the achievement of the academic-pattern group and the vocational-pattern group to justify any discrimination against an applicant for college admission because he took from 15 to 50 per cent of his preparatory subjects in the vocational group of high school subjects." The board of admissions of the University of California wants transfer students from the junior colleges to have a "C" average or better and does not count band or physical education in finding this average (40). Read (39) found no relation between the total college grades made by 1331 seniors and the departments in which they had done their major work or between their total scholarship

and the number of hours taken in their major fields.

Williams (49) found that the semester which correlated most closely with the total scholastic records of his students was the third (plus 0.774). He found, also, that the average marks or percentiles attained to increase for the lower half of the freshmen as they continue in college while those of the upper half decrease. Eighty-seven per cent of the freshmen with averages of less than "C" for the first semester made averages of more than "C" in the last semester of their courses. Students receive higher marks in general than in special courses. The conclusions drawn above apply to four-year students more than transfer students. The latter react differently from the four-year students on these points-- possibly by reason of different administrative policies regarding them.

The part played by the personalities of students has long been a point of dispute among students of education. Douglass (14) obtained high school principals' ratings on 1196 students and correlated these with college scholastic success. He found these correlations to be: high school industry and college scholarship, plus 0.39; high school citizenship and college scholarship, plus 0.26; and high school leadership and college scholarship, plus 0.19. A weakness of Douglass' study was

the fact that his ratings were obtained from six months to several years after the students had left their respective high schools. He believed that more valid high school ratings would have yielded higher correlations, but offered this only as opinion. MacPhail (32) found a small positive correlation between high school character ratings and college scholarship. Principals' ratings of 428 men on a five-point scale gave a correlation of plus 0.168 with first semester college grades. The traits rated were: integrity, punctuality, neatness, perseverance, initiative, cooperation, leadership, popularity, cheerfulness, and health. In contrast with the findings of Douglass and MacPhail, Clark (7) found "the practical significance" of family background characteristics to college success to "approach insignificance": while Highes (21) found that the best fourth of the high school seniors in personality traits gave more accurate predictability of college success than did the seniors rated in the lowest fourth in personality. Young (54) recommended that intraverbs be grouped together in college classes and extraverts be grouped in other classes in order that the classes might be conducted for the two groups. He (54) presented the additional conclusion that most students showing poor scholarship were either emotionally steady extraverts or emotionally unsteady

intraverts.

The question of the relation of the size of the high school to college scholastic success has been answered variously by different writers. Thornberg (46) found the scholastic success of freshmen increased with the size of the high school attended. Other writers have found no relationship. Jones and Laslett (25) found that the four-year marks of students from the larger high schools were more similar to the high school averages than were those from the smaller high schools. These latter might be either markedly higher or lower in their college marks than in their high school marks. The mortality rate is higher among the students from the small high schools than among those from the larger high schools, but those who survive do better (44) to a small degree than those from the urban high schools.

Morrill (35) would fit the college or university to the student body. "What we are coming at length to understand is this: that who should go to college depends on what the college intends and will re-organize to do." He (35) believes that the college should discover what it has in its student body and then select the courses and standards to meet its needs and abilities and "initiate every possible agency and technique for individualized and differential treatment."

Out of all this mass of conflicting ideas, the writer can only assume that the answers to most, if not all, of these questions lie in the future. In taking up Chapter III of this thesis, the writer presents the factual data of his study of the scholastic accomplishments and educational destinations of 231 students who transferred from other institutions to the Oregon State Agricultural College in the autumn of 1936-1937. Half of these were from Oregon institutions of higher education; half from states other than Oregon.

CHAPTER III

The Educational Destinations and Descriptions of 231 Transfer Students

This problem and the factual data found out about it should be of some value to the administrators of the Oregon State Agricultural College, and to a lesser extent to other administrators elsewhere, because it presents an analysis of the scholastic worth of a considerable body of students to the College. The data presented are for 231 students transferring to the College in the academic year, 1936-1937. They do not contain all of the students who transferred in during that year, but they do present a fair sampling as they were selected in alphabetical order, that is, they were taken in a routine order without any other selective factor being employed.

In gathering the data for this study a mimeographed form was used to insure the completeness and the accuracy of the information obtained. This is presented as Appendix I. The information desired consisted of:

Name: Sex:
Birthday: Self-support:
Reason for attending Oregon State College:
School from which came:
Quarters there: Grade Average there:
Grading system there:
School entered in Oregon State College:
School transferred to:
Test Scores:
Grades by quarters:
Graduated, school: Year:

The data obtained were treated in the following ways:

(a) The students were tallied to find the number of each sex.

(b) A table of ages was made to find out how old these transfer students were.

(c) The different schools from which the students came were counted to find the number of institutions represented among the 231 students.

(d) The means and standard deviations were found for the number of quarter attended in the schools from which these students transferred.

(e) The means and standard deviations were found for the grades earned in the schools from which these students transferred.

(f) The schools in which the students registered at Oregon State College were tallied and also the schools in the college to which they later transferred, as some of them did.

(g) Tables were made showing the number of students registered for each of the nine quarters and the means and standard deviations found for the grades earned for each quarter.

(h) The total number of quarters of attendance and the average grades earned during these quarters were found for the group which was being studied.

(i) The grades for the undergraduate student body for the school years 1936-1937, 1937-1938, and 1938-1939 were taken from the registrar's office to compare with the grades made by the group under study for the same period.

(j) The number of students whose mean marks were 3.34 or higher at the schools from which they transferred, and the number of students whose mean marks were 1.46 or lower at the schools from which they transferred were studied and the average number of quarters spent at Oregon State College and average grades earned by these

groups were computed. The number who were graduated from these groups was found, also.

(k) The number of graduates of the group studied were counted, the number still in school and also the quarter of graduation and the school graduated from noted.

In examining the data obtained on these forms it was found that there was practically no information concerning the degree of self-support of these students presented. No information on this point is, for this reason, presented in this thesis. Nor were any reasons given by the students who transferred for leaving the institution in which they had first registered or for coming to Oregon State Agricultural College. Since no information on this point was available, nothing further is presented concerning it.

It was found that on all the transfer students' permanent records the grading system of the previously attended institution had been computed in terms of the five point system in use at Oregon State College and therefore the type of grading system in use at the college of transfer had no value for the purpose of this study.

It was found, also, that there were so few test scores listed that, while any given were tabulated on the original data sheets, no significance could be attached

to them, because they were so few in number.

It was thought that about one hundred in-state students and the same number of out-of-state students taken alphabetically would give a fair selection among the transfer students of all recent years. A few more were taken, however, so that when the count was made it was found that information had been obtained on 116 "in-state" transfer students and 115 "out-of-state" transfer students. It is recognized that, perhaps, more cases might have given a better selection and also that fewer cases might have given the same results. No particular significance has been attached to the number of students studied. The group referred to hereafter as "in-state" students were Oregon residents and had attended other Oregon colleges and universities. The group referred to as "out-of-state" students were residents of other states and had attended colleges and universities outside of Oregon.

The "in-state" group of 116 students was made up of seventy-four men and forty-two women. The "out-of-state" group of 115 students was made up of seventy-four men and forty-one women. In both groups, there were 148 men and eighty-three women. The ratio of women to men was higher in the transferring group than in the regular student body of the College for 1936-1937. Among the

latter group, 45.3 per cent are women; in the former, 56.0 per cent were women. This may mean that women are more adaptable than men and go more directly toward desired goals, or it may simply mean that they are more restless.

The mean age of the "in-state" students at the time of their registration at the Oregon State Agricultural College was twenty-one years and no months, with a standard deviation around the mean of two years and six months. The mean age of the "out-of-state" group was twenty-one years and eight months, with a standard deviation of three years and eight months. The mean age of the entire group was twenty-one years and five months, with a standard deviation of two years and eleven months. These ages are closely similar to those of the student body of 1936-1937. The average ages of the student body were: women, 20.7 years; men, 21.1 years; both men and women, 20.9 years. The youngest student in the student body of that year was sixteen years of age; the oldest, fifty-nine years of age. The youngest transfer student was seventeen years and eight months old; the oldest, thirty-eight years and three months old.

The "in-state" transfer students came from fifteen different institutions. The five which furnished the largest number of transfer students were, in order:

the University of Oregon, thirty-one; the Eastern Oregon College of Education, thirteen; Willamette University, twelve; Albany College, eleven; and Linfield College, nine. The "out-of-state" students came from sixty-seven different colleges and universities. The Pasadena Junior College furnished six, the largest number from one institution. The University of California at Berkeley furnished five. The University of Idaho and the Washington State College each furnished four. Ten other institutions furnished three each; thirteen others, two each; and forty others, one each.

The number of credit-hours which these transferring students brought with them is shown in Table I. These have all been converted into quarter hours, the system in use at Oregon State Agricultural College.

TABLE I

Number of Credit Hours Earned Elsewhere
by Transferring Students

Number Quarters	In-State	Out-of-State	Both
12	1	2	3
11	0	0	0
10	1	3	4
9	7	10	17
8	2	2	4
7	6	5	11
6	33	28	61
5	6	6	12
4	3	10	13
3	46	38	84
2	4	3	7
1	7	6	13
0 (completed)	0	2	2

The mean number of quarters completed by the "in-state" transferring students was 4.7 plus or minus 2.2. The number completed by the "out-of-state" students was 4.8 quarters, plus or minus 2.5. The mean number of quarters of work taken in other institutions by this entire group was 4.7 plus or minus 2.4. Inspection of Table I shows that the largest group had completed one

year of work elsewhere when they transferred; the second largest group, two years. Thirty-nine had attended other institutions more than two years; twenty-two, less than one year.

The next point taken up by the writer in his analysis blank was the scholastic quality of the work done by this group of transfer students in the institutions from which they had come. The grading systems in use in these institutions were transmuted by means of a formula for each one into the system of marks in use at the Oregon State Agricultural College, that is, A, B, C, and D as passing marks, F as a failing mark, and E not used. The numerical values attached to these marks in terms of "honor points" are: A, 4; B, 3; C, 2; D, 1; and F, 0. The "in-state" group brought with them a mean grade or mark of C plus or 2.28 plus or minus 0.64. The "out-of-state" group brought with them a very similar mean grade or mark of 2.30 plus or minus 0.59. The mean grade of the entire group was 2.29 plus or minus 0.58, or C plus.

Theoretically, the average grade at Oregon State Agricultural College should be a C (neither plus nor minus), but, actually, the average marks for the six quarters of 1934-1935 and 1935-1936 were: 2.39, 2.44, 2.48, 2.39, 2.44, and 2.48 or an average for the six

quarters of 2.44. Apparently the transfer students were slightly below the College average as far as marks were concerned. There is, however, no way of knowing exactly what either set of marks means in terms of actual accomplishments because standards of accomplishment in different institutions vary quite a little and average marks given in these institutions vary with these standards of accomplishment.

Before proceeding to the grades or marks earned by the members of this group at Oregon State Agricultural College, the writer desired to take up the schools in which this group enrolled, the schools to which those who changed later moved, and the percentage of those who enrolled in the schools of the College who were graduated from these schools at the end of the academic year 1938-1939 or earlier. These data are shown in Table II.

TABLE II

Schools Entered, Number Changing, and Number and
Per Cent Graduating of the "In-State" Transfer Students

Schools Entered		Transferred Out	Transferred In	Number Graduating	Per Cent Graduating
Agriculture	11	2	3	1	8.3
Education	12	1	5	8	50.0
Engineering	21	5	0	3	18.8
Forestry	13	3	1	3	27.3
Home Economics	18	0	3	11	52.4
Pharmacy	5	0	0	1	20.0
Science	9	1	6	12	85.8
Secretarial Science	11	4	1	0	0
Lower Division*	11				0
Art and Architecture*	2				0
Business Administration*	3				0
	116				

*Non-degree granting divisions

TABLE III

Schools Entered, Number Changing, and Number and
Per Cent Graduating of the "Out-of-State" Transfer Students

Schools Entered		Transferred Out	Transferred In	Number Graduating	Per Cent Graduating
Agriculture	16	1	1	8	50.0
Education	3	0	2	3	60.0
Engineering	19	2	0	7	42.2
Forestry	19	2	2	7	36.8
Home Economics	27	1	2	12	42.9
Pharmacy	4	0	0	2	50.0
Science	1	0	5	2	33.3
Secretarial Science	5	1	3	0	0
Lower Division*	14		3		
Art and Architecture*	3		1		
Business Administration*4			1		
	115				

*Non-degree granting divisions

In order to compare the distribution of these transfer students with the total numbers of students registered in these schools during 1936-1937, the following table was prepared. The total registration was 4137 students.

TABLE IV

Numbers and Percentages of Students
and Transfers by Schools

School	Total Registration	Per cent of Total	Number Trans- fer Students	Per cent of Transfer Group
Agriculture	654	15.8	27	11.7
Education	286	6.9	15	6.5
Engineering	803	19.4	40	17.3
Forestry	532	12.8	32	13.8
Home Economics	566	13.6	45	19.5
Pharmacy	117	2.8	9	3.9
Science	379	9.1	10	4.3
Secretarial Science	466	11.2	16	6.9
Art and Architecture*	32	0.7	5	2.2
Business Administration*	108	2.8	7	3.0
Lower Division*	194	4.9	25	10.8
	<hr/> 4137	<hr/> 99.8	<hr/> 231	<hr/> 99.9

*Non-degree granting divisions

Inspection of Tables II, III, and IV will show that the percentage of transfer students entering the divisions of forestry, home economics, pharmacy, art and architecture, and lower division were larger than the proportions of the whole number of students in these schools; while the proportions of transfer students entering the divisions of agriculture, engineering, science, and secretarial science were smaller. The proportions of both transfer students and regular students were practically the same in education and in business administration in the two groups. Among the "in-state" students who transferred, those who entered the Schools of Education, Home Economics, and Science showed both the largest numbers and the largest percentages graduating. Among the "out-of-state" transfer students those entering all of the schools except home economics, science, and secretarial science showed larger numbers and larger percentages graduating than were found among the "in-state" students. None was shown as completing the work of the School of Secretarial Science in either group.

The transfer students made slightly better marks while attending the Oregon State Agricultural College than did the entire student body. This is shown in the following table.

TABLE V

Marks Earned by Transfer and by
Total Students by Quarters

	In State Transfers	Out of State Transfers	Total Students
1936-1937			
Autumn	2.24 \pm 0.73	2.38 \pm 0.72	2.35
Winter	2.53 \pm 0.72	2.44 \pm 0.64	2.42
Spring	2.39 \pm 0.75	2.37 \pm 0.63	2.48
1937-1938			
Autumn	2.47 \pm 0.62	2.35 \pm 0.72	2.37
Winter	2.45 \pm 0.64	2.54 \pm 0.64	2.44
Spring	2.64 \pm 0.58	2.68 \pm 0.62	2.48
1938-1939			
Autumn	2.74 \pm 0.67	2.60 \pm 0.69	2.39
Winter	2.76 \pm 0.45	2.60 \pm 0.53	2.46
Spring	2.79 \pm 0.58	2.67 \pm 0.51	2.48

In general, the transfer students earned slightly better marks than the entire student body; especially after their first year of attendance at Oregon State Agricultural College. The average mark for the entire student body for the nine quarters shown above was 2.43 plus or minus 0.68, or C plus. The mean mark for the "in-state" transfers for the same period was 2.47 plus or minus 0.70, an almost negligible difference from that of the entire student body. The mean mark for the "out-of-state" transfers for this period was 2.47 plus or minus 0.69, or C plus. This is almost identical with the mean mark of the "in-state" transfer students both

in mean and standard deviation and practically the same as that for the entire student body. The mean mark for all of the transfer students for the nine quarters was 2.47 plus or minus 0.68.

In order that he might study the transfer students who brought extremely high and extremely low marks with them from the institutions from which they transferred, the writer studied the individual marks of those students who brought with them marks above 3.46 or below 1.46 to find the marks which they earned at Oregon State Agricultural College, the average number of quarters spent there, and the number who were graduated. The marks 3.46 and 1.46 were chosen as being one standard deviation in terms of the mean grades brought with them by both "in-state" and "out-of-state" transfer students below 4.00 and 2.00, that is, below a straight "A" and a straight "C". This material is shown in the following tables.

TABLE VI

Oregon State College Records of "In-State" Transfer
Students Who Brought Marks of 3.34 or Above

Individual	Quarters at Oregon State College	Average Marks Elsewhere	Average Marks at Oregon State College
A	9	3.53	3.51
B	9	3.53	2.95
C	6	3.73	3.70
D	3	3.50	2.22
E	2	3.50	2.85
F	2	3.52	3.49

These six "in-state" students who brought marks of 3.34 or above with them spent an average of 5.17 quarters at the Oregon State Agricultural College, with an average mark of 3.12 grade points or B plus. Of these six, three were graduated. None was in school after the spring quarter of 1938-1939. It may be seen that their average marks were lower at Oregon State Agricultural College than at the institutions from which they had transferred, but were still quite satisfactory.

Five "out-of-state" transfer students brought marks of 3.34 or above with them. Their records at the Oregon State Agricultural College are given in the table below.

TABLE VII

Oregon State College Records of "Out-of-State" Transfer
Students Who Brought Marks of 3.34 or Above

Individual	Quarters at Oregon State College	Average Marks Elsewhere	Average Marks at Oregon State College
A	8	3.72	2.75
B	6	3.95	3.88
C	6	3.35	3.25
D	6	3.41	2.69
E	3	3.74	2.77

These five students spent an average of 5.8 quarters at the Oregon State Agricultural College, with an average mark of 3.07 or B. Three were graduated. None was in the College after the spring quarter of 1938-1939. Their marks were lower at Oregon State Agricultural College than they had been at the institutions from which they transferred, but were still quite satisfactory.

Twelve "in-state" transfer students with average marks of 1.46 or D plus or below registered in the autumn quarter of 1936-1937. Their records at the Oregon State Agricultural College are given in the table below.

TABLE VIII

Oregon State College Records of "In-State" Transfer
Students Who Brought Marks of 1.46 or Below

Individual	Quarters at Oregon State College	Average Marks Elsewhere	Average Marks at Oregon State College
A	7	1.26	2.09
B	6	1.24	1.84
C	6	0.89	1.57
D	5	1.07	2.08
E	4	0.87	1.86
F	3	1.07	1.28
G	2	1.26	1.64
H	2	1.19	2.35
I	2	0.89	0.48
J	1	0.98	0.33
K	1	0.85	1.09
L	0 (completed)	0.98	0.00

These twelve transfer students spent a total of 39 complete quarters, or an average of 3.25 quarters, at the Oregon State Agricultural College. Their average marks for this time was 1.51 or C minus. None was graduated. None was registered after the autumn quarter of 1937-1938. Their marks were generally higher than those earned elsewhere.

Similarly, twelve "out-of-state" transfer students who brought with them marks of 1.46 or below registered at the Oregon State Agricultural College in the autumn of 1936-1937. Their records at the College are given in the table below.

TABLE IX

Oregon State College Records of "Out-of-State" Transfer Students Who Brought Marks of 1.46 or Below

Individual	Quarters at Oregon State College	Average Marks Elsewhere	Average Marks at Oregon State College
A	9	1.36	2.63
B	9	(No work completed)	1.91
C	7	(No work completed)	1.56
D	6	1.37	2.58
E	5	1.10	1.42
F	3	1.39	2.08
G	3	1.29	2.32
H	3	1.25	2.28
I	3	(No credit given)	2.02
J	3	(No credit given)	1.33
K	1	1.39	0.27
L	0	1.36	0.00

These twelve "out-of-state" transfer students spent an average of 4.3 quarters at the Oregon State Agricultural College. They earned an average mark of 1.85 while at the College. None was graduated. Two completed nine quarters and were registered in the College during the year 1939-1940. When one studies the scholastic accomplishments of these two groups of students who brought marks of 1.46 or below with them, he realizes that most of them were out of place in a college or university--at least as far as being scholastically capable or interested was concerned. None was graduated; and only two showed any likelihood of being graduated. The twenty-four students spent a total of ninety-one quarters, or an average 3.8 quarters, in attendance at Oregon State Agricultural College. Their average mark earned at Oregon State Agricultural College was 1.68, or C minus. It is reasonable to assume that their influence on the general scholarship of all of the students was detrimental-- although not seriously bad.

The actual number of these transfer students registered in each quarter of the three years studied and the number who completed their work at the end of each quarter is given in the table below. Those not finishing the quarter were not included.

TABLE X

Number of Transfer Students Enrolled During
1936-1939 and Number Completing Graduation Requirements

	"In-State"		"Out-of-State"	
	Number Enrolled	Number Graduating	Number Enrolled	Number Graduating
1936-1937				
Autumn	110	0	112	0
Winter	102	0	103	0
Spring	93	4	99	4
1937-1938				
Autumn	68	0	78	1
Winter	65	1	67	0
Spring	58	10	63	14
1938-1939				
Autumn	43	4	48	2
Winter	32	1	30	5
Spring	29	20	23	15

This table shows that forty of the "in-state" students completed their courses and were graduated; and that forty-one of the "out-of-state" students completed their graduation requirements. This means that 34.6 per cent of the one group and 35.3 per cent of the other completed their work. This is a considerably larger per cent than is shown by the average freshman class-- as it should be-- and as is shown in the table below. The two groups were closely similar in all other respects, as well as this one. The numbers registered in any one quarter were practically the same. Practically the same

numbers were graduated in any one quarter. Practically the same numbers-- nine and ten-- continued their college work in 1939-1940. The grades or marks were closely similar, as shown in Table V.

In order that some comparison of the "mortality" of these transfer students and of the student body as a whole may be made, the following table shows the losses in students by the Oregon State Agricultural College for the academic years, 1936-1939, inclusive.

TABLE XI

Student Mortality at Oregon State Agricultural College

	Number	Per Cent
Senior Class of 1936-1937		
Registered as freshmen		
September, 1933	536	100
Did not return as sophomores	121	23
Did not return as juniors	81	15
Did not return as seniors	74	14
Returned as seniors: were		
not graduated	137	25
Were graduated	123	23
Senior Class of 1937-1938		
Registered as freshmen		
September, 1934	886	100
Did not return as sophomores	217	24
Did not return as juniors	150	18
Did not return as seniors	115	13
Returned as seniors: were		
not graduated	206	23
Were graduated	198	22
Senior Class of 1938-1939		
Registered as freshmen		
September, 1935	1046	100
Did not return as sophomores	252	24
Did not return as juniors	189	18
Did not return as seniors	125	12
Returned as seniors: were		
not graduated	262	25
Were graduated	218	21

Discussion:

The results of this study of 231 transfer students are not clearly in favor of or against transfer students as of value to the Oregon State Agricultural College or to the State of Oregon. The scholastic records of the

transfer students are practically the same as those of the four-year student body. The larger amount of education which these transfer students have obtained is of social and achievement value to the United States as a nation, however, as far as it reaches. The specialized training which these students have received and which they might not have been able or willing to obtain elsewhere may well have been of great value to them; but, of this, one can only express an opinion in the absence of any proof except occasional individual examples. It is improbable that this point could be proved conclusively, since many of the students themselves would not know whether they might not have gone elsewhere if the College had not admitted them or whether they might not have done as well without this additional training.

Conclusions:

(a) There is a higher percentage of women than of men among the transfer students than exists in the regular student body.

(b) The average age of the transfer students is about the same as the average age of the entire student body.

(c) These transfer students spent on an average, a little less than five quarters at the schools of transfer.

(d) These transfer students earned, at the schools of transfer, a "C" plus grade average slightly lower than the "C" plus average for the regular student body at Oregon State College.

(e) These transfer students earned better grades, on the average, after their first year at Oregon State College than did the regular student body. During this first year their grade average was slightly under the College average.

(f) Those students with less than a "C" grade average at the schools from which they transferred have very little chance of completing the work necessary for graduation at Oregon State College.

(g) The schools of Forestry, Home Economics, Pharmacy, Architecture and Allied Arts, and the Lower Division attract a larger proportion of the transfer students than of the regular student body.

(h) A much higher percentage of the transfer students than of the regular student body actually graduate.

(i) There is a very little difference in actual scholastic accomplishment between "in-state" and "out-of-state" transfer students at Oregon State College even though the out of state students are selected more critically in the first place.

(j) The grade averages of the "in-state" students increase as a whole more than the grade average of the "out-of-state" students as both groups continue toward graduation.

CHAPTER IV

Summary and Conclusions

The value of various methods of selection of college entrants and college transfer students is still very much a question. Who shall attend college and who shall be denied admission to colleges depends on a great many factors. One of the principal factors is that of the kind of training which the colleges and universities are to give. On the one hand, if they are to attempt to give some training to any high school graduate who applies for admission, the colleges should plan their curricula and marking system to that end. If, on the other hand, they are to attempt to give excellent training to relatively small numbers of students, they should plan their organizations to that end. At present, it appears to this writer that they are attempting to do both at the same time and, frequently, in the same classes. Nevertheless, the writer does not claim to know which procedure should be adopted. Perhaps the answer lies in the establishment of two grades of colleges in line with the theory, and perhaps the practice, of the junior colleges with their "certificate" and their "diploma" courses.

The selection of students by means of intelligence tests alone, by means of high school grade averages, by means of rank in high school graduating classes, by

means of high school curricula followed, by means of personality ratings, by means of emotional measurements, or by combinations of these are approved by some writers and disapproved by others. The experimental data are not clear in connection with any of these plans, and show a great amount of overlapping among the higher and the lower groups in these measures who complete their college courses-- sometimes with high scholastic standing. The students who do not decide to attend colleges stand almost as well in all of these measures as those who do. The students who attend for a while and then drop out, likewise, stand almost as well in all of these measures as those who complete their courses. Those who drop out offer many reasons for discontinuing their courses. The reasons given may be the true or real reason or they may not.

The writer will not offer a summary of the literature on the subject of his thesis-- other than the above-- because the literature is both so extensive and so contradictory.

A summary of the writer's research on 231 transfer students coming to the Oregon State Agricultural College and selected in alphabetical order shows that these students were very little different from the members of the regular student body in any of the factors studied

by this writer. Their worth to the College is no greater or less than the worth of the other students. The worth of the College to them is still an open question.

Conclusions:

(a) The proportion of women among the transfer students was greater than among the four-year students for both the "in-state" and "out-of-state" transfer groups.

(b) The ages of the transfer students were the same as those of the regular student body except for extreme cases of youth and middle age. The range of ages among the transfer students was slightly less than among the regular students.

(c) The information given by the students about their plans for self-support and the extent of their self-support was so fragmentary as to be unusable.

(d) The reasons for their choosing Oregon State Agricultural College as the institution to which they desired to transfer were so fragmentary as to be unusable.

(e) These transfer students came from fifteen Oregon colleges and universities and from sixty-seven institutions outside of Oregon.

(f) The majority of these students had attended the institutions from which they were transferring.

either three or six quarters-- or two or four semesters.

(g) The "in-state" group brought with them a mean grade of 2.28 plus or minus 0.64 or a "C plus". The "out-of-state" group brought with them a mean grade of 2.30 plus or minus 0.59 or a "C plus".

(h) Because the grading systems used elsewhere are so varied and because the marks brought by these transfer students had already been transmuted by a specialist clerk in the office of the Oregon State College registrar, this subject was not taken up in this thesis.

(i) The Schools of Forestry, Home Economics, Pharmacy, Architecture and Allied Arts, and the Lower Division attracted larger percentages of transfer students than of regular students. The Schools of Agriculture, Engineering, Science, and Secretarial Science attracted smaller proportions of transfer than of regular students. The Divisions of Education and Business Administration were similar in proportions of transfer students and regular students enrolled.

(j) The largest numbers of these transfer students who registered in one school of the Oregon State College and then changed to other schools in the College transferred to the following schools in the order named: Science, Education, Home Economics, Agriculture, Secretarial Science, and Forestry. None changed their

registrations to the Schools of Engineering or of Pharmacy.

The largest numbers of these students who registered in one school and changed to another within the College left these schools in the following order of frequency: Engineering, Forestry, Secretarial Science, Agriculture, Education, Home Economics and Science. None left the School of Pharmacy for another school within the College.

(k) So little information on standardized test scores was furnished that the information available was unusable.

(l) The marks earned by the transfer students during their first year of residence at the Oregon State College were below those of the entire student body. During the last year, they were clearly superior. Taken as a whole, the marks of the transfer students were slightly better than those of the regular student body.

(m) The percentages of transfer students graduating from the schools of the Oregon State College were, from largest to smallest, in the following order: Science, Education, Home Economics, Pharmacy, Forestry, Engineering, Agriculture, and Secretarial Science.

(n) Of these transfer students, four completed their work and were graduated at the end of their first year (1936-1937), twenty-six at the end of their second

year, and forty-seven at the end of their third year. Forty "in-state" students were graduated; and forty-one "out-of-state" students were graduated.

Conclusions touching upon the secondary problems are:

(a) There is no unanimity of opinion on the best methods of selecting students for admission to colleges and universities.

(b) There is no way of knowing whether or not better methods of selecting these transfer students could have been used. The "in-state" students must be admitted unless they have been dishonorably dismissed from the last institution attended. On the other hand, none of the transfer students bringing with them marks of 1.46 or below was graduated. Decision on setting the lowest mark at which "out-of-state" students should be admitted is a question deserving further study.

(c) Educational guidance would have improved the early scholastic records of these transfer students if one accepts the conclusions offered in several articles from the literature on this subject and recalls that the students studied by the writer were below College average in scholarship during their first year of attendance.

(d) There is no way of knowing whether or not educational guidance would have assisted more students

to the completion of their courses. A study of the literature would lead one to accept this conclusion as correct, but whether this would apply to the 231 transfer students studied or not deserves further research.

(e) The methods of selection of students, both freshman and transfer, in use at Oregon State College are operating satisfactorily at the present time. Excluding more students would doubtless raise the average mark of those admitted, but might well exclude some worthwhile students. Admitting more would, probably, not be the best thing to do for either the College or the students themselves.

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APPENDIX I

Name:

Sex:

Birthday:

Self-support:

Reason for attending Oregon State College:

School from which came:

Quarters there:

Grade Average there:

Grading system there:

School entered Oregon State College:

School transferred to:

Test Scores:

Grades Oregon State College:

1st quarter:

2nd quarter:

3rd quarter:

4th quarter:

5th quarter:

6th quarter:

7th quarter:

8th quarter:

9th quarter:

Graduated, school:

Year: