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AN INVESTIGATION OF THE VALIDITY OF THE GENERAL APTITUDE TEST  
BATTERY FOR THE VOCATIONAL GUIDANCE OF HIGH SCHOOL  
GRADUATES OF MILBANK, SOUTH DAKOTA

By  
Merrill J. Sly

A thesis submitted  
in partial fulfillment of the requirements for the  
degree Master of Science at South Dakota  
State College of Agriculture  
and Mechanic Arts

August, 1958

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**AN INVESTIGATION OF THE VALIDITY OF THE GENERAL APTITUDE TEST  
BATTERY FOR THE VOCATIONAL GUIDANCE OF HIGH SCHOOL  
GRADUATES OF MILBANK, SOUTH DAKOTA**

This thesis is approved as a, creditable, independent investigation by a candidate for the degree, Master of Science, and acceptable as meeting the thesis requirements for this degree; but without implying that the conclusions reached by the candidate are necessarily the conclusions of the major department.

## ACKNOWLEDGEMENTS

The writer wishes to express his appreciation to the many persons who have contributed in various ways to the study:

To his advisor, Dr. Stanley Sundet, for his helpful suggestions and critical advice pertaining to this study.

To his superintendent, Mr. H. E. Marquette, who showed a genuine interest in the study and made the records needed for this study accessible to the writer.

To his principal, Mr. A. B. Campbell, for his enthusiasm toward the study and his help in obtaining addresses of graduates.

To the graduates of Milbank High School who filled out the questionnaires sent them and who often added a note of interest about themselves and their work.

To his family who helped with many of the clerical details of this report.

To fellow teachers and all others who helped by reading questionnaires for clarity or by giving suggestions.

M. J. S.



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## CHAPTER I

### INTRODUCTION

Can a high school such as Milbank High School use with reliable results the General Aptitude Test Battery as an integral part of the school's guidance program? The objectives of this research study are (1) to investigate and analyze the General Aptitude Test Battery and its applicability to a high school guidance program, and (2) to determine to what degree the results of the General Aptitude Test Battery can be used in the high school for prognosis.

In analysing the problem certain limitations were noted:

1. The General Aptitude Test Battery, Form B-1001,<sup>1</sup> has been given to Milbank High School seniors for only a relatively short period of time. It was first administered to the graduating class of 1951-52. The subjects of this research includes the members of the senior classes from 1951-52 to the class of 1956-57.
2. The number of students taking the test and used in this study is small. There were three-hundred-fifty-seven (357) graduating seniors that took the test.

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<sup>1</sup> The GATB B-1001 has been revised and is now GATB B-1002. It is now a separate answer sheet type of test and therefore does not cost as much to administer. GATB B-1001 included 15 tests measuring 10 aptitudes while B-1002 includes 12 tests measuring 9 aptitudes. This decreases the time taken to administer the test. Mean scores have been revised and more occupational aptitude patterns have been added. Instead of 20 aptitude patterns there are now 24 patterns. Form B-1002 is now being used in the counseling program at Milbank High School.

- 3, The subjects under study have been out of school for only a short period of time.
4. Factors which may have influenced the vocational choice and placement of the subjects, such as intelligence, personality, and individual interest were not controlled.

This study seems to the writer to be significant in that the General Aptitude Test Battery is being used increasingly in the vocational guidance of high school students. Each year the problem of making a satisfactory vocational choice is becoming more difficult for the youth of this country. The responsibility of helping youth find their respective niches in life falls on society. The Forward of the findings of the White House Conference Workshop, Group Twelve on Vocational Guidance and Placement, emphasizes the responsibility of society for aiding youth in making vocational adjustments.

A democratic society has the responsibility of safeguarding the right of each individual to make his own decisions with respect to his occupational choice. In recognition of individual differences and the complexity of our modern economy, society also has the responsibility for providing youth with the necessary services and information which will enable youth to make the soundest possible decisions . . . . .  
By contributing to a more satisfying life to youth in these ways, society makes it possible for youth to assume responsibility for their contribution to society.<sup>1</sup>

Any tool of guidance that helps youth with his occupational choice needs to be studied in order to determine its effectiveness and to find better ways to help the youth of America.

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<sup>1</sup> Helen H. Smith, "Forward to the Findings of the White House Conference Workshop, Group 12, on Vocational Guidance and Placement". Occupations, Vol. 30, October, 1951, P. 9.

## CHAPTER II

## A DESCRIPTION OF THE GENERAL APTITUDE TEST BATTERY B-1001

The first description of the GATB was published by Dvorak<sup>1</sup> in 1947. The battery of tests was the product of over a decade of job and worker analyses on the part of the Occupational Analysis and Industrial Services of the United States Employment Service. The GATB B-1001 is made up of sixteen tests, twelve paper and pencil tests and four apparatus tests. Only fifteen of the tests were utilized.

These tests are described in the Examiner's Manual<sup>2</sup> as follows:

Part A - Tool Matching. Consists of a series of exercises containing a stimulus drawing and four black-and-white drawings of simple shop tools. The examinee indicates which of the four black-and-white drawings is the same as the stimulus drawing. Variations exist only in the distribution of black and white in each drawing.

Part B - Name Comparison. Consists of two columns of names. The examinee inspects each pair of names, one in each column, and indicates whether the names are the same or different.

Part C - H Marking. Consists of a series of large capital H's. The examinee draws a short vertical line through the bar of each H without touching the sides, working rapidly to draw as many lines as possible during the time allowed.

Part D - Computation. Consists of a number of arithmetic exercises requiring the addition, subtraction, multiplication, or division of whole numbers.

Part F - Two-Dimensional Space. Consists of a series of exercises containing a stimulus figure and five geometrical figures

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<sup>1</sup> Beatrice Dvorak, "The New United States Employment Service General Aptitude Test Battery", Occupations, Vol.26, October, 1947, pp. 42-44.

<sup>2</sup> United States Employment Service, Guide to the Use of General Aptitude Test Battery, B-1001, Part I, United States Printing Office, Washington, D. C., 1947.

(two-dimensional line drawings). The examinee indicates which one of five geometrical figures is made by a rearrangement of the parts of the stimulus figure.

Part G - Speed. Consists of a series of large rectangles. The examinee taps with a pencil to make three dots in each rectangle, working as rapidly as possible during the time allowed.

Part H - Three-Dimensional Space. Consists of a series of exercises containing a stimulus figure and four drawings of three-dimensional objects. The stimulus figure is pictured as a flat piece of metal which is to be either bent, or rolled, or both. Lines indicate where the stimulus figure is to be bent. The examinee indicates which of the four drawings correspond to the stimulus figure.

Part I - Arithmetic Reason. Consists of a number of arithmetic problems expressed verbally.

Part J - Vocabulary. Consists of sets of four words. The examinee examines each set and indicates which two of the words are related by having either the same meaning or opposite meanings.

Part K - Mark Making. Consists of a series of squares in which the examinee is to make three pencil marks, working as rapidly as possible. The marks to be made are short lines, two vertical and the third horizontal line beneath them.

Part L - Form Matching. Consists of two groups of variously shaped line drawings. The examinee indicates which figure in the second group is exactly the same size and shape as each figure in the first or stimulus group.

Part M - Place. The equipment used for this test and Part N consists of a rectangular wooden board (Pegboard) divided into two sections, each section containing 48 holes. The upper section contains 48 cylindrical wooden pegs. The examinee removes the wooden pegs from the holes in the upper part of the board and inserts them in the corresponding holes in the lower part of the board, moving two pegs simultaneously, one in each hand. This performance is repeated two more times, with the examinee working rapidly to move as many of the pegs as possible during the time allowed for each performance.

Part N - Turn. The equipment described under Part M is used for this test. In this case the lower section contains the cylindrical pegs. The examinee removes a wooden peg from a hole using one hand, turns the peg over with the same hand so the opposite end is up, and returns the peg to the hole from which it was taken. The examinee works rapidly to turn and replace as many of the 48 cylindrical pegs as possible during the time allowed. This performance is repeated two more times.

Part O - Assemble. The equipment for this test consists of a small rectangular board (Finger Dexterity Board) containing 50 holes, and a supply of small metal rivets and washers. The examinee takes a small metal rivet from a hole in the upper part of the board and at the same time removes a small metal washer from the vertical rod with the other hand; examinee puts the washer on the rivet, and inserts the assembled piece into the corresponding hole in the lower part of the board using only one hand. The examinee works rapidly to move and replace as many rivets and washers as possible in the time allowed.

Part P - Disassemble. The equipment used for this test is the same as that described for Part O. Examinee removes the small rivet of the assembly from a hole in the lower part of the board; slides the washer to the bottom of the board; puts the washer on the rod with one hand and the rivet in the corresponding hole in the upper part of the board with the other hand. The examinee works rapidly to move as many rivets and washers as possible in the time allowed.

It is possible to administer the entire battery of tests in approximately two and one-fourth hours. The time allowed for each test varies from one-half minute to seven minutes. The raw scores obtained are converted by a conversion table and are recorded in their proper places on the "Individual Aptitude Profile" chart. Combinations of scores on the tests give the scores for the various aptitudes which the battery of tests purport to measure.

The ten aptitudes that are measured by the GATB, Form B-1001 are described in an United States Employment Service Publication<sup>1</sup> as:

G - Intelligence - General learning ability. The ability to "catch on" or understand instructions and underlying principles; the ability to reason and make judgments. Closely related to doing well in school.

V - Verbal Aptitude - The ability to understand meaning of words and ideas associated with them, and to use them effectively. The ability to comprehend language, to understand relationships between words and to understand meanings of whole sentences and paragraphs. The ability to present information or ideas clearly.

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<sup>1</sup> United States Employment Service, loc. cit.



**N - Numerical Aptitude** - Ability to perform arithmetic operations quickly and accurately.

**S - Spatial Aptitude** - Ability to comprehend forms in space and understand relationships of plane and solid figures. May be used in such tasks as blueprint reading and in solving geometry problems. Frequently described as the ability to "visualize" objects of two or three dimensions, or think visually of geometric forms.

**P - Form Perception** - Ability to perceive pertinent detail in objects or in pictorial or graphic material. Ability to make comparisons and discriminations and see slight differences in shape and shadings of figures and widths and lengths of lines.

**Q - Clerical Perception** - Ability to perceive pertinent detail in verbal or tabular material. Ability to observe differences in copy, to proof-read words and numbers, and to avoid perceptual errors in arithmetic computation.

**A - Aiming or Eye-Hand Coordination** - Ability to coordinate eyes and hands or fingers accurately so as to make precise movements with speed. Ability to control rapid movements of the hand in accordance with what the eyes see.

**T - Motor Speed** - Ability to make hand movements, such as tapping rapidly. Ability to make a movement response swiftly and quickly. Probably related to reaction time.

**F - Finger Dexterity** - Ability to move fingers, and manipulate small objects with the fingers, rapidly and accurately.

**M - Manual Dexterity** - Ability to move hands easily and skillfully. Ability to work with the hands in placing and turning motions.

Norms were established in the form of Occupational Aptitude Patterns. Occupational Aptitude Patterns refer to the combination or pattern of aptitudes and minimum scores that is required to perform satisfactorily the major tasks of the occupations identified with each pattern. Twenty different Occupational Aptitude Patterns were developed. Each pattern consists of the minimum scores established for each of the three key aptitudes required by a family of similar occupations. An applicant's aptitude profile is matched with the twenty occupational aptitude patterns to determine the fields of work.

that are most suitable for his aptitudes. The 20 fields of work covered by the GATB represents approximately 2,000 occupations. The norms developed were those considered necessary for occupations grouped according to Part IV of the Dictionary of Occupational Titles<sup>1</sup>. The minimum scores established were expressed in standard scores. The mean of the general population was 100 with a standard deviation of 20. The minimum critical scores were set at a point which eliminated the lowest third of the sample. Some of the patterns were:

Pattern 1 is GV - - intelligence and verbal ability; the critical scores are 130 for G and 130 for V. Kinds of work which requires this pattern of aptitudes are occupations in creative writing, translating, copy writing and journalism. Pattern 2 is GN - - intelligence and numerical ability, with critical scores of 130 for each. This pattern characterizes occupations in accounting and related work. Pattern 4 is GNSF - - with critical scores of 100 in intelligence, numerical ability and spatial ability, and 85 on finger dexterity. Occupations covered by this pattern are those in all-round metal machining and all-round mechanical repairing. Pattern 12 is NQTF - - with critical scores of 100 for numerical ability, clerical perception, and motor speed, and 85 for finger dexterity. This pattern of abilities is required for a group of occupations involving the operation of clerical machines for computational purposes. Pattern 13 is NSM - - with critical score of 85 for numerical ability, spatial ability, and manual dexterity. This pattern of abilities is represented in groups of occupations involved in heavy metal structural work, in plumbing and related work, and in wood structural work.<sup>2</sup>

The GATB is a Multi-Factor Test with the basic assumption that a large variety of tests can be boiled down to several factors and that a large variety of occupations can also be clustered into groups according to similarities in the abilities required.

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<sup>1</sup> Dictionary of Occupational Titles, Part IV, Entry Occupational Classification, United States Government Printing Office, Washington, D. C., 1944.

<sup>2</sup> Beatrice Dvorak, "The New United States Employment Service General Aptitude Test Battery", Occupations, Vol. 26, October, 1947, pp. 373-374.

## CHAPTER III

## REVIEW OF LITERATURE OF THE GENERAL APTITUDE TEST BATTERY

Since its appearance in late 1946, Form E-1001 of the General Aptitude Test Battery has been studied extensively. In unpublished theses many areas have been reported in which the prediction of success has been measured with the GATB. Research with the GATB as a predictive instrument has been conducted in the following areas: the Social Sciences, Woodhead<sup>1</sup>; the Biological and Physical Sciences, Thurman<sup>2</sup>; the Medical Sciences, Ralph and Taylor<sup>3</sup>; and as an aid in selecting architectural students, Thompson<sup>4</sup>. Westwood<sup>5</sup> worked with engineers at the University of Utah and Reitan<sup>6</sup> at the University of

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<sup>1</sup> Marjorie J. Woodhead, "The Predictive Efficiency of the General Aptitude Test Battery in Social Sciences", Unpublished Master's Thesis, University of Utah, 1949.

<sup>2</sup> C. G. Thurman, "A Statistical Analysis of the Predictive Efficiency of the General Aptitude Test Battery with Biological and Physical Science Students", Unpublished Master's Thesis, University of Utah, 1949.

<sup>3</sup> Ray B. Ralph and Calvin W. Taylor, "A Comparative Evaluation of the Professional Aptitude Test and the General Aptitude Test Battery", Journal of the Association of American Medical Colleges, Vol. 25, January 1950, pp. 1-8.

<sup>4</sup> John W. Thompson, Jr., "An Evaluation of the General Aptitude Test Battery as an Aid in Selecting Architectural Students", Unpublished Master's Thesis, University of Florida, 1950.

<sup>5</sup> Dale Westwood, "Predicting Academic Achievement of Senior Engineers with the General Aptitude Test Battery", Unpublished Master's Thesis, University of Utah, 1949.

<sup>6</sup> Henry M. Reitan, "Predictive Value of the General Aptitude Test Battery for Student Success in Engineering", Unpublished Doctoral Thesis, University of North Dakota, 1950.

North Dakota. Bird<sup>1</sup> used the GATB as a predictor of academic success of undergraduates in Psychology, while Bierbaum<sup>2</sup> worked with graduate students in the same field.

Taylor, the director of the GATB Senior Project Staff, Department of Psychology, University of Utah, and his staff, in collaboration with the Bureau of Employment Security, United States Employment Service and the Utah State Department of Employment Security conducted a study of GATB patterns for college areas<sup>3</sup>. Four hundred and seventy-nine seniors, 101 Pharmacy sophomores, and 49 second year medical students were tested with the paper and pencil portions of the GATB. It was concluded that it was possible to develop an occupational aptitude pattern for general college success regardless of the fields of specialization. Occupational aptitude patterns were developed for seven academic areas, namely: the Biological, Business, Education, English, the Social Sciences, Medicine, and Pharmacy. In this study the conclusions were based purely on scholastic success, without consideration of job success.

Several comparative studies of the General Aptitude Test Battery and the American Council of Education Psychological Examination (ACE)

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<sup>1</sup> Robert G. Bird, "The United States Employment Service General Aptitude Test Battery as a Predictor of Academic Success in Psychology", Unpublished Master's Thesis, Pennsylvania State College, 1950.

<sup>2</sup> William B. Bierbaum, "The Prediction of Scholastic Success of Graduate Students in Psychology by Means of the United States Employment Service General Aptitude Test Battery", Unpublished Master's Thesis, University of Florida, 1951.

<sup>3</sup> Calvin W. Taylor, "General Aptitude Test Battery Pattern for College Areas", Occupations, Vol. 29, April 1951, pp. 518-526.

have been undertaken. These are unpublished theses. Grant<sup>1</sup> compared the two instruments in respect to their usefulness in predicting the grade point average of a group of Florida State University students. Grote<sup>2</sup> studied the correlations between the grade point average of students planning to teach in secondary education and the scores made on the GATB and the ACE Psychological Examination respectively. Bischof<sup>3</sup> studied the correlation between GATB scores and the ACE Psychological Examination scores of a group of college freshmen. Gordon<sup>4</sup> used the battery in a factor analysis of aptitude, achievement and studiousness scores of 233 freshmen at the University of Utah. Smith<sup>5</sup> used portions of the GATB in constructing a clerical aptitude test battery for the Mountain States Telephone and Telegraph Company.

#### Studies of the General Aptitude Test at the high school level

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<sup>1</sup> William V. Grant, Jr., "The Comparative Value of the General Aptitude Test Battery and the American Council of Education Psychological Examination in Predicting the Quality Point Averages of a Group of Florida State University Students", Unpublished Master's Thesis, Florida State University, 1950.

<sup>2</sup> Jane E. Grote, "A Comparative Study of the General Aptitude Test Battery and the American Council on Education Psychological Examination in Relationship to the Grade Point Average of Students Planning to Teach in Secondary Education", Unpublished Master's Thesis, Florida State University, 1951.

<sup>3</sup> Ledford J. Bischof, "Relationships of General Aptitude Test Battery Scores with Scores on the ACE Psychological Examination for College Freshmen", Unpublished Ph. D. Thesis, Indiana University, 1950.

<sup>4</sup> Oakley J. Gordon, "A Factor Analysis of Aptitude Achievement and Studiousness Scores of 233 University College Freshmen", Unpublished Master's Thesis, University of Utah, 1950.

<sup>5</sup> William K. Smith, "The Construction of a Clerical Aptitude Test Battery for the Mountain States Telephone and Telegraph Company", Unpublished Master's Thesis, University of Utah, 1950.

are few and limited at this time. One of the first studies using high school students was the research carried on by the Ohio State Employment Service and the Ohio State Board of Education<sup>1</sup>. This study was carried on during the 1947-1948 school year. The GATB was administered to a group of 439 high school seniors in five northern Ohio schools. An analysis was made of the data in selected specific areas, namely, the clerical, accounting, and engineering patterns. The scores were tabulated in distributions by schools, sex, course, and age group. It was concluded that since " . . . the GATB mean scores, standard deviation, and Occupational Aptitude Patterns were consistently logical for this group of high school seniors that the battery appears to be quite applicable for use with this type of population".<sup>2</sup> The results were referred to as "logical" in that the mean of the population studied was 110 with a standard deviation of 16. This mean was ten points or half a sigma higher than that for the standardization population. The standard deviation of the high school population was less variable than that of the standardization group of working adults. One might expect less variability on their test performance due to the general academic background of the students as compared to the academic background of the adults selected at random.

A second investigation of the General Aptitude Test Battery at the high school level was carried out by the Colorado State Employment

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<sup>1</sup> State Testing Staff, Ohio State Employment Service, "A General Aptitude Test Battery Study with High School Seniors", Educational and Psychological Measurements, Vol. 9, Autumn, 1949, pp. 281-289.

<sup>2</sup> *ibid.*

Service.<sup>1</sup> This investigation involves the testing of 98 seniors and 146 freshmen in a certain Colorado High School in 1948. The study is reported in converted scores on the ten aptitudes which the battery purports to measure. The grade twelve mean is above the adult mean of 100 in all aptitudes except manual dexterity. In all cases, the standard deviation of the grade twelve sample is less than the value 20 for the adult population. The grade nine means in the ten aptitudes run from ten to twenty points below those of grade twelve. The means for grade nine are lower than those of the adult population in eight of the ten aptitudes and the standard deviations are smaller.

Further research on the GATB was undertaken by Seitz.<sup>2</sup> She conducted a study to determine the value of the use of the GATB in the job placement of high school seniors. She studied 353 white high school students of both sexes from six different high schools of urban New Castle County, Delaware. Tests were given this group during the school year 1947-1948. Job placement service was made available to the students through the local office of the Delaware State Employment Service. One year after graduation the subjects of this study were followed up to determine how many of them were working in jobs indicated by their GATB results and how many were not, and to measure the job success of each group. This study further supports the assumption

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<sup>1</sup> Colorado State Employment Service, GATB High School Senior Research Study, Unpublished, October, 1948.

<sup>2</sup> Margaret J. Seitz, "A Follow-up Study of the Use of the General Aptitude Test Battery of the United States Employment Service in the Placement of High School Seniors", Unpublished Master's Thesis, University of Delaware, 1949.

that the GATB is predictive of job success and can be used with high school seniors.

Mouly<sup>1</sup> and Robinson<sup>2</sup> at the University of Minnesota investigated the validity of interpreting scores of tenth and twelfth grade pupils on the GATB using the norms that had been derived from the performance of the adult population on which the battery was originally standardized. Both concluded that adult norms were not applicable for use in evaluating the aptitudes of high school students. They also concluded that the difference in test results of the group studied could not necessarily be attributed to growth, since such influencing factors as test-experience, motivation, differential selection of subjects, and the effect of training had not been controlled in their studies.

A more recent study of the validity of the GATB for the vocational guidance of high school students was made by Malecki.<sup>3</sup> His recommendations and conclusions are reported in an unpublished doctor's thesis completed in August, 1952. In this study which took place in the state of Indiana, two groups of students were compared. The observed vocational adjustment of a group of high school graduates to whom this

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<sup>1</sup> George J. Mouly, "A Study of the United States Employment Service General Aptitude Test Battery B-1001 for Use on the Population of High School Seniors in the State of Minnesota", Unpublished Ph. D. Thesis, University of Minnesota, 1949.

<sup>2</sup> Leslie George M. Robinson, "An Appraisal of the United States Employment Service General Aptitude Test Battery B-1001 for the Grade Ten Population of Minnesota", Unpublished Ph. D. Thesis, University of Minnesota, 1949.

<sup>3</sup> H. R. Malecki, "An Investigation of the Validity of the General Aptitude Test Battery for the Vocational Guidance of High School Graduates", Unpublished Ph. D. Thesis, Purdue University, 1952.



battery was administered was compared with the observed vocational adjustment of an equal number of high school graduates who had not taken this test. It was concluded that the GATB was of value in helping to bring about the satisfactory vocational adjustment of those persons who took the test and followed the recommendations made concerning their choice of occupations as suggested by the scores they obtained on the battery. This helps to support the results of the study made by Seitz.

In an article entitled School-Employment Service Cooperation,<sup>1</sup> Charles E. Odell, then Chief of Employment Counseling for the United States Employment Service tells of a study made in eleven states where school employment services are offered to the schools by the United States Employment Service. The GATB was administered in 93 secondary schools in communities in Alabama, Arizona, Florida, Kentucky, New York, North Carolina, North Dakota, Ohio, Pennsylvania, Washington, and Wisconsin, involving services to 11,535 seniors. The services and the results reported for Florida, New York, and North Dakota were for graduates in the high school class of June 1950-1951. The information from the other states is for the graduates of the June 1952 high school class. A follow-up study was made with about 80 per cent responding. Quoting Odell, "Perhaps the most satisfying result indicated by the follow-up of those served is the conclusion that the services provided graduates result in considerable job satisfaction". The report indicates that the states which have had the most generally successful school programs from the points of view of high placement and low unemployment ratios

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<sup>1</sup> C. E. Odell, "School Employment Service Cooperation", Personnel Guidance Journal, 1953, 32, 1, 9-13.

have been states which have been most selective in using the GATE.

This supports the general policy position of the United States Employment Service that the tests be given only to those young people who are going to be entering the labor market in the foreseeable future and who have not made a definite vocational choice.

## CHAPTER IV

## THE DESIGN OF THIS STUDY

The Department of Public Instruction for South Dakota made an agreement with the Employment Security Department of South Dakota on March 23, 1951 to release to properly trained persons the General Aptitude Test Battery, Form B-1001, to be used in the schools of South Dakota as an additional instrument in counseling, selection, and diagnosis.

During the month of October, 1951, the writer attended a Training Conference at Watertown, South Dakota which provided opportunity for supervised observation and laboratory practices in the administration, interpretation of results, and the application of the GATB. This conference was directed by Miss Olga M. Sorenson, Chief of Training, Employment Service Division. Soon after this training session a contract was signed between Milbank High School and the Employment Security Department of South Dakota. This contract provided for the release of testing material to Milbank High School. In December 1951, the GATB was administered to the 42 members of the senior class. After the scores had been determined and individual profiles completed for each senior, a counseling session was held with each senior. During this session the results of the test were discussed with the student. His tentative plans for the future after leaving Milbank High School were discussed using the results of the GATB, the results of the American Council of Education Psychological Examination, rank in senior class, interests, and success in school courses as a basis for

analyzing his plans.

Each year during this study the GATB was administered by the writer to the seniors of Milbank High School. The six classes in this study are the graduating classes from the class of 1951-1952 to the class of 1956-1957. In all, there were 357 graduating seniors that took the test and were individually counseled. They were all counseled in approximately the same manner.

In order to determine the effectiveness of such counseling and to determine the degree to which the GATB could be used in the high school for prognosis, a follow-up study was made. In planning the study, several weeks were devoted to ascertaining names of girls who were married after graduation and to the locating of addresses for each student. Two of the graduates were deceased. Eight addresses were not obtained even after much time and effort. This left 347 seniors for the study.

On December 10, 1957, a letter of explanation and the prepared questionnaire (Appendix A) were sent to the 347 graduates of Milbank High School. The questionnaire has four parts. A preliminary section deals with present employment status and was filled out by all respondents. Each respondent answered the part of the questionnaire that applied to him. Part I was for those employed for wages or self employed; Part II for those in school; Part III for those in the Armed Forces; Part IV for housewives. The questionnaire was answered by checking the best answer or by the use of a word or phrase.

Two questions were common to all four parts of the questionnaire. One question, "What kind of work do you do?" was asked to determine

present work experiences which could be compared to aptitudes measured by the GATB. The second question was "To what extent has the counseling you received after taking the General Aptitude Test Battery been helpful to you in choosing your present occupation?" This question was asked to get the opinion of the counselee as to the value of the GATB to him.

In the letter of explanation, January 15 was mentioned as the desirable date for all questionnaires to be returned to the writer. By January 25, 281 questionnaires were returned. On January 27, a post card (Appendix B) was sent to all who had not returned the questionnaires. Nine persons returned the questionnaire after the reminder was sent out. This made a total of 290 respondents. This was a return of 83 per cent of the total number of questionnaires sent out.

## CHAPTER V

## THE FINDINGS AND INTERPRETATION OF DATA

A Comparison of the Results of the General Aptitude Test Battery Given to the Population in this Research Study with the Population upon which the Test was Based.

To compare the results of the GATB given to the six senior classes of Milbank High School and the population upon which the test was based, a summary of all scores obtained by each senior for each of the ten aptitudes was made. From this summary the mean scores were determined for each aptitude by classes. Then the mean score for all aptitudes for each class was determined. Standard deviations were also determined for each class by first grouping all of the scores of the ten aptitudes for all of the members of each class. Table I shows the statistics that were compiled.

Table I indicates that in every case the mean scores of the ten aptitudes obtained by the six classes under study were higher than the mean scores of the population upon which the test was based. It shows that the mean scores range from a mean of 111.5 to a mean of 116.2. Table II shows that the standard deviations for the six classes varied from 15 to 17.5. These statistics show that the mean scores for the six classes varied from 57.5 per cent to 81 per cent of a standard deviation higher than the mean of the population upon which the test was standardised. This difference seems to be the result of the academic background of the group. The average educational level of the working population used in the original standardisation was eleven years.

TABLE I. MEAN APTITUDE

Class	Number of Seniors	G	V	N	S	P	Q	A	T	F	M	Mean
1951-52	42	121	107	119	118	115	112	109	104	111	104	112.0
1952-53	69	112	112	106	115	122	111	118	107	113	114	113.0
1953-54	65	115	105	108	118	120	108	126	112	116	108	113.6
1954-55	63	116	103	111	120	120	106	116	103	114	106	111.5
1955-56	63	118	104	116	119	121	109	113	104	107	107	111.8
1956-57	55	116	106	113	117	121	109	130	112	119	119	116.2
GATB B-1001 (M)		100	100	100	100	100	100	100	100	100	100	100

TABLE II. STANDARD DEVIATION

Class	Standard Deviation
1951-52	16.5
1952-53	17.5
1953-54	15.0
1954-55	17.2
1955-56	17.5
1956-57	16.1
GATE B-1001	20.0

The educational level of the population of this high school group is, of course, held constant at twelve years. The standard deviations of from 15 to 17.5 as compared to 20 for the original group was also expected since high school seniors would be a more homogeneous group than the working population upon which the test was based. The education of the original group ranged from six years through college graduation.

From the results of this part of the study it seems that the mean scores of the GATE can not be directly applied with any degree of accuracy to this group of seniors. The seniors in all six classes have higher mean scores for each aptitude than the mean scores of the population upon which the test is based. It should also be noted that the educational level of this group under study is one grade level higher than the original standard group. From this study it seems that this test should be given during the eleventh year of school and since the high school group is more homogeneous than the standard group, standard scores should be established for high school groups.



Comparison of the G-Scores Obtained from the General Aptitude Test Battery with the Total Score of the Ace Test (American Council on Education-Psychological Examination for College Freshmen) which was Given to the Same Group under Study.

Can the GATB be used as a tool to predict success in college? Several studies have been made in various areas with results which indicated a fairly high degree of success in using the G-score of the GATB as a predictive score for success in college. In order to test the reliability of using the G-score of the GATB as a predictive score for college success among Milbank High School students, the writer compared the G-score of the GATB with the total score each of the students received on the American Council on Education Psychological Examination (ACE). The ACE Test was given to all seniors in the State of South Dakota and has been used by counselors in the State as one of the tools in predicting success in college. By comparing the two tests one can determine whether or not the G-score of the GATB could be used with some degree of accuracy for predicting college success. The factors used in the G-score of the GATB are vocabulary, arithmetic reason, and three-dimensional space. The ACE Test yields an L-score, or linguistic ability, a Q-score, or score for quantitative ability, and a total score for both. The parts of the two tests compared were therefore similar in nature.

To make this study the scores for each of the students were tabulated and the correlation coefficient for each class was determined. As table III indicates the correlation coefficient ranges

TABLE III. CORRELATION OF G-SCORE OF GATB WITH ACE SCORE

Class	Correlation coefficient
1951-1952	.785
1952-1953	.583
1953-1954	.749
1954-1955	.835
1955-1956	.766
1956-1957	.676

from .583 to .835 with three of the six classes having a correlation coefficient of approximately .75. This indicates a substantial correlation between the G-score of the GATB and the total score of the ACE Test. This seems to indicate that the GATB can be used with reasonable success in predicting success in college.

A word of warning to the reader is injected at this time as to using any test such as the GATB or ACE as the sole instrument for making a prediction. Many factors enter in to the results of a test such as the health, emotional tension and the like of the participant or weather conditions or room conditions when the test was given. Therefore a number of reliable instruments should be used to gather facts before making predictions. It is the intention of the writer in this part of this report only to show that the GATB can be considered a fairly reliable tool for predicting college success.

A Comparison of Occupational Aptitude Patterns (OAP) Obtained from the results of the General Aptitude Test Battery with Courses taken by Milbank High School Students.

In describing the GATB the writer mentioned that norms were established in the form of Occupational Aptitude Patterns and that 20 different OAP's were developed for use with this test. OAP's 1, 2, and 3 are the only professional patterns and the professions in these fields are mainly creative writing, journalism, accounting and engineering. The OAP's 5, 8, 11, 12, and 19 are all clerical in nature. The rest of the OAP's are in the skilled, semi-skilled, and unskilled job areas. This part of the study was made to determine if there is any relationship between courses followed in school and the OAP's that were established by the GATB. If there is a relationship how effectively can the GATB be used in counseling high school students.

In Milbank High School there are four types of courses that students follow. The four courses are business, general, college preparatory, and vocational. The groups under study followed the above courses in the following proportions: 28 per cent took a business course; 30 per cent took a college preparatory course; 22 per cent took a general course; and 20 per cent took a vocational course which is mainly agriculture.

TABLE IV. COMPARISON OF OCCUPATIONAL APTITUDE  
PATTERNS WITH SCHOOL COURSES

Mean Grade	Course Followed	Number who took course	Number with OAP 1,2,3	Number with OAP 5,8,11,12,19
3	Business Training	100	4	89
2	General Course	78	2	39
3	College Preparatory	105	14	74
2	Vocational	74	0	21

From IV it is evident that those who took business training and college preparatory courses had a higher grade point average (3) than did those who took the general and vocational courses (2).

TABLE V. PER CENT OF STUDENTS FROM EACH COURSE WHO RATED  
IN PROFESSIONAL AND CLERICAL AREAS

Course Followed	Per cent with OAP 1,2,3	Per cent with OAP 5,8,11,12,19
Business Training	4	89
General Course	2.5	50
College Preparatory	13.4	70.5
Vocational	0	29.6

Those who qualified for professional areas of work by rating in OAP's 1, 2, and 3 came mostly from the group who were preparing for college. (It should be noted here that the GATB covers relatively few college counseling areas.) From Table V one can see that 13.4

per cent of those taking the college preparatory course qualified in OAP's 1, 2, and 3. Those in business training rated second highest of those qualifying for OAP's 1, 2, and 3 with four per cent of the group qualifying. It should also be noted that none of those who took the vocational course qualified in OAP's 1, 2, and 3.

Of those who took the business training course 89 qualified in two or more of the OAP's 5, 8, 11, 12, and 19 which are clerical occupational patterns. This means that 89 per cent who took the course qualified in clerical occupational patterns. It still remains that 19 per cent of those who took the course did not qualify for at least two of the areas of this field. The second highest group that qualified in clerical occupations were those who were preparing for college. Seventy-four, which was 70.5 per cent of those taking college preparatory courses, qualified in at least two of the clerical occupational patterns. Fifty per cent of those taking the general course and 29.6 per cent of those taking the vocational courses qualified in at least two of the clerical occupational patterns.

From this part of the study it seems quite apparent to the writer that students who follow certain courses in school tend to do better on the GATE in the areas for which they have been trained than those who did not have training in this field. It seems that this further proves the need for careful educational guidance within our schools. This part of the study seems to show that the GATE does not have enough occupational areas at the professional level. If more professional patterns could be established the test could be used more effectively in guiding students who plan on attending college and

going into a professional occupation. As the patterns are arranged at the present time, most of them are clerical or are in skilled, semi-skilled, and unskilled types of jobs. The test seems to be, therefore, a more effective tool in guiding those who do not plan to go to college but who plan to go immediately into the field of work after graduation. The GATB is used by the United States Employment Bureau to help place applicants who are generally of the clerical, skilled, semi-skilled, or unskilled work areas in jobs for which they are suited. No doubt, it is a fairly reliable instrument for that purpose and can be used by high schools most effectively in the same way.

A Report of the Follow-up Study Made of the Senior Graduates of  
Milbank High School from 1951-52 to 1956-57.

The purpose of this follow-up study was to find out if the persons under study were now following an activity indicated by their occupational patterns determined by the GATB and to also get the opinions of the graduates under study as to the value they placed upon the counseling they received after taking this battery of tests.

The questionnaire and post card follow-up can be found in Appendix A and B of this report. Also the reader will find in Appendix C a summary table of the information taken from the questionnaires.

Two-hundred-ninety graduates answered the questionnaires. This was a return of 83.6 per cent of all questionnaires sent out. It is interesting to note that questionnaires were returned from such far away places as Haarlem, Netherlands, also from such places as Okinawa, Hawaii, Germany and other far distant places. Graduates seem to scatter to the whole periphery of the earth in a very short time. Of the graduates who returned the questionnaire, 47.6 per cent indicated they were either self-employed or were employed for wages either full or part-time, 10.7 per cent were in the armed forces, 16.9 per cent were housewives, 22.7 per cent were attending school, and 2.1 per cent were unemployed.

TABLE VI. OCCUPATIONAL STATISTICS FOR THOSE  
EMPLOYED, ATTENDING SCHOOL, AND MARRIED

Type	Employed		Attending School*		Married**	
	No.	Per Cent	No.	Per Cent	No.	Per Cent
Executive	0	0	1	1.5	0	0
Professional	24	17.4	50	75.8	2	4.1
Managerial	23	16.6	6	9.1	0	0
Clerical	50	36.2	3	4.5	28	57.1
Sales	12	8.7	2	3	1	2.1
Laborer	21	15.2	0	0	4	8.1
Other	8	5.9	4	6.1	1	2.1
Married soon after gradu- ation					13	26.5

\* Type of occupation for which college students are training.

\*\* Type of occupation held by married women before marriage.



Table VI shows how those who were employed classified their positions; the type of training that was being followed by those attending school; and the type of work the married women had before getting married. Of those employed 36.2 per cent of them were employed in clerical types of positions. It is interesting to note that the next highest occupational group according to number employed is the professional group with 17.4 per cent indicating their position as professional. The types of professions listed varied from nursing to professional football. Some of the other professions listed were: home economics teacher, pharmacist, grade school teacher, engineer and dean of women. The third largest group was the managerial group with 16.6 per cent. Most of this group is made up of boys who now operate their own farms but some of the other managerial jobs listed were service station manager, produce manager, and operator and manager of a commercial truck. Only 21 out of 138 indicated their job was a laborer type of job.

Of those who are attending college over 86 per cent of them are pursuing some type of course in the professional, executive, or managerial fields. About one-half of the students are attending some school in South Dakota and about one-half of them are attending various types of schools in a number of different States.

Over one-half of the women who were married indicated that previous to their marriage they were doing clerical work. A few over one-fourth were married soon after graduation so had not held a job after leaving high school.

In order to determine if the persons under study were following a field of work indicated by the results obtained from the GATB scores, the answers given to the question, "What kind of work do you do?" were classified and compared to the Occupational Patterns which showed up on the test. The answers were classified according to the classification given for each by the Dictionary of Occupational Titles (DOT). The types of work listed in the Occupational Patterns of the GATB are also classified according to the DOT. So the classification system used was one and the same.

Thirty-one who answered the questionnaire were men who were in the service. Their answers to the question, "What kind of work do you do?" could not in some cases be determined for their work was considered secret. They did indicate whether their work was administrative, basic or advanced training, or some other type of work. Five of them listed their work as administrative, six indicated their work was basic training or advanced training and 20 indicated that they were engaged in other types of work. Some described their work as clerical, mechanical, electronic, or operating a truck or tank. Whenever possible their description of the job was classified and included in the report.

TABLE VII. NUMBER AND PER CENT OF GRADUATES ANSWERING QUESTIONNAIRE WHO ARE WORKING IN, OR STUDYING FOR, A FIELD OF WORK THAT DID NOT SHOW UP ON THE GATB PROFILE CHART.

Occupational Pattern	Number	Per Cent
OAP's 1, 2, 3, Professional	69	23.7
OAP's 5, 8, 11, 12, 19 Clerical	17	5.9
All other OAP's Skilled, Operatives, Unskilled	<u>1</u>	<u>.1</u>
Total	87	30.0

Table VII shows the results of this comparison. Besides the information in the table one should note that of the 87 graduates who were not working in or studying for an occupation that showed up on the Occupational Aptitude Profile Chart that 79.3 per cent were in the professional fields, 19.5 per cent were in the clerical fields, and that only .2 per cent were working in skilled, operative, or unskilled jobs.

From this part of the study there are three significant conclusions:

1. The GATB does not show professional aptitudes in enough fields to be a useable instrument in counseling those who desire to know what profession they have highest aptitudes.

2. The GATB does show with moderate accuracy clerical aptitudes.
3. The GATB shows with much accuracy (99.8 per cent in this study) skilled, operative and unskilled aptitudes.

In this study the writer also tried to find out if the graduates under study were engaged in occupations they had planned on entering before graduating from high school and to what degree they were satisfied with the work they were doing.

TABLE VIII  
PRESENT OCCUPATION AS COMPARED TO WHAT GRADUATE  
EXPECTED TO DO WHEN LEAVING SCHOOL

Comparison	Number	Per Cent
Exactly the type of job wanted	56	40.6
Closely related	40	29.0
Is somewhat related	16	11.6
No idea	26	18.8

Table VIII shows to what extent the graduate is engaged in work which he had planned. One conclusion that can be made from this table is this fact that 69.6 per cent of the graduates under study are doing work which is or is closely related to their plans before graduation. A second conclusion is that there is much room for occupational guidance for 18.8 per cent of the graduates are not now doing the type of work they had thought they might do.

TABLE IX  
SATISFACTION OF GRADUATE WITH PRESENT POSITION

Degree	Number	Per Cent
Highly satisfied	71	51.4
Reasonably well satisfied	62	44.9
Somewhat dissatisfied	4	2.9
Very dissatisfied	1	.8

Table II shows how well satisfied the worker was, at the time of the study, with his occupation. It is evident that of this group under study most of them (96.3 per cent) are or are reasonable well satisfied with their present occupation and that only a small number—one out of 138 employed—was very dissatisfied.

From this part of the study it seems that the majority (69.6 per cent) are engaged in work they hoped to get after leaving school and that a very large majority of the group are well satisfied at the time of the study with the occupations they have.

TABLE X  
PRESENT OCCUPATIONAL PLANS OF THOSE ATTENDING COLLEGE  
COMPARED TO WHAT THEY EXPECTED TO TAKE UP WHEN LEAVING  
HIGH SCHOOL

Comparison	Number	Per Cent
Exactly the type of course planned	28	42.4
Closely related	24	36.4
Is somewhat related	9	13.6
No idea	5	7.6

Table X shows the present occupational plans of those who are going to college and how they compare to their plans while in high school. It seems from this data that well over three-fourths (78.8 per cent) of the graduates under study who are now going to college are pursuing educational training for which they had planned before leaving high school. There were five out of the 66 or 7.6 per cent who are in college at the time of this report who had no idea they would be following the course of training they are at the time of graduation from high school. As far as this group of graduates are concerned it is evident they are doing the things they had planned to do before leaving high school more than the group who are now out on the job.

TABLE XI  
TO WHAT DEGREE WAS THE COUNSELING USING THE RESULTS  
OF THE GATE HELPFUL TO THE GRADUATE IN  
MAKING OCCUPATIONAL PLANS

Degree	Employed		Attending Sch.		Armed Ser.		Married	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Extremely helpful	13	9.4	12	18.2	4	12.9	1	2.0
Some Help	74	53.6	43	65.1	20	64.5	35	71.4
Wasn't helpful	33	23.8	9	13.6	4	12.9	8	16.3
Do not remember test or had no choice in work	18	13.2	2	3.1	3	9.7	5	10.3

TABLE XII  
TO WHAT DEGREE WAS THE GATE HELPFUL TO ALL GRADUATES  
OF MILBANK HIGH SCHOOL IN THIS STUDY

Degree	Number	Per Cent
Extremely helpful	30	10.5
Some help	172	60.5
Wasn't helpful	54	19.0
Do not remember the test or had no choice in work.	28	10.0

The final information the writer wished to get from the graduates under study for this report was the degree to which they felt the counseling they had from the results of the GATB was helpful to them in making occupational plans.

Table XI shows the degree of helpfulness for each of the four groups while Table XII shows the degree of helpfulness of all groups. From this part of the study there seems to be four definite conclusions:

1. A higher per cent of those attending school felt the counseling given from the results of the GATB helpful to them than any other group.
2. The employed group felt the counseling given from the results of the GATB less helpful to them than any other group.
3. The per cent of each group who did not remember the test was lowest among those attending school and highest among those employed.
4. Seventy-one per cent of all groups thought the counseling given from the results of the GATB helpful to them.

These conclusions seem to be somewhat paradoxical to the conclusions given from Table VII where it was found that a large number of those attending college were taking courses for which the GATB had no occupational aptitude patterns. Yet this same group indicated as Table XI shows that a large majority felt the GATB to be of help in making their occupational plans. Perhaps the reason for this situation hinges on the fact that the counselor, who is the writer of this



report, used the Q-score of the GATB along with the numerical and verbal score in counseling the counselee on his degree of success in college training. The counselor used a Q-score of 115 with like scores in verbal and number abilities as a basis for forecasting success in college from the results of the GATB. Perhaps this counseling was more important to those who were planning on attending college than the showing of some graduates the occupational aptitude patterns in which they had rated. It is also possible and can be only an assumption on the part of the writer that a few of the counselees may have for the first time realized he might have occupational limitations and was a bit resentful.

From this follow-up study of graduates of Milbank High School from 1951-1952 to the class of 1956-1957 it was found that 70 per cent of them were engaged in or training for an occupation that was indicated as an occupational aptitude field for them by the GATB. It was also found that a large majority (96.3 per cent) were happy in their work and that 71 per cent thought the counseling they had received after taking the GATB to be helpful to them in choosing an occupation.

## CHAPTER VI

## SUMMARY AND CONCLUSIONS

The General Aptitude Test Battery, Form B-1001 was administered to seniors of Milbank High School and six graduating classes from 1951-52 to the class of 1956-57 were used as a basis for this study. The purpose of this study was to determine the applicability of the GATB to the high school guidance program and to find out if the results of the test can be used in high school for prognosis.

In reading literature relative to this study it was found that a number of studies had been made using the results of the GATB as a basis for study. It was noted that only a few studies had been made where the GATB had been used to counsel high school students and that there was definitely a lack of information on any follow-up study of high school students who had been counseled with information obtained from the GATB. For this reason the writer undertook a follow-up study of the group mentioned above.

First, a comparison was made of the scores obtained by this group of graduating seniors with the mean scores of the population upon which the test was based. It was found that in every case the mean scores for each class were higher than the mean scores of the standard group and that the standard deviation of the groups under study were lower than the standard deviation of the standard group. This indicated that the graduates under study were a more homogeneous group than the standard group and that they had a higher educational level than the standard group.

The second step of the study was a comparison of the G-score of the GATB with the total score of the ACE Test. The purpose of this part of the study was to determine if the G-score could be used as the ACE score is sometimes used as a counseling tool to forecast success in college. A correlation of the G-scores with the ACE score was made for each class. It was found that the correlation coefficient for all classes was near .75. This indicates a substantial correlation between the G-score of the GATB and the ACE scores. It was concluded from this that one could use, with perhaps as good results as one could use the ACE score, the G-score of the GATB in forecasting success in college.

The third step in this study was to compare the occupational aptitude patterns obtained from the results of the GATB with the school courses that were taken by the graduates. It was found that those who took clerical and vocational courses rated well in clerical and vocational aptitude patterns. It did not show very well the type of professional aptitude applicable to those who took the college preparatory course. From this part of the study it is concluded that the GATB is a good test for those who plan to go immediately into the world of work after graduating from high school but that it does not help the professional aspirant determine which profession he should enter.

The final step of the study was the follow-up study of the graduates under study. The purpose of this part of the research was to find out if the graduate was engaged in an occupation or was training for an occupation that showed up as an occupational aptitude on the GATB and to find out if the graduate felt the counseling from this test was of any

help to him in making a choice of an occupational field. The conclusions reached from this final part of the study were:

1. That a large majority were working or training for a field of work that showed up as an occupational aptitude on the GATB and therefore the test can be used with much accuracy as a tool for counseling seniors in Milbank High School.
2. That most of the graduates were happy doing the work they were doing at the time of the questionnaire and if this is due to any measure to the counseling from the results of the GATB it is worth the time and effort to administer and counsel using it as one of the instruments in the guidance program of Milbank High School.
3. That a large majority of the graduates felt that the counseling they received relative to the GATB results was helpful to them which is another reason why the test should be used as an instrument in counseling Milbank High School students.

## CHAPTER VII

### RECOMMENDATIONS

From this study it seems to the writer that the following recommendations should be made:

1. That the GATB be administered during the junior year of high school so that the educational background of the one being tested is more in line with the educational level of the standard group.
2. That a set of standard scores be worked out for the high school group.
3. That more GATB occupational aptitude patterns be established for the professional fields or else other aptitude tests should be given to those interested in professional fields of work.
4. That another follow-up study be made of this same group in from five to ten years from the present study. By this time those who are training for an occupation and those in the service of the United States will perhaps be out on the job. A more accurate study of the validity of the GATB could then be made.

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## APPENDIX

## Appendix A

## Exhibit 1

Milbank, South Dakota  
December 10, 1957

Dear

When you were attending Milbank High School, did you ever wonder what you would do when you left school? And, do you remember the aptitude test called the General Aptitude Test Battery (with dexterity and assembly boards) that you took during your senior year? Students of Milbank High School are still wondering what they will be doing when they leave high school and they are taking the General Aptitude Test Battery, after which a counseling session is held with a student counselor.

As a student counselor, I am wondering about the reliability of the results obtained from the GATB. Now this is where you can help me. I am enclosing with this letter a questionnaire. Your answers will help me determine the effectiveness of the GATB in counseling. If you follow the directions carefully, it shouldn't take you over ten minutes to fill out the enclosed questionnaire. I would like to complete my study of this problem by January 15, so please fill out the questionnaire at your earliest convenience and return to me in the self-addressed stamped envelope.

We, at the High School, always enjoy hearing about you and especially enjoy your visitations when you are in Milbank. Thanks for your cooperation in this study.

Cordially yours,

Merrill J. Sly

MS/rs  
Enclosure

P. S. Why don't you fill out the questionnaire now and get it off your mind!

## Appendix A

## Exhibit 2

A VOCATIONAL FOLLOW-UP STUDY OF GRADUATES OF MILBANK HIGH SCHOOL  
FROM THE CLASS OF 1952 TO THE CLASS OF 1957.

Please fill out the blanks and check the answers to the questions  
by placing an (x) in the proper spaces.

Mr.  
Name Mrs. \_\_\_\_\_ Married Girls \_\_\_\_\_  
Miss \_\_\_\_\_ (Maiden Name) \_\_\_\_\_

Present Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_

If you are a veteran, state your branch of the Armed Forces. \_\_\_\_\_

All responders answer the following questions.

WHAT IS YOUR PRESENT EMPLOYMENT STATUS?

\_\_\_ Employed for wages, full time.

\_\_\_ Employed for wages, part time.

\_\_\_ Unemployed and seeking work.

\_\_\_ Self-employed.

\_\_\_ In Armed Forces.

\_\_\_ Housewife.

\_\_\_ Attending school. Please name school \_\_\_\_\_

\_\_\_ Others. Please describe \_\_\_\_\_

(Note) Answer Parts I, II, III, or IV as it is applicable to you.

I. IF YOU ARE EMPLOYED FOR WAGES OR ARE SELF-EMPLOYED, ANSWER THE  
FOLLOWING:

A. What is the nature of the business or occupation? \_\_\_\_\_

B. What kind of work do you do? (Describe)

1. ☐ Executive \_\_\_\_\_
2. ☐ Professional \_\_\_\_\_
3. ☐ Managerial \_\_\_\_\_
4. ☐ Clerical \_\_\_\_\_
5. ☐ Sales \_\_\_\_\_
6. ☐ Laborer \_\_\_\_\_
7. ☐ Other \_\_\_\_\_

C. To what extent is your present job like the type of work you thought you would follow when you left high school?

1. ☐ Exactly the type of job I wanted.
2. ☐ Closely related.
3. ☐ Is somewhat related.
4. ☐ Didn't have any idea I would be doing this type of work.

D. To what extent has the counseling you received after taking the General Aptitude Test Battery been helpful to you in choosing your present occupation?

1. ☐ Extremely helpful.
2. ☐ Some help.
3. ☐ It wasn't helpful.
4. ☐ Do not remember the test.

E. How well are you satisfied with your present job?

1. ☐ Highly satisfied.
2. ☐ Reasonably well satisfied.
3. ☐ Somewhat dissatisfied.
4. ☐ Very dissatisfied.

II. IF YOU ARE ATTENDING SCHOOL, ANSWER THE FOLLOWING:

A. What type of course are you taking? \_\_\_\_\_

B. For what kind of work are you training yourself? (Describe)

1. ☐ Executive \_\_\_\_\_

2. ☐ Professional \_\_\_\_\_

3. ☐ Managerial \_\_\_\_\_

4. ☐ Clerical \_\_\_\_\_

5. ☐ Sales \_\_\_\_\_

6. ☐ Laborer \_\_\_\_\_

7. ☐ Other \_\_\_\_\_

C. To what extent is your present choice of occupation like the type of work you thought you would follow when you left high school?

1. ☐ Exactly the type of course I had planned to take.

2. ☐ Closely related.

3. ☐ Is somewhat related.

4. ☐ Didn't have any idea I would be following this course.

D. To what extent has the counseling you received after taking the General Aptitude Test Battery been helpful to you in making your present choice of an occupation?

1. ☐ Extremely helpful.

2. ☐ Some help.

3. ☐ It wasn't helpful.

4. ☐ Do not remember the test.

III. IF YOU ARE A MEMBER OF THE ARMED FORCES AT THE PRESENT TIME, ANSWER THE FOLLOWING:

- A. Branch of Service \_\_\_\_\_
- B. What is your present rank? \_\_\_\_\_
- C. What kind of work do you do in the service? (Describe)
1. \_\_\_\_\_ Administrative \_\_\_\_\_
  2. \_\_\_\_\_ Basic and/or Advanced Training \_\_\_\_\_
  3. \_\_\_\_\_ Other \_\_\_\_\_
- D. If you had a choice in determining the type of work you are doing, was the counseling you received after taking the General Aptitude Test Battery helpful to you in making this choice?
1. \_\_\_\_\_ Extremely helpful.
  2. \_\_\_\_\_ Some help.
  3. \_\_\_\_\_ It wasn't helpful.
  4. \_\_\_\_\_ Do not remember the test.
  5. \_\_\_\_\_ Did not have a choice in choosing my work.

IV. IF YOU ARE A HOUSEWIFE ANSWER THE FOLLOWING:

- A. Before getting married what kind of work did you do? (Describe)
1. \_\_\_\_\_ Executive \_\_\_\_\_
  2. \_\_\_\_\_ Professional \_\_\_\_\_
  3. \_\_\_\_\_ Managerial \_\_\_\_\_
  4. \_\_\_\_\_ Clerical \_\_\_\_\_
  5. \_\_\_\_\_ Sales \_\_\_\_\_
  6. \_\_\_\_\_ Laborer \_\_\_\_\_
  7. \_\_\_\_\_ Married soon after graduating from high school
  8. \_\_\_\_\_ Other \_\_\_\_\_

B. -To what extent was the counseling you received after taking the General Aptitude Test Battery helpful to you in choosing the work you did before becoming a housewife?

1. \_\_\_\_ Extremely helpful.
2. \_\_\_\_ Some help.
3. \_\_\_\_ It wasn't helpful.
4. \_\_\_\_ Do not remember the test.

## Appendix B

## POST CARD QUESTIONNAIRE

Milbank, S. Dak.  
January 27, 1958

Dear

On December 10, 1957 I sent you a questionnaire I was hoping you would fill out for me which would help me in a study I am making about the value of the use of the GATB in high school counseling. So far I have received a goodly number (281) but I have not received yours. If you still have yours I would appreciate it very much if you would fill it out and send it to me. If you do not have it now, would you fill out the bottom half of this card. Tear it off and send it to me.

I hope you have a happy and prosperous 1958.

Cordially yours,

Merrill J. Sly

Please fill out the blanks and check the answers to the questions by placing a (X) in the proper spaces.

What is your present employment status?

☐ Employed ☐ self-employed ☐ Housewife  
☐ Unemployed ☐ In Armed Service ☐ Other  
☐ Attending school. Please name school \_\_\_\_\_

What kind of work are you doing or training for?

☐ Executive ☐ Managerial ☐ Sales ☐ Other  
☐ Professional ☐ Clerical ☐ Laborer

Did the counseling from the GATB help you make an occupational choice?

☐ Extremely helpful ☐ It wasn't helpful  
☐ Some help ☐ Do not remember test

Is your present job or training the type of thing you expected?

☐ Exactly as planned ☐ Somewhat related  
☐ Closely related ☐ No

Name \_\_\_\_\_



## Appendix C

## SUMMARY TABLE

A Vocational Follow-up Study of Graduates  
of Milbank High School  
1952-1957

## What is Your Present Employment Status?

	Class of 52	53	54	55	56	57	Total
Employed for wages, full time.	13	21	23	21	13	15	106
Employed for wages, part time.	1	1	3	1	1	0	7
Unemployed and seeking work.	0	2	0	0	2	2	6
Self-employed.	4	10	2	4	3	0	23
In Armed Forces.	2	3	1	11	9	5	31
Housewife.	12	12	12	7	5	1	49
Attending school.	3	4	12	5	18	24	66
Other type of employment	1	1	0	0	0	0	<u>2</u>
Total							290

## Part I

## Employed for wages or are self-employed

What kind of work do you do?

	Class of							Total
	52	53	54	55	56	57		
Executive	0	0	0	0	0	0		0
Professional	5	7	6	3	3	0		24
Managerial	5	10	4	2	2	0		23
Clerical	5	6	11	11	5	12		50
Sales	2	1	3	3	2	1		12
Laborer	1	7	4	7	2	0		21
Other	1	2	0	0	3	2		<u>8</u>
Total								138

To what extent is your present job like the type of work you thought you would follow when you left high school?

	Class of							Total
	52	53	54	55	56	57		
Exactly the type of job I wanted	7	7	14	11	10	7		56
Closely related	4	11	9	7	5	4		40
Is somewhat related	2	6	2	3	1	2		16
Didn't have any idea I would be doing this type of work	6	9	3	5	1	2		<u>26</u>
Total								138

To what extent has the counseling you received after taking the General Aptitude Test Battery been helpful to you in choosing your present occupation?

	Class of	52	53	54	55	56	57	Total
Extremely helpful		1	2	2	4	4	0	13
Some help		11	11	15	13	11	13	74
It wasn't helpful		2	10	10	7	2	2	33
Do not remember the test		5	10	1	2	0	0	<u>18</u>
	Total							138

How well are you satisfied with your present job?

	Class of	52	53	54	55	56	57	Total
Highly satisfied		9	10	15	15	11	11	71
Reasonably well satisfied		9	21	13	10	5	4	62
Somewhat dissatisfied		1	2	0	1	0	0	4
Very dissatisfied		0	0	0	0	1	0	<u>1</u>
	Total							138

## Part II

## Attending School

For what kind of work are you training yourself?

	Class of	52	53	54	55	56	57	Total
Executive		1	0	0	0	0	0	1
Professional		2	4	8	4	16	16	50
Managerial		0	0	4	1	0	1	6
Clerical		0	0	0	0	0	3	3
Sales		0	0	0	0	1	1	2
Laborer		0	0	0	0	0	0	0
Other		0	0	0	0	1	3	<u>4</u>
	Total							66

To what extent is your present choice of occupation like the type of work you thought you would follow when you left high school?

	Class of	52	53	54	55	56	57	Total
Exactly the type of course I had planned to take		0	3	5	2	7	11	28
Closely related		0	1	5	3	7	8	24
Is somewhat related		2	0	1	0	2	4	9
Didn't have any idea I would be following this course		1	0	1	0	2	1	<u>5</u>
	Total							66

To what extent has the counseling you received after taking the General Aptitude Test Battery been helpful to you in making your present choice of an occupation?

	Class of	52	53	54	55	56	57	Total
Extremely helpful		0	0	0	1	4	7	12
Some help		2	4	11	1	8	17	43
It wasn't helpful		1	0	1	2	5	0	9
Do not remember the test		0	0	0	1	1	0	<u>2</u>
	Total							66

## Part III

Member of the Armed Forces at the present time.

What kind of work do you do in the service?

	Class of 52	53	54	55	56	57	Total
Administrative	0	1	1	1	1	1	5
Basic and/or Advanced Training	0	0	0	3	1	2	6
Other	2	2	0	7	7	2	<u>20</u>
	Total						31

If you had a choice in determining the type of work you are doing, was the counseling you received after taking the General Aptitude Test Battery helpful to you in making this choice?

	Class of 52	53	54	55	56	57	Total
Extremely helpful	0	0	0	1	2	1	4
Some help	2	3	0	7	5	3	20
It wasn't helpful	0	0	1	1	2	0	4
Do not remember the test	0	0	0	0	0	0	0
Did not have a choice in choosing my work	0	0	0	2	0	1	<u>3</u>
	Total						31

## Part IV

## Housewife.

Before getting married what kind of work did you do?

	Class of	52	53	54	55	56	57	Total
Executive		0	0	0	0	0	0	0
Professional		0	1	1	0	0	0	2
Managerial		0	0	0	0	0	0	0
Clerical		11	8	7	2	0	0	28
Sales		0	0	0	0	1	0	1
Laborer		1	0	1	0	2	0	4
Married soon after graduating from high school		0	3	3	5	1	1	13
Other		0	0	0	0	1	0	<u>1</u>
	Total							49

To what extent was the counseling you received after taking the General Aptitude Test Battery helpful to you in choosing the work you did before becoming a housewife?

	Class of	52	53	54	55	56	57	Total
Extremely helpful		0	0	1	0	0	0	1
Some help		11	7	9	5	3	0	35
It wasn't helpful		0	3	1	2	1	1	8
Do not remember the test		1	2	1	0	1	0	<u>5</u>
	Total							49