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AUTHOR Neyman, C. A., Jr.
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ABSTRACT

This final report analyzes the research methods used in the identification of potential dropouts. This program was administered under Title I (ESEA, 1965) in the District of Columbia (see also ED 049 319). Three forms were used in the evaluation of Title I students identified as potential dropouts during the school year 1967-68: (1) Student Identification Form (IDF) Student Evaluation Form (SEF) and (3) Pupil Personnel Worker Team Evaluation Form (PPTF). To study the interrelationship of the variables contained in these three forms, a sample was obtained for which all three forms were available. Factor analysis of the data was carried out and the statistical findings as well as the instruments are appended. (CK)

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ANALYSIS OF THE METHODS USED FOR IDENTIFYING
POTENTIAL SCHOOL DROPOUTS

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C. A. Neyman, Jr.
Director
Education Research Project
The George Washington University

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FINAL REPORT

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ANALYSIS OF THE METHODS USED FOR IDENTIFYING POTENTIAL SCHOOL DROPOUTS

Final Report

I. PROBLEM

One of the essential elements in the administration of programs under Title I of the Elementary and Secondary Education Act of 1965 in the District of Columbia Schools is the identification of potential dropouts, or "identified students." The form "Instrument for Identifying Potential School Dropouts," has been used for this purpose for three years. A copy of the form used during the school year 1967-68 is attached to this report in Appendix B. An earlier edition of the form was first used for obtaining the lists of "identified students" in 1965. This form was constructed on an a priori basis with the best judgments available at the time as to the essential elements causing dropout.

After three years of experience with the use of the form, and using information available from sources other than those available to the principals and teachers concerning the actual needs of students in Title I target schools, this form and the procedures for identifying potential school dropouts should be revised. This revision takes on additional urgency as the number of schools in which Title I funds are being used this school year has been substantially reduced in order to allow more concentration of efforts on "identified students."

II. INTRODUCTION

Three forms were used in the evaluation of Title I students identified as potential dropouts during the school year 1967-68. These were an identification form (IDF) filled out in the fall of 1967 by the principals of each school with the assistance of classroom teachers; a Student Evaluation Form (SEF) filled out by teachers in the late spring of 1968; and the Pupil Personnel Worker Team Evaluation Form (PPTF) filled out by the Pupil Personnel Team Workers (and assistants) during the school year. Copies of the forms are attached in Appendix B to this report.

III. PROCEDURE

In order to study the interrelationship of the variables contained in these three forms, a sample was obtained for which all three forms were available. The sample was drawn from the elementary schools in this group so that the results would be pertinent to the children and schools in the 1968-69 school year target schools.

The sample was drawn by taking every fifth IDF in these schools, finding the PPTF which corresponded to it, and then running the student identification numbers for this set against the record of SEF's in the data bank. The resulting sample contained 252 names. Of the 75 variables in the matrix, 12 items came from the IDF, 22 from the SEF, and 40 from the PPTF. The 75th item was sex.

IV. FINDINGS

A. Factor Analysis of Data

A table of intercorrelations and a factor analysis were obtained from these 75 variables. Table A-1 in Appendix A of this report describes each of these variables and gives the means, standard deviations, N's, and the source of the data. Table A-2 in Appendix A gives the intercorrelations obtained. The N's in each cell varied from zero (in cells involving variables 1, 4, 5, and 6) to 252 where data were available on all cases. Table A-3 in Appendix A shows the four factors obtained by continuing extraction until the last factor accounted for an increase of less than 5% of the total variance. Varimax rotation was obtained by using the program of The George Washington University Computer Center. These four factors accounted for 28.49% of the total variance.

The factors can be briefly described as:

- Factor I - Home Environment and School Adjustment - PPTF
- Factor II - School Adjustment - SEF
- Factor III - Academic Retardation - IDF
- Factor IV - Behavioral Problems - all instruments

FACTOR I is composed primarily of variables obtained from the Pupil Personnel Team Evaluation Forms, with the highest loadings on the questions concerning personal characteristics (48-53)*, home environment (44-47), and attitude toward school (36). Two items from the IDF had their highest loading on this factor -- absenteeism (7) and evidence of economic need (11). This indicates that those students judged by the principal as having trouble with absenteeism and economic need were also likely to have unfavorable homes and undesirable personal characteristics as evaluated by the Pupil Personnel Teams, BUT NOT AS EVALUATED BY THE CLASSROOM TEACHERS, since teacher evaluations of these same personal characteristics do not appear in this factor.

FACTOR II is composed primarily of variables obtained from the SEF. The highest loading was found on variable 17 (item 5), attitude toward school. Sixteen of the 22 items obtained from this form had their primary loadings on this factor, and these loadings ranged from -.77 to -.42. None of the variables obtained from the PPTF had their highest loadings on this factor. Only one of the items from the IDF was found with the highest loading here - this was variable 5, grade retention, which had a loading of -.29.

* Numbers in parentheses refer to the variables in the correlation matrix and factor analysis (Tables A-1, A-2, and A-3, in Appendix A).

FACTOR III came primarily from the IDF. The highest loading was for the variable obtained from adding up the number of checkmarks on the IDF (12), which had a loading of .68. There were two others which had high loadings - severe reading retardation (3) and severe arithmetic retardation (4). Four other variables from this form had their highest loading on this factor, making a total of six out of twelve from the IDF. Only two items from the SEF had their highest loading on this factor - the Social Adjustment Class variable (34) and alert-dull (30). However, four other variables had relatively high loadings although their highest loadings were found on Factor II.

FACTOR IV came from all three forms and from the variable Sex. The variables having their highest loading on this factor were:

| <u>Source</u> | <u>Variable</u> | <u>Description</u> | <u>Loading*</u> |
|---------------|-----------------|-------------------------------------|-----------------|
| IDF | 10 | Behavioral problems | .5729 |
| | 9 | Evidence of health problems | -.2565 |
| SEF | 26 | Shy - <u>Aggressive</u> | .5896 |
| | 23 | <u>Defiant</u> - Submissive | -.5463 |
| | 29 | Follower - <u>Leader</u> | .4544 |
| | 21 | Below average Health | -.3578 |
| PPTF | 59 | Behavioral (adjustment) problems | .6122 |
| | 38 | Trouble because of fighting (Never) | -.5624 |
| | 40 | Trouble with neighbors (Never) | -.4890 |
| | 50 | Shy - <u>Aggressive</u> | .4426 |
| | 54 | Few contacts with students | .3627 |
| | 39 | Trouble with police (Never) | -.2990 |
| | 75 | Few contacts with parents | .2606 |
| | 55 | Physical (medical) problems | -.2542 |
| Sex | 35 | Being a girl | -.3465 |

*Sign reversed to assist in the explanation.

This factor describes the students who were found by the principal to have more than average behavioral problems, and few health problems. These same students were found by their teachers to be defiant, aggressive, and to exhibit leadership characteristics. The Pupil Personnel Teams found these students to be aggressive, to have behavioral problems, to get into trouble with neighbors and the police, and to get into trouble fighting with their contemporaries. The Teams also had fewer than average contacts with these students and with their parents. They were also found to have fewer than average physical or medical problems.

B. Interrelationships Among Variables

One of the important findings of this analysis is that there was very little correlation between the reasons for classifying these students as "identified" and the evaluations of either the teachers or the Pupil Personnel Teams. Each item on the IDF was selected because it was thought to bear directly on whether or not a student was likely to drop out of school. In the sample studied, the average number of checkmarks on the IDF was 2.5 per child. The two items most frequently checked (See Appendix A, Table A-1) were Poor risk reading readiness and Evidence of economic need. In the following paragraphs, each of the items will be considered in its relationship to the evaluation of the teachers and the Pupil Personnel Teams.

The reasons most often given for classifying a student as "identified" and the ones on which most Title I efforts are centered, are reading and language difficulties. The first three variables on the IDF reflected this concern. There was only one item in the SEF which bore directly on reading - How well does he like to read? (10). Another SEF item which was related was How well does this pupil do his school work? (14). There were three items on the PPTF related to reading and language problems - Slow learning problems (56), Referral to Reading Clinic (63), and Referral to Speech Clinic (64). Table 1 below was extracted from Table A-2 (see Appendix A) for these eight variables, and shows the interrelationship among them.

TABLE 1

Intercorrelations Among Principal, Teacher,
and Pupil Personnel Team Evaluations
Connected with Reading and Language Difficulties

| Variable | Description | Source | Variable | | | | | Number | | |
|----------|---------------------------|--------|----------|-----|-----|-----|-----|--------|-----|-----|
| | | | 1 | 2 | 3 | 14 | 19 | 56 | 63 | 64 |
| 1 | Poor risk rdg. readiness | IDF | | .11 | .26 | .23 | .30 | .27 | .06 | .14 |
| 2 | Speech-language problems | IDF | .11 | | .14 | .08 | .08 | .17 | .14 | .52 |
| 3 | Severe rdg. retardation | IDF | .26 | .14 | | .36 | .29 | .35 | .30 | .19 |
| 14 | School work | SEF | .23 | .08 | .36 | | .75 | .24 | .22 | .10 |
| 19 | Reading | SEF | .30 | .08 | .29 | .75 | | .23 | .18 | .09 |
| 56 | Slow learning problems | PPTF | .27 | .17 | .35 | .24 | .23 | | .22 | .13 |
| 63 | Referral to Rdg. Clinic | PPTF | .06 | .14 | .30 | .22 | .18 | .22 | | .37 |
| 64 | Referral to Speech Clinic | PPTF | .14 | .52 | .19 | .10 | .09 | .13 | .37 | |

The important aspect of this table is that there was little correlation between these variables. It is almost as though these items were independent of each other. Teacher evaluations of School work correlated .75 with her estimate of Reading ability (14 vs 19) but correlated only .29 with the IDF variable of Severe reading retardation (3 vs 19). A correlation of .29 gives a variance of less than 10%, which means that the principal and the teacher agreed in only 10% of the cases as to reading difficulty. As for the PPTF, it showed that Referral to the Reading Clinic correlated .30 with Severe reading difficulty (63 vs 3), and showed a .35 correlation between PPTF Slow learning problems and Severe reading difficulty (3 vs 56). The prediction of Speech and language difficulty by the IDF was better, as it had a correlation of .52 with the PPTF Referral to the Speech Clinic (2 vs 64). It should be noted that being Referred to the Speech Clinic was moderately related to Referral to the Reading Clinic, with an $r = .37$ (63 vs 64).

Being classified by the principal as "identified" because of grade retention (5) appeared, more than anything else, to be related to all the negative characteristics on the classroom teacher evaluation. This is the well-known "halo effect" in reverse. This relationship showed up quite strongly as Factor II. However, there was no such "halo effect" as far as the PPTF was concerned. The most conspicuous contrasts between teacher and PPTF evaluations are seen when the adjective scale (semantic differential) variables from the two forms are compared. These correlations are shown in Table 2 below:

TABLE 2
Correlations Between Corresponding Adjective Scale Items
on the SEF and the PPTF

| Description | SEF | PPTF | N | r |
|-----------------------------|------|------|-----|-----|
| Uncooperative - Cooperative | (24) | (48) | 242 | .13 |
| Friendly - Hostile | (25) | (49) | 247 | .05 |
| Shy - Aggressive | (26) | (50) | 238 | .20 |
| Irresponsible - Responsible | (27) | (51) | 238 | .22 |
| Neat - Unkempt | (28) | (52) | 245 | .19 |
| Alert - Dull | (30) | (53) | 236 | .31 |

The Grade retention (5) variable was derived from the forms obtained from the primary grades, while the Course failure (6) variable was derived from the intermediate grades and above. For this reason it was not



possible to inter-correlate them. It was thought that these two variables would indicate somewhat the same thing, but the factorial structure and correlation matrix show otherwise. Grade retention has a $-.29$ loading on Factor II and a $.22$ loading on Factor III. However, Course failure has its loading only on Factor II.

Another cause of being classified as an "identified" student is Absenteeism (7). The principal must base his evaluation of absenteeism on the previous year's record, since the IDF is filled out at the beginning of the school year. The teacher's report of absenteeism comes at the end of the year, as does the Pupil Personnel Team evaluation. Table 3 below shows the relationship among variables related to absenteeism:

TABLE 3

Correlations Among Variables Related to Absenteeism

| Variable | Description | Source | Variable Number | | | | |
|----------|---------------------------------|--------|-----------------|-----|-----|-----|-----|
| | | | 7 | 31 | 32 | 36 | 57 |
| 7 | Absenteeism | IDF | | .28 | .29 | .27 | .65 |
| 31 | Number of days absent | SEF | .28 | | .79 | .17 | .27 |
| 32 | Number of days absent unexcused | SEF | .29 | .79 | | .24 | .26 |
| 36 | Attitude toward school | PPTF | .27 | .17 | .24 | | .27 |
| 57 | Problems with absenteeism | PPTF | .65 | .27 | .26 | .27 | |

There is a rather high correlation between whether the principal had designated absenteeism as a problem and whether the PPTF found this as a problem ($r = .65$). However, the correlation is rather low with the number of days absent or unexcused. This might be due to the efforts of the Pupil Personnel Teams. This should be investigated further to see whether there is any relationship between days absent and Team attention.

The variable of Two or more school transfers (8) has very low incidence in this sample, as only 1.6% of the sample was checked on this item (see Table A-1 in Appendix A).

There are four items related to health problems and their relationship to dropout. These are shown in Table 4:

TABLE 4

Correlations Among Variables Related to Health Problems

| Variable | Description | Source | Variable Number | | | |
|----------|-----------------------------|--------|-----------------|------|-----|------|
| | | | 9 | 21 | 55 | 71 |
| 9 | Evidence of health problems | IDF | | .12 | .49 | .15 |
| 21 | How is his health | SEF | .12 | | .06 | -.02 |
| 55 | Physical problems | PPTF | .49 | .06 | | .11 |
| 71 | Referred by school nurse | PPTF | .15 | -.02 | .11 | |

It will be seen that there is little relationship between the teacher evaluation of health and that of the principal or the Pupil Personnel Team. About 8% of the students in this sample were thought to have evidence of health problems. From the PPTF about 11.5% have physical problems. However, there is an r of only .49 between these two groups. The most obvious explanation is the Health problems on the IDF is not the same as Physical problems on the PPTF. This probably should be investigated. Another consideration is what happens to those students with Physical problems? The correlation of this variable (55) with Referral to the Speech and Hearing Clinic (64) ($r = .26$) would seem to indicate that these physical problems were related to speech and hearing more than any other referral covered in question 24 of the PPTF.

Behavioral problems (10) is another major item on which designation of students as potential dropouts is based. Almost 25% of our sample fall into this category. The variables that relate to this characteristic form Factor IV. This factor describes the students the teacher has marked as Defiant, Uncooperative, Aggressive, and Leaders. Teachers also marked them as not Getting on well with other children (15). On the PPTF this factor is associated with frequently Getting in trouble because of fighting (38) and in Trouble with police and Trouble with neighbors (39 and 40). The PPTF variable Aggressive (50) also carries a high loading on this factor. These pupils are the ones who require the most Contacts by the Pupil Personnel Teams (54). Behavioral (adjustment) problems (59) is also highly related. When the variables related to behavior are extracted from the correlation matrix, they form the pattern shown in Table 5 (see next page).

TABLE 5

Correlations Among Items Related to Behavioral Problems

| Variable | Description | Source | Variable Number | | | | | | | | | | |
|----------|-----------------------------|--------|-----------------|------|------|------|------|------|------|------|------|------|------|
| | | | 10 | 15 | 23 | 24 | 26 | 29 | 38 | 39 | 40 | 50 | 59 |
| 10 | Behavioral problems | IDF | | .20 | -.22 | -.24 | .25 | .11 | -.29 | -.17 | -.18 | .21 | .56 |
| 15 | Gets along well with others | SEF | .20 | | -.45 | -.47 | .31 | .02 | -.14 | -.08 | -.07 | .03 | .26 |
| 23 | Defiant - Submissive | SEF | -.22 | -.45 | | .68 | -.62 | -.38 | .17 | .07 | .16 | -.17 | -.35 |
| 24 | Uncooperative - Cooperative | SEF | -.24 | -.47 | .68 | | -.46 | -.12 | .21 | .03 | .15 | -.05 | -.34 |
| 26 | Shy - Aggressive | SEF | .25 | .31 | -.62 | -.46 | | .49 | -.13 | -.02 | -.10 | .20 | .27 |
| 29 | Follower - Leader | SEF | .11 | .02 | -.38 | -.12 | .49 | | .00 | -.08 | -.09 | .17 | .07 |
| 38 | Trouble because of fighting | PPTF | -.29 | -.14 | .17 | .21 | -.13 | .00 | | .31 | .44 | -.24 | -.46 |
| 39 | Trouble with police | PPTF | -.17 | -.08 | .07 | .03 | -.02 | -.08 | .31 | | .29 | -.11 | -.11 |
| 40 | Trouble with neighbors | PPTF | -.18 | -.07 | .16 | .15 | -.10 | -.09 | .44 | .29 | | -.19 | -.26 |
| 50 | Shy - Aggressive | PPTF | .21 | .03 | -.17 | -.05 | .20 | .17 | -.24 | -.11 | -.19 | | .19 |
| 59 | Behavioral problems | PPTF | .56 | .26 | -.35 | -.34 | .27 | .07 | -.46 | -.11 | -.26 | .19 | |

The variable that correlates highest with the principal's evaluation of behavioral difficulties is the corresponding evaluation on the PPTF (59) where the $r = .56$. None of the variables from the SEF correlates this highly with either of these two. As the principal's evaluation (the IDF) was done at the first of the year, it is possible that the PPTF shows that the Teams have been effective. If the teacher evaluation made at the end of the year shows a real difference (as compared to the principal's evaluation), then the Teams may have helped to accomplish the improvement.

It is interesting to note that the PPTF variables about Trouble with the police (39) and Trouble with neighbors (40) do not have very high correlations with any other variables in the matrix. This is probably because this sort of activity is difficult to evaluate, and therefore may not be very reliable. In this sample, none of the girls was marked as having trouble "often" with neighbors - all were marked "occasionally" or "never". Of the boys, 30% had trouble "occasionally" and of the girls, 14% had trouble "occasionally."

Evidence of economic need (11) has its highest loading on Factor I and is associated with many variables from the PPTF pertaining to economic deprivation. It is interesting to note that it has its highest correlation with the Neat-unkept (28) evaluation by the teacher ($r = .24$).

It has been found that the PPTF variable Other problems (61) usually means evidence of economic need. It will be seen that this item, like the one from the IDF (11), has very low correlation with any other variable. Nor did it appear as very heavily loaded on any of these four factors. It correlates only .19 with the IDF variable.

There are several pairs of questions that appear on both the SEF and the PPTF. One of them is "How well do you understand him when he speaks?" The correlation is .16, which is low, but positive (18 vs 37). The other question is "How favorable is his attitude toward school?" Again, the correlation of .18 is low but positive (13 vs 36). As with the adjective scale items (Table 2), there is very little agreement between the teachers and the Pupil Personnel Teams regarding understanding speech or evaluating attitude toward school.

Another group of questions concerns home environment and its influence on school work. Teachers were asked "How does his home environment affect his school performance?" (20) The corresponding PPTF items, "Is his home environment conducive to school work?" (47), "How does his home compare with others in the neighborhood?" (44), "Which of the following describes how the inside of his home is kept?" (45), and "Does he have an adequate place to study?" (46), correlate .19, .14, .19, and .29, respectively. Perhaps some other questions about the effects of home environment should be asked of both the teacher and the Pupil Personnel Team.

V. Summary

These findings are based primarily upon a correlation and factor analysis of the data obtained from a random sample of the "Instrument for Identifying Potential School Dropouts" submitted by the principals of Title I elementary schools, and of corresponding evaluations made of the same students by teachers and Pupil Personnel Worker Teams during the school year 1967-68. The sample was taken from data collected in schools that were designated as Title I target schools.

In addition, the principal investigator has been working with these data over a period of three years and assisted in the development of both the Student Evaluation Form (SEF) and the Pupil Personnel Teams Evaluation Form (PPTF).

The findings of this study may be summarized as follows:

1. Principals, teachers, and Pupil Personnel Teams were in agreement as to which students had behavioral problems.

2. Behavioral problems proved to be the variable viewed most uniformly by the principal, teacher, and the Pupil Personnel Teams. While it did not correlate highly with Application to school work or to How well he does his school work, it did correlate fairly well with the three questions about Trouble and with Sex (being a boy).

3. Those students who have behavioral problems do not have health problems, and vice versa.

4. Evidence of health problems as defined by the IDF did not agree with evaluation of health as evaluated by the teachers or Teams. These problems seemed, rather, to be physical impairments of some kind not related to illness, probably connected with speech impediments or other serious physical handicap. Another possible cause of the low correlation here was the fact that the IDF was filled out at the beginning of the school year based on the previous year, while the PPTF was filled out during the year and the SEF was filled out at the end of the school year.

5. Teacher evaluations of undesirable characteristics (except for behavioral problems) did not correlate with those of the Pupil Personnel Teams.

6. Principals and Pupil Personnel Teams related unfavorable homes and undesirable personal characteristics with absenteeism and economic need.

7. Students designated by the principal (at the beginning of the year, based on the previous school year) as having an absenteeism problem were not the same ones that teachers (at the end of the school year) said had a large number of days absent, either excused or unexcused. As this sample includes only identified students, it is possible that the efforts of the Pupil Personnel Teams have reduced the absenteeism of these students. To verify this, however, would require comparison with non-identified students.

8. Excessive school transfers did not seem to be a problem in this sample.

9. Evidence of economic need as specified on the IDF was most clearly associated with those items on the PPTF related to socio-economic status. Teacher evaluations associated this variable only slightly with school performance. The factor analysis showed that this variable was also associated with excessive absenteeism according to the principal's evaluation.

10. The factor analysis showed that the students with the largest number of problems had them primarily with reading, speech, and arithmetic, and with course failure. This is probably because these combinations occurred most frequently in combination. The average student had two and one-half checks, boys having slightly more checks than girls.

VI. Recommendations

The form used for identifying potential dropouts in the District of Columbia Schools was developed to screen the students in target-area schools to find those who, in the opinion of the principal and the teachers, required a concentration of remedial programs. As the first estimate of the needs of students in Title I schools, and as a preliminary method of obtaining the caseload for the Pupil Personnel Teams, this form (and its subsequent revision) has probably served its purpose and should be replaced as a method of determining "potential dropouts."

It is therefore recommended that at the end of each year the Pupil Personnel Teams reevaluate their workload to determine which of the current year's "identified students" should be continued on the caseload into the next year.

The principal should continue to have the responsibility of adding to the list of identified students in his school whenever a situation arises in which need for the attention of the Pupil Personnel Teams or other remedial services or programs is indicated.

At the beginning of each school year, the principal would evaluate the needs of only students new to his school, such as kindergarten or first grade or those who had transferred from some non-Title I school.

It is further recommended that special efforts be made to evaluate the effectiveness of the procedures and special programs by the use of an independent criterion, such as the actual dropout of students. While it is difficult to determine the actual cause for dropout without extensive follow-up outside the school, the relative effectiveness of Title I programs could be checked by comparing the percentage of dropouts who had participated in Title I programs with other dropouts who had not been in Title I programs matched on the basis of teacher evaluations or standardized test scores. This comparison could be made with "identified students" as well.

It is also recommended that for each school the percentage of identified students in that school's total enrollment be determined in advance of each school year by prorating the number of cases needing further attention in the caseload of the Pupil Personnel Teams. This actual number of identified students in each school could vary within 10% of the number actually allowed. However, the reasons should be clearly stated by the principal for adding the student to the list after the new school enrollees have been screened.

A P P E N D I C E S

Appendix A

- Table A-1 **N's, Means, Standard Deviations, and Descriptions of Variables from Identified Student Forms, Student Evaluation Forms, and Pupil Personnel Team Evaluation Forms - 1968**
- Table A-2 **Correlations Among Variables Obtained from Identified Student Forms, Student Evaluation Forms, and Pupil Personnel Team Evaluation Forms - 1968**
- Table A-3 **Factor Loadings for Four Factors Obtained by Varimax Factor Rotation and Corresponding Communalities, for 75 Variables from Identified Student Forms, Student Evaluation Forms, and Pupil Personnel Team Evaluation Forms - 1968**

Appendix B

Instrument for Identifying Potential School Dropouts (Pupils in Primary School - in grades Kindergarten through Grade 3)

Instrument for Identifying Potential School Dropouts (Students in Grades 4 through 11)

Student Evaluation Form

Pupil Personnel Services Team Evaluation Form

TABLE A-1

**N's, Means, Standard Deviations, and Descriptions of Variables
from Identified Student Forms, Student Evaluation Forms, and
Pupil Personnel Team Evaluation Forms - 1968**

| <u>Vari- able No.</u> | <u>N</u> | <u>Mean</u> | <u>S.D.</u> | <u>Variable Description*</u> |
|---|----------|-------------|-------------|---|
| <u>From Identified Student Form:</u> | | | | |
| 1 | 93 | 47.312 | 50.198 | % with "Poor risk" reading readiness |
| 2 | 252 | 13.492 | 34.232 | % with speech-language problems |
| 3 | 252 | 44.444 | 49.789 | % with severe reading retardation |
| 4 | 159 | 45.912 | 49.990 | % with severe arithmetic retardation |
| 5 | 93 | 40.860 | 49.424 | % with grade retention |
| 6 | 159 | 26.415 | 44.227 | % with course failure |
| 7 | 252 | 15.873 | 36.615 | % with excessive absenteeism |
| 8 | 252 | 1.587 | 12.523 | % with two or more transfers |
| 9 | 252 | 7.937 | 27.085 | % with evidence of health problems |
| 10 | 252 | 24.603 | 43.155 | % with evidence of behavior problems |
| 11 | 252 | 47.222 | 50.022 | % with evidence of economic need |
| 12 | 252 | 2.4682 | 1.3954 | Number of checks |
| <u>From Student Evaluation Form (1968):</u> | | | | |
| 13 | 252 | 2.4365 | .5853 | Q.1 - Apply himself to school work |
| 14 | 250 | 2.4720 | .5819 | Q.2 - How well he does school work |
| 15 | 249 | 2.1687 | .4706 | Q.3 - How well he gets along with other children |
| 16 | 251 | 2.3227 | .5616 | Q.4 - Emotional maturity |
| 17 | 252 | 2.2143 | .5590 | Q.5 - Favorable attitude toward school |
| 18 | 251 | 2.2191 | .4938 | Q.6 - How well teacher understands his speech |
| 19 | 252 | 2.4008 | .6328 | Q.7 - How well he reads |
| 20 | 241 | 1.9253 | .7149 | Q.8 - Home environment effect on school performance |
| 21 | 246 | 2.0284 | .3051 | Q.9 - Health |
| 22 | 247 | 2.0405 | .4580 | Q.10 - How well he cooperates with teachers |
| 23 | 246 | 3.1463 | 1.0276 | Q.11 - Defiant-submissive |
| 24 | 244 | 3.3852 | 1.1825 | Q.12 - Uncooperative-cooperative |
| 25 | 249 | 2.3815 | 1.0564 | Q.13 - Friendly-hostile |
| 26 | 242 | 2.8636 | 1.0436 | Q.14 - Shy-aggressive |
| 27 | 245 | 2.9878 | 1.1890 | Q.15 - Irresponsible-responsible |
| 28 | 247 | 2.6599 | 1.2155 | Q.16 - Neat-unkept |
| 29 | 248 | 2.7500 | 1.0770 | Q.17 - Follower-leader |
| 30 | 239 | 3.1632 | 1.0898 | Q.18 - Alert-dull |
| 31 | 231 | 10.7879 | 12.7314 | Q.19 - Days absent, total |
| 32 | 134 | 7.0373 | 13.6681 | Q.20 - Days absent, unexcused |
| 33 | 242 | 3.719 | 18.962 | Q.21 - % in Special Academic class |
| 34 | 232 | 3.879 | 19.352 | Q.22 - % in Social Adjustment class |
| 35 | 252 | 38.492 | 48.754 | Sex (1 = boys; 2 = girls) |

TABLE A-1 (Continued)

| Variable No. | N | Mean | S.D. | Variable Description* |
|--|-----|--------|--------|---|
| <u>From Pupil Personnel Team Evaluation Form (1968):</u> | | | | |
| 36 | 250 | 2.1280 | .5594 | Q.1 - Attitude toward school |
| 37 | 249 | 1.9839 | .5534 | Q.2 - How well does PPW understand his speech |
| 38 | 247 | 2.4494 | .5301 | Q.3 - Trouble fighting |
| 39 | 245 | 2.8816 | .3361 | Q.4 - Trouble with police |
| 40 | 244 | 2.7582 | .4385 | Q.5 - Trouble with neighbors |
| 41 | 246 | 2.7073 | .4735 | Q.6 - Withdrawn |
| 42 | 241 | 2.5809 | .9144 | Q.7 - How many personal books |
| 43 | 236 | 2.3686 | .8275 | Q.8 - How much education desired by parents for him |
| 44 | 247 | 2.0324 | .3592 | Q.10 - How does his home compare with neighborhood |
| 45 | 241 | 2.0332 | .5153 | Q.11 - How is his home inside |
| 46 | 244 | 1.9262 | .5762 | Q.12 - Does student have adequate place to study |
| 47 | 245 | 2.1388 | .5172 | Q.13 - Is home environment conducive to school work |
| 48 | 250 | 3.7680 | 1.0424 | Q.14 - Uncooperative-cooperative |
| 49 | 250 | 2.1240 | .9382 | Q.15 - Friendly-hostile |
| 50 | 248 | 3.1169 | .8335 | Q.16 - Shy-aggressive |
| 51 | 245 | 3.1469 | .9597 | Q.17 - Irresponsible-responsible |
| 52 | 250 | 2.4360 | .9969 | Q.18 - Neat-unkept |
| 53 | 249 | 2.7630 | .9311 | Q.19 - Alert-dull |
| 54 | 234 | 4.0513 | 4.2806 | Q.21 - Number of contacts with student by PPW |
| 55 | 252 | 11.508 | 31.975 | Q.23B - % with physical (medical) problems |
| 56 | 252 | 55.556 | 49.789 | Q.23C - % with slow learning problems |
| 57 | 252 | 17.857 | 38.376 | Q.23D - % with attendance problems |
| 58 | 252 | 8.333 | 27.694 | Q.23E - % with emotional problems |
| 59 | 252 | 28.175 | 45.075 | Q.23F - % with behavioral (adjustment) problems |
| 60 | 252 | 18.254 | 38.706 | Q.23G - % with poor motivation problems |
| 61 | 252 | 27.778 | 44.879 | Q.23H - % with other problems |
| 62 | 252 | 2.381 | 15.276 | Q.24A - % referred to Clinical Teams |
| 63 | 252 | 16.270 | 36.982 | Q.24B - % referred to Reading Clinic |
| 64 | 252 | 6.349 | 24.433 | Q.24C - % referred to Speech and Hearing Clinic |
| 65 | 252 | 18.651 | 39.029 | Q.24D - % referred to Urban Service Corps |
| 66 | 252 | 7.143 | 25.805 | Q.24E - % referred to other sources |
| 67 | 252 | 4.2421 | 2.0688 | Grade level |
| 68 | 243 | 4.527 | 20.832 | Q.20A - % referred by Principal, Asst. Principal |
| 69 | 243 | 10.288 | 30.443 | Q.20B - % referred by Guidance Counselor |
| 70 | 243 | 37.037 | 48.390 | Q.20C - % referred by Teacher |
| 71 | 243 | 2.469 | 15.550 | Q.20D - % referred by School nurse |
| 72 | 243 | 16.049 | 36.782 | Q.20E - % referred by other school source |
| 73 | 243 | .823 | 9.053 | Q.20F - % referred by non-school source |
| 74 | 243 | 28.807 | 45.380 | Q.20G - % of cases assigned |
| 75 | 219 | 1.7352 | 1.7902 | Q.22 - Number of contacts with parents by PPW |

*For exact wording of item, see the form (Appendix B to this report).

TABLE A-2

Correlations Among Variables Obtained from Identified Student Forms,
Student Evaluation Forms, and Pupil Personnel Team Evaluation Forms- 1968*

| Variable | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 | | 109 | 261 | ** | 132 | ** | -032 | -173 | -044 | 229 | -179 | 501 | 213 | 231 | 090 |
| 2 | 109 | | 138 | 212 | 060 | 116 | -108 | 043 | 056 | 071 | 022 | 401 | 142 | 079 | -040 |
| 3 | 261 | 138 | | 567 | 179 | 143 | -083 | -050 | 003 | -010 | -062 | 479 | 289 | 355 | 122 |
| 4 | ** | 212 | 567 | | ** | 192 | -071 | 086 | 077 | 076 | 071 | 647 | 243 | 283 | 130 |
| 5 | 132 | 060 | 179 | ** | | ** | -031 | 096 | 072 | 060 | -125 | 467 | 268 | 255 | 146 |
| 6 | ** | 116 | 143 | 192 | ** | | 146 | -048 | 058 | -068 | 001 | 497 | 150 | 167 | 064 |
| 7 | -032 | -108 | -083 | -071 | -031 | 146 | | 032 | -047 | 004 | -063 | 205 | 066 | 030 | 029 |
| 8 | -173 | 043 | -050 | 086 | 096 | -048 | 032 | | -037 | -072 | 007 | 094 | 068 | 006 | 090 |
| 9 | -044 | 056 | 003 | 077 | 072 | 058 | -047 | -037 | | -134 | 134 | 228 | 032 | 065 | 020 |
| 10 | 229 | 071 | -010 | 076 | 060 | -068 | 004 | -072 | -134 | | -116 | 311 | 062 | 028 | 198 |
| 11 | -179 | 022 | -062 | 071 | -125 | 001 | -063 | 007 | 134 | -116 | | 298 | -081 | -051 | -050 |
| 12 | 501 | 401 | 479 | 647 | 467 | 497 | 205 | 094 | 228 | 311 | 298 | | 300 | 320 | 144 |
| 13 | 213 | 142 | 289 | 243 | 268 | 150 | 066 | 068 | 032 | 062 | -081 | 307 | | 790 | 380 |
| 14 | 231 | 079 | 355 | 283 | 255 | 167 | 030 | 006 | 065 | 028 | -051 | 320 | 790 | | 287 |
| 15 | 090 | -040 | 122 | 130 | 146 | 064 | 029 | 090 | 020 | 198 | -050 | 144 | 380 | 287 | |
| 16 | 111 | 021 | 127 | 150 | 171 | 084 | 002 | -016 | 067 | 165 | -058 | 185 | 497 | 442 | 545 |
| 17 | 157 | -027 | 086 | 108 | 226 | 128 | 164 | 065 | 019 | 045 | -093 | 172 | 614 | 523 | 469 |
| 18 | 304 | 226 | 186 | 198 | 186 | 052 | 116 | 008 | 108 | -007 | 015 | 292 | 469 | 432 | 254 |
| 19 | 295 | 080 | 292 | 247 | 187 | 021 | 103 | 020 | 093 | 017 | -072 | 269 | 623 | 754 | 236 |
| 20 | 137 | 008 | 211 | 222 | 284 | 152 | 191 | 105 | 095 | -008 | 010 | 303 | 483 | 411 | 250 |
| 21 | 128 | 004 | 106 | 126 | -171 | 067 | 069 | -012 | 123 | -084 | 126 | 133 | 114 | 179 | 196 |
| 22 | -015 | -140 | 010 | -132 | 163 | 009 | 107 | -011 | 107 | -009 | 041 | 048 | 315 | 266 | 431 |
| 23 | 132 | 080 | -026 | 032 | -189 | 022 | -040 | -018 | 092 | -220 | 049 | -024 | -192 | -114 | -453 |
| 24 | 046 | -038 | -056 | 022 | -146 | 059 | -054 | -097 | -009 | -239 | 062 | -134 | -336 | -279 | -472 |
| 25 | -106 | -079 | 036 | 066 | 159 | -082 | 122 | 045 | 005 | 130 | -023 | 047 | 223 | 160 | 454 |
| 26 | -218 | 025 | -065 | -136 | 162 | -023 | 068 | 017 | -119 | 250 | -139 | -034 | -006 | -101 | 308 |
| 27 | -210 | -089 | -115 | -077 | -247 | -110 | -144 | -026 | -010 | -139 | 044 | -238 | -503 | -445 | -393 |
| 28 | 003 | 088 | -015 | 089 | -004 | -155 | 132 | 115 | -002 | 003 | 204 | 141 | 230 | 176 | 260 |
| 29 | -229 | -041 | -077 | -082 | 053 | 042 | -061 | ** | -028 | 107 | -034 | -092 | -269 | -288 | 016 |
| 30 | 456 | 141 | 302 | 272 | 277 | 066 | 063 | 010 | 141 | -006 | -048 | 330 | 576 | 610 | 236 |
| 31 | 152 | -066 | 078 | 043 | 236 | 009 | 281 | 013 | 027 | -005 | -035 | 140 | 234 | 237 | 097 |
| 32 | 292 | -065 | -009 | -008 | 118 | 106 | 291 | 063 | -117 | 112 | -086 | 120 | 259 | 210 | 141 |
| 33 | 189 | -014 | 135 | -050 | 095 | -120 | -023 | -026 | 020 | 097 | -010 | 045 | 002 | -009 | -070 |
| 34 | 112 | 049 | 184 | 206 | 132 | 204 | 034 | -027 | 103 | -007 | 033 | 237 | 083 | 072 | 068 |
| 35 | -114 | -050 | -248 | -012 | -104 | 018 | 014 | 030 | 160 | -187 | 003 | -143 | -270 | -266 | -059 |
| 36 | 104 | 076 | -032 | -012 | 252 | 084 | 271 | 085 | 064 | 120 | 029 | 242 | 186 | 193 | 131 |
| 37 | 081 | 202 | 026 | 033 | -079 | -152 | 032 | -054 | 142 | 016 | 071 | 119 | 108 | 149 | 055 |
| 38 | -033 | -032 | -031 | -136 | -081 | -179 | -041 | -109 | 056 | -291 | 020 | -210 | -160 | -196 | -142 |
| 39 | 168 | 032 | -002 | -083 | 040 | 005 | -079 | -147 | 048 | -167 | 061 | -051 | -077 | -066 | -078 |
| 40 | 036 | 020 | -073 | -033 | 005 | -176 | -015 | -150 | 078 | -185 | 062 | -118 | -094 | -124 | -074 |

* See Table 1 for description of variables, and for the N of each variable.

** No data, as variables come from different forms.

Decimals have been omitted.

TABLE A-2 (Continued)

| Variable | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 41 | -169 | -126 | 038 | -061 | -190 | 190 | -108 | 012 | -111 | -043 | -075 | -177 | -142 | -105 | -074 |
| 42 | 120 | 068 | -069 | 073 | 160 | 150 | 152 | 131 | 126 | 002 | 136 | 228 | 149 | 188 | 075 |
| 43 | -102 | -098 | 034 | 020 | -054 | 095 | -088 | -059 | -059 | 033 | -142 | -100 | -099 | -099 | -048 |
| 44 | -050 | -003 | -036 | -097 | -152 | -082 | 054 | -012 | -027 | -026 | 095 | -047 | 164 | 102 | 111 |
| 45 | 113 | 048 | -059 | -020 | 019 | 027 | 169 | -008 | 039 | -056 | 182 | 106 | 116 | 072 | 010 |
| 46 | 119 | 092 | 045 | 122 | 069 | 008 | 095 | -040 | 038 | -025 | 235 | 177 | 229 | 165 | 138 |
| 47 | 044 | 006 | -054 | 074 | 132 | 045 | 099 | -035 | 035 | 028 | 188 | 127 | 189 | 160 | 085 |
| 48 | -146 | -041 | 027 | -061 | -116 | -154 | -158 | 028 | 006 | -160 | 024 | -205 | -156 | -168 | -093 |
| 49 | 392 | 026 | 046 | 036 | -037 | 085 | 049 | -017 | -054 | 104 | -022 | 162 | 128 | 114 | 061 |
| 50 | -158 | 076 | 120 | -063 | -005 | -037 | -154 | -056 | -132 | 206 | -133 | -056 | 003 | 023 | 026 |
| 51 | -199 | -060 | -000 | -052 | -019 | -037 | -066 | -017 | 022 | -106 | -066 | -166 | -176 | -137 | -091 |
| 52 | 294 | 037 | 033 | 142 | 096 | 064 | 111 | 072 | 041 | 079 | 169 | 272 | 168 | 126 | 019 |
| 53 | 301 | 059 | 138 | 147 | 088 | 104 | 086 | 033 | 057 | 012 | 128 | 298 | 248 | 271 | 150 |
| 54 | 035 | 001 | 103 | -022 | 029 | -071 | -032 | -032 | 025 | 161 | -061 | 048 | 041 | 055 | 176 |
| 55 | -006 | 258 | -022 | 026 | -008 | 116 | 014 | -046 | 492 | -090 | 132 | 191 | 092 | 071 | 003 |
| 56 | 274 | 166 | 350 | 323 | 157 | 035 | -049 | -078 | 115 | -045 | -018 | 255 | 190 | 241 | 064 |
| 57 | -002 | -124 | -083 | -062 | 003 | 023 | 648 | 107 | -022 | 070 | -068 | 141 | 060 | 058 | 058 |
| 58 | 021 | 049 | 019 | 102 | 006 | 100 | 026 | -038 | 124 | 094 | -084 | 115 | 070 | 052 | 090 |
| 59 | -067 | -041 | -010 | 012 | 060 | -013 | 042 | -009 | -086 | 564 | 026 | 188 | 106 | 084 | 255 |
| 60 | 203 | 114 | 094 | 073 | 017 | -087 | 104 | -060 | 089 | 040 | 088 | 166 | 104 | 103 | -039 |
| 61 | -052 | -012 | -056 | 105 | -050 | -035 | -027 | 134 | 047 | -046 | 194 | 065 | -024 | 007 | 042 |
| 62 | 118 | 014 | 122 | 122 | 147 | 060 | 075 | -020 | 050 | 213 | 009 | 209 | 062 | 098 | 111 |
| 63 | 056 | 141 | 298 | 197 | -071 | 070 | -015 | 030 | -050 | -002 | 078 | 192 | 204 | 217 | 094 |
| 64 | 138 | 516 | 193 | 266 | 012 | 038 | -024 | 097 | -076 | 040 | 047 | 298 | 112 | 097 | -024 |
| 65 | -040 | -100 | -080 | -077 | 137 | -034 | 015 | 102 | -028 | 034 | 037 | 015 | -079 | -013 | -032 |
| 66 | 088 | 026 | -124 | -039 | -147 | -007 | -078 | -035 | 033 | -051 | 139 | -049 | -049 | -013 | 065 |
| 67 | -101 | -153 | 266 | -081 | 058 | -180 | 012 | -122 | -162 | -107 | -192 | -182 | -009 | -001 | -079 |
| 68 | 002 | -086 | -115 | -074 | -073 | 080 | 067 | -028 | -063 | -037 | -006 | -090 | -060 | -112 | 003 |
| 69 | -030 | 024 | -030 | -107 | 237 | -088 | 073 | 063 | 002 | -105 | 034 | -001 | -042 | -022 | 024 |
| 70 | 101 | -055 | 051 | -042 | 094 | 235 | 106 | -032 | -033 | 079 | 030 | 173 | 105 | 090 | -007 |
| 71 | -150 | -063 | -036 | 097 | 180 | -006 | -070 | -021 | 151 | -093 | 010 | -017 | -073 | -086 | -060 |
| 72 | -076 | -042 | -075 | 113 | -273 | -102 | -161 | 032 | -044 | 027 | 061 | -128 | -113 | -090 | 004 |
| 73 | -105 | 097 | 010 | -074 | 126 | -049 | -040 | -012 | 143 | -053 | 097 | 034 | 011 | 004 | -132 |
| 74 | 064 | 119 | 089 | 040 | -098 | -135 | -031 | -011 | 018 | 024 | -124 | -039 | 059 | 073 | 034 |
| 75 | 008 | 024 | 091 | 117 | 015 | -060 | -026 | 020 | 056 | 099 | -009 | 078 | 125 | 150 | 183 |

TABLE A-2 (Continued)

| Variable | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 | 111 | 157 | 304 | 295 | 137 | 128 | -015 | 132 | 046 | -106 | -218 | -210 | 003 | -229 | 456 |
| 2 | 021 | -027 | 226 | 080 | 008 | 004 | -140 | 080 | -038 | -079 | 025 | -089 | 038 | -041 | 141 |
| 3 | 127 | 086 | 186 | 292 | 211 | 106 | 010 | -026 | -056 | 036 | -065 | -115 | -015 | -077 | 302 |
| 4 | 150 | 108 | 198 | 247 | 222 | 126 | -132 | 032 | 022 | 066 | -136 | -077 | 089 | -082 | 272 |
| 5 | 171 | 226 | 186 | 187 | 284 | -171 | 163 | -189 | -146 | 159 | 162 | -247 | -004 | 055 | 277 |
| 6 | 084 | 128 | 052 | 021 | 152 | 067 | 009 | 022 | 059 | -082 | -023 | -110 | -155 | 042 | 066 |
| 7 | 002 | 164 | 116 | 103 | 191 | 069 | 107 | -040 | -054 | 122 | 068 | -144 | 132 | -061 | 063 |
| 8 | -016 | 065 | 008 | 020 | 105 | -012 | -011 | -018 | -097 | 045 | 017 | -026 | 115 | ** | 010 |
| 9 | 067 | 019 | 108 | 093 | 095 | 123 | 107 | 092 | -009 | 005 | -119 | -010 | -002 | -028 | 141 |
| 10 | 165 | 045 | -007 | 017 | -008 | -084 | -009 | -220 | -239 | 130 | 250 | -139 | 003 | 107 | -006 |
| 11 | -058 | -093 | 015 | -072 | 010 | 126 | 041 | 049 | 062 | -023 | -139 | 044 | 204 | -034 | -048 |
| 12 | 185 | 172 | 292 | 269 | 303 | 133 | 048 | -024 | -134 | 047 | -034 | -238 | 141 | -092 | 330 |
| 13 | 497 | 614 | 469 | 623 | 483 | 114 | 315 | -192 | -336 | 223 | -006 | -503 | 230 | -269 | 576 |
| 14 | 442 | 523 | 432 | 754 | 411 | 179 | 266 | -114 | -279 | 160 | -101 | -445 | 176 | -288 | 610 |
| 15 | 545 | 469 | 254 | 236 | 250 | 196 | 431 | -453 | -472 | 454 | 308 | -393 | 260 | 016 | 236 |
| 16 | | 471 | 326 | 346 | 323 | 113 | 451 | -244 | -398 | 379 | 149 | -483 | 179 | -147 | 380 |
| 17 | 471 | | 412 | 511 | 423 | 206 | 512 | -324 | -413 | 364 | 097 | -571 | 291 | -088 | 390 |
| 18 | 326 | 412 | | 446 | 364 | 315 | 161 | 017 | -193 | 121 | -139 | -355 | 270 | -305 | 524 |
| 19 | 346 | 511 | 446 | | 376 | 216 | 239 | -050 | -234 | 148 | -152 | -416 | 160 | -321 | 600 |
| 20 | 323 | 423 | 364 | 376 | | 145 | 331 | -116 | -270 | 294 | -002 | -453 | 330 | -084 | 419 |
| 21 | 113 | 206 | 315 | 216 | 145 | | 167 | 093 | -003 | 003 | -212 | -116 | 083 | -193 | 188 |
| 22 | 451 | 512 | 161 | 239 | 331 | 167 | | -284 | -531 | 424 | 223 | -426 | 258 | 019 | 130 |
| 23 | -244 | -324 | 017 | -050 | -116 | 093 | -284 | | 676 | -520 | -517 | 443 | -239 | -383 | 095 |
| 24 | -398 | -413 | -193 | -234 | -270 | -003 | -531 | 676 | | -642 | -458 | 668 | -387 | -124 | -136 |
| 25 | 379 | 364 | 121 | 148 | 294 | 003 | 424 | -520 | -642 | | 359 | -494 | 297 | 156 | 056 |
| 26 | 149 | 097 | -139 | -152 | -002 | -212 | 223 | -617 | -458 | 359 | | -228 | 108 | 485 | -248 |
| 27 | -483 | -571 | -355 | -416 | -453 | -116 | -426 | 443 | 668 | -494 | -228 | | -545 | 059 | -419 |
| 28 | 179 | 291 | 270 | 160 | 330 | 083 | 258 | -239 | -387 | 297 | 108 | -545 | | -029 | 233 |
| 29 | -147 | -088 | -305 | -321 | -084 | -193 | 019 | -383 | -124 | 156 | 485 | 059 | -029 | | -493 |
| 30 | 380 | 390 | 524 | 600 | 419 | 188 | 130 | 095 | -136 | 056 | -248 | -419 | 233 | -493 | |
| 31 | 147 | 288 | 146 | 170 | 391 | 241 | 182 | -042 | -079 | 092 | -033 | -240 | 213 | -048 | 150 |
| 32 | 198 | 387 | 025 | 089 | 376 | 045 | 279 | -229 | -198 | 266 | 117 | -319 | 245 | 052 | 043 |
| 33 | -035 | -074 | 045 | -022 | -011 | -090 | -065 | 057 | 116 | -070 | 045 | 113 | -089 | 047 | -031 |
| 34 | 084 | -031 | -040 | 053 | 122 | -024 | 031 | 036 | 078 | -070 | -013 | 132 | -108 | -094 | 136 |
| 35 | -121 | -172 | -100 | -231 | -082 | 008 | -052 | 180 | 148 | -154 | -106 | 150 | 073 | 031 | -142 |
| 36 | 188 | 183 | 159 | 287 | 180 | 075 | 154 | -096 | -163 | 138 | 071 | -287 | 150 | -099 | 258 |
| 37 | 095 | -002 | 161 | 191 | 062 | 123 | 003 | 057 | -092 | 087 | -048 | -108 | 127 | -122 | 268 |
| 38 | -179 | -121 | -086 | -147 | -134 | 111 | 027 | 166 | 206 | -134 | -128 | 153 | -053 | 002 | -064 |
| 39 | -035 | -021 | 076 | -168 | -129 | 025 | 056 | 065 | 027 | -006 | -022 | -024 | 031 | -078 | -021 |
| 40 | 036 | -070 | -016 | -167 | -087 | 109 | 076 | 158 | 152 | -085 | -102 | 133 | 008 | -091 | 040 |

TABLE A-2 (Continued)

| Variable | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 41 | -074 | -161 | -159 | -140 | -100 | -054 | -120 | 090 | 134 | -151 | 066 | 146 | -157 | 140 | -206 |
| 42 | 087 | 145 | 180 | 225 | 207 | 114 | 041 | 066 | -023 | -042 | -060 | -206 | 100 | -189 | 278 |
| 43 | -074 | -057 | -037 | -121 | -164 | -045 | -002 | -079 | 002 | 002 | 058 | 087 | -184 | 084 | -164 |
| 44 | 088 | 149 | 121 | 140 | 141 | 148 | 070 | -124 | -191 | 068 | -038 | -175 | 194 | -012 | 156 |
| 45 | 033 | 092 | 136 | 164 | 187 | 159 | 067 | 009 | -034 | 033 | -059 | -158 | 224 | -050 | 207 |
| 46 | 164 | 175 | 186 | 226 | 291 | 156 | 076 | -074 | -028 | 048 | -072 | -198 | 228 | -089 | 284 |
| 47 | 122 | 155 | 235 | 255 | 198 | 036 | -007 | -053 | -040 | 063 | -051 | -173 | 222 | -099 | 213 |
| 48 | -161 | -217 | -164 | -218 | -140 | -081 | -141 | 069 | 132 | -158 | -048 | 256 | -127 | 061 | -154 |
| 49 | 047 | 071 | 065 | 139 | 056 | 118 | 044 | -026 | -106 | 052 | -028 | -139 | 057 | -149 | 203 |
| 50 | 056 | 031 | -003 | -027 | -091 | -206 | -057 | -169 | -049 | 067 | 200 | -002 | -102 | 170 | -123 |
| 51 | -186 | -093 | -133 | -142 | -170 | 030 | -055 | 118 | 154 | -167 | -022 | 217 | -183 | 076 | -159 |
| 52 | 054 | 051 | 152 | 142 | 188 | 133 | 012 | 034 | -002 | 003 | -099 | -118 | 188 | -062 | 235 |
| 53 | 198 | 179 | 221 | 270 | 193 | 143 | 142 | -005 | -096 | 044 | -049 | -225 | 142 | -178 | 312 |
| 54 | 142 | 094 | -056 | 036 | 031 | -040 | 119 | -238 | -169 | 187 | 205 | -092 | 009 | 224 | 022 |
| 55 | -008 | -005 | 118 | 086 | 002 | 057 | 058 | 077 | -034 | -016 | -105 | -018 | 133 | 036 | 056 |
| 56 | 088 | -086 | 103 | 226 | 210 | 056 | -028 | -023 | -073 | 015 | -012 | -148 | 040 | -123 | 295 |
| 57 | 064 | 174 | 003 | 065 | 172 | 025 | 096 | -098 | -105 | 152 | 123 | -130 | 113 | 039 | 030 |
| 58 | 185 | 167 | 128 | 104 | 138 | 019 | 132 | -072 | -137 | 206 | 082 | -132 | 014 | 055 | 084 |
| 59 | 206 | 155 | -060 | 105 | 066 | -058 | 182 | -354 | -341 | 197 | 267 | -210 | 106 | 069 | -015 |
| 60 | 058 | 076 | 166 | 074 | 170 | 026 | -041 | -056 | -021 | -022 | 030 | -085 | 200 | 030 | 098 |
| 61 | -025 | -127 | 012 | -043 | -062 | 002 | -035 | 167 | 146 | -088 | -123 | 068 | -049 | -021 | 050 |
| 62 | 096 | 127 | 036 | 107 | 091 | 072 | 101 | -077 | -072 | 057 | 047 | -072 | -102 | 007 | 086 |
| 63 | 072 | 062 | 197 | 180 | 171 | 069 | -014 | -041 | -086 | 024 | -050 | -124 | 062 | -020 | 149 |
| 64 | -005 | -042 | 182 | 092 | 028 | -023 | -175 | -003 | -058 | -124 | -002 | -069 | 101 | -061 | 136 |
| 65 | -016 | 054 | 082 | 067 | 033 | 022 | -020 | -048 | -015 | 030 | ** | -058 | 054 | 007 | 010 |
| 66 | 060 | -106 | 033 | 044 | -081 | 080 | -059 | 082 | 067 | 023 | -054 | 016 | -011 | -007 | -027 |
| 67 | -134 | -117 | -132 | -099 | 009 | -095 | -105 | -139 | -000 | -009 | 161 | 104 | -074 | 142 | -112 |
| 68 | -021 | -011 | -018 | -046 | 081 | 042 | 023 | -109 | -071 | 128 | 062 | -080 | 116 | 050 | 027 |
| 69 | 029 | 043 | -072 | -047 | 014 | -038 | 058 | -114 | -109 | 089 | 036 | -112 | 076 | 103 | -012 |
| 70 | 040 | 156 | 143 | 140 | 080 | 088 | 042 | 051 | 042 | -125 | -099 | -081 | 005 | -153 | 120 |
| 71 | -141 | -060 | -127 | -103 | 014 | -018 | -014 | 031 | 003 | -008 | 017 | 072 | 003 | 188 | -100 |
| 72 | 005 | -166 | -085 | -140 | -201 | 064 | -088 | 051 | 094 | 010 | 004 | 146 | -044 | -016 | -100 |
| 73 | -054 | -035 | 052 | 013 | -056 | -010 | -008 | 123 | 049 | -034 | -079 | 041 | 027 | -066 | 072 |
| 74 | 002 | -028 | 007 | 050 | 040 | -132 | -016 | -005 | -027 | 017 | 059 | 045 | -080 | 033 | -028 |
| 75 | 206 | 106 | 059 | 082 | 104 | -037 | 138 | -132 | -130 | 165 | 092 | -124 | 108 | 026 | 110 |

TABLE A-2 (Continued)

| Variable | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 | 152 | 292 | 189 | 112 | -114 | 104 | 081 | -033 | 168 | 036 | -169 | 120 | -102 | -050 | 113 |
| 2 | -066 | -065 | -014 | 049 | -050 | 076 | 202 | -032 | 032 | 020 | -126 | 068 | -098 | -003 | 048 |
| 3 | 078 | -009 | 135 | 184 | -248 | -032 | 026 | -031 | -002 | -073 | 038 | -069 | 034 | -036 | -059 |
| 4 | 043 | -008 | -050 | 206 | -012 | -012 | 033 | -136 | -083 | -033 | -061 | 073 | 020 | -097 | -020 |
| 5 | 236 | 118 | 095 | 132 | -104 | 252 | -079 | -081 | 040 | 005 | -190 | 160 | -054 | -152 | 019 |
| 6 | 009 | 106 | -120 | 204 | 018 | 084 | -152 | -179 | 005 | -176 | 190 | 150 | 095 | -082 | 027 |
| 7 | 281 | 291 | -023 | 034 | 014 | 271 | 032 | -041 | -079 | -015 | -108 | 152 | -088 | 054 | 169 |
| 8 | 013 | 063 | -026 | -027 | 030 | 085 | -054 | -109 | -147 | -150 | 012 | 131 | -059 | -012 | -008 |
| 9 | 027 | -117 | 020 | 103 | 160 | 064 | 142 | 056 | 048 | 078 | -111 | 126 | -059 | -027 | 039 |
| 10 | -005 | 112 | 097 | -007 | -187 | 120 | 016 | -291 | -167 | -185 | -043 | 002 | 033 | -026 | -056 |
| 11 | -035 | -086 | -010 | 033 | 003 | 029 | 071 | 020 | 061 | 062 | -075 | 136 | -142 | 095 | 182 |
| 12 | 140 | 120 | 045 | 237 | -143 | 242 | 119 | -210 | -051 | -118 | -177 | 228 | -100 | -047 | 106 |
| 13 | 234 | 259 | 002 | 083 | -270 | 186 | 108 | -160 | -077 | -094 | -142 | 149 | -099 | 164 | 116 |
| 14 | 237 | 210 | -009 | 072 | -266 | 193 | 149 | -196 | -066 | -124 | -105 | 188 | -099 | 102 | 072 |
| 15 | 097 | 141 | -070 | 068 | -059 | 131 | 055 | -142 | -078 | -074 | -074 | 075 | -048 | 111 | 010 |
| 16 | 147 | 198 | -035 | 084 | -121 | 188 | 095 | -179 | -035 | 036 | -074 | 087 | -074 | 088 | 033 |
| 17 | 288 | 387 | -074 | -031 | -172 | 183 | -002 | -121 | -021 | -070 | -161 | 145 | -057 | 149 | 092 |
| 18 | 146 | 025 | 045 | -040 | -100 | 159 | 161 | -086 | 076 | -016 | -159 | 180 | -037 | 121 | 136 |
| 19 | 170 | 089 | -022 | 053 | -231 | 287 | 191 | -147 | -168 | -167 | -140 | 225 | -121 | 140 | 164 |
| 20 | 391 | 376 | -011 | 122 | -082 | 180 | 062 | -134 | -129 | -087 | -100 | 207 | -164 | 141 | 187 |
| 21 | 241 | 045 | -090 | -024 | 008 | 075 | 123 | 111 | 025 | 109 | -054 | 114 | -045 | 148 | 159 |
| 22 | 182 | 279 | -065 | 031 | -052 | 154 | 003 | 027 | 056 | 076 | -120 | 041 | -002 | 070 | 067 |
| 23 | -042 | -229 | 057 | 036 | 180 | -096 | 057 | 166 | 065 | 158 | 090 | 066 | -079 | -124 | 009 |
| 24 | -079 | -198 | 116 | 078 | 148 | -168 | -092 | 206 | 027 | 152 | 134 | -023 | 002 | -191 | -034 |
| 25 | 092 | 266 | -070 | -070 | -154 | 138 | 087 | -134 | -006 | -085 | -151 | -042 | 002 | 068 | 033 |
| 26 | -033 | 117 | 045 | -013 | -106 | 071 | -048 | -128 | -022 | -102 | 066 | -060 | 058 | -038 | -059 |
| 27 | -240 | -319 | 113 | 132 | 150 | -287 | -108 | 153 | -024 | 133 | 146 | -206 | 087 | -175 | -158 |
| 28 | 213 | 245 | -089 | -108 | 073 | 150 | 127 | -053 | 031 | 008 | -157 | 100 | -184 | 194 | 224 |
| 29 | -048 | 052 | 047 | -094 | 031 | -099 | -122 | 002 | -078 | -091 | 140 | -189 | 084 | -012 | -050 |
| 30 | 150 | 043 | -031 | 136 | -142 | 258 | 268 | -064 | -021 | 040 | -206 | 278 | -164 | 156 | 207 |
| 31 | | 794 | -010 | 044 | 018 | 172 | 117 | 034 | -019 | 061 | -168 | 056 | -138 | 168 | 172 |
| 32 | | 794 | -070 | -028 | -088 | 238 | 012 | 012 | -014 | 016 | -216 | 055 | -113 | 072 | 069 |
| 33 | -010 | -070 | | 306 | -110 | 031 | 082 | -027 | 007 | -054 | 030 | -061 | -047 | -082 | -103 |
| 34 | 044 | -028 | 306 | | -021 | 112 | 084 | -132 | -062 | -044 | 031 | 059 | -117 | -012 | -098 |
| 35 | 018 | -088 | -110 | -021 | | -065 | -007 | 217 | 131 | 192 | -034 | -070 | -016 | -072 | -018 |
| 36 | 172 | 238 | 031 | 112 | -065 | | 371 | -168 | -147 | -161 | -263 | 377 | -266 | 160 | 332 |
| 37 | 117 | 012 | 082 | 084 | -007 | 371 | | 002 | -036 | -029 | -388 | 222 | -182 | 105 | 060 |
| 38 | 034 | 012 | -027 | -132 | 217 | -168 | 002 | | 306 | 438 | -037 | -100 | -026 | 019 | 005 |
| 39 | -019 | -014 | 007 | -062 | 131 | -147 | -036 | 306 | | 287 | 048 | -109 | 041 | -120 | -111 |
| 40 | 061 | 016 | -054 | -044 | 192 | -161 | -029 | 438 | 287 | | -028 | -120 | -046 | -069 | -135 |

TABLE A-2 (Continued)

| Variable | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 41 | -168 | -216 | 030 | 031 | -034 | -263 | -388 | -037 | 048 | -028 | | -146 | 072 | -091 | -058 |
| 42 | 056 | 055 | -061 | 059 | -070 | 377 | 222 | -100 | -109 | -120 | -146 | | -326 | 115 | 214 |
| 43 | -138 | -113 | -047 | -117 | -016 | -266 | -182 | -026 | 041 | -046 | 072 | -326 | | -178 | -328 |
| 44 | 168 | 072 | -082 | -012 | -072 | 160 | 105 | 019 | -120 | -069 | -091 | 115 | -178 | | 596 |
| 45 | 172 | 069 | -103 | -098 | -018 | 332 | 060 | 005 | -111 | -135 | -058 | 214 | -328 | 596 | |
| 46 | 197 | 142 | 022 | 066 | -147 | 346 | 205 | -090 | -141 | -074 | -133 | 307 | -251 | 568 | 686 |
| 47 | 175 | 116 | -101 | -003 | -084 | 306 | 163 | -137 | -113 | -158 | -114 | 248 | -284 | 580 | 638 |
| 48 | -069 | -060 | -018 | -115 | 137 | -339 | -156 | 216 | -065 | 164 | 098 | -317 | 160 | -120 | -116 |
| 49 | 097 | 074 | 018 | 148 | -087 | 287 | 249 | -087 | 058 | -109 | -178 | 264 | -246 | 132 | 146 |
| 50 | -109 | -103 | 079 | -153 | -251 | -109 | -201 | -240 | -114 | -190 | 239 | -140 | 180 | -096 | -136 |
| 51 | -096 | -117 | -097 | -180 | 111 | -457 | -211 | 163 | 053 | 208 | 182 | -289 | 194 | -210 | -283 |
| 52 | 162 | 162 | 065 | 087 | 018 | 325 | 169 | -073 | -120 | -085 | -120 | 283 | -305 | 190 | 461 |
| 53 | 140 | 070 | 070 | 225 | -002 | 462 | 366 | 002 | -014 | -024 | -239 | 330 | -367 | 084 | 201 |
| 54 | 046 | 005 | 053 | 068 | -147 | 054 | 071 | -126 | -153 | -006 | -110 | -074 | 071 | 115 | 008 |
| 55 | -077 | -075 | -070 | 063 | 072 | 051 | 079 | 131 | 046 | 105 | -022 | 010 | -075 | -032 | 050 |
| 56 | 039 | -041 | 038 | 178 | -146 | 176 | 266 | -110 | -098 | -110 | -038 | 176 | -210 | 104 | 138 |
| 57 | 274 | 258 | 021 | -036 | -071 | 270 | 052 | -104 | -215 | -058 | -115 | 182 | -144 | 074 | 155 |
| 58 | 089 | -016 | 100 | 109 | -062 | 086 | -017 | -084 | 061 | 063 | 035 | 067 | 019 | 053 | 094 |
| 59 | 054 | 244 | 025 | 126 | -187 | 144 | -014 | -455 | -107 | -256 | 009 | -041 | 046 | 119 | 050 |
| 60 | 163 | 151 | 021 | 080 | -057 | 242 | 051 | -006 | -075 | 017 | -130 | 086 | -056 | 133 | 204 |
| 61 | 025 | -115 | 027 | 074 | -017 | -013 | 083 | -017 | -189 | 051 | -098 | 091 | -095 | 043 | 012 |
| 62 | 295 | 237 | -028 | -030 | -070 | 151 | 052 | -068 | -035 | -052 | -181 | 067 | -101 | 059 | 042 |
| 63 | 086 | 027 | -027 | 165 | -150 | -005 | 072 | -124 | -146 | -160 | -007 | 022 | -120 | 116 | 081 |
| 64 | -001 | -087 | -050 | 122 | -072 | -001 | 067 | -099 | -005 | -005 | -081 | -078 | -202 | -024 | -017 |
| 65 | -010 | -026 | 018 | -092 | -044 | 055 | -005 | -061 | -053 | -093 | -071 | 169 | -077 | 129 | 133 |
| 66 | -101 | -127 | 031 | -058 | 066 | -008 | 036 | -091 | -040 | -023 | 042 | 079 | -128 | -069 | -018 |
| 67 | 107 | 074 | -003 | 067 | -022 | -146 | -176 | 080 | -006 | 037 | 228 | -337 | 065 | 060 | -053 |
| 68 | 085 | 170 | -045 | 075 | -008 | 056 | 041 | -032 | 012 | 035 | -034 | 013 | -003 | 199 | 066 |
| 69 | 022 | 013 | -066 | 020 | 012 | 044 | 057 | 077 | 040 | 040 | -108 | 022 | -141 | -032 | 001 |
| 70 | -042 | -030 | 078 | -097 | -078 | 088 | -030 | -089 | -018 | -198 | 067 | 072 | 178 | 003 | 168 |
| 71 | -028 | -051 | -033 | -032 | -071 | -132 | -093 | 018 | -036 | 084 | 090 | 045 | 005 | -015 | -012 |
| 72 | -091 | -143 | -028 | -085 | 163 | -122 | 010 | 114 | -013 | 124 | 050 | -072 | -075 | -072 | -100 |
| 73 | -024 | -046 | -019 | -013 | 116 | 061 | 085 | -054 | 023 | 037 | -041 | -115 | 130 | -008 | -005 |
| 74 | 079 | 077 | 020 | 137 | -052 | -016 | -019 | -033 | 005 | 033 | -044 | -039 | -048 | -009 | -121 |
| 75 | 139 | 096 | 174 | 160 | -130 | 062 | 054 | -212 | -036 | -015 | -093 | 008 | -031 | -006 | -052 |

TABLE A-2 (Continued)

| Variable | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 | 119 | 044 | -146 | 392 | -158 | -199 | 294 | 301 | 035 | -006 | 274 | -002 | 021 | -067 | 203 |
| 2 | 092 | 006 | -041 | 026 | 076 | -060 | 037 | 059 | 001 | 258 | 166 | -124 | 049 | -041 | 114 |
| 3 | 045 | -054 | 027 | 046 | 120 | -000 | 033 | 138 | 103 | -022 | 350 | -083 | 019 | -010 | 094 |
| 4 | 122 | 074 | -061 | 036 | -063 | -052 | 142 | 147 | -022 | 026 | 323 | -062 | 102 | 012 | 073 |
| 5 | 069 | 132 | -116 | -037 | -005 | -019 | 096 | 088 | 029 | -008 | 157 | 003 | 006 | 060 | 017 |
| 6 | 008 | 045 | -154 | 085 | -037 | -037 | 064 | 104 | -071 | 116 | 035 | 023 | 100 | -013 | -087 |
| 7 | 095 | 099 | -158 | 049 | -154 | -066 | 111 | 086 | -032 | 014 | -049 | 648 | 026 | 042 | 104 |
| 8 | -040 | -035 | 028 | -017 | -056 | -017 | 072 | 033 | -032 | -046 | -078 | 107 | -038 | -009 | -060 |
| 9 | 038 | 035 | 006 | -054 | -132 | 022 | 041 | 057 | 025 | 492 | 115 | -022 | 124 | -086 | 089 |
| 10 | -025 | 028 | -160 | 104 | 206 | -106 | 079 | 012 | 161 | -090 | -045 | 070 | 094 | 564 | 040 |
| 11 | 235 | 188 | 024 | 022 | -133 | -066 | 169 | 128 | -061 | 132 | -018 | -068 | -084 | 026 | 088 |
| 12 | 177 | 127 | -205 | 162 | -056 | -166 | 272 | 298 | 048 | 191 | 255 | 141 | 115 | 188 | 166 |
| 13 | 229 | 189 | -156 | 128 | 003 | -176 | 168 | 248 | 041 | 092 | 190 | 060 | 070 | 106 | 104 |
| 14 | 165 | 160 | -168 | 114 | 023 | -137 | 126 | 271 | 055 | 071 | 241 | 058 | 052 | 084 | 103 |
| 15 | 138 | 085 | -093 | 061 | 026 | -091 | 019 | 150 | 176 | 003 | 064 | 058 | 090 | 255 | -039 |
| 16 | 164 | 122 | -161 | 047 | 056 | -186 | 054 | 198 | 142 | -008 | 088 | 064 | 185 | 206 | 058 |
| 17 | 175 | 155 | -217 | 071 | 031 | -093 | 051 | 179 | 094 | -005 | -086 | 174 | 167 | 155 | 076 |
| 18 | 186 | 235 | -164 | 065 | -003 | -133 | 152 | 221 | -056 | 118 | 103 | 003 | 128 | -060 | 166 |
| 19 | 226 | 255 | -218 | 139 | -027 | -142 | 142 | 270 | 036 | 086 | 226 | 065 | 104 | 105 | 074 |
| 20 | 291 | 188 | -140 | 056 | -091 | -170 | 188 | 193 | 031 | 002 | 210 | 172 | 138 | 066 | 170 |
| 21 | 156 | 086 | -081 | 118 | -206 | 030 | 133 | 143 | -040 | 057 | 056 | 025 | 019 | -058 | 026 |
| 22 | 076 | -007 | -141 | 044 | -057 | -055 | 012 | 142 | 119 | 058 | -028 | 096 | 132 | 182 | -041 |
| 23 | -074 | -053 | 069 | -026 | -169 | 113 | 034 | -005 | -238 | 077 | -023 | -098 | -072 | -354 | -056 |
| 24 | -028 | -040 | 132 | -106 | -049 | 154 | -002 | -096 | -169 | -034 | -073 | -105 | -137 | -341 | -021 |
| 25 | 048 | 063 | -158 | 052 | 067 | -167 | 003 | 044 | 187 | -016 | 015 | 152 | 206 | 197 | -022 |
| 26 | -072 | -051 | -048 | -028 | 200 | -022 | -099 | -049 | 205 | -105 | -012 | 123 | 082 | 267 | 030 |
| 27 | -198 | -173 | 256 | -139 | -002 | 217 | -118 | -225 | -092 | -018 | -148 | -130 | -132 | -210 | -085 |
| 28 | 228 | 222 | -127 | 057 | -102 | -183 | 188 | 142 | 009 | 133 | 040 | 113 | 014 | 106 | 200 |
| 29 | -089 | -099 | 061 | -149 | 170 | 076 | -062 | -178 | 224 | 036 | -123 | 039 | 055 | 069 | 030 |
| 30 | 284 | 213 | -154 | 203 | -123 | -159 | 235 | 312 | 022 | 056 | 295 | 030 | 084 | -015 | 098 |
| 31 | 197 | 175 | -069 | 097 | -109 | -096 | 162 | 140 | 046 | -077 | 039 | 274 | 089 | 054 | 163 |
| 32 | 142 | 116 | -060 | 074 | -103 | -117 | 162 | 070 | 005 | -075 | -041 | 258 | -016 | 244 | 151 |
| 33 | 022 | -101 | -018 | 018 | 079 | -097 | 065 | 070 | 053 | -070 | 038 | 021 | 100 | 025 | 021 |
| 34 | 066 | -003 | -115 | 148 | -053 | -180 | 087 | 225 | 068 | 063 | 178 | -036 | 109 | 126 | 080 |
| 35 | -147 | -084 | 137 | -087 | -251 | 111 | 018 | -002 | -147 | 072 | -146 | -071 | -062 | -187 | -057 |
| 36 | 346 | 306 | -339 | 287 | -109 | -457 | 325 | 462 | 054 | 051 | 176 | 270 | 086 | 144 | 242 |
| 37 | 205 | 163 | -156 | 249 | -201 | -211 | 169 | 366 | 071 | 079 | 266 | 052 | -017 | -014 | 051 |
| 38 | -090 | -137 | 216 | -087 | -240 | 163 | -073 | 002 | -126 | 131 | -110 | -104 | -084 | -455 | -006 |
| 39 | -141 | -113 | -065 | 058 | -114 | 053 | -120 | -014 | -153 | 046 | -098 | -215 | 061 | -107 | -075 |
| 40 | -074 | -158 | 164 | -109 | -190 | 208 | -085 | -024 | -006 | 105 | -110 | -058 | 063 | -256 | 017 |

TABLE A-2 (Continued)

| Variable | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 41 | -132 | -114 | 098 | -178 | 239 | 182 | -120 | -239 | -110 | -022 | -038 | -115 | 035 | 009 | -130 |
| 42 | 307 | 248 | -317 | 264 | -140 | -289 | 283 | 330 | -074 | 010 | 176 | 182 | 067 | -041 | 086 |
| 43 | -251 | -284 | 160 | -246 | 180 | 194 | -305 | -367 | 071 | -075 | -210 | -144 | 019 | 046 | -056 |
| 44 | 568 | 580 | -120 | 132 | -096 | -210 | 190 | 084 | 115 | -032 | 104 | 074 | 053 | 119 | 133 |
| 45 | 686 | 638 | -116 | 146 | -136 | -283 | 461 | 201 | 008 | 050 | 138 | 155 | 094 | 050 | 204 |
| 46 | | 645 | -169 | 164 | -102 | -339 | 384 | 235 | 091 | 025 | 173 | 079 | 090 | 143 | 263 |
| 47 | 645 | | -227 | 199 | -103 | -286 | 352 | 171 | 069 | 024 | 127 | 056 | 059 | 116 | 260 |
| 48 | -169 | -227 | | -640 | 035 | 558 | -308 | -372 | 066 | 003 | -062 | -146 | -168 | -144 | -048 |
| 49 | 164 | 199 | -640 | | -111 | -515 | 440 | 485 | -106 | -019 | 102 | 049 | -040 | 079 | 085 |
| 50 | -102 | -103 | 035 | -111 | | 137 | -212 | -267 | 172 | -127 | -088 | -079 | -025 | 185 | -014 |
| 51 | -339 | -286 | 558 | -515 | 137 | | -514 | -558 | 004 | -040 | -181 | -094 | -186 | -125 | -104 |
| 52 | 384 | 352 | -308 | 440 | -212 | -514 | | 494 | -083 | 145 | 128 | 140 | -031 | 022 | 156 |
| 53 | 235 | 171 | -372 | 485 | -267 | -558 | 494 | | 004 | 075 | 212 | 086 | 031 | 013 | 164 |
| 54 | 091 | 069 | 066 | -106 | 172 | 004 | -083 | 004 | | -082 | 067 | 070 | 232 | 219 | 160 |
| 55 | 025 | 024 | 003 | -019 | -127 | -040 | 145 | 075 | -082 | | 072 | -038 | -019 | -115 | 087 |
| 56 | 173 | 127 | -062 | 102 | -088 | -181 | 128 | 212 | 067 | 072 | | -021 | 038 | -043 | 071 |
| 57 | 079 | 056 | -146 | 049 | -079 | -094 | 140 | 086 | 070 | -038 | -021 | | 009 | 030 | 075 |
| 58 | 090 | 059 | -168 | -040 | -025 | -186 | -031 | 031 | 232 | -019 | 038 | 009 | | 098 | 043 |
| 59 | 143 | 116 | -144 | 079 | 185 | -125 | 022 | 013 | 219 | -115 | -043 | 030 | 098 | | 024 |
| 60 | 263 | 260 | -048 | 085 | -014 | -104 | 156 | 164 | 160 | 087 | 071 | 075 | 043 | 024 | |
| 61 | 097 | 040 | 105 | -083 | 073 | 112 | 022 | 025 | 141 | -002 | 038 | 035 | -155 | -152 | -155 |
| 62 | 066 | 060 | -166 | 202 | -022 | -052 | 115 | 096 | 017 | -056 | -018 | 131 | 047 | 192 | 128 |
| 63 | 134 | 073 | 096 | -022 | 086 | 050 | 066 | 015 | -030 | 043 | 221 | -009 | -133 | 011 | 070 |
| 64 | 005 | -039 | 024 | 038 | 025 | -004 | 076 | 046 | -098 | 263 | 135 | -079 | -078 | 018 | 046 |
| 65 | 062 | 110 | -198 | -020 | -017 | -161 | 057 | -012 | 056 | -141 | 018 | 123 | 187 | 040 | -042 |
| 66 | -021 | -011 | 018 | -004 | 054 | 104 | -013 | 038 | 098 | 093 | 062 | -129 | -084 | -037 | -131 |
| 67 | -105 | -086 | 282 | -174 | 103 | 217 | -230 | -149 | 178 | -157 | 062 | 076 | -098 | 008 | 134 |
| 68 | 060 | 148 | -068 | -050 | -122 | -096 | -115 | -094 | 115 | -014 | 034 | 003 | 285 | 165 | -002 |
| 69 | 014 | -090 | -084 | 115 | -057 | -095 | 029 | 102 | 017 | -034 | -027 | 198 | -056 | -009 | 118 |
| 70 | 100 | 158 | -106 | 090 | -019 | -098 | 220 | 103 | -082 | -081 | -075 | 002 | 067 | 163 | -015 |
| 71 | -029 | 010 | -043 | 007 | 013 | 117 | -016 | -131 | 024 | 112 | 034 | -004 | -049 | -102 | -008 |
| 72 | -091 | -094 | 160 | -046 | 082 | 134 | 000 | 015 | 194 | -048 | 004 | -144 | -095 | -182 | -064 |
| 73 | 007 | 109 | 076 | -078 | -008 | 058 | -028 | -053 | -033 | 113 | -011 | -042 | -028 | 042 | 074 |
| 74 | -060 | -114 | 075 | -104 | 045 | 059 | -192 | -095 | -140 | 093 | 070 | -009 | -066 | -069 | -022 |
| 75 | 120 | 075 | -058 | 042 | 093 | -072 | 002 | 125 | 571 | -070 | 105 | -018 | 146 | 189 | 101 |

TABLE A-2 (Continued)

| Variable | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 | -052 | 118 | 056 | 138 | -040 | 088 | -101 | 002 | -030 | 101 | -150 | -076 | -105 | 064 | 008 |
| 2 | -012 | 014 | 141 | 516 | -100 | 026 | -153 | -086 | 024 | -055 | -063 | -042 | 097 | 119 | 024 |
| 3 | -056 | 122 | 298 | 193 | -080 | -124 | 266 | -115 | -030 | 051 | -036 | -075 | 010 | 089 | 091 |
| 4 | 105 | 122 | 197 | 266 | -077 | -039 | -031 | -074 | -107 | -042 | 097 | 113 | -074 | 040 | 117 |
| 5 | -050 | 147 | -071 | 012 | 137 | -147 | 058 | -073 | 237 | 094 | 180 | -273 | 126 | -098 | 015 |
| 6 | -035 | 060 | 070 | 038 | -034 | -007 | -180 | 080 | -088 | 235 | -006 | -102 | -049 | -135 | -060 |
| 7 | -027 | 075 | -015 | -024 | 015 | -078 | 012 | 067 | 073 | 106 | -070 | -161 | -040 | -031 | -026 |
| 8 | 134 | -020 | 030 | 097 | 102 | -035 | -122 | -028 | 063 | -032 | -021 | 032 | -012 | -011 | 020 |
| 9 | 047 | 050 | -050 | -076 | -028 | 033 | -162 | -063 | 002 | -033 | 151 | -044 | 143 | 018 | 056 |
| 10 | -046 | 213 | -002 | 040 | 034 | -051 | -107 | -037 | -105 | 079 | -093 | 027 | -053 | 024 | 099 |
| 11 | 194 | 009 | 078 | 047 | 037 | 139 | -192 | -006 | 034 | 030 | 010 | 061 | 097 | -124 | -009 |
| 12 | 065 | 209 | 192 | 298 | 015 | -049 | -182 | -090 | -001 | 173 | -017 | -128 | 034 | -039 | 078 |
| 13 | -024 | 062 | 204 | 112 | -079 | -049 | -009 | -060 | -042 | 105 | -073 | -113 | 011 | 059 | 125 |
| 14 | 007 | 098 | 217 | 097 | -013 | -013 | -001 | -112 | -022 | 090 | -086 | -090 | 004 | 073 | 150 |
| 15 | 042 | 111 | 094 | -024 | -032 | 065 | -079 | 003 | 024 | -007 | -060 | 004 | -132 | 034 | 183 |
| 16 | -025 | 096 | 072 | -005 | -016 | 060 | -134 | -021 | 029 | 040 | -141 | 005 | -054 | 007 | 206 |
| 17 | -127 | 127 | 062 | -042 | 054 | -106 | -117 | -011 | 043 | 156 | -060 | -166 | -035 | -028 | 106 |
| 18 | 012 | 036 | 197 | 182 | 082 | 033 | -132 | -018 | -072 | 143 | -127 | -085 | 052 | 007 | 059 |
| 19 | -043 | 107 | 180 | 092 | 067 | 044 | -099 | -046 | -047 | 140 | -103 | -140 | 013 | 050 | 082 |
| 20 | -062 | 091 | 171 | 028 | 033 | -081 | 009 | 081 | 014 | 080 | 014 | -201 | -056 | 040 | 104 |
| 21 | 002 | 072 | 069 | -023 | 022 | 080 | -095 | 042 | -038 | 088 | -018 | 064 | -010 | -132 | -037 |
| 22 | -035 | 101 | -014 | -175 | -020 | -059 | -105 | 023 | 058 | 042 | -014 | -088 | -008 | -016 | 138 |
| 23 | 167 | -077 | -041 | -003 | -048 | 082 | -139 | -109 | -114 | 051 | 031 | 051 | 123 | -005 | -132 |
| 24 | 146 | -072 | -086 | -058 | -015 | 067 | -000 | -071 | -109 | 042 | 003 | 094 | 049 | -027 | -130 |
| 25 | -088 | 057 | 024 | -124 | 030 | 023 | -009 | 128 | 089 | -125 | -008 | 010 | -034 | 017 | 165 |
| 26 | -123 | 047 | -050 | -002 | ** | -054 | 161 | 062 | 036 | -099 | 017 | 004 | -079 | 059 | 092 |
| 27 | 068 | -072 | -124 | -069 | -058 | 016 | 104 | -080 | -112 | -081 | 072 | 146 | 041 | 045 | -124 |
| 28 | -049 | -102 | 062 | 101 | 054 | -011 | -074 | 116 | 076 | 005 | 003 | -044 | 027 | -080 | 108 |
| 29 | -021 | 007 | -020 | -061 | 007 | -007 | 142 | 050 | 103 | -153 | 188 | -016 | -066 | 033 | 026 |
| 30 | 050 | 086 | 149 | 136 | 010 | -027 | -112 | 027 | -012 | 120 | -100 | -100 | 072 | -028 | 110 |
| 31 | 025 | 295 | 086 | -001 | -010 | -101 | 107 | 085 | 022 | -042 | -028 | -091 | -024 | 079 | 139 |
| 32 | -115 | 237 | 027 | -087 | -026 | -127 | 074 | 170 | 013 | -030 | -051 | -143 | -046 | 077 | 096 |
| 33 | 027 | -028 | -027 | -050 | 018 | 031 | -003 | -045 | -066 | 078 | -033 | -028 | -019 | 020 | 174 |
| 34 | 074 | -030 | 165 | 122 | -092 | -058 | 067 | 075 | 020 | -097 | -032 | -085 | -013 | 137 | 160 |
| 35 | -017 | -070 | -150 | -072 | -044 | 066 | -022 | -008 | 012 | -078 | -071 | 163 | 116 | -052 | -130 |
| 36 | -013 | 151 | -005 | -001 | 055 | -008 | -146 | 056 | 044 | 088 | -132 | -122 | 061 | -016 | 062 |
| 37 | 083 | 052 | 072 | 067 | -005 | 036 | -176 | 041 | 057 | -030 | -093 | 010 | 085 | -019 | 054 |
| 38 | -017 | -068 | -124 | -099 | -061 | -091 | 080 | -032 | 077 | -089 | 018 | 114 | -054 | -033 | -212 |
| 39 | -189 | -035 | -146 | -005 | -053 | -040 | -006 | 012 | 040 | -018 | -036 | -013 | 023 | 005 | -036 |
| 40 | 051 | -052 | -160 | -005 | -093 | -023 | 037 | 035 | 040 | -198 | 084 | 124 | 037 | 033 | -015 |

TABLE A-2 (Continued)

| Variable | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 41 | -098 | -181 | -007 | -081 | -071 | 042 | 228 | -034 | -108 | 067 | 090 | 050 | -041 | -044 | -093 |
| 42 | 091 | 067 | 022 | -078 | 169 | 079 | -337 | 013 | 022 | 072 | 045 | -072 | -115 | -039 | 008 |
| 43 | -095 | -101 | -120 | -202 | -077 | -128 | 065 | -003 | -141 | 178 | 005 | -075 | 130 | -048 | -031 |
| 44 | 043 | 059 | 116 | -024 | 129 | -069 | 050 | 199 | -032 | 003 | -015 | -072 | -008 | -009 | -006 |
| 45 | 012 | 042 | 081 | -017 | 133 | -018 | -053 | 066 | 001 | 168 | -012 | -100 | -005 | -121 | -052 |
| 46 | 097 | 066 | 134 | 005 | 062 | -021 | -105 | 060 | 014 | 100 | -029 | -091 | 007 | -060 | 120 |
| 47 | 040 | 060 | 078 | -039 | 110 | -011 | -086 | 148 | -090 | 158 | 010 | -094 | 109 | -114 | 075 |
| 48 | 105 | -166 | 096 | 024 | -198 | 018 | 282 | -068 | -084 | -106 | -043 | 160 | 076 | 075 | -058 |
| 49 | -083 | 202 | -022 | 038 | -020 | -004 | -174 | -050 | 115 | 090 | 007 | -046 | -078 | -104 | 042 |
| 50 | 073 | -022 | 086 | 025 | -017 | 054 | 103 | -122 | -057 | -019 | 013 | 082 | -008 | 045 | 093 |
| 51 | 112 | -052 | 050 | -004 | -161 | 104 | 217 | -096 | -095 | -098 | 117 | 134 | 058 | 059 | -072 |
| 52 | 022 | 115 | 066 | 076 | 057 | -013 | -230 | -115 | 029 | 220 | -016 | 000 | -028 | -192 | 002 |
| 53 | 025 | 096 | 015 | 046 | -012 | 038 | -149 | -094 | 102 | 103 | -131 | 015 | -053 | -095 | 125 |
| 54 | 141 | 017 | -030 | -098 | 056 | 098 | 178 | 115 | 017 | -082 | 024 | 194 | -033 | -140 | 571 |
| 55 | -002 | -056 | 043 | 263 | -141 | 093 | -157 | -014 | -034 | -081 | 112 | -048 | 113 | 093 | -070 |
| 56 | 038 | -018 | 221 | 135 | 018 | 062 | 062 | 034 | -027 | -075 | 034 | 004 | -011 | 070 | 105 |
| 57 | 035 | 131 | -009 | -079 | 123 | -129 | 076 | 003 | 198 | 002 | -004 | -144 | -042 | -009 | -018 |
| 58 | -155 | 047 | -133 | -078 | 187 | -084 | -098 | 285 | -056 | 067 | -049 | -095 | -028 | -066 | 146 |
| 59 | -152 | 192 | 011 | 018 | 040 | -037 | 008 | 165 | -009 | 163 | -102 | -182 | 042 | -069 | 189 |
| 60 | -155 | 128 | 070 | 046 | -042 | -131 | 134 | -002 | 118 | -015 | -008 | -064 | 074 | -022 | 101 |
| 61 | | 019 | 087 | 056 | 090 | 275 | -197 | -136 | 030 | -193 | 078 | 177 | -057 | 089 | 175 |
| 62 | 019 | | 002 | 066 | 059 | -043 | -081 | -035 | 208 | -067 | -025 | -070 | -014 | 016 | 025 |
| 63 | 087 | 002 | | 370 | 037 | -080 | 162 | -098 | -044 | -118 | -072 | -077 | 081 | 272 | -019 |
| 64 | 056 | 066 | 370 | | -083 | -072 | -046 | -056 | 026 | -161 | -041 | -066 | -023 | 252 | -086 |
| 65 | 090 | 059 | 037 | -083 | | -093 | -184 | 151 | 118 | 073 | 061 | -064 | -043 | -186 | 019 |
| 66 | 275 | -043 | -080 | -072 | -093 | | -100 | -062 | -096 | 011 | -045 | 262 | -026 | -110 | 063 |
| 67 | -197 | -081 | 162 | -046 | -184 | -100 | | -046 | 104 | -132 | -007 | -065 | -011 | 148 | -069 |
| 68 | -136 | -035 | -098 | -056 | 151 | -062 | -046 | | -074 | -167 | -035 | -095 | -020 | -138 | 016 |
| 69 | 030 | 208 | -044 | 026 | 118 | -096 | 104 | -074 | | 260 | -054 | -148 | -031 | -215 | -052 |
| 70 | -193 | -067 | -118 | -161 | 073 | 011 | -132 | -167 | 260 | | -122 | -335 | -070 | -488 | -033 |
| 71 | 078 | -025 | -072 | -041 | 061 | -045 | -007 | -035 | -054 | -122 | | -070 | -014 | -101 | -024 |
| 72 | 177 | -070 | -077 | -066 | -064 | 262 | -065 | -095 | -148 | -335 | -070 | | -040 | -278 | 178 |
| 73 | -057 | -014 | 081 | -023 | -043 | -026 | -011 | -020 | -031 | -070 | -014 | -040 | | -058 | -029 |
| 74 | 089 | 016 | 272 | 252 | -186 | -110 | 148 | -138 | -215 | -488 | -101 | -278 | -058 | | -077 |
| 75 | 075 | 025 | -019 | -086 | 019 | 063 | -069 | 016 | -052 | -033 | -024 | 178 | -029 | -077 | |

TABLE A-3

Factor Loadings for Four Factors Obtained by Varimax Factor Rotation,
and Corresponding Communalities,
for 75 Variables from Identified Student Forms, Student Evaluation Forms,
and Pupil Personnel Team Evaluation Forms - 1968*

| <u>Variable</u> | <u>Factor I</u> | <u>Factor II</u> | <u>Factor III</u> | <u>Factor IV</u> | <u>Communalities</u> |
|-----------------|-----------------|------------------|-------------------|------------------|----------------------|
| 1 | .2511 | -.0881 | .4385 | .1199 | .27746 |
| 2 | .0497 | .0685 | .4334 | .0074 | .19510 |
| 3 | -.1352 | -.1230 | .6504 | -.0469 | .45868 |
| 4 | .0154 | -.0409 | .6174 | -.0091 | .38314 |
| 5 | .0529 | -.2944 | .2164 | -.1042 | .14716 |
| 6 | .0819 | .0064 | .2804 | -.0733 | .09071 |
| 7 | .2768 | -.2160 | -.1587 | .0176 | .14876 |
| 8 | .0472 | -.0511 | .0002 | -.0510 | .00744 |
| 9 | .0729 | -.0509 | .1158 | .2565 | .08710 |
| 10 | .0592 | -.0610 | .1485 | -.5729 | .35747 |
| 11 | .2580 | .1127 | -.0168 | .1349 | .09777 |
| 12 | .2775 | -.1356 | .6756 | -.1289 | .56837 |
| 13 | .1065 | -.6368 | .4783 | .0725 | .65090 |
| 14 | .0948 | -.5622 | .5514 | .1043 | .63997 |
| 15 | -.0095 | -.6090 | .0966 | -.1981 | .41960 |
| 16 | .0452 | -.6202 | .2156 | -.0805 | .43972 |
| 17 | .0853 | -.7674 | .1210 | .0195 | .61115 |
| 18 | .1739 | -.4205 | .4089 | .2560 | .43977 |
| 19 | .2087 | -.4878 | .4883 | .1295 | .53672 |
| 20 | .2144 | -.5623 | .2357 | .0676 | .42226 |
| 21 | .1758 | -.2074 | .0846 | .3578 | .20914 |
| 22 | .0020 | -.6760 | -.1379 | .0082 | .47609 |
| 23 | .0796 | .5233 | .1796 | .5463 | .61086 |
| 24 | .0136 | .7016 | .0567 | .3556 | .62205 |
| 25 | -.0166 | -.6283 | -.1512 | -.2927 | .50356 |
| 26 | -.1496 | -.2804 | -.2435 | -.5896 | .50796 |
| 27 | -.1782 | .7574 | -.1152 | .1078 | .63029 |
| 28 | .2427 | -.4814 | -.0871 | .0704 | .30317 |
| 29 | -.1776 | .0427 | -.3231 | -.4544 | .34424 |
| 30 | .2776 | -.4133 | .5405 | .2984 | .62911 |
| 31 | .2268 | -.4226 | -.0362 | .1436 | .25194 |
| 32 | .1699 | -.5023 | -.1342 | -.0297 | .30003 |
| 33 | .0285 | .1551 | .1646 | -.1706 | .08109 |
| 34 | .1096 | .1000 | .3566 | -.1397 | .16866 |
| 35 | -.0280 | .1410 | -.2748 | .3465 | .21623 |

* For N and description of each variable, see Table A-1.

TABLE A-3 (Continued)

| <u>Variable</u> | <u>Factor I</u> | <u>Factor II</u> | <u>Factor III</u> | <u>Factor IV</u> | <u>Communalities</u> |
|-----------------|-----------------|------------------|-------------------|------------------|----------------------|
| 36 | .6079 | -.2042 | .0712 | -.1325 | .43391 |
| 37 | .3792 | -.0568 | .1409 | .1019 | .17725 |
| 38 | -.1213 | .0550 | -.2797 | .5624 | .41224 |
| 39 | -.1419 | -.0305 | -.0934 | .2990 | .11918 |
| 40 | -.1772 | -.0346 | -.1702 | .4890 | .30068 |
| 41 | -.2928 | .2109 | -.0291 | -.1168 | .14471 |
| 42 | .5426 | -.0630 | .1276 | .0531 | .31753 |
| 43 | -.4651 | .0258 | -.0464 | -.1159 | .23259 |
| 44 | .4543 | -.1869 | -.1633 | .0063 | .26798 |
| 45 | .6507 | -.0922 | -.1032 | .0699 | .44745 |
| 46 | .6356 | -.1596 | .0598 | .0015 | .43302 |
| 47 | .6259 | -.1312 | -.0112 | -.0179 | .40945 |
| 48 | -.5363 | .1161 | -.0853 | .2218 | .35763 |
| 49 | .5610 | .0096 | .1353 | -.1060 | .34439 |
| 50 | -.3218 | .0313 | .1177 | -.4426 | .31433 |
| 51 | -.6625 | .0698 | -.0750 | .2237 | .49939 |
| 52 | .6833 | .0131 | .1353 | .0104 | .48545 |
| 53 | .5859 | -.1231 | .2479 | .0540 | .42282 |
| 54 | -.0439 | -.1704 | -.0086 | -.3627 | .16260 |
| 55 | .0543 | -.0093 | .1539 | .2542 | .09133 |
| 56 | .1893 | -.0280 | .4428 | -.0211 | .23316 |
| 57 | .2727 | -.2163 | -.1842 | -.1030 | .16570 |
| 58 | .0915 | -.1851 | .0079 | -.1462 | .06407 |
| 59 | .0982 | -.2175 | .0204 | -.6122 | .43216 |
| 60 | .2595 | -.0982 | .0781 | -.0149 | .08328 |
| 61 | .0453 | .1427 | .1039 | .0729 | .03853 |
| 62 | .1751 | -.1316 | .0848 | -.1297 | .07200 |
| 63 | -.0295 | -.0831 | .3986 | -.0260 | .16731 |
| 64 | -.0270 | .0696 | .4573 | -.0021 | .21471 |
| 65 | .2326 | -.0103 | -.1293 | -.1130 | .08371 |
| 66 | .0086 | .1036 | .0341 | .0486 | .01434 |
| 67 | -.3386 | -.0416 | -.0677 | -.0761 | .12674 |
| 68 | .1178 | -.1094 | -.2337 | -.0707 | .08542 |
| 69 | .0969 | -.0995 | -.1539 | -.0172 | .04328 |
| 70 | .2158 | -.0008 | .0858 | -.0525 | .05668 |
| 71 | -.0523 | .0691 | -.0713 | -.0013 | .01260 |
| 72 | -.1216 | .1510 | -.0647 | .0718 | .04694 |
| 73 | -.0227 | .0301 | .0331 | .1217 | .01734 |
| 74 | -.2299 | -.0341 | .1909 | .0196 | .09086 |
| 75 | .0349 | -.1739 | .1221 | -.2606 | .11430 |

_____ Student Identification Number

TITLE I SCHOOLS

**INSTRUMENT FOR IDENTIFYING POTENTIAL SCHOOL DROPOUTS
(Pupils in Primary School - in grades between Kindergarten and Grade 3)**

Name of Pupil _____ Birthdate _____ Sex _____
Name of School _____ Grade _____
Parents Name _____ Home Address _____
Home Phone Number _____ Date _____

The items below are to be used for screening those students who might leave school before completing high school. These factors are merely general indicators. Please check all those which are applicable to this student.

1. _____ Poor risk readiness test status.
2. _____ Speech and language problems as determined by Speech Correctionist or Hearing Therapist.
3. _____ Severe reading problems as determined by Reading Specialist.
4. _____ Grade retention.
5. _____ Absenteeism of an excessive nature, 20 days or more in the last school year.
6. _____ Two or more school transfers for any reason during the last school year.
7. _____ Evidence of health problems as determined by the school health team.
8. _____ Evidence of behavior problems and active referral to Department of Pupil Personnel Services.
9. _____ Evidence of economic need (such as free lunch, clothing and aid from P.T.A. or other groups).
10. _____ Comments:



_____ Student Identification Number

TITLE I SCHOOLS

INSTRUMENT FOR IDENTIFYING POTENTIAL SCHOOL DROPOUTS
(Students in Grades 4 Through 11)

Name of Pupil _____ Birth Date _____ Sex _____

Name of School _____ Grade _____

Parents Name _____ Home Address _____

Home Phone Number _____ Date _____

The items below are to be used for screening those students who might leave school before completing high school. These factors are merely general indicators. Please check those which are applicable to this student.

1. _____ Severe reading retardation as determined by Reading Specialist and school.
2. _____ Severe arithmetic retardation.
3. _____ Speech and language problems as determined by Speech Correctionist or Hearing Therapist.
4. _____ Course failure in any two or more courses during the last school year.
5. _____ Absenteeism of an excessive nature, 20 days or more in the last school year.
6. _____ Evidence of health problems as determined by school health team.
7. _____ Two or more school transfers for any reason during the last school year.
8. _____ Evidence of behavioral problems and active referral to the Department of Pupil Personnel Services.
9. _____ Evidence of economic need (such as free lunch, clothing and aid from P.T.A. or other groups).
10. _____ Comments:

October 1967

Dept. of Research, Budget and Legislation
Public Schools of the
District of Columbia
1411 K Street, N. W.
Washington, D. C. 20005

STUDENT EVALUATION FORM

(1-3) School Code _____ School Name _____

(4-9) Ident. Number _____

(11-25) Name of Pupil _____
Last First Middle

(26) Sex: 1. _____ boy
2. _____ girl

(27-28) Present Grade _____

(29-34) Date of Birth _____
Mo. Day Yr.

Name of Parent or Guardian _____
Last First Middle

Address _____

Please evaluate this student on the following (check the ones that apply)

(35) How well does he apply himself to his school work?
1. _____ Above average
2. _____ Average
3. _____ Below average

(39) How favorably is his attitude toward school?
1. _____ Above average
2. _____ Average
3. _____ Below average

(36) How well does this pupil do in his school work?
1. _____ Above average
2. _____ Average
3. _____ Below average

(40) How well can you understand him when he speaks?
1. _____ Above average
2. _____ Average
3. _____ Below average

(37) How well does he get along with the other children?
1. _____ Above average
2. _____ Average
3. _____ Below average

(41) How well does he like, or is he learning, to read?
1. _____ Above average
2. _____ Average
3. _____ Below average

(38) How is his emotional maturity?
1. _____ Above average
2. _____ Average
3. _____ Below average

(42) How does his home environment effect his school performance?
1. _____ Favorably
2. _____ Neither favorably nor unfavorably
3. _____ Unfavorably

(43) How good is his health?

- 1. Above average
- 2. Average
- 3. Below average

(44) How well does he cooperate with you?

- 1. Above average
- 2. Average
- 3. Below average

In answering the next eight questions, please indicate where the student stands on each scale by making a check mark in one of the five places.

(45) Defiant _____ Submissive

(46) Uncooperative _____ Cooperative

(47) Friendly _____ Hostile

(48) Shy _____ Aggressive

(49) Irresponsible _____ Responsible

(50) Neat _____ Unkempt

(51) Follower _____ Leader

(52) Alert _____ Dull

(53-55) How many days has this student been absent for any reason since the first of this school year?

_____ days

Has he been in any of the following:
(60) 1. No Social Adjustment Class?
2. Yes

(61) 1. No Ungraded program
2. Yes

(56-58) How many days has he been absent unexcused?

_____ days

(62) 1. No Team teaching program
2. Yes

(59) Was this student in a special education class this year?

- 1. No
- 2. Yes

(63) On the average, what part of his classroom time is spent in a classroom with a teacher-aide present?

- 1. None
- 2. Some, but less than 1/2
- 3. Over 1/2 but less than all
- 4. All the time

Date filled in

Teachers's signature

Subject area or field

W-3

PUPIL PERSONNEL SERVICES TEAM

Student

I.D. No. _____
(1-7)

EVALUATION FORM (REVISED)

Student's Name _____ Birth date ____/____/____
(8-10) Last First Middle Mo. Day Year

School _____ School Code _____ Grade _____ Sex _____
(11-13) (14-15) (16)

Please check the appropriate response.

About the student himself:

About the student's family and home:

- (17) 1. How favorable is his attitude toward school?
 A. Above average
 B. Average
 C. Below average
- (18) 2. How well can you understand him when he speaks?
 A. Very well
 B. About average
 C. Not very well
 D. Hard to understand
- (19) 3. Does he have trouble because of fighting?
 A. Very often
 B. Occasionally
 C. Never
- (20) 4. Does he get in trouble with the police?
 A. Very often
 B. Occasionally
 C. Never
- (21) 5. Does he get in trouble with neighbors?
 A. Very often
 B. Occasionally
 C. Never
- (22) 6. Does he have problems because of being withdrawn?
 A. Very often
 B. Occasionally
 C. Never
- (23) 7. How many personal books does he have?
 A. Many (more than ten)
 B. A few (three to nine)
 C. One or two
 D. None

- (24) 8. How much education does his family want the subject to have?
 A. Some high school
 B. To graduate from high school
 C. Some college
 D. To graduate from college
- (25) 9. What do the parents expect of the school system?

- (26) 10. How does his home compare with others in the neighborhood?
 A. Above average
 B. Average
 C. Below average
- (27) 11. Which of the following describes how the inside of his home is kept?
 A. Clean, neat, and well organized
 B. Average
 C. Unkempt and disorderly
- (28) 12. Does he have an adequate place to study?
 A. Quite adequate
 B. Barely adequate
 C. Not adequate at all
- (29) 13. Is his home environment conducive to school work?
 A. Above average
 B. Average
 C. Below average

The following section is to be filled in by members of the Team from personal observation:

In answering the next six questions, please indicate where he stands on each scale by making a check mark in one of the five places.

- | | | | | | | | | |
|------|-----|---------------|-------|-------|-------|-------|-------|-------------|
| (30) | 14. | UNCOOPERATIVE | _____ | _____ | _____ | _____ | _____ | COOPERATIVE |
| (31) | 15. | FRIENDLY | _____ | _____ | _____ | _____ | _____ | HOSTILE |
| (32) | 16. | SHY | _____ | _____ | _____ | _____ | _____ | AGGRESSIVE |
| (33) | 17. | IRRESPONSIBLE | _____ | _____ | _____ | _____ | _____ | RESPONSIBLE |
| (34) | 18. | NEAT | _____ | _____ | _____ | _____ | _____ | UNKEMPT |
| (35) | 19. | ALERT | _____ | _____ | _____ | _____ | _____ | DULL |

(36) 20. How was this student referred to your team the first time?

- _____ A. Principal/Asst. Principal
- _____ B. Guidance Counselor
- _____ C. Teacher
- _____ D. School Nurse
- _____ E. Other school source (Explain)
- _____ F. Non-school source (Explain)
- _____ G. Case assigned

23. What problems does this student have? (MARK ALL THAT APPLY)

- (41) _____ A. No problems
- (42) _____ B. Physical (medical) problems
- (43) _____ C. Slow learning problems
- (44) _____ D. Attendance
- (45) _____ E. Emotional
- (46) _____ F. Behavioral (adjustment)
- (47) _____ G. Poor motivation
- (48) _____ H. Other (please explain)

21. How many contacts has your team had with this student?

(37-38) _____ contacts

22. How many contacts has your team had with his parents/guardians?

(39-40) _____ contacts

24. Have you referred this student to any of the following? (MARK ALL THAT APPLY)

- (49) _____ A. Clinical Team
- (50) _____ B. Reading Clinic
- (51) _____ C. Speech Clinic
- (52) _____ D. Urban Service Corps
- (53) _____ E. Other (specify)

25. Remarks: _____

Date form completed: _____

Pupil Personnel Worker's Signature _____

Team No. _____ (54-55)