DOCUMENT RESUME

ED 193 459 CE 026 741

AUTHOR Borman, Walter C.: Rosse, Rodney L.
TITLE Peer Ratings: Scoring Strategy Development and Reliability Demonstration on Air Force Basic Trainees. Final Report.
INSTITUTION Personnel Decisions, Inc., Minneapolis, Minn.
SPONS AGENCY Air Force Human Resources Lab., Brooks AFB, Texas.
REPORT NO AFHRL-TR-80-28
PUB DATE Sep 80
CONTRACT F33615-78-C-0041
NOTE 72p.: Small type in tables will not reproduce well.

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Military Personnel: *Peer Evaluation: *Personnel Evaluation: Personnel Selection: *Predictive Measurement: Psychological Testing: *Psychometrics: Scoring Formulas: Test Norms: *Test Reliability: Trainees
IDENTIFIERS *Air Force: Spearman Brown Formula: United States

ABSTRACT

As an alternative for or adjunct to paper-and-pencil tests for predicting personnel performance, the United States Air Force studied the use of peer ratings as an evaluative tool. Purpose of this study was to evaluate the psychometric characteristics of peer ratings among Air Force basic trainees. Peer ratings were obtained from more than 27,000 basic trainees. An effective method was developed for scoring them by algebraically summing the positive and negative ratings. A modification of the Spearman-Brown prophecy formula was used to determine interrater reliability coefficients which were adjusted to the mean number of trainees in the flights. The peer ratings yielded uniformly high interrater reliability coefficients which indicated substantial agreement among raters. It was concluded that the method developed for norming peer ratings from different size groups was valuable and could be applied to standardize future peer ratings. Peer ratings thus show promise for performance appraisal when normed using this method. References and extensive norm tables for personnel characteristics such as effort, cooperation, people orientation, emotional stability, intelligence, calmness, physical strength and energy, and likelihood of success are included. (Author/KC)

AFHRL-TR-80-28

AIR FORCE HUMAN RESOURCES LABORATORY

# PEER RATINGS:
## SCORING STRATEGY DEVELOPMENT AND RELIABILITY DEMONSTRATION ON AIR FORCE BASIC TRAINEES

By

Walter C. Borman
Rodney L. Rosse
Personnel Decisions Research Institute
2415 Foshay Tower
821 Marquette Avenue
Minneapolis, Minnesota 55402

MANPOWER AND PERSONNEL DIVISION
Brooks Air Force Base, Texas 78235

September 1980

Final Report



Approved for public release; distribution unlimited.



AIR FORCE SYSTEMS COMMAND
BROOKS AIR FORCE BASE, TEXAS 78235

## NOTICE

When U.S. Government drawings, specifications, or other data are used for any purpose other than a definitely related Government procurement operation, the Government thereby incurs no responsibility nor any obligation whatsoever, and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise, as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

This final report was submitted by Personnel Decisions Research Institute, 2415 Foshay Tower, 821 Marquette Avenue, Minneapolis, Minnesota 55402, under Contract F33615-78-C-0041, Project 7719, with the Manpower and Personnel Division, Air Force Human Resources Laboratory (AFSC), Brooks Air Force Base, Texas 78235. Capt Dana Ideen was the Contract Monitor for the Laboratory.

This report has been reviewed by the Office of Public Affairs (PA) and is releasable to the National Technical Information Service (NTIS). At NTIS, it will be available to the general public, including foreign nations.

This technical report has been reviewed and is approved for publication.

NANCY GUINN, Technical Director
Manpower and Personnel Division

RONALD W. TERRY, Colonel, USAF
Commander

## SUBJECT TO EXPORT CONTROL LAWS

This document contains information for manufacturing or using munitions of war. Export of the information contained herein, or release to foreign nationals within the United States, without first obtaining an export license, is a violation of the International Traffic in Arms Regulations. Such violation is subject to a penalty of up to 2 years imprisonment and a fine of $100,000 under 22 U.S.C. 2778.

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

| REPORT DOCUMENTATION PAGE | | READ INSTRUCTIONS BEFORE COMPLETING FORM |
|---|---|---|
| 1. REPORT NUMBER<br>AFHRL-TR-80-28 | 2. GOVT ACCESSION NO. | 3. RECIPIENT'S CATALOG NUMBER |
| 4. TITLE (and Subtitle)<br>PEER RATINGS: SCORING STRATEGY DEVELOPMENT AND RELIABILITY DEMONSTRATION ON AIR FORCE BASIC TRAINEES | | 5. TYPE OF REPORT & PERIOD COVERED<br>Final<br>6. PERFORMING ORG. REPORT NUMBER |
| 7. AUTHOR(s)<br>Walter C. Borman<br>Rodney L. Rosse | | 8. CONTRACT OR GRANT NUMBER(s)<br>F33615-78-C-0041 |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS<br>Personnel Decisions Research Institute<br>2415 Foshay Tower, 821 Marquette Avenue<br>Minneapolis, Minnesota 55402 | | 10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS<br>62703F<br>77190252 |
| 11. CONTROLLING OFFICE NAME AND ADDRESS<br>HQ Air Force Human Resources Laboratory (AFSC)<br>Brooks Air Force Base, Texas 78235 | | 12. REPORT DATE<br>September 1980<br>13. NUMBER OF PAGES<br>72 |
| 14. MONITORING AGENCY NAME & ADDRESS(if different from Controlling Office)<br>Manpower and Personnel Division<br>Air Force Human Resources Laboratory<br>Brooks Air Force Base, Texas 78235 | | 15. SECURITY CLASS. (of this report)<br>Unclassified<br>15a. DECLASSIFICATION/DOWNGRADING SCHEDULE |

16. DISTRIBUTION STATEMENT (of this Report)

Approved for public release; distribution unlimited.

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

peer ratings
basic training
reliability
performance appraisal
performance ratings
personnel assessment
personnel selection
ratings

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

Peer ratings were obtained from over 27,000 Basic Trainees. An effective method was developed for scoring them by algebraically summing the positive and negative ratings. A modification of the Spearman-Brown prophecy formula was used to determine interrater reliability coefficients which were adjusted to the mean number of trainees in the flights. The peer ratings yielded uniformly high interrater reliability coefficients which indicated substantial agreement among raters. It was concluded that the method developed for norming peer ratings from different size groups was valuable and could be applied to standardize future peer ratings. Peer ratings thus show promise for performance appraisal when normed using this method.

DD FORM 1 JAN 73 1473

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

OCT 1 4 1980

TABLE OF CONTENTS

# PEER RATINGS: SCORING STRATEGY DEVELOPMENT AND RELIABILITY DEMONSTRATION ON AIR FORCE BASIC TRAINEES

## I. INTRODUCTION

Personnel selection research in the U.S. military has typically employed paper-and-pencil tests of various types to predict performance in training and on the job. However, another strategy for predicting training and job performance in the military has been to gather peer ratings of potential for effectiveness. Peer ratings have enjoyed considerable success in predicting a variety of effectiveness criteria in the military. Within the Air Force, peer ratings have correlated successfully with pilot training success (Flyer & Bigbee, 1955), instructor pilot job performance (Swanson & Johnson, 1975), Officer Training School graduate performance (Tupes, 1957), and performance as cadets, officer candidates, and officers (Tupes & Kaplan, 1961). Annotations of these studies and the considerable peer rating research conducted in the Army, Navy, and Marine Corps can be found in Lammlein and Borman (1979).

The objective of the present study was to evaluate the psychometric characteristics of peer ratings among Air Force basic trainees. If the psychometric properties of these peer ratings are satisfactory, then future research should access the utility of peer evaluations, by themselves and in combination with test scores, for predicting success in advanced training and subsequent job performance.

### Special Problems in Scoring Nominations

Raters in the present study were asked to identify the five best or most effective trainees in their flight (Ns = 29-58) on each of several categories (e.g., Try Hard, Cooperative). They were also asked to identify the five worst or least effective trainees in their flight on each of these categories. The main problem this kind of data presents is how to score nominations when different groups contain different numbers of persons and scores must be compared across groups. Kane and Lawler (1978) and Willingham (1959a) present detailed descriptions of this problem.

Briefly the difficulties stem primarily from two sources. The most obvious problem is that members of large groups have a greater potential of receiving many nominations (negative or positive) than do members of smaller groups. This creates larger variances in raw scores for larger groups and results in non-comparable nomination raw scores across different-sized groups. The difficulty has typically been addressed by dividing the sum of the nominations for each group member by the total number of nominators in the group; however, Willingham (1959a) argued that this correction does not in itself equate scores across groups. As evidence, Willingham demonstrated that the adjusted scores correlate highly (and negatively with the

size of the groups, and therefore this adjustment provides an over-correction, (i.e., corrected scores in larger groups now tend to have smaller variances). Willingham offered another correction formula that successfully equates the variances of adjusted scores for different-sized groups, and thus aids in creating comparable scores across groups.

Willingham's formula does not address the problem of differing kurtosis (peakedness of the distribution) for different-sized groups. Larger groups tend to have more peaked distributions than do smaller groups because a large proportion of the members of large groups typically receive zero or a small number of nominations. This too creates inequities in scoring nominations for groups of different sizes, and Willingham (1959a) suggested that similar distributions across groups could be obtained by asking group members to provide different numbers of nominations according to their own group's size. He presented a formula to compute the number of nominations required for differing group sizes.

For purposes of the present project, it was not feasible to employ these suggestions directly. First, Willingham's correction formula assumes that persons can nominate themselves, while the instructions in this peer nomination administration asked that persons not nominate themselves. Also, his formula requires that each group member nominated provides nominations, and this requirement was not met in the present study.[1] Willingham's suggestion for handling differing levels of kurtosis could not be employed, either, because data had already been collected on a form requiring five positive and five negative nominations for all groups. Accordingly, for the present study a norming strategy was devised in which flights with similar numbers of nominees were pooled together, and then standardized nomination scores were developed for each grouping. These procedures are discussed in the Method section.

## II. METHOD

### Subjects

Subjects in the present research were more than 24,000 students assigned to Air Force Basic Training at Lackland AFB, Texas. The mean age of the trainee sample was 20.29, with a standard deviation of 2.17.

---

[1]Typically, flights (student groups) contained more nominees than nominators because trainees were instructed to nominate anyone in their flight, including those who for various reasons were absent from the rating schedule.

## Data Collection

The peer nominations were gathered by staff members of the basic training course. In general, data collection was accomplished for each flight separately. Student raters were given a roster of their flight members and, as mentioned, were instructed to nominate the five best and five worst trainees on each of eight rating dimensions. They were told not to nominate themselves.

## Method for Scoring the Nominations

A special norming strategy was developed for adjusting raw nomination scores so that they would be comparable across the different flights. Specifically, the strategy combined empirical norming and a procedure to equate the expected variances of adjusted scores for different flights. Flights with approximately equal numbers of nominees were grouped together (the number of nominators varied to a degree across these groups[2]), and this brought together flights with very similar levels of kurtosis, because the expected kurtosis varies according to number of nominees. Unfortunately, the expected variances of the distributions of these different groups were highly dependent on the number of nominators in the groups and, therefore, an adjustment in peer nomination scores was required to equate the expected variances.

To deal with the problem, a formula was developed to adjust nomination scores, resulting in the expected variances being equated for flights with differing numbers of nominators. Then, these adjusted nomination scores (for each grouping of flights separately) were aggregated in a single frequency distribution, and a percentile score was assigned to each score. Finally, standard scores were developed for each adjusted nomination score based on the corresponding percentile of a normal distribution.

In general, these adjustments in raw scores allowed statistically justified comparisons to be made of peer nomination scores from different flights. Importantly, the distributions of adjusted scores for individual flights eliminated characteristics of the raw score distributions known to be artifacts of the peer nomination measurement process. On the other hand, these "new" distributions did retain the characteristics that reflect valid variations across the different groups of nominees. For example, with this scoring system if one flight had two or three trainees consistently nominated positively on a rating category, and a second flight in the same grouping had positive nominations on this category spread more evenly across flight

---

[2]Many flights contained more nominees than nominators. However, for some flights there were many more nominees than nominators and in other flights almost every nominee served as a nominator. Thus, when flights were grouped according to number of nominees, the number of nominators varied, considerably in some cases.

members, then those two or three in the first flight would tend to receive higher standard scores than the top two or three in the second flight. In sum, the scoring procedures outlined above appeared to meet the critical requirement of allowing justified comparisons between trainees across flights, and therefore standardized scores were computed for each trainee on each rating category and these scores were used in correlational analyses.

## Method for Evaluating the Interrater Reliability of the Nominations

The approach to obtaining interrater reliabilities involved computing special intraclass correlation coefficients for each rating category within flights and then examining the distributions of those reliabilities for each category. Derivation of a more general formulation for the intraclass correlation was required because no existing formula was appropriate for this data set. In particular, the data suffered from the "diagonal problem," i.e., trainees in the sample were instructed not to nominate themselves, and this created undefined observations in an otherwise completely crossed experimental design. Gordon (1969) and Willingham (1959b) have provided methods for estimating reliabilities under these conditions but, unfortunately, neither was totally appropriate for this data set because some nominees did not serve as nominators, as has been previously mentioned.

Accordingly, a more general intraclass correlation was developed to meet the requirements of this data set. It is of the general type presented in Hoyt (1941).

$$r_{kk} = \frac{MS_B - MS_E}{MS_B}$$

where:

$r_{kk}$ = the intraclass correlation corresponding to k raters
$MS_B$ = the mean square between nominees' uncorrelated mean scores[3].
$MS_E$ = the mean square error

The formula derived was then used within each flight to compute the interrater reliability for each of the eight rating categories. The resulting reliability estimators, $r_{kk}$ values, were not directly comparable across flights with differing numbers of nominators because

---

[3]Uncorrected scores could be used at this point because all analyses were carried out within flight, thereby avoiding the problem of non-equivalent scores across flights.

the reliabilility to be accepted increases with the number of nominators (i.e., flights with 50 nominators would be expected to provide more reliable ratings than flights with 25 nominators, just as a test of 50 items is expected to be more reliable than one with 25 items). Thus, to provide estimators which could be considered comparable, the Spearman-Brown prophecy formula was applied to adjust each estimator to a common number of nominators as follows:

$$r_{37,\,37} = \frac{\frac{37}{k}\, r_{kk}}{1 + \left(\frac{37}{k} - 1\right) r_{kk}}$$

where:

k = harmonic mean of the number of nominators nominating each nominee in the flight

This coefficient reflects the level of interrater reliability adjusted to 37 nominators which is approximately the mean number of nominators per flight. This adjustment permits fair comparisons of reliabilities across flights, and the distributions of these interrater agreement indices were examined for each rating category separately.

In order to describe the norming and standardizing of nomination scores and the derivation of a general interrater reliability formula used in the research, first configuration of data and some terms must be defined.

## Description of Data

Consider Figure 1, the layout of data for one of eight dimensions in any one of the 596 flights of trainees. Recall that nominators attending a rating session were allowed to nominate anyone in their flight (except for themselves), including those not present at the session. Therefore, rating data from each flight involved M nominators and N nominees, where $N \geq M$.

Again referring to Figure 1, for each of the NM combinations of nominators and nominees, a value, $v_{ij}$. ($i = 1, 2, \ldots N$; $j = 1, 2, \ldots M$), was assigned, except where the nominee and nominator coincided--this case is undefinable since nominators were instructed not to nominate themselves. Thus, there were M(N-1) values assigned according to one of three scoring rules:

1. Positive nominations only:

   $v_{ij}$ = 1 if the $i^{th}$ nominee was one of the five positive nominations made by the $j^{th}$ nominator;

   $v_{ii}$ = undefinable;

   $v_{ij}$ = 0 if the $i^{th}$ nominee was not one of the five positive nominations made by the $j^{th}$ nominator.

2. Negative nominations only:

   $v_{ij}$ = -1 if the $i^{th}$ nominee was one of the five negative nominations for the $j^{th}$ nominator;

   $v_{ii}$ = undefinable;

   $v_{ij}$ = 0 if the $i^{th}$ nominee was not one of the five negative nominations for the $j^{th}$ nominator.

3. Positive plus negative (algebraic sum) nominations:

   $v_{ij}$ = 1 if positively nominated;

   $v_{ij}$ = -1 if negatively nominated;

   $v_{ii}$ = undefinable;

   $v_{ij}$ = 0 if not nominated.

Initially, the nominations were scored all three ways for examination of reliability.

Raw scores, $X_i$, were then computed as the arithmetic mean of available scores, $V_{ij}$, for the $i^{th}$ nominee, i.e.,

$$X_i = \sum_{\substack{j=1 \\ (i \neq j)}}^{M} V_{ij} \; Z \qquad (1)$$

where:

$Z = M-1$ for all $i \leq M$ and

$Z = M$ for all $M < i \leq N$.

| | Nominators | | | | | | | Raw Scores |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | . | . | . | M | | |
| 1 | * | $V_{12}$ | . | . | . | $V_{1M}$ | | $X_1$ |
| 2 | $V_{21}$ | * | | | | $V_{2M}$ | | $X_2$ |
| . | . | . | | | | . | | . |
| . | . | . | | | | . | | . |
| . | . | . | | | | . | | . |
| M | $V_{M1}$ | $V_{M2}$ | . | . | . | * | | $X_M$ |
| M+1 | $V_{M+1,1}$ | $V_{M+1,2}$ | . | . | . | $V_{M+1,M}$ | | $X_{M+1}$ |
| M+2 | $V_{M+2,1}$ | $V_{M+2,2}$ | . | . | . | $V_{M+2,M}$ | | $X_{M+2}$ |
| . | . | . | | | | . | | . |
| . | . | . | | | | . | | . |
| . | . | . | | | | . | | . |
| N | $V_{N1}$ | $V_{N2}$ | . | . | . | $V_{NM}$ | | $X_N$ |
| | $M_1$ | $M_2$ | | | | $M_M$ | | $\bar{X}.$ |

$v_{ij}$ is the value assigned to the $i^{th}$ nominee by the $j^{th}$ nominator (according to one of three sets of scoring rules).

* indicates that values on the diagonal are undefinable because nominators could not nominate themselves.

Figure 1. Layout of peer nomination data for one flight of trainees on one of eight dimensions.

$X_i$ is the raw score (mean) for the ith nominee:

$$X_i = \sum_{\substack{j=1 \\ (i \neq j)}}^{M} V_{ij} \Big/ Z$$

where

$Z = M-1$ if $i \leq M$, and

$Z = M$ if $M < i \leq N$.

$M_j$ is the mean of nominations for the $j^{th}$ nominator (ordinarily a constant if data are complete):

$$M_j = \sum_{\substack{j=1 \\ (i \neq j)}}^{N} V_{ij} \Big/ N-1$$

$\overline{X}$ is the grand mean of scores:

$$\overline{X}_{\cdot} = \sum_{i=1}^{N} X_i \Big/ N$$

Figure 1 (continued). Layout of peer nomination data for one flight of trainees on one of eight dimensions.

For the case in which positive nominations only are scored, the range of $X_j$ is therefore 0 to 1; for negative nominations only, the range is -1 to 0; and for the algebraic sum nomination scoring, the range is -1 to 1. Reliability of these nomination scores for each of the three scoring rules was computed within flights. The algebraic sum scores proved to be most reliable and all subsequent adjusting of scores was accomplished for these scores only (see Table 1).

Table 1. Interrater Reliabilities of Positive, Negative, and Algebraic Sum Nominations[a]

| | Scoring Methods | | |
|---|---|---|---|
| | Positive | Negative | Algebraic Sum |
| 1. Try Hard | 87[b] | 93 | 93 |
| 2. Cooperative | 83 | 90 | 93 |
| 3. People Oriented | 84 | 87 | 89 |
| 4. Calm/Emotionally Stable | 80 | 88 | 88 |
| 5. Bright/Intelligent | 87 | 91 | 93 |
| 6. Not Excitable | 79 | 92 | 91 |
| 7. Physical Strength/Energy | 92 | 90 | 93 |
| 8. Likely to Succeed in Air Force | 90 | 93 | 94 |

[a]Mean reliabilities were computed separately for the male (N = 432) and female (N = 164) flights, and these means were very similar. Therefore, ony the reliabilities of the combined groups are presented here.

[b]Decimals have been omitted.

## Developing Standard Scores for Nominees

The strategy for creating nominee scores that may be legitimately compared across flights included an empirical norming step along with the equating of expected variances for different flights. Accordingly, groupings of flights were formed with approximately the same number of nominees in each flight. Within each of these groupings, then, the level of kurtosis of the distributions of raw nomination scores is very similar, and this helps to create comparable raw scores across flights within these groupings. However, because the number of nominators for flights within each of the groupings varied somewhat more than the number of nominees, and differential numbers of nominators also affect the comparability of scores across flights, these scores were adjusted to equate the expected variances in nomination scores for the different flights (again within grouping), which in turn aids in creating scores that are comparable across the flights.

At this point, the adjusted nomination scores for each grouping were pooled forming a single frequency distribution, and percentile scores were assigned. Finally, standard scores were assigned to each percentile score based on the corresponding percentiles of a normal distribution. Details of these procedures follow.

Two assumptions were required to proceed with the adjustment of nomination scores: (a) the underlying distribution of "true" nomination scores in large groupings of trainees is normal, and deviations from normality are artifacts of measurement; and (b) the reliability of nominations from any one nominator selected at random is the same as the reliability of any other nominator. The first assumption is necessary to justify forcing a normal distribution of scores for each grouping of trainees (with similar numbers of nominees) during the final step of the empirical norming process. The second asumption is required to make reasonable the adjustments of nomination scores using a formula that equates expected variances in the distributions of those scores across flights.

Thus, flights of trainees were aggregrated into 10 groupings, with each grouping having a range of three or fewer nominees across the flights (e.g., 30-33 nominees). Then, for any one of the rating categories, the following summary statistics of the raw scores x were computed;

$M_x$ = mean of all raw scores on a given rating category within a grouping of flights

$\sigma_x^2$ = variance of raw scores

$\bar{k}$ = mean of the averages (harmonic means) of nominators for all all of the flights within the grouping.

Using these statistics, the variance of the "typical" nominator's scores could be approximated by employing a formula given by Gulliksen (1951, pp. 73):

$$\sigma^2_{(11)} = \sigma^2_{\bar{k}} \left[ \frac{1}{\bar{k}} + \frac{1}{\bar{k}} \left( \frac{1}{\bar{k}} - 1 \right) r_{\bar{k}\bar{k}} \right] \qquad (2)$$

where the reliability value, $r_{kk}$ is the reliability of the raw nomination scores of the "typical flight" within the grouping, i.e.,

$$r_{\bar{k}\bar{k}} = \frac{\frac{\bar{k}}{37} \; r_{37,\,37}}{1 - \left( \frac{\bar{k}}{37} - 1 \right) r_{37,\,37}} \qquad (3)$$

This is the level of reliability adjusted to the average number of nominators in the flights within the grouping. The variance of a "typical" nominator's scores, $\sigma^2_{(11)}$ given in equation (2) above, is important for adjusting nomination raw scores.

Now, again within each grouping of flights, adjusted raw scores, $x'$, were computed so as to have a mean of zero and an expected variance of approximately $(25)^2$ as follows:

$$x' = g(x - \bar{x}.) \tag{4}$$

where $x.$ = mean nomination within flight (see Figure 1) and

$$g = \frac{25}{\sigma'_x}$$

$\sigma'_x$ is in turn the theoretical standard deviation of the nomination scores for flights within the same number of nominators, k, within the grouping of flights, i.e.,

$$\sigma_x'^2 = \sigma^2_{(11)} \left[k + k\,(k - 1)\, r_{11}\right] \tag{5}$$

Equation (5) also comes from Gulliksen (1950). The result of this particular adjustment to each raw score in a grouping of flights is a distribution of adjusted raw scores, $x'$, with a range of -100 to +100 and a standard deviation of 25. The adjusted scores were rounded to the nearest integer and percentile scores obtained for the frequency distribution of these rounded scores. Then, finally, standard scores were assigned to each percentile score based on the percentile equivalents of a normal distribution. For example, a T-score of 60 would be assigned to the 84th percentile, where the 84th percentile is one standard deviation above the mean in a normal distribution.

In this manner, nomination standard scores were developed which are comparable across flights. This comparability rendered possible correlational analyses with the nominations, incorporating data from trainees in all flights.

Reliability Estimation of Individual Flights

Computation of interrater reliability for peer nominations poses special difficulties because of the "diagonal problem"--i.e., nominators cannot nominate themselves. This creates an undefined observation in the otherwise completely crossed design.

Two authors have previously offered formulas for computing reliability estimates under these conditions (Gordon, 1969; Willingham, 1959b). However, neither of these formulas was suitable for the data collected in this study because neither was readily adaptable to the case where some nominees did not serve as nominators.

Thus, it was necessary to develop an appropriate index of interrater reliability for the purposes of this study as follows:

$$r_{kk} = \frac{MS_B - MS_E}{MS_B} \tag{1}$$

which is the Hoyt (1941) Reliability formula for k number of nominators given the following definitions (see Figure 1):

$$MS_B = \frac{k \sum_{i=1}^{N} (x_i - x.)^2}{N - 1} \tag{2}$$

and

$$MS_E = \frac{\sum_{i=1}^{N} \sum_{j=1 (i \neq j)}^{M} \left(V_{ij} - M_i - X_j + \bar{x}.\right)^2}{(N-1)(M-1) - M} \tag{3}$$

and k is the harmonic mean of the numbers of observations used in computations of the $X_j$:

$$k = \left( \sum_{j=1}^{M} \frac{1}{M-1} + \sum_{j=M+1}^{N} \frac{1}{M} \right)^{-1} N \tag{4}$$

$$= \frac{N}{\frac{M}{M-1} + \frac{N-M}{M}}$$

The rationale for the estimator, $r_{kk}$, follows from conventional reliability theory. The parameter of estimations is:

$$\rho_{kk} = \frac{k\sigma^2}{k\sigma^2 + \sigma_e^2} \tag{5}$$

where $\sigma^2$ is the variance of "true" scores, k is the theoretical number of nominators used to obtain the vector of observed scores, and $\sigma_e^2$ is the variance of errors.

First, $MS_E$ is defined in Equation (3) to be an estimator of $\sigma_e^2$, i.e.,

$$\text{est}(\sigma_e^2) = MS_E \tag{6}$$

which loses M degrees of freedom because of the undefined values, $v_{ij}$. Under the usual assumption that there is no statistical interaction of nominators with nominees, in an analysis of variance sense, the estimator, $MS_E$, may be shown to be unbiased. Failure of this assumption to be realized would lead to an overestimate of $\sigma_e^2$ and, consequently, an underestimate of $\rho_{kk}$.

The estimate of observed variance in scores, $MS_B$, may be shown to consist of two parametric components

$$E(MS_B) = \sigma_e^2 + k\sigma^2 \tag{7}$$

If the asumption of independence of errors is made. Specifically, it is assumed that

$$X_i = T_i + \bar{e}_i \tag{8}$$

where $X_i$ is an observed score for nominee i and $T_i$ is the "true" score value for this nominee while $\bar{e}_i$ is the independently distributed error component. This means that $X_i$ is independently distributed with an expected value of $T_i$ and variance of

$$\sigma_{\bar{e}_i}^2 = \sigma_e^2 / Z \tag{9}$$

where $Z = M-1$ if $i \leq M$ and $Z = M$ if $i > M$. The reader may recognize Equation (9) as the variance of the mean error across the nominators for the $i^{th}$ nominee by the central limit theorem.

Finally, it can be seen that the numerator of Equation (1) has an expectation equal to the numerator of Equation (5) and, also, the denominator of Equation (1) has an expectation which is equal to the denominator of equation (5), i.e.,

$$E(MS_B - MS_e) = k\sigma^2 \tag{10}$$

and

$$E(MS_B) = k\sigma^2 + \sigma_e^2 \tag{11}$$

which are the conventional conditions of reliability estimation.

Thus, Equation (1), with its elements defined in Equations (2) and (3), provided the general intraclass estimator for assessing the reliability of nominations in individual flights. Next, reliability information was summarized to depict the stability of the nominations across the many flights.

## Reliability Estimation for All Flights

Reliabilities were computed within each flight and for each rating category using Equation (1). Then, each of these reliabilities was adjusted to provide estimates that (a) yield fair comparisons of the degree of reliability for different sized flights, and (b) give a realistic picture of the reliability levels to be expected in future peer evaluation research with Air Force basic trainees.

The rationale for the adjustments is that the magnitude of reliability depends partially on the number of nominators providing ratings. The larger the number of nominators, the greater the expected level of interrater reliability, just as the longer form of a test typically provides higher reliabilities than a shorter form. Importantly, increments in reliability in both of these cases can be closely estimated by the Spearman-Brown formula, and we used this principle to "correct" reliabilities (up or down) to the 37 nominator level using the formula:

$$r_{37,\,37} = \frac{\frac{37}{k}\, r_{kk}}{1 + \left(\frac{37}{k} - 1\right) r_{kk}} \qquad (12)$$

where $k$ = number of nominators in the flight

$r_{kk}$ = reliability of the nominations in this flight

$r_{37,\,37}$ = the reliability adjusted to the 37-nominator level.

The 37-nominator level was used because it is approximately the mean number of nominators in the 596 flights studied, and it is assumed that future peer evaluation research with basic trainees will involve groups of approximately the same size. Therefore, these 37-nominator reliabilities should provide good estimates of the level of reliability that mght be expected in future research.

## III. RESULTS

### Interrater Reliability

Reliabilities for the positive, negative, and algebraic sum[4] of the positive and negative nominations were computed for each flight separately. To aid in selecting a scoring paradigm for the nominations, the means of these reliabilities were then compared. Rationale for using mean reliabilities was as follows: First, the use of means was motivated by the practical need to characterize the reliabilities with single summary indices. And second, it was anticipated that differences between this kind of estimate of "average reliability" and other estimates that might be developed would be very slight because of the "tight" distributions experienced (see Table 2 for a depiction of these distributions).

Though it may be possible to develop a single estimator within an analysis of variance framework, it was considered impractical because of the unnecessarily complex statistical development which would be required to weight appropriately the variance components of the individual flights containing differing numbers of nominators. Moreover, the computer programming for such an estimation process would have been considerable. Accordingly, the mean of the intraclass estimators for a given dimension (which adjusted using the Spearmen-Brown prophecy formula to a common frame of reference--37 nominators) was accepted as a reasonable estimate of the reliability of a randomly selected flight with 37 nominators.

Table 1 clearly shows that the algebraic sum scores are most reliable, although differences between these reliabilities and those of the negative nomination scores are small. This slight superiority in the stability of the algebraic sum scores suggests an advantage of using these scores in subsequent research. In addition, the summed scores contain more information than either the positive or negative scores alone, and this feature of the summed scores also argues for their use in future research.

Table 2 provides a more complete picture of the reliability results for the summed scores. It showed that reliabilities within flights are uniformly high, and therefore, that very stable peer nomination data can be expected for flights of this size (i.e., Ns ≈ 37).

---

[4]Raw Scores for the algebraic sum scoring procedure were computed by simply adding together all positive nominations and subtracting the sum of the negative nominations.

## Development of Norm Tables for Scoring Nominations

Norm tables were developed to score these nominations or nominations gathered in future peer evaluation research. The tables permit the researcher to compute a standard score for any raw nomination score. The tables have been prepared for many different sized flights, and they are presented in Appendixes A to H.

## IV. SUMMARY AND CONCLUSIONS

The Air Force gathered peer nominations on over 27,000 basic trainees. Interrater reliabilities of the positive, negative, and algebraic sum nominations were computed within flight, and the distributions of these reliabilities were examined. Reliability of the algebraic sum nominations proved to be highest; means of the intraclass correlations used to index reliability ranged from .88 to .94 for the eight rating categories, indicating good stability for the summed nominations.

A special scoring strategy for the summed nominations was then developed to render comparable raw nomination scores across the different flights. The standardized nomination scores on each of the eight rating categories were subsequently correlated with test scores available for many of the trainees. The patterns of these correlations provided some evidence of convergent and discriminant validity for the nominations.

Conclusions based on this research are:

1. In future peer evaluation studies, the Air Force should continue to gather both positive and negative nominations. The algebraic sum of these nominations appears to offer the most reliable measure of the rating categories.

2. The strategy developed for standardized scoring of nominations should be used in future peer evaluation research. The norm table developed in this research will greatly facilitate the adjusting of raw nomination scores. The capability of correcting nomination scores to achieve comparability in such scores across flights, along with the high reliabilities of these nominations, further substantiates the utility of collecting peer ratings.

## REFERENCES


Flyer, E.S., & Bigbee, L.R. Primary flying grades, pilot stanine, and preflight peer nominations as predictors of basic pilot training criteria. PRL-TM-55-17. Lackland Air Force Base, TX: Air Force Personnel and Training Research Center, June 1955.

Gordon, L.V. Estimating the reliability of peer ratings. Educational and Psychological Measurement, 1969, 29, 305-313.

Gulliksen, H. Theory of mental tests. New York: Wiley, 1951.

Hoyt, C. Test reliability obtained by analysis of variance. Psychometrika, 1941, 6, 153-160.

Kane, J.S., & Lawler, E.E. Methods of peer assessment. Psychological Bulletin, 1978, 85, 555-586.

Lammlein, S.E., & Borman, W.C. Peer rating research: Annotated bibliography. AFHRL-TR-79-9, AD-A071 409. Brooks Air Force Base, TX: Air Force Human Resources Laboratory, June 1979.

Swanson, R.G., & Johnson, D.A. Relation between peer perception of leader behavior and instructor-pilot performance. Journal of Applied Psychology, 1975, 60, 198-200.

Tupes, E.C. Relationships between ratings by peers and later performance of USAF Officer Candidate School graduates. AFPTRC-TN-57-124, AD-134 257. Lackland Air Force Base, TX: Air Force Personnel and Training Research Center, October 1957.

Tupes, E.C., & Kaplan, M.N. Relationships between personality traits, physical proficiency, and cadet effectiveness reports of Air Force Academy cadets. ASD-TN-61-53, AD-264 916. Lackland Air Force Base, TX: Personnel Laboratory, Aeronautical Systems Division, September 1961.

Willingham, W.W. On deriving standard scores for peer nominations with subgroups of unequal size. Psychological Reports, 1959, 5, 397-403. (a)

Willingham, W.W. Estimating the internal consistency of mutual peer nominations. Psychological Reports, 1959, 5, 163-167. (b)

## APPENDIX A. NORM TABLES FOR DERIVING STANDARDIZED PEER NOMINATION SCORES AND NORM TABLES FOR DIMENSION A - TRY HARD

These appendices A to H provide instructions and tables for scoring peer nominations on each of the eight rating categories used in this research. The scoring procedures for the first category, Try Hard, are described in Appendix A; the same procedures can then be used to score nominations on the other rating categories.

First, the rating instructions require trainees in each flight to identify the five best or most effective trainees in their flight on each rating category. They are also instructed to identify the five worst or least effective trainees in their flight on each of these categories. Now, a given trainee's raw score (X) for a category is computed using the formula:

$$X = \frac{\text{Number of positive nominations} - \text{Number of negative nominations}}{\text{Number of nominations possible}}$$

Because trainees are prohibited from nominating themselves, the number of nominations possible is one less than the total number of nominators in the flight, unless the trainee whose nominations are being scored does not serve as a nominator (e.g., he/she is absent from the rating session). In that case, the number of nominations possible is equal to the number of nominators in the flight.

After the raw score for a nominee has been computed for the rating category, an adjustment must be made in this score to corrrect for the effects on the raw scores of differing numbers of nominators and nominees. This can be accomplished by entering Table A-1 with the number of nominators and nominees in the trainees' flight and then employing the obtained value (Q) in the equation

$$Y = Q \quad X$$

where Y is the transformed raw score*

*In General, these scores will range from -100 to +100. It is mathematically possible for them to take on values greater than +100 or less than -100 but this should occur infrequently. Also, we should mention that the transformation indices in Tables A-1, B-1, etc., are in the main based on large norming groups and therefore are probably stable estimates that would be confirmed in future peer rating research with these rating categories and the same kind of basic trainee sample. However, as the Ns in these tables indicate, the values for the smallest group sizes (e.g., N = 29) and the values for the largest group sizes (e.g., N = 58) are based on smaller samples, and therefore, the adjustments to raw scores made for these groups should be performed with caution.

The standardized score for the trainees on this rating category can now be obtained by entering Table A-2 with the transformed raw score and the number of nominees in the trainee's flight. An example is now provided to show the scoring procedure:

Number of nominators = 37 (the trainee did provide nominations)
Number of nominees = 40
Number of positive nominations for the trainee on Category A = 14

$$X = \frac{14 - 4}{36}$$

$X = + .278$
The Q value from Table A-1 is 92.534
Thus, $Y = +.278\ (92.534)$
$Y = +25.72$ or $+26$
and the standardized score (from Table A-2) = 62

The same procedures should be followed in scoring nominations on other rating categories. The requisite tables are included in Appendixes B to H.

As mentioned in the text of the report, this standardizing process yields scores that are comparable across flights with differing numbers of nominators and nominees. Accordingly, the standardized scores permit analyses of data from multiple flights, a critical requirement for conducting further research that focuses on correlations between peer nominations and criterion variables.

TABLE A-1. TABLE OF INITIAL, RAW-SCORE TRANSFORMATION COEFFICIENTS FOR DIMENSION A - TRY HARD.

| NO. OF NOMINATORS | N-U-M-B-E-R O-F N-O-M-I-N-E-E-S 29-29 | 31-33 | 34-36 | 37-39 | 40-42 | 43-45 | 46-48 | 49-51 | 52-54 | 58-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| 21 | 71.860 | 76.945 | 85.982 | 85.508 | 90.039 | 94.505 | 98.189 | 100.942 | 104.443 | 119.957 |
| 22 | 72.064 | 77.162 | 86.224 | 85.749 | 90.292 | 94.771 | 98.464 | 101.224 | 104.735 | 120.292 |
| 23 | 72.251 | 77.362 | 86.448 | 85.970 | 90.524 | 95.015 | 98.717 | 101.484 | 105.004 | 120.600 |
| 24 | 72.425 | 77.547 | 86.654 | 86.175 | 90.739 | 95.240 | 98.951 | 101.724 | 105.252 | 120.884 |
| 25 | 72.585 | 77.719 | 86.845 | 86.364 | 90.938 | 449 | 99.167 | 101.946 | 105.481 | 121.148 |
| 26 | 72.734 | 77.878 | 87.022 | 86.540 | 91.123 | 643 | 99.369 | 102.153 | 105.695 | 121.393 |
| 27 | 72.873 | 78.026 | 87.187 | 86.704 | 91.296 | 823 | 99.556 | 102.345 | 105.894 | 121.620 |
| 28 | 73.003 | 78.164 | 87.341 | 86.857 | 91.457 | .992 | 99.731 | 102.525 | 106.079 | 121.833 |
| 29 | 73.124 | 78.294 | 87.486 | 87.000 | 91.607 | 96.149 | 99.894 | 102.693 | 106.253 | 122.032 |
| 30 | --- | 78.415 | 87.621 | 87.135 | 91.747 | 96.297 | 100.048 | 102.850 | 106.416 | 122.219 |
| 31 | --- | 78.529 | 87.748 | 87.261 | 91. . | 96.436 | 100.192 | 102.998 | 106.569 | 122.395 |
| 32 | --- | 78.637 | 87.868 | 87.380 | 92 06 | 96.567 | 100.328 | 103.138 | 106.713 | 122.560 |
| 33 | --- | 78.738 | 87.981 | 87.492 | 92.123 | 96.690 | 100.456 | 103.269 | 106.848 | 122.715 |
| 34 | --- | --- | 88.087 | 87.597 | 92.234 | 96.807 | 100.577 | 103.393 | 106.977 | 122.863 |
| 35 | --- | --- | 88.188 | 87.697 | 92.340 | 96.917 | 100.691 | 103.511 | 107.098 | 123.002 |
| 36 | --- | --- | 88.284 | 87.792 | 92.439 | 97.022 | 100.799 | 103.622 | 107.213 | 123.134 |
| 37 | --- | --- | --- | 87.882 | 92.534 | 97.121 | 100.902 | 103.728 | 107.322 | 123.259 |
| 38 | --- | --- | --- | 87.968 | 92.624 | 97.215 | 101.000 | 103.828 | 107.426 | 123.378 |
| 39 | --- | --- | --- | 88.049 | 92.709 | 97.305 | 101.093 | 103.923 | 107.525 | 123.491 |
| 40 | --- | --- | --- | --- | 92.791 | 97.390 | 101.181 | 104.014 | 107.619 | 123.599 |
| 41 | --- | --- | --- | --- | 92.869 | 97.471 | 101.266 | 104.101 | 107.708 | 123.701 |
| 42 | --- | --- | --- | --- | 92.943 | 97.549 | 101.346 | 104.184 | 107.794 | 123.799 |
| 43 | --- | --- | --- | --- | --- | 97.623 | 101.424 | 104.263 | 107.876 | 123.893 |
| 44 | --- | --- | --- | --- | --- | 97.694 | 101.497 | 104.339 | 107.954 | 123.983 |
| 45 | --- | --- | --- | --- | --- | 97.762 | 101.568 | 104.411 | 108.029 | 124.069 |
| 46 | --- | --- | --- | --- | --- | --- | 101.636 | 104.481 | 108.100 | 124.151 |
| 47 | --- | --- | --- | --- | --- | --- | 101.700 | 104.547 | 108.169 | 124.230 |
| 48 | --- | --- | --- | --- | --- | --- | 101.763 | 104.611 | 108.235 | 124.306 |
| 49 | --- | --- | --- | --- | --- | --- | --- | 104.673 | 108.299 | 124.379 |
| 50 | --- | --- | --- | --- | --- | --- | --- | 104.732 | 108.360 | 124.449 |
| 51 | --- | --- | --- | --- | --- | --- | --- | 104.789 | 108.419 | 124.516 |
| 52 | --- | --- | --- | --- | --- | --- | --- | --- | 108.476 | 124.581 |
| 53 | --- | --- | --- | --- | --- | --- | --- | --- | 108.530 | 124.644 |
| 54 | --- | --- | --- | --- | --- | --- | --- | --- | 108.583 | 124.704 |
| 55 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 124.762 |
| 56 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 124.819 |
| 57 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 124.873 |
| 58 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 124.926 |
| NORMATIVE SAMPLE N= | 29 | 129 | 390 | 1107 | 2924 | 6807 | 8968 | 5525 | 1216 | 58 |

TABLE A-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION A - TRY HARD.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | N-U-M-B-E-R 34-36 | 37-39 | O-F 40-42 | N-O-M-I-N-E-E-S 43-45 | 46-48 | 49-51 | 52-54 | 58-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| -100 | -- | -- | -- | -- | -- | -- | 11 | 16 | 19 | -- |
| -99 | -- | -- | -- | -- | -- | -- | 12 | 18 | 20 | -- |
| -98 | -- | -- | -- | -- | -- | -- | 13 | 19 | 20 | -- |
| -97 | -- | -- | -- | -- | -- | 14 | 13 | 19 | 21 | -- |
| -96 | -- | -- | -- | -- | -- | 15 | 14 | 20 | 21 | -- |
| -95 | -- | -- | -- | -- | -- | 16 | 15 | 20 | 22 | -- |
| -94 | -- | -- | -- | -- | -- | 18 | 15 | 20 | 22 | -- |
| -93 | -- | -- | -- | -- | -- | 18 | 16 | 20 | 22 | -- |
| -92 | -- | -- | -- | -- | -- | 18 | 16 | 21 | 22 | -- |
| -91 | -- | -- | -- | -- | -- | 19 | 18 | 21 | 22 | -- |
| -90 | -- | -- | -- | -- | -- | 19 | 19 | 21 | 23 | -- |
| -89 | -- | -- | -- | -- | -- | 20 | 20 | 22 | 23 | -- |
| -88 | -- | -- | -- | -- | 14 | 20 | 21 | 22 | 23 | -- |
| -87 | -- | -- | -- | 17 | 18 | 21 | 21 | 22 | 23 | -- |
| -86 | -- | -- | -- | 18 | 19 | 21 | 22 | 23 | 24 | -- |
| -85 | -- | -- | -- | 18 | 20 | 22 | 22 | 23 | 24 | -- |
| -84 | -- | -- | -- | 19 | 21 | 23 | 23 | 23 | 24 | -- |
| -83 | -- | -- | -- | 19 | 22 | 23 | 23 | 24 | 24 | -- |
| -82 | -- | -- | -- | 20 | 22 | 23 | 24 | 25 | 24 | -- |
| -81 | -- | -- | -- | 20 | 23 | 24 | 24 | 26 | 25 | -- |
| -80 | -- | -- | -- | 22 | 23 | 24 | 25 | 26 | 26 | -- |
| -79 | -- | -- | 20 | 22 | 24 | 24 | 25 | 27 | 26 | -- |
| -78 | -- | -- | 21 | 23 | 24 | 25 | 25 | 27 | 26 | -- |
| -77 | -- | -- | 21 | 23 | 25 | 25 | 26 | 27 | 26 | -- |
| -76 | -- | -- | 22 | 24 | 25 | 25 | 26 | 27 | 27 | -- |
| -75 | -- | -- | 22 | 25 | 25 | 26 | 26 | 27 | 27 | -- |
| -74 | -- | -- | 23 | 25 | 26 | 26 | 27 | 28 | 27 | -- |
| -73 | -- | -- | 23 | 25 | 26 | 26 | 27 | 28 | 28 | -- |
| -72 | -- | -- | 23 | 25 | 27 | 27 | 28 | 28 | 28 | -- |
| -71 | -- | -- | 24 | 26 | 27 | 27 | 28 | 28 | 28 | -- |
| -70 | -- | -- | 24 | 26 | 28 | 27 | 28 | 29 | 28 | -- |
| -69 | 29 | -- | 25 | 27 | 28 | 28 | 29 | 29 | 29 | -- |
| -68 | 29 | -- | 25 | 27 | 28 | 28 | 29 | 29 | 29 | -- |
| -67 | 29 | -- | 26 | 27 | 28 | 29 | 29 | 29 | 29 | -- |
| -66 | 30 | -- | 27 | 27 | 29 | 29 | 29 | 30 | 30 | -- |
| -65 | 30 | -- | 27 | 27 | 29 | 29 | 30 | 30 | 30 | -- |
| -64 | 30 | -- | 28 | 28 | 29 | 29 | 30 | 30 | 30 | -- |
| -63 | 30 | -- | 28 | 28 | 29 | 30 | 30 | 30 | 31 | 26 |
| -62 | 30 | 26 | 29 | 28 | 29 | 30 | 30 | 30 | 31 | 28 |
| -61 | 30 | 26 | 30 | 28 | 30 | 30 | 30 | 30 | 31 | 29 |

TABLE A-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION A - TRY HARD.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | N-U-M-B-E-R 34-36 | 37-39 | O-F 40-42 | N-O-M-I-N-E-E-S 43-45 | 46-48 | 49-51 | 52-54 | 58-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| -60 | 31 | 27 | 30 | 28 | 30 | 30 | 31 | 31 | 31 | 31 |
| -59 | 31 | 27 | 31 | 29 | 30 | 31 | 31 | 31 | 31 | 33 |
| -58 | 31 | 27 | 31 | 30 | 31 | 31 | 31 | 31 | 32 | 33 |
| -57 | 31 | 28 | 32 | 30 | 31 | 31 | 32 | 31 | 32 | 33 |
| -56 | 31 | 28 | 32 | 30 | 31 | 32 | 32 | 32 | 32 | 34 |
| -55 | 32 | 28 | 33 | 30 | 31 | 32 | 32 | 32 | 32 | 34 |
| -54 | 32 | 29 | 33 | 31 | 32 | 32 | 32 | 32 | 33 | 34 |
| -53 | 32 | 29 | 34 | 31 | 32 | 33 | 33 | 32 | 33 | 34 |
| -52 | 32 | 30 | 34 | 31 | 32 | 33 | 33 | 33 | 33 | 34 |
| -51 | 32 | 31 | 34 | 32 | 33 | 33 | 33 | 33 | 33 | 34 |
| -50 | 32 | 32 | 34 | 32 | 33 | 33 | 33 | 33 | 33 | 35 |
| -49 | 33 | 32 | 34 | 32 | 33 | 34 | 33 | 33 | 34 | 35 |
| -48 | 33 | 33 | 35 | 32 | 34 | 34 | 34 | 33 | 34 | 35 |
| -47 | 33 | 34 | 35 | 33 | 34 | 34 | 34 | 34 | 34 | 35 |
| -46 | 33 | 34 | 35 | 33 | 34 | 34 | 34 | 34 | 34 | 35 |
| -45 | 33 | 34 | 35 | 33 | 34 | 34 | 34 | 34 | 34 | 35 |
| -44 | 34 | 35 | 36 | 34 | 35 | 35 | 34 | 34 | 34 | 36 |
| -43 | 34 | 36 | 36 | 34 | 35 | 35 | 35 | 35 | 35 | 36 |
| -42 | 34 | 36 | 36 | 35 | 35 | 35 | 35 | 35 | 35 | 36 |
| -41 | 34 | 36 | 37 | 35 | 36 | 35 | 35 | 35 | 35 | 36 |
| -40 | 34 | 36 | 37 | 35 | 36 | 35 | 35 | 35 | 35 | 37 |
| -39 | 34 | 36 | 37 | 35 | 36 | 36 | 36 | 35 | 35 | 37 |
| -38 | 35 | 37 | 37 | 35 | 36 | 36 | 36 | 36 | 36 | 37 |
| -37 | 35 | 37 | 37 | 36 | 36 | 36 | 36 | 36 | 36 | 37 |
| -36 | 35 | 37 | 37 | 36 | 37 | 36 | 36 | 36 | 36 | 38 |
| -35 | 36 | 37 | 37 | 37 | 37 | 36 | 37 | 37 | 36 | 38 |
| -34 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 36 | 38 |
| -33 | 38 | 38 | 38 | 37 | 37 | 37 | 37 | 37 | 37 | 38 |
| -32 | 38 | 38 | 38 | 37 | 38 | 37 | 37 | 37 | 37 | 39 |
| -31 | 39 | 38 | 38 | 38 | 38 | 37 | 37 | 37 | 37 | 39 |
| -30 | 39 | 38 | 38 | 38 | 38 | 38 | 38 | 37 | 37 | 39 |
| -29 | 39 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 37 | 39 |
| -28 | 39 | 39 | 39 | 39 | 38 | 38 | 38 | 38 | 38 | 39 |
| -27 | 40 | 39 | 39 | 39 | 39 | 38 | 38 | 38 | 38 | 39 |
| -26 | 40 | 39 | 39 | 39 | 39 | 39 | 39 | 38 | 38 | 39 |
| -25 | 40 | 40 | 40 | 39 | 39 | 39 | 39 | 39 | 39 | 39 |
| -24 | 40 | 40 | 40 | 40 | 40 | 39 | 39 | 39 | 39 | 40 |
| -23 | 40 | 41 | 40 | 40 | 40 | 39 | 39 | 39 | 39 | 40 |
| -22 | 40 | 41 | 40 | 41 | 40 | 40 | 40 | 39 | 39 | 40 |
| -21 | 41 | 41 | 40 | 41 | 40 | 40 | 40 | 40 | 40 | 40 |

TABLE A-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION A - TRY HARD.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | N-U-M-B-E-R 34-36 | 37-39 | O-F 40-42 | N-O-M-I-N-E-E-S 43-45 | 46-48 | 49-51 | 52-54 | 58-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| -20 | 41 | 42 | 40 | 41 | 41 | 40 | 40 | 40 | 40 | 40 |
| -19 | 41 | 42 | 41 | 42 | 41 | 41 | 40 | 40 | 40 | 40 |
| -18 | 41 | 42 | 41 | 42 | 41 | 41 | 41 | 40 | 40 | 41 |
| -17 | 41 | 42 | 41 | 42 | 41 | 41 | 41 | 41 | 40 | 41 |
| -16 | 41 | 42 | 42 | 42 | 42 | 41 | 41 | 41 | 41 | 41 |
| -15 | 42 | 42 | 42 | 43 | 42 | 42 | 42 | 41 | 41 | 41 |
| -14 | 42 | 43 | 42 | 43 | 42 | 42 | 42 | 42 | 41 | 41 |
| -13 | 43 | 43 | 43 | 43 | 43 | 42 | 42 | 42 | 41 | 42 |
| -12 | 44 | 43 | 43 | 44 | 43 | 43 | 43 | 42 | 42 | 42 |
| -11 | 44 | 44 | 44 | 44 | 43 | 43 | 43 | 43 | 42 | 42 |
| -10 | 45 | 45 | 44 | 44 | 44 | 43 | 43 | 43 | 42 | 43 |
| -9 | 45 | 45 | 44 | 44 | 44 | 44 | 43 | 43 | 43 | 43 |
| -8 | 46 | 46 | 45 | 45 | 44 | 44 | 44 | 44 | 43 | 43 |
| -7 | 46 | 46 | 45 | 45 | 45 | 45 | 44 | 44 | 44 | 44 |
| -6 | 46 | 47 | 45 | 46 | 45 | 45 | 45 | 44 | 44 | 44 |
| -5 | 47 | 47 | 46 | 46 | 46 | 45 | 45 | 45 | 45 | 44 |
| -4 | 47 | 47 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 45 |
| -3 | 48 | 47 | 47 | 47 | 47 | 46 | 46 | 46 | 46 | 45 |
| -2 | 49 | 48 | 47 | 48 | 47 | 47 | 47 | 47 | 47 | 46 |
| -1 | 49 | 49 | 48 | 49 | 48 | 48 | 48 | 48 | 48 | 47 |
| 0 | 50 | 50 | 48 | 49 | 49 | 49 | 49 | 49 | 49 | 48 |
| 1 | 51 | 51 | 49 | 50 | 50 | 50 | 50 | 50 | 50 | 49 |
| 2 | 51 | 51 | 49 | 50 | 50 | 50 | 50 | 51 | 51 | 50 |
| 3 | 52 | 52 | 50 | 51 | 51 | 51 | 51 | 52 | 52 | 51 |
| 4 | 53 | 53 | 51 | 52 | 51 | 52 | 52 | 52 | 53 | 52 |
| 5 | 53 | 53 | 51 | 52 | 52 | 52 | 52 | 53 | 53 | 52 |
| 6 | 54 | 53 | 52 | 53 | 53 | 53 | 53 | 53 | 54 | 53 |
| 7 | 54 | 54 | 53 | 54 | 53 | 54 | 54 | 54 | 54 | 53 |
| 8 | 54 | 54 | 53 | 54 | 54 | 54 | 54 | 55 | 55 | 54 |
| 9 | 55 | 54 | 54 | 55 | 55 | 55 | 55 | 55 | 56 | 54 |
| 10 | 55 | 54 | 54 | 55 | 55 | 55 | 55 | 56 | 56 | 55 |
| 11 | 55 | 55 | 55 | 56 | 56 | 55 | 56 | 56 | 57 | 55 |
| 12 | 56 | 56 | 55 | 56 | 56 | 56 | 56 | 57 | 57 | 55 |
| 13 | 56 | 56 | 56 | 57 | 57 | 57 | 57 | 57 | 58 | 57 |
| 14 | 56 | 57 | 56 | 57 | 57 | 57 | 57 | 58 | 58 | 57 |
| 15 | 57 | 57 | 57 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| 16 | 57 | 57 | 57 | 58 | 58 | 58 | 58 | 59 | 59 | 58 |
| 17 | 57 | 57 | 57 | 58 | 58 | 59 | 59 | 59 | 59 | 59 |
| 18 | 58 | 58 | 58 | 59 | 59 | 59 | 59 | 60 | 60 | 59 |
| 19 | 58 | 58 | 58 | 59 | 59 | 59 | 60 | 60 | 60 | 59 |
| 20 | 58 | 58 | 59 | 59 | 60 | 60 | 60 | 60 | 60 | 60 |

TABLE A-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION A - TRY HARD.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | 34-36 | 37-39 | 40-42 | 43-45 | 46-48 | 49-51 | 52-54 | 58-59 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | N-U-M-B-E-R | | O-F | N-O-M-I-N-E-E-S | | | | |
| 21 | 58 | 59 | 59 | 60 | 60 | 60 | 60 | 61 | 61 | 60 |
| 22 | 58 | 59 | 60 | 60 | 61 | 61 | 61 | 61 | 61 | 60 |
| 23 | 59 | 60 | 60 | 60 | 61 | 61 | 61 | 61 | 61 | 61 |
| 24 | 59 | 60 | 61 | 61 | 61 | 61 | 62 | 62 | 62 | 61 |
| 25 | 59 | 60 | 61 | 61 | 62 | 62 | 62 | 62 | 62 | 61 |
| 26 | 59 | 60 | 62 | 61 | 62 | 62 | 62 | 63 | 62 | 62 |
| 27 | 60 | 61 | 62 | 62 | 62 | 63 | 63 | 63 | 63 | 62 |
| 28 | 60 | 61 | 63 | 62 | 63 | 63 | 63 | 63 | 63 | 62 |
| 29 | 61 | 61 | 64 | 62 | 63 | 63 | 63 | 64 | 63 | 63 |
| 30 | 61 | 61 | 64 | 62 | 63 | 63 | 64 | 64 | 64 | 63 |
| 31 | 63 | 61 | 64 | 63 | 64 | 64 | 64 | 64 | 64 | 63 |
| 32 | 64 | 62 | 65 | 63 | 64 | 64 | 64 | 64 | 64 | 64 |
| 33 | 64 | 62 | 65 | 64 | 64 | 64 | 65 | 65 | 65 | 64 |
| 34 | 64 | 62 | 65 | 64 | 65 | 65 | 65 | 65 | 65 | 65 |
| 35 | 65 | 63 | 66 | 64 | 65 | 65 | 65 | 65 | 65 | 65 |
| 36 | 65 | 63 | 65 | 64 | 65 | 65 | 65 | 66 | 65 | 66 |
| 37 | 65 | 64 | 66 | 65 | 66 | 66 | 66 | 66 | 66 | 66 |
| 38 | 65 | 65 | 67 | 65 | 66 | 66 | 66 | 66 | 66 | 67 |
| 39 | 65 | 66 | 67 | 65 | 66 | 66 | 66 | 66 | 67 | 67 |
| 40 | 65 | 66 | 67 | 66 | 66 | 67 | 67 | 67 | 67 | 67 |
| 41 | 66 | 66 | 68 | 66 | 67 | 67 | 67 | 67 | 67 | 68 |
| 42 | 66 | 67 | 69 | 67 | 67 | 67 | 67 | 67 | 67 | 68 |
| 43 | 66 | 67 | 69 | 67 | 67 | 67 | 67 | 67 | 68 | 68 |
| 44 | 67 | 68 | 69 | 67 | 68 | 68 | 68 | 68 | 68 | 69 |
| 45 | 69 | 68 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 69 |
| 46 | 70 | 69 | 70 | 68 | 68 | 68 | 68 | 68 | 69 | 69 |
| 47 | 71 | 70 | 70 | 68 | 69 | 69 | 68 | 69 | 69 | 70 |
| 48 | -- | 71 | 71 | 68 | 69 | 69 | 69 | 69 | 69 | 70 |
| 49 | -- | 71 | 71 | 69 | 70 | 69 | 69 | 69 | 69 | 70 |
| 50 | -- | 72 | 71 | 69 | 70 | 70 | 69 | 69 | 69 | 71 |
| 51 | -- | 72 | 72 | 70 | 70 | 70 | 70 | 70 | 69 | 71 |
| 52 | -- | 72 | 72 | 70 | 71 | 70 | 70 | 70 | 70 | 71 |
| 53 | -- | 72 | 72 | 71 | 71 | 71 | 70 | 70 | 70 | 72 |
| 54 | -- | 73 | 74 | 71 | 71 | 71 | 71 | 71 | 70 | 72 |
| 55 | -- | 73 | 75 | 71 | 71 | 71 | 71 | 71 | 70 | 72 |
| 56 | -- | 73 | 75 | 72 | 72 | 71 | 71 | 71 | 70 | 73 |
| 57 | -- | 73 | 76 | 72 | 72 | 72 | 71 | 71 | 70 | 73 |
| 58 | -- | 74 | 75 | 72 | 73 | 72 | 72 | 72 | 71 | 73 |
| 59 | -- | 74 | 75 | 72 | 73 | 73 | 72 | 72 | 71 | 74 |
| 60 | -- | -- | 77 | 72 | 74 | 73 | 72 | 72 | 71 | 74 |

TABLE A-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION A - TRY HARD.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | N-U-M-B-E-R 34-36 | 37-39 | O-F 40-42 | N-O-M-I-N-E-E-S 43-45 | 46-48 | 49-51 | 52-54 | 58-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| 61 | -- | -- | 77 | 73 | 74 | 73 | 73 | 72 | 71 | -- |
| 62 | -- | -- | 77 | 73 | 74 | 73 | 73 | 72 | 71 | -- |
| 63 | -- | -- | 78 | 73 | 75 | 74 | 73 | 73 | 71 | -- |
| 64 | -- | -- | 78 | 74 | 75 | 74 | 74 | 73 | 72 | -- |
| 65 | -- | -- | 78 | 74 | 76 | 75 | 74 | 73 | 72 | -- |
| 66 | -- | -- | 78 | 75 | 76 | 75 | 75 | 73 | 72 | -- |
| 67 | -- | -- | 79 | 75 | 77 | 76 | 75 | 73 | 73 | -- |
| 68 | -- | -- | 79 | 75 | 77 | 75 | 76 | 73 | 74 | -- |
| 69 | -- | -- | 79 | 76 | 78 | 76 | 76 | 74 | 74 | -- |
| 70 | -- | -- | 80 | 76 | 78 | 77 | 76 | 74 | 75 | -- |
| 71 | -- | -- | 80 | 77 | 78 | 77 | 77 | 74 | 76 | -- |
| 72 | -- | -- | -- | 77 | 79 | 78 | 77 | 74 | 76 | -- |
| 73 | -- | -- | -- | 77 | 79 | 78 | 78 | 75 | 76 | -- |
| 74 | -- | -- | -- | 78 | 79 | 78 | 78 | 75 | 78 | -- |
| 75 | -- | -- | -- | 78 | 79 | 79 | 78 | 76 | 78 | -- |
| 76 | -- | -- | -- | 80 | 81 | 79 | 79 | 76 | 78 | -- |
| 77 | -- | -- | -- | 83 | 81 | 79 | 79 | 76 | 79 | -- |
| 78 | -- | -- | -- | -- | 82 | 79 | 79 | 77 | 79 | -- |
| 79 | -- | -- | -- | -- | 82 | 80 | 80 | 77 | 79 | -- |
| 80 | -- | -- | -- | -- | 82 | 81 | 80 | 78 | 79 | -- |
| 81 | -- | -- | -- | -- | 83 | 81 | 81 | 79 | 79 | -- |
| 82 | -- | -- | -- | -- | 83 | 82 | 81 | 80 | 79 | -- |
| 83 | -- | -- | -- | -- | 84 | 82 | 82 | 80 | 80 | -- |
| 84 | -- | -- | -- | -- | 84 | 82 | 84 | 81 | 80 | -- |
| 85 | -- | -- | -- | -- | 84 | 84 | 89 | 82 | 80 | -- |
| 86 | -- | -- | -- | -- | 85 | 85 | -- | 83 | 80 | -- |
| 87 | -- | -- | -- | -- | 85 | 85 | -- | 83 | 80 | -- |
| 88 | -- | -- | -- | -- | 85 | 88 | -- | 84 | 81 | -- |
| 89 | -- | -- | -- | -- | 86 | -- | -- | 85 | 81 | -- |
| 90 | -- | -- | -- | -- | 86 | -- | -- | 86 | 81 | -- |
| 91 | -- | -- | -- | -- | -- | -- | -- | -- | 81 | -- |
| 92 | -- | -- | -- | -- | -- | -- | -- | -- | 82 | -- |
| 93 | -- | -- | -- | -- | -- | -- | -- | -- | 82 | -- |
| 94 | -- | -- | -- | -- | -- | -- | -- | -- | 82 | -- |
| 95 | -- | -- | -- | -- | -- | -- | -- | -- | 82 | -- |
| 96 | -- | -- | -- | -- | -- | -- | -- | -- | 83 | -- |
| 97 | -- | -- | -- | -- | -- | -- | -- | -- | 83 | -- |
| 98 | -- | -- | -- | -- | -- | -- | -- | -- | 83 | -- |
| 99 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

TABLE B-1. TABLE OF INITIAL, RAW-SCORE TRANSFORMATION COEFFICIENTS FOR DIMENSION B - COOPERATIVE.

| NO. OF NOMINATORS | N-U-M-B-E-R O-F N-O-M-I-N-E-E-S 29-29 | 31-33 | 34-36 | 37-39 | 40-42 | 43-45 | 46-48 | 49-51 | 52-54 | 58-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| 21 | 85.009 | 87.655 | 95.367 | 92.595 | 100.213 | 105.232 | 109.101 | 114.650 | 120.784 | 116.496 |
| 22 | 85.340 | 87.996 | 95.737 | 92.953 | 100.600 | 105.638 | 109.521 | 115.091 | 121.249 | 116.943 |
| 23 | 85.646 | 88.310 | 96.078 | 93.284 | 100.958 | 106.012 | 109.909 | 115.498 | 121.677 | 117.355 |
| 24 | 85.929 | 88.601 | 96.394 | 93.590 | 101.289 | 106.359 | 110.268 | 115.875 | 122.074 | 117.737 |
| 25 | 86.192 | 88.872 | 96.688 | 93.875 | 101.596 | 106.681 | 110.602 | 116.225 | 122.442 | 118.092 |
| 26 | 86.437 | 89.124 | 96.961 | 94.140 | 101.882 | 106.981 | 110.912 | 116.551 | 122.785 | 118.422 |
| 27 | 86.666 | 89.359 | 97.216 | 94.387 | 102.149 | 107.261 | 111.202 | 116.856 | 123.105 | 118.731 |
| 28 | 86.880 | 89.579 | 97.455 | 94.618 | 102.399 | 107.523 | 111.473 | 117.140 | 123.405 | 119.019 |
| 29 | 87.080 | 89.785 | 97.678 | 94.835 | 102.633 | 107.769 | 111.728 | 117.407 | 123.686 | 119.290 |
| 30 | --- | 89.978 | 97.889 | 95.038 | 102.853 | 107.999 | 111.966 | 117.658 | 123.950 | 119.544 |
| 31 | --- | 90.161 | 98.087 | 95.230 | 103.060 | 108.217 | 112.191 | 117.894 | 124.198 | 119.783 |
| 32 | --- | 90.333 | 98.273 | 95.411 | 103.256 | 108.421 | 112.403 | 118.116 | 124.432 | 120.009 |
| 33 | --- | 90.495 | 98.449 | 95.582 | 103.440 | 108.615 | 112.604 | 118.327 | 124.654 | 120.222 |
| 34 | --- | --- | 98.616 | 95.743 | 103.615 | 108.798 | 112.793 | 118.526 | 124.863 | 120.423 |
| 35 | --- | --- | 98.774 | 95.896 | 103.780 | 108.971 | 112.973 | 118.714 | 125.061 | 120.614 |
| 36 | --- | --- | 98.924 | 96.042 | 103.937 | 109.136 | 113.143 | 118.893 | 125.249 | 120.795 |
| 37 | --- | --- | --- | 96.180 | 104.086 | 109.292 | 113.305 | 119.062 | 125.428 | 120.967 |
| 38 | --- | --- | --- | 96.311 | 104.228 | 109.441 | 113.459 | 119.224 | 125.598 | 121.131 |
| 39 | --- | --- | --- | 96.436 | 104.363 | 109.582 | 113.605 | 119.378 | 125.760 | 121.287 |
| 40 | --- | --- | --- | --- | 104.492 | 109.717 | 113.745 | 119.525 | 125.914 | 121.436 |
| 41 | --- | --- | --- | --- | 104.615 | 109.846 | 113.879 | 119.665 | 126.062 | 121.578 |
| 42 | --- | --- | --- | --- | 104.732 | 109.969 | 114.006 | 119.799 | 126.203 | 121.713 |
| 43 | --- | --- | --- | --- | --- | 110.087 | 114.128 | 119.927 | 126.337 | 121.843 |
| 44 | --- | --- | --- | --- | --- | 110.200 | 114.245 | 120.049 | 126.466 | 121.967 |
| 45 | --- | --- | --- | --- | --- | 110.308 | 114.357 | 120.167 | 126.590 | 122.086 |
| 46 | --- | --- | --- | --- | --- | --- | 114.464 | 120.280 | 126.709 | 122.201 |
| 47 | --- | --- | --- | --- | --- | --- | 114.567 | 120.388 | 126.823 | 122.310 |
| 48 | --- | --- | --- | --- | --- | --- | 114.666 | 120.492 | 126.932 | 122.416 |
| 49 | --- | --- | --- | --- | --- | --- | --- | 120.592 | 127.037 | 122.517 |
| 50 | --- | --- | --- | --- | --- | --- | --- | 120.688 | 127.138 | 122.614 |
| 51 | --- | --- | --- | --- | --- | --- | --- | 120.781 | 127.236 | 122.708 |
| 52 | --- | --- | --- | --- | --- | --- | --- | --- | 127.330 | 122.799 |
| 53 | --- | --- | --- | --- | --- | --- | --- | --- | 127.421 | 122.886 |
| 54 | --- | --- | --- | --- | --- | --- | --- | --- | 127.508 | 122.970 |
| 55 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 123.052 |
| 56 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 123.130 |
| 57 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 123.206 |
| 58 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 123.280 |
| NORMATIVE SAMPLE N= | 29 | 129 | 390 | 1107 | 2924 | 6807 | 8968 | 5525 | 1216 | 58 |

TABLE B-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION B - COOPERATIVE.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | N-U-M-B-E-R 34-36 | 37-39 | O-F 40-42 | N-O-M-I-N-E-E-S 43-45 | 46-48 | 49-51 | 52-54 | 58-59 |
|---|---|---|---|---|---|---|---|---|---|---|
| -100 | -- | -- | -- | -- | -- | 14 | 11 | 13 | 17 | -- |
| -99 | -- | -- | -- | -- | 14 | 14 | 12 | 14 | 17 | -- |
| -98 | -- | -- | -- | -- | 15 | 15 | 13 | 14 | 18 | -- |
| -97 | -- | -- | -- | -- | 16 | 15 | 14 | 15 | 18 | -- |
| -96 | -- | -- | -- | -- | 16 | 16 | 15 | 17 | 19 | -- |
| -95 | -- | -- | -- | 17 | 17 | 16 | 16 | 18 | 19 | -- |
| -94 | -- | -- | -- | 18 | 19 | 17 | 17 | 19 | 20 | -- |
| -93 | -- | -- | -- | 18 | 19 | 18 | 18 | 20 | 20 | -- |
| -92 | -- | -- | -- | 19 | 20 | 18 | 19 | 21 | 20 | -- |
| -91 | -- | -- | -- | 19 | 20 | 18 | 20 | 21 | 21 | -- |
| -90 | -- | -- | -- | 20 | 20 | 19 | 20 | 22 | 21 | -- |
| -89 | -- | -- | -- | 21 | 20 | 19 | 20 | 22 | 21 | -- |
| -88 | -- | -- | -- | 21 | 21 | 19 | 21 | 22 | 22 | -- |
| -87 | -- | -- | -- | 22 | 22 | 20 | 21 | 23 | 23 | -- |
| -86 | -- | -- | -- | 22 | 23 | 21 | 22 | 23 | 23 | -- |
| -85 | -- | -- | -- | 22 | 24 | 21 | 22 | 23 | 24 | -- |
| -84 | -- | -- | -- | 22 | 24 | 21 | 23 | 24 | 24 | -- |
| -83 | -- | -- | -- | 23 | 24 | 22 | 23 | 24 | 24 | -- |
| -82 | 29 | -- | 22 | 23 | 25 | 22 | 24 | 24 | 24 | -- |
| -81 | 29 | -- | 23 | 23 | 25 | 22 | 24 | 25 | 24 | -- |
| -80 | 29 | -- | 23 | 23 | 25 | 23 | 25 | 25 | 25 | -- |
| -79 | 29 | -- | 24 | 24 | 25 | 24 | 25 | 26 | 25 | -- |
| -78 | 30 | -- | 24 | 24 | 25 | 24 | 26 | 26 | 25 | -- |
| -77 | 30 | -- | 25 | 24 | 26 | 24 | 26 | 27 | 25 | 26 |
| -76 | 30 | -- | 25 | 24 | 26 | 24 | 26 | 27 | 25 | 27 |
| -75 | 30 | 23 | 26 | 25 | 26 | 25 | 26 | 27 | 26 | 27 |
| -74 | 30 | 24 | 25 | 25 | 26 | 25 | 26 | 27 | 26 | 28 |
| -73 | 30 | 25 | 26 | 25 | 27 | 26 | 27 | 28 | 26 | 29 |
| -72 | 30 | 25 | 27 | 25 | 27 | 26 | 27 | 28 | 26 | 30 |
| -71 | 30 | 26 | 27 | 25 | 27 | 26 | 27 | 28 | 27 | 30 |
| -70 | 31 | 27 | 27 | 25 | 27 | 27 | 27 | 28 | 28 | 31 |
| -69 | 31 | 27 | 27 | 26 | 27 | 27 | 28 | 28 | 28 | 31 |
| -68 | 31 | 27 | 28 | 26 | 28 | 28 | 28 | 28 | 28 | 31 |
| -67 | 31 | 27 | 28 | 27 | 28 | 28 | 28 | 29 | 28 | 31 |
| -66 | 31 | 28 | 29 | 28 | 28 | 28 | 29 | 29 | 28 | 32 |
| -65 | 31 | 28 | 29 | 28 | 29 | 29 | 29 | 29 | 29 | 32 |
| -64 | 31 | 28 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 32 |
| -63 | 31 | 28 | 30 | 29 | 29 | 29 | 30 | 30 | 30 | 32 |
| -62 | 32 | 28 | 30 | 29 | 29 | 30 | 30 | 30 | 30 | 32 |
| -61 | 32 | 28 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 32 |

TABLE B-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION B - COOPERATIVE.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | 34-36 | 37-39 | 40-42 | 43-45 | 46-48 | 49-51 | 52-54 | 58-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | N-U-M-B-E-R | | O-F | N-O-M-I-N-E-E-S | | | | |
| -60 | 32 | 28 | 31 | 30 | 30 | 30 | 31 | 30 | 30 | 33 |
| -59 | 32 | 29 | 31 | 30 | 30 | 30 | 31 | 31 | 30 | 33 |
| -58 | 32 | 29 | 32 | 30 | 31 | 31 | 31 | 31 | 31 | 33 |
| -57 | 32 | 29 | 32 | 31 | 31 | 31 | 31 | 31 | 31 | 33 |
| -56 | 32 | 29 | 32 | 31 | 31 | 31 | 32 | 32 | 31 | 33 |
| -55 | 32 | 31 | 32 | 31 | 31 | 31 | 32 | 32 | 32 | 33 |
| -54 | 33 | 31 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 34 |
| -53 | 33 | 31 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 34 |
| -52 | 33 | 31 | 33 | 32 | 32 | 32 | 33 | 32 | 32 | 34 |
| -51 | 33 | 32 | 33 | 32 | 33 | 33 | 33 | 33 | 33 | 34 |
| -50 | 33 | 32 | 33 | 32 | 33 | 33 | 33 | 33 | 33 | 34 |
| -49 | 33 | 32 | 33 | 32 | 33 | 33 | 33 | 33 | 33 | 34 |
| -48 | 33 | 32 | 33 | 33 | 33 | 34 | 33 | 33 | 33 | 34 |
| -47 | 33 | 32 | 33 | 33 | 33 | 34 | 34 | 34 | 34 | 35 |
| -46 | 34 | 33 | 34 | 33 | 34 | 34 | 34 | 34 | 34 | 35 |
| -45 | 34 | 33 | 34 | 33 | 34 | 34 | 34 | 34 | 34 | 35 |
| -44 | 34 | 33 | 34 | 34 | 34 | 35 | 34 | 34 | 34 | 35 |
| -43 | 34 | 34 | 34 | 34 | 34 | 35 | 35 | 35 | 34 | 35 |
| -42 | 34 | 34 | 34 | 34 | 35 | 35 | 35 | 35 | 35 | 35 |
| -41 | 34 | 34 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| -40 | 34 | 34 | 35 | 35 | 35 | 36 | 35 | 36 | 35 | 35 |
| -39 | 35 | 34 | 35 | 35 | 35 | 36 | 36 | 36 | 35 | 36 |
| -38 | 35 | 35 | 35 | 36 | 36 | 35 | 36 | 36 | 36 | 36 |
| -37 | 35 | 35 | 35 | 36 | 36 | 36 | 36 | 36 | 36 | 35 |
| -36 | 35 | 36 | 36 | 36 | 37 | 37 | 36 | 36 | 36 | 36 |
| -35 | 35 | 37 | 36 | 36 | 37 | 37 | 37 | 37 | 37 | 36 |
| -34 | 35 | 37 | 36 | 37 | 37 | 37 | 37 | 37 | 37 | 37 |
| -33 | 35 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 |
| -32 | 35 | 37 | 37 | 37 | 38 | 37 | 37 | 37 | 38 | 37 |
| -31 | 36 | 38 | 37 | 38 | 38 | 38 | 38 | 37 | 38 | 37 |
| -30 | 36 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 37 |
| -29 | 36 | 39 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 |
| -28 | 36 | 39 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 |
| -27 | 36 | 39 | 39 | 39 | 39 | 39 | 39 | 38 | 39 | 38 |
| -26 | 37 | 40 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 38 |
| -25 | 37 | 40 | 39 | 39 | 40 | 39 | 39 | 39 | 39 | 38 |
| -24 | 38 | 40 | 39 | 40 | 40 | 40 | 39 | 39 | 39 | 38 |
| -23 | 38 | 40 | 40 | 40 | 40 | 40 | 40 | 39 | 40 | 38 |
| -22 | 39 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 39 |
| -21 | 40 | 41 | 41 | 40 | 40 | 40 | 40 | 40 | 40 | 39 |

TABLE B-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION B - COOPERATIVE.



| TRANSFORMED RAW-SCORE | NUMBER OF ITEMS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 29-29 | 31-33 | 34-36 | 37-39 | 40-42 | 43-45 | 46-48 | 49-51 | 52-54 | 58-58 |
| -20 | 40 | 42 | 41 | 41 | 41 | 41 | 40 | 40 | 40 | 39 |
| -19 | 41 | 42 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 39 |
| -18 | 42 | 42 | 42 | 41 | 41 | 41 | 41 | 41 | 41 | 39 |
| -17 | 42 | 43 | 42 | 42 | 42 | 41 | 41 | 41 | 41 | 40 |
| -16 | 43 | 43 | 42 | 42 | 42 | 42 | 42 | 41 | 41 | 40 |
| -15 | 44 | 43 | 43 | 42 | 42 | 42 | 42 | 42 | 42 | 41 |
| -14 | 44 | 44 | 43 | 43 | 42 | 42 | 42 | 42 | 42 | 41 |
| -13 | 45 | 44 | 43 | 43 | 43 | 43 | 43 | 42 | 42 | 41 |
| -12 | 45 | 44 | 44 | 43 | 43 | 43 | 43 | 43 | 43 | 42 |
| -11 | 45 | 45 | 44 | 44 | 44 | 43 | 43 | 43 | 43 | 42 |
| -10 | 46 | 45 | 44 | 44 | 44 | 44 | 44 | 43 | 43 | 42 |
| -9 | 46 | 45 | 45 | 44 | 44 | 44 | 44 | 44 | 43 | 42 |
| -8 | 46 | 45 | 45 | 45 | 45 | 44 | 44 | 44 | 44 | 42 |
| -7 | 46 | 45 | 45 | 45 | 45 | 45 | 45 | 44 | 44 | 43 |
| -6 | 47 | 46 | 46 | 46 | 45 | 45 | 45 | 45 | 45 | 43 |
| -5 | 47 | 47 | 47 | 46 | 46 | 46 | 46 | 45 | 45 | 44 |
| -4 | 48 | 47 | 47 | 46 | 46 | 46 | 46 | 46 | 45 | 44 |
| -3 | 48 | 48 | 48 | 47 | 47 | 47 | 47 | 46 | 46 | 45 |
| -2 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 47 | 47 | 45 |
| -1 | 49 | 49 | 49 | 48 | 48 | 48 | 48 | 48 | 48 | 47 |
| 0 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 48 |
| 1 | 49 | 49 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 49 |
| 2 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 51 | 50 |
| 3 | 50 | 50 | 51 | 51 | 51 | 51 | 51 | 51 | 52 | 51 |
| 4 | 50 | 51 | 52 | 52 | 52 | 52 | 52 | 52 | 53 | 52 |
| 5 | 51 | 52 | 52 | 53 | 52 | 52 | 52 | 52 | 53 | 53 |
| 6 | 51 | 53 | 52 | 53 | 52 | 53 | 53 | 53 | 53 | 54 |
| 7 | 52 | 53 | 53 | 54 | 53 | 53 | 53 | 53 | 54 | 55 |
| 8 | 52 | 54 | 53 | 54 | 53 | 54 | 54 | 54 | 55 | 55 |
| 9 | 53 | 55 | 53 | 55 | 54 | 54 | 54 | 54 | 55 | 56 |
| 10 | 53 | 56 | 54 | 55 | 54 | 55 | 55 | 55 | 55 | 57 |
| 11 | 54 | 56 | 54 | 56 | 55 | 55 | 55 | 55 | 56 | 57 |
| 12 | 54 | 57 | 55 | 56 | 55 | 56 | 56 | 56 | 56 | 58 |
| 13 | 54 | 57 | 55 | 56 | 56 | 56 | 56 | 56 | 57 | 58 |
| 14 | 54 | 58 | 56 | 57 | 56 | 57 | 57 | 57 | 57 | 59 |
| 15 | 54 | 58 | 56 | 57 | 57 | 57 | 57 | 57 | 58 | 59 |
| 16 | 55 | 58 | 57 | 58 | 57 | 58 | 58 | 58 | 58 | 60 |
| 17 | 55 | 58 | 57 | 58 | 58 | 58 | 58 | 58 | 59 | 60 |
| 18 | 56 | 59 | 58 | 58 | 58 | 59 | 59 | 59 | 59 | 61 |
| 19 | 56 | 59 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 62 |
| 20 | 57 | 60 | 59 | 59 | 59 | 59 | 60 | 60 | 60 | 62 |

TABLE B-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION B - COOPERATIVE.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | 34-36 | 37-39 | 40-42 | 43-45 | 45-48 | 49-51 | 52-54 | 58-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | N-U-M-B-E-R | | O-F | N-O-M-I-N-E-E-S | | | | |
| 21 | 57 | 60 | 59 | 60 | 59 | 60 | 60 | 60 | 60 | 63 |
| 22 | 58 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 60 | 63 |
| 23 | 60 | 60 | 61 | 61 | 60 | 61 | 61 | 61 | 61 | 63 |
| 24 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 62 | 61 | 63 |
| 25 | 61 | 61 | 62 | 61 | 61 | 62 | 62 | 62 | 61 | 63 |
| 26 | 62 | 61 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 63 |
| 27 | 62 | 61 | 62 | 62 | 62 | 62 | 62 | 63 | 62 | 64 |
| 28 | 63 | 61 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 64 |
| 29 | 63 | 62 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 64 |
| 30 | 64 | 63 | 64 | 63 | 64 | 63 | 64 | 64 | 63 | 64 |
| 31 | 66 | 63 | 64 | 64 | 64 | 64 | 64 | 64 | 63 | 64 |
| 32 | 67 | 63 | 65 | 64 | 65 | 64 | 64 | 64 | 64 | 64 |
| 33 | 67 | 63 | 65 | 64 | 65 | 64 | 65 | 65 | 64 | 64 |
| 34 | 68 | 64 | 65 | 64 | 65 | 65 | 65 | 65 | 64 | 65 |
| 35 | 69 | 64 | 65 | 65 | 66 | 65 | 65 | 65 | 65 | 65 |
| 36 | 69 | 64 | 66 | 65 | 66 | 66 | 66 | 66 | 65 | 66 |
| 37 | 70 | 64 | 66 | 65 | 67 | 66 | 66 | 66 | 66 | 66 |
| 38 | 70 | 65 | 66 | 65 | 67 | 67 | 66 | 67 | 66 | 66 |
| 39 | 71 | 65 | 67 | 66 | 68 | 67 | 67 | 67 | 67 | 66 |
| 40 | -- | 66 | 67 | 66 | 68 | 67 | 67 | 67 | 67 | 67 |
| 41 | -- | 66 | 68 | 66 | 68 | 67 | 67 | 67 | 67 | 67 |
| 42 | -- | 66 | 69 | 66 | 68 | 68 | 67 | 68 | 68 | 67 |
| 43 | -- | 67 | 69 | 67 | 69 | 68 | 68 | 68 | 68 | 67 |
| 44 | -- | 67 | 69 | 67 | 69 | 69 | 68 | 68 | 68 | 67 |
| 45 | -- | 67 | 69 | 67 | 69 | 69 | 69 | 69 | 69 | 67 |
| 46 | -- | 68 | 69 | 67 | 70 | 69 | 69 | 69 | 69 | 68 |
| 47 | -- | 68 | 70 | 68 | 70 | 69 | 69 | 69 | 69 | 68 |
| 48 | -- | 68 | 70 | 68 | 70 | 70 | 70 | 70 | 69 | 68 |
| 49 | -- | 69 | 70 | 69 | 71 | 70 | 70 | 70 | 69 | 69 |
| 50 | -- | 69 | 70 | 69 | 71 | 70 | 70 | 70 | 70 | 69 |
| 51 | -- | 70 | 71 | 69 | 71 | 71 | 70 | 71 | 70 | 69 |
| 52 | -- | 70 | 71 | 70 | 71 | 71 | 71 | 71 | 70 | 69 |
| 53 | -- | 71 | 72 | 70 | 72 | 71 | 71 | 71 | 71 | 70 |
| 54 | -- | 71 | 72 | 70 | 72 | 71 | 71 | 71 | 71 | 70 |
| 55 | -- | 71 | 72 | 71 | 72 | 72 | 72 | 71 | 71 | 70 |
| 56 | -- | 72 | 72 | 71 | 72 | 72 | 72 | 72 | 72 | 70 |
| 57 | -- | 72 | 73 | 72 | 73 | 72 | 72 | 72 | 72 | 70 |
| 58 | -- | 72 | 73 | 72 | 73 | 72 | 73 | 72 | 72 | 70 |
| 59 | -- | 72 | 73 | 72 | 73 | 73 | 73 | 72 | 73 | 71 |
| 60 | -- | 72 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 71 |

TABLE B-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION B - COOPERATIVE.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | N-U-M-B-E-R 34-36 | 37-39 | O-F 40-42 | N-O-M-I-N-E-E-S 43-45 | 46-48 | 49-51 | 52-54 | 58-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| 61 | -- | 72 | 74 | 73 | 74 | 74 | 74 | 73 | 74 | 71 |
| 62 | -- | 73 | 75 | 73 | 74 | 74 | 74 | 74 | 74 | 71 |
| 63 | -- | 73 | 75 | 73 | 74 | 74 | 74 | 74 | 75 | 71 |
| 64 | -- | 73 | 75 | 74 | 75 | 74 | 75 | 74 | 75 | 72 |
| 65 | -- | 74 | 76 | 74 | 75 | 75 | 75 | 74 | 76 | 72 |
| 66 | -- | 76 | 77 | 75 | 76 | 75 | 75 | 74 | 76 | 72 |
| 67 | -- | 77 | 77 | 75 | 76 | 76 | 76 | 75 | 76 | 72 |
| 68 | -- | -- | 77 | 75 | 76 | 76 | 76 | 75 | 76 | 72 |
| 69 | -- | -- | 78 | 76 | 77 | 76 | 76 | 75 | 77 | 72 |
| 70 | -- | -- | 78 | 76 | 77 | 77 | 76 | 76 | 77 | 73 |
| 71 | -- | -- | 78 | 76 | 77 | 77 | 77 | 76 | 77 | 73 |
| 72 | -- | -- | 79 | 77 | 78 | 77 | 77 | 76 | 77 | 73 |
| 73 | -- | -- | 79 | 78 | 78 | 77 | 77 | 76 | 77 | 73 |
| 74 | -- | -- | 79 | 80 | 79 | 77 | 78 | 76 | 77 | 73 |
| 75 | -- | -- | 80 | 81 | 80 | 78 | 78 | 76 | 77 | 73 |
| 76 | -- | -- | 80 | 81 | 80 | 78 | 78 | 77 | 77 | 74 |
| 77 | -- | -- | -- | 82 | 81 | 78 | 78 | 77 | 77 | 74 |
| 78 | -- | -- | -- | 82 | 81 | 78 | 79 | 78 | 78 | 74 |
| 79 | -- | -- | -- | 83 | 81 | 78 | 79 | 78 | 78 | -- |
| 80 | -- | -- | -- | -- | 82 | 79 | 79 | 78 | 78 | -- |
| 81 | -- | -- | -- | -- | 82 | 79 | 80 | 78 | 78 | -- |
| 82 | -- | -- | -- | -- | 82 | 79 | 81 | 78 | 78 | -- |
| 83 | -- | -- | -- | -- | 83 | 80 | 81 | 79 | 78 | -- |
| 84 | -- | -- | -- | -- | 83 | 80 | 82 | 80 | 78 | -- |
| 85 | -- | -- | -- | -- | 85 | 81 | 82 | 80 | 78 | -- |
| 86 | -- | -- | -- | -- | 86 | 82 | 82 | 81 | 79 | -- |
| 87 | -- | -- | -- | -- | -- | 83 | 82 | 82 | 79 | -- |
| 88 | -- | -- | -- | -- | -- | 84 | 82 | 83 | 79 | -- |
| 89 | -- | -- | -- | -- | -- | 84 | 83 | 83 | 79 | -- |
| 90 | -- | -- | -- | -- | -- | 84 | 83 | 84 | 79 | -- |
| 91 | -- | -- | -- | -- | -- | 84 | 83 | 85 | 80 | -- |
| 92 | -- | -- | -- | -- | -- | 85 | 84 | 85 | 80 | -- |
| 93 | -- | -- | -- | -- | -- | 85 | 84 | 86 | 80 | -- |
| 94 | -- | -- | -- | -- | -- | 85 | 84 | 86 | 80 | -- |
| 95 | -- | -- | -- | -- | -- | 85 | 84 | 86 | 80 | -- |
| 96 | -- | -- | -- | -- | -- | 85 | 85 | 86 | 81 | -- |
| 97 | -- | -- | -- | -- | -- | 86 | 85 | 87 | 81 | -- |
| 98 | -- | -- | -- | -- | -- | 87 | 85 | 87 | 81 | -- |
| 99 | -- | -- | -- | -- | -- | 87 | 86 | -- | -- | -- |
| 100 | -- | -- | -- | -- | -- | 88 | 87 | -- | -- | -- |

TABLE C-1. TABLE OF INITIAL, RAW-SCORE TRANSFORMATION COEFFICIENTS FOR DIMENSION C - PEOPLE ORIENTED.

| NO. OF NOMINATORS | N-U-M-B-E-R O-F N-O-M-I-N-E-E-S 29-29 | 31-33 | 34-36 | 37-39 | 40-42 | 43-45 | 46-48 | 49-51 | 52-54 | 58-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| 21 | 74.581 | 93.912 | 91.966 | 96.204 | 102.835 | 107.451 | 111.721 | 116.574 | 127.384 | 130.185 |
| 22 | 74.888 | 94.297 | 92.342 | 96.597 | 103.254 | 107.888 | 112.175 | 117.047 | 127.900 | 130.713 |
| 23 | 75.171 | 94.652 | 92.689 | 96.960 | 103.641 | 108.292 | 112.595 | 117.484 | 128.377 | 131.199 |
| 24 | 75.434 | 94.982 | 93.011 | 97.296 | 104.000 | 108.666 | 112.983 | 117.889 | 128.819 | 131.650 |
| 25 | 75.678 | 95.288 | 93.310 | 97.608 | 104.333 | 109.014 | 113.344 | 118.265 | 129.230 | 132.069 |
| 26 | 75.905 | 95.573 | 93.589 | 97.899 | 104.643 | 109.338 | 113.680 | 118.615 | 129.613 | 132.460 |
| 27 | 76.117 | 95.840 | 93.849 | 98.171 | 104.933 | 109.640 | 113.994 | 118.943 | 129.970 | 132.824 |
| 28 | 76.315 | 96.089 | 94.093 | 98.425 | 105.204 | 109.923 | 114.288 | 119.249 | 130.304 | 133.166 |
| 29 | 76.502 | 96.323 | 94.321 | 98.663 | 105.459 | 110.189 | 114.564 | 119.536 | 130.618 | 133.486 |
| 30 | --- | 96.543 | 94.536 | 98.888 | 105.698 | 110.438 | 114.823 | 119.806 | 130.913 | 133.786 |
| 31 | --- | 96.750 | 94.738 | 99.099 | 105.923 | 110.673 | 115.067 | 120.060 | 131.190 | 134.070 |
| 32 | --- | 96.945 | 94.929 | 99.298 | 106.136 | 110.895 | 115.297 | 120.300 | 131.452 | 134.337 |
| 33 | --- | 97.130 | 95.109 | 99.486 | 106.336 | 111.104 | 115.514 | 120.527 | 131.699 | 134.589 |
| 34 | --- | --- | 95.280 | 99.664 | 106.526 | 111.302 | 115.720 | 120.741 | 131.933 | 134.828 |
| 35 | --- | --- | 95.441 | 99.833 | 106.706 | 111.490 | 115.915 | 120.944 | 132.155 | 135.054 |
| 36 | --- | --- | 95.595 | 99.993 | 106.877 | 111.668 | 116.100 | 121.137 | 132.366 | 135.269 |
| 37 | --- | --- | --- | 100.145 | 107.039 | 111.838 | 116.276 | 121.321 | 132.566 | 135.473 |
| 38 | --- | --- | --- | 100.290 | 107.194 | 111.999 | 116.443 | 121.495 | 132.756 | 135.667 |
| 39 | --- | --- | --- | 100.428 | 107.341 | 112.153 | 116.603 | 121.661 | 132.937 | 135.853 |
| 40 | --- | --- | --- | --- | 107.482 | 112.299 | 116.755 | 121.820 | 133.110 | 136.029 |
| 41 | --- | --- | --- | --- | 107.616 | 112.439 | 116.900 | 121.971 | 133.276 | 136.198 |
| 42 | --- | --- | --- | --- | 107.744 | 112.572 | 117.039 | 122.116 | 133.433 | 136.359 |
| 43 | --- | --- | --- | --- | --- | 112.700 | 117.172 | 122.254 | 133.584 | 136.513 |
| 44 | --- | --- | --- | --- | --- | 112.823 | 117.299 | 122.387 | 133.729 | 136.660 |
| 45 | --- | --- | --- | --- | --- | 112.940 | 117.421 | 122.514 | 133.868 | 136.802 |
| 46 | --- | --- | --- | --- | --- | --- | 117.538 | 122.635 | 134.001 | 136.938 |
| 47 | --- | --- | --- | --- | --- | --- | 117.650 | 122.753 | 134.129 | 137.068 |
| 48 | --- | --- | --- | --- | --- | --- | 117.758 | 122.865 | 134.251 | 137.193 |
| 49 | --- | --- | --- | --- | --- | --- | --- | 122.973 | 134.369 | 137.314 |
| 50 | --- | --- | --- | --- | --- | --- | --- | 123.077 | 134.483 | 137.430 |
| 51 | --- | --- | --- | --- | --- | --- | --- | 123.178 | 134.593 | 137.541 |
| 52 | --- | --- | --- | --- | --- | --- | --- | --- | 134.698 | 137.649 |
| 53 | --- | --- | --- | --- | --- | --- | --- | --- | 134.800 | 137.753 |
| 54 | --- | --- | --- | --- | --- | --- | --- | --- | 134.898 | 137.853 |
| 55 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 137.950 |
| 56 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 138.043 |
| 57 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 138.134 |
| 58 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 138.221 |
| NORMATIVE SAMPLE N= | 29 | 129 | 390 | 1107 | 2924 | 6807 | 8968 | 5525 | 1215 | 58 |

TABLE C-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION C - PEOPLE ORIENTED.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | N-U-M-B-E-R 34-36 | 37-39 | O-F 40-42 | N-J-M-I-N-E-E-S 43-45 | 45-48 | 49-51 | 52-54 | 58-59 |
|---|---|---|---|---|---|---|---|---|---|---|
| -100 | -- | -- | -- | -- | -- | 16 | 16 | 16 | 17 | -- |
| -99 | -- | -- | -- | -- | -- | 18 | 17 | 17 | 17 | -- |
| -98 | -- | -- | -- | -- | -- | 18 | 17 | 18 | 18 | -- |
| -97 | -- | -- | -- | -- | -- | 19 | 18 | 19 | 18 | -- |
| -96 | -- | -- | -- | -- | -- | 19 | 19 | 20 | 19 | -- |
| -95 | -- | -- | -- | -- | 14 | 19 | 20 | 20 | 19 | -- |
| -94 | -- | -- | -- | -- | 16 | 19 | 20 | 20 | 20 | -- |
| -93 | -- | -- | -- | -- | 17 | 19 | 21 | 20 | 20 | -- |
| -92 | -- | -- | -- | -- | 19 | 19 | 21 | 21 | 21 | -- |
| -91 | -- | -- | -- | -- | 20 | 20 | 21 | 21 | 21 | -- |
| -90 | -- | -- | -- | -- | 21 | 21 | 21 | 21 | 22 | -- |
| -89 | -- | -- | 20 | -- | 21 | 21 | 21 | 22 | 22 | -- |
| -88 | -- | -- | 22 | 17 | 21 | 21 | 21 | 22 | 23 | -- |
| -87 | -- | -- | 24 | 19 | 22 | 21 | 22 | 23 | 23 | -- |
| -86 | -- | -- | 24 | 20 | 22 | 21 | 22 | 23 | 24 | -- |
| -85 | -- | -- | 24 | 22 | 22 | 22 | 22 | 23 | 25 | -- |
| -84 | -- | -- | 24 | 24 | 22 | 22 | 22 | 23 | 25 | -- |
| -83 | -- | -- | 25 | 24 | 22 | 22 | 23 | 24 | 25 | -- |
| -82 | -- | -- | 25 | 24 | 23 | 23 | 23 | 24 | 25 | -- |
| -81 | -- | -- | 25 | 24 | 23 | 23 | 23 | 24 | 26 | -- |
| -80 | -- | -- | 25 | 24 | 23 | 23 | 24 | 25 | 26 | -- |
| -79 | -- | -- | 25 | 24 | 23 | 24 | 24 | 25 | 26 | -- |
| -78 | -- | -- | 25 | 24 | 23 | 24 | 24 | 25 | 26 | -- |
| -77 | -- | -- | 25 | 24 | 23 | 24 | 24 | 25 | 26 | 26 |
| -76 | -- | -- | 26 | 24 | 23 | 24 | 25 | 26 | 26 | 27 |
| -75 | -- | -- | 26 | 24 | 24 | 24 | 25 | 26 | 26 | 27 |
| -74 | -- | -- | 26 | 25 | 24 | 25 | 25 | 26 | 27 | 28 |
| -73 | -- | -- | 26 | 25 | 25 | 25 | 26 | 26 | 27 | 28 |
| -72 | -- | -- | 27 | 25 | 25 | 25 | 26 | 26 | 27 | 29 |
| -71 | -- | -- | 28 | 26 | 25 | 25 | 26 | 27 | 27 | 29 |
| -70 | -- | -- | 28 | 26 | 25 | 26 | 27 | 27 | 27 | 30 |
| -69 | -- | 23 | 29 | 27 | 26 | 26 | 27 | 27 | 27 | 30 |
| -68 | -- | 23 | 29 | 28 | 26 | 27 | 27 | 27 | 28 | 31 |
| -67 | -- | 24 | 29 | 28 | 27 | 27 | 27 | 27 | 28 | 31 |
| -66 | -- | 24 | 29 | 28 | 27 | 27 | 28 | 28 | 28 | 31 |
| -65 | -- | 24 | 30 | 28 | 27 | 27 | 28 | 28 | 28 | 31 |
| -64 | -- | 25 | 30 | 28 | 28 | 28 | 28 | 28 | 28 | 31 |
| -63 | -- | 25 | 30 | 29 | 28 | 28 | 28 | 28 | 29 | 32 |
| -62 | -- | 25 | 30 | 29 | 29 | 28 | 29 | 29 | 29 | 32 |
| -61 | -- | 26 | 31 | 29 | 29 | 28 | 29 | 29 | 30 | 32 |

TABLE C-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION C - PEOPLE ORIENTED.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | N-J-M-B-E-R 34-36 | 37-39 | O-F 40-42 | N-O-M-I-N-E-E-S 43-45 | 46-48 | 49-51 | 52-54 | 58-59 |
|---|---|---|---|---|---|---|---|---|---|---|
| -60 | -- | 26 | 31 | 29 | 29 | 29 | 29 | 29 | 30 | 32 |
| -59 | -- | 26 | 31 | 29 | 29 | 29 | 29 | 30 | 30 | 32 |
| -58 | -- | 27 | 31 | 30 | 30 | 29 | 30 | 30 | 30 | 32 |
| -57 | -- | 27 | 31 | 30 | 30 | 30 | 30 | 30 | 31 | 32 |
| -56 | -- | 28 | 32 | 30 | 30 | 30 | 30 | 30 | 31 | 33 |
| -55 | -- | 28 | 32 | 31 | 30 | 30 | 31 | 31 | 32 | 33 |
| -54 | -- | 29 | 32 | 31 | 31 | 31 | 31 | 31 | 32 | 33 |
| -53 | -- | 29 | 32 | 31 | 31 | 31 | 31 | 31 | 32 | 33 |
| -52 | -- | 30 | 32 | 31 | 31 | 31 | 32 | 31 | 32 | 33 |
| -51 | -- | 30 | 33 | 31 | 32 | 32 | 32 | 32 | 32 | 33 |
| -50 | -- | 31 | 33 | 32 | 32 | 32 | 32 | 32 | 33 | 34 |
| -49 | -- | 31 | 33 | 32 | 32 | 32 | 32 | 32 | 33 | 34 |
| -48 | -- | 32 | 33 | 32 | 32 | 33 | 32 | 32 | 33 | 34 |
| -47 | -- | 32 | 33 | 32 | 32 | 33 | 33 | 33 | 33 | 34 |
| -46 | -- | 32 | 33 | 33 | 33 | 33 | 33 | 33 | 34 | 34 |
| -45 | -- | 33 | 34 | 33 | 33 | 34 | 33 | 33 | 34 | 35 |
| -44 | 32 | 33 | 34 | 34 | 33 | 34 | 34 | 34 | 34 | 35 |
| -43 | 33 | 33 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 35 |
| -42 | 33 | 33 | 34 | 34 | 34 | 34 | 34 | 34 | 35 | 37 |
| -41 | 34 | 34 | 34 | 35 | 34 | 34 | 34 | 35 | 35 | 37 |
| -40 | 34 | 34 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 37 |
| -39 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 38 |
| -38 | 35 | 35 | 35 | 36 | 35 | 35 | 35 | 35 | 36 | 38 |
| -37 | 36 | 36 | 35 | 36 | 35 | 36 | 35 | 36 | 36 | 38 |
| -36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 38 |
| -35 | 36 | 37 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 38 |
| -34 | 37 | 37 | 37 | 36 | 36 | 36 | 36 | 36 | 36 | 38 |
| -33 | 37 | 38 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 38 |
| -32 | 38 | 38 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 38 |
| -31 | 38 | 38 | 38 | 37 | 37 | 37 | 37 | 37 | 37 | 38 |
| -30 | 39 | 39 | 38 | 38 | 38 | 38 | 38 | 37 | 37 | 39 |
| -29 | 39 | 39 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 39 |
| -28 | 40 | 39 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 39 |
| -27 | 40 | 39 | 39 | 38 | 39 | 38 | 38 | 38 | 38 | 39 |
| -26 | 40 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 |
| -25 | 41 | 40 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 |
| -24 | 41 | 40 | 39 | 40 | 40 | 39 | 39 | 39 | 39 | 39 |
| -23 | 41 | 41 | 39 | 40 | 40 | 40 | 40 | 39 | 39 | 39 |
| -22 | 41 | 41 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 39 |
| -21 | 41 | 41 | 40 | 41 | 41 | 40 | 40 | 40 | 40 | 39 |

TABLE C-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION C - PEOPLE ORIENTED.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | 34-36 | 37-39 | 40-42 | 43-45 | 46-48 | 49-51 | 52-54 | 58-59 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | N-U-M-B-E-R | | O-F | M-O-M-I-N-E-E-S | | | | |
| -20 | 42 | 42 | 41 | 41 | 41 | 41 | 41 | 40 | 40 | 39 |
| -19 | 42 | 42 | 41 | 42 | 41 | 41 | 41 | 41 | 41 | 39 |
| -18 | 42 | 43 | 41 | 42 | 42 | 41 | 41 | 41 | 41 | 40 |
| -17 | 42 | 43 | 42 | 42 | 42 | 42 | 42 | 41 | 41 | 40 |
| -16 | 42 | 43 | 42 | 42 | 43 | 42 | 42 | 42 | 42 | 40 |
| -15 | 43 | 43 | 42 | 43 | 43 | 42 | 42 | 42 | 42 | 40 |
| -14 | 44 | 44 | 43 | 43 | 43 | 43 | 43 | 42 | 42 | 40 |
| -13 | 45 | 44 | 43 | 43 | 44 | 43 | 43 | 43 | 43 | 40 |
| -12 | 45 | 44 | 43 | 44 | 44 | 44 | 43 | 43 | 43 | 41 |
| -11 | 46 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 43 | 41 |
| -10 | 46 | 45 | 44 | 44 | 45 | 45 | 44 | 44 | 44 | 42 |
| -9 | 46 | 45 | 44 | 45 | 45 | 45 | 45 | 45 | 44 | 42 |
| -8 | 47 | 46 | 45 | 45 | 46 | 45 | 45 | 45 | 45 | 43 |
| -7 | 47 | 47 | 45 | 46 | 46 | 46 | 45 | 45 | 45 | 43 |
| -6 | 47 | 47 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 44 |
| -5 | 48 | 48 | 47 | 47 | 47 | 47 | 47 | 46 | 46 | 45 |
| -4 | 48 | 48 | 47 | 47 | 47 | 47 | 47 | 47 | 46 | 45 |
| -3 | 49 | 49 | 47 | 48 | 48 | 48 | 47 | 47 | 47 | 45 |
| -2 | 49 | 49 | 48 | 49 | 49 | 49 | 48 | 48 | 48 | 47 |
| -1 | 50 | 50 | 48 | 49 | 49 | 49 | 49 | 49 | 48 | 49 |
| 0 | 50 | 50 | 49 | 50 | 50 | 50 | 50 | 50 | 49 | 50 |
| 1 | 51 | 50 | 50 | 50 | 50 | 51 | 51 | 51 | 50 | 51 |
| 2 | 51 | 51 | 50 | 51 | 51 | 51 | 51 | 51 | 51 | 52 |
| 3 | 5 | 51 | 51 | 51 | 51 | 52 | 52 | 52 | 52 | 53 |
| 4 | 53 | 52 | 52 | 52 | 52 | 52 | 52 | 53 | 53 | 53 |
| 5 | 53 | 52 | 52 | 53 | 52 | 53 | 53 | 53 | 54 | 54 |
| 6 | 54 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 54 | 54 |
| 7 | 54 | 53 | 53 | 53 | 53 | 54 | 54 | 54 | 54 | 54 |
| 8 | 54 | 53 | 54 | 53 | 54 | 54 | 54 | 54 | 55 | 54 |
| 9 | 54 | 54 | 54 | 54 | 54 | 55 | 55 | 55 | 55 | 55 |
| 10 | 54 | 55 | 55 | 54 | 55 | 55 | 55 | 55 | 55 | 55 |
| 11 | 55 | 55 | 55 | 55 | 55 | 55 | 56 | 56 | 56 | 55 |
| 12 | 56 | 55 | 55 | 55 | 55 | 56 | 56 | 56 | 56 | 56 |
| 13 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 57 | 56 | 56 |
| 14 | 57 | 57 | 56 | 56 | 56 | 57 | 57 | 57 | 57 | 56 |
| 15 | 58 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| 16 | 59 | 57 | 57 | 57 | 57 | 58 | 58 | 58 | 57 | 57 |
| 17 | 60 | 57 | 57 | 58 | 57 | 58 | 58 | 58 | 58 | 58 |
| 18 | 60 | 58 | 58 | 58 | 58 | 59 | 58 | 59 | 58 | 59 |
| 19 | 60 | 58 | 58 | 59 | 58 | 59 | 59 | 59 | 59 | 59 |
| 20 | 60 | 59 | 59 | 59 | 59 | 59 | 59 | 60 | 59 | 60 |

TABLE C-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION C - PEOPLE ORIENTED.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | 34-36 | 37-39 | 40-42 | 43-45 | 46-48 | 49-51 | 52-54 | 58-59 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | N-U-M-B-E-R | | O-F | N-O-M-I-N-E-E-S | | | | |
| 21 | 60 | 60 | 59 | 59 | 59 | 60 | 60 | 60 | 59 | 61 |
| 22 | 61 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 61 |
| 23 | 61 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 60 | 61 |
| 24 | 61 | 61 | 60 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| 25 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 62 |
| 26 | 61 | 61 | 61 | 62 | 61 | 61 | 62 | 62 | 62 | 62 |
| 27 | 61 | 61 | 61 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| 28 | 61 | 62 | 62 | 63 | 62 | 62 | 62 | 62 | 62 | 62 |
| 29 | 61 | 63 | 63 | 63 | 63 | 62 | 62 | 63 | 62 | 62 |
| 30 | 62 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 |
| 31 | 62 | 63 | 64 | 64 | 64 | 63 | 63 | 63 | 63 | 63 |
| 32 | 62 | 63 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 63 |
| 33 | 62 | 63 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 65 |
| 34 | 62 | 63 | 64 | 64 | 65 | 64 | 64 | 64 | 64 | 65 |
| 35 | 63 | 63 | 65 | 65 | 65 | 64 | 64 | 65 | 65 | 65 |
| 36 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| 37 | 64 | 63 | 65 | 66 | 66 | 65 | 65 | 65 | 65 | 67 |
| 38 | 64 | 64 | 67 | 66 | 66 | 65 | 66 | 66 | 66 | 67 |
| 39 | 64 | 65 | 67 | 66 | 66 | 65 | 66 | 66 | 66 | 68 |
| 40 | 64 | 65 | 67 | 66 | 66 | 66 | 66 | 66 | 67 | 68 |
| 41 | 64 | 66 | 68 | 67 | 67 | 66 | 66 | 66 | 67 | 68 |
| 42 | 65 | 66 | 68 | 67 | 67 | 67 | 67 | 67 | 67 | 68 |
| 43 | 65 | 67 | 69 | 67 | 67 | 67 | 67 | 67 | 68 | 69 |
| 44 | 65 | 68 | 69 | 68 | 68 | 67 | 67 | 67 | 68 | 69 |
| 45 | 65 | 68 | 69 | 68 | 68 | 67 | 68 | 68 | 68 | 69 |
| 46 | 65 | 69 | 70 | 68 | 68 | 68 | 68 | 68 | 69 | 69 |
| 47 | 65 | 69 | 70 | 68 | 68 | 68 | 69 | 68 | 69 | 70 |
| 48 | 66 | 70 | 71 | 69 | 69 | 69 | 69 | 69 | 69 | 70 |
| 49 | 66 | 71 | 71 | 69 | 69 | 69 | 69 | 69 | 69 | 70 |
| 50 | 66 | 71 | 72 | 69 | 69 | 69 | 70 | 69 | 70 | 70 |
| 51 | 66 | 71 | 73 | 70 | 70 | 69 | 70 | 70 | 70 | 71 |
| 52 | 67 | 71 | 73 | 70 | 70 | 70 | 70 | 70 | 70 | 71 |
| 53 | 67 | 72 | 73 | 70 | 70 | 70 | 70 | 70 | 71 | 71 |
| 54 | 68 | 72 | 74 | 70 | 71 | 70 | 71 | 71 | 72 | 71 |
| 55 | 69 | 72 | 74 | 71 | 71 | 71 | 71 | 71 | 72 | 72 |
| 56 | 70 | 72 | 74 | 71 | 72 | 71 | 71 | 71 | 72 | 72 |
| 57 | 70 | 72 | 75 | 71 | 72 | 72 | 72 | 72 | 72 | 72 |
| 58 | 71 | 72 | 75 | 72 | 72 | 72 | 72 | 72 | 73 | 72 |
| 59 | -- | 72 | 75 | 72 | 72 | 72 | 72 | 72 | 73 | 73 |
| 60 | -- | 72 | 75 | 73 | 72 | 73 | 72 | 72 | 73 | 73 |

TABLE C-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION C - PEOPLE ORIENTED.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | N-U-M-B-E-R 34-36 | 37-39 | O-F 40-42 | N-O-M-I-N-E-E-S 43-45 | 46-48 | 49-51 | 52-54 | 58-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| 61 | -- | 73 | 75 | 74 | 73 | 73 | 73 | 73 | 74 | 73 |
| 62 | -- | 73 | 77 | 74 | 73 | 73 | 73 | 73 | 74 | 73 |
| 63 | -- | 73 | 77 | 75 | 74 | 73 | 73 | 73 | 75 | 74 |
| 64 | -- | 73 | 78 | 75 | 74 | 74 | 73 | 73 | 75 | 74 |
| 65 | -- | 73 | 79 | 75 | 74 | 74 | 74 | 74 | 75 | 74 |
| 66 | -- | 73 | 79 | 75 | 75 | 75 | 74 | 74 | 76 | -- |
| 67 | -- | 74 | 80 | 75 | 75 | 75 | 74 | 74 | 76 | -- |
| 68 | -- | 74 | -- | 76 | 75 | 75 | 75 | 74 | 77 | -- |
| 69 | -- | 74 | -- | 77 | 76 | 76 | 75 | 74 | 77 | -- |
| 70 | -- | 75 | -- | 78 | 76 | 76 | 76 | 75 | 77 | -- |
| 71 | -- | 75 | -- | 78 | 76 | 77 | 76 | 75 | 78 | -- |
| 72 | -- | 76 | -- | 79 | 76 | 78 | 76 | 75 | 78 | -- |
| 73 | -- | 76 | -- | 79 | 76 | 78 | 77 | 76 | 79 | -- |
| 74 | -- | 76 | -- | 80 | 76 | 78 | 77 | 76 | 79 | -- |
| 75 | -- | 77 | -- | 80 | 76 | 79 | 78 | 77 | 79 | -- |
| 76 | -- | 77 | -- | 81 | 76 | 79 | 78 | 77 | 80 | -- |
| 77 | -- | -- | -- | 82 | 76 | 80 | 78 | 78 | 80 | -- |
| 78 | -- | -- | -- | 82 | 77 | 80 | 78 | 79 | 80 | -- |
| 79 | -- | -- | -- | 83 | 77 | 80 | 78 | 80 | 80 | -- |
| 80 | -- | -- | -- | -- | 77 | 80 | 79 | 80 | 80 | -- |
| 81 | -- | -- | -- | -- | 77 | 80 | 79 | 80 | 80 | -- |
| 82 | -- | -- | -- | -- | 78 | 81 | 79 | 80 | 81 | -- |
| 83 | -- | -- | -- | -- | 78 | 81 | 80 | 81 | 81 | -- |
| 84 | -- | -- | -- | -- | 80 | 81 | 80 | 81 | 81 | -- |
| 85 | -- | -- | -- | -- | 81 | 81 | 81 | 81 | 81 | -- |
| 86 | -- | -- | -- | -- | 82 | 81 | 81 | 81 | 81 | -- |
| 87 | -- | -- | -- | -- | 82 | 82 | 82 | 81 | 81 | -- |
| 88 | -- | -- | -- | -- | 83 | 82 | 83 | 81 | 81 | -- |
| 89 | -- | -- | -- | -- | 86 | 83 | 84 | 82 | 82 | -- |
| 90 | -- | -- | -- | -- | -- | 83 | 85 | 82 | 82 | -- |
| 91 | -- | -- | -- | -- | -- | 84 | 86 | 82 | 82 | -- |
| 92 | -- | -- | -- | -- | -- | 85 | 87 | 82 | 82 | -- |
| 93 | -- | -- | -- | -- | -- | 87 | 88 | 82 | 82 | -- |
| 94 | -- | -- | -- | -- | -- | 88 | 89 | 82 | 82 | -- |
| 95 | -- | -- | -- | -- | -- | -- | -- | 82 | 82 | -- |
| 96 | -- | -- | -- | -- | -- | -- | -- | 82 | 82 | -- |
| 97 | -- | -- | -- | -- | -- | -- | -- | 82 | 83 | -- |
| 98 | -- | -- | -- | -- | -- | -- | -- | 82 | 83 | -- |
| 99 | -- | -- | -- | -- | -- | -- | -- | 84 | 83 | -- |
| 100 | -- | -- | -- | -- | -- | -- | -- | 85 | 83 | -- |

TABLE D-1. TABLE OF INITIAL, RAW-SCORE TRANSFORMATION COEFFICIENTS FOR DIMENSION D - CALM/EMOTIONALLY STABLE.

| NO. OF NOMINATORS | N-U-M-B-E-R O-F N-O-M-I-N-E-E-S 29-29 | 31-33 | 34-36 | 37-39 | 40-42 | 43-45 | 46-48 | 49-51 | 52-54 | 58-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| 21 | 78.231 | 97.358 | 94.952 | 100.162 | 103.535 | 111.148 | 117.297 | 118.217 | 123.461 | 139.649 |
| 22 | 78.578 | 97.788 | 95.370 | 100.602 | 103.990 | 111.635 | 117.811 | 118.734 | 124.000 | 140.258 |
| 23 | 78.898 | 98.185 | 95.757 | 101.009 | 104.410 | 112.086 | 118.286 | 119.212 | 124.499 | 140.821 |
| 24 | 79.195 | 98.554 | 96.115 | 101.387 | 104.800 | 112.504 | 118.726 | 119.655 | 124.961 | 141.343 |
| 25 | 79.471 | 98.897 | 96.449 | 101.738 | 105.162 | 112.892 | 119.135 | 120.067 | 125.391 | 141.829 |
| 26 | 79.729 | 99.216 | 96.760 | 102.065 | 105.500 | 113.254 | 119.517 | 120.451 | 125.792 | 142.282 |
| 27 | 79.970 | 99.515 | 97.051 | 102.371 | 105.815 | 113.593 | 119.874 | 120.810 | 126.166 | 142.705 |
| 28 | 80.195 | 99.795 | 97.323 | 102.658 | 106.111 | 113.909 | 120.208 | 121.146 | 126.517 | 143.101 |
| 29 | 80.407 | 100.057 | 97.578 | 102.927 | 106.389 | 114.207 | 120.521 | 121.462 | 126.846 | 143.473 |
| 30 | --- | 100.304 | 97.818 | 103.180 | 106.649 | 114.487 | 120.816 | 121.759 | 127.156 | 143.822 |
| 31 | --- | 100.537 | 98.045 | 103.418 | 106.895 | 114.753 | 121.094 | 122.038 | 127.447 | 144.152 |
| 32 | --- | 100.757 | 98.258 | 103.643 | 107.127 | 114.999 | 121.356 | 122.302 | 127.723 | 144.463 |
| 33 | --- | 100.964 | 98.460 | 103.855 | 107.347 | 115.234 | 121.603 | 122.551 | 127.983 | 144.756 |
| 34 | --- | --- | 98.651 | 104.057 | 107.554 | 115.455 | 121.838 | 122.788 | 128.229 | 145.035 |
| 35 | --- | --- | 98.833 | 104.247 | 107.751 | 115.667 | 122.060 | 123.011 | 128.463 | 145.298 |
| 36 | --- | --- | 99.005 | 104.429 | 107.938 | 115.868 | 122.272 | 123.224 | 128.684 | 145.549 |
| 37 | --- | --- | --- | 104.601 | 108.116 | 116.059 | 122.472 | 123.426 | 128.895 | 145.787 |
| 38 | --- | --- | --- | 104.765 | 108.285 | 116.240 | 122.663 | 123.618 | 129.096 | 146.014 |
| 39 | --- | --- | --- | 104.921 | 108.446 | 116.412 | 122.845 | 123.802 | 129.287 | 146.230 |
| 40 | --- | --- | --- | --- | 108.600 | 116.577 | 123.019 | 123.977 | 129.470 | 146.436 |
| 41 | --- | --- | --- | --- | 108.747 | 116.735 | 123.185 | 124.144 | 129.644 | 146.632 |
| 42 | --- | --- | --- | --- | 108.887 | 116.885 | 123.344 | 124.303 | 129.811 | 146.821 |
| 43 | --- | --- | --- | --- | --- | 117.030 | 123.496 | 124.456 | 129.970 | 147.001 |
| 44 | --- | --- | --- | --- | --- | 117.168 | 123.641 | 124.603 | 130.123 | 147.173 |
| 45 | --- | --- | --- | --- | --- | 117.300 | 123.781 | 124.743 | 130.269 | 147.339 |
| 46 | --- | --- | --- | --- | --- | --- | 123.915 | 124.878 | 130.410 | 147.497 |
| 47 | --- | --- | --- | --- | --- | --- | 124.043 | 125.007 | 130.545 | 147.650 |
| 48 | --- | --- | --- | --- | --- | --- | 124.167 | 125.132 | 130.675 | 147.797 |
| 49 | --- | --- | --- | --- | --- | --- | --- | 125.251 | 130.800 | 147.938 |
| 50 | --- | --- | --- | --- | --- | --- | --- | 125.367 | 130.920 | 148.073 |
| 51 | --- | --- | --- | --- | --- | --- | --- | 125.476 | 131.036 | 148.204 |
| 52 | --- | --- | --- | --- | --- | --- | --- | --- | 131.147 | 148.330 |
| 53 | --- | --- | --- | --- | --- | --- | --- | --- | 131.255 | 148.452 |
| 54 | --- | --- | --- | --- | --- | --- | --- | --- | 131.359 | 148.569 |
| 55 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 148.682 |
| 56 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 148.792 |
| 57 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 148.896 |
| 58 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 149.001 |
| NORMATIVE SAMPLE N= | 29 | 129 | 340 | 1107 | 2924 | 6807 | 8968 | 5525 | 1216 | 58 |

TABLE D-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION D - CALM/EMOTIONALLY STABLE.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | N-O-M-B-E-R 34-36 | 37-39 | O-F 40-42 | N-O-M-I-N-E-E-S 43-45 | 46-48 | 49-51 | 52-54 | 58-33 |
|---|---|---|---|---|---|---|---|---|---|---|
| -100 | -- | -- | -- | -- | 14 | 15 | 17 | 19 | -- | -- |
| -99 | -- | -- | -- | -- | 15 | 18 | 20 | 22 | 17 | -- |
| -98 | -- | -- | -- | 17 | 15 | 19 | 20 | 22 | 18 | -- |
| -97 | -- | -- | -- | 17 | 16 | 19 | 20 | 22 | 19 | -- |
| -96 | -- | -- | -- | 17 | 16 | 20 | 20 | 23 | 19 | -- |
| -95 | -- | -- | -- | 18 | 17 | 20 | 21 | 23 | 20 | -- |
| -94 | -- | -- | -- | 18 | 17 | 20 | 21 | 23 | 21 | -- |
| -93 | -- | -- | -- | 18 | 19 | 21 | 21 | 24 | 21 | -- |
| -92 | -- | -- | -- | 18 | 20 | 21 | 22 | 24 | 22 | -- |
| -91 | -- | -- | -- | 18 | 20 | 22 | 22 | 24 | 22 | -- |
| -90 | -- | -- | -- | 19 | 21 | 22 | 22 | 24 | 22 | -- |
| -89 | -- | -- | 20 | 19 | 22 | 22 | 23 | 25 | 23 | -- |
| -88 | -- | -- | 20 | 19 | 22 | 23 | 23 | 25 | 23 | -- |
| -87 | -- | -- | 21 | 19 | 22 | 23 | 23 | 25 | 23 | -- |
| -86 | -- | -- | 21 | 19 | 22 | 23 | 23 | 25 | 24 | -- |
| -85 | -- | -- | 21 | 20 | 23 | 24 | 23 | 25 | 24 | -- |
| -84 | -- | -- | 21 | 20 | 23 | 24 | 24 | 26 | 24 | -- |
| -83 | -- | -- | 22 | 20 | 23 | 25 | 24 | 26 | 25 | -- |
| -82 | -- | -- | 22 | 21 | 23 | 25 | 24 | 26 | 25 | -- |
| -81 | -- | -- | 22 | 22 | 24 | 25 | 24 | 26 | 25 | -- |
| -80 | -- | -- | 22 | 22 | 25 | 25 | 25 | 27 | 25 | -- |
| -79 | -- | -- | 23 | 22 | 25 | 26 | 25 | 27 | 26 | -- |
| -78 | -- | -- | 23 | 23 | 25 | 26 | 25 | 27 | 26 | -- |
| -77 | -- | -- | 23 | 23 | 26 | 26 | 26 | 27 | 26 | -- |
| -76 | -- | -- | 23 | 23 | 26 | 27 | 26 | 28 | 27 | -- |
| -75 | -- | -- | 24 | 24 | 26 | 27 | 26 | 28 | 27 | 25 |
| -74 | -- | -- | 24 | 25 | 27 | 27 | 27 | 28 | 27 | 27 |
| -73 | -- | -- | 24 | 25 | 27 | 27 | 27 | 28 | 28 | 27 |
| -72 | -- | -- | 24 | 25 | 27 | 27 | 27 | 28 | 28 | 28 |
| -71 | -- | -- | 25 | 26 | 27 | 28 | 27 | 28 | 28 | 28 |
| -70 | -- | -- | 25 | 26 | 27 | 28 | 28 | 29 | 28 | 29 |
| -69 | -- | -- | 25 | 26 | 28 | 28 | 28 | 29 | 28 | 29 |
| -68 | 29 | -- | 25 | 26 | 28 | 28 | 28 | 29 | 28 | 30 |
| -67 | 30 | 23 | 25 | 27 | 28 | 29 | 28 | 29 | 28 | 30 |
| -66 | 30 | 24 | 25 | 27 | 28 | 29 | 28 | 29 | 28 | 31 |
| -65 | 31 | 24 | 26 | 28 | 29 | 29 | 29 | 29 | 29 | 31 |
| -64 | 32 | 25 | 27 | 28 | 29 | 29 | 29 | 30 | 29 | 32 |
| -63 | 33 | 25 | 28 | 28 | 29 | 29 | 29 | 30 | 29 | 33 |
| -62 | 33 | 26 | 29 | 29 | 29 | 30 | 30 | 30 | 29 | 33 |
| -61 | 34 | 26 | 30 | 29 | 30 | 30 | 30 | 30 | 30 | 34 |

TABLE D-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION D - CALM/EMOTIONALLY STABLE.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | N-U-M-B-E-R 34-36 | 37-39 | D-F 40-42 | N-J-M-I-N-I-E-S 43-45 | 46-48 | 49-51 | 52-54 | 55-59 |
|---|---|---|---|---|---|---|---|---|---|---|
| -60 | 34 | 27 | 30 | 29 | 30 | 30 | 30 | 30 | 30 | 34 |
| -59 | 34 | 28 | 31 | 30 | 30 | 30 | 30 | 31 | 31 | 34 |
| -58 | 34 | 28 | 31 | 30 | 31 | 31 | 31 | 31 | 31 | 34 |
| -57 | 34 | 29 | 31 | 30 | 31 | 31 | 31 | 31 | 31 | 34 |
| -56 | 34 | 29 | 31 | 30 | 31 | 31 | 31 | 31 | 31 | 34 |
| -55 | 34 | 30 | 31 | 30 | 32 | 31 | 31 | 32 | 32 | 35 |
| -54 | 35 | 31 | 31 | 30 | 32 | 32 | 32 | 32 | 32 | 35 |
| -53 | 35 | 31 | 31 | 31 | 32 | 32 | 32 | 32 | 32 | 35 |
| -52 | 35 | 32 | 32 | 31 | 32 | 32 | 32 | 32 | 33 | 35 |
| -51 | 35 | 32 | 32 | 32 | 33 | 33 | 32 | 32 | 33 | 36 |
| -50 | 35 | 32 | 32 | 32 | 33 | 33 | 33 | 33 | 33 | 35 |
| -49 | 35 | 32 | 32 | 32 | 33 | 33 | 33 | 33 | 33 | 35 |
| -48 | 35 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 34 | 35 |
| -47 | 35 | 33 | 33 | 33 | 34 | 33 | 33 | 33 | 34 | 35 |
| -46 | 35 | 33 | 34 | 33 | 34 | 34 | 33 | 34 | 34 | 35 |
| -45 | 35 | 33 | 34 | 33 | 34 | 34 | 34 | 34 | 34 | 36 |
| -44 | 35 | 33 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 36 |
| -43 | 35 | 33 | 34 | 34 | 34 | 34 | 35 | 34 | 35 | 36 |
| -42 | 36 | 33 | 35 | 34 | 35 | 35 | 35 | 35 | 35 | 36 |
| -41 | 36 | 34 | 35 | 34 | 35 | 35 | 35 | 35 | 35 | 35 |
| -40 | 36 | 34 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 36 |
| -39 | 36 | 34 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 36 |
| -38 | 36 | 34 | 35 | 35 | 36 | 36 | 36 | 36 | 36 | 37 |
| -37 | 36 | 35 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 37 |
| -36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 37 |
| -35 | 36 | 37 | 37 | 36 | 36 | 36 | 37 | 36 | 36 | 37 |
| -34 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 36 | 37 | 39 |
| -33 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 39 |
| -32 | 37 | 38 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 39 |
| -31 | 37 | 39 | 38 | 37 | 38 | 37 | 38 | 37 | 37 | 38 |
| -30 | 38 | 39 | 38 | 38 | 38 | 38 | 38 | 37 | 38 | 39 |
| -29 | 38 | 40 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 39 |
| -28 | 38 | 40 | 39 | 38 | 38 | 38 | 38 | 38 | 38 | 39 |
| -27 | 39 | 40 | 39 | 39 | 39 | 39 | 39 | 38 | 38 | 39 |
| -26 | 39 | 40 | 39 | 39 | 39 | 39 | 39 | 38 | 39 | 39 |
| -25 | 39 | 40 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 |
| -24 | 39 | 40 | 40 | 39 | 40 | 39 | 39 | 39 | 39 | 39 |
| -23 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 39 | 39 | 39 |
| -22 | 40 | 41 | 41 | 40 | 40 | 40 | 40 | 39 | 40 | 39 |
| -21 | 40 | 42 | 41 | 41 | 41 | 40 | 40 | 40 | 40 | 39 |

TABLE D-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION D - CALM/EMOTIONALLY STABLE.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | N-U-M-B-E-R 34-36 | 37-39 | O-F 40-42 | N-O-M-I-N-E-E-S 43-45 | 46-48 | 49-51 | 52-54 | 55-57 |
|---|---|---|---|---|---|---|---|---|---|---|
| -20 | 40 | 43 | 41 | 41 | 41 | 41 | 41 | 40 | 40 | 40 |
| -19 | 41 | 43 | 42 | 42 | 41 | 41 | 41 | 40 | 41 | 40 |
| -18 | 41 | 44 | 42 | 42 | 41 | 41 | 41 | 41 | 41 | 40 |
| -17 | 41 | 44 | 43 | 43 | 42 | 42 | 42 | 41 | 41 | 41 |
| -16 | 42 | 44 | 43 | 43 | 42 | 42 | 42 | 41 | 41 | 41 |
| -15 | 42 | 44 | 43 | 43 | 43 | 42 | 42 | 42 | 42 | 42 |
| -14 | 42 | 44 | 44 | 44 | 43 | 43 | 43 | 42 | 42 | 42 |
| -13 | 43 | 44 | 44 | 44 | 43 | 43 | 43 | 42 | 42 | 42 |
| -12 | 43 | 44 | 44 | 44 | 44 | 43 | 43 | 43 | 43 | 42 |
| -11 | 44 | 44 | 44 | 45 | 44 | 44 | 44 | 43 | 43 | 42 |
| -10 | 44 | 45 | 45 | 45 | 44 | 44 | 44 | 43 | 43 | 43 |
| -9 | 44 | 45 | 45 | 45 | 45 | 44 | 44 | 44 | 44 | 43 |
| -8 | 45 | 46 | 45 | 45 | 45 | 45 | 45 | 44 | 44 | 44 |
| -7 | 45 | 46 | 46 | 46 | 45 | 45 | 45 | 45 | 44 | 44 |
| -6 | 45 | 47 | 47 | 46 | 46 | 46 | 45 | 45 | 45 | 44 |
| -5 | 46 | 47 | 47 | 47 | 46 | 46 | 46 | 46 | 45 | 45 |
| -4 | 46 | 48 | 47 | 47 | 46 | 46 | 46 | 46 | 45 | 45 |
| -3 | 46 | 48 | 48 | 48 | 47 | 47 | 47 | 47 | 46 | 46 |
| -2 | 46 | 49 | 48 | 48 | 48 | 48 | 48 | 48 | 47 | 47 |
| -1 | 47 | 49 | 49 | 49 | 48 | 48 | 48 | 48 | 48 | 47 |
| 0 | 47 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 48 |
| 1 | 48 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 49 |
| 2 | 49 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 51 | 49 |
| 3 | 50 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 52 | 50 |
| 4 | 51 | 51 | 51 | 52 | 51 | 52 | 52 | 52 | 53 | 51 |
| 5 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 53 | 51 |
| 6 | 53 | 52 | 52 | 53 | 52 | 52 | 52 | 53 | 53 | 52 |
| 7 | 54 | 52 | 52 | 53 | 53 | 53 | 53 | 53 | 54 | 52 |
| 8 | 54 | 53 | 52 | 54 | 53 | 53 | 53 | 54 | 54 | 52 |
| 9 | 55 | 54 | 53 | 54 | 54 | 54 | 54 | 54 | 55 | 53 |
| 10 | 55 | 54 | 53 | 55 | 54 | 55 | 55 | 55 | 55 | 53 |
| 11 | 55 | 55 | 54 | 55 | 55 | 55 | 55 | 55 | 56 | 55 |
| 12 | 55 | 55 | 54 | 55 | 55 | 55 | 55 | 56 | 56 | 55 |
| 13 | 56 | 55 | 55 | 56 | 56 | 56 | 56 | 56 | 57 | 57 |
| 14 | 56 | 55 | 56 | 56 | 56 | 56 | 56 | 57 | 57 | 58 |
| 15 | 56 | 56 | 56 | 57 | 57 | 57 | 57 | 57 | 58 | 59 |
| 16 | 56 | 56 | 56 | 57 | 57 | 57 | 57 | 58 | 58 | 59 |
| 17 | 57 | 57 | 57 | 57 | 57 | 58 | 58 | 58 | 58 | 60 |
| 18 | 57 | 57 | 57 | 58 | 58 | 58 | 58 | 59 | 59 | 60 |
| 19 | 57 | 57 | 58 | 59 | 58 | 59 | 59 | 59 | 59 | 60 |
| 20 | 57 | 57 | 58 | 59 | 59 | 59 | 59 | 60 | 60 | 61 |

TABLE D-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION D - CALM/EMOTIONALLY STABLE.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | 34-36 | 37-39 | 40-42 | 43-45 | 46-48 | 49-51 | 52-54 | 58-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | N-U-M-B-E-R | | O-F | N-O-M-I-N-E-S | | | | |
| 21 | 57 | 58 | 59 | 59 | 59 | 60 | 60 | 60 | 60 | 61 |
| 22 | 58 | 59 | 59 | 60 | 60 | 60 | 60 | 60 | 60 | 61 |
| 23 | 58 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 62 |
| 24 | 58 | 60 | 61 | 60 | 61 | 61 | 61 | 61 | 61 | 62 |
| 25 | 59 | 60 | 61 | 61 | 61 | 61 | 61 | 62 | 62 | 62 |
| 26 | 59 | 60 | 61 | 61 | 62 | 62 | 62 | 62 | 62 | 62 |
| 27 | 60 | 61 | 62 | 61 | 62 | 62 | 62 | 62 | 62 | 63 |
| 28 | 60 | 61 | 62 | 62 | 62 | 62 | 63 | 63 | 63 | 63 |
| 29 | 63 | 61 | 62 | 62 | 63 | 63 | 63 | 63 | 63 | 63 |
| 30 | 64 | 61 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 63 |
| 31 | 65 | 62 | 64 | 63 | 64 | 64 | 64 | 64 | 64 | 64 |
| 32 | 66 | 62 | 64 | 64 | 64 | 64 | 64 | 64 | 65 | 64 |
| 33 | 67 | 63 | 64 | 64 | 64 | 64 | 65 | 65 | 65 | 65 |
| 34 | 67 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| 35 | 68 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 66 | 65 |
| 36 | 69 | 64 | 66 | 65 | 66 | 66 | 66 | 66 | 66 | 65 |
| 37 | 69 | 65 | 65 | 66 | 66 | 66 | 66 | 66 | 66 | 67 |
| 38 | 70 | 65 | 66 | 66 | 66 | 66 | 67 | 67 | 67 | 68 |
| 39 | 70 | 66 | 67 | 66 | 67 | 67 | 67 | 67 | 67 | 69 |
| 40 | 71 | 66 | 68 | 67 | 68 | 67 | 67 | 67 | 67 | 69 |
| 41 | -- | 66 | 68 | 67 | 68 | 68 | 68 | 68 | 68 | 70 |
| 42 | -- | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 70 |
| 43 | -- | 69 | 69 | 68 | 69 | 69 | 68 | 69 | 68 | 70 |
| 44 | -- | 69 | 69 | 68 | 69 | 69 | 69 | 69 | 68 | 71 |
| 45 | -- | 70 | 70 | 68 | 69 | 69 | 69 | 69 | 69 | 71 |
| 46 | -- | 70 | 71 | 69 | 70 | 70 | 69 | 70 | 69 | 71 |
| 47 | -- | 71 | 71 | 69 | 70 | 70 | 70 | 70 | 69 | 72 |
| 48 | -- | 71 | 72 | 69 | 71 | 70 | 70 | 70 | 69 | 72 |
| 49 | -- | 71 | 72 | 69 | 71 | 71 | 70 | 71 | 69 | 72 |
| 50 | -- | 72 | 72 | 69 | 72 | 71 | 71 | 71 | 70 | 73 |
| 51 | -- | 72 | 73 | 70 | 72 | 71 | 71 | 71 | 71 | 73 |
| 52 | -- | 73 | 73 | 70 | 73 | 72 | 72 | 71 | 71 | 73 |
| 53 | -- | 73 | 73 | 71 | 73 | 72 | 72 | 72 | 71 | 74 |
| 54 | -- | 75 | 73 | 71 | 73 | 72 | 72 | 72 | 71 | 74 |
| 55 | -- | 77 | 73 | 71 | 74 | 72 | 73 | 73 | 71 | -- |
| 56 | -- | -- | 74 | 71 | 74 | 73 | 73 | 73 | 71 | -- |
| 57 | -- | -- | 74 | 71 | 74 | 73 | 73 | 73 | 71 | -- |
| 58 | -- | -- | 75 | 72 | 75 | 74 | 74 | 74 | 72 | -- |
| 59 | -- | -- | 75 | 72 | 75 | 74 | 74 | 74 | 72 | -- |
| 60 | -- | -- | 75 | 72 | 76 | 75 | 75 | 74 | 72 | -- |

TABLE D-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION D - CALM/EMOTIONALLY STABLE.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | N-J-M-B-E-R 34-36 | 37-39 | O-F 40-42 | N-O-M-I-N-E-E-S 43-45 | 46-48 | 49-51 | 52-54 | 56-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| 61 | -- | -- | 77 | 72 | 76 | 76 | 75 | 74 | 72 | -- |
| 62 | -- | -- | 78 | 72 | 77 | 76 | 75 | 75 | 73 | -- |
| 63 | -- | -- | 79 | 73 | 77 | 75 | 76 | 75 | 73 | -- |
| 64 | -- | -- | 79 | 73 | 77 | 77 | 76 | 75 | 74 | -- |
| 65 | -- | -- | 80 | 74 | 77 | 77 | 76 | 76 | 74 | -- |
| 66 | -- | -- | -- | 75 | 78 | 77 | 77 | 76 | 74 | -- |
| 67 | -- | -- | -- | 75 | 78 | 77 | 77 | 76 | 74 | -- |
| 68 | -- | -- | -- | 76 | 79 | 77 | 77 | 77 | 75 | -- |
| 69 | -- | -- | -- | 77 | 80 | 78 | 77 | 77 | 75 | -- |
| 70 | -- | -- | -- | 78 | 80 | 78 | 78 | 77 | 75 | -- |
| 71 | -- | -- | -- | 79 | 80 | 78 | 78 | 78 | 76 | -- |
| 72 | -- | -- | -- | 80 | 80 | 79 | 78 | 79 | 77 | -- |
| 73 | -- | -- | -- | 80 | 80 | 79 | 79 | 79 | 77 | -- |
| 74 | -- | -- | -- | 81 | 80 | 79 | 79 | 80 | 78 | -- |
| 75 | -- | -- | -- | -- | 80 | 79 | 79 | 80 | 78 | -- |
| 76 | -- | -- | -- | -- | 81 | 79 | 79 | 80 | 78 | -- |
| 77 | -- | -- | -- | -- | 81 | 80 | 80 | 81 | 78 | -- |
| 78 | -- | -- | -- | -- | 81 | 81 | 80 | 81 | 79 | -- |
| 79 | -- | -- | -- | -- | 81 | 83 | 80 | 82 | 79 | -- |
| 80 | -- | -- | -- | -- | 83 | 83 | 80 | 82 | 79 | -- |
| 81 | -- | -- | -- | -- | 84 | 83 | 80 | 82 | 79 | -- |
| 82 | -- | -- | -- | -- | -- | 84 | 81 | 82 | 79 | -- |
| 83 | -- | -- | -- | -- | -- | 84 | 81 | 82 | 80 | -- |
| 84 | -- | -- | -- | -- | -- | 84 | 83 | 82 | 80 | -- |
| 85 | -- | -- | -- | -- | -- | 84 | 84 | 82 | 80 | -- |
| 86 | -- | -- | -- | -- | -- | 85 | 84 | 83 | 81 | -- |
| 87 | -- | -- | -- | -- | -- | 85 | 85 | 83 | 81 | -- |
| 88 | -- | -- | -- | -- | -- | 85 | 85 | 83 | -- | -- |
| 89 | -- | -- | -- | -- | -- | 85 | 86 | 83 | -- | -- |
| 90 | -- | -- | -- | -- | -- | 86 | 86 | 83 | -- | -- |
| 91 | -- | -- | -- | -- | -- | 86 | 87 | 83 | -- | -- |
| 92 | -- | -- | -- | -- | -- | 86 | 87 | 83 | -- | -- |
| 93 | -- | -- | -- | -- | -- | 86 | 87 | 84 | -- | -- |
| 94 | -- | -- | -- | -- | -- | 87 | 88 | 84 | -- | -- |
| 95 | -- | -- | -- | -- | -- | 87 | 88 | 85 | -- | -- |
| 96 | -- | -- | -- | -- | -- | 87 | 88 | 85 | -- | -- |
| 97 | -- | -- | -- | -- | -- | 87 | 89 | 86 | -- | -- |
| 98 | -- | -- | -- | -- | -- | 88 | 89 | 86 | -- | -- |
| 99 | -- | -- | -- | -- | -- | 88 | -- | 87 | -- | -- |
| 100 | -- | -- | -- | -- | -- | -- | -- | 87 | -- | -- |

TABLE E-1. TABLE OF INITIAL, RAW-SCORE TRANSFORMATION COEFFICIENTS FOR DIMENSION E - BRIGHT/INTELLIGENT.

| NO. OF NOMINATORS | N-U-M-B-E-R O-F N-O-M-I-N-E-E-S 29-29 | 31-33 | 34-36 | 37-39 | 40-42 | 43-45 | 46-48 | 49-51 | 52-54 | 56-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| 21 | 84.601 | 82.133 | 81.761 | 84.289 | 91.446 | 94.992 | 99.753 | 104.442 | 107.203 | 123.425 |
| 22 | 84.851 | 82.374 | 82.000 | 84.536 | 91.713 | 95.269 | 100.043 | 104.746 | 107.515 | 123.785 |
| 23 | 85.080 | 82.596 | 82.221 | 84.763 | 91.959 | 95.524 | 100.311 | 105.025 | 107.801 | 124.114 |
| 24 | 85.292 | 82.802 | 82.425 | 84.972 | 92.186 | 95.760 | 100.558 | 105.283 | 108.066 | 124.419 |
| 25 | 85.489 | 82.992 | 82.614 | 85.167 | 92.396 | 95.979 | 100.787 | 105.523 | 108.311 | 124.701 |
| 26 | 85.672 | 83.169 | 82.789 | 85.347 | 92.592 | 96.181 | 100.999 | 105.745 | 108.539 | 124.963 |
| 27 | 85.842 | 83.333 | 82.953 | 85.515 | 92.774 | 96.370 | 101.197 | 105.952 | 108.752 | 125.207 |
| 28 | 86.000 | 83.487 | 83.105 | 85.672 | 92.944 | 96.546 | 101.382 | 106.146 | 108.950 | 125.435 |
| 29 | 86.149 | 83.631 | 83.248 | 85.819 | 93.103 | 96.711 | 101.555 | 106.327 | 109.136 | 125.648 |
| 30 | --- | 83.766 | 83.382 | 85.957 | 93.252 | 96.865 | 101.718 | 106.496 | 109.310 | 125.848 |
| 31 | --- | 83.893 | 83.508 | 86.087 | 93.392 | 97.011 | 101.870 | 106.656 | 109.473 | 126.036 |
| 32 | --- | 84.012 | 83.627 | 86.209 | 93.525 | 97.148 | 102.014 | 106.806 | 109.627 | 126.213 |
| 33 | --- | 84.125 | 83.739 | 86.324 | 93.649 | 97.278 | 102.149 | 106.948 | 109.773 | 126.380 |
| 34 | --- | --- | 83.844 | 86.433 | 93.767 | 97.403 | 102.277 | 107.082 | 109.913 | 126.538 |
| 35 | --- | --- | 83.944 | 86.535 | 93.878 | 97.515 | 102.398 | 107.208 | 110.040 | 126.687 |
| 36 | --- | --- | 84.039 | 86.633 | 93.984 | 97.625 | 102.513 | 107.328 | 110.163 | 126.829 |
| 37 | --- | --- | --- | 86.725 | 94.084 | 97.729 | 102.622 | 107.442 | 110.280 | 126.963 |
| 38 | --- | --- | --- | 86.813 | 94.179 | 97.827 | 102.726 | 107.551 | 110.391 | 127.091 |
| 39 | --- | --- | --- | 86.897 | 94.270 | 97.921 | 102.824 | 107.654 | 110.496 | 127.212 |
| 40 | --- | --- | --- | --- | 94.356 | 98.011 | 102.918 | 107.752 | 110.597 | 127.328 |
| 41 | --- | --- | --- | --- | 94.438 | 98.096 | 103.008 | 107.845 | 110.693 | 127.438 |
| 42 | --- | --- | --- | --- | 94.517 | 98.179 | 103.093 | 107.935 | 110.784 | 127.543 |
| 43 | --- | --- | --- | --- | --- | 98.255 | 103.175 | 108.020 | 110.872 | 127.644 |
| 44 | --- | --- | --- | --- | --- | 98.330 | 103.253 | 108.102 | 110.956 | 127.740 |
| 45 | --- | --- | --- | --- | --- | 98.401 | 103.328 | 108.180 | 111.036 | 127.833 |
| 46 | --- | --- | --- | --- | --- | --- | 103.399 | 108.255 | 111.113 | 127.921 |
| 47 | --- | --- | --- | --- | --- | --- | 103.468 | 108.327 | 111.187 | 128.006 |
| 48 | --- | --- | --- | --- | --- | --- | 103.534 | 108.396 | 111.258 | 128.087 |
| 49 | --- | --- | --- | --- | --- | --- | --- | 108.463 | 111.326 | 128.166 |
| 50 | --- | --- | --- | --- | --- | --- | --- | 108.526 | 111.391 | 128.241 |
| 51 | --- | --- | --- | --- | --- | --- | --- | 108.588 | 111.454 | 128.313 |
| 52 | --- | --- | --- | --- | --- | --- | --- | --- | 111.515 | 128.383 |
| 53 | --- | --- | --- | --- | --- | --- | --- | --- | 111.573 | 128.450 |
| 54 | --- | --- | --- | --- | --- | --- | --- | --- | 111.630 | 128.515 |
| 55 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 128.578 |
| 56 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 128.638 |
| 57 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 128.696 |
| 58 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 128.753 |
| NORMATIVE SAMPLE N= | 29 | 129 | 330 | 1107 | 2924 | 6807 | 8968 | 5525 | 1216 | 58 |

TABLE E-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION E - BRIGHT/INTELLIGENT.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | 34-36 | 37-39 | 40-42 | 43-45 | 46-48 | 49-51 | 52-54 | 56-59 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | N-U-M-B-E-R | | O-F | N-J-M-I-N-I-E-S | | | | |
| -100 | -- | -- | -- | -- | -- | -- | -- | 16 | 17 | -- |
| -99 | -- | -- | -- | -- | -- | -- | -- | 18 | 17 | -- |
| -98 | -- | -- | -- | -- | -- | -- | -- | 19 | 18 | -- |
| -97 | -- | -- | -- | -- | -- | -- | -- | 20 | 18 | -- |
| -96 | -- | -- | -- | -- | -- | -- | -- | 20 | 18 | -- |
| -95 | -- | -- | -- | -- | -- | -- | 13 | 20 | 19 | -- |
| -94 | -- | -- | -- | -- | -- | 12 | 15 | 21 | 19 | -- |
| -93 | -- | -- | -- | -- | -- | 13 | 17 | 21 | 19 | -- |
| -92 | -- | -- | -- | -- | -- | 15 | 18 | 21 | 20 | -- |
| -91 | -- | -- | -- | -- | 14 | 16 | 19 | 22 | 20 | -- |
| -90 | -- | -- | -- | -- | 16 | 17 | 19 | 23 | 21 | -- |
| -89 | -- | -- | -- | -- | 17 | 19 | 20 | 23 | 21 | -- |
| -88 | -- | -- | -- | -- | 19 | 20 | 21 | 23 | 22 | -- |
| -87 | -- | -- | -- | -- | 20 | 20 | 21 | 24 | 22 | -- |
| -86 | -- | -- | -- | -- | 20 | 21 | 22 | 24 | 23 | -- |
| -85 | -- | -- | -- | -- | 20 | 22 | 23 | 24 | 23 | -- |
| -84 | -- | -- | -- | -- | 21 | 23 | 23 | 24 | 23 | -- |
| -83 | -- | 23 | -- | -- | 22 | 23 | 23 | 25 | 24 | -- |
| -82 | -- | 23 | -- | -- | 23 | 23 | 24 | 25 | 24 | -- |
| -81 | -- | 23 | 20 | 17 | 23 | 23 | 24 | 26 | 24 | -- |
| -80 | -- | 24 | 21 | 20 | 23 | 24 | 25 | 26 | 24 | -- |
| -79 | -- | 24 | 21 | 22 | 24 | 24 | 25 | 26 | 25 | -- |
| -78 | -- | 24 | 22 | 22 | 24 | 25 | 25 | 26 | 25 | 29 |
| -77 | -- | 24 | 22 | 23 | 25 | 25 | 26 | 27 | 26 | 29 |
| -76 | -- | 24 | 23 | 23 | 25 | 25 | 26 | 27 | 26 | 29 |
| -75 | -- | 25 | 25 | 24 | 26 | 26 | 26 | 27 | 26 | 29 |
| -74 | -- | 25 | 26 | 24 | 26 | 26 | 27 | 27 | 27 | 29 |
| -73 | -- | 25 | 27 | 25 | 26 | 27 | 27 | 28 | 27 | 30 |
| -72 | -- | 25 | 27 | 26 | 27 | 27 | 27 | 28 | 27 | 30 |
| -71 | -- | 25 | 28 | 27 | 27 | 28 | 28 | 28 | 28 | 30 |
| -70 | -- | 26 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 30 |
| -69 | -- | 26 | 29 | 28 | 28 | 28 | 28 | 28 | 28 | 30 |
| -68 | -- | 26 | 29 | 28 | 28 | 29 | 28 | 29 | 28 | 30 |
| -67 | -- | 26 | 29 | 29 | 28 | 29 | 29 | 29 | 29 | 30 |
| -66 | -- | 26 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 30 |
| -65 | -- | 27 | 29 | 30 | 29 | 29 | 29 | 29 | 29 | 30 |
| -64 | -- | 27 | 29 | 30 | 29 | 30 | 29 | 29 | 29 | 31 |
| -63 | -- | 27 | 30 | 30 | 30 | 30 | 30 | 30 | 29 | 31 |
| -62 | -- | 27 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 31 |
| -61 | -- | 28 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 31 |

TABLE E-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION E - BRIGHT/INTELLIGENT.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | N-J-M-B-E-R 34-36 | 37-39 | O-F 40-42 | N-O-M-I-N-E-E-S 43-45 | 46-48 | 49-51 | 52-54 | 58-59 |
|---|---|---|---|---|---|---|---|---|---|---|
| -60 | -- | 28 | 30 | 31 | 31 | 31 | 30 | 30 | 31 | 31 |
| -59 | -- | 29 | 30 | 31 | 31 | 31 | 30 | 30 | 31 | 31 |
| -58 | 29 | 29 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 |
| -57 | 29 | 29 | 31 | 32 | 31 | 31 | 31 | 31 | 31 | 31 |
| -56 | 30 | 30 | 31 | 32 | 31 | 32 | 31 | 31 | 31 | 32 |
| -55 | 30 | 30 | 31 | 32 | 31 | 32 | 31 | 31 | 31 | 32 |
| -54 | 31 | 31 | 31 | 32 | 32 | 32 | 32 | 32 | 32 | 32 |
| -53 | 31 | 31 | 32 | 33 | 32 | 32 | 32 | 32 | 32 | 32 |
| -52 | 32 | 32 | 32 | 33 | 32 | 32 | 32 | 32 | 32 | 32 |
| -51 | 32 | 33 | 33 | 33 | 32 | 32 | 33 | 32 | 33 | 32 |
| -50 | 32 | 34 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 32 |
| -49 | 33 | 34 | 33 | 34 | 33 | 33 | 33 | 33 | 33 | 32 |
| -48 | 33 | 34 | 34 | 34 | 33 | 33 | 33 | 33 | 34 | 32 |
| -47 | 34 | 34 | 34 | 34 | 33 | 33 | 34 | 33 | 34 | 33 |
| -46 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 33 |
| -45 | 34 | 35 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 33 |
| -44 | 35 | 35 | 34 | 35 | 34 | 34 | 34 | 34 | 35 | 33 |
| -43 | 35 | 35 | 34 | 35 | 34 | 34 | 34 | 34 | 35 | 33 |
| -42 | 35 | 36 | 35 | 35 | 35 | 34 | 35 | 35 | 35 | 33 |
| -41 | 35 | 36 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 33 |
| -40 | 36 | 37 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 33 |
| -39 | 36 | 37 | 35 | 36 | 36 | 35 | 35 | 35 | 36 | 34 |
| -38 | 36 | 37 | 35 | 36 | 36 | 35 | 36 | 35 | 36 | 34 |
| -37 | 36 | 37 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 34 |
| -36 | 36 | 37 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 34 |
| -35 | 37 | 37 | 36 | 36 | 36 | 36 | 36 | 36 | 37 | 35 |
| -34 | 37 | 37 | 37 | 36 | 37 | 36 | 36 | 36 | 37 | 36 |
| -33 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 36 | 37 | 36 |
| -32 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 36 |
| -31 | 38 | 38 | 38 | 37 | 37 | 37 | 37 | 37 | 37 | 37 |
| -30 | 38 | 38 | 38 | 38 | 37 | 38 | 37 | 37 | 37 | 37 |
| -29 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 37 | 37 |
| -28 | 38 | 38 | 39 | 38 | 38 | 38 | 38 | 38 | 38 | 37 |
| -27 | 39 | 38 | 39 | 38 | 38 | 38 | 38 | 38 | 38 | 38 |
| -26 | 39 | 38 | 39 | 39 | 38 | 39 | 38 | 38 | 38 | 38 |
| -25 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 38 | 38 |
| -24 | 40 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 38 |
| -23 | 40 | 40 | 40 | 40 | 39 | 40 | 39 | 39 | 39 | 39 |
| -22 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 39 | 39 |
| -21 | 41 | 41 | 40 | 40 | 40 | 40 | 40 | 40 | 39 | 39 |

TABLE E-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION E - BRIGHT/INTELLIGENT.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | N-U-M-B-E-R 34-36 | 37-39 | O-F 40-42 | N-O-M-I-N-E-E-S 43-45 | 46-48 | 49-51 | 52-54 | 58-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| -20 | 41 | 41 | 40 | 41 | 40 | 40 | 40 | 40 | 40 | 40 |
| -19 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 40 | 40 |
| -18 | 42 | 42 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 40 |
| -17 | 42 | 42 | 42 | 42 | 41 | 41 | 41 | 41 | 40 | 40 |
| -16 | 43 | 43 | 42 | 42 | 42 | 41 | 41 | 41 | 41 | 41 |
| -15 | 43 | 43 | 43 | 42 | 42 | 42 | 42 | 42 | 41 | 41 |
| -14 | 44 | 44 | 43 | 43 | 43 | 42 | 42 | 42 | 41 | 42 |
| -13 | 44 | 44 | 43 | 43 | 43 | 43 | 43 | 42 | 42 | 42 |
| -12 | 45 | 44 | 44 | 43 | 43 | 43 | 43 | 43 | 42 | 43 |
| -11 | 45 | 44 | 44 | 44 | 44 | 43 | 43 | 43 | 43 | 43 |
| -10 | 46 | 45 | 45 | 44 | 44 | 44 | 44 | 44 | 43 | 43 |
| -9 | 46 | 45 | 45 | 44 | 45 | 44 | 44 | 44 | 44 | 44 |
| -8 | 47 | 46 | 45 | 45 | 45 | 45 | 45 | 44 | 44 | 44 |
| -7 | 48 | 46 | 46 | 45 | 45 | 45 | 45 | 45 | 45 | 44 |
| -6 | 48 | 46 | 46 | 46 | 46 | 45 | 45 | 45 | 45 | 44 |
| -5 | 49 | 47 | 46 | 46 | 46 | 46 | 46 | 46 | 45 | 44 |
| -4 | 49 | 47 | 47 | 47 | 47 | 46 | 46 | 46 | 46 | 45 |
| -3 | 50 | 48 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 45 |
| -2 | 50 | 48 | 48 | 48 | 48 | 48 | 48 | 47 | 47 | 46 |
| -1 | 51 | 49 | 49 | 49 | 49 | 49 | 49 | 48 | 49 | 47 |
| 0 | 51 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 50 | 48 |
| 1 | 51 | 49 | 50 | 50 | 50 | 50 | 50 | 50 | 51 | 49 |
| 2 | 52 | 50 | 50 | 51 | 51 | 51 | 51 | 51 | 52 | 51 |
| 3 | 52 | 50 | 51 | 51 | 51 | 51 | 52 | 52 | 52 | 52 |
| 4 | 52 | 51 | 51 | 52 | 52 | 52 | 52 | 52 | 53 | 53 |
| 5 | 52 | 51 | 52 | 52 | 52 | 52 | 53 | 53 | 53 | 53 |
| 6 | 53 | 51 | 52 | 53 | 53 | 53 | 53 | 53 | 54 | 54 |
| 7 | 53 | 52 | 53 | 53 | 53 | 54 | 54 | 54 | 55 | 55 |
| 8 | 53 | 53 | 53 | 54 | 54 | 54 | 54 | 54 | 55 | 55 |
| 9 | 53 | 54 | 54 | 54 | 54 | 55 | 55 | 55 | 55 | 56 |
| 10 | 54 | 55 | 54 | 55 | 55 | 55 | 55 | 55 | 56 | 57 |
| 11 | 54 | 56 | 55 | 55 | 55 | 56 | 56 | 56 | 56 | 57 |
| 12 | 54 | 56 | 55 | 56 | 56 | 56 | 56 | 56 | 57 | 58 |
| 13 | 54 | 56 | 55 | 56 | 56 | 56 | 56 | 57 | 57 | 59 |
| 14 | 54 | 57 | 56 | 57 | 56 | 57 | 57 | 57 | 57 | 59 |
| 15 | 54 | 57 | 56 | 57 | 57 | 57 | 57 | 58 | 58 | 59 |
| 16 | 55 | 57 | 57 | 57 | 57 | 58 | 58 | 58 | 58 | 59 |
| 17 | 55 | 58 | 57 | 58 | 58 | 58 | 58 | 59 | 59 | 59 |
| 18 | 55 | 58 | 57 | 58 | 58 | 59 | 59 | 59 | 59 | 59 |
| 19 | 55 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| 20 | 56 | 58 | 59 | 59 | 59 | 59 | 59 | 60 | 60 | 60 |

TABLE E-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION E - BRIGHT/INTELLIGENT.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | 34-36 | 37-39 | 40-42 | 43-45 | 46-48 | 49-51 | 52-54 | 56-59 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | N-U-M-B-E-R | | O-F | N-J-M-I-N-E-S | | | | |
| 21 | 57 | 59 | 59 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| 22 | 58 | 59 | 59 | 60 | 60 | 60 | 60 | 61 | 61 | 60 |
| 23 | 59 | 59 | 60 | 60 | 60 | 61 | 61 | 61 | 61 | 60 |
| 24 | 60 | 60 | 60 | 61 | 61 | 61 | 61 | 61 | 62 | 61 |
| 25 | 61 | 60 | 61 | 61 | 61 | 61 | 61 | 62 | 62 | 61 |
| 26 | 62 | 60 | 61 | 61 | 61 | 62 | 62 | 62 | 63 | 63 |
| 27 | 62 | 60 | 62 | 62 | 62 | 62 | 62 | 62 | 63 | 62 |
| 28 | 62 | 60 | 62 | 62 | 62 | 62 | 62 | 63 | 63 | 63 |
| 29 | 63 | 61 | 62 | 62 | 62 | 63 | 63 | 63 | 64 | 63 |
| 30 | 63 | 62 | 63 | 63 | 63 | 63 | 63 | 63 | 64 | 64 |
| 31 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 64 |
| 32 | 63 | 64 | 64 | 63 | 63 | 64 | 64 | 64 | 64 | 64 |
| 33 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 65 | 65 |
| 34 | 64 | 64 | 64 | 64 | 64 | 65 | 65 | 65 | 65 | 65 |
| 35 | 64 | 65 | 65 | 65 | 64 | 65 | 65 | 65 | 65 | 65 |
| 36 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 66 | 65 |
| 37 | 65 | 66 | 65 | 66 | 65 | 66 | 66 | 66 | 66 | 66 |
| 38 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 65 |
| 39 | 66 | 69 | 67 | 66 | 66 | 65 | 66 | 66 | 66 | 65 |
| 40 | 67 | 69 | 67 | 67 | 66 | 66 | 66 | 66 | 66 | 65 |
| 41 | 67 | 69 | 68 | 67 | 67 | 67 | 67 | 67 | 67 | 65 |
| 42 | 68 | 70 | 69 | 67 | 67 | 67 | 67 | 67 | 67 | 65 |
| 43 | 69 | 70 | 69 | 69 | 68 | 67 | 67 | 67 | 67 | 65 |
| 44 | 69 | 70 | 69 | 68 | 68 | 68 | 68 | 68 | 67 | 67 |
| 45 | 70 | 70 | 69 | 68 | 69 | 68 | 68 | 68 | 68 | 67 |
| 46 | 70 | 70 | 70 | 69 | 69 | 68 | 68 | 68 | 68 | 67 |
| 47 | 71 | 71 | 70 | 69 | 69 | 69 | 69 | 68 | 68 | 67 |
| 48 | -- | 71 | 71 | 69 | 70 | 69 | 69 | 69 | 68 | 67 |
| 49 | -- | 71 | 72 | 70 | 70 | 69 | 69 | 69 | 69 | 67 |
| 50 | -- | 73 | 73 | 70 | 70 | 70 | 69 | 69 | 69 | 67 |
| 51 | -- | 74 | 73 | 70 | 71 | 70 | 70 | 70 | 69 | 69 |
| 52 | -- | 75 | 73 | 71 | 72 | 70 | 70 | 70 | 69 | 69 |
| 53 | -- | 75 | 73 | 71 | 72 | 71 | 70 | 71 | 70 | 69 |
| 54 | -- | 76 | 74 | 72 | 72 | 71 | 71 | 71 | 70 | 70 |
| 55 | -- | 77 | 74 | 72 | 73 | 71 | 72 | 71 | 70 | 70 |
| 56 | -- | -- | 74 | 73 | 73 | 72 | 72 | 72 | 71 | 71 |
| 57 | -- | -- | 74 | 74 | 73 | 72 | 72 | 72 | 71 | -- |
| 58 | -- | -- | 74 | 74 | 74 | 72 | 73 | 72 | 71 | -- |
| 59 | -- | -- | 77 | 74 | 74 | 73 | 73 | 72 | 71 | -- |
| 60 | -- | -- | 77 | 75 | 74 | 73 | 73 | 72 | 71 | -- |

TABLE E-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION E - BRIGHT/INTELLIGENT.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | N-J-M-B-E-R 34-36 | 37-39 | O-F 40-42 | N-O-M-I-N-E-E-S 43-45 | 46-48 | 49-51 | 52-54 | 56-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| 61 | -- | -- | 78 | 75 | 74 | 73 | 74 | 73 | 71 | -- |
| 62 | -- | -- | 78 | 75 | 75 | 74 | 74 | 73 | 72 | -- |
| 63 | -- | -- | 78 | 75 | 75 | 74 | 74 | 73 | 72 | -- |
| 64 | -- | -- | 79 | 75 | 76 | 75 | 74 | 73 | 72 | -- |
| 65 | -- | -- | 79 | 75 | 77 | 75 | 75 | 74 | 72 | -- |
| 66 | -- | -- | 79 | 76 | 77 | 76 | 75 | 74 | 72 | -- |
| 67 | -- | -- | 80 | 76 | 77 | 76 | 75 | 75 | 73 | -- |
| 68 | -- | -- | 80 | 77 | 77 | 76 | 76 | 75 | 74 | -- |
| 69 | -- | -- | -- | 79 | 78 | 77 | 76 | 75 | 74 | -- |
| 70 | -- | -- | -- | 80 | 78 | 77 | 77 | 75 | 74 | -- |
| 71 | -- | -- | -- | 82 | 78 | 78 | 77 | 76 | 74 | -- |
| 72 | -- | -- | -- | 83 | 78 | 79 | 77 | 76 | 75 | -- |
| 73 | -- | -- | -- | -- | 78 | 79 | 78 | 77 | 75 | -- |
| 74 | -- | -- | -- | -- | 79 | 80 | 78 | 77 | 75 | -- |
| 75 | -- | -- | -- | -- | 79 | 81 | 79 | 77 | 76 | -- |
| 76 | -- | -- | -- | -- | 80 | 82 | 80 | 78 | 76 | -- |
| 77 | -- | -- | -- | -- | 80 | 82 | 80 | 78 | 76 | -- |
| 78 | -- | -- | -- | -- | 81 | 83 | 81 | 78 | 77 | -- |
| 79 | -- | -- | -- | -- | 83 | 83 | 81 | 79 | 77 | -- |
| 80 | -- | -- | -- | -- | 84 | 84 | 81 | 79 | 78 | -- |
| 81 | -- | -- | -- | -- | 85 | 84 | 82 | 80 | 78 | -- |
| 82 | -- | -- | -- | -- | 86 | 85 | 82 | 80 | 78 | -- |
| 83 | -- | -- | -- | -- | -- | 85 | 82 | 80 | 79 | -- |
| 84 | -- | -- | -- | -- | -- | 87 | 83 | 82 | 79 | -- |
| 85 | -- | -- | -- | -- | -- | 88 | 84 | 83 | 79 | -- |
| 86 | -- | -- | -- | -- | -- | -- | 84 | 84 | 80 | -- |
| 87 | -- | -- | -- | -- | -- | -- | 86 | 84 | 80 | -- |
| 88 | -- | -- | -- | -- | -- | -- | 89 | 85 | 82 | -- |
| 89 | -- | -- | -- | -- | -- | -- | -- | 85 | 83 | -- |
| 90 | -- | -- | -- | -- | -- | -- | -- | 86 | -- | -- |
| 91 | -- | -- | -- | -- | -- | -- | -- | 86 | -- | -- |
| 92 | -- | -- | -- | -- | -- | -- | -- | 86 | -- | -- |
| 93 | -- | -- | -- | -- | -- | -- | -- | 86 | -- | -- |
| 94 | -- | -- | -- | -- | -- | -- | -- | 87 | -- | -- |
| 95 | -- | -- | -- | -- | -- | -- | -- | 87 | -- | -- |
| 96 | -- | -- | -- | -- | -- | -- | -- | 87 | -- | -- |
| 97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 98 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 99 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

TABLE F-1. TABLE OF INITIAL, RAW-SCORE TRANSFORMATION COEFFICIENTS FOR DIMENSION F - NOT EXCITABLE.

| NO. OF NOMINATORS | N-U-M-B-E-R O-F N-O-M-I-N-E-E-S 29-29 | 31-33 | 34-36 | 37-39 | 40-42 | 43-45 | 46-48 | 49-51 | 52-54 | 58-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| 21 | 83.130 | 89.106 | 84.573 | 94.942 | 95.344 | 103.015 | 107.998 | 112.323 | 118.118 | 137.684 |
| 22 | 83.433 | 89.429 | 84.880 | 95.286 | 95.688 | 103.385 | 108.387 | 112.727 | 118.543 | 138.178 |
| 23 | 83.712 | 89.728 | 85.162 | 95.603 | 96.006 | 103.723 | 108.745 | 113.100 | 118.934 | 138.634 |
| 24 | 83.971 | 90.005 | 85.424 | 95.896 | 96.300 | 104.046 | 109.077 | 113.445 | 119.296 | 139.056 |
| 25 | 84.211 | 90.261 | 85.667 | 96.168 | 96.573 | 104.340 | 109.386 | 113.765 | 119.633 | 139.447 |
| 26 | 84.434 | 90.500 | 85.893 | 96.422 | 96.827 | 104.614 | 109.672 | 114.063 | 119.946 | 139.811 |
| 27 | 84.643 | 90.723 | 86.104 | 96.658 | 97.064 | 104.870 | 109.940 | 114.341 | 120.238 | 140.151 |
| 28 | 84.838 | 90.931 | 86.301 | 96.879 | 97.285 | 105.109 | 110.190 | 114.600 | 120.510 | 140.469 |
| 29 | 85.020 | 91.126 | 86.486 | 97.086 | 97.493 | 105.333 | 110.424 | 114.844 | 120.766 | 140.766 |
| 30 | --- | 91.310 | 86.660 | 97.280 | 97.688 | 105.543 | 110.644 | 115.073 | 121.006 | 141.046 |
| 31 | --- | 91.482 | 86.823 | 97.463 | 97.871 | 105.741 | 110.852 | 115.288 | 121.233 | 141.309 |
| 32 | --- | 91.645 | 86.977 | 97.636 | 98.044 | 105.927 | 111.047 | 115.491 | 121.446 | 141.557 |
| 33 | --- | 91.798 | 87.122 | 97.799 | 98.207 | 106.103 | 111.231 | 115.682 | 121.647 | 141.791 |
| 34 | --- | --- | 87.260 | 97.953 | 98.361 | 106.270 | 111.405 | 115.863 | 121.837 | 142.012 |
| 35 | --- | --- | 87.390 | 98.098 | 98.508 | 106.428 | 111.571 | 116.035 | 122.017 | 142.222 |
| 36 | --- | --- | 87.514 | 98.237 | 98.646 | 106.577 | 111.727 | 116.197 | 122.188 | 142.421 |
| 37 | --- | --- | --- | 98.368 | 98.778 | 106.719 | 111.876 | 116.352 | 122.350 | 142.610 |
| 38 | --- | --- | --- | 98.493 | 98.903 | 106.854 | 112.017 | 116.499 | 122.505 | 142.789 |
| 39 | --- | --- | --- | 98.612 | 99.023 | 106.983 | 112.152 | 116.639 | 122.652 | 142.961 |
| 40 | --- | --- | --- | --- | 99.136 | 107.105 | 112.280 | 116.772 | 122.792 | 143.124 |
| 41 | --- | --- | --- | --- | 99.245 | 107.223 | 112.403 | 116.899 | 122.925 | 143.279 |
| 42 | --- | --- | --- | --- | 99.349 | 107.335 | 112.520 | 117.021 | 123.053 | 143.428 |
| 43 | --- | --- | --- | --- | --- | 107.442 | 112.632 | 117.137 | 123.175 | 143.570 |
| 44 | --- | --- | --- | --- | --- | 107.544 | 112.739 | 117.249 | 123.292 | 143.706 |
| 45 | --- | --- | --- | --- | --- | 107.642 | 112.842 | 117.355 | 123.404 | 143.837 |
| 46 | --- | --- | --- | --- | --- | --- | 112.941 | 117.458 | 123.512 | 143.962 |
| 47 | --- | --- | --- | --- | --- | --- | 113.035 | 117.556 | 123.615 | 144.082 |
| 48 | --- | --- | --- | --- | --- | --- | 113.126 | 117.650 | 123.714 | 144.197 |
| 49 | --- | --- | --- | --- | --- | --- | --- | 117.741 | 123.809 | 144.308 |
| 50 | --- | --- | --- | --- | --- | --- | --- | 117.828 | 123.901 | 144.415 |
| 51 | --- | --- | --- | --- | --- | --- | --- | 117.912 | 123.989 | 144.518 |
| 52 | --- | --- | --- | --- | --- | --- | --- | --- | 124.075 | 144.617 |
| 53 | --- | --- | --- | --- | --- | --- | --- | --- | 124.157 | 144.712 |
| 54 | --- | --- | --- | --- | --- | --- | --- | --- | 124.236 | 144.804 |
| 55 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 144.893 |
| 56 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 144.979 |
| 57 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 145.062 |
| 58 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 145.142 |
| NORMATIVE SAMPLE N= | 29 | 129 | 390 | 1107 | 2924 | 6807 | 8968 | 5525 | 1216 | 58 |

TABLE F-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION F - NOT EXCITABLE.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | N-U-M-B-E-R 34-36 | 37-39 | O-F 40-42 | N-O-M-I-N-E-E-S 43-45 | 46-48 | 49-51 | 52-54 | 56-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| -100 | -- | -- | -- | -- | -- | -- | 15 | 16 | 17 | -- |
| -99 | -- | -- | -- | -- | -- | 14 | 17 | 19 | 20 | -- |
| -98 | -- | -- | -- | -- | -- | 15 | 18 | 20 | 21 | -- |
| -97 | -- | -- | -- | -- | -- | 17 | 18 | 21 | 21 | -- |
| -96 | -- | -- | -- | -- | -- | 18 | 19 | 21 | 21 | -- |
| -95 | -- | -- | -- | -- | -- | 19 | 20 | 22 | 22 | -- |
| -94 | -- | -- | -- | -- | -- | 20 | 20 | 22 | 22 | -- |
| -93 | -- | -- | -- | -- | 16 | 20 | 21 | 23 | 22 | -- |
| -92 | -- | -- | -- | -- | 19 | 21 | 21 | 23 | 23 | -- |
| -91 | -- | -- | -- | -- | 20 | 22 | 22 | 24 | 23 | -- |
| -90 | -- | -- | -- | -- | 21 | 22 | 22 | 24 | 24 | -- |
| -89 | -- | -- | -- | -- | 21 | 23 | 23 | 24 | 25 | -- |
| -88 | -- | -- | -- | -- | 22 | 23 | 23 | 25 | 26 | -- |
| -87 | -- | -- | -- | -- | 22 | 23 | 23 | 25 | 26 | -- |
| -86 | -- | -- | -- | -- | 22 | 23 | 24 | 25 | 27 | -- |
| -85 | -- | -- | -- | -- | 23 | 24 | 24 | 25 | 27 | -- |
| -84 | 29 | -- | -- | 17 | 23 | 24 | 25 | 26 | 27 | -- |
| -83 | 29 | -- | -- | 18 | 24 | 25 | 25 | 26 | 27 | -- |
| -82 | 30 | 23 | -- | 20 | 24 | 25 | 26 | 26 | 27 | -- |
| -81 | 30 | 23 | -- | 21 | 25 | 26 | 26 | 26 | 28 | -- |
| -80 | 30 | 24 | -- | 22 | 25 | 26 | 26 | 27 | 28 | -- |
| -79 | 30 | 24 | -- | 23 | 26 | 26 | 27 | 27 | 28 | -- |
| -78 | 31 | 24 | -- | 24 | 26 | 26 | 27 | 27 | 28 | -- |
| -77 | 31 | 25 | -- | 24 | 26 | 27 | 27 | 27 | 28 | -- |
| -76 | 31 | 25 | 20 | 24 | 27 | 27 | 27 | 27 | 28 | -- |
| -75 | 31 | 25 | 24 | 24 | 27 | 27 | 28 | 28 | 29 | -- |
| -74 | 32 | 25 | 24 | 25 | 27 | 27 | 28 | 28 | 29 | -- |
| -73 | 32 | 26 | 25 | 25 | 27 | 28 | 28 | 28 | 29 | -- |
| -72 | 32 | 26 | 25 | 25 | 28 | 28 | 29 | 29 | 29 | 25 |
| -71 | 32 | 26 | 25 | 26 | 28 | 28 | 29 | 29 | 29 | 25 |
| -70 | 33 | 27 | 25 | 26 | 29 | 28 | 29 | 29 | 30 | 27 |
| -69 | 33 | 27 | 25 | 27 | 29 | 29 | 29 | 29 | 30 | 27 |
| -68 | 33 | 28 | 27 | 27 | 30 | 29 | 30 | 29 | 30 | 27 |
| -67 | 33 | 28 | 28 | 27 | 30 | 29 | 30 | 30 | 30 | 28 |
| -66 | 34 | 29 | 29 | 28 | 30 | 30 | 30 | 30 | 30 | 28 |
| -65 | 34 | 31 | 29 | 28 | 30 | 30 | 30 | 30 | 31 | 29 |
| -64 | 34 | 31 | 30 | 29 | 30 | 30 | 31 | 30 | 31 | 29 |
| -63 | 34 | 31 | 30 | 29 | 31 | 30 | 31 | 31 | 31 | 29 |
| -62 | 34 | 31 | 31 | 29 | 31 | 31 | 31 | 31 | 31 | 29 |
| -61 | 34 | 31 | 31 | 30 | 31 | 31 | 31 | 31 | 32 | 29 |

TABLE F-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION F - NOT EXCITABLE.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | 34-36 | 37-39 | 40-42 | 43-45 | 46-48 | 49-51 | 52-54 | 56-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | N-U-M-B-E-R | | O-F | N-O-M-I-N-E-E-S | | | | |
| -60 | 34 | 32 | 31 | 30 | 31 | 31 | 31 | 31 | 32 | 30 |
| -59 | 34 | 32 | 31 | 30 | 32 | 31 | 32 | 32 | 32 | 30 |
| -58 | 35 | 32 | 31 | 31 | 32 | 32 | 32 | 32 | 32 | 30 |
| -57 | 35 | 32 | 32 | 31 | 32 | 32 | 32 | 32 | 33 | 31 |
| -56 | 35 | 32 | 32 | 31 | 32 | 32 | 32 | 32 | 33 | 31 |
| -55 | 35 | 32 | 32 | 31 | 33 | 32 | 32 | 33 | 33 | 31 |
| -54 | 35 | 33 | 32 | 32 | 33 | 33 | 33 | 33 | 33 | 32 |
| -53 | 35 | 33 | 33 | 32 | 33 | 33 | 33 | 33 | 33 | 32 |
| -52 | 35 | 34 | 33 | 32 | 33 | 33 | 33 | 33 | 34 | 32 |
| -51 | 35 | 34 | 34 | 33 | 33 | 33 | 33 | 33 | 34 | 32 |
| -50 | 35 | 34 | 35 | 33 | 34 | 33 | 33 | 33 | 34 | 33 |
| -49 | 35 | 34 | 35 | 33 | 34 | 34 | 34 | 34 | 34 | 33 |
| -48 | 35 | 34 | 35 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| -47 | 35 | 34 | 35 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| -46 | 36 | 34 | 35 | 34 | 34 | 34 | 34 | 34 | 35 | 34 |
| -45 | 36 | 35 | 35 | 34 | 35 | 35 | 35 | 35 | 35 | 35 |
| -44 | 36 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| -43 | 36 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| -42 | 36 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| -41 | 36 | 35 | 35 | 35 | 36 | 35 | 36 | 35 | 35 | 35 |
| -40 | 36 | 36 | 35 | 35 | 36 | 35 | 36 | 36 | 36 | 35 |
| -39 | 36 | 36 | 35 | 36 | 36 | 35 | 36 | 36 | 36 | 35 |
| -38 | 36 | 36 | 35 | 36 | 36 | 35 | 36 | 36 | 36 | 36 |
| -37 | 36 | 37 | 36 | 36 | 36 | 37 | 36 | 36 | 36 | 37 |
| -36 | 36 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 36 | 37 |
| -35 | 36 | 38 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 38 |
| -34 | 36 | 39 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 39 |
| -33 | 37 | 39 | 38 | 38 | 37 | 37 | 37 | 37 | 37 | 39 |
| -32 | 37 | 39 | 38 | 38 | 38 | 38 | 38 | 37 | 37 | 39 |
| -31 | 37 | 40 | 39 | 38 | 38 | 38 | 38 | 38 | 37 | 39 |
| -30 | 37 | 40 | 39 | 39 | 38 | 38 | 38 | 38 | 38 | 40 |
| -29 | 37 | 40 | 40 | 39 | 38 | 38 | 38 | 38 | 38 | 40 |
| -28 | 37 | 40 | 40 | 39 | 39 | 39 | 39 | 38 | 38 | 41 |
| -27 | 37 | 41 | 40 | 39 | 39 | 39 | 39 | 39 | 38 | 41 |
| -26 | 37 | 41 | 40 | 39 | 39 | 39 | 39 | 39 | 38 | 41 |
| -25 | 37 | 41 | 40 | 40 | 39 | 39 | 39 | 39 | 39 | 41 |
| -24 | 37 | 41 | 41 | 40 | 40 | 40 | 40 | 39 | 39 | 41 |
| -23 | 37 | 41 | 41 | 40 | 40 | 40 | 40 | 40 | 39 | 41 |
| -22 | 37 | 41 | 41 | 41 | 40 | 40 | 40 | 40 | 39 | 42 |
| -21 | 38 | 41 | 41 | 41 | 40 | 40 | 40 | 40 | 40 | 42 |

TABLE F-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES
FOR DIMENSION F - NOT EXCITABLE.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | 34-36 | 37-39 | 40-42 | 43-45 | 46-48 | 49-51 | 52-54 | 55-57 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | N-U-M-B-E-R | | O-F | N-O-M-I-N-E-E-S | | | | |
| -20 | 38 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 40 | 42 |
| -19 | 38 | 41 | 42 | 41 | 41 | 41 | 41 | 41 | 40 | 42 |
| -18 | 38 | 42 | 42 | 42 | 41 | 41 | 41 | 41 | 40 | 42 |
| -17 | 38 | 42 | 42 | 42 | 42 | 41 | 41 | 41 | 41 | 42 |
| -16 | 38 | 42 | 42 | 42 | 42 | 42 | 42 | 41 | 41 | 42 |
| -15 | 38 | 43 | 42 | 43 | 42 | 42 | 42 | 42 | 41 | 43 |
| -14 | 39 | 43 | 42 | 43 | 42 | 42 | 42 | 42 | 41 | 43 |
| -13 | 40 | 43 | 43 | 43 | 43 | 43 | 43 | 42 | 42 | 43 |
| -12 | 41 | 43 | 43 | 44 | 43 | 43 | 43 | 43 | 42 | 44 |
| -11 | 42 | 43 | 43 | 44 | 43 | 43 | 43 | 43 | 42 | 44 |
| -10 | 43 | 44 | 44 | 44 | 44 | 44 | 43 | 43 | 42 | 44 |
| -9 | 43 | 44 | 44 | 45 | 44 | 44 | 44 | 43 | 43 | 44 |
| -8 | 44 | 44 | 44 | 45 | 44 | 44 | 44 | 44 | 43 | 44 |
| -7 | 46 | 45 | 45 | 45 | 45 | 45 | 44 | 44 | 44 | 44 |
| -6 | 46 | 45 | 45 | 46 | 45 | 45 | 45 | 44 | 44 | 45 |
| -5 | 47 | 45 | 45 | 46 | 46 | 45 | 45 | 45 | 45 | 45 |
| -4 | 47 | 45 | 46 | 46 | 46 | 46 | 45 | 45 | 45 | 45 |
| -3 | 48 | 46 | 47 | 47 | 46 | 46 | 46 | 46 | 45 | 45 |
| -2 | 48 | 47 | 47 | 48 | 47 | 47 | 47 | 47 | 45 | 46 |
| -1 | 49 | 47 | 48 | 48 | 48 | 47 | 48 | 47 | 47 | 47 |
| 0 | 49 | 48 | 48 | 49 | 48 | 48 | 48 | 48 | 48 | 48 |
| 1 | 49 | 48 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| 2 | 50 | 49 | 49 | 50 | 49 | 49 | 49 | 50 | 50 | 49 |
| 3 | 50 | 49 | 50 | 50 | 50 | 50 | 50 | 50 | 51 | 50 |
| 4 | 50 | 50 | 51 | 51 | 50 | 51 | 51 | 51 | 52 | 50 |
| 5 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 53 | 51 |
| 6 | 52 | 51 | 51 | 52 | 51 | 52 | 52 | 52 | 53 | 51 |
| 7 | 52 | 51 | 52 | 52 | 52 | 52 | 52 | 52 | 53 | 52 |
| 8 | 53 | 52 | 52 | 53 | 52 | 53 | 53 | 53 | 54 | 53 |
| 9 | 53 | 52 | 53 | 53 | 53 | 53 | 53 | 54 | 54 | 53 |
| 10 | 54 | 53 | 53 | 54 | 54 | 54 | 54 | 54 | 55 | 54 |
| 11 | 54 | 53 | 54 | 54 | 54 | 54 | 54 | 55 | 55 | 54 |
| 12 | 55 | 54 | 54 | 55 | 55 | 55 | 55 | 55 | 55 | 54 |
| 13 | 55 | 54 | 55 | 55 | 55 | 55 | 55 | 56 | 56 | 55 |
| 14 | 56 | 55 | 55 | 56 | 56 | 56 | 56 | 56 | 56 | 55 |
| 15 | 56 | 55 | 56 | 56 | 56 | 56 | 56 | 57 | 57 | 55 |
| 16 | 57 | 55 | 56 | 56 | 57 | 57 | 57 | 57 | 57 | 56 |
| 17 | 58 | 56 | 56 | 57 | 57 | 57 | 58 | 58 | 58 | 56 |
| 18 | 58 | 56 | 57 | 58 | 58 | 58 | 58 | 58 | 58 | 56 |
| 19 | 59 | 57 | 57 | 58 | 58 | 58 | 59 | 59 | 59 | 57 |
| 20 | 59 | 58 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 58 |

TABLE F-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION F - NOT EXCITABLE.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | 34-36 | 37-39 | 40-42 | 43-45 | 46-48 | 49-51 | 52-54 | 56-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | N-U-M-B-E-R | | O-F | N-O-M-I-N-E-E-S | | | | |
| 21 | 60 | 58 | 59 | 59 | 59 | 60 | 60 | 60 | 60 | 59 |
| 22 | 60 | 58 | 59 | 59 | 60 | 60 | 60 | 60 | 60 | 60 |
| 23 | 60 | 60 | 60 | 60 | 61 | 61 | 61 | 61 | 61 | 60 |
| 24 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| 25 | 61 | 61 | 61 | 61 | 61 | 62 | 62 | 62 | 62 | 61 |
| 26 | 62 | 62 | 62 | 61 | 62 | 62 | 62 | 62 | 62 | 61 |
| 27 | 64 | 63 | 62 | 62 | 63 | 63 | 63 | 63 | 63 | 62 |
| 28 | 65 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 62 |
| 29 | 66 | 64 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | 62 |
| 30 | 66 | 66 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 63 |
| 31 | 67 | 67 | 64 | 64 | 65 | 65 | 65 | 65 | 64 | 63 |
| 32 | 67 | 67 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 63 |
| 33 | 68 | 68 | 65 | 65 | 66 | 65 | 66 | 66 | 65 | 63 |
| 34 | 68 | 69 | 66 | 65 | 66 | 65 | 66 | 66 | 66 | 64 |
| 35 | 68 | 71 | 66 | 66 | 66 | 66 | 67 | 67 | 66 | 64 |
| 36 | 69 | 72 | 67 | 66 | 67 | 67 | 67 | 67 | 67 | 65 |
| 37 | 69 | 72 | 68 | 66 | 67 | 67 | 68 | 67 | 67 | 65 |
| 38 | 69 | 73 | 68 | 67 | 68 | 68 | 68 | 68 | 67 | 67 |
| 39 | 70 | 74 | 69 | 67 | 69 | 68 | 69 | 68 | 68 | 68 |
| 40 | 70 | 76 | 69 | 68 | 69 | 69 | 69 | 69 | 68 | 70 |
| 41 | 71 | 77 | 70 | 68 | 69 | 69 | 69 | 69 | 68 | 72 |
| 42 | 71 | -- | 70 | 69 | 70 | 70 | 70 | 69 | 69 | 74 |
| 43 | -- | -- | 72 | 69 | 70 | 70 | 70 | 70 | 70 | -- |
| 44 | -- | -- | 73 | 70 | 71 | 70 | 71 | 70 | 70 | -- |
| 45 | -- | -- | 73 | 70 | 71 | 71 | 71 | 71 | 71 | -- |
| 46 | -- | -- | 75 | 70 | 72 | 71 | 72 | 71 | 71 | -- |
| 47 | -- | -- | 75 | 71 | 72 | 72 | 72 | 71 | 72 | -- |
| 48 | -- | -- | 75 | 71 | 73 | 72 | 73 | 72 | 73 | -- |
| 49 | -- | -- | 77 | 72 | 74 | 73 | 73 | 72 | 73 | -- |
| 50 | -- | -- | 77 | 72 | 74 | 73 | 73 | 73 | 74 | -- |
| 51 | -- | -- | 80 | 73 | 75 | 74 | 74 | 73 | 75 | -- |
| 52 | -- | -- | -- | 73 | 75 | 75 | 74 | 73 | 76 | -- |
| 53 | -- | -- | -- | 73 | 76 | 75 | 75 | 74 | 76 | -- |
| 54 | -- | -- | -- | 73 | 76 | 76 | 75 | 74 | 78 | -- |
| 55 | -- | -- | -- | 73 | 76 | 76 | 76 | 74 | 79 | -- |
| 56 | -- | -- | -- | 74 | 76 | 77 | 77 | 75 | 79 | -- |
| 57 | -- | -- | -- | 74 | 77 | 77 | 77 | 75 | 79 | -- |
| 58 | -- | -- | -- | 75 | 78 | 77 | 78 | 76 | 79 | -- |
| 59 | -- | -- | -- | 75 | 79 | 78 | 79 | 76 | 80 | -- |
| 60 | -- | -- | -- | 76 | 79 | 78 | 79 | 77 | 80 | -- |

TABLE F-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION F - NOT EXCITABLE.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | N-J-M-B-E-R 34-36 | 37-39 | O-F 40-42 | N-O-M-I-N-E-E-S 43-45 | 46-48 | 49-51 | 52-54 | 56-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| 61 | -- | -- | -- | 76 | 80 | 79 | 80 | 77 | 80 | -- |
| 62 | -- | -- | -- | 77 | 81 | 79 | 80 | 78 | 81 | -- |
| 63 | -- | -- | -- | 77 | 81 | 79 | 80 | 78 | 81 | -- |
| 64 | -- | -- | -- | 77 | 82 | 79 | 81 | 78 | 82 | -- |
| 65 | -- | -- | -- | 78 | 84 | 80 | 81 | 79 | 82 | -- |
| 66 | -- | -- | -- | 78 | 86 | 81 | 82 | 79 | 83 | -- |
| 67 | -- | -- | -- | 79 | -- | 81 | 82 | 80 | 83 | -- |
| 68 | -- | -- | -- | 80 | -- | 82 | 83 | 80 | -- | -- |
| 69 | -- | -- | -- | 81 | -- | 82 | 83 | 81 | -- | -- |
| 70 | -- | -- | -- | 81 | -- | 84 | 83 | 81 | -- | -- |
| 71 | -- | -- | -- | 82 | -- | 84 | 84 | 82 | -- | -- |
| 72 | -- | -- | -- | 82 | -- | 85 | 84 | 82 | -- | -- |
| 73 | -- | -- | -- | 83 | -- | 85 | 85 | 83 | -- | -- |
| 74 | -- | -- | -- | -- | -- | 85 | 85 | 85 | -- | -- |
| 75 | -- | -- | -- | -- | -- | 85 | 86 | 85 | -- | -- |
| 76 | -- | -- | -- | -- | -- | 86 | 86 | 85 | -- | -- |
| 77 | -- | -- | -- | -- | -- | 86 | 89 | 86 | -- | -- |
| 78 | -- | -- | -- | -- | -- | 86 | -- | 86 | -- | -- |
| 79 | -- | -- | -- | -- | -- | 86 | -- | 86 | -- | -- |
| 80 | -- | -- | -- | -- | -- | 87 | -- | 86 | -- | -- |
| 81 | -- | -- | -- | -- | -- | 87 | -- | 86 | -- | -- |
| 82 | -- | -- | -- | -- | -- | 87 | -- | 86 | -- | -- |
| 83 | -- | -- | -- | -- | -- | 87 | -- | 87 | -- | -- |
| 84 | -- | -- | -- | -- | -- | 88 | -- | 87 | -- | -- |
| 85 | -- | -- | -- | -- | -- | 88 | -- | 87 | -- | -- |
| 86 | -- | -- | -- | -- | -- | -- | -- | 87 | -- | -- |
| 87 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 88 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 89 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 90 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 91 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 92 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 93 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 94 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 95 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 96 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 98 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 99 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

TABLE G-1. TABLE OF INITIAL, RAW-SCORE TRANSFORMATION COEFFICIENTS FOR DIMENSION G - PHYSICAL STRENGTH/ENERGY.

| NO. OF NOMINATORS | N-U-M-B-E-R O-F N-O-M-I-N-E-E-S 29-29 | 31-33 | 34-36 | 37-39 | 40-42 | 43-45 | 46-48 | 49-51 | 52-54 | 58-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| 21 | 86.390 | 77.955 | 80.511 | 83.338 | 88.552 | 90.762 | 95.406 | 97.020 | 104.401 | 128.722 |
| 22 | 86.615 | 78.158 | 80.720 | 83.554 | 88.781 | 90.997 | 95.652 | 97.269 | 104.669 | 129.053 |
| 23 | 86.823 | 78.345 | 80.913 | 83.753 | 88.992 | 91.212 | 95.878 | 97.499 | 104.916 | 129.357 |
| 24 | 87.014 | 78.517 | 81.090 | 83.936 | 89.186 | 91.411 | 96.087 | 97.711 | 105.144 | 129.638 |
| 25 | 87.191 | 78.677 | 81.254 | 84.106 | 89.366 | 91.595 | 96.280 | 97.908 | 105.355 | 129.898 |
| 26 | 87.356 | 78.825 | 81.407 | 84.263 | 89.533 | 91.766 | 96.460 | 98.090 | 105.551 | 130.139 |
| 27 | 87.509 | 78.962 | 81.549 | 84.410 | 89.689 | 91.925 | 96.627 | 98.260 | 105.734 | 130.363 |
| 28 | 87.652 | 79.091 | 81.681 | 84.547 | 89.834 | 92.074 | 96.783 | 98.418 | 105.904 | 130.573 |
| 29 | 87.786 | 79.211 | 81.805 | 84.675 | 89.969 | 92.213 | 96.928 | 98.566 | 106.063 | 130.769 |
| 30 | --- | 79.324 | 81.921 | 84.795 | 90.097 | 92.343 | 97.065 | 98.705 | 106.212 | 130.952 |
| 31 | --- | 79.430 | 82.031 | 84.907 | 90.216 | 92.466 | 97.194 | 98.835 | 106.352 | 131.125 |
| 32 | --- | 79.530 | 82.133 | 85.013 | 90.329 | 92.581 | 97.314 | 98.958 | 106.484 | 131.287 |
| 33 | --- | 79.624 | 82.230 | 85.113 | 90.435 | 92.689 | 97.429 | 99.074 | 106.609 | 131.440 |
| 34 | --- | --- | 82.322 | 85.208 | 90.535 | 92.792 | 97.536 | 99.183 | 106.726 | 131.585 |
| 35 | --- | --- | 82.408 | 85.297 | 90.630 | 92.889 | 97.638 | 99.286 | 106.837 | 131.722 |
| 36 | --- | --- | 82.490 | 85.382 | 90.719 | 92.980 | 97.734 | 99.384 | 106.942 | 131.851 |
| 37 | --- | --- | --- | 85.462 | 90.804 | 93.068 | 97.825 | 99.477 | 107.042 | 131.974 |
| 38 | --- | --- | --- | 85.538 | 90.885 | 93.150 | 97.912 | 99.565 | 107.137 | 132.091 |
| 39 | --- | --- | --- | 85.611 | 90.962 | 93.229 | 97.995 | 99.649 | 107.227 | 132.202 |
| 40 | --- | --- | --- | --- | 91.035 | 93.304 | 98.074 | 99.729 | 107.313 | 132.308 |
| 41 | --- | --- | --- | --- | 91.105 | 93.375 | 98.149 | 99.805 | 107.395 | 132.408 |
| 42 | --- | --- | --- | --- | 91.172 | 93.444 | 98.220 | 99.876 | 107.473 | 132.505 |
| 43 | --- | --- | --- | --- | --- | 93.509 | 98.289 | 99.947 | 107.548 | 132.596 |
| 44 | --- | --- | --- | --- | --- | 93.571 | 98.354 | 100.014 | 107.619 | 132.684 |
| 45 | --- | --- | --- | --- | --- | 93.631 | 98.417 | 100.077 | 107.688 | 132.769 |
| 46 | --- | --- | --- | --- | --- | --- | 98.477 | 100.138 | 107.753 | 132.849 |
| 47 | --- | --- | --- | --- | --- | --- | 98.534 | 100.197 | 107.816 | 132.927 |
| 48 | --- | --- | --- | --- | --- | --- | 98.591 | 100.253 | 107.876 | 133.001 |
| 49 | --- | --- | --- | --- | --- | --- | --- | 100.307 | 107.934 | 133.072 |
| 50 | --- | --- | --- | --- | --- | --- | --- | 100.359 | 107.990 | 133.141 |
| 51 | --- | --- | --- | --- | --- | --- | --- | 100.409 | 108.044 | 133.207 |
| 52 | --- | --- | --- | --- | --- | --- | --- | --- | 108.095 | 133.270 |
| 53 | --- | --- | --- | --- | --- | --- | --- | --- | 108.145 | 133.332 |
| 54 | --- | --- | --- | --- | --- | --- | --- | --- | 108.193 | 133.391 |
| 55 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 133.448 |
| 56 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 133.503 |
| 57 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 133.556 |
| 58 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 133.607 |
| NORMATIVE SAMPLE N= | 29 | 129 | 390 | 1107 | 2924 | 6807 | 8968 | 5525 | 1215 | 58 |

TABLE G-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION G - PHYSICAL STRENGTH/ENERGY.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | N-J-M-B-E-R 34-36 | 37-39 | O-F 40-42 | N-J-M-I-N-E-E-S 43-45 | 46-48 | 49-51 | 52-54 | 55-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| -100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| -99 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| -98 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| -97 | -- | -- | -- | -- | -- | -- | -- | 13 | -- | -- |
| -96 | -- | -- | -- | -- | -- | -- | 11 | 14 | -- | -- |
| -95 | -- | -- | -- | -- | -- | -- | 12 | 14 | -- | -- |
| -94 | -- | -- | -- | -- | -- | -- | 14 | 15 | -- | -- |
| -93 | -- | -- | -- | -- | -- | -- | 15 | 17 | -- | -- |
| -92 | -- | -- | -- | -- | -- | -- | 16 | 18 | -- | -- |
| -91 | -- | -- | -- | -- | -- | -- | 16 | 18 | -- | -- |
| -90 | -- | -- | -- | -- | -- | 12 | 18 | 18 | -- | -- |
| -89 | -- | -- | -- | -- | -- | 13 | 19 | 19 | -- | -- |
| -88 | -- | -- | -- | -- | -- | 14 | 19 | 19 | -- | -- |
| -87 | -- | -- | -- | -- | -- | 14 | 20 | 19 | -- | -- |
| -86 | -- | -- | -- | -- | -- | 15 | 20 | 20 | -- | -- |
| -85 | -- | -- | -- | -- | -- | 16 | 20 | 21 | -- | -- |
| -84 | -- | -- | -- | -- | 14 | 17 | 20 | 21 | -- | -- |
| -83 | -- | -- | -- | 17 | 15 | 18 | 21 | 22 | 17 | -- |
| -82 | -- | -- | -- | 18 | 16 | 18 | 21 | 22 | 18 | -- |
| -81 | -- | -- | -- | 19 | 17 | 19 | 22 | 23 | 18 | -- |
| -80 | -- | -- | -- | 20 | 19 | 20 | 22 | 23 | 19 | -- |
| -79 | -- | -- | -- | 20 | 20 | 21 | 22 | 23 | 19 | -- |
| -78 | -- | -- | -- | 21 | 20 | 21 | 23 | 23 | 20 | -- |
| -77 | -- | -- | 20 | 21 | 21 | 22 | 23 | 24 | 20 | -- |
| -76 | -- | -- | 20 | 21 | 22 | 23 | 23 | 24 | 21 | -- |
| -75 | -- | -- | 21 | 22 | 22 | 23 | 24 | 24 | 21 | -- |
| -74 | -- | -- | 21 | 22 | 23 | 24 | 24 | 24 | 21 | -- |
| -73 | -- | -- | 22 | 23 | 23 | 24 | 24 | 25 | 22 | -- |
| -72 | -- | -- | 22 | 24 | 23 | 24 | 24 | 25 | 22 | -- |
| -71 | -- | -- | 22 | 24 | 24 | 25 | 25 | 25 | 23 | -- |
| -70 | -- | -- | 23 | 24 | 24 | 25 | 25 | 26 | 23 | -- |
| -69 | -- | -- | 23 | 25 | 24 | 25 | 26 | 26 | 25 | -- |
| -68 | -- | -- | 24 | 25 | 24 | 25 | 26 | 26 | 26 | -- |
| -67 | -- | -- | 24 | 26 | 25 | 26 | 26 | 27 | 27 | -- |
| -66 | -- | -- | 25 | 26 | 25 | 26 | 27 | 27 | 27 | -- |
| -65 | -- | -- | 26 | 26 | 25 | 27 | 27 | 28 | 27 | -- |
| -64 | -- | -- | 26 | 27 | 26 | 27 | 27 | 28 | 27 | -- |
| -63 | -- | -- | 26 | 27 | 26 | 28 | 28 | 28 | 28 | 26 |
| -62 | -- | -- | 26 | 28 | 26 | 28 | 28 | [illegible] | 28 | 29 |
| -61 | -- | -- | 27 | 28 | 27 | 28 | 29 | 29 | 29 | 31 |

TABLE G-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION G - PHYSICAL STRENGTH/ENERGY.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | N-U-M-B-E-R 34-36 | 37-39 | 40-42 | O-F N-O-M-I-N-E-E-S 43-45 | 46-48 | 49-51 | 52-54 | 55-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| -60 | -- | 26 | 27 | 29 | 27 | 29 | 29 | 29 | 29 | 31 |
| -59 | -- | 27 | 27 | 29 | 28 | 29 | 29 | 30 | 29 | 31 |
| -58 | -- | 28 | 27 | 30 | 28 | 29 | 29 | 30 | 30 | 31 |
| -57 | -- | 28 | 27 | 30 | 29 | 30 | 30 | 30 | 30 | 31 |
| -56 | -- | 29 | 28 | 30 | 29 | 30 | 30 | 30 | 30 | 32 |
| -55 | -- | 29 | 28 | 30 | 30 | 30 | 30 | 30 | 31 | 32 |
| -54 | -- | 30 | 28 | 31 | 30 | 30 | 30 | 31 | 32 | 32 |
| -53 | -- | 30 | 28 | 31 | 30 | 31 | 31 | 31 | 32 | 32 |
| -52 | -- | 30 | 29 | 31 | 31 | 31 | 31 | 31 | 32 | 32 |
| -51 | -- | 31 | 30 | 31 | 31 | 31 | 31 | 31 | 32 | 32 |
| -50 | -- | 31 | 31 | 31 | 31 | 31 | 31 | 32 | 32 | 32 |
| -49 | -- | 32 | 31 | 31 | 32 | 32 | 32 | 32 | 33 | 32 |
| -48 | -- | 33 | 31 | 31 | 32 | 32 | 32 | 32 | 33 | 32 |
| -47 | 29 | 33 | 31 | 32 | 32 | 32 | 32 | 32 | 33 | 32 |
| -46 | 30 | 33 | 32 | 32 | 33 | 32 | 33 | 33 | 33 | 33 |
| -45 | 30 | 34 | 32 | 32 | 33 | 33 | 33 | 33 | 34 | 33 |
| -44 | 31 | 34 | 32 | 33 | 33 | 33 | 33 | 33 | 34 | 33 |
| -43 | 32 | 34 | 32 | 33 | 34 | 33 | 33 | 33 | 34 | 33 |
| -42 | 32 | 35 | 32 | 33 | 34 | 34 | 34 | 34 | 34 | 33 |
| -41 | 33 | 35 | 33 | 33 | 34 | 34 | 34 | 34 | 34 | 33 |
| -40 | 33 | 35 | 33 | 34 | 35 | 34 | 34 | 34 | 35 | 34 |
| -39 | 34 | 35 | 34 | 34 | 35 | 35 | 34 | 35 | 35 | 34 |
| -38 | 34 | 36 | 34 | 34 | 35 | 35 | 35 | 35 | 35 | 35 |
| -37 | 35 | 36 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| -36 | 35 | 36 | 35 | 35 | 36 | 35 | 35 | 35 | 36 | 36 |
| -35 | 35 | 37 | 35 | 35 | 36 | 36 | 36 | 36 | 36 | 37 |
| -34 | 35 | 37 | 35 | 35 | 36 | 36 | 36 | 36 | 36 | 37 |
| -33 | 36 | 37 | 36 | 36 | 37 | 36 | 36 | 36 | 36 | 38 |
| -32 | 36 | 37 | 36 | 36 | 37 | 36 | 37 | 36 | 37 | 38 |
| -31 | 36 | 38 | 36 | 37 | 37 | 37 | 37 | 37 | 37 | 38 |
| -30 | 37 | 38 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 38 |
| -29 | 37 | 38 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 38 |
| -28 | 38 | 39 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 39 |
| -27 | 38 | 39 | 39 | 38 | 38 | 38 | 38 | 38 | 38 | 39 |
| -26 | 38 | 39 | 39 | 38 | 38 | 38 | 38 | 38 | 38 | 39 |
| -25 | 39 | 40 | 39 | 39 | 39 | 39 | 39 | 38 | 38 | 39 |
| -24 | 39 | 41 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 40 |
| -23 | 40 | 41 | 40 | 39 | 40 | 39 | 39 | 39 | 39 | 40 |
| -22 | 40 | 41 | 40 | 40 | 40 | 40 | 40 | 39 | 39 | 40 |
| -21 | 41 | 42 | 41 | 40 | 40 | 40 | 40 | 40 | 39 | 41 |

TABLE G-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION G - PHYSICAL STRENGTH/ENERGY.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | N-U-M-B-E-R 34-36 | 37-39 | O-F 40-42 | N-O-M-I-N-E-E-S 43-45 | 46-48 | 49-51 | 52-54 | 54-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| -20 | 41 | 43 | 41 | 41 | 41 | 40 | 40 | 40 | 40 | 41 |
| -19 | 42 | 43 | 42 | 41 | 41 | 41 | 41 | 40 | 40 | 41 |
| -18 | 43 | 43 | 42 | 42 | 41 | 41 | 41 | 40 | 40 | 41 |
| -17 | 43 | 43 | 43 | 42 | 42 | 41 | 41 | 41 | 41 | 42 |
| -16 | 44 | 43 | 43 | 42 | 42 | 42 | 42 | 41 | 41 | 42 |
| -15 | 46 | 43 | 43 | 43 | 43 | 42 | 42 | 42 | 42 | 42 |
| -14 | 46 | 43 | 44 | 43 | 43 | 43 | 42 | 42 | 42 | 43 |
| -13 | 46 | 43 | 44 | 44 | 44 | 43 | 43 | 42 | 42 | 43 |
| -12 | 46 | 44 | 45 | 44 | 44 | 43 | 43 | 43 | 43 | 43 |
| -11 | 46 | 44 | 45 | 44 | 44 | 44 | 44 | 43 | 43 | 43 |
| -10 | 47 | 45 | 46 | 45 | 45 | 44 | 44 | 44 | 43 | 44 |
| -9 | 47 | 45 | 45 | 45 | 45 | 45 | 44 | 44 | 44 | 44 |
| -8 | 47 | 45 | 46 | 46 | 45 | 45 | 45 | 44 | 44 | 44 |
| -7 | 48 | 46 | 47 | 46 | 46 | 46 | 46 | 45 | 45 | 44 |
| -6 | 48 | 46 | 47 | 47 | 46 | 46 | 46 | 45 | 45 | 45 |
| -5 | 49 | 47 | 47 | 48 | 47 | 47 | 47 | 46 | 46 | 45 |
| -4 | 49 | 47 | 48 | 49 | 47 | 47 | 47 | 47 | 47 | 46 |
| -3 | 49 | 48 | 49 | 49 | 48 | 48 | 48 | 47 | 47 | 46 |
| -2 | 50 | 48 | 49 | 49 | 49 | 49 | 48 | 48 | 48 | 47 |
| -1 | 50 | 49 | 50 | 50 | 50 | 50 | 49 | 49 | 49 | 48 |
| 0 | 50 | 49 | 51 | 51 | 50 | 50 | 50 | 50 | 50 | 49 |
| 1 | 51 | 50 | 52 | 52 | 51 | 51 | 51 | 51 | 52 | 50 |
| 2 | 52 | 50 | 52 | 52 | 52 | 52 | 52 | 52 | 53 | 52 |
| 3 | 52 | 51 | 52 | 53 | 52 | 53 | 53 | 53 | 54 | 53 |
| 4 | 53 | 52 | 53 | 54 | 53 | 53 | 53 | 54 | 54 | 54 |
| 5 | 54 | 53 | 53 | 54 | 53 | 54 | 54 | 54 | 54 | 54 |
| 6 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 55 | 55 | 55 |
| 7 | 55 | 54 | 54 | 55 | 54 | 55 | 55 | 55 | 56 | 55 |
| 8 | 55 | 54 | 54 | 55 | 55 | 55 | 55 | 56 | 56 | 56 |
| 9 | 55 | 55 | 55 | 56 | 55 | 56 | 56 | 56 | 56 | 56 |
| 10 | 56 | 55 | 56 | 56 | 56 | 56 | 56 | 57 | 57 | 56 |
| 11 | 56 | 55 | 56 | 56 | 56 | 57 | 57 | 57 | 57 | 56 |
| 12 | 56 | 56 | 57 | 56 | 57 | 57 | 57 | 58 | 57 | 57 |
| 13 | 56 | 56 | 57 | 57 | 57 | 57 | 58 | 58 | 58 | 57 |
| 14 | 57 | 56 | 57 | 57 | 57 | 58 | 58 | 58 | 58 | 57 |
| 15 | 57 | 57 | 57 | 58 | 58 | 58 | 58 | 59 | 59 | 58 |
| 16 | 57 | 57 | 58 | 58 | 58 | 58 | 59 | 59 | 59 | 58 |
| 17 | 58 | 57 | 58 | 58 | 58 | 59 | 59 | 60 | 59 | 59 |
| 18 | 58 | 57 | 58 | 58 | 59 | 59 | 59 | 60 | 60 | 59 |
| 19 | 59 | 58 | 59 | 59 | 59 | 59 | 60 | 60 | 60 | 60 |
| 20 | 59 | 59 | 59 | 59 | 60 | 60 | 60 | 60 | 60 | 61 |

TABLE G-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION G - PHYSICAL STRENGTH/ENERGY.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | 34-36 | 37-39 | 40-42 | 43-45 | 45-48 | 49-51 | 52-54 | 58-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | N-U-M-B-E-R | | O-F | N-U-M-I-N-E-E-S | | | | |
| 21 | 59 | 59 | 59 | 59 | 60 | 60 | 60 | 61 | 61 | 61 |
| 22 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 61 | 62 |
| 23 | 60 | 60 | 60 | 60 | 61 | 61 | 61 | 61 | 61 | 62 |
| 24 | 61 | 61 | 60 | 61 | 61 | 61 | 61 | 62 | 62 | 63 |
| 25 | 61 | 61 | 60 | 61 | 61 | 61 | 61 | 62 | 62 | 63 |
| 26 | 61 | 61 | 61 | 61 | 61 | 62 | 62 | 62 | 62 | 64 |
| 27 | 62 | 62 | 62 | 61 | 62 | 62 | 62 | 62 | 62 | 64 |
| 28 | 62 | 62 | 63 | 62 | 62 | 62 | 62 | 62 | 63 | 65 |
| 29 | 62 | 63 | 63 | 62 | 62 | 62 | 63 | 63 | 63 | 65 |
| 30 | 62 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 65 |
| 31 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 65 |
| 32 | 63 | 64 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 65 |
| 33 | 63 | 64 | 64 | 63 | 63 | 63 | 64 | 64 | 64 | 65 |
| 34 | 63 | 64 | 64 | 63 | 64 | 64 | 64 | 64 | 64 | 65 |
| 35 | 63 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 65 |
| 36 | 63 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 65 |
| 37 | 64 | 64 | 64 | 64 | 64 | 64 | 65 | 65 | 65 | 65 |
| 38 | 64 | 65 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 65 |
| 39 | 64 | 65 | 65 | 64 | 65 | 65 | 65 | 65 | 65 | 65 |
| 40 | 64 | 66 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| 41 | 65 | 66 | 65 | 65 | 66 | 65 | 66 | 65 | 65 | 65 |
| 42 | 65 | 66 | 65 | 66 | 66 | 65 | 66 | 66 | 66 | 67 |
| 43 | 66 | 66 | 66 | 66 | 66 | 65 | 66 | 66 | 66 | 67 |
| 44 | 66 | 66 | 66 | 66 | 66 | 66 | 67 | 66 | 66 | 67 |
| 45 | 66 | 66 | 66 | 67 | 67 | 66 | 67 | 66 | 67 | 67 |
| 46 | 67 | 67 | 66 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| 47 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| 48 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| 49 | 67 | 67 | 67 | 68 | 67 | 68 | 68 | 67 | 67 | 67 |
| 50 | 67 | 67 | 67 | 68 | 68 | 68 | 68 | 67 | 68 | 67 |
| 51 | 67 | 68 | 67 | 68 | 68 | 68 | 68 | 68 | 68 | 67 |
| 52 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 |
| 53 | 68 | 69 | 68 | 68 | 68 | 69 | 68 | 69 | 68 | 68 |
| 54 | 68 | 69 | 68 | 69 | 69 | 69 | 69 | 68 | 68 | 68 |
| 55 | 68 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 |
| 56 | 68 | 71 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 |
| 57 | 69 | 73 | 69 | 69 | 70 | 70 | 69 | 69 | 69 | 69 |
| 58 | 69 | 73 | 69 | 70 | 70 | 70 | 70 | 69 | 69 | 70 |
| 59 | 69 | 74 | 69 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| 60 | 69 | 74 | 70 | 71 | 70 | 70 | 70 | 70 | 70 | 70 |

TABLE G-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION G - PHYSICAL STRENGTH/ENERGY.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | 34-36 | 37-39 | 40-42 | 43-45 | 46-48 | 49-51 | 52-54 | 55-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | NUMBER OF | | | | | | | |
| 61 | 69 | 74 | 70 | 71 | 71 | 71 | 70 | 70 | 70 | 70 |
| 62 | 69 | 74 | 71 | 72 | 71 | 71 | 70 | 70 | 71 | 70 |
| 63 | 70 | 75 | 71 | 72 | 71 | 71 | 71 | 70 | 71 | 70 |
| 64 | 70 | 75 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 71 |
| 65 | 70 | 75 | 74 | 73 | 72 | 71 | 71 | 71 | 71 | 71 |
| 66 | 70 | 76 | 74 | 73 | 72 | 72 | 72 | 71 | 71 | 71 |
| 67 | 70 | 76 | 74 | 73 | 73 | 72 | 72 | 72 | 72 | 71 |
| 68 | 70 | 75 | 75 | 74 | 73 | 72 | 72 | 72 | 72 | 71 |
| 69 | 71 | 75 | 75 | 74 | 74 | 72 | 72 | 72 | 72 | 71 |
| 70 | 71 | 77 | 75 | 74 | 74 | 73 | 73 | 72 | 72 | 72 |
| 71 | 71 | 77 | 77 | 74 | 74 | 73 | 73 | 72 | 73 | 72 |
| 72 | -- | -- | 78 | 75 | 74 | 73 | 73 | 73 | 73 | 72 |
| 73 | -- | -- | -- | 75 | 75 | 74 | 73 | 73 | 73 | 72 |
| 74 | -- | -- | -- | 75 | 75 | 74 | 74 | 73 | 74 | 72 |
| 75 | -- | -- | -- | 76 | 75 | 75 | 74 | 74 | 74 | 72 |
| 76 | -- | -- | -- | 77 | 76 | 75 | 74 | 74 | 75 | 73 |
| 77 | -- | -- | -- | 77 | 77 | 75 | 74 | 74 | 75 | 73 |
| 78 | -- | -- | -- | 77 | 77 | 76 | 75 | 74 | 75 | 73 |
| 79 | -- | -- | -- | 78 | 77 | 77 | 75 | 75 | 76 | 73 |
| 80 | -- | -- | -- | 78 | 78 | 77 | 75 | 75 | 75 | 73 |
| 81 | -- | -- | -- | 79 | 79 | 78 | 76 | 75 | 76 | 73 |
| 82 | -- | -- | -- | 80 | 80 | 78 | 76 | 75 | 76 | 74 |
| 83 | -- | -- | -- | 83 | 80 | 78 | 76 | 76 | 76 | 74 |
| 84 | -- | -- | -- | -- | 81 | 79 | 77 | 76 | 76 | 74 |
| 85 | -- | -- | -- | -- | 81 | 79 | 77 | 76 | 76 | -- |
| 86 | -- | -- | -- | -- | 83 | 80 | 77 | 77 | 77 | -- |
| 87 | -- | -- | -- | -- | 85 | 81 | 78 | 77 | 77 | -- |
| 88 | -- | -- | -- | -- | 86 | 81 | 79 | 78 | 77 | -- |
| 89 | -- | -- | -- | -- | -- | 81 | 80 | 78 | 77 | -- |
| 90 | -- | -- | -- | -- | -- | 82 | 81 | 79 | 78 | -- |
| 91 | -- | -- | -- | -- | -- | 82 | 82 | 79 | 78 | -- |
| 92 | -- | -- | -- | -- | -- | 83 | 85 | 79 | 78 | -- |
| 93 | -- | -- | -- | -- | -- | 84 | 85 | 80 | 78 | -- |
| 94 | -- | -- | -- | -- | -- | -- | 86 | 81 | 78 | -- |
| 95 | -- | -- | -- | -- | -- | -- | 86 | 82 | 79 | -- |
| 96 | -- | -- | -- | -- | -- | -- | 86 | 84 | 79 | -- |
| 97 | -- | -- | -- | -- | -- | -- | 88 | 85 | 79 | -- |
| 98 | -- | -- | -- | -- | -- | -- | 89 | 86 | 80 | -- |
| 99 | -- | -- | -- | -- | -- | -- | -- | 86 | 80 | -- |
| 100 | -- | -- | -- | -- | -- | -- | -- | 87 | 83 | -- |

TABLE H-1. TABLE OF INITIAL, RAW-SCORE TRANSFORMATION COEFFICIENTS FOR DIMENSION H - LIKELY TO SUCCEED IN A.F.

| NO. OF NOMINATORS | 29-29 | 31-33 | 34-36 | 37-39 | 40-42 | 43-45 | 46-48 | 49-51 | 52-54 | 58-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | N-U-M-B-E-R O-F N-O-M-I-N-E-E-S | | | | | | |
| 21 | 68.911 | 76.376 | 77.402 | 81.543 | 86.278 | 89.887 | 93.845 | 96.997 | 99.988 | 107.460 |
| 22 | 69.080 | 76.564 | 77.591 | 81.742 | 86.488 | 90.105 | 94.073 | 97.232 | 100.231 | 107.720 |
| 23 | 69.236 | 76.736 | 77.765 | 81.925 | 86.682 | 90.307 | 94.283 | 97.449 | 100.453 | 107.959 |
| 24 | 69.380 | 76.895 | 77.926 | 82.094 | 86.860 | 90.492 | 94.476 | 97.646 | 100.659 | 108.180 |
| 25 | 69.513 | 77.042 | 78.074 | 82.250 | 87.025 | 90.664 | 94.655 | 97.833 | 100.849 | 108.384 |
| 26 | 69.637 | 77.178 | 78.212 | 82.395 | 87.178 | 90.823 | 94.821 | 98.004 | 101.026 | 108.573 |
| 27 | 69.752 | 77.305 | 78.341 | 82.530 | 87.321 | 90.971 | 94.975 | 98.164 | 101.190 | 108.749 |
| 28 | 69.859 | 77.424 | 78.460 | 82.656 | 87.454 | 91.109 | 95.120 | 98.313 | 101.343 | 108.914 |
| 29 | 69.959 | 77.535 | 78.572 | 82.773 | 87.578 | 91.239 | 95.254 | 98.452 | 101.486 | 109.067 |
| 30 | --- | 77.638 | 78.677 | 82.884 | 87.694 | 91.360 | 95.381 | 98.582 | 101.621 | 109.212 |
| 31 | --- | 77.736 | 78.776 | 82.987 | 87.804 | 91.474 | 95.499 | 98.705 | 101.747 | 109.347 |
| 32 | --- | 77.828 | 78.869 | 83.085 | 87.907 | 91.581 | 95.611 | 98.820 | 101.865 | 109.474 |
| 33 | --- | 77.914 | 78.956 | 83.176 | 88.004 | 91.682 | 95.716 | 98.928 | 101.977 | 109.594 |
| 34 | --- | --- | 79.039 | 83.263 | 88.095 | 91.777 | 95.815 | 99.031 | 102.083 | 109.707 |
| 35 | --- | --- | 79.117 | 83.345 | 88.182 | 91.867 | 95.909 | 99.128 | 102.183 | 109.814 |
| 36 | --- | --- | 79.190 | 83.423 | 88.264 | 91.952 | 95.998 | 99.220 | 102.277 | 109.916 |
| 37 | --- | --- | --- | 83.497 | 88.342 | 92.033 | 96.083 | 99.307 | 102.367 | 110.012 |
| 38 | --- | --- | --- | 83.567 | 88.416 | 92.110 | 96.163 | 99.390 | 102.452 | 110.104 |
| 39 | --- | --- | --- | 83.633 | 88.486 | 92.183 | 96.239 | 99.468 | 102.533 | 110.190 |
| 40 | --- | --- | --- | --- | 88.553 | 92.253 | 96.312 | 99.543 | 102.610 | 110.273 |
| 41 | --- | --- | --- | --- | 88.617 | 92.319 | 96.381 | 99.615 | 102.684 | 110.352 |
| 42 | --- | --- | --- | --- | 88.678 | 92.382 | 96.447 | 99.683 | 102.754 | 110.427 |
| 43 | --- | --- | --- | --- | --- | 92.443 | 96.510 | 99.748 | 102.821 | 110.499 |
| 44 | --- | --- | --- | --- | --- | 92.501 | 96.570 | 99.810 | 102.885 | 110.568 |
| 45 | --- | --- | --- | --- | --- | 92.556 | 96.628 | 99.870 | 102.946 | 110.634 |
| 46 | --- | --- | --- | --- | --- | --- | 96.683 | 99.927 | 103.005 | 110.697 |
| 47 | --- | --- | --- | --- | --- | --- | 96.736 | 99.982 | 103.061 | 110.758 |
| 48 | --- | --- | --- | --- | --- | --- | 96.787 | 100.034 | 103.116 | 110.816 |
| 49 | --- | --- | --- | --- | --- | --- | --- | 100.085 | 103.168 | 110.871 |
| 50 | --- | --- | --- | --- | --- | --- | --- | 100.133 | 103.218 | 110.925 |
| 51 | --- | --- | --- | --- | --- | --- | --- | 100.180 | 103.266 | 110.977 |
| 52 | --- | --- | --- | --- | --- | --- | --- | --- | 103.312 | 111.026 |
| 53 | --- | --- | --- | --- | --- | --- | --- | --- | 103.357 | 111.074 |
| 54 | --- | --- | --- | --- | --- | --- | --- | --- | 103.400 | 111.121 |
| 55 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 111.165 |
| 56 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 111.208 |
| 57 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 111.250 |
| 58 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 111.290 |
| NORMATIVE SAMPLE N= | 29 | 129 | 390 | 1107 | 2924 | 6807 | 8968 | 5525 | 1215 | 58 |

TABLE H-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION H - LIKELY TO SUCCEED IN A.F.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | N-U-M-B-E-R 34-36 | 37-39 | O-F 40-42 | N-O-M-I-N-E-E-S 43-45 | 46-48 | 49-51 | 52-54 | 56-33 |
|---|---|---|---|---|---|---|---|---|---|---|
| -100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| -99 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| -98 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| -97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| -96 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| -95 | -- | -- | -- | -- | -- | -- | -- | 13 | -- | -- |
| -94 | -- | -- | -- | -- | -- | -- | 13 | 15 | -- | -- |
| -93 | -- | -- | -- | -- | -- | -- | 14 | 17 | -- | -- |
| -92 | -- | -- | -- | -- | -- | 12 | 14 | 18 | -- | -- |
| -91 | -- | -- | -- | -- | -- | 13 | 15 | 18 | -- | -- |
| -90 | -- | -- | -- | -- | -- | 14 | 16 | 19 | -- | -- |
| -89 | -- | -- | -- | -- | -- | 14 | 17 | 20 | -- | -- |
| -88 | -- | -- | -- | -- | -- | 15 | 18 | 20 | -- | -- |
| -87 | -- | -- | -- | -- | -- | 16 | 19 | 21 | -- | -- |
| -86 | -- | -- | -- | -- | 16 | 18 | 19 | 21 | 19 | -- |
| -85 | -- | -- | -- | -- | 17 | 19 | 20 | 21 | 20 | -- |
| -84 | -- | -- | -- | -- | 18 | 20 | 20 | 22 | 21 | -- |
| -83 | -- | -- | -- | -- | 19 | 21 | 21 | 23 | 22 | -- |
| -82 | -- | -- | -- | -- | 20 | 22 | 21 | 23 | 22 | -- |
| -81 | -- | -- | -- | 17 | 22 | 22 | 22 | 24 | 22 | -- |
| -80 | -- | -- | -- | 18 | 23 | 23 | 22 | 24 | 23 | -- |
| -79 | -- | -- | 20 | 19 | 23 | 23 | 23 | 25 | 23 | -- |
| -78 | -- | -- | 20 | 20 | 24 | 24 | 24 | 25 | 24 | 25 |
| -77 | -- | -- | 21 | 21 | 24 | 24 | 24 | 25 | 24 | 25 |
| -76 | -- | -- | 21 | 22 | 25 | 24 | 25 | 26 | 26 | 25 |
| -75 | -- | -- | 21 | 22 | 25 | 24 | 25 | 26 | 27 | 27 |
| -74 | -- | -- | 22 | 23 | 26 | 25 | 26 | 26 | 27 | 27 |
| -73 | -- | -- | 22 | 23 | 26 | 25 | 26 | 27 | 27 | 27 |
| -72 | -- | -- | 22 | 24 | 26 | 26 | 27 | 27 | 27 | 27 |
| -71 | -- | -- | 23 | 24 | 26 | 26 | 27 | 28 | 28 | 27 |
| -70 | -- | -- | 23 | 24 | 26 | 27 | 27 | 28 | 28 | 28 |
| -69 | 29 | -- | 25 | 25 | 26 | 27 | 28 | 28 | 29 | 28 |
| -68 | 29 | 23 | 27 | 25 | 27 | 27 | 28 | 28 | 29 | 28 |
| -67 | 29 | 24 | 27 | 25 | 27 | 28 | 28 | 29 | 29 | 29 |
| -66 | 29 | 24 | 28 | 25 | 27 | 28 | 29 | 29 | 29 | 29 |
| -65 | 30 | 25 | 28 | 26 | 28 | 28 | 29 | 29 | 29 | 29 |
| -64 | 30 | 26 | 28 | 26 | 28 | 29 | 29 | 30 | 30 | 29 |
| -63 | 30 | 26 | 29 | 27 | 28 | 29 | 30 | 30 | 30 | 29 |
| -62 | 30 | 27 | 30 | 27 | 29 | 29 | 30 | 30 | 30 | 29 |
| -61 | 30 | 28 | 31 | 28 | 29 | 30 | 30 | 30 | 30 | 30 |

TABLE H-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES
FOR DIMENSION H - LIKELY TO SUCCEED IN A.F.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | 34-36 | 37-39 | N-U-M-B-E-R 40-42 | O-F 43-45 | N-O-M-I-N-E-E-S 46-48 | 49-51 | 52-54 | 55-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| -60 | 30 | 28 | 31 | 29 | 29 | 30 | 30 | 31 | 31 | 30 |
| -59 | 30 | 29 | 32 | 29 | 30 | 30 | 30 | 31 | 31 | 30 |
| -58 | 31 | 30 | 32 | 30 | 30 | 31 | 31 | 31 | 31 | 33 |
| -57 | 31 | 30 | 32 | 31 | 30 | 31 | 31 | 31 | 32 | 30 |
| -56 | 31 | 31 | 32 | 31 | 31 | 31 | 31 | 31 | 32 | 31 |
| -55 | 31 | 32 | 32 | 31 | 31 | 32 | 31 | 32 | 32 | 31 |
| -54 | 31 | 32 | 32 | 32 | 31 | 32 | 32 | 32 | 32 | 31 |
| -53 | 31 | 32 | 33 | 32 | 32 | 32 | 32 | 32 | 32 | 31 |
| -52 | 31 | 32 | 33 | 32 | 32 | 33 | 32 | 32 | 32 | 32 |
| -51 | 32 | 33 | 33 | 32 | 32 | 33 | 32 | 33 | 32 | 32 |
| -50 | 32 | 33 | 33 | 32 | 33 | 33 | 33 | 33 | 33 | 33 |
| -49 | 32 | 33 | 33 | 32 | 33 | 33 | 33 | 33 | 33 | 33 |
| -48 | 32 | 33 | 34 | 32 | 33 | 33 | 33 | 33 | 33 | 33 |
| -47 | 32 | 34 | 34 | 33 | 34 | 34 | 33 | 34 | 33 | 34 |
| -46 | 32 | 34 | 34 | 33 | 34 | 34 | 34 | 34 | 34 | 34 |
| -45 | 32 | 35 | 35 | 33 | 34 | 34 | 34 | 34 | 34 | 34 |
| -44 | 33 | 35 | 35 | 34 | 35 | 34 | 34 | 34 | 34 | 35 |
| -43 | 33 | 35 | 35 | 34 | 35 | 35 | 34 | 35 | 34 | 35 |
| -42 | 33 | 36 | 35 | 34 | 35 | 35 | 35 | 35 | 35 | 35 |
| -41 | 33 | 36 | 36 | 35 | 35 | 35 | 35 | 35 | 35 | 36 |
| -40 | 33 | 36 | 36 | 35 | 35 | 35 | 35 | 35 | 35 | 36 |
| -39 | 33 | 36 | 36 | 35 | 36 | 36 | 35 | 35 | 35 | 36 |
| -38 | 33 | 36 | 36 | 35 | 36 | 36 | 36 | 36 | 36 | 37 |
| -37 | 34 | 36 | 37 | 36 | 36 | 36 | 36 | 36 | 36 | 37 |
| -36 | 34 | 37 | 37 | 36 | 36 | 36 | 36 | 36 | 36 | 38 |
| -35 | 34 | 37 | 37 | 36 | 36 | 36 | 36 | 36 | 36 | 38 |
| -34 | 34 | 37 | 37 | 37 | 37 | 37 | 37 | 36 | 37 | 38 |
| -33 | 35 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 38 |
| -32 | 35 | 37 | 38 | 37 | 37 | 37 | 37 | 37 | 37 | 38 |
| -31 | 36 | 37 | 38 | 37 | 37 | 37 | 37 | 37 | 37 | 38 |
| -30 | 37 | 37 | 38 | 37 | 38 | 38 | 38 | 37 | 37 | 38 |
| -29 | 37 | 38 | 39 | 38 | 38 | 38 | 38 | 38 | 37 | 39 |
| -28 | 38 | 39 | 39 | 38 | 38 | 38 | 38 | 38 | 38 | 39 |
| -27 | 39 | 38 | 39 | 39 | 39 | 38 | 38 | 39 | 38 | 39 |
| -26 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 38 | 39 |
| -25 | 40 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 38 | 39 |
| -24 | 40 | 40 | 40 | 40 | 39 | 39 | 39 | 39 | 39 | 39 |
| -23 | 41 | 41 | 40 | 40 | 40 | 39 | 39 | 39 | 39 | 39 |
| -22 | 41 | 41 | 40 | 40 | 40 | 40 | 40 | 39 | 39 | 39 |
| -21 | 41 | 41 | 40 | 40 | 40 | 40 | 40 | 39 | 39 | 39 |

TABLE H-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION H - LIKELY TO SUCCEED IN A.F.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | N-J-M-B-E-R 34-36 | 37-39 | C-F 40-42 | N-J-M-I-N-E-E-S 43-45 | 46-48 | 49-51 | 52-54 | 55-57 |
|---|---|---|---|---|---|---|---|---|---|---|
| -20 | 42 | 42 | 40 | 41 | 41 | 40 | 40 | 40 | 40 | 39 |
| -19 | 42 | 42 | 41 | 41 | 41 | 40 | 40 | 40 | 40 | 40 |
| -18 | 42 | 42 | 41 | 41 | 41 | 41 | 41 | 40 | 40 | 40 |
| -17 | 43 | 42 | 41 | 42 | 41 | 41 | 41 | 41 | 41 | 41 |
| -16 | 43 | 43 | 41 | 42 | 42 | 41 | 41 | 41 | 41 | 41 |
| -15 | 43 | 43 | 41 | 43 | 42 | 42 | 41 | 41 | 41 | 41 |
| -14 | 43 | 43 | 42 | 43 | 42 | 42 | 42 | 42 | 42 | 41 |
| -13 | 44 | 43 | 42 | 43 | 43 | 42 | 42 | 42 | 42 | 42 |
| -12 | 44 | 44 | 43 | 44 | 43 | 43 | 43 | 42 | 42 | 42 |
| -11 | 44 | 44 | 43 | 44 | 43 | 43 | 43 | 43 | 42 | 42 |
| -10 | 45 | 45 | 44 | 44 | 44 | 43 | 43 | 43 | 43 | 42 |
| -9 | 45 | 45 | 44 | 45 | 44 | 44 | 44 | 43 | 43 | 43 |
| -8 | 46 | 46 | 45 | 45 | 45 | 44 | 44 | 44 | 43 | 43 |
| -7 | 46 | 46 | 45 | 46 | 45 | 45 | 44 | 44 | 44 | 43 |
| -6 | 47 | 46 | 45 | 46 | 45 | 45 | 45 | 45 | 44 | 44 |
| -5 | 47 | 47 | 46 | 47 | 46 | 46 | 45 | 45 | 45 | 44 |
| -4 | 48 | 47 | 47 | 48 | 46 | 46 | 46 | 46 | 46 | 45 |
| -3 | 48 | 48 | 47 | 48 | 47 | 47 | 46 | 46 | 46 | 45 |
| -2 | 49 | 48 | 48 | 48 | 48 | 48 | 47 | 47 | 47 | 46 |
| -1 | 49 | 49 | 49 | 49 | 49 | 49 | 48 | 49 | 48 | 47 |
| 0 | 50 | 49 | 49 | 50 | 49 | 49 | 49 | 49 | 49 | 49 |
| 1 | 51 | 50 | 50 | 51 | 50 | 50 | 50 | 50 | 51 | 49 |
| 2 | 51 | 50 | 50 | 51 | 51 | 51 | 51 | 51 | 52 | 51 |
| 3 | 52 | 51 | 51 | 52 | 52 | 52 | 52 | 52 | 53 | 52 |
| 4 | 53 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 54 | 53 |
| 5 | 53 | 52 | 52 | 53 | 53 | 53 | 53 | 53 | 54 | 54 |
| 6 | 54 | 53 | 53 | 53 | 53 | 53 | 54 | 54 | 54 | 55 |
| 7 | 54 | 53 | 53 | 54 | 54 | 54 | 54 | 54 | 55 | 55 |
| 8 | 54 | 54 | 54 | 54 | 55 | 55 | 55 | 55 | 55 | 55 |
| 9 | 54 | 54 | 55 | 55 | 55 | 55 | 55 | 56 | 56 | 57 |
| 10 | 55 | 54 | 55 | 55 | 55 | 55 | 56 | 56 | 56 | 57 |
| 11 | 55 | 55 | 55 | 56 | 56 | 56 | 57 | 57 | 57 | 58 |
| 12 | 55 | 55 | 55 | 56 | 56 | 57 | 57 | 57 | 57 | 59 |
| 13 | 56 | 56 | 55 | 57 | 57 | 57 | 57 | 58 | 58 | 59 |
| 14 | 56 | 56 | 57 | 57 | 57 | 58 | 58 | 58 | 58 | 59 |
| 15 | 57 | 57 | 57 | 57 | 58 | 58 | 58 | 58 | 59 | 60 |
| 16 | 57 | 58 | 57 | 58 | 58 | 58 | 59 | 59 | 59 | 60 |
| 17 | 57 | 58 | 57 | 58 | 59 | 59 | 59 | 59 | 59 | 60 |
| 18 | 58 | 58 | 58 | 59 | 59 | 59 | 59 | 60 | 60 | 60 |
| 19 | 58 | 59 | 58 | 59 | 59 | 59 | 60 | 60 | 60 | 61 |
| 20 | 58 | 60 | 59 | 59 | 59 | 60 | 60 | 60 | 61 | 61 |

TABLE H-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES FOR DIMENSION H - LIKELY TO SUCCEED IN A.F.



| TRANSFORMED RAW-SCORE | 29-29 | 31-33 | N-U-M-B-E-R 34-36 | 37-39 | O-F 40-42 | N-O-M-I-N-E-E-S 43-45 | 46-48 | 49-51 | 52-54 | 55-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| 21 | 58 | 60 | 59 | 60 | 60 | 60 | 60 | 61 | 61 | 61 |
| 22 | 59 | 60 | 59 | 60 | 60 | 61 | 61 | 61 | 61 | 61 |
| 23 | 59 | 60 | 60 | 60 | 61 | 61 | 61 | 61 | 62 | 62 |
| 24 | 59 | 60 | 60 | 60 | 61 | 61 | 62 | 62 | 62 | 62 |
| 25 | 59 | 61 | 61 | 61 | 61 | 62 | 62 | 62 | 62 | 62 |
| 26 | 61 | 61 | 62 | 61 | 62 | 62 | 62 | 62 | 63 | 62 |
| 27 | 62 | 62 | 62 | 61 | 62 | 62 | 63 | 63 | 63 | 62 |
| 28 | 62 | 62 | 63 | 62 | 62 | 63 | 63 | 63 | 63 | 63 |
| 29 | 62 | 63 | 63 | 62 | 62 | 63 | 63 | 63 | 64 | 63 |
| 30 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 63 |
| 31 | 63 | 63 | 64 | 63 | 63 | 63 | 64 | 64 | 64 | 63 |
| 32 | 63 | 63 | 64 | 63 | 63 | 64 | 64 | 64 | 64 | 63 |
| 33 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | 64 | 65 | 64 |
| 34 | 63 | 63 | 65 | 64 | 64 | 65 | 64 | 65 | 65 | 64 |
| 35 | 63 | 64 | 65 | 64 | 65 | 65 | 65 | 65 | 65 | 64 |
| 36 | 64 | 64 | 66 | 65 | 65 | 65 | 65 | 65 | 66 | 65 |
| 37 | 64 | 64 | 66 | 65 | 65 | 65 | 65 | 66 | 66 | 65 |
| 38 | 64 | 65 | 66 | 65 | 66 | 65 | 65 | 66 | 66 | 65 |
| 39 | 64 | 65 | 65 | 65 | 66 | 66 | 66 | 66 | 66 | 65 |
| 40 | 65 | 66 | 67 | 66 | 66 | 66 | 66 | 66 | 66 | 66 |
| 41 | 65 | 66 | 67 | 66 | 67 | 66 | 66 | 67 | 67 | 65 |
| 42 | 65 | 66 | 67 | 66 | 67 | 65 | 66 | 67 | 67 | 65 |
| 43 | 65 | 67 | 68 | 67 | 67 | 67 | 67 | 67 | 67 | 66 |
| 44 | 66 | 67 | 68 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| 45 | 66 | 68 | 69 | 67 | 68 | 67 | 67 | 67 | 67 | 67 |
| 46 | 69 | 68 | 69 | 68 | 68 | 68 | 67 | 68 | 68 | 67 |
| 47 | 71 | 68 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 67 |
| 48 | -- | 68 | 70 | 68 | 69 | 68 | 68 | 68 | 68 | 67 |
| 49 | -- | 69 | 71 | 69 | 69 | 68 | 68 | 68 | 68 | 67 |
| 50 | -- | 69 | 71 | 69 | 69 | 69 | 68 | 68 | 68 | 67 |
| 51 | -- | 69 | 71 | 69 | 69 | 69 | 69 | 69 | 69 | 68 |
| 52 | -- | 70 | 71 | 69 | 70 | 69 | 69 | 69 | 69 | 68 |
| 53 | -- | 70 | 71 | 70 | 70 | 70 | 69 | 69 | 69 | 68 |
| 54 | -- | 71 | 72 | 70 | 70 | 70 | 69 | 70 | 69 | 69 |
| 55 | -- | 71 | 72 | 70 | 71 | 70 | 70 | 70 | 70 | 68 |
| 56 | -- | 73 | 72 | 70 | 71 | 71 | 70 | 70 | 70 | 68 |
| 57 | -- | 75 | 73 | 70 | 71 | 71 | 70 | 71 | 70 | 69 |
| 58 | -- | 77 | 74 | 71 | 72 | 71 | 70 | 71 | 70 | 69 |
| 59 | -- | -- | 74 | 71 | 72 | 72 | 71 | 71 | 70 | 69 |
| 60 | -- | -- | 75 | 71 | 72 | 72 | 71 | 71 | 70 | 70 |

TABLE H-2. TABLE OF STANDARD SCORES FOR TRANSFORMED RAW-SCORES
FOR DIMENSION H - LIKELY TO SUCCEED IN A.F.



| TRANSFORMED RAW-SCORE | NUMBER OF 29-29 | NUMBER OF 31-33 | NUMBER OF 34-36 | NUMBER OF 37-39 | OOF NUMBER OF 40-42 | NUMBER OF 43-45 | NUMBER OF 46-48 | NUMBER OF 49-51 | NUMBER OF 52-54 | NUMBER OF 55-58 |
|---|---|---|---|---|---|---|---|---|---|---|
| 61 | -- | -- | 75 | 72 | 73 | 72 | 71 | 71 | 71 | 70 |
| 62 | -- | -- | 75 | 72 | 73 | 72 | 72 | 72 | 71 | 71 |
| 63 | -- | -- | 75 | 73 | 73 | 73 | 72 | 72 | 71 | 72 |
| 64 | -- | -- | 77 | 73 | 74 | 73 | 72 | 72 | 71 | 72 |
| 65 | -- | -- | 77 | 73 | 74 | 73 | 72 | 72 | 71 | 73 |
| 66 | -- | -- | 78 | 74 | 74 | 74 | 73 | 72 | 72 | 73 |
| 67 | -- | -- | 78 | 74 | 75 | 74 | 73 | 73 | 72 | 74 |
| 68 | -- | -- | 79 | 75 | 75 | 74 | 73 | 73 | 72 | -- |
| 69 | -- | -- | 79 | 75 | 75 | 75 | 74 | 73 | 72 | -- |
| 70 | -- | -- | 80 | 76 | 77 | 75 | 74 | 74 | 73 | -- |
| 71 | -- | -- | 80 | 76 | 77 | 76 | 75 | 74 | 73 | -- |
| 72 | -- | -- | -- | 77 | 77 | 75 | 75 | 74 | 73 | -- |
| 73 | -- | -- | -- | 78 | 78 | 76 | 76 | 75 | 74 | -- |
| 74 | -- | -- | -- | 78 | 78 | 77 | 76 | 75 | 74 | -- |
| 75 | -- | -- | -- | 79 | 79 | 77 | 77 | 75 | 74 | -- |
| 76 | -- | -- | -- | 80 | 80 | 78 | 77 | 76 | 75 | -- |
| 77 | -- | -- | -- | 80 | 81 | 79 | 78 | 76 | 75 | -- |
| 78 | -- | -- | -- | 81 | 81 | 79 | 78 | 76 | 76 | -- |
| 79 | -- | -- | -- | -- | 83 | 79 | 78 | 76 | 76 | -- |
| 80 | -- | -- | -- | -- | 84 | 80 | 79 | 76 | 76 | -- |
| 81 | -- | -- | -- | -- | 85 | 80 | 79 | 77 | 76 | -- |
| 82 | -- | -- | -- | -- | 85 | 81 | 79 | 77 | 77 | -- |
| 83 | -- | -- | -- | -- | 86 | 81 | 81 | 78 | 78 | -- |
| 84 | -- | -- | -- | -- | -- | 82 | 81 | 79 | 79 | -- |
| 85 | -- | -- | -- | -- | -- | 82 | 81 | 79 | 79 | -- |
| 86 | -- | -- | -- | -- | -- | 82 | 82 | 79 | 80 | -- |
| 87 | -- | -- | -- | -- | -- | 84 | 82 | 80 | 80 | -- |
| 88 | -- | -- | -- | -- | -- | 85 | 83 | 80 | 80 | -- |
| 89 | -- | -- | -- | -- | -- | 87 | 83 | 81 | 80 | -- |
| 90 | -- | -- | -- | -- | -- | 88 | 85 | 82 | 81 | -- |
| 91 | -- | -- | -- | -- | -- | -- | 86 | 82 | 81 | -- |
| 92 | -- | -- | -- | -- | -- | -- | 86 | 83 | 81 | -- |
| 93 | -- | -- | -- | -- | -- | -- | 88 | 84 | 81 | -- |
| 94 | -- | -- | -- | -- | -- | -- | 89 | 84 | 82 | -- |
| 95 | -- | -- | -- | -- | -- | -- | -- | 85 | 82 | -- |
| 96 | -- | -- | -- | -- | -- | -- | -- | 86 | 82 | -- |
| 97 | -- | -- | -- | -- | -- | -- | -- | 86 | 82 | -- |
| 98 | -- | -- | -- | -- | -- | -- | -- | 87 | 83 | -- |
| 99 | -- | -- | -- | -- | -- | -- | - | -- | 83 | -- |
| 100 | -- | -- | -- | -- | -- | -- | -- | -- | 83 | -- |



☆U.S. GOVERNMENT PRINTING OFFICE: 1980-671-143/74