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ABSTRACT

Students whose reading achievement was average, below average, and above average were compared on measures of educational and occupational background, family characteristics, and elementary school performance prior to grade 6. Results were analyzed separately by sex, race (Negro and Caucasian), both sexes and races combined, and upper and lower socioeconomic and mental ability levels. Findings which achieved statistical significance included: (1) differences among achievement groups in parents' marital status were significant only in the Caucasian male sample; (2) parents' education and occupation had a greater relationship to reading achievement for girls than for boys and particularly for girls with higher IQ scores; (3) among those retained in a grade, differences among achievement groups were significant only in the Negro female sample; (4) the difference between achievement groups on socioeconomic level of father was significant for Negro females; and (5) the decrease in performance from grade 3 to grade 6 was significantly greater for underachievers than for average and overachievers. Supplemental Data on High and Low IQ and SES Groups in Four Race-by-Sex Samples included. See Part One [ED 034 660] and Part Two [CS000078]. (Author/RD)

Reading Achievement and Its Relationship to Academic Performance

Part III:

Relationships of Family Background and Third Grade Performance to Sixth Grade Reading Achievement

Dee Norman Lloyd

Laboratory Paper #29
Personal and Social Organization Section
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Summary

Underachievers, average achievers, and overachievers in reading, classified according to the discrepancy between 6th grade reading score and reading level predicted from a 6th grade test of mental ability, were compared on measures of educational and occupational background, family characteristics, and elementary school performance prior to the 6th grade. Data were analyzed separately for sex and race (Negro and white) samples and the four samples combined. In addition, relationships in the combined samples were compared across upper and lower levels of socio-economic status (SES) and upper and lower levels of mental ability (6th grade IQ scores above and below 100).

In the combined samples, parents of underachievers had a significantly lower mean educational level, occupational level, and SES level (a weighted combination of father's educational and occupational level) than parents of average or overachievers. The relationship of these variables to reading achievement, however, was small, and differences were not significant in all samples and stratifications.

The differences among achievement groups in educational and occupational background were most significant in the upper SES levels, indicating that families at successively higher educational levels (college graduates and above) produce the fewest underachievers.

There was also an interaction of educational and occupational background, sex, IQ, and reading achievement. Parents' education and

occupation had a greater relationship to reading achievement (or influence on, if causality is assumed) for girls than for boys, and particularly for girls with higher IQ scores.

Differences among the achievement groups on other measures of family characteristics were either not significant or showed negligible relationships to reading achievement. Underachievers had a higher mean number of siblings than average achievers; however, this difference was only significant among white males in the lower IQ range. Difference among achievement groups in marital status of parents was also found to be significant only in the white male sample. White male underachievers in lower SES and lower IQ ranges came from broken homes more often than did average and overachievers. Among white males in the upper SES and upper IQ ranges, differences were not significant.

In the Negro male and Negro female samples, there were very few significant differences on SES and family characteristic measures. In the Negro male sample, there were no significant differences on any of these measures. The difference between achievement groups on educational and occupational levels of father for Negro females approached significance; the difference on SES level was significant. In part, failure to find significant differences in the Negro samples could be attributed to the restricted variance on some measures. In the Negro samples, number of siblings was not linearly related to reading achievement. Among both Negro males and Negro

females, the lowest percentage of underachievers was found in small families (0 to 2 siblings) and large families (6 or more siblings). In contrast to the pattern in the white male and white female samples, the highest percentage of average and overachievers in the Negro samples came from large families.

Measures of earlier elementary school performance consisted of 3rd grade reading and IQ test scores and whether or not subjects had been retained in grade during elementary school. These data were available only for those subjects in the 6th grade cohort who were in the school system in earlier grades.

Although underachievers were retained more often in elementary school grades than average or overachievers, the difference among achievement groups was only significant in the Negro female sample.

Comparison of achievement groups on 3rd and 6th grade reading performance produced five findings: (1) underachievers were reading at a significantly lower level than average or overachievers in the 3rd grade, (2) there was a decrease from the 3rd to the 6th grade in reading relative to grade placement for underachievers and average achievers, (3) overachievers, on the other hand, maintained the same superior level of performance from grades 3 to 6, (4) the decrease in performance from grades 3 to 6 was significantly greater for underachievers than for average and overachievers, (5) the degree to which scores changed from grades 3 to 6 was related to reading level (grade placement) in the 3rd grade. The findings indicate that normative level of achievement and relative

level of achievement tap different aspects of reading ability and have different implications for reading achievement over time. Both should be considered in the diagnosis of reading difficulties and planning of reading programs.

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Relationships of Family Background and Third Grade Performance to Sixth Grade Reading Achievement

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Research findings have generally shown that measures of socio-economic level are positively related to academic performance (Lavin, D. E., 1965). In studies where level of intelligence has been controlled, socio-economic variables have still differentiated underachievers from average or overachievers (Vane, J. R., 1966). From the review of the literature, however, most studies have used a matching procedure to equate groups on IQ level or socio-economic status, and the focus of investigation has been largely on under-achievers in the upper range of mental ability. The procedure in the present study provided an assessment of reading achievement over the entire range of mental ability. Three achievement groups (underachievers, average achievers, and overachievers) were formed on the basis of discrepancy between obtained reading level and reading level predicted by a test of general mental ability. These groups were compared on measures of parents' education and occupation, family characteristics, and measures of elementary school performance. Since the achievement groups did not differ significantly in their mean IQ scores in the 6th grade, the relationships of these variables to reading achievement would indicate relationships over and above those accounted for by mental ability. More specific relationships across achievement groups were also

investigated by stratifying the sample into high and low IQ and SES levels, and comparisons were also made within the four race-by-sex samples in the study population.

Method

Subjects

Subjects were 3651 6th grade students who had both the CTMM IQ score and C.T Reading score that were used to define achievement groups (see Part I). Analyses were performed for this sample (combined samples) and for the four separate race and sex samples. The individual race and sex samples consisted of 1624 white males (WM), 1600 white females (WF), 231 Negro males (NM), and 196 Negro females (NF). Analyses were also performed with the combined samples stratified (1) into high and low SES levels and (2) into high and low IQ score levels. High and low SES groups consisted of 1487 and 1971 subjects. High and low IQ groups consisted of 2157 and 1494 subjects, respectively.

Variables

The independent variables in this analysis were measures of occupational level, educational level, and marital status of parents, number of siblings, elementary school progression, and performance on standardized tests in the 3rd grade. All measures of parent and family characteristics reflected the status that was recorded in school records when the subject was in the 6th grade.

Educational levels of the subject's father and mother were coded into three categories: elementary, high school, and beyond high school. These three levels were coded 6, 4, and 1, respectively, in order to compute the Hollingshead Two-Factor Index of Social Position (Hollingshead, 1957). The occupational level of the father consisted of a seven-category scale adapted from the occupational scale of the Index of Social Position (Hollingshead and Redlich, 1958). A summary of the seven occupational levels in this scale is as follows:

Level 1: Higher executives, proprietors, and professionals
Level 2: Lesser executives, proprietors, and professionals
Level 3: Administrative, small business owners, minor and semi-professionals
Level 4: Clerical, sales, and technicians
Level 5: Skilled trades
Level 6: Semi-skilled trades
Level 7: Unskilled workers

The Hollingshead Two-Factor Index (SES level) consisted of a weighted composite of the occupational and educational levels (occupation weighted 7 and education weighted 4). The father's educational and occupational level were used to compute the SES level if that information was available. If information for the father was not available,or if the father was not living with the family, the index was computed from information available for the mother.[1]

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[1] The scaling of educational, occupational, and SES levels had a reverse correspondence to amount of education, etc. In interpreting results involving these measures, lower mean scores indicate higher levels.

Measures of family characteristics were the number of siblings of the subject and the marital status of parents. The former variable was coded directly, the latter consisted of two categories indicating (1) that the subject's natural parents were alive and married, and (2) that the natural parents were separated, divorced, deceased, or remarried.

Measures of elementary school performance prior to the 6th grade were the 3rd grade California Achievement Test Total Reading score (3rd grade CAT Reading score), the IQ score from the 3rd grade California Test of Mental Maturity (3rd grade CTMM IQ score), and whether or not a subject had been retained in grade during elementary school (school progression).[2] Third grade test scores were available for only those subjects in the 6th grade cohort who were in the school system from the 3rd to 6th grades. This was approximately 60% of the original 6th grade sample.

Procedures

A discrepancy score that represented the difference between expected reading level (predicted from the 6th grade CTMM IQ score) and obtained reading level (6th grade CAT Total Reading score) was used to define three achievement groups: underachievers, average

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2 The 3rd grade CAT reading test was administered between the 4th and 6th month of the school year (1952-53 for normal progression subjects). Test was the 1950 edition, primary form AA. The IQ score was from the 1950 edition, short form, primary level California Test of Mental Maturity.

achievers, and overachievers. Achievement groups were formed on the basis of the standard error of estimate (S.E.E.) for predicting the 6th grade CAT Reading score from the 6th grade CTMM IQ score. Underachievers had discrepancy scores below 1 S.E.E.; average achievers had discrepancy scores between plus and minus 1 S.E.E.; and overachievers had discrepancy scores above 1 S.E.E. (see Part I).

In the race and sex samples, the expected reading scores were derived from the regression of the IQ score and the reading score for each sample (see Part II). That is, the definition of under-, average, and overachievement was controlled for differences in the relationship of IQ and reading level that might exist across sex and race.[3] Standard errors of estimate in the four race and sex samples, however, were similar enough to permit the use of one cut-off score for defining achievement groups in all samples (discrepancy score of plus and minus .85). Only in the Negro female sample, where the standard error of estimate was .768, did this affect the classification of subjects.[4]

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[3]The Pearson product-moment correlations between the 6th grade CTMM IQ score and the 6th grade CAT Reading score were of different magnitude, particularly across race. Coefficients in the four samples were .82 (WM), .78 (WF), .61 (NM), and .74 (NF).

[4]Discrepancy scores were rounded to one-tenth of a grade-equivalent score so that subjects with a score of -.9 or below were classified as underachievers, and subjects with scores of +.9 or above were classified as overachievers. Four Negro females who had scores of -.8 and would have been classified as underachievers by the S.E.E. in that sample were classified as average achievers for this analysis. One Negro female had a score of +.8 and was classified as an average achiever rather than as an overachiever.

In order to investigate the relationship of reading achievement to other measures at different levels of mental ability, two groups were formed on the basis of scores on the 6th grade CTMM. The high IQ level consisted of subjects with 6th grade CTMM IQ scores of 100 and above; the low IQ level consisted of subjects with scores below 100. For comparison of reading achievement in groups with d'fferent socio-economic status background, subjects were classifie. into high and low groups on the Two-Factor Index of Social Position. High SES level consisted of subjects from levels 1, 2, and 3; low SES level consisted of subjects from levels 4 and 5.[5]

Statistical analyses consisted of analysis of variance tests across the three achievement groups, with the omega^2 statistic as an index of association, or chi square comparisons where appropriate.

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[5]The comparisons of high and low SES and IQ levels are reported for the combined samples, i.e., under-, average, and overachievers in all four race and sex samples. Since the majority of Negro subjects had IQ scores below 100 and were concentrated in the lower SES levels, most Negro subjects were included in the lower levels of these stratifications. Comparisons of high and low IQ and SES groups within the separate race-by-sex samples were made to determine possible interaction effects and to pinpoint specific subgroups contributing to significant differences across achievement groups. For these analyses, high and low IQ and SES were defined in the Negro samples to achieve a more balanced comparison. High and low IQ levels were defined as an IQ score of 86 and above and 85 and below, respectively. High SES was defined as levels 1 through 4 of the two-factor index, low SES as level 5. Results from these data will be referred to only when they add to or contradict results obtained from stratifications in the combined samples. Data for the IQ and SES groups in the separate race-by-sex samples are contained in a supplement to this study, copies of which are available from the author.

Results

General Distributions on Variables

Distribution of the four race-by-sex samples on the experimental variables were compared to provide a basis for interpreting differences across samples that might be found when the relationships to reading achievement were assessed.

In Table 1, means and standard deviations of the four race-by-sex samples and the combined samples on family measures are presented. Mean differences across race samples were significant on all variables. The Negro samples had lower mean educational level of father, educational level of mother, occupational level of father, and SES level than the white samples, and Negro samples had a higher mean number of siblings than the white samples. Differences on these variables between white males and white females and between Negro males and Negro females were not significant.

Percentages in categories of marital status of parents are given in Table 2. The chi-square tests between race samples were significant ($p < .02$ and $p < .01$), with the Negro samples showing a higher percentage than the white samples of parents who were separated, divorced, or deceased. Differences between sexes within race were not significant, although there was a higher percentage of separated, divorced, or deceased parents among white females (12%) than among white males (9.9%).

Table 1

Means and Standard Deviations on Measures of Family Characteristics for Race-by-Sex and Combined Samples

Variables		White Males	White Females	Negro Males	Negro Females	Combined Samples
Educational level of father	N	1547	1534	213	184	3478
	M	3.60	3.66	5.32	5.20	3.82
	SD	1.74	1.74	1.15	1.24	1.76
Educational level of mother	N	1549	1540	217	184	3490
	M	3.66	3.71	5.07	4.90	3.83
	SD	1.55	1.54	1.19	1.35	1.57
Number of siblings	N	1624	1600	231	196	3651
	M	2.01	2.04	4.71	4.55	2.33
	SD	1.70	1.67	2.73	2.83	2.03
Occupational level of father	N	1518	1510	217	185	3430
	M	4.13	4.14	5.93	6.02	4.35
	SD	1.57	1.53	1.15	1.21	1.62
SES level	N	1533	1524	219	182	3458
	M	3.23	3.23	4.48	4.52	3.38
	SD	1.15	1.13	0.74	0.74	1.18

Table 2

Marital Status of Parents of Race-by-Sex and Combined Samples

	Natural Parents Married		Natural Parents Separated, Divorced, Deceased, or Remarried	
	N	%	N	%
White Males (N=1565)	1410	90.10	155	9.90
White Females (N=1545)	1359	87.96	186	12.04
Negro Males (N=226)	186	82.30	40	17.70
Negro Females (N=191)	157	82.20	34	17.80
Combined Samples (N=3527)	3112	88.23	415	11.77

Table 3

Elementary School Progression for Race-by-Sex and Combined Samples

	Regular Progression		Retained-in-Grade	
	N	%	N	%
White Males (N=1511)	1361	90.07	150	9.93
White Females (N=1502)	1428	95.07	74	4.93
Negro Males (N=224)	140	62.50	84	37.50
Negro Females (N=191)	136	71.20	55	28.80
Combined Samples (N=3428)	3065	89.41	363	10.59

In Table 3, the elementary school progression of the samples is presented. Comparisons between race samples revealed that the Negro students were retained-in-grade significantly more often than white students ($p < .001$). White males were retained significantly more than white females ($p < .001$). Negro males were retained more than Negro females; however, this difference was not statistically significant.

The mean performance of the samples on the 3rd grade standardized tests are given in Table 4. On the 3rd CTMM IQ score, there were significant differences between race samples and no significant differences between sex samples within race. The difference in mean 3rd CAT Reading score was also significant across race. Within both races, female samples had a higher mean reading level than the male samples; this difference was significant between white males and white females ($p < .001$), but not significant between Negro males and Negro females.

As anticipated from previous analyses, the Negro and white samples differed significantly on all variables. These differences indicated that the Negro samples largely came from lower socioeconomic background and had a lower test performance level than the white samples. Therefore, in the analysis of reading achievement, the focus of comparison across race did not concern level of performance, but was directed at determining whether the relationship of reading achievement to other characteristics was the same or different in the two race groups.

Table 4

Mean Performance on 3rd Grade Standardized Tests for Race, Sex, and Combined Samples

Variables		White Males	White Females	Negro Males	Negro Females	Combined Samples
3rd CTMM IQ score	N	1075	1023	143	125	2366
	M	108.63	108.50	93.70	92.40	106.81
	SD	16.25	15.54	15.37	16.25	16.63
3rd CAT total reading score	N	1029	965	138	109	2241
	M	3.75	4.09	3.15	3.44	3.85
	SD	.95	.84	.83	.85	.93

With two exceptions, males and females did not differ significantly on characteristics under investigation, and the exceptions were in agreement with established sex differences (higher reading level for females, higher retention rate for males). The comparability of the sex samples makes it possible to look for replication of relationships to reading achievement in two samples and to evaluate sex-related differences by their replication across race.

Relationship of Educational Level of Parents to Reading Achievement

The comparisons across the three achievement groups on educational level of father are presented in Table 5. In the combined samples the difference in mean educational level was statistically significant ($p < .001$), with underachievers having fathers with lower educational levels than fathers of average or overachievers. The omega^2 statistic indicated that educational level of father accounted for 0.9% of the variance among achievement groups.

With the stratification of the sample into high and low SES level, a significant difference in educational level of the father was not expected because this measure was a component of the SES classification. In the high SES group, however, the difference among achievement groups remained significant ($p < .05$). Underachievers from high SES levels had fathers with lower educational level than did high SES average achievers and overachievers. This significant difference most likely resulted from the limited number of categories on this variable. The upper category included any

Table 5

Mean Educational Level of Father of Under-, Average, and Overachievers in the Combined Samples, High and Low SES and IQ Ranges, and Separate Race and Sex Samples

Group		Under-achievers	Average achievers	Over-achievers	F	omega^2
Combined samples	N	508	2421	549		
	M	4.09	3.84	3.46	17.28[c]	0.93
	SD	1.67	1.75	1.84		
High SES	N	192	992	292		
	M	2.71	2.44	2.31	3.67[a]	0.36
	SD	1.62	1.62	1.59		
Low SES	N	310	138	250		
	M	4.92	4.82	4.81	1.27	0.03
	SD	1.32	1.02	1.04		
High IQ	N	307	1432	326		
	M	3.76	3.38	3.05	12.63[c]	1.11
	SD	1.74	1.77	1.84		
Low IQ	N	201	989	223		
	M	4.60	4.51	4.08	8.42[c]	1.04
	SD	1.43	1.50	1.67		
White males	N	235	1056	256		
	M	3.88	3.59	3.41	4.62[b]	0.47
	SD	1.68	1.75	1.76		
White females	N	231	1068	235		
	M	4.05	3.68	3.14	16.63[c]	2.00
	SD	1.65	1.71	1.84		
Negro males	N	23	158	32		
	M	5.56	5.30	5.22	.67	0.00
	SD	0.84	1.18	1.21		
Negro females	N	19	139	26		
	M	5.32	5.27	4.73	2.22	1.30
	SD	1.34	1.12	1.66		

[a] $p < .05$

[b] $p < .01$

[c] $p < .001$

educational training beyond high school, ranging from additional vocational or business training to graduate and advanced professional degrees. The significant difference among high SES achievement groups suggested (1) that a more differentiating scale of educational level would reveal a greater association to reading achievement, and (2) that in the highest educational levels the fewest underachievers would be found.

When the combined samples were stratified into high and low IQ levels, the relationship of educational level of father to under-, average, and overachievement in reading was found to be significant at both levels. The direction of the difference among groups was the same as that for the total sample, and the percentage of variance accounted for was approximately the same.

In the race-by-sex samples, educational level of father was significantly related to reading achievement in the white samples. The omega^2 statistic and the significance levels also indicated that the relationship was greater for white females than for white males. Although differences were not statistically significant in the two Negro samples, the trend was in the same direction as in the white samples, with underachievers showing the lowest mean level. The association was also relatively greater for Negro females than for Negro males.

The educational level of father in high and low IQ levels within separate race-by-sex samples indicated that there was also an interaction effect of sex and IQ level in the relationship

of educational level and reading achievement. In the high IQ level, achievement groups differed significantly in educational level of father in the white female sample ($p < .001$; $omega^2 = 2.26$) and the Negro female sample ($p < .001$; $omega^2 = 8.93$), but these were not significantly different in the white male and Negro male samples. In the low IQ level, the relationship of educational level of father was significant for white males ($p < .05$; $omega^2 = 0.72$) and for white females ($p < .001$; $omega^2 = 1.87$) but not for Negro males or Negro females. Thus, the relationship of educational level to reading achievement among white males appeared to hold predominantly in the low IQ range. The relationship among white females, although significant in both high and low IQ levels, was greater in the high IQ range. The relationship of father's educational level in the Negro female sample, which was not sufficient to produce a significant difference across achievement groups among all Negro females, did show a significant relationship among high IQ Negro females, thereby increasing the evidence for a stronger association of educational level of father to reading achievement among high IQ females.[6]

The mean educational levels of mother for the three achievement groups in the various groupings are presented in Table 6. The relationship of educational level of mother to reading

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[6]High IQ level for Negro females was defined as a 6th CTMM IQ score of 86 or above; high IQ level for white females was defined as an IQ score of 100 or above, see Procedures section.

Table 6

Mean Educational Level of Mother of Under-, Average, and Overachievers in the Combined Samples, High and Low SES and IQ Ranges, and Separate Race and Sex Samples

Group		Under-achievers	Average achievers	Over-achievers	F	omega^2
Combined samples	N	512	2427	551		
	M	3.98	3.84	3.67	5.45[b]	0.25
	SD	1.49	1.59	1.55		
High SES	N	192	995	292		
	M	3.30	2.96	2.97	3.83[a]	0.38
	SD	1.53	1.60	1.55		
Low SES	N	312	1375	251		
	M	4.39	4.44	4.47	0.27	0.08
	SD	1.28	1.26	1.10		
High IQ	N	306	1441	327		
	M	3.66	3.47	3.33	3.57[a]	0.25
	SD	1.45	1.58	1.57		
Low IQ	N	206	986	224		
	M	4.46	4.37	4.15	2.77	0.25
	SD	1.42	1.45	1.38		
White males	N	234	1060	255		
	M	3.83	3.64	3.56	1.96	0.12
	SD	1.48	1.58	1.48		
White females	N	231	1073	236		
	M	3.93	3.71	3.47	5.27[b]	0.55
	SD	1.48	1.55	1.52		
Negro males	N	26	157	34		
	M	5.08	5.08	5.03	.67	0.00
	SD	1.02	1.22	1.22		
Negro females	N	21	137	26		
	M	4.90	4.95	4.65	.52	0.00
	SD	1.34	1.29	1.65		

[a] $p < .05$

[b] $p < .01$

achievement showed the same pattern as educational level of father in all samples and stratifications, but the relationship was not as strong. In the combined groups, educational level of mother accounted for 0.3% of the variance across the achievement groups compared to 0.9% for educational level of father. The difference between the groups did not reach significance in the white male sample, and the significant level of the difference in the white female sample was lower. Comparing other figures in Table 6 with those in Table 5, it can be seen that the relationship of educational level of mother in the high and low SES levels was approximately the same as that for educational level of father. In the high and low IQ levels,the difference among achievement groups in educational level of mother did not reach significance in the low IQ level, and the difference was at a lower significance level in the high IQ level than that for educational level of father. Examination of the differences in educational level of mother across stratifications in the individual samples showed the same relationships that were found for educational level of father. A significantly lower mean of underachievers in the high SES level resulted solely from the significant difference in the white female sample. In the high IQ level, underachievers showed a significantly lower educational level of mother only in the female samples ($p < .05$ for white females; $p < .001$ for Negro females).

The results indicated that the relationship of educational level of parents to achievement in reading was primarily characteristic of females. This finding was replicated on two measures, one for father and one for mother, and across race groups. Further, the relationship resulted primarily from differences in the high IQ level. If IQ and educational level of parents are considered as determiners of reading achievement, the results showed that females with a high IQ profit more from the higher educational background in the home than do males. For males, the results suggest the reverse, for it was only in the low IQ range that educational level of father was significantly related to reading achievement (white male sample, $p < .05$).

Relationship of Occupational Level of Father to Reading Achievement

In the combined samples, occupational level of father was significantly different across the three achievement groups, with underachievers coming from the lowest mean occupational level (Table 7). The variance accounted for among groups by occupational level (0.8%) was similar to that accounted for by educational level of father (0.9%).

At high and low SES levels, the occupational level of father was not significantly different across achievement groups (this variable was a component in the SES classification). There was a significant difference in both high and low IQ levels, with a higher significance level and slightly greater percentage of variance accounted for in the upper IQ range than in the lower IQ

Table 7

Mean Occupational Level of Father of Under-, Average, and Overachievers in the Combined Samples, High and Low SES and IQ Ranges, and Separate Race and Sex Samples

Group		Under-achievers	Average achievers	Over-achievers	F	omega^2
Combined samples	N	501	2383	546		
	M	4.54	4.39	4.03	14.98[c]	0.81
	SD	1.48	1.62	1.70		
High SES	N	188	981	289		
	M	3.04	2.87	2.78	2.46	0.20
	SD	1.14	1.23	1.24		
Low SES	N	308	1377	253		
	M	5.43	5.44	5.41	0.16	0.00
	SD	0.72	0.75	0.83		
High IQ	N	300	1417	324		
	M	4.23	4.00	3.62	11.43[c]	1.01
	SD	1.52	1.65	1.70		
Low IQ	N	201	966	222		
	M	5.00	4.94	4.62	5.41[b]	0.63
	SD	1.28	1.40	1.53		
White males	N	226	1040	252		
	M	4.29	4.16	3.90	4.04[a]	0.40
	SD	1.45	1.57	1.64		
White females	N	229	1048	233		
	M	4.49	4.16	3.71	15.47[c]	1.88
	SD	1.42	1.51	1.61		
Negro males	N	25	158	34		
	M	5.72	5.98	5.88	0.56	0.00
	SD	0.84	1.17	1.27		
Negro females	N	21	137	27		
	M	6.38	6.04	5.59	2.67	1.78
	SD	0.97	1.22	1.28		

[a] $p < .05$

[b] $p < .01$

[c] $p < .001$

range. As in the relationships of educational level to reading achievement, significant relationships resulted from differences in the two white samples, and primarily in the white female sample. For white females, the occupational level of father accounted for 1.9% of the variance across achievement groups compared to 0.4% in the white male sample. Although the association was not significant in either of the Negro samples, there was a stronger relationship of occupational level to achievement among Negro females than among Negro males.

In the high and low IQ level stratification in the individual samples, the same interaction occurred between IQ level and sex that was found with the measures of educational level. There was not a significant difference among achievement groups in mean occupational level of father in the male samples in the high IQ range, whereas the relationship was significant in both female samples ($p < .001$; $omega^2 = 2.27\%$, for white females and $p < .01$; $omega^2 = 5.59\%$ for Negro females). In the low IQ range, differences were only significant in the white male ($p < .05$; $omega^2 = 0.68\%$) and white female ($p < .05$; $omega^2 = 1.08\%$) samples.

Relationship of SES Level to Reading Achievement

Differences across achievement groups in SES level paralleled those found for educational and occupational level of father, the two components of this measure. Underachievers had a lower mean SES level than average and overachievers in all comparisons shown

in Table 8, with the exception of the low IQ level and Negro male sample. As with educational level of father, the difference among achievement groups remained significant in the high SES stratification, and differences were significant in both high and low IQ stratifications. As with educational and occupational levels of father, significant relationships of SES level to reading achievement resulted primarily from the differences in the female samples. The significant difference of achievement groups in the high SES level resulted solely from the difference in the white female sample ($p < .05$; $omega^2 = 0.88\%$). In the high IQ range, differences were not significant among achievement groups in the two male samples, but were highly significant in the two female samples ($p < .001$).

A methodological question relevant to the prediction and description of reading achievement concerns the usefulness of the weighted SES score as opposed to the prediction produced by the separate components of this composite score. With one exception, the significance level and percentage of variance figures in Table 8 (SES level) did not differ appreciably from the figures in Table 5 (Educational Level of Father) and Table 7 (Occupational Level of Father). This suggested that either the educational or occupational measure could be used to account for the differences across reading achievement groups in place of the more complexly-derived SES measure. The one exception where prediction was better with the

Table 8

Mean SES Level of Under-, Average, and Overachievers in the Combined Samples, High and Low SES and IQ Ranges, and Separate Race and Sex Samples

Group		Under-achievers	Average achievers	Over-achievers	F	omega^2
Combined samples	N	508	2402	548		
	M	3.54	3.40	3.13	17.55[c]	0.95
	SD	1.08	1.17	1.25		
High SES	N	193	1001	293		
	M	2.39	2.24	2.17	3.96[a]	0.40
	SD	0.80	0.86	0.88		
Low SES	N	315	1401	255		
	M	4.24	4.23	4.23	0.08	0.00
	SD	0.43	0.42	0.42		
High IQ	N	305	1428	324		
	M	3.33	3.10	2.80	15.47[c]	1.39
	SD	1.13	1.21	1.26		
Low IQ	N	203	974	224		
	M	3.85	3.85	3.61	5.74[b]	0.67
	SD	0.90	0.95	1.05		
White males	N	235	1046	252		
	M	3.39	3.23	3.08	4.36[a]	0.44
	SD	1.10	1.15	1.21		
White females	N	228	1061	235		
	M	3.48	3.26	2.88	17.88[c]	2.17
	SD	1.02	1.12	1.20		
Negro males	N	25	159	35	0.45	0.00
	M	4.48	4.50	4.37		
	SD	0.59	0.76	0.73		
Negro females	N	20	136	26		
	M	4.70	4.55	4.19	3.33[a]	2.50
	SD	0.57	0.69	1.02		

Note.--Lower means indicate higher SES level.

[a] $p < .05$

[b] $p < .01$

[c] $p < .001$

SES measure than with either of the educational or occupational components was in the Negro female sample. In this sample, average and overachievers differed in mean educational and occupational level of father, but these differences were not statistically significant. Combining these two measures to obtain an SES level score increased the differences among the achievement groups to a statistically significant level ($p < .05$).

Relationship of Other Family Characteristics to Reading Achievement

Underachievers, average achievers, and overachievers were compared on number of siblings and marital status of parents.

The mean number of siblings for achievement groups is presented in Table 9. There was a significant difference across achievement groups in the combined samples, with underachievers having a higher number of siblings than average or overachievers. A similar relationship, however, was not consistently found in the stratifications of the combined samples and the individual samples. Although there were trends across achievement groups, significant differences were only found in the low IQ level and the white male sample. Where significant differences and trends occurred, means of the achievement groups indicated that the relationship of number of siblings to reading achievement resulted primarily from the fewer siblings of overachievers rather than the greater number for underachievers. The indication that the relationship of number of siblings to reading achievement was primarily

Table 9

Mean Number of Siblings of Under-, Average, and Overachievers in the Combined Samples, High and Low SES and IQ Ranges, and Separate Race and Sex Samples

Group		Under-achievers	Average achievers	Over-achievers	F	omega^2
Combined samples	N	536	2537	578		
	M	2.35	2.37	2.12	3.64[a]	0.14
	SD	1.94	2.09	1.82		
High SES	N	193	1001	293		
	M	1.87	1.85	1.78	0.34	0.00
	SD	1.38	1.45	1.22		
Low SES	N	315	1401	255		
	M	2.73	2.82	2.69	0.53	0.00
	SD	2.08	2.31	2.23		
High IQ	N	319	1495	343		
	M	1.92	1.92	1.82	0.60	0.00
	SD	1.53	1.65	1.47		
Low IQ	N	217	1042	235		
	M	3.00	3.02	2.57	3.53[a]	0.34
	SD	2.27	2.45	2.18		
White males	N	248	1105	271		
	M	2.16	2.03	1.76	3.90[a]	0.36
	SD	1.80	1.74	1.40		
White females	N	240	1116	244		
	M	2.13	2.06	1.90	1.28	0.04
	SD	1.63	1.74	1.37		
Negro males	N	27	168	36		
	M	4.41	4.72	4.86	0.22	0.00
	SD	2.69	2.72	2.88		
Negro females	N	21	148	27		
	M	4.57	4.63	4.07	0.44	0.00
	SD	2.77	2.83	2.93		

[a] $p < .05$

characteristic of low-IQ-level white males was supported by the relationships within the white male sample. The difference in number of siblings was significant ($p < .05$; omega^2 = 0.92%) across achievement groups in the low IQ level, but it was not significant across high-IQ white male achievement groups.

The trend of means across achievement groups in the Negro male sample was opposite from that in the white samples. Negro male underachievers had the lowest mean number of siblings, and overachievers had the highest mean number of siblings. In the Negro female sample a trend was not clear; both underachievers and overachievers had fewer siblings than average achievers.

A closer examination of family size in the Negro samples indicated that fewer underachievers came from small and large families, in contrast to the white samples where the incidence of underachievement consistently increased with increase in family size. In the Negro samples, 22% of underachievers had two or less siblings compared to 24% of average achievers and 28% of overachievers. Considering large families, 18% of underachievers had six or more siblings compared to 42% of average achievers and 44% of overachievers. In contrast, 26% of the white male underachievers had six or more siblings, compared to 5% of average achievers and only 2% of overachievers. Although the distribution of number of siblings across achievement groups was not significant in the Negro samples when tested by chi square,

there was definitely a different relationship to reading achievement from that found in the white samples. Large family size was more often associated with average and overachievement than with underachievement.

The marital status of the subjects' natural parents was coded into the following categories: married, separated, divorced, deceased, or remarried. The percentages in each of these categories were tabulated for the achievement groups. In addition, a dichotomous variable was formed to compare all of the categories that reflected a change in marital status prior to the 6th grade with the "married" category. The percentages of subjects in the three achievement groups whose parents were recorded as being separated, divorced, deceased, or remarried when the subject was in the 6th grade are presented in Table 10. The only significant difference in marital status occurred in the white male sample ($p < .05$; $C = .07$). Among white males, a higher percentage of underachievers than average or overachievers had parents whose marriage had been disrupted. Examination of the relationship of marital status to achievement within the white male sample revealed that the significant difference largely resulted from differences in the low SES level ($p < .01$; $C = .11$). White male underachievers had a higher percentage than average and overachievers in each of the change categories (separated, divorced, deceased, or remarried); so, there was no indication that one category was more highly related to underachievement than the others.

Table 10

Marital Status of Parents of Under-, Average, and Overachievers in Combined Samples, High and Low SES and IQ Levels and Race and Sex Samples

Group	Underachievers		Average Achievers		Overachievers		X^2	C
	N	%	N	%	N	%		
Combined samples	69	13.4	281	11.4	65	11.7	1.48	.02
High SES	19	9.9	94	9.4	32	10.9	.59	.02
Low SES	44	14.0	162	11.6	28	11.1	1.53	.03
High IQ (white)	29	10.0	107	8.1	29	9.6	1.49	.03
High IQ (Negro)	4	16.7	26	15.6	8	25.0	2.30	.10
Low IQ (white)	31	17.2	118	14.2	27	14.0	1.16	.03
Low IQ (Negro)	5	20.8	30	21.3	1	3.4	5.15	.16
White males	34	14.3	92	8.6	29	11.2	7.80[a]	.07
White females	26	11.2	133	12.4	27	11.4	.35	.01
Negro males	4	14.8	32	19.5	4	11.4	1.47	.08
Negro females	5	23.8	24	16.7	5	19.2	.68	.06

Note.-Figures represent the number and percentage of subjects in each group whose parents had been separated, divorced, deceased, or remarried at the time the subject was in the 6th grade. The break points for defining high and low IQ levels were an IQ score of 100 in the white samples and an IQ score of 85 in the Negro samples.

[a] $p < .05$

Elementary School Progression

The percentages of subjects in the achievement groups who were retained in grade between grades 1 and 6 are presented in Table 11. Underachievers were retained slightly more than average achievers in all samples and in the combined samples. The difference among the three achievement groups, however, was only significant in the Negro female sample ($p < .05$). Further, the difference in the percentage of Negro females retained was only significant in the low SES range ($p < .02$, $C = .22$) and low IQ range (IQ below 85, $p < .05$, $C = .28$).

With the exception of the findings in the Negro female sample, retention in elementary school did not appear to be related to underachievement in reading when general level of mental ability was controlled. Comparison of the figures in all achievement groups across high and low IQ and SES ranges, however, showed that elementary school retention was highly related to IQ score and SES level. The over-all retention rate for students in the white samples with IQ scores above 100 was approximately 2% compared to the retention rate of 17% for students with IQ scores below 100. This strong relationship of retention to ability or general achievement suggests that decisions to retain a student were primarily based on normative level of performance and not on discrepancy between performance and ability, i.e., achievement

Table 11

Percentage of Under-, Average, and Overachievers Retained in Elementary School in Combined Samples, High and Low SES and IQ Levels and Race and Sex Samples

Group	Underachievers		Average Achievers		Overachievers		X^2	C
	N	%	N	%	N	%		
Combined samples	61	12.1	251	10.5	51	9.5	1.88	.02
High SES	12	6.4	48	4.9	10	3.6	2.01	.04
Low SES	47	15.3	187	13.8	41	16.5	1.52	.03
High IQ (white)	8	2.8	22	1.7	7	2.4	1.74	.03
High IQ (Negro)	7	29.2	25	15.2	5	16.7	2.93	.11
Low IQ (white)	31	17.7	135	17.0	21	11.4	3.88	.06
Low IQ (Negro)	15	62.5	69	48.6	18	60.0	2.49	.11
White males	24	10.5	104	10.1	22	8.8	.49	.02
White females	15	6.6	53	5.1	6	2.6	3.90	.05
Negro males	11	40.7	58	35.8	15	42.8	.75	.06
Negro females	11	52.4	36	24.8	8	32.0	6.94[a]	.19

Note.-The breakpoint for defining high and low IQ ranges in the white samples was an IQ score of 100; the breakpoint in the Negro samples was an IQ score of 85.

[a] $p < .05$

as defined in this study.[7]

Relationship of 3rd Grade Test Performance to Reading Achievement

For the subjects who were in the 3rd grade, two test scores were available, the 3rd grade CTMM IQ score and the 3rd grade CAT Reading score.

Achievement groups differed significantly in 3rd grade CTMM IQ in the high and low SES levels, high IQ level, and in the white male and white female samples, with underachievers having the lowest mean IQ (Table 12). Underachievers also had a lower mean IQ score than average achievers; in the low IQ level and in the Negro male and Negro female samples, however, differences were not statistically significant. The largest differences occurred among white males and white females in the high IQ level. Significant differences in mean 3rd grade IQ of the achievement groups supported other evidence (Part I) of some misclassification of subjects due to the reliability of the 6th grade test scores. Where significant differences in 3rd grade CTMM IQ score occurred, however, the percentage of variance accounted for across achievement groups was

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[7] In some of the comparisons presented in Table 11, the percentage of retention among overachievers was higher than that for average achievers. The method of defining achievement groups may have contributed to this finding. Expected reading level was based on the IQ score, which included chronological age. As previously discussed (see Discussion section of Part I), students who have been retained may have lower IQ scores in grades following the retention by virtue of increased age alone. This, in turn, would increase the probability of retained students being classified as overachievers.

Table 12

Mean 3rd Grade CTMM IQ Score of Under-, Average, and Overachievers in the Combined Samples, High and Low SES and IQ Levels and Race and Sex Samples

Group		Under-achievers	Average achievers	Over-achievers	F	omega^2
Combined samples	N	333	1680	353		
	M	103.84	106.70	110.15	12.61[c]	0.97
	SD	16.60	16.47	16.87		
High SES	N	120	671	170		
	M	109.32	112.74	114.07	3.67[a]	0.55
	SD	14.90	15.11	15.13		
Low SES	N	203	975	174		
	M	101.50	102.79	105.91	3.69[a]	0.40
	SD	16.55	16.11	17.47		
High IQ	N	195	1000	224		
	M	110.77	113.72	117.21	12.07[c]	1.54
	SD	13.67	13.56	13.03		
Low IQ	N	138	680	129		
	M	94.04	96.38	97.89	2.28	0.27
	SD	15.42	14.85	15.75		
White males	N	158	744	173		
	M	105.39	108.70	111.30	5.51[b]	0.83
	SD	15.64	16.31	16.11		
White females	N	147	733	143		
	M	105.54	108.27	112.70	8.08[c]	1.37
	SD	15.77	15.28	15.87		
Negro males	N	15	105	23		
	M	86.20	95.01	92.61	2.26	1.74
	SD	16.97	15.17	14.36		
Negro females	N	13	98	14		
	M	86.08	92.32	98.86	2.13	1.77
	SD	16.23	15.48	20.08		

[a] $p < .05$

[b] $p < .01$

small, exceeding 1% only in the white female sample and in the high IQ level.

Comparison of the 6th grade underachievers, average achievers, and overachievers on 3rd grade reading performance was directed at determining whether underachievers in the 6th grade revealed a history of underachievement back to the primary grades, or whether development of reading skills in the 4th and 5th grades was more critical to achievement status in the 6th grade.

Comparisons of the three achievement groups on the 3rd grade CAT Reading score are presented in Table 13. With the exception of the Negro male sample, the mean 3rd grade reading level of underachievers was significantly below that of average and over-achievers in all samples and stratifications ($p < .001$). In the Negro male sample, the trend of means was in the same direction as in other samples, and the difference across achievement groups approached significance. The percentage of variance accounted for across the achievement groups by the 3rd grade CAT Reading score was much greater than that accounted for by the 3rd CTMM IQ score, indicating that differences in IQ could not account for all differences in reading level.

The lower 3rd grade reading level of the 6th grade under-achievers supported the hypothesis that many underachievers had a history of underachievement in relation to the level expected from their mental ability score at least as far back as the 3rd grade.

Table 13

Mean Performance on the 3rd Grade CAT Reading Subtest of Under-, Average, and Overachievers in the Combined Samples, High and Low SES and IQ Levels and Race and Sex Samples

Group		Under-achievers	Average achievers	Over-achievers	F	omega^2
Combined samples	N	333	1588	320		
	M	3.37	3.86	4.27	83.20[a]	6.83
	SD	.93	.90	.85		
High SES	N	119	649	163	47.25[a]	9.04
	M	3.54	4.12	4.52		
	SD	.94	.83	.74		
Low SES	N	206	908	153		
	M	3.31	3.69	4.02	28.86[a]	4.21
	SD	.91	.88	.87		
High IQ	N	190	961	201		
	M	3.80	4.28	4.67	74.29[a]	9.78
	SD	.83	.71	.57		
Low IQ	N	143	627	119		
	M	2.81	3.21	3.60	35.45[a]	7.19
	SD	.74	.76	.81		
White males	N	154	714	161		
	M	3.23	3.76	4.18	43.90[a]	7.70
	SD	.92	.91	.87		
White females	N	142	694	129		
	M	3.66	4.10	4.53	39.02[a]	7.30
	SD	.89	.81	.73		
Negro males	N	18	99	21		
	M	2.83	3.14	3.46	2.84	2.59
	SD	.79	.84	.76		
Negro females	N	19	81	9		
	M	2.94	3.48	4.19	7.70[a]	10.94
	SD	.77	.82	.68		

[a] $p < .001$

There were other characteristics in the reading performance of the study sample that need to be considered in order to evaluate the performance of the achievement groups from grades 3 to 6. First, it was noted that the mean reading level of subjects with 3rd grade reading scores was .4 grade equivalents above normative placement in the 3rd grade (Table 4); whereas, the mean 6th grade CAT Reading score for all subjects in the study was .3 grade equivalents below the 6th grade norm. The higher 3rd grade reading level of subjects with 3rd grade scores can also be seen in Table 13, where the mean reading score of underachievers (combined samples) was at grade placement (3.4). By comparing the 6th grade performance of the subgroup of subjects with 3rd grade scores with that of the complete sample, it was possible to determine whether the smaller group was representative of the complete sample or whether it was a select, higher-performing group. Data for these comparisons is presented in Table 14. The 3rd grade samples had only slightly higher 6th grade reading and IQ scores than the complete 6th grade sample, and none of the differences on the 6th CAT Reading score was statistically significant. Thus, the decrease in reading level relative to the norm grade placement did not appear to result from selection of subjects. Differences in tests could also be ruled out as a cause of the decrease, since they were from the same publisher, and the norms were as comparable as can be obtained across grades. This would

Table 14

Mean 6th Grade CAT Reading Score and Mean 6th Grade CTMM IQ Score for Subjects with 3rd Grade CAT Reading Scores (Figures in parentheses are for the complete 6th grade sample)

		6th CAT Reading Score		6th CTMM IQ Score	
Combined Samples	M	5.88	(5.83)	103.45	(101.96)
	SD	1.50	(1.51)	16.52	(17.13)
White Males	M	5.80	(5.76)	103.85	(103.26)
	SD	1.51	(1.55)	16.15	(16.76)
White Females	M	6.21	(6.21)	105.97	(105.62)
	SD	1.37	(1.38)	15.09	(15.14)
Negro Males	M	4.49	(4.42)	87.83	(85.42)
	SD	1.26	(1.13)	15.63	(15.66)
Negro Females	M	4.74	(4.92)	88.30	(87.58)
	SD	1.24	(1.16)	15.09	(15.87)

suggest that the cause of the general drop in reading level from grades 3 to 6 was related to characteristics of the reading curriculum in the schools in the intervening grades between tests.[8]

The findings developed this far would indicate (1) that underachievers were performing at a significantly lower level than average and overachievers in the 3rd grade, (2) that the subjects with 3rd grade scores were representative of the complete study sample in their performance in the 6th grade, and (3) that there was a general drop in reading level relative to grade placement from grades 3 to 6. In light of these findings, there were interesting differences in the performance of underachievers, average achievers, and overachievers from grades 3 to 6.

In Figure 1, the mean score of each achievement group in the combined sample is expressed in terms of the deviation in grade-equivalent units from the norm grade-placement for the 3rd and 6th grade testings. In Figure 2, comparable data for the race-by-sex samples is depicted. In the combined samples, overachievers, whose mean reading level in the 3rd grade was .9 grade equivalents above norm placement, were also reading .9 grade equivalents above grade placement in the 6th grade. In contrast, the mean performance of

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[8] Cross-sectional data from the County testing program in the years that the study subjects were in grades 6 to 8 show the same effect as the cohort data above. That is, the 3rd grade classes during these three years had a mean reading level that was at or above norm placement; whereas, 5th and 6th grade classes had mean reading scores that were .2 or .3 grade equivalents below the norm.

FIGURE 1

MEAN 3rd AND 6th GRADE READING LEVELS OF UNDER-, AVERAGE, AND OVERACHIEVERS CORRECTED FOR GRADE LEVEL (ALL SUBJECTS WITH BOTH SCORES, N=2241)

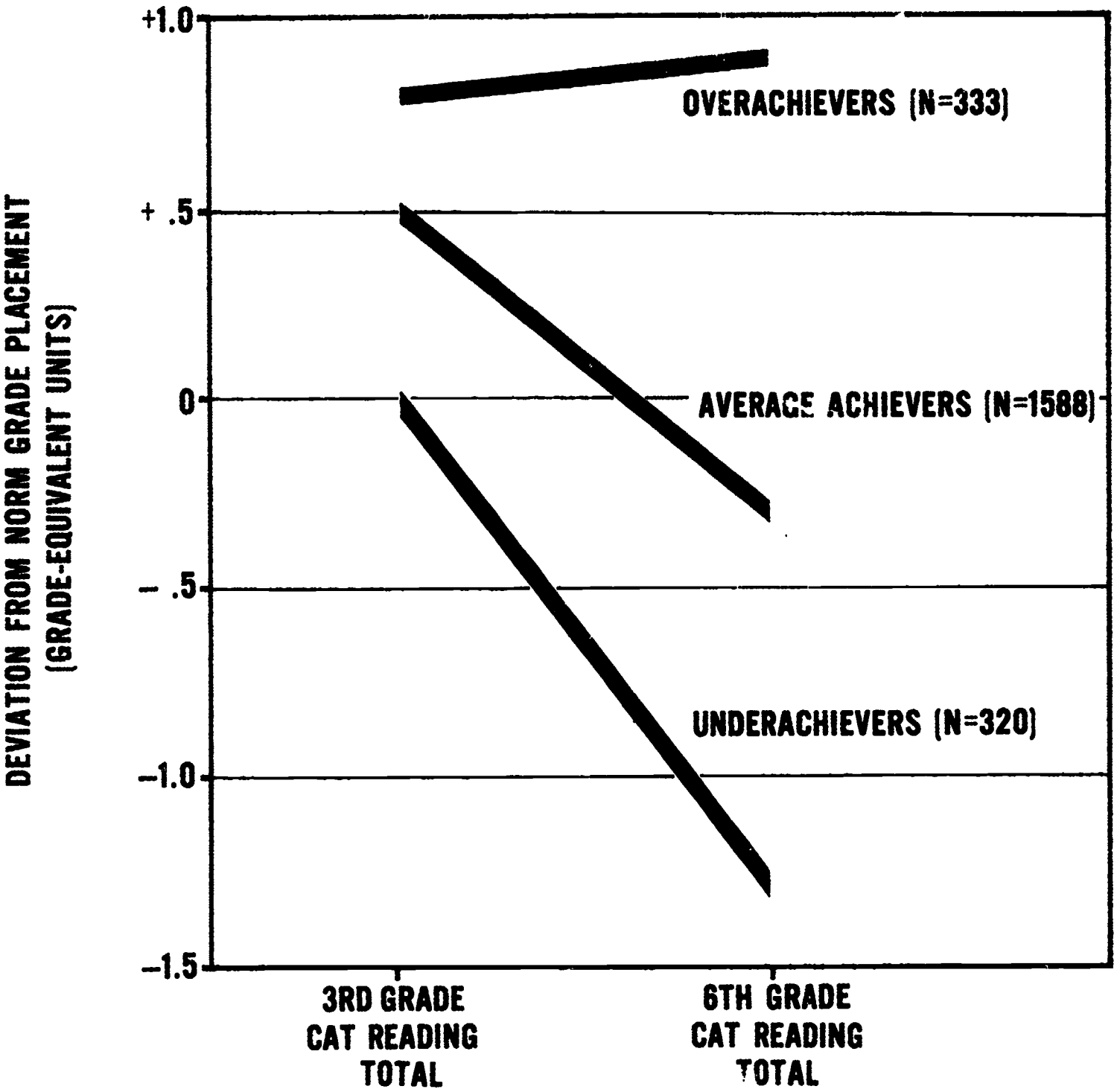
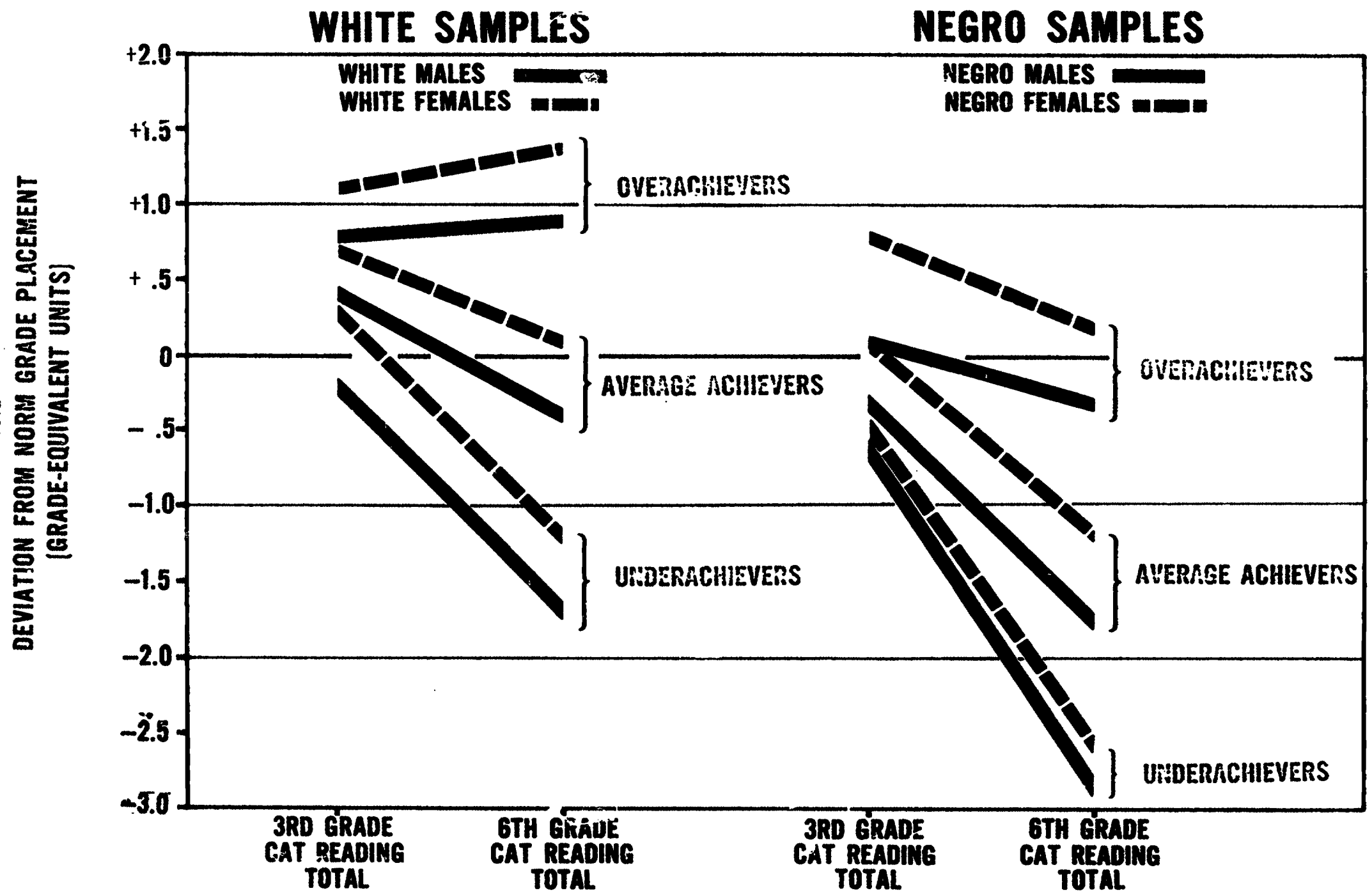


FIGURE 2

MEAN 3rd AND 6th GRADE READING LEVEL OF UNDER-, AVERAGE, AND OVERACHIEVERS CORRECTED FOR GRADE LEVEL (RACE AND SEX SAMPLES)



average achievers dropped from .5 grade equivalents above the norm in the 3rd grade to .3 grade equivalents below the norm in the 6th grade. The drop of underachievers was even greater, from a mean performance at grade placement in grade 3 to 1.3 grade equivalents below the norm in grade 6. This same pattern of change occurred in all four race-by-sex samples. Thus, whatever weaknesses in the reading curriculum, or other factors that may have resulted in the general drop relative to norm placement, the performance of over-achievers was unaffected. Further, the effect on underachievers in reading was greater than the effect on average achievers.

A test of the significance of the difference in change of the achievement groups was performed with an analysis of variance with covariate control. Results of this analysis with the white male and white female samples are given in Table 15. Differences among achievement groups in 6th grade reading level remained highly significant (1) when groups were equated on 3rd grade reading level and (2) when equated on 3rd grade reading and IQ level.

There were also some additional characteristics of note in pattern of reading achievement from grades 3 to 6 in each of the race-by-sex samples. The general fanning out of the lines that indicate change from 3rd to 6th grade (Figure 2) suggest that drop in mean performance was partly related to the initial level of reading in the 3rd grade. Negro male underachievers who had the lowest mean in the 3rd grade, relative to normative placement,

Table 15

Differences in Mean 6th Grade Reading Level of Achievement Groups Controlled for Differences in 3rd Grade Reading Level and 3rd Grade IQ Score

	Under-achievers	Average achievers	Over-achievers	F	omega^2
			WHITE MALES		
Unadjusted 6th CAT Reading	4.42	5.81	7.04	145.78[a]	21.96
Adjusted for 3rd CAT Reading	5.00	5.79	6.56	104.33[a]	16.74
Adjusted for 3rd CAT Reading and 3rd CTMM IQ	4.98	5.81	6.61	128.39[a]	21.18
			WHITE FEMALES		
Unadjusted 6th CAT Reading	4.93	6.18	7.58	166.95[a]	25.59
Adjusted for 3rd CAT Reading	5.38	6.17	7.14	132.10[a]	21.38
Adjusted for 3rd CAT Reading and 3rd CTMM IQ	5.39	6.18	7.18	149.08[a]	24.88

Note.--Adjusted means indicate what the 6th grade reading level would have been if the groups had been equal in mean 3rd grade performance.

[a] $p < .001$

showed the greatest decrease in performance from grades 3 to 6. White female overachievers, who had the highest level of performance in the 3rd grade, showed a slight increase in mean performance in the 6th grade. The similarity in the mean change of Negro male and Negro female average achievers to that of white male and white female underachievers further supports that decrease in performance was related to initial reading level. The exceptions to this general pattern suggest that in addition to the relationship of initial standing to decrease in performance, the status of being an overachiever had a relationship to change between the two grades. Male overachievers (both races) did not decrease in reading level as much as same-race female average achievers, although these groups had similar 3rd grade reading scores. The same relationship between overachievement and change can be seen in the performance of high and low IQ groups. Low IQ overachievers did not show as great a decrease in performance as high IQ underachievers, although the latter had a higher mean 3rd grade reading score.

Discussion

Family Characteristics. Educational and occupational background of parents was found to be related to relative reading achievement; however, over-all, this relationship was quite small.

The percentage of variance accounted for across achievement groups by socio-economic measures was only 1%. Since the method that was used to calculate relative achievement could very well control out much of the variance that is common to family background and intelligence, we can conclude that the educational and occupational levels of a child's parents do have some influence on level of reading achievement that is independent of his general mental ability. This relationship of socio-economic background to reading achievement primarily reflected differences between the upper educational and occupational levels. Of the children in SES Level I (parents with college or college graduate education and executive, proprietor, and professional occupations), only 9% were underachievers. Among children in SES Level II (parents with high school or college education and administratives, small business owners, minor and semi-professional occupations), 13% were underachievers. In the lower three SES levels, percentages of underachievers were very similar, between 15% and 16%. Therefore, only in the most highly educated groups does there seem to be a significant decrease in the number of underachievers.

Data bearing on the question as to whether background has more influence on achievement of the upper or lower ability child lead to different conclusions than those reached by Curry (1962), who found that the effect of socio-economic conditions on

scholastic achievement was greater among lower mental ability groups.[9]

Our results would indicate that the effect of educational and occupational background on relative reading achievement is of similar magnitude in both high and low ability groups. In fact, the relationship was slightly stronger in the high IQ group, and particularly stronger for high IQ girls.

The most interesting findings concerned the differences in the relationship of socio-economic and other family characteristics to reading achievement when sex and mental ability were both taken into account. For girls, family background and intelligence seemed to have an additive effect on reading status. It was among bright girls that the educational background of the parents had the greatest contribution to producing average and overachievers rather than underachievers. Among high IQ boys, the relative achievement in reading did not appear to be significantly affected by parents' educational level. Among boys, on the other hand, the effect of family characteristics and intelligence on reading appeared to be a compensative relationship. It was among the low mental ability boys that parents' educational

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[9] There are several similarities between Curry's study and the present one. In both studies the subjects were 6th graders, the California Achievement and Mental Ability Tests were used, and groups were compared across IQ and SES levels. The major difference in the studies is that Curry investigated relationships to normative level of achievement, whereas, our subjects were classified according to achievement relative to potential or expected achievement.

level had positive relationship to reading achievement. Also, having fewer siblings and an intact home, which are situations where a child is likely to receive a greater amount of attention from parents, were also related to reading status of boys in the low IQ group.

It can only be conjectured what factors lie behind the differences for boys and girls in the relationship of family background to reading achievement. A plausible hypothesis, however, is that these differences are associated with the earlier development in girls of reading skills and verbal skills in general. For girls, and particularly bright girls, reading and pre-reading activities occur prior to school age more often than for boys. At this time, parents have a greater influence on a child than when the child is in school, if only from the standpoint of the greater amount of time spent with the child. Even among bright boys, the readiness for or interest in conceptualizing the world in terms of language and reading may not come until late in the 1st or into the 2nd grade, after the school has assumed the primary role in teaching reading. Therefore, girls from homes where there is a greater interest and participation in reading activities may be in a better position than boys to profit from their parents' background in developing reading skills.

Race Differences. Differences between race were difficult to assess for two reasons. On the educational and occupational

measures, the Negro samples had a much more homogeneous distribution than the white samples, which could prevent the finding of significant differences. Second, other family characteristics, number of siblings and marital status of parents, were not strongly related to reading achievement in the white samples (the only significant differences were among low IQ level white males). In general, then, the relationships among the Negro samples were similar to those found in the white samples. There was a greater relationship of educational and occupational level to reading achievement for Negro females than for Negro males, especially for females in the high IQ group. This replicated the findings in the white samples. Family size and marital status of parents were not significantly related to reading achievement in either the Negro male or Negro female samples. There was a trend in the Negro samples suggesting that large families produce fewer underachievers than middle-size families, in contrast to the trend in the white samples. However, the number of white subjects with comparably large family size was too few to know whether this was a general relationship or one that was only characteristic of the Negro samples.

Retention (Non-promotion) in Elementary School Grades. Data on the relationship of retention in elementary school grades to relative reading achievement do not shed light on the efficacy of retaining students as means to remedy skills. The finding that overachievers were not retained significantly less than average achievers suggests

that retention may have benefitted some students.[10] The equal or slightly higher retention rate among underachievers, however, would suggest the opposite, repeating grades did not improve reading status. Perhaps the most significant implication of finding no difference in elementary school retentions for the achievement groups comes in relationship to findings reported in Part II of this report. In those analyses, retention in secondary school grades was found to be significantly higher for underachievers than for average or overachievers.[11] In view of these findings (and recognizing that retention is only one way, and not necessarily the preferred way, to correct reading deficiencies), it can be questioned whether as many course failures and retentions would have occurred for underachievers in secondary school if more of them had repeated grades in elementary school.

3rd to 6th Grade Reading Performance. It is generally felt that in the reading curriculum, basic skills should be mastered by the end of the 3rd grade, although not all children achieve this

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[10] However, the possibility of an artifact contributing to retained students being classified as overachievers has to be considered.

[11] Studies of secondary school dropouts, using this same population (Lloyd, 1967), indicated that retention in secondary school grades was so strongly related to dropout prior to completion of high school that it could only be concluded that retention in secondary school grades led to dropout as often or more often than to remediation of deficiencies.

goal by then (Templeton, 1969). The 3rd grade also is an important point in the educational process in that research suggests that general learning patterns of children are largely determined by the end of the 3rd grade (Bloom, 1964; Vane, 1966). It therefore seemed important to determine whether the reading problems of 6th grade underachievers developed from deficiencies in primary grades or whether they stemmed from more recent difficulties encountered in elementary grades. The comparison of achievement groups on 3rd and 6th grade performance produced five findings:

(1) Underachievers had a significantly lower reading level than average or overachievers in the 3rd grade

(2) The pattern of achievement from the 3rd to the 6th grade showed a decrease in reading relative to grade placement for underachievers and average achievers, whereas,

(3) Overachievers maintained the same superior level of performance from grades 3 to 6,

(4) The decrease in performance from grades 3 to 6 was significantly greater for underachievers than for average and overachievers,

(5) The degree to which scores changed from grades 3 to 6 was related to the level of skill (i.e., grade placement) in the 3rd grade.

The results show two factors operating to determine a pattern of reading achievement. The first is achievement status relative to ability. Being an overachiever or an underachiever, regardless of ability or intelligence level, has implications for future reading skills. The second factor is normative achievement level (i.e., in relation to standardized norms or grade placement). This achievement level in the 3rd grade is also predictive of future reading performance.

These results taken separately and as they interact together have several implications for the identification and treatment of underachievers and, hopefully, for the planning of reading curricula in general.

Finding (1) indicates that underachievement in reading begins in the primary grades for many students and that it should be possible to detect it by grade 3.[12] Both findings (1) and (4) indicate that the corrective action for underachievement in reading should be programmed as early as possible because the performance of underachievers does not remain a constant level lower than that of average achievers, but, rather, underachievers fall further behind in later grades.[13]

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[12] Some cases of underachievement have been traced to beginnings as far back as the 1st grade (Shaw & McCuen, 1960).

[13] Analyses of the performance of these same subjects reported in Parts I and II of this study show that after grade 6, underachievers never catch up to average achievers in reading and that their performance in all subject areas in secondary school is lower than that of average achievers.

Finding (2) indicates that reading skills cannot be ignored in the elementary grades (grades 4-6). We examined our data very closely to determine whether some artifact accounted for the decrease in reading level of average achievers between these grades. This did not seem to be the case. The most likely cause for this decrease in normative placement was a de-emphasis on reading in grades 4 to 6. This de-emphasis was not necessarily in the overall reading program for the elementary grades. The results in our data could have been produced by inadequate attention to those children who had not mastered the basic skills taught in earlier grades. Finding (5) would suggest that it was the children in the low average range (those not far enough below expected level to be classified as underachievers, but not having complete mastery of basic reading skills) who were the most likely to show a decrease from grades 3 to 6.

Finding (3) suggests that overachievers have attained sufficient skills by the end of the 3rd grade to insure their continued development of reading ability even under conditions that result in a decrease in grade placement for other students. Even with overachievers, however, it is necessary to consider the relationships of both relative and normative level to the pattern of achievement from grades 3 to 6. It was true that overachievers as a total group (drawn from the full range of IQ scores) had the same high reading level in grades 3 and 6. It was also true, however, that

the majority of this group was reading above grade placement in the 3rd grade, so that adequate mastery of basic reading skills was also a general characteristic of overachievers.[14] Overachievers in the high and low IQ groups, however, did not show the same pattern of achievement. High IQ overachievers, virtually all of whom were reading above grade placement in the 3rd grade, actually accelerated in reading level from 1.3 grade units above the norm in the 3rd grade to a full two grades above placement in grade 6. In contrast, a substantial proportion of the low IQ overachievers were not reading at grade placement in the 3rd grade. The performance of this group decreased .6 grade units between the 3rd and 6th grades. Thus, normative achievement level, or mastery of basic reading skills, was related to the performance of overachievers. The decrease in performance of the low IQ overachievers, however, was only half as great as that experienced by high IQ underachievers whose 3rd grade reading level was higher, illustrating the independent relationship that relative achievement status had to the longitudinal pattern of reading achievement.

The concept of relative achievement provides useful information in that it seems to have effects that are independent of normative

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[14] Overachievers had a mean 3rd grade reading score of 4.3, with a standard deviation of .85. The mean of the group was one standard deviation above grade placement (3.4); therefore it is estimated that 85% of that group had acquired average or better reading skills.

achievement and ability level. It would be dangerous, however, to use relative achievement without also considering normative level of achievement, i.e., to ignore a reading level below grade placement because a child is an overachiever for his mental ability level. Since both relative and normative achievement level appear to have effects on subsequent achievement, it is necessary to consider both in interpreting results of group data, particularly in translating findings into expectations for individual students.

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Reading Achievement

And Its Relationship to Academic Performance

Supplemental Data on High and Low IQ and SES Groups in Four Race-by-Sex Samples

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National Institute of Mental Health

1972

Reading Achievement and Its Relationship to Academic Performance

Supplemental Data on High and Low IQ and SES Groups in Four Race-by-Sex Samples

This supplement contains performance data of underachievers, average achievers, and overachievers in reading within each of the four race-by-sex samples, further stratified by ability level (IQ) and by parent's socio-economic status (SES).

These data were used to supplement analyses reported in Parts II and III of this study, but were not tabled in those reports. They are summarized here so as to be available to those interested in the characteristics related to reading achievement within these more specific groupings.

The data provide the means, standard deviations, and analysis of variance comparisons across achievement groups on 57 variables measuring elementary and secondary school performance and family background characteristics.

The data are presented in 16 sections:

1. White males - High SES (levels 1-3)
2. " " - Low SES (levels 4 & 5)
3. " " - High IQ (IQ scores 100 and above)
4. " " - Low IQ (IQ scores below 100)
5. White females - High SES (levels 1-3)
6. " " - Low SES (levels 4 & 5)
7. " " - High IQ (IQ scores 100 and above)
8. " " - Low IQ (IQ scores below 100)
9. Negro males - High SES (levels 1-4)
10. " " - Low SES (level 5)
11. " " - High IQ (IQ scores 86 and above)
12. " " - Low IQ (IQ scores 85 and below)
13. Negro females - High SES (levels 1-4)
14. " " - Low SES (level 5)
15. " " - High IQ (IQ scores 86 and above)
16. " " - Low IQ (IQ scores 85 and below)

Classification of High and Low IQ groups was based on scores earned on the California Test of Mental Maturity (CTMM) administered in the 6th grade. Classification into High and Low SES levels was made using the Hollingshead Two-Factor Index of Social Position. This index consists of a weighted composite of the occupational and educational levels of the subject's father when the subject was in the 6th grade.

The stratifications into High and Low IQ and High and Low SES groups differ in the white and Negro samples. Divisions were made close to the means of the samples on these measures so as to achieve a balanced comparison. High and Low IQ levels were defined as above and below an IQ score of 100 in the white samples, and above and below an IQ score of 86 in the Negro samples. High SES consisted of levels 1 through 3 in the white samples, and 1 through 4 in the Negro samples.

In each section, the three achievement groups are compared on the same 57 variables. The variables (J) are numbered as follows:

1	Age in 6th Grade (Months)
2	Education Level of Father
3	Education Level of Mother
4	Number of Siblings
5	Occupation Level of Father
6	SES Level
7	6th Grade Point Average*
8	6th Grade CTMM IQ Score
9	Days Absent 1st Grade
10	Days Absent 2nd Grade
11	Days Absent 3rd Grade
12	Days Absent 4th Grade

13 3rd CAT - Reading Total*
14 6th CAT - Reading Vocabulary*
15 Outcome (Dropout or Graduation)
16 6th CAT - Reading Comprehension*
17 3rd CTMM IQ Score
18 6th CAT - Reading Total*
19 6th CAT - Arithmetic Total*
20 6th CAT - Language Total*
21 English GPA*
22 Social Studies GPA*
23 Science GPA*
24 Mathematics GPA*
25 Business GPA*
26 Vocational GPA*
27 Foreign Language GPA*
28 Music GPA*
29 Art GPA*
30 Physical Education GPA*
31 GPA (Full Unit) 7th Grade*
32 GPA (Full Unit) 8th Grade*
33 GPA (Full Unit) 9th Grade*
34 GPA (Full Unit) 10th Grade*
35 GPA (Full Unit) 11th Grade*
36 GPA (Full Unit) 12th Grade*
37 Lorge-Thorndike IQ Score (7th Grade)
38 Lorge-Thorndike IQ Score (10th Grade)
39 Cornell Medical Index (11th Grade)
40 SAT Reading Average (7th Grade)*
41 SAT Spelling (7th Grade)*
42 SAT Language (7th Grade)*
43 SAT Arithmetic Average (7th Grade)*
44 SAT Average Achievement Score (7th Grade)*
45 SAT Paragraph Meaning (9th Grade)*
46 SAT Word Meaning (9th Grade)*
47 SAT Reading Average (9th Grade)*
48 ITED Social Concepts (9th Grade)
49 ITED Natural Science (General) (9th Grade)
50 ITED English Expression (9th Grade)
51 ITED Quantitative Thinking (9th Grade)
52 ITED Social Studies Reading (9th Grade)
53 ITED Natural Science Reading (9th Grade)
54 ITED Literature (9th Grade)
55 ITED Vocabulary (9th Grade)
56 ITED Use of Information (9th Grade)
57 Discrepancy Score (6th CAT - Reading Total minus 6th CTMM Predicted Reading Total)

Variables followed by an asterisk (*) are fractional scores (GPA's and grade equivalent scores) that were treated as whole numbers in the computations. The decimal on means and standard deviations of these variables should be moved one place to the left for interpretation.

Coding procedures for family background and absence measures are found in the procedures sections of the main reports.

A constant of 10 was added to discrepancy scores (Variable #57) to avoid handling negative numbers in computations. The means of the race-by-sex samples (total column) therefore appear as 10 rather than 0. This score is also in grade equivalents, but treated as a whole number in computations and should have the decimal on the mean and standard deviation moved one place to the left for interpretation.

The omega^2 statistic represents the proportion of variance accounted for across achievement groups, in contrast to tables in the main reports where this statistic was given as a percentage.

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14B: WHITE MALES - High SES

NO OF VARIABLES = 57 CLASSIFICATION VAR = # 57 WITH ELIMINATION CODE FOR CLAS. VAR = 999.000

CLAS CATEGORY UPPER LIMITS = 91.000, 108.000, 999.000, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,

RESTRICTION VAR = # 6 WITH RANGE OF 1.000 TO 3.000

CODES TO BE EXCLUDED FOR VARS 1 TO 57 ARE 0.0 , 0.0 , 0.0 , -9.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 1.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 999.000,

FORMAT OF DATA IS (57F6.0)

MAX # OF OBS TO BE INCLUDED THIS PROBLEM = 1096 DATA TO BE READ FROM TAPE WITHOUT REWIND

GROUP 1 = UNDERACHIEVERS

GROUP 2 = AVERAGE ACHIEVERS

GROUP 3 = OVERACHIEVERS

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14B: WHITE MALES - High SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	98	486	136	720	BETWEEN GROUPS	514.5274	2	257.2637	7.5343	0.0176
1	M	136.092	139.043	140.882	139.201	WITHIN GROUPS	24482.3837	717	34.1456		
	SD	5.863	5.638	6.515	5.896	TOTAL	24996.9111	719			
	N	97	480	136	713	BETWEEN GROUPS	7.5003	2	3.7802	1.4701	0.0013
2	M	2.629	2.323	2.382	2.376	WITHIN GROUPS	1825.7047	710	2.5714		
	SD	1.635	1.599	1.597	1.605	TOTAL	1833.2051	712			
	N	97	483	135	715	BETWEEN GROUPS	4.9058	2	2.4529	0.9725	-0.0001
3	M	3.113	2.874	2.903	2.923	WITHIN GROUPS	1795.8635	712	2.5223		
	SD	1.554	1.603	1.557	1.586	TOTAL	1800.7692	714			
	N	98	486	136	720	BETWEEN GROUPS	4.9475	2	2.4737	1.3177	0.0009
4	M	1.867	1.805	1.610	1.776	WITHIN GROUPS	1346.0511	717	1.8773		
	SD	1.455	1.430	1.048	1.371	TOTAL	1350.9986	719			
	N	94	479	135	708	BETWEEN GROUPS	2.1136	2	1.0568	0.6893	-0.0009
5	M	2.915	2.833	2.726	2.823	WITHIN GROUPS	1080.8172	705	1.5331		
	SD	1.133	1.266	1.200	1.238	TOTAL	1082.9308	707			
	N	98	486	136	720	BETWEEN GROUPS	1.2495	2	0.6247	0.8080	-0.0005
6	M	2.316	2.206	2.176	2.215	WITHIN GROUPS	554.3825	717	0.7732		
	SD	0.845	0.880	0.902	0.879	TOTAL	555.6319	719			
	N	95	467	129	691	BETWEEN GROUPS	984.7075	2	492.3538	22.3754	0.0583
7	M	17.737	20.268	21.977	20.239	WITHIN GROUPS	15138.8930	688	22.0042		
	SD	4.825	4.628	4.818	4.834	TOTAL	16123.6006	690			
	N	98	486	136	720	BETWEEN GROUPS	966.4563	2	483.2281	1.9427	0.0026
8	M	107.551	108.977	106.044	108.229	WITHIN GROUPS	178346.7312	717	248.7402		
	SD	14.566	15.759	16.626	15.792	TOTAL	179313.1875	719			
	N	47	252	63	362	BETWEEN GROUPS	4.4019	2	2.2009	1.2633	0.0015
9	M	2.894	3.060	3.286	3.077	WITHIN GROUPS	625.4324	359	1.7422		
	SD	1.108	1.330	1.419	1.321	TOTAL	629.8343	361			
	N	51	281	71	403	BETWEEN GROUPS	3.7915	2	1.8957	1.3333	0.0017
10	M	2.745	2.580	2.817	2.643	WITHIN GROUPS	568.7544	400	1.4219		
	SD	1.197	1.193	1.187	1.193	TOTAL	572.5459	402			
	N	64	329	83	476	BETWEEN GROUPS	5.1930	2	2.5965	1.8626	0.0036
11	M	2.594	2.754	2.964	2.769	WITHIN GROUPS	659.3868	473	1.3941		
	SD	1.123	1.162	1.292	1.183	TOTAL	664.5798	475			
	N	71	366	93	530	BETWEEN GROUPS	4.5226	2	2.2613	1.6502	0.0024
12	M	2.296	2.227	2.473	2.279	WITHIN GROUPS	722.1491	527	1.3703		
	SD	1.224	1.142	1.239	1.172	TOTAL	726.6717	529			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-148: WHITE MALES - High SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	62	327	83	472	BETWEEN GROUPS	3353.5303	2	1676.7652	22.7604	0.0844
13	M	34.242	40.073	43.952	39.989	WITHIN GROUPS	34551.4167	469	73.6704		
	SD	9.598	8.689	7.256	8.971	TOTAL	37904.9470	471			
	N	98	486	136	720	BETWEEN GROUPS	42260.9380	2	21130.4690	95.4930	0.2079
14	M	45.031	61.177	72.265	61.074	WITHIN GROUPS	158656.1606	717	221.2778		
	SD	13.517	15.051	15.169	16.716	TOTAL	200917.0986	719			
	N	73	369	94	536	BETWEEN GROUPS	0.8858	2	0.4429	2.7951	0.0067
15	M	2.726	2.816	2.872	2.813	WITHIN GROUPS	84.4575	533	0.1585		
	SD	0.449	0.402	0.335	0.399	TOTAL	85.3433	535			
	N	98	486	136	720	BETWEEN GROUPS	26267.5379	2	13133.7689	67.9770	0.1569
16	M	52.908	64.459	74.331	64.751	WITHIN GROUPS	138530.9607	717	193.2092		
	SD	11.694	13.670	16.019	15.140	TOTAL	164798.4986	719			
	N	61	335	83	479	BETWEEN GROUPS	1270.4965	2	635.2483	2.8989	0.0079
17	M	109.197	114.066	114.145	113.459	WITHIN GROUPS	104308.4596	476	219.1354		
	SD	15.053	15.093	13.356	14.862	TOTAL	105578.9562	478			
	N	98	486	136	720	BETWEEN GROUPS	35722.6065	2	17861.3032	106.3742	0.2264
18	M	47.898	62.368	72.941	62.390	WITHIN GROUPS	120391.5810	717	167.9102		
	SD	11.405	12.956	13.973	14.735	TOTAL	156114.1875	719			
	N	98	482	134	714	BETWEEN GROUPS	2221.1382	2	1110.5691	16.8503	0.0425
19	M	58.480	63.214	64.321	62.772	WITHIN GROUPS	46860.6503	711	65.9081		
	SD	7.791	7.936	8.960	8.297	TOTAL	49081.7885	713			
	N	98	478	136	712	BETWEEN GROUPS	5206.2387	2	2603.1193	29.6901	0.0746
20	M	55.286	61.992	64.603	61.567	WITHIN GROUPS	62162.5254	709	87.6763		
	SD	9.861	9.306	9.175	9.734	TOTAL	67368.7640	711			
	N	87	458	121	666	BETWEEN GROUPS	2986.3455	2	1493.1727	18.1053	0.0489
21	M	26.529	30.854	34.207	30.898	WITHIN GROUPS	54678.7116	663	82.4717		
	SD	7.329	9.281	9.440	9.312	TOTAL	57665.0571	665			
	N	87	458	121	666	BETWEEN GROUPS	3000.8040	2	1500.4020	17.2473	0.0465
22	M	27.885	31.996	35.562	32.107	WITHIN GROUPS	57676.5270	663	86.9934		
	SD	8.008	9.475	9.631	9.552	TOTAL	60677.4309	665			
	N	74	405	103	582	BETWEEN GROUPS	1748.7528	2	874.3764	8.8448	0.0263
23	M	26.770	29.704	33.029	29.919	WITHIN GROUPS	57238.4517	579	98.8574		
	SD	8.397	10.064	10.466	10.076	TOTAL	58987.2045	581			
	N	87	457	121	665	BETWEEN GROUPS	1935.4760	2	967.7380	10.1179	0.0267
24	M	27.057	30.744	33.240	30.716	WITHIN GROUPS	63317.8082	662	95.6462		
	SD	8.083	9.864	10.540	9.913	TOTAL	65253.2842	664			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-148: WHITE MALES - High SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	33	182	53	268	BETWEEN GROUPS	1287.0663	2	643.8331	4.7297	0.0271
25	M	24.242	28.104	32.038	28.407	WITHIN GROUPS	36073.0016	265	136.1245		
	SD	10.446	11.711	12.213	11.829	TOTAL	37360.0679	267			
	N	87	456	119	662	BETWEEN GROUPS	921.2518	2	460.6259	7.0278	0.0179
26	M	32.770	35.000	37.034	35.073	WITHIN GROUPS	43193.2678	659	65.5437		
	SD	6.696	8.182	8.674	8.169	TOTAL	44114.5196	661			
	N	44	272	75	391	BETWEEN GROUPS	1299.4936	2	649.7468	4.2450	0.0163
27	M	22.750	27.445	29.560	27.322	WITHIN GROUPS	59387.9028	388	153.0616		
	SD	10.431	12.661	12.339	12.474	TOTAL	60687.3964	390			
	N	87	450	121	658	BETWEEN GROUPS	1316.9719	2	658.4859	7.3979	0.0191
28	M	33.299	37.031	38.174	36.748	WITHIN GROUPS	58301.1497	655	89.0094		
	SD	8.982	9.288	10.257	9.526	TOTAL	59618.1216	657			
	N	83	423	103	609	BETWEEN GROUPS	473.8677	2	236.9338	2.7686	0.0058
29	M	31.614	33.409	34.825	33.404	WITHIN GROUPS	51860.7629	606	85.5788		
	SD	9.038	9.419	8.701	9.278	TOTAL	52334.6305	608			
	N	87	455	119	661	BETWEEN GROUPS	255.7906	2	127.8983	2.6677	0.0050
30	M	38.287	39.732	40.529	39.685	WITHIN GROUPS	31546.7511	658	47.9434		
	SD	6.245	7.120	6.624	6.942	TOTAL	31802.5477	660			
	N	89	453	125	667	BETWEEN GROUPS	3417.4867	2	1708.7433	17.7323	0.0478
31	M	28.371	33.300	36.472	33.237	WITHIN GROUPS	63985.0860	664	96.3631		
	SD	8.705	10.130	9.391	10.060	TOTAL	67402.5727	666			
	N	82	432	112	626	BETWEEN GROUPS	2943.5664	2	1471.7832	13.7346	0.0391
32	M	29.037	33.051	36.875	33.209	WITHIN GROUPS	66760.0199	623	107.1589		
	SD	9.241	10.604	10.124	10.561	TOTAL	69703.5863	625			
	N	76	407	104	587	BETWEEN GROUPS	2071.8552	2	1035.9276	11.0886	0.0332
33	M	28.000	32.287	34.846	32.186	WITHIN GROUPS	54558.9046	584	93.4228		
	SD	8.390	9.669	10.485	9.831	TOTAL	56630.7598	586			
	N	72	381	98	551	BETWEEN GROUPS	1258.4087	2	629.2043	5.8887	0.0174
34	M	26.097	28.843	31.561	28.967	WITHIN GROUPS	58553.0033	548	106.8485		
	SD	7.431	10.665	10.848	10.428	TOTAL	59811.4120	550			
	N	62	315	84	461	BETWEEN GROUPS	950.3070	2	475.1535	5.9517	0.0210
35	M	26.726	29.844	31.881	29.796	WITHIN GROUPS	36564.5260	458	79.8352		
	SD	8.078	9.047	9.108	9.031	TOTAL	37514.8330	460			
	N	54	292	83	429	BETWEEN GROUPS	508.0751	2	254.0376	3.8527	0.0131
36	M	29.500	31.743	33.434	31.788	WITHIN GROUPS	28089.5218	426	65.9381		
	SD	6.804	8.097	8.943	8.174	TOTAL	28597.6970	428			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14B: WHITE MALES - High SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	89	449	115	653	BETWEEN GROUPS	8349.0660	2	4174.5330	18.1151	0.0498
37	M	98.551	107.151	111.217	106.695	WITHIN GROUPS	149789.2892	650	230.4451		
	SD	14.063	15.181	15.987	15.574	TOTAL	158138.3553	652			
	N	65	329	90	484	BETWEEN GROUPS	6598.6071	2	3299.3035	15.4450	0.0563
38	M	101.923	112.474	113.489	111.246	WITHIN GROUPS	102749.1347	481	213.6157		
	SD	14.929	14.567	14.567	15.046	TOTAL	109347.7417	483			
	N	37	203	58	298	BETWEEN GROUPS	2.1682	2	1.0841	0.7490	-0.0017
39	M	2.784	2.522	2.586	2.567	WITHIN GROUPS	426.9895	295	1.4474		
	SD	1.250	1.224	1.093	1.202	TOTAL	429.1577	297			
	N	83	430	116	629	BETWEEN GROUPS	21506.8177	2	10753.4088	24.7770	0.0703
40	M	61.771	75.793	82.621	75.202	WITHIN GROUPS	271688.5400	626	434.0073		
	SD	19.566	20.755	21.969	21.607	TOTAL	293195.3577	628			
	N	84	435	118	637	BETWEEN GROUPS	8931.7205	2	4465.8602	13.9977	0.0392
41	M	50.202	65.586	69.398	65.055	WITHIN GROUPS	202273.3564	634	319.0431		
	SD	15.796	18.093	18.371	18.223	TOTAL	211205.0769	636			
	N	79	430	116	625	BETWEEN GROUPS	21692.3823	2	10846.1912	19.0841	0.0547
42	M	50.562	65.533	71.081	64.784	WITHIN GROUPS	353505.4577	622	568.3367		
	SD	20.014	24.106	25.191	24.521	TOTAL	375197.8400	624			
	N	85	432	117	634	BETWEEN GROUPS	3677.7106	2	1838.8553	9.9578	0.0275
43	M	64.812	71.530	72.650	70.836	WITHIN GROUPS	116523.2295	631	184.6644		
	SD	12.233	13.866	13.484	13.780	TOTAL	120200.9401	633			
	N	80	411	114	605	BETWEEN GROUPS	11955.3139	2	5977.6569	22.2397	0.0656
44	M	59.763	70.912	75.360	70.276	WITHIN GROUPS	161807.5886	602	268.7834		
	SD	14.293	16.777	16.365	16.961	TOTAL	173762.9025	604			
	N	57	303	76	436	BETWEEN GROUPS	10646.4471	2	5323.2235	14.5283	0.0584
45	M	88.632	101.970	105.658	100.869	WITHIN GROUPS	158653.1011	433	366.4044		
	SD	22.824	19.186	15.627	19.728	TOTAL	169299.5482	435			
	N	57	303	76	436	BETWEEN GROUPS	12615.8732	2	6307.9366	21.2797	0.0851
46	M	91.509	105.043	110.711	104.261	WITHIN GROUPS	128354.3194	433	296.4303		
	SD	23.002	16.599	14.385	18.002	TOTAL	140970.1927	435			
	N	57	303	76	436	BETWEEN GROUPS	11569.7194	2	5784.8597	20.1657	0.0808
47	M	90.035	103.422	108.184	102.502	WITHIN GROUPS	124213.2783	433	286.8667		
	SD	21.179	16.789	13.649	17.668	TOTAL	135782.9977	435			
	N	69	349	87	505	BETWEEN GROUPS	881.8434	2	440.9217	13.9140	0.0487
48	M	11.696	15.384	15.943	14.976	WITHIN GROUPS	15907.8715	502	31.6890		
	SD	5.339	5.610	5.925	5.772	TOTAL	16789.7149	504			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14B: WHITE MALES - High SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	66	346	86	500	BETWEEN GROUPS	583.9263	2	291.9632	8.9759	0.0309
49	M	14.147	17.058	17.779	16.786	WITHIN GROUPS	16166.1757	497	32.5275		
	SD	6.082	5.554	5.985	5.794	TOTAL	16750.1020	499			
	N	70	349	94	513	BETWEEN GROUPS	693.4064	2	346.7032	15.1773	0.0524
50	M	11.329	14.203	15.383	14.027	WITHIN GROUPS	11650.2115	510	22.8436		
	SD	3.977	4.775	5.312	4.910	TOTAL	12343.6179	512			
	N	70	353	90	513	BETWEEN GROUPS	536.8213	2	268.4107	7.0255	0.0230
51	M	13.929	16.688	17.344	16.427	WITHIN GROUPS	19484.6875	510	38.2053		
	SD	5.325	6.237	6.565	6.253	TOTAL	20021.5088	512			
	N	68	350	89	507	BETWEEN GROUPS	1378.1583	2	689.0792	21.6009	0.0752
52	M	11.397	15.700	17.101	15.369	WITHIN GROUPS	16077.8693	504	31.9005		
	SD	5.376	5.740	5.479	5.674	TOTAL	17456.0276	506			
	N	67	350	91	508	BETWEEN GROUPS	907.6001	2	453.8001	11.9315	0.0413
53	M	11.104	14.763	15.615	14.433	WITHIN GROUPS	19207.1243	505	38.0339		
	SD	5.442	6.157	6.685	6.299	TOTAL	20114.7244	507			
	N	66	354	89	509	BETWEEN GROUPS	1276.4566	2	638.2283	20.6456	0.0717
54	M	9.045	13.136	14.663	12.872	WITHIN GROUPS	15642.2428	506	30.9135		
	SD	5.130	5.524	5.992	5.771	TOTAL	16918.6994	508			
	N	71	350	89	510	BETWEEN GROUPS	1063.2948	2	531.6474	19.2942	0.0669
55	M	11.718	15.571	16.517	15.200	WITHIN GROUPS	13970.3052	507	27.5548		
	SD	4.969	5.274	5.366	5.435	TOTAL	15033.6000	509			
	N	69	349	88	506	BETWEEN GROUPS	951.3259	2	475.6630	14.4658	0.0505
56	M	11.884	15.544	16.511	15.213	WITHIN GROUPS	16539.6227	503	32.8820		
	SD	6.031	5.632	5.901	5.885	TOTAL	17490.9486	505			
	N	98	486	136	720	BETWEEN GROUPS	39802.6604	2	19901.3302	995.7729	0.7343
57	M	87.143	100.506	113.390	101.121	WITHIN GROUPS	14329.8271	717	19.9858		
	SD	3.739	4.464	4.950	8.677	TOTAL	54132.4875	719			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14C: WHITE MALES - Low SES

NO OF VARIABLES = 57 CLASSIFICATION VAR = # 57 WITH ELIMINATION CODE FOR CLAS. VAR = 999.000

CLAS CATEGORY UPPER LIMITS = 91.000, 108.000, 990.000, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,

RESTRICTION VAR = # 6 WITH RANGE OF 4.000 TO 5.000

CODES TO BE EXCLUDED FOR VARS 1 TO 57 ARE 0.0 , 0.0 , 0.0 , -9.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 1.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 999.000,

FORMAT OF DATA IS (57F6.0)

MAX # OF OBS TO BE INCLUDED THIS PROBLEM = 1696 DATA TO BE READ FROM TAPE WITHOUT REWIND

GROUP 1 = UNDERACHIEVERS

GROUP 2 = AVERAGE ACHIEVERS

GROUP 3 = OVERACHIEVERS

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14C: WHITE MALES - Low SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	137	560	116	813	BETWEEN GROUPS	647.3417	2	323.6708	6.5909	0.0136
1	M	140.015	140.952	143.121	141.103	WITHIN GROUPS	39777.9794	810	49.1086		
	SD	5.994	6.982	8.153	7.056	TOTAL	40425.3210	812			
	N	136	554	114	804	BETWEEN GROUPS	1.4844	2	0.7422	0.7536	-0.0006
2	M	4.757	4.657	4.614	4.668	WITHIN GROUPS	788.8477	801	0.9848		
	SD	1.029	0.969	1.060	0.992	TOTAL	790.3321	803			
	N	135	555	114	804	BETWEEN GROUPS	0.2122	2	0.1061	0.0750	-0.0023
3	M	4.326	4.283	4.281	4.290	WITHIN GROUPS	1133.2642	801	1.4148		
	SD	1.202	1.220	1.009	1.188	TOTAL	1133.4764	803			
	N	137	560	116	813	BETWEEN GROUPS	8.8465	2	4.4232	1.3317	0.0008
4	M	2.504	2.316	2.129	2.321	WITHIN GROUPS	2690.3639	810	3.3214		
	SD	1.856	1.846	1.660	1.823	TOTAL	2699.2103	812			
	N	132	552	115	799	BETWEEN GROUPS	0.2180	2	0.1090	0.2885	-0.0018
5	M	5.273	5.283	5.235	5.274	WITHIN GROUPS	300.7557	796	0.3778		
	SD	0.619	0.581	0.753	0.614	TOTAL	300.9737	798			
	N	137	560	116	813	BETWEEN GROUPS	0.2893	2	0.1447	1.3068	0.0008
6	M	4.161	4.114	4.147	4.127	WITHIN GROUPS	89.6615	810	0.1107		
	SD	0.368	0.318	0.355	0.333	TOTAL	89.9508	812			
	N	132	539	114	785	BETWEEN GROUPS	946.9963	2	473.4982	19.8872	0.0459
7	M	15.909	18.312	19.693	18.108	WITHIN GROUPS	18618.7998	782	23.8092		
	SD	4.698	4.909	4.946	4.996	TOTAL	19565.7962	784			
	N	137	560	116	813	BETWEEN GROUPS	937.7090	2	468.8545	1.8015	0.0020
8	M	100.971	99.400	97.121	99.339	WITHIN GROUPS	210810.5936	810	260.2600		
	SD	14.295	15.957	18.807	16.148	TOTAL	211748.3026	812			
	N	74	315	65	454	BETWEEN GROUPS	4.0634	2	2.0317	1.0379	0.0002
9	M	2.824	2.863	3.123	2.894	WITHIN GROUPS	882.8618	451	1.9576		
	SD	1.275	1.411	1.474	1.399	TOTAL	886.9251	453			
	N	85	354	69	508	BETWEEN GROUPS	2.8817	2	1.4409	0.8309	-0.0007
10	M	2.412	2.588	2.667	2.569	WITHIN GROUPS	875.7069	505	1.7341		
	SD	1.168	1.331	1.411	1.316	TOTAL	878.5886	507			
	N	97	395	80	572	BETWEEN GROUPS	9.3216	2	4.6608	3.1996	0.0076
11	M	2.897	2.585	2.487	2.624	WITHIN GROUPS	828.8654	569	1.4567		
	SD	1.254	1.186	1.253	1.212	TOTAL	838.1871	571			
	N	106	442	86	634	BETWEEN GROUPS	2.1065	2	1.0532	0.6522	-0.0011
12	M	2.461	2.355	2.279	2.366	WITHIN GROUPS	1018.9976	631	1.6149		
	SD	1.354	1.256	1.243	1.270	TOTAL	1021.1041	633			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14C: WHITE MALES - Low SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	89	374	74	537	BETWEEN GROUPS	2784.1500	2	1392.0750	17.3993	0.0576
13	M	31.213	35.733	39.405	35.490	WITHIN GROUPS	42724.0437	534	80.0076		
	SD	8.748	8.892	9.433	9.214	TOTAL	45508.1937	536			
	N	137	560	116	813	BETWEEN GROUPS	45098.9240	2	22549.4620	36.5958	0.0805
14	M	38.766	53.134	65.310	52.450	WITHIN GROUPS	499102.3085	810	616.1757		
	SD	12.324	28.105	17.911	25.888	TOTAL	544201.2325	812			
	N	115	472	100	687	BETWEEN GROUPS	0.6928	2	0.3464	1.3981	0.0012
15	M	2.609	2.646	2.720	2.651	WITHIN GROUPS	169.4644	684	0.2478		
	SD	0.508	0.500	0.473	0.498	TOTAL	170.1572	686			
	N	137	557	116	810	BETWEEN GROUPS	24734.2539	2	12367.1270	78.3499	0.1604
16	M	47.839	56.768	67.681	56.821	WITHIN GROUPS	127380.7893	807	157.8448		
	SD	11.277	12.048	15.985	13.712	TOTAL	152115.0432	809			
	N	92	395	82	569	BETWEEN GROUPS	925.5892	2	462.7946	1.7552	0.0026
17	M	103.815	104.281	107.793	104.712	WITHIN GROUPS	149241.1419	566	263.6769		
	SD	15.494	16.070	17.796	16.260	TOTAL	150166.7311	568			
	N	137	560	116	813	BETWEEN GROUPS	37661.8601	2	18830.9301	110.1567	0.2117
18	M	42.066	53.839	66.534	53.667	WITHIN GROUPS	138466.8065	810	170.9467		
	SD	10.849	13.012	15.553	14.728	TOTAL	176128.6667	812			
	N	137	553	114	804	BETWEEN GROUPS	2495.3030	2	1247.6515	17.8288	0.0402
19	M	55.905	59.121	62.211	59.011	WITHIN GROUPS	56053.5963	801	69.9795		
	SD	8.018	8.353	8.824	8.539	TOTAL	58548.8993	803			
	N	134	552	114	800	BETWEEN GROUPS	5406.4595	2	2703.2298	27.3872	0.0619
20	M	51.851	56.850	61.140	56.624	WITHIN GROUPS	78667.2892	797	98.7043		
	SD	9.271	10.041	10.168	10.258	TOTAL	84073.7488	799			
	N	132	523	109	764	BETWEEN GROUPS	1917.5403	2	958.7702	16.1244	0.0381
21	M	22.280	25.421	27.853	25.225	WITHIN GROUPS	45249.7371	761	59.4609		
	SD	5.934	7.962	8.356	7.862	TOTAL	47167.2775	763			
	N	132	524	109	765	BETWEEN GROUPS	1713.8883	2	856.9442	13.0805	0.0306
22	M	23.311	25.906	28.661	25.851	WITHIN GROUPS	49921.1235	762	65.5133		
	SD	6.870	8.203	8.895	8.221	TOTAL	51635.0118	764			
	N	110	456	99	665	BETWEEN GROUPS	515.6267	2	257.8134	3.5018	0.0075
23	M	22.909	24.886	25.919	24.713	WITHIN GROUPS	48738.5146	662	73.6231		
	SD	8.002	8.563	9.256	8.613	TOTAL	49254.1414	664			
	N	132	524	109	765	BETWEEN GROUPS	2286.9461	2	1143.4731	16.8332	0.0397
24	M	22.136	25.685	28.174	25.427	WITHIN GROUPS	51762.2774	762	67.9295		
	SD	6.831	8.518	8.447	8.411	TOTAL	54049.2235	764			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14C: WHITE MALES - Low SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	55	241	53	349	BETWEEN GROUPS	76.7524	2	38.3762	0.4741	-0.0030
25	M	22.691	23.959	23.396	23.673	WITHIN GROUPS	28000.0098	346	80.9480		
	SD	8.057	9.290	8.536	8.984	TOTAL	28064.7622	348			
	N	132	522	109	763	BETWEEN GROUPS	225.4959	2	112.7479	1.6871	0.0018
26	M	29.561	30.546	31.495	30.511	WITHIN GROUPS	50789.1594	759	66.8278		
	SD	7.264	8.378	8.224	8.182	TOTAL	51014.6553	762			
	N	33	196	47	276	BETWEEN GROUPS	1161.2012	2	580.6006	4.5120	0.0248
27	M	16.909	22.362	24.447	22.065	WITHIN GROUPS	35129.6249	273	128.6799		
	SD	8.762	11.681	11.483	11.488	TOTAL	36290.8261	275			
	N	130	514	105	749	BETWEEN GROUPS	1096.3017	2	548.1508	6.5593	0.0146
28	M	29.069	31.951	32.981	31.595	WITHIN GROUPS	62342.1229	746	83.5685		
	SD	8.804	9.358	8.448	9.209	TOTAL	63438.4246	748			
	N	122	484	100	706	BETWEEN GROUPS	260.2331	2	130.1165	1.6961	0.0020
29	M	28.016	29.581	29.770	29.337	WITHIN GROUPS	53929.5347	703	76.7134		
	SD	8.311	8.896	8.616	8.767	TOTAL	54189.7677	705			
	N	131	521	109	761	BETWEEN GROUPS	130.1168	2	65.0584	1.0691	0.0002
30	M	30.824	37.472	38.303	37.480	WITHIN GROUPS	46125.8175	758	60.8520		
	SD	7.199	8.015	7.442	7.801	TOTAL	46255.9343	760			
	N	131	527	109	767	BETWEEN GROUPS	3116.7608	2	1558.3834	18.5269	0.0437
31	M	24.023	28.188	31.083	27.888	WITHIN GROUPS	64263.5905	764	84.1146		
	SD	7.855	9.426	9.385	9.379	TOTAL	67380.3572	766			
	N	123	489	104	716	BETWEEN GROUPS	2137.9215	2	1068.9607	12.5610	0.0313
32	M	23.964	27.145	30.115	27.034	WITHIN GROUPS	60677.2741	713	85.1014		
	SD	7.846	9.255	10.503	9.373	TOTAL	62815.1955	715			
	N	111	467	100	678	BETWEEN GROUPS	512.8113	2	256.4056	3.6380	0.0077
33	M	25.306	27.026	28.400	26.947	WITHIN GROUPS	47573.2772	675	70.4789		
	SD	7.095	8.639	8.563	8.428	TOTAL	48086.0885	677			
	N	102	420	95	617	BETWEEN GROUPS	590.9684	2	295.4842	3.9885	0.0096
34	M	22.990	24.845	26.442	24.784	WITHIN GROUPS	45487.3623	614	74.0837		
	SD	7.432	8.724	9.235	8.649	TOTAL	46078.3306	616			
	N	80	339	80	499	BETWEEN GROUPS	267.1334	2	133.5667	2.3703	0.0055
35	M	23.925	25.693	26.337	25.513	WITHIN GROUPS	27949.5319	496	56.3499		
	SD	6.156	7.592	8.326	7.527	TOTAL	28216.6653	498			
	N	69	299	69	437	BETWEEN GROUPS	564.5785	2	282.2893	5.9809	0.0223
36	M	25.232	27.880	29.101	27.654	WITHIN GROUPS	20484.2453	434	47.1987		
	SD	5.657	7.024	7.280	6.948	TOTAL	21048.8238	436			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14C: WHITE MALES - Low SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	120	512	106	744	BETWEEN GROUPS	7265.6979	2	3632.8490	17.5340	0.0426
37	M	92.571	97.266	103.783	97.399	WITHIN GROUPS	153526.7416	741	207.1886		
	SD	13.049	14.294	16.280	14.711	TOTAL	160792.4395	743			
	N	88	375	85	548	BETWEEN GROUPS	1992.5753	2	996.2877	5.3864	0.0158
38	M	99.091	103.237	105.718	102.956	WITHIN GROUPS	100804.3736	545	184.9622		
	SD	13.508	13.173	15.441	13.709	TOTAL	102796.9489	547			
	N	48	227	51	326	BETWEEN GROUPS	4.0701	2	2.0351	1.2001	0.0012
39	M	2.875	2.722	3.020	2.791	WITHIN GROUPS	547.7458	323	1.6958		
	SD	1.123	1.326	1.349	1.303	TOTAL	551.8160	325			
	N	121	505	108	734	BETWEEN GROUPS	22231.0255	2	11115.5128	30.3665	0.0741
40	M	55.983	62.703	75.315	63.451	WITHIN GROUPS	267578.7088	731	366.0447		
	SD	16.878	18.947	22.142	19.884	TOTAL	289809.7343	733			
	N	126	506	108	740	BETWEEN GROUPS	10507.1533	2	5253.5766	20.6790	0.0505
41	M	51.063	56.885	64.491	57.004	WITHIN GROUPS	187237.8346	737	254.0540		
	SD	13.794	16.117	17.367	16.358	TOTAL	197744.9878	739			
	N	113	474	107	694	BETWEEN GROUPS	12756.0050	2	6378.0025	13.4597	0.0347
42	M	46.354	53.781	61.589	53.775	WITHIN GROUPS	327436.9287	691	473.8595		
	SD	19.471	21.761	24.229	22.156	TOTAL	340192.9337	693			
	N	124	504	105	733	BETWEEN GROUPS	3760.9006	2	1880.4503	12.1024	0.0294
43	M	59.710	63.603	67.838	63.551	WITHIN GROUPS	113426.4309	730	155.3787		
	SD	10.929	12.469	14.048	12.653	TOTAL	117187.3315	732			
	N	115	480	103	698	BETWEEN GROUPS	8977.5804	2	4488.7902	20.4273	0.0527
44	M	55.435	60.831	68.243	61.036	WITHIN GROUPS	152722.5242	695	219.7446		
	SD	12.835	14.750	17.072	15.231	TOTAL	161700.1046	697			
	N	79	337	74	490	BETWEEN GROUPS	3915.4613	2	1957.7307	3.7429	0.0111
45	M	84.924	89.427	95.027	89.547	WITHIN GROUPS	254727.9591	487	523.0554		
	SD	23.393	22.406	24.372	22.998	TOTAL	258643.4204	489			
	N	78	336	74	488	BETWEEN GROUPS	11288.9456	2	5644.4728	12.2006	0.0439
46	M	82.282	91.342	99.486	91.129	WITHIN GROUPS	224379.9212	485	462.6390		
	SD	22.675	21.474	20.141	21.998	TOTAL	235668.8668	487			
	N	78	337	74	489	BETWEEN GROUPS	6974.5688	2	3487.2844	7.8067	0.0271
47	M	83.705	90.214	97.257	90.241	WITHIN GROUPS	217096.9568	486	446.7016		
	SD	22.168	20.857	21.269	21.428	TOTAL	224071.5256	488			
	N	90	408	85	583	BETWEEN GROUPS	457.5591	2	228.7795	8.9059	0.0264
48	M	10.367	11.870	13.600	11.890	WITHIN GROUPS	14899.4152	580	25.6886		
	SD	5.377	4.929	5.390	5.137	TOTAL	15356.9743	582			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14C: WHITE MALES - Low SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	92	399	85	576	BETWEEN GROUPS	267.8756	2	133.9378	3.8952	0.0100
49	M	12.337	13.654	14.788	13.611	WITHIN GROUPS	19703.0133	573	34.3857		
	SD	6.160	5.756	6.040	5.893	TOTAL	19970.8889	575			
	N	92	403	88	583	BETWEEN GROUPS	342.9790	2	171.4895	7.9773	0.0234
50	M	10.033	11.519	12.784	11.475	WITHIN GROUPS	12468.4103	580	21.4973		
	SD	4.275	4.633	5.002	4.692	TOTAL	12811.3894	582			
	N	92	402	90	584	BETWEEN GROUPS	463.9792	2	231.9896	7.5799	0.0220
51	M	12.511	13.289	15.489	13.505	WITHIN GROUPS	17782.0054	581	30.6059		
	SD	5.313	5.491	5.925	5.594	TOTAL	18245.9846	583			
	N	93	409	85	587	BETWEEN GROUPS	432.1641	2	216.0821	8.7827	0.0258
52	M	11.151	12.477	14.259	12.525	WITHIN GROUPS	14368.2277	584	24.6031		
	SD	4.780	4.734	6.097	5.026	TOTAL	14800.3918	586			
	N	94	409	87	590	BETWEEN GROUPS	423.2850	2	211.6425	6.4292	0.0181
53	M	10.181	11.628	13.241	11.636	WITHIN GROUPS	19323.3676	587	32.9189		
	SD	5.761	5.544	6.538	5.790	TOTAL	19746.6525	589			
	N	93	410	86	589	BETWEEN GROUPS	435.0421	2	217.5210	7.6291	0.0220
54	M	8.710	10.444	11.802	10.368	WITHIN GROUPS	16708.0106	586	28.5120		
	SD	5.388	5.120	6.244	5.400	TOTAL	17143.0525	588			
	N	92	410	88	590	BETWEEN GROUPS	674.1714	2	337.0857	13.3221	0.0401
55	M	10.402	12.241	14.273	12.253	WITHIN GROUPS	14852.6692	587	25.3027		
	SD	4.908	4.907	5.685	5.134	TOTAL	15526.8407	589			
	N	93	402	89	584	BETWEEN GROUPS	425.8336	2	212.9168	8.4344	0.0248
56	M	10.570	11.898	13.618	11.949	WITHIN GROUPS	14666.6253	581	25.2438		
	SD	5.400	4.812	5.538	5.088	TOTAL	15092.4589	583			
	N	137	560	116	813	BETWEEN GROUPS	47361.8723	2	23680.9361	1135.0507	0.7361
57	M	86.445	99.423	113.897	99.301	WITHIN GROUPS	16999.2963	810	20.8633		
	SD	4.294	4.551	4.947	8.896	TOTAL	64261.1685	812			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14E: WHITE MALES - High IQ

NO OF VARIABLES = 57 CLASSIFICATION VAR = # 57 WITH ELIMINATION CODE FOR CLAS. VAR = 999.000

CLAS CATEGORY UPPER LIMITS = 91.000, 108.000, 990.000, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,

RESTRICTION VAR = # 8 WITH RANGE OF 100.000 TO 175.000

CODES TO BE EXCLUDED FOR VARS 1 TO 57 ARE 0.0 , 0.0 , 0.0 , -9.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 1.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 999.000,

FORMAT OF DATA IS (57F6.0)

MAX # OF OBS TO BE INCLUDED THIS PROBLEM = 1696 DATA TO BE READ FROM TAPE WITHOUT REWIND

GROUP 1 = UNDERACHIEVERS

GROUP 2 = AVERAGE ACHIEVERS

GROUP 3 = OVERACHIEVERS

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LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14E: WHITE MALES - High IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	143	680	161	984	BETWEEN GROUPS	285.9442	2	142.9721	6.7398	0.0115
1	M	137.720	138.465	139.615	138.545	WITHIN GROUPS	20810.0884	981	21.2131		
	SD	4.688	4.591	4.594	4.633	TOTAL	21096.0325	983			
	N	138	652	152	942	BETWEEN GROUPS	14.1936	2	7.0968	2.2531	0.0027
2	M	3.529	3.221	3.112	3.248	WITHIN GROUPS	2957.6791	939	3.1498		
	SD	1.760	1.769	1.811	1.777	TOTAL	2971.8726	941			
	N	136	658	152	946	BETWEEN GROUPS	1.3090	2	0.6545	0.2670	-0.0016
3	M	3.478	3.375	3.362	3.388	WITHIN GROUPS	2311.3137	943	2.4510		
	SD	1.455	1.593	1.542	1.564	TOTAL	2312.6226	945			
	N	143	680	161	984	BETWEEN GROUPS	2.6458	2	1.3229	0.6121	-0.0008
4	M	1.818	1.771	1.646	1.757	WITHIN GROUPS	2120.3044	981	2.1614		
	SD	1.452	1.522	1.247	1.470	TOTAL	2122.9502	983			
	N	133	644	149	926	BETWEEN GROUPS	9.8638	2	4.9319	1.8508	0.0018
5	M	3.992	3.891	3.644	3.866	WITHIN GROUPS	2459.5314	923	2.6647		
	SD	1.490	1.651	1.673	1.634	TOTAL	2469.3952	925			
	N	137	651	150	938	BETWEEN GROUPS	7.2366	2	3.6183	2.4486	0.0031
6	M	3.190	3.006	2.873	3.012	WITHIN GROUPS	1381.6344	935	1.4777		
	SD	1.173	1.210	1.276	1.217	TOTAL	1388.8710	937			
	N	135	636	144	915	BETWEEN GROUPS	1265.6784	2	632.8392	38.2487	0.0753
7	M	19.037	21.274	23.299	21.262	WITHIN GROUPS	15089.3708	912	16.5454		
	SD	4.120	4.029	4.188	4.230	TOTAL	16355.0492	914			
	N	143	680	161	984	BETWEEN GROUPS	64.8123	2	32.4062	0.3310	-0.0014
8	M	114.028	114.026	114.720	114.140	WITHIN GROUPS	96057.8340	981	97.9183		
	SD	9.298	10.047	9.762	9.889	TOTAL	96122.6463	983			
	N	68	361	84	513	BETWEEN GROUPS	7.9730	2	3.9865	2.3864	0.0054
9	M	2.794	2.967	3.238	2.988	WITHIN GROUPS	851.9569	510	1.6705		
	SD	1.045	1.331	1.304	1.296	TOTAL	859.9298	512			
	N	77	410	90	577	BETWEEN GROUPS	1.3814	2	0.6907	0.4277	-0.0020
10	M	2.558	2.622	2.733	2.631	WITHIN GROUPS	926.9895	574	1.6150		
	SD	1.118	1.282	1.339	1.270	TOTAL	928.3709	576			
	N	89	463	106	658	BETWEEN GROUPS	0.4126	2	0.2063	0.1512	-0.0026
11	M	2.685	2.717	2.774	2.722	WITHIN GROUPS	893.6923	655	1.3644		
	SD	1.018	1.171	1.267	1.167	TOTAL	894.1049	657			
	N	99	517	113	729	BETWEEN GROUPS	3.0495	2	1.5248	1.0989	0.0003
12	M	2.424	2.257	2.372	2.298	WITHIN GROUPS	1007.3565	726	1.3875		
	SD	1.326	1.144	1.197	1.178	TOTAL	1010.4060	728			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14E: WHITE MALES - High IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	84	455	99	638	BETWEEN GROUPS	3854.7978	2	1927.3989	35.5312	0.0977
13	M	36.833	41.673	46.040	41.713	WITHIN GROUPS	34445.7116	635	54.2452		
	SD	8.580	7.468	5.547	7.754	TOTAL	38300.5094	637			
	N	143	680	161	984	BETWEEN GROUPS	70945.1039	2	35472.5520	84.4553	0.1450
14	M	49.301	66.151	79.888	65.950	WITHIN GROUPS	412035.4560	981	420.0158		
	SD	11.189	23.573	10.290	22.166	TOTAL	482980.5600	983			
	N	106	516	114	736	BETWEEN GROUPS	0.2342	2	0.1171	0.7912	-0.0006
15	M	2.821	2.857	2.886	2.856	WITHIN GROUPS	108.4995	733	0.1480		
	SD	0.409	0.388	0.346	0.385	TOTAL	108.7337	735			
	N	143	680	161	984	BETWEEN GROUPS	48037.4237	2	24018.7119	196.5708	0.2844
16	M	56.755	66.832	81.441	67.758	WITHIN GROUPS	119867.0112	981	122.1886		
	SD	9.682	10.961	12.493	13.069	TOTAL	167904.4350	983			
	N	85	470	111	666	BETWEEN GROUPS	1634.1858	2	817.0929	4.7770	0.0112
17	M	111.565	115.085	117.378	115.018	WITHIN GROUPS	113403.5980	663	171.0462		
	SD	13.099	13.373	11.723	13.153	TOTAL	115037.7838	665			
	N	143	680	161	984	BETWEEN GROUPS	60127.7593	2	30063.8796	381.8849	0.4364
18	M	52.035	65.682	80.137	66.064	WITHIN GROUPS	77229.2072	981	78.7250		
	SD	8.067	9.002	9.002	11.821	TOTAL	137356.9665	983			
	N	143	675	158	976	BETWEEN GROUPS	3396.4711	2	1698.2356	38.0003	0.0705
19	M	60.902	64.742	67.608	64.643	WITHIN GROUPS	43483.4469	973	44.6901		
	SD	6.198	6.649	7.239	6.934	TOTAL	46879.9180	975			
	N	140	671	160	971	BETWEEN GROUPS	6755.8250	2	3377.9125	63.3253	0.1138
20	M	59.200	64.070	68.706	64.132	WITHIN GROUPS	51635.3016	968	53.3423		
	SD	6.799	7.447	7.114	7.759	TOTAL	58391.1267	970			
	N	128	620	138	886	BETWEEN GROUPS	5350.7970	2	2675.3985	38.4502	0.0779
21	M	26.312	31.544	35.232	31.362	WITHIN GROUPS	61439.9039	883	69.5809		
	SD	6.805	8.541	8.714	8.687	TOTAL	66790.7009	885			
	N	128	621	138	887	BETWEEN GROUPS	5194.9145	2	2597.4573	35.1169	0.0714
22	M	27.656	32.469	36.493	32.400	WITHIN GROUPS	65386.0054	884	73.9661		
	SD	7.527	8.713	9.011	8.925	TOTAL	70580.9200	886			
	N	117	565	121	803	BETWEEN GROUPS	3244.4740	2	1622.2370	19.1074	0.0432
23	M	26.342	30.108	33.727	30.105	WITHIN GROUPS	67920.7389	800	84.9009		
	SD	8.441	9.357	9.253	9.420	TOTAL	71165.2130	802			
	N	128	620	138	886	BETWEEN GROUPS	4466.6232	2	2233.3116	27.2017	0.0358
24	M	26.602	31.463	34.732	31.270	WITHIN GROUPS	72495.9062	883	82.1018		
	SD	7.607	9.221	9.559	9.325	TOTAL	76962.5293	885			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14E: WHITE MALES - High IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	59	287	60	406	BETWEEN GROUPS	1241.0865	2	620.5432	5.3903	0.0212
25	M	24.644	28.192	31.083	28.103	WITHIN GROUPS	46394.5687	403	115.1230		
	SD	9.908	10.733	11.463	10.845	TOTAL	47635.6552	405			
	N	128	617	137	882	BETWEEN GROUPS	1509.4588	2	754.7294	11.6472	0.0236
26	M	32.094	34.930	36.825	34.813	WITHIN GROUPS	56958.6739	879	64.7994		
	SD	7.075	8.133	8.513	8.147	TOTAL	58468.1327	881			
	N	61	385	92	538	BETWEEN GROUPS	2629.2141	2	1314.6071	8.9358	0.0287
27	M	21.574	27.055	30.011	26.939	WITHIN GROUPS	78707.7617	535	147.1173		
	SD	10.061	12.459	11.967	12.307	TOTAL	81336.9758	537			
	N	128	609	136	873	BETWEEN GROUPS	1812.8544	2	906.4272	11.4409	0.0234
28	M	33.648	37.371	38.463	36.995	WITHIN GROUPS	68927.1272	870	79.2266		
	SD	8.836	8.852	9.176	9.007	TOTAL	70739.9817	872			
	N	123	564	117	804	BETWEEN GROUPS	724.0958	2	362.0479	4.4979	0.0086
29	M	31.366	33.860	34.393	33.556	WITHIN GROUPS	64474.3855	801	80.4924		
	SD	8.772	9.052	8.787	9.011	TOTAL	65198.4813	803			
	N	127	616	137	880	BETWEEN GROUPS	471.1520	2	235.5760	5.1701	0.0094
30	M	38.291	40.097	40.839	39.952	WITHIN GROUPS	39960.8435	877	45.5654		
	SD	6.620	6.851	6.403	6.782	TOTAL	40431.9955	879			
	N	130	617	142	889	BETWEEN GROUPS	6778.5775	2	3389.2887	40.2975	0.0812
31	M	28.492	34.549	38.373	34.274	WITHIN GROUPS	74518.4529	886	84.1066		
	SD	8.407	9.430	8.678	9.568	TOTAL	81297.0304	888			
	N	123	582	130	835	BETWEEN GROUPS	5786.0392	2	2893.0196	31.7326	0.0686
32	M	28.756	33.914	38.315	33.840	WITHIN GROUPS	75852.4566	832	91.1688		
	SD	8.514	9.779	9.422	9.894	TOTAL	81638.4958	834			
	N	118	565	122	805	BETWEEN GROUPS	3596.6887	2	1798.3444	22.1700	0.0500
33	M	28.076	32.793	35.689	32.540	WITHIN GROUPS	65055.2492	802	81.1163		
	SD	7.695	9.165	9.425	9.241	TOTAL	68651.9379	804			
	N	114	540	116	770	BETWEEN GROUPS	2938.1227	2	1469.0614	15.8797	0.0372
34	M	26.061	29.335	33.190	29.431	WITHIN GROUPS	70956.7292	767	92.5120		
	SD	7.698	9.980	9.590	9.803	TOTAL	73894.8519	769			
	N	97	456	104	657	BETWEEN GROUPS	1352.4597	2	676.2298	9.3264	0.0247
35	M	26.392	29.743	31.433	29.516	WITHIN GROUPS	47419.6225	654	72.5071		
	SD	6.975	8.587	9.450	8.623	TOTAL	48772.0822	656			
	N	87	427	98	612	BETWEEN GROUPS	1292.2688	2	646.1344	10.5178	0.0302
36	M	28.115	31.129	33.398	31.064	WITHIN GROUPS	37412.2459	609	61.4323		
	SD	6.404	7.927	8.566	7.959	TOTAL	38704.5147	611			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14E: WHITE MALES - High IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	129	599	132	860	BETWEEN GROUPS	14684.8616	2	7342.4308	51.7583	0.1056
37	M	102.264	109.967	117.265	109.931	WITHIN GROUPS	121574.0907	857	141.8601		
	SD	11.513	12.098	11.418	12.595	TOTAL	136258.9523	859			
	N	101	477	104	682	BETWEEN GROUPS	8320.3710	2	4160.1855	27.5381	0.0722
38	M	105.485	113.805	117.731	113.172	WITHIN GROUPS	102576.5572	679	151.0700		
	SD	13.208	12.012	12.635	12.761	TOTAL	110896.9282	681			
	N	58	296	65	419	BETWEEN GROUPS	2.7131	2	1.3566	0.8711	-0.0006
39	M	2.741	2.524	2.646	2.573	WITHIN GROUPS	647.8167	416	1.5573		
	SD	1.163	1.267	1.230	1.248	TOTAL	650.5298	418			
	N	123	584	134	841	BETWEEN GROUPS	42921.6098	2	21460.8049	69.0954	0.1394
40	M	66.317	78.863	92.142	79.144	WITHIN GROUPS	260279.9812	838	310.5966		
	SD	17.356	17.931	16.469	18.999	TOTAL	303201.5910	840			
	N	126	589	136	851	BETWEEN GROUPS	20126.6302	2	10063.3151	40.3984	0.0847
41	M	58.976	68.448	76.507	68.334	WITHIN GROUPS	211238.5918	848	249.1021		
	SD	14.453	16.280	14.726	16.498	TOTAL	231365.2221	850			
	N	122	585	135	842	BETWEEN GROUPS	43621.8273	2	21810.9137	49.9587	0.1042
42	M	53.852	69.113	79.800	68.615	WITHIN GROUPS	366289.4981	839	436.5787		
	SD	18.864	21.257	21.043	22.077	TOTAL	409911.3254	841			
	N	124	590	132	846	BETWEEN GROUPS	7550.6768	2	3775.3384	26.7497	0.0574
43	M	66.847	73.308	77.606	73.032	WITHIN GROUPS	118977.4615	843	141.1358		
	SD	10.681	12.279	11.099	12.237	TOTAL	126528.1383	845			
	N	120	561	129	810	BETWEEN GROUPS	20987.0029	2	10493.5015	57.4823	0.1224
44	M	63.583	73.758	81.922	73.551	WITHIN GROUPS	147319.4218	807	182.5519		
	SD	12.276	13.945	12.651	14.424	TOTAL	168306.4247	809			
	N	90	439	92	621	BETWEEN GROUPS	12199.2984	2	6099.6492	21.7222	0.0626
45	M	94.778	104.073	111.054	103.760	WITHIN GROUPS	173535.9512	618	280.8025		
	SD	21.266	16.557	12.050	17.308	TOTAL	185735.2496	620			
	N	90	439	92	621	BETWEEN GROUPS	16574.2554	2	8287.1277	38.4552	0.1076
46	M	95.467	106.419	114.413	106.016	WITHIN GROUPS	133179.5836	618	215.5009		
	SD	18.856	14.557	9.790	15.542	TOTAL	149753.8390	620			
	N	90	439	92	621	BETWEEN GROUPS	14267.3112	2	7133.6556	34.7453	0.0980
47	M	95.144	105.180	112.750	104.847	WITHIN GROUPS	126883.1558	618	205.3125		
	SD	18.346	14.246	9.396	15.088	TOTAL	141150.4670	620			
	N	101	501	104	706	BETWEEN GROUPS	1161.5583	2	580.7791	20.7780	0.0531
48	M	12.465	15.307	17.163	15.174	WITHIN GROUPS	19650.0125	703	27.9517		
	SD	5.487	5.198	5.511	5.433	TOTAL	20811.5708	705			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14E: WHITE MALES - High IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	102	496	99	697	BETWEEN GROUPS	920.0492	2	460.0246	16.2647	0.0420
49	M	14.882	17.319	19.121	17.218	WITHIN GROUPS	19628.8030	694	28.2836		
	SD	6.191	5.145	5.203	5.434	TOTAL	20548.8522	696			
	N	103	497	110	710	BETWEEN GROUPS	1157.0420	2	578.5210	29.7628	0.0749
50	M	11.981	14.549	16.636	14.500	WITHIN GROUPS	13742.4580	707	19.4377		
	SD	3.686	4.472	4.729	4.584	TOTAL	14899.5000	709			
	N	104	504	109	717	BETWEEN GROUPS	1026.6107	2	513.3053	16.2097	0.0407
51	M	14.923	16.968	19.303	17.026	WITHIN GROUPS	22609.8859	714	31.6665		
	SD	5.260	5.704	5.607	5.746	TOTAL	23636.4965	716			
	N	103	503	107	713	BETWEEN GROUPS	1772.2821	2	886.1410	35.1941	0.0875
52	M	12.670	16.024	18.439	15.902	WITHIN GROUPS	17876.8456	710	25.1787		
	SD	5.051	5.032	4.919	5.253	TOTAL	19649.1276	712			
	N	105	503	105	713	BETWEEN GROUPS	1438.9262	2	719.4631	20.8684	0.0528
53	M	11.895	15.139	17.000	14.935	WITHIN GROUPS	24478.1061	710	34.4762		
	SD	5.960	5.740	6.387	6.033	TOTAL	25917.0323	712			
	N	101	506	106	713	BETWEEN GROUPS	1465.4990	2	732.7495	26.6954	0.0672
54	M	10.624	13.678	15.915	13.578	WITHIN GROUPS	19488.4309	710	27.4485		
	SD	5.267	5.124	5.736	5.425	TOTAL	20953.9299	712			
	N	104	503	103	710	BETWEEN GROUPS	1921.6369	2	960.8185	45.4692	0.1113
55	M	12.606	15.920	18.680	15.835	WITHIN GROUPS	14940.0828	707	21.1317		
	SD	4.822	4.654	4.049	4.877	TOTAL	16861.7197	709			
	N	102	497	105	704	BETWEEN GROUPS	1201.2547	2	600.6273	21.9267	0.0561
56	M	12.863	15.628	17.648	15.528	WITHIN GROUPS	19202.1772	701	27.3925		
	SD	5.657	5.079	5.526	5.387	TOTAL	20403.4318	703			
	N	143	680	161	984	BETWEEN GROUPS	57869.0449	2	28934.5225	1352.6288	0.7331
57	M	86.231	99.875	113.826	100.175	WITHIN GROUPS	20984.8901	981	21.3913		
	SD	4.405	4.485	5.345	8.956	TOTAL	78853.9350	983			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14D: WHITE MALES - Low IQ

NO OF VARIABLES = 57 CLASSIFICATION VAR = # 57 WITH ELIMINATION CODE FOR CLAS. VAR = 999.000

CLAS CATEGORY UPPER LIMITS = 91.000, 108.000, 990.000, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,

RESTRICTION VAR = # 8 WITH RANGE OF 50.000 TO 99.000

CODES TO BE EXCLUDED FOR VARS 1 TO 57 ARE 0.0 , 0.0 , 0.0 , -9.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 1.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 999.000,

FORMAT OF DATA IS (57F6.0)

MAX # OF OBS TO BE INCLUDED THIS PROBLEM = 1696 DATA TO BE READ FROM TAPE WITHOUT REWIND

GROUP 1 = UNDERACHIEVERS

GROUP 2 = AVERAGE ACHIEVERS

GROUP 3 = OVERACHIEVERS

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14D: WHITE MALES - Low IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	105	425	110	640	BETWEEN GROUPS	848.6569	2	424.3285	6.4826	0.0168
1	M	141.324	142.798	145.209	142.970	WITHIN GROUPS	41695.7790	637	65.4565		
	SD	6.880	8.002	9.395	8.160	TOTAL	42544.4359	639			
	N	97	404	104	605	BETWEEN GROUPS	15.0626	2	7.5313	3.2042	0.0072
2	M	4.381	4.176	3.846	4.152	WITHIN GROUPS	1414.9473	602	2.3504		
	SD	1.425	1.539	1.606	1.539	TOTAL	1430.0099	604			
	N	98	402	103	603	BETWEEN GROUPS	10.2920	2	5.1460	2.5346	0.0051
3	M	4.316	4.072	3.864	4.076	WITHIN GROUPS	1218.1989	600	2.0303		
	SD	1.389	1.457	1.329	1.429	TOTAL	1228.4909	602			
	N	105	425	110	640	BETWEEN GROUPS	29.8806	2	14.9403	3.9753	0.0092
4	M	2.629	2.445	1.936	2.387	WITHIN GROUPS	2394.0194	637	3.7583		
	SD	2.100	1.978	1.593	1.948	TOTAL	2423.9000	639			
	N	93	396	103	592	BETWEEN GROUPS	11.1102	2	5.5551	3.0146	0.0068
5	M	4.720	4.583	4.272	4.551	WITHIN GROUPS	1085.3695	589	1.8427		
	SD	1.288	1.328	1.522	1.362	TOTAL	1096.4797	591			
	N	98	395	102	595	BETWEEN GROUPS	4.4723	2	2.2362	2.4826	0.0050
6	M	3.673	3.592	3.392	3.571	WITHIN GROUPS	533.2420	592	0.9007		
	SD	0.917	0.934	1.036	0.951	TOTAL	537.7143	594			
	N	94	386	103	583	BETWEEN GROUPS	884.5707	2	442.2854	27.2403	0.0826
7	M	13.245	15.648	17.476	15.583	WITHIN GROUPS	9417.1446	580	16.2365		
	SD	3.570	4.152	3.953	4.207	TOTAL	10301.7153	582			
	N	105	425	110	640	BETWEEN GROUPS	1387.7155	2	693.8578	7.0646	0.0186
8	M	88.990	86.593	83.918	86.527	WITHIN GROUPS	62563.8329	637	98.2164		
	SD	6.712	10.088	11.626	10.004	TOTAL	63951.5484	639			
	N	55	215	46	316	BETWEEN GROUPS	1.4881	2	0.7441	0.3489	-0.0041
9	M	2.927	2.912	3.109	2.943	WITHIN GROUPS	667.4865	313	2.1325		
	SD	1.372	1.436	1.663	1.457	TOTAL	668.9747	315			
	N	61	235	53	349	BETWEEN GROUPS	2.1296	2	1.0648	0.6653	-0.0019
10	M	2.475	2.545	2.736	2.562	WITHIN GROUPS	553.7959	346	1.6006		
	SD	1.273	1.271	1.227	1.264	TOTAL	555.9255	348			
	N	74	271	60	405	BETWEEN GROUPS	5.9699	2	2.9849	1.9371	0.0046
11	M	2.865	2.546	2.650	2.620	WITHIN GROUPS	619.4721	402	1.5410		
	SD	1.398	1.179	1.313	1.244	TOTAL	625.4420	404			
	N	80	303	69	452	BETWEEN GROUPS	0.2515	2	0.1257	0.0718	-0.0041
12	M	2.350	2.413	2.391	2.398	WITHIN GROUPS	786.0671	449	1.7507		
	SD	1.284	1.339	1.297	1.320	TOTAL	786.3186	451			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14D: WHITE MALES - Low IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	70	259	62	391	BETWEEN GROUPS	2264.8122	2	1132.4061	20.5928	0.0911
13	M	26.800	30.564	35.097	30.609	WITHIN GROUPS	21336.3182	388	54.9905		
	SD	6.678	7.281	8.668	7.779	TOTAL	23601.1304	390			
	N	105	425	110	640	BETWEEN GROUPS	30074.7735	2	15037.3867	143.9367	0.3088
14	M	30.095	41.014	53.682	41.400	WITHIN GROUPS	66548.8265	637	104.4723		
	SD	6.414	10.392	12.296	12.297	TOTAL	96623.6000	639			
	N	86	346	86	518	BETWEEN GROUPS	2.6397	2	1.3199	5.3611	0.0166
15	M	2.430	2.494	2.663	2.512	WITHIN GROUPS	126.7908	515	0.2462		
	SD	0.498	0.501	0.476	0.500	TOTAL	129.4305	517			
	N	105	422	110	637	BETWEEN GROUPS	14488.7583	2	7244.3791	98.0298	0.2335
16	M	40.552	49.123	56.973	49.066	WITHIN GROUPS	46852.4725	634	73.8998		
	SD	7.079	8.864	8.861	9.821	TOTAL	61341.2308	636			
	N	73	274	62	409	BETWEEN GROUPS	356.4727	2	178.2364	0.7473	-0.0012
17	M	98.205	97.748	100.403	98.232	WITHIN GROUPS	96828.4613	406	238.4937		
	SD	15.348	15.049	17.198	15.434	TOTAL	97184.9340	408			
	N	105	425	110	640	BETWEEN GROUPS	25696.2293	2	12848.1147	166.8863	0.3414
18	M	33.781	44.325	55.627	44.537	WITHIN GROUPS	49040.8707	637	76.9872		
	SD	5.796	9.075	9.873	10.815	TOTAL	74737.1000	639			
	N	105	418	109	632	BETWEEN GROUPS	2354.2744	2	1177.1372	21.8462	0.0619
19	M	50.981	54.433	57.615	54.408	WITHIN GROUPS	33892.4028	629	53.8830		
	SD	7.022	7.352	7.590	7.579	TOTAL	36246.6772	631			
	N	105	417	109	631	BETWEEN GROUPS	5608.7095	2	2804.3547	42.0211	0.1151
20	M	45.181	51.019	55.367	50.799	WITHIN GROUPS	41910.7295	628	66.7368		
	SD	7.098	8.452	8.023	8.685	TOTAL	47519.4390	630			
	N	96	387	99	582	BETWEEN GROUPS	1170.1136	2	585.0568	15.7372	0.0482
21	M	20.667	21.873	25.222	22.244	WITHIN GROUPS	21525.2403	579	37.1766		
	SD	5.311	5.985	7.158	6.250	TOTAL	22695.3540	581			
	N	96	387	99	582	BETWEEN GROUPS	1249.5791	2	624.7895	14.1974	0.0434
22	M	21.552	22.411	26.051	22.888	WITHIN GROUPS	25480.1615	579	44.0072		
	SD	6.309	6.417	7.695	6.783	TOTAL	26729.7405	581			
	N	71	316	87	474	BETWEEN GROUPS	270.4293	2	135.2147	2.2656	0.0053
23	M	21.324	21.614	23.494	21.916	WITHIN GROUPS	28110.1952	471	59.6819		
	SD	7.201	7.410	9.140	7.746	TOTAL	28380.6245	473			
	N	96	387	99	582	BETWEEN GROUPS	1217.4347	2	608.7173	13.1224	0.0400
24	M	20.510	22.101	25.313	22.385	WITHIN GROUPS	26858.3523	579	46.3875		
	SD	6.276	6.694	7.705	6.951	TOTAL	28075.7869	581			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-140: WHITE MALES - Low IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	30	141	49	220	BETWEEN GROUPS	293.2401	2	146.6201	2.1450	0.0103
25	M	20.467	20.837	23.531	21.386	WITHIN GROUPS	14832.9190	217	68.3545		
	SD	5.923	8.243	9.467	8.311	TOTAL	15126.1591	219			
	N	96	387	98	581	BETWEEN GROUPS	411.5846	2	205.7923	3.3497	0.0080
26	M	28.958	28.762	31.041	29.179	WITHIN GROUPS	35509.7993	578	61.4356		
	SD	6.967	7.928	8.272	7.870	TOTAL	35921.3838	580			
	N	17	87	33	137	BETWEEN GROUPS	362.9494	2	181.4747	1.9663	0.0139
27	M	16.059	17.494	20.909	18.139	WITHIN GROUPS	12367.4156	134	92.2941		
	SD	9.337	9.156	10.844	9.675	TOTAL	12730.3650	136			
	N	94	381	97	572	BETWEEN GROUPS	1107.4404	2	553.7202	7.3830	0.0218
28	M	26.957	29.050	31.742	29.163	WITHIN GROUPS	42674.4390	569	74.9990		
	SD	7.851	8.652	9.407	8.756	TOTAL	43781.8794	571			
	N	87	368	93	548	BETWEEN GROUPS	438.7767	2	219.3884	3.1488	0.0078
29	M	26.621	27.201	29.409	27.484	WITHIN GROUPS	37972.0754	545	69.6735		
	SD	7.979	8.408	8.441	8.380	TOTAL	38410.8522	547			
	N	96	386	98	580	BETWEEN GROUPS	225.0463	2	112.5232	1.7517	0.0026
30	M	36.177	35.650	37.337	36.022	WITHIN GROUPS	37063.6623	577	64.2351		
	SD	7.035	8.378	7.420	8.025	TOTAL	37288.7086	579			
	N	95	388	99	582	BETWEEN GROUPS	1564.4664	2	782.2332	15.2432	0.0467
31	M	21.842	23.812	27.354	24.093	WITHIN GROUPS	29712.5233	579	51.3170		
	SD	6.795	7.046	7.929	7.337	TOTAL	31276.9897	581			
	N	87	361	93	541	BETWEEN GROUPS	1181.5707	2	590.7853	10.5290	0.0340
32	M	21.851	23.127	26.602	23.519	WITHIN GROUPS	30187.4755	538	56.1105		
	SD	7.327	7.104	8.971	7.622	TOTAL	31369.0462	540			
	N	73	329	89	491	BETWEEN GROUPS	357.5621	2	178.7811	3.5782	0.0104
33	M	23.658	23.477	25.719	23.910	WITHIN GROUPS	24382.4949	488	49.9641		
	SD	7.006	6.737	8.230	7.106	TOTAL	24740.0570	490			
	N	64	276	83	423	BETWEEN GROUPS	244.4732	2	122.2366	2.2892	0.0061
34	M	20.766	21.351	23.084	21.603	WITHIN GROUPS	22426.8034	420	53.3972		
	SD	6.271	7.231	8.241	7.330	TOTAL	22671.2766	422			
	N	47	207	64	318	BETWEEN GROUPS	269.0815	2	134.5407	3.0201	0.0125
35	M	22.830	22.831	25.125	23.292	WITHIN GROUPS	14032.7204	315	44.5483		
	SD	7.349	6.427	6.945	6.717	TOTAL	14301.8019	317			
	N	37	171	58	266	BETWEEN GROUPS	283.4515	2	141.7258	3.3854	0.0176
36	M	24.486	26.275	27.983	26.398	WITHIN GROUPS	11010.3079	263	41.8643		
	SD	6.225	6.284	7.134	6.528	TOTAL	11293.7594	265			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14D: WHITE MALES - Low IQ

J		1	2	3	TOTAL
37	N	92	385	96	573
	M	84.457	88.636	93.813	88.832
	SD	9.062	10.602	12.849	11.100
38	N	55	240	74	369
	M	90.164	94.317	97.905	94.417
	SD	9.676	10.467	11.521	10.788
39	N	27	138	47	212
	M	3.037	2.891	2.936	2.920
	SD	1.192	1.305	1.223	1.269
40	N	87	372	97	556
	M	46.402	52.019	60.268	52.579
	SD	11.577	13.173	15.450	13.949
41	N	90	374	96	560
	M	44.578	48.722	53.135	48.813
	SD	10.373	11.682	13.257	12.007
42	N	74	336	93	503
	M	38.095	41.720	48.624	42.463
	SD	17.052	16.398	19.487	17.365
43	N	91	366	96	553
	M	54.341	56.902	60.490	57.103
	SD	8.989	9.460	11.874	9.995
44	N	81	350	95	526
	M	47.309	51.551	58.137	52.087
	SD	8.541	9.891	12.511	10.701
45	N	49	213	62	324
	M	68.980	76.671	83.887	76.889
	SD	17.636	20.250	22.390	20.711
46	N	48	212	62	322
	M	66.500	79.042	90.323	79.345
	SD	20.006	19.595	20.420	20.934
47	N	48	213	62	323
	M	67.646	77.643	87.097	77.972
	SD	17.698	18.412	20.038	19.416
48	N	62	270	73	405
	M	8.419	10.004	11.384	10.010
	SD	4.302	4.378	4.261	4.419

SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
BETWEEN GROUPS	4157.3742	2	2078.6871	17.8661	0.0556
WITHIN GROUPS	66318.5420	570	116.3483		
TOTAL	70475.9162	572			
BETWEEN GROUPS	1897.9306	2	948.9653	8.4858	0.0390
WITHIN GROUPS	40929.7984	366	111.8301		
TOTAL	42827.7290	368			
BETWEEN GROUPS	0.4958	2	0.2479	0.1528	-0.0081
WITHIN GROUPS	339.1410	209	1.6227		
TOTAL	339.6368	211			
BETWEEN GROUPS	9170.6992	2	4585.3496	25.6590	0.0815
WITHIN GROUPS	98822.8187	553	178.7031		
TOTAL	107993.5180	555			
BETWEEN GROUPS	3411.0371	2	1705.5186	12.3088	0.0388
WITHIN GROUPS	77178.2754	557	138.5606		
TOTAL	80589.3125	559			
BETWEEN GROUPS	5127.2014	2	2563.6007	8.7651	0.0300
WITHIN GROUPS	146239.8682	500	292.4797		
TOTAL	151367.0696	502			
BETWEEN GROUPS	1810.2366	2	905.1183	9.3345	0.0293
WITHIN GROUPS	53330.8882	550	96.9653		
TOTAL	55141.1248	552			
BETWEEN GROUPS	5426.8979	2	2713.4489	25.9472	0.0866
WITHIN GROUPS	54693.0793	523	104.5757		
TOTAL	60119.9772	525			
BETWEEN GROUPS	6111.8154	2	3055.9077	7.4066	0.0380
WITHIN GROUPS	132442.1846	321	412.5925		
TOTAL	138554.0000	323			
BETWEEN GROUPS	15410.5697	2	7705.2849	19.6221	0.1037
WITHIN GROUPS	125266.1663	319	392.6839		
TOTAL	140676.7360	321			
BETWEEN GROUPS	10303.4681	2	5151.7340	14.8404	0.0789
WITHIN GROUPS	111085.2812	320	347.1415		
TOTAL	121388.7492	322			
BETWEEN GROUPS	294.6071	2	147.3036	7.7984	0.0325
WITHIN GROUPS	7593.3533	402	18.8889		
TOTAL	7887.9605	404			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-140: WHITE MALES - Low IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	62	264	77	403	BETWEEN GROUPS	252.8601	2	126.4300	4.7922	0.0185
49	M	9.984	11.102	12.636	11.223	WITHIN GROUPS	10553.0407	400	26.3826		
	SD	4.717	5.127	5.482	5.185	TOTAL	10805.9007	402			
	N	63	269	78	410	BETWEEN GROUPS	205.3287	2	102.6644	7.1352	0.0291
50	M	8.063	9.323	10.487	9.351	WITHIN GROUPS	5856.0957	407	14.3884		
	SD	3.906	3.693	4.038	3.850	TOTAL	6061.4244	409			
	N	62	265	77	404	BETWEEN GROUPS	274.5698	2	137.2849	6.4518	0.0263
51	M	9.710	10.740	12.429	10.903	WITHIN GROUPS	8532.6653	401	21.2785		
	SD	3.969	4.618	5.056	4.675	TOTAL	8807.2351	403			
	N	62	269	73	404	BETWEEN GROUPS	277.9780	2	138.9890	8.4848	0.0357
52	M	8.823	9.996	11.644	10.114	WITHIN GROUPS	6568.7844	401	16.3810		
	SD	4.010	3.799	4.889	4.122	TOTAL	6846.7624	403			
	N	60	271	79	410	BETWEEN GROUPS	314.2283	2	157.1142	7.7675	0.0320
53	M	7.883	9.092	10.823	9.249	WITHIN GROUPS	8232.3960	407	20.2270		
	SD	4.005	4.374	5.213	4.571	TOTAL	8546.6244	409			
	N	62	271	75	408	BETWEEN GROUPS	467.0804	2	233.5402	14.5204	0.0622
54	M	5.661	7.860	9.360	7.801	WITHIN GROUPS	6513.8387	405	16.0836		
	SD	3.648	3.845	4.806	4.142	TOTAL	6980.9191	407			
	N	63	271	79	413	BETWEEN GROUPS	362.5003	2	181.2502	10.6707	0.0447
55	M	8.143	9.720	11.342	9.789	WITHIN GROUPS	6964.1728	410	16.9858		
	SD	3.826	4.055	4.551	4.217	TOTAL	7326.6731	412			
	N	64	269	77	410	BETWEEN GROUPS	383.7868	2	191.8934	10.9832	0.0460
56	M	8.187	9.758	11.481	9.837	WITHIN GROUPS	7176.2645	407	17.6321		
	SD	4.489	4.088	4.333	4.299	TOTAL	7560.0512	409			
	N	105	425	110	640	BETWEEN GROUPS	35759.2235	2	17879.6117	917.6170	0.7412
57	M	87.495	99.894	113.264	100.158	WITHIN GROUPS	12411.8375	637	19.4848		
	SD	3.334	4.647	4.391	8.682	TOTAL	48171.0609	639			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14B: WHITE FEMALES - High SES

NO OF VARIABLES = 57 CLASSIFICATION VAR = # 57 WITH ELIMINATION CODE FOR CLAS. VAR = 999.000

CLAS CATEGORY UPPER LIMITS = 91.000, 108.000, 990.000, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,

RESTRICTION VAR = # 6 WITH RANGE OF 1.000 TO 3.000

CODES TO BE EXCLUDED FOR VARS 1 TO 57 ARE 0.0 , 0.0 , 0.0 , -9.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 1.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 999.000,

FORMAT OF DATA IS (57F6.0)

MAX # OF OBS TO BE INCLUDED THIS PROBLEM = 1670 DATA TO BE READ FROM TAPE WITHOUT REWIND

GROUP 1 = UNDERACHIEVERS

GROUP 2 = AVERAGE ACHIEVERS

GROUP 3 = OVERACHIEVERS

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-148: WHITE FEMALES - High SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	93	491	148	732	BETWEEN GROUPS	678.9598	2	339.4799	14.6910	0.0361
1	M	136.269	138.149	139.696	138.223	WITHIN GROUPS	16845.7438	729	23.1080		
	SD	5.230	4.725	4.802	4.896	TOTAL	17524.7036	731			
	N	93	488	147	728	BETWEEN GROUPS	20.1520	2	10.0760	3.8907	0.0079
2	M	2.796	2.502	2.211	2.481	WITHIN GROUPS	1877.5788	725	2.5898		
	SD	1.619	1.614	1.589	1.616	TOTAL	1897.7308	727			
	N	93	488	148	729	BETWEEN GROUPS	19.5139	2	9.7569	3.9774	0.0081
3	M	3.484	3.008	2.959	3.059	WITHIN GROUPS	1780.9498	726	2.4531		
	SD	1.508	1.584	1.542	1.573	TOTAL	1800.4636	728			
	N	93	491	148	732	BETWEEN GROUPS	0.3811	2	0.1906	0.1223	-0.0024
4	M	1.839	1.782	1.824	1.798	WITHIN GROUPS	1135.6954	729	1.5579		
	SD	1.296	1.274	1.123	1.247	TOTAL	1136.0765	731			
	N	92	479	145	716	BETWEEN GROUPS	6.9959	2	3.4979	2.4187	0.0039
5	M	3.120	2.871	2.772	2.883	WITHIN GROUPS	1031.1494	713	1.4462		
	SD	1.098	1.203	1.262	1.205	TOTAL	1038.1453	715			
	N	93	491	148	732	BETWEEN GROUPS	6.1158	2	3.0579	4.2581	0.0088
6	M	2.462	2.263	2.135	2.262	WITHIN GROUPS	523.5235	729	0.7181		
	SD	0.760	0.858	0.862	0.851	TOTAL	529.6393	731			
	N	90	478	145	713	BETWEEN GROUPS	867.6521	2	433.8260	20.6663	0.0523
7	M	19.722	21.914	23.655	21.992	WITHIN GROUPS	14904.2974	710	20.9920		
	SD	4.878	4.561	4.459	4.707	TOTAL	15771.9495	712			
	N	93	491	148	732	BETWEEN GROUPS	420.6200	2	210.3100	0.9810	-0.0001
8	M	108.581	110.275	108.716	109.745	WITHIN GROUPS	156288.6081	729	214.3877		
	SD	13.078	14.263	16.674	14.642	TOTAL	156709.2281	731			
	N	48	259	68	375	BETWEEN GROUPS	1.4988	2	0.7494	0.4730	-0.0028
9	M	3.062	3.093	3.250	3.117	WITHIN GROUPS	589.3386	372	1.5842		
	SD	1.080	1.276	1.309	1.257	TOTAL	590.8373	374			
	N	55	289	77	421	BETWEEN GROUPS	9.3008	2	4.6504	3.0038	0.0094
10	M	2.800	2.713	3.104	2.796	WITHIN GROUPS	647.1315	418	1.5482		
	SD	1.208	1.224	1.343	1.250	TOTAL	656.4323	420			
	N	62	336	87	485	BETWEEN GROUPS	2.8608	2	1.4304	0.8773	-0.0005
11	M	2.964	2.884	3.080	2.932	WITHIN GROUPS	785.8939	482	1.6305		
	SD	1.094	1.328	1.193	1.277	TOTAL	788.7546	484			
	N	70	374	103	547	BETWEEN GROUPS	0.6072	2	0.3036	0.2180	-0.0029
12	M	2.457	2.412	2.495	2.433	WITHIN GROUPS	757.7072	544	1.3928		
	SD	1.259	1.161	1.195	1.178	TOTAL	758.3144	546			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14B: WHITE FEMALES - High SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	56	310	77	443	BETWEEN GROUPS	2844.0593	2	1422.0296	24.9177	0.0975
13	M	37.125	42.803	46.481	42.725	WITHIN GROUPS	25110.3426	440	57.0690		
	SD	8.602	7.414	7.306	7.953	TOTAL	27954.4018	442			
	N	93	491	148	732	BETWEEN GROUPS	37143.3344	2	18571.6672	41.1911	0.0989
14	M	52.043	65.316	77.270	66.046	WITHIN GROUPS	328681.0864	729	450.8657		
	SD	39.928	17.675	14.029	22.371	TOTAL	365824.4208	731			
	N	72	378	104	554	BETWEEN GROUPS	0.1547	2	0.0774	0.7035	-0.0011
15	M	2.917	2.892	2.933	2.903	WITHIN GROUPS	60.5818	551	0.1099		
	SD	0.366	0.328	0.320	0.331	TOTAL	60.7365	553			
	N	93	491	147	731	BETWEEN GROUPS	31296.7964	2	15648.3982	103.3512	0.2188
16	M	56.194	66.988	79.014	68.033	WITHIN GROUPS	110226.4156	728	151.4099		
	SD	10.544	11.631	14.669	13.924	TOTAL	141523.2120	730			
	N	59	318	84	461	BETWEEN GROUPS	704.5254	2	352.2627	1.6176	0.0027
17	M	109.441	112.333	113.929	112.254	WITHIN GROUPS	99738.7805	458	217.7703		
	SD	14.870	14.231	16.542	14.777	TOTAL	100443.3059	460			
	N	93	491	148	732	BETWEEN GROUPS	42079.1340	2	21039.5670	160.1580	0.3031
18	M	51.161	65.454	78.047	66.184	WITHIN GROUPS	95766.9685	729	131.3676		
	SD	10.191	11.299	12.687	13.732	TOTAL	137846.1025	731			
	N	91	485	148	724	BETWEEN GROUPS	2417.0872	2	1208.5436	24.4283	0.0608
19	M	59.440	63.880	65.953	63.746	WITHIN GROUPS	35670.1504	721	49.4732		
	SD	7.516	6.856	7.296	7.258	TOTAL	38087.2376	723			
	N	92	484	144	720	BETWEEN GROUPS	5330.7167	2	2665.3584	37.5512	0.0922
20	M	60.152	66.653	69.847	66.461	WITHIN GROUPS	50892.1944	717	70.9794		
	SD	8.904	8.425	8.104	8.843	TOTAL	56222.9111	719			
	N	89	453	130	672	BETWEEN GROUPS	2405.4610	2	1202.7305	17.5150	0.0468
21	M	32.607	36.260	39.331	36.371	WITHIN GROUPS	45939.2756	669	68.6686		
	SD	8.307	8.384	7.922	8.488	TOTAL	48344.7366	671			
	N	89	453	130	672	BETWEEN GROUPS	2822.7239	2	1411.3620	20.1015	0.0538
22	M	32.157	36.327	39.462	36.381	WITHIN GROUPS	46971.7522	669	70.2119		
	SD	8.532	8.493	7.856	8.614	TOTAL	49794.4762	671			
	N	79	400	114	593	BETWEEN GROUPS	2437.0046	2	1218.5023	14.9340	0.0449
23	M	28.506	32.932	35.728	32.880	WITHIN GROUPS	48139.4945	590	81.5924		
	SD	8.223	9.148	9.156	9.243	TOTAL	50576.4992	592			
	N	89	453	130	672	BETWEEN GROUPS	1214.5751	2	607.2876	7.5428	0.0191
24	M	31.697	34.380	30.485	34.436	WITHIN GROUPS	53862.6734	669	80.5122		
	SD	9.041	9.038	8.694	9.060	TOTAL	55077.2485	671			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14B: WHITE FEMALES - High SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	56	319	80	455	BETWEEN GROUPS	1117.7486	2	558.8743	4.9786	0.0172
25	M	30.339	31.661	35.425	32.160	WITHIN GROUPS	50739.5393	452	112.2556		
	SD	8.758	10.652	11.497	10.688	TOTAL	51857.2879	454			
	N	87	452	130	669	BETWEEN GROUPS	1513.2662	2	756.6331	12.2742	0.0326
26	M	34.908	38.259	40.292	38.218	WITHIN GROUPS	41054.8713	666	61.6440		
	SD	7.585	7.914	7.805	7.983	TOTAL	42568.1375	668			
	N	34	254	77	365	BETWEEN GROUPS	3557.9866	2	1778.9933	14.4346	0.0660
27	M	26.441	32.933	38.312	33.463	WITHIN GROUPS	44614.7640	362	123.2452		
	SD	10.258	11.319	10.716	11.504	TOTAL	48172.7507	364			
	N	88	450	127	665	BETWEEN GROUPS	1164.8353	2	582.4177	12.2584	0.0328
28	M	39.670	42.560	44.402	42.529	WITHIN GROUPS	31452.8429	662	47.5118		
	SD	7.122	6.995	6.345	7.009	TOTAL	32617.6782	664			
	N	83	426	121	630	BETWEEN GROUPS	600.3236	2	300.1618	5.1493	0.0130
29	M	37.651	39.648	41.140	39.671	WITHIN GROUPS	36548.6621	627	58.2913		
	SD	7.702	7.638	7.576	7.685	TOTAL	37148.9857	629			
	N	68	450	128	666	BETWEEN GROUPS	388.2461	2	194.1230	3.8788	0.0086
30	M	38.500	40.476	41.141	40.342	WITHIN GROUPS	33181.6999	663	50.0478		
	SD	6.846	7.090	7.171	7.105	TOTAL	33569.9459	665			
	N	90	458	128	676	BETWEEN GROUPS	3557.6154	2	1778.8077	22.5927	0.0600
31	M	33.889	38.740	42.094	38.729	WITHIN GROUPS	52987.8447	673	78.7338		
	SD	9.998	8.867	8.014	9.153	TOTAL	56545.4601	675			
	N	81	424	122	627	BETWEEN GROUPS	3642.0124	2	1821.0062	20.4315	0.0584
32	M	32.593	36.974	41.148	37.220	WITHIN GROUPS	55615.6144	624	89.1276		
	SD	9.052	9.651	8.936	9.729	TOTAL	59257.6268	626			
	N	78	404	115	597	BETWEEN GROUPS	2317.2516	2	1158.6258	14.5499	0.0434
33	M	31.269	35.822	38.304	35.705	WITHIN GROUPS	47300.8623	594	79.6311		
	SD	7.702	9.085	9.114	9.124	TOTAL	49618.1139	596			
	N	75	390	109	574	BETWEEN GROUPS	2204.6977	2	1102.3489	13.3188	0.0412
34	M	28.933	32.149	35.826	32.427	WITHIN GROUPS	47259.7291	571	82.7566		
	SD	7.193	9.308	9.490	9.291	TOTAL	49464.4268	573			
	N	68	355	98	521	BETWEEN GROUPS	1251.7557	2	625.8779	8.5912	0.0283
35	M	30.426	33.194	35.949	33.351	WITHIN GROUPS	37736.9660	518	72.8513		
	SD	7.779	8.775	8.140	8.659	TOTAL	38988.7217	520			
	N	65	336	91	492	BETWEEN GROUPS	901.3607	2	450.6804	8.2879	0.0288
36	M	32.938	35.839	37.813	35.821	WITHIN GROUPS	26590.8995	489	54.3781		
	SD	7.506	7.327	7.453	7.483	TOTAL	27492.2602	491			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-148: WHITE FEMALES - High SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	88	455	130	673	BETWEEN GROUPS	7213.1824	2	3606.5912	18.4048	0.0492
37	M	103.591	110.220	115.300	110.334	WITHIN GROUPS	131292.5947	670	195.9591		
	SD	13.507	13.596	15.619	14.357	TOTAL	138505.7771	672			
	N	69	355	95	519	BETWEEN GROUPS	5339.0069	2	2669.5034	14.3474	0.0489
38	M	105.159	111.090	116.653	111.320	WITHIN GROUPS	96007.8987	516	186.0618		
	SD	12.839	13.573	14.435	13.988	TOTAL	101346.9056	518			
	N	40	238	74	352	BETWEEN GROUPS	0.4613	2	0.2306	0.1377	-0.0049
39	M	3.025	3.004	3.095	3.026	WITHIN GROUPS	584.3086	349	1.6742		
	SD	1.291	1.301	1.273	1.291	TOTAL	584.7699	351			
	N	86	444	126	656	BETWEEN GROUPS	24349.0110	2	12174.5055	34.5515	0.0928
40	M	67.651	78.912	89.310	79.433	WITHIN GROUPS	230090.0378	653	352.3584		
	SD	15.595	19.284	18.905	19.709	TOTAL	254439.0488	655			
	N	88	447	127	662	BETWEEN GROUPS	18081.0956	2	9040.5478	29.4150	0.0791
41	M	64.727	73.342	83.016	74.053	WITHIN GROUPS	202540.0539	659	307.3445		
	SD	16.541	17.365	18.739	18.269	TOTAL	220621.1495	661			
	N	85	443	125	653	BETWEEN GROUPS	26800.9636	2	13400.4818	26.6048	0.0727
42	M	63.294	77.293	86.304	77.196	WITHIN GROUPS	327395.9461	650	503.6861		
	SD	20.879	22.499	23.252	23.308	TOTAL	354196.9096	652			
	N	84	440	125	649	BETWEEN GROUPS	3678.2752	2	1839.1376	12.3740	0.0339
43	M	65.821	71.320	74.352	71.193	WITHIN GROUPS	96014.6493	646	148.6295		
	SD	10.295	12.098	13.610	12.404	TOTAL	99692.9245	648			
	N	82	435	122	639	BETWEEN GROUPS	16592.8650	2	8296.4325	37.4455	0.1024
44	M	65.732	74.593	83.828	75.219	WITHIN GROUPS	140912.4621	636	221.5605		
	SD	12.369	14.906	16.275	15.712	TOTAL	157505.3271	638			
	N	67	340	94	501	BETWEEN GROUPS	6776.6138	2	3388.3069	8.7403	0.0300
45	M	91.627	101.265	104.223	100.531	WITHIN GROUPS	193058.1566	498	387.6670		
	SD	20.235	19.096	21.356	19.992	TOTAL	199834.7705	500			
	N	66	340	94	500	BETWEEN GROUPS	9841.5085	2	4920.7543	15.9063	0.0563
46	M	95.318	104.912	111.245	104.836	WITHIN GROUPS	153751.0435	497	309.3582		
	SD	19.625	17.416	16.518	18.106	TOTAL	163592.5520	499			
	N	67	340	94	501	BETWEEN GROUPS	9074.6418	2	4537.3209	14.7036	0.0519
47	M	92.716	103.035	107.723	102.535	WITHIN GROUPS	153675.9969	498	308.5863		
	SD	19.580	16.988	18.123	18.042	TOTAL	162750.6387	500			
	N	71	371	99	541	BETWEEN GROUPS	812.9588	2	406.4794	14.1893	0.0465
48	M	10.634	13.364	15.061	13.316	WITHIN GROUPS	15411.9912	538	28.6468		
	SD	4.984	5.369	5.542	5.481	TOTAL	16224.9501	540			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14B: WHITE FEMALES - High SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	66	372	97	537	BETWEEN GROUPS	744.5794	2	372.2897	12.6942	0.0417
49	M	11.603	14.199	15.918	14.181	WITHIN GROUPS	15660.8992	534	29.3275		
	SD	5.278	5.535	5.030	5.532	TOTAL	16405.4786	536			
	N	70	375	100	545	BETWEEN GROUPS	844.9135	2	422.4568	18.1162	0.0591
50	M	13.857	16.157	18.350	16.264	WITHIN GROUPS	12639.0388	542	23.3193		
	SD	3.762	4.691	5.888	4.979	TOTAL	13483.9523	544			
	N	70	375	99	544	BETWEEN GROUPS	200.5860	2	140.2930	4.0497	0.0111
51	M	12.657	14.211	15.273	14.204	WITHIN GROUPS	18741.7651	541	34.6428		
	SD	5.569	5.848	6.237	5.919	TOTAL	19022.3511	543			
	N	70	368	99	537	BETWEEN GROUPS	739.9817	2	369.9909	13.7617	0.0454
52	M	12.571	14.997	16.818	15.017	WITHIN GROUPS	14356.8674	534	26.8855		
	SD	4.642	5.167	5.599	5.307	TOTAL	15096.8492	536			
	N	71	371	96	538	BETWEEN GROUPS	857.6733	2	428.8367	14.2268	0.0469
53	M	11.310	13.563	15.854	13.675	WITHIN GROUPS	16126.4029	535	30.1428		
	SD	5.067	5.636	5.207	5.624	TOTAL	16984.0762	537			
	N	70	370	98	538	BETWEEN GROUPS	1020.0158	2	510.0079	17.1186	0.0565
54	M	11.329	14.232	16.327	14.236	WITHIN GROUPS	15939.0047	535	29.7925		
	SD	4.818	5.539	5.576	5.620	TOTAL	16959.0204	537			
	N	71	365	98	534	BETWEEN GROUPS	1040.8770	2	520.4385	19.5775	0.0651
55	M	12.789	15.745	17.816	15.732	WITHIN GROUPS	14115.8290	531	26.5835		
	SD	5.234	5.095	5.323	5.333	TOTAL	15156.7060	533			
	N	71	365	97	533	BETWEEN GROUPS	1146.1199	2	573.0599	18.7088	0.0623
56	M	13.028	15.685	18.278	15.803	WITHIN GROUPS	16234.1953	530	30.6306		
	SD	5.048	5.567	5.746	5.716	TOTAL	17380.3152	532			
	N	93	491	148	732	BETWEEN GROUPS	42825.4474	2	21412.7237	1011.5623	0.7341
57	M	87.022	100.124	113.818	101.228	WITHIN GROUPS	15431.4529	729	21.1680		
	SD	4.222	4.566	4.931	8.927	TOTAL	58256.9003	731			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14C: WHITE FEMALES - Low SES

NO OF VARIABLES = 57 CLASSIFICATION VAR = # 57 WITH ELIMINATION CODE FOR CLAS. VAR = 999.000

CLAS CATEGORY UPPER LIMITS = 91.000, 108.000, 990.000, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,

RESTRICTION VAR = # 6 WITH RANGE OF 4.000 TO 5.000

CODES TO BE EXCLUDED FOR VARS 1 TO 57 ARE 0.0 , 0.0 , 0.0 , -9.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 1.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 999.000,

FORMAT OF DATA IS (57F6.0)

MAX # OF OBS TO BE INCLUDED THIS PROBLEM = 1670 DATA TO BE READ FROM TAPE WITHOUT REWIND

GROUP 1 = UNDERACHIEVERS

GROUP 2 = AVERAGE ACHIEVERS

GROUP 3 = OVERACHIEVERS

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14C: WHITE FEMALES - Low SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	135	570	87	792	BETWEEN GROUPS	591.5901	2	295.7950	9.3220	0.0206
1	M	137.881	139.314	141.218	139.279	WITHIN GROUPS	25035.7420	789	31.7310		
	SD	5.059	5.700	6.022	5.692	TOTAL	25627.3321	791			
	N	134	563	87	784	BETWEEN GROUPS	4.0514	2	2.0257	2.0684	0.0027
2	M	4.681	4.687	4.713	4.723	WITHIN GROUPS	764.8861	781	0.9794		
	SD	0.997	0.992	0.963	0.991	TOTAL	768.9375	783			
	N	134	565	87	786	BETWEEN GROUPS	0.5644	2	0.2822	0.1839	-0.0021
3	M	4.231	4.281	4.333	4.279	WITHIN GROUPS	1201.4166	783	1.5344		
	SD	1.371	1.234	1.042	1.237	TOTAL	1201.9809	785			
	N	135	570	87	792	BETWEEN GROUPS	2.7774	2	1.3887	0.3849	-0.0016
4	M	2.393	2.382	2.195	2.364	WITHIN GROUPS	2846.4953	789	3.6077		
	SD	1.762	1.964	1.655	1.898	TOTAL	2849.2727	791			
	N	134	562	87	783	BETWEEN GROUPS	2.0003	2	1.0001	2.7455	0.0044
5	M	5.381	5.246	5.253	5.269	WITHIN GROUPS	284.1402	780	0.3643		
	SD	0.623	0.597	0.614	0.605	TOTAL	286.1405	782			
	N	135	570	87	792	BETWEEN GROUPS	0.4766	2	0.2383	2.0753	0.0027
6	M	4.165	4.119	4.138	4.133	WITHIN GROUPS	90.6029	789	0.1148		
	SD	0.390	0.324	0.347	0.339	TOTAL	91.0795	791			
	N	134	553	85	772	BETWEEN GROUPS	1046.9033	2	523.4516	23.8404	0.0559
7	M	17.649	19.837	22.059	19.702	WITHIN GROUPS	16884.5734	769	21.9565		
	SD	5.155	4.512	5.017	4.823	TOTAL	17931.4767	771			
	N	135	570	87	792	BETWEEN GROUPS	1437.0529	2	718.5265	3.3717	0.0060
8	M	104.393	101.435	99.506	101.727	WITHIN GROUPS	168142.0380	789	213.1078		
	SD	14.843	14.160	16.891	14.642	TOTAL	169579.0909	791			
	N	75	318	46	439	BETWEEN GROUPS	12.8404	2	6.4202	3.0261	0.0091
9	M	2.667	3.110	2.913	3.018	WITHIN GROUPS	925.0138	436	2.1216		
	SD	1.245	1.524	1.279	1.463	TOTAL	937.8542	438			
	N	80	359	57	496	BETWEEN GROUPS	2.0223	2	1.0111	0.5640	-0.0018
10	M	2.625	2.777	2.649	2.738	WITHIN GROUPS	883.9052	493	1.7929		
	SD	1.151	1.386	1.275	1.338	TOTAL	885.9274	495			
	N	93	408	66	567	BETWEEN GROUPS	5.4998	2	2.7499	1.6288	0.0022
11	M	2.634	2.841	3.000	2.825	WITHIN GROUPS	952.2145	564	1.6883		
	SD	1.159	1.301	1.468	1.301	TOTAL	957.7143	566			
	N	107	443	70	620	BETWEEN GROUPS	3.4214	2	1.7107	1.1375	0.0004
12	M	2.271	2.436	2.271	2.389	WITHIN GROUPS	927.8995	617	1.5039		
	SD	1.137	1.230	1.329	1.227	TOTAL	931.3210	619			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14C: WHITE FEMALES - Low SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	84	371	52	507	BETWEEN GROUPS	1630.5439	2	815.2720	12.1054	0.0420
13	M	36.405	39.585	43.481	39.458	WITHIN GROUPS	33943.2943	504	67.3478		
	SD	9.155	8.138	6.978	8.385	TOTAL	35573.8383	506			
	N	135	570	87	792	BETWEEN GROUPS	30887.6295	2	15443.8147	90.9717	0.1851
14	M	45.546	57.698	69.184	56.889	WITHIN GROUPS	133944.5928	789	169.7650		
	SD	12.343	12.994	14.251	14.436	TOTAL	164832.2222	791			
	N	118	473	67	658	BETWEEN GROUPS	0.4413	2	0.2207	1.0855	0.0003
15	M	2.695	2.748	2.791	2.743	WITHIN GROUPS	133.1529	655	0.2033		
	SD	0.462	0.449	0.445	0.451	TOTAL	133.5942	657			
	N	135	570	87	792	BETWEEN GROUPS	16760.4472	2	8380.2236	44.4108	0.0988
16	M	54.681	60.746	72.414	60.994	WITHIN GROUPS	148882.5212	789	188.6977		
	SD	20.719	11.217	15.161	14.471	TOTAL	165642.9684	791			
	N	86	401	58	545	BETWEEN GROUPS	2126.4097	2	1063.2049	4.4501	0.0125
17	M	103.116	105.207	110.759	105.468	WITHIN GROUPS	129493.2783	542	238.9175		
	SD	16.015	15.418	14.871	15.555	TOTAL	131619.6881	544			
	N	135	570	87	792	BETWEEN GROUPS	27171.7105	2	13585.8552	108.8781	0.2141
18	M	48.030	58.802	70.425	58.242	WITHIN GROUPS	98451.7441	789	124.7804		
	SD	10.958	10.913	13.030	12.602	TOTAL	125623.4545	791			
	N	132	563	87	782	BETWEEN GROUPS	1239.2417	2	619.6208	10.8495	0.0246
19	M	58.515	60.753	63.345	60.664	WITHIN GROUPS	44489.3069	779	57.1108		
	SD	6.359	7.452	6.928	7.652	TOTAL	45728.5486	781			
	N	132	558	86	776	BETWEEN GROUPS	3710.1608	2	1855.0804	21.4231	0.0500
20	M	58.174	62.633	66.337	62.285	WITHIN GROUPS	66935.8997	773	86.5924		
	SD	9.970	9.100	9.572	9.548	TOTAL	70646.0606	775			
	N	131	540	80	751	BETWEEN GROUPS	1369.4171	2	684.7085	9.5361	0.0222
21	M	26.626	31.061	33.812	30.929	WITHIN GROUPS	53707.8426	748	71.8019		
	SD	8.142	8.474	8.987	8.570	TOTAL	55077.2597	750			
	N	131	540	80	751	BETWEEN GROUPS	1512.9750	2	756.4875	10.0608	0.0236
22	M	28.618	30.720	34.137	30.718	WITHIN GROUPS	56243.1795	748	75.1914		
	SD	8.386	8.628	9.391	8.775	TOTAL	57756.1545	750			
	N	120	495	71	686	BETWEEN GROUPS	772.2562	2	386.1281	4.4295	0.0099
23	M	27.475	28.947	31.634	28.968	WITHIN GROUPS	59539.0382	683	87.1728		
	SD	8.404	9.522	9.519	9.383	TOTAL	60311.2945	685			
	N	131	540	80	751	BETWEEN GROUPS	824.8929	2	412.4465	5.2056	0.0111
24	M	28.412	29.963	32.487	29.961	WITHIN GROUPS	59264.9872	748	79.2313		
	SD	8.440	8.838	10.005	8.951	TOTAL	60089.8802	750			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14C: WHITE FEMALES - Low SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	101	414	58	573	BETWEEN GROUPS	41.1472	2	20.5736	0.1948	-0.0028
25	M	27.743	28.423	28.552	28.316	WITHIN GROUPS	60206.6783	570	105.6258		
	SD	9.225	10.452	10.741	10.263	TOTAL	60247.8255	572			
	N	130	535	80	745	BETWEEN GROUPS	559.6763	2	279.8382	4.0029	0.0080
26	M	32.838	34.099	36.200	34.105	WITHIN GROUPS	51872.1572	742	69.9086		
	SD	8.254	8.336	8.695	8.395	TOTAL	52431.8336	744			
	N	30	134	23	187	BETWEEN GROUPS	36.6715	2	18.3357	0.1344	-0.0093
27	M	29.333	30.351	30.913	30.257	WITHIN GROUPS	25109.0077	184	136.4620		
	SD	12.601	11.415	12.011	11.627	TOTAL	25145.6791	186			
	N	129	531	79	739	BETWEEN GROUPS	519.3691	2	259.6846	4.2721	0.0088
28	M	37.364	38.823	40.595	38.758	WITHIN GROUPS	44738.2736	736	60.7857		
	SD	6.136	7.629	8.335	7.831	TOTAL	45257.6428	738			
	N	126	490	77	693	BETWEEN GROUPS	355.8981	2	177.9490	2.8717	0.0054
29	M	34.786	35.939	37.506	35.903	WITHIN GROUPS	42756.6243	690	61.9661		
	SD	8.009	7.865	7.689	7.893	TOTAL	43112.5224	692			
	N	130	536	79	745	BETWEEN GROUPS	152.2151	2	76.1075	1.2557	0.0007
30	M	35.300	36.116	37.038	36.071	WITHIN GROUPS	44973.0144	742	60.6105		
	SD	7.584	7.763	8.253	7.788	TOTAL	45125.2295	744			
	N	131	536	81	748	BETWEEN GROUPS	2081.4035	2	1040.7018	11.4487	0.0272
31	M	29.870	32.813	36.259	32.671	WITHIN GROUPS	67721.6927	745	90.9016		
	SD	9.416	9.481	10.063	9.667	TOTAL	69803.0963	747			
	N	126	517	79	722	BETWEEN GROUPS	820.8336	2	410.4168	4.2612	0.0090
32	M	29.968	32.195	33.886	31.992	WITHIN GROUPS	69251.1166	719	96.3159		
	SD	9.440	9.710	11.014	9.858	TOTAL	70071.9501	721			
	N	120	497	75	692	BETWEEN GROUPS	636.9980	2	318.4990	4.0177	0.0086
33	M	29.967	31.330	33.680	31.348	WITHIN GROUPS	54620.0700	689	79.2744		
	SD	8.284	8.947	9.550	8.942	TOTAL	55257.0679	691			
	N	113	459	70	642	BETWEEN GROUPS	432.8240	2	216.4120	2.5484	0.0048
34	M	27.681	28.969	30.843	28.947	WITHIN GROUPS	54265.3754	639	84.9223		
	SD	8.734	9.229	9.864	9.238	TOTAL	54698.1994	641			
	N	95	401	58	554	BETWEEN GROUPS	376.4627	2	188.2314	2.3562	0.0049
35	M	28.295	29.367	31.517	29.408	WITHIN GROUPS	44017.3423	551	79.8863		
	SD	7.909	9.063	9.627	8.960	TOTAL	44393.8051	553			
	N	80	350	53	483	BETWEEN GROUPS	255.3691	2	127.6845	2.1194	0.0046
36	M	31.787	33.071	34.604	33.027	WITHIN GROUPS	28917.2810	480	60.2443		
	SD	7.853	7.775	7.533	7.780	TOTAL	29172.6501	482			

LLJYU 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLJYU 1-14C: WHITE FEMALES - Low SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	128	533	82	743	BETWEEN GROUPS	6241.9597	2	3120.9798	17.8723	0.0434
37	M	96.063	101.595	107.024	101.241	WITHIN GROUPS	129223.9165	740	174.6269		
	SD	12.877	13.206	13.784	13.512	TOTAL	135465.8762	742			
	N	101	411	59	571	BETWEEN GROUPS	1887.1908	2	943.5954	6.3711	0.0185
38	M	101.238	103.844	108.356	103.849	WITHIN GROUPS	84123.8565	568	148.1054		
	SD	12.176	12.049	12.978	12.284	TOTAL	86011.0473	570			
	N	69	294	41	404	BETWEEN GROUPS	1.6269	2	0.8135	0.4773	-0.0026
39	M	3.420	3.310	3.171	3.314	WITHIN GROUPS	683.4498	401	1.7044		
	SD	1.333	1.292	1.358	1.304	TOTAL	685.0767	403			
	N	122	527	80	729	BETWEEN GROUPS	15463.3649	2	7731.6825	26.5167	0.0654
40	M	59.730	67.520	77.575	67.320	WITHIN GROUPS	211685.1646	726	291.5774		
	SD	16.179	16.858	19.656	17.664	TOTAL	227148.5295	728			
	N	127	528	81	736	BETWEEN GROUPS	8502.9186	2	4251.4593	15.7173	0.0385
41	M	57.740	65.824	69.272	64.808	WITHIN GROUPS	198273.0692	733	270.4953		
	SD	15.494	16.457	17.783	16.773	TOTAL	206775.9878	735			
	N	120	522	80	722	BETWEEN GROUPS	19313.9441	2	9656.9721	19.2196	0.0480
42	M	54.542	62.983	74.587	62.866	WITHIN GROUPS	361264.0240	719	502.4534		
	SD	21.602	22.379	23.814	22.975	TOTAL	380577.9681	721			
	N	123	518	79	720	BETWEEN GROUPS	1456.1174	2	728.0587	5.6769	0.0128
43	M	62.618	65.485	67.949	65.265	WITHIN GROUPS	91954.2146	717	128.2486		
	SD	11.290	11.219	12.053	11.398	TOTAL	93410.3319	719			
	N	117	501	80	698	BETWEEN GROUPS	6780.4136	2	3390.2068	18.0265	0.0465
44	M	59.949	66.182	71.612	65.759	WITHIN GROUPS	130707.1509	695	188.0678		
	SD	13.700	13.382	15.671	14.045	TOTAL	137487.5645	697			
	N	93	387	56	536	BETWEEN GROUPS	8278.7401	2	4139.3700	9.5871	0.0310
45	M	86.344	90.057	101.357	90.593	WITHIN GROUPS	230130.5957	533	431.7647		
	SD	20.570	21.110	18.678	21.110	TOTAL	238409.3358	535			
	N	93	387	56	536	BETWEEN GROUPS	7729.4208	2	3864.7104	10.1824	0.0331
46	M	89.817	94.884	104.661	95.026	WITHIN GROUPS	202298.2135	533	379.5464		
	SD	19.412	19.788	17.477	19.814	TOTAL	210027.6343	535			
	N	93	387	56	536	BETWEEN GROUPS	8062.1931	2	4031.0966	11.4423	0.0375
47	M	88.043	92.442	103.071	92.789	WITHIN GROUPS	187774.9841	533	352.2983		
	SD	18.511	19.079	16.922	19.132	TOTAL	195837.1772	535			
	N	110	446	69	625	BETWEEN GROUPS	450.0146	2	225.0073	10.5425	0.0296
48	M	10.127	11.247	13.377	11.285	WITHIN GROUPS	13275.2910	622	21.3429		
	SD	4.352	4.658	4.784	4.690	TOTAL	13725.3056	624			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14C: WHITE FEMALES - Low SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	107	441	68	616	BETWEEN GROUPS	681.1877	2	340.5939	12.7372	0.0367
49	M	9.748	11.773	13.706	11.635	WITHIN GROUPS	16391.6288	613	26.7400		
	SD	4.804	5.193	5.575	5.269	TOTAL	17072.8166	615			
	N	107	440	67	614	BETWEEN GROUPS	150.0987	2	75.0493	3.9127	0.0094
50	M	12.916	13.907	14.761	13.827	WITHIN GROUPS	11719.6016	611	19.1810		
	SD	4.723	4.313	4.243	4.400	TOTAL	11869.7003	613			
	N	109	436	66	611	BETWEEN GROUPS	76.7721	2	38.3861	1.4389	0.0014
51	M	11.284	12.131	12.455	12.015	WITHIN GROUPS	16220.0953	608	26.6778		
	SD	5.300	5.169	4.903	5.169	TOTAL	16296.8674	610			
	N	109	436	69	614	BETWEEN GROUPS	512.8927	2	256.4463	11.6490	0.0335
52	M	11.312	12.906	14.768	12.832	WITHIN GROUPS	13450.8288	611	22.0144		
	SD	4.676	4.584	5.353	4.773	TOTAL	13963.7215	613			
	N	108	445	67	620	BETWEEN GROUPS	612.0305	2	306.0153	12.2472	0.0350
53	M	10.037	11.411	13.881	11.439	WITHIN GROUPS	15416.6404	617	24.9865		
	SD	4.803	5.009	5.235	5.089	TOTAL	16028.6710	619			
	N	110	437	66	613	BETWEEN GROUPS	674.5344	2	337.2672	13.7815	0.0400
54	M	10.036	12.178	13.894	11.979	WITHIN GROUPS	14928.1899	610	24.4724		
	SD	5.083	4.903	5.011	5.049	TOTAL	15602.7243	612			
	N	111	441	69	621	BETWEEN GROUPS	589.3454	2	294.6727	12.3488	0.0353
55	M	11.414	12.957	15.130	12.923	WITHIN GROUPS	14746.9444	618	23.8624		
	SD	5.139	4.811	4.941	4.974	TOTAL	15336.2899	620			
	N	108	439	66	613	BETWEEN GROUPS	428.1662	2	214.0831	7.8296	0.0218
56	M	11.611	13.116	14.803	13.033	WITHIN GROUPS	16679.1812	610	27.3429		
	SD	4.967	5.177	5.952	5.287	TOTAL	17107.3475	612			
	N	135	570	87	792	BETWEEN GROUPS	36978.9264	2	18289.4632	861.7479	0.6898
57	M	86.859	99.668	112.736	98.934	WITHIN GROUPS	16565.6595	789	20.7423		
	SD	5.117	4.520	3.789	8.181	TOTAL	52544.5859	791			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14E: WHITE FEMALES - High IQ

NO OF VARIABLES = 57 CLASSIFICATION VAR = # 57 WITH ELIMINATION CODE FOR CLAS. VAR = 999.000

CLAS CATEGORY UPPER LIMITS = 91.000, 108.000, 990.000, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,

RESTRICTION VAR = # 8 WITH RANGE OF 100.000 TO 175.000

CODES TO BE EXCLUDED FOR VARS 1 TO 57 ARE 0.0 , 0.0 , 0.0 , -9.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 1.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 999.000,

FORMAT OF DATA IS (57F6.0)

MAX # OF OBS TO BE INCLUDED THIS PROBLEM = 1670 DATA TO BE READ FROM TAPE WITHOUT REWIND

GROUP 1 = UNDERACHIEVERS

GROUP 2 = AVERAGE ACHIEVERS

GROUP 3 = OVERACHIEVERS

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14E: WHITE FEMALES - High IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	166	747	164	1077	BETWEEN GROUPS	880.0669	2	440.0335	27.2634	0.0465
1	M	136.012	137.728	139.274	137.699	WITHIN GROUPS	17334.4623	1074	16.1401		
	SD	3.973	4.070	3.814	4.114	TOTAL	18214.5292	1076			
	N	160	714	158	1032	BETWEEN GROUPS	77.9850	2	38.9925	12.9554	0.0226
2	M	3.825	3.359	2.835	3.351	WITHIN GROUPS	3097.0344	1029	3.0098		
	SD	1.681	1.724	1.833	1.755	TOTAL	3175.0194	1031			
	N	160	719	158	1037	BETWEEN GROUPS	21.0124	2	10.5062	4.4701	0.0066
3	M	3.737	3.444	3.228	3.456	WITHIN GROUPS	2430.2412	1034	2.3503		
	SD	1.430	1.546	1.576	1.538	TOTAL	2451.2536	1036			
	N	166	747	164	1077	BETWEEN GROUPS	2.2602	2	1.1301	0.5289	-0.0009
4	M	1.928	1.845	1.762	1.845	WITHIN GROUPS	2294.8448	1074	2.1367		
	SD	1.524	1.496	1.218	1.461	TOTAL	2297.1049	1076			
	N	158	707	158	1023	BETWEEN GROUPS	64.3682	2	32.1841	12.9037	0.0227
5	M	4.304	3.939	3.411	3.914	WITHIN GROUPS	2544.0619	1020	2.4942		
	SD	1.449	1.589	1.659	1.598	TOTAL	2608.4301	1022			
	N	158	711	158	1027	BETWEEN GROUPS	46.0869	2	23.0435	16.9942	0.0302
6	M	3.361	3.060	2.608	3.037	WITHIN GROUPS	1388.5070	1024	1.3560		
	SD	1.072	1.174	1.209	1.182	TOTAL	1434.5940	1026			
	N	157	707	157	1021	BETWEEN GROUPS	1624.8425	2	812.4212	48.6343	0.0853
7	M	20.414	22.376	24.936	22.468	WITHIN GROUPS	17005.3730	1018	16.7047		
	SD	4.235	4.055	4.082	4.274	TOTAL	18630.2155	1020			
	N	166	747	164	1077	BETWEEN GROUPS	448.2949	2	224.1475	2.4809	0.0027
8	M	113.608	113.683	115.463	113.942	WITHIN GROUPS	97034.1359	1074	90.3484		
	SD	8.962	9.520	9.962	9.518	TOTAL	97482.4308	1076			
	N	89	380	82	551	BETWEEN GROUPS	4.7594	2	2.3797	1.3669	0.0013
9	M	2.899	3.042	3.232	3.047	WITHIN GROUPS	954.0138	548	1.7409		
	SD	1.197	1.333	1.382	1.320	TOTAL	958.7731	550			
	N	99	434	97	630	BETWEEN GROUPS	1.2817	2	0.6409	0.3754	-0.0020
10	M	2.758	2.763	2.887	2.781	WITHIN GROUPS	1070.4897	627	1.7073		
	SD	1.144	1.332	1.345	1.305	TOTAL	1071.7714	629			
	N	111	500	105	716	BETWEEN GROUPS	3.6247	2	1.8123	1.1164	0.0003
11	M	2.766	2.856	3.019	2.866	WITHIN GROUPS	1157.5038	713	1.6234		
	SD	1.061	1.306	1.323	1.274	TOTAL	1161.1285	715			
	N	124	552	122	798	BETWEEN GROUPS	1.6486	2	0.8243	0.6109	-0.0010
12	M	2.274	2.391	2.320	2.362	WITHIN GROUPS	1072.6885	795	1.3493		
	SD	1.198	1.152	1.166	1.161	TOTAL	1074.3371	797			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14E: WHITE FEMALES - High IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	98	462	91	651	BETWEEN GROUPS	3690.8934	2	1845.4467	43.5520	0.1156
13	M	39.306	44.325	48.044	44.089	WITHIN GROUPS	27457.9392	648	42.3734		
	SD	7.884	6.421	5.190	6.923	TOTAL	31148.8326	650			
	N	166	747	164	1077	BETWEEN GROUPS	72559.5266	2	36279.7633	347.9132	0.3918
14	M	52.108	67.680	81.732	67.420	WITHIN GROUPS	111994.7761	1074	104.2782		
	SD	10.095	10.184	10.454	13.097	TOTAL	184554.3027	1076			
	N	141	576	117	834	BETWEEN GROUPS	0.2038	2	0.1019	0.8615	-0.0003
15	M	2.858	2.882	2.915	2.882	WITHIN GROUPS	98.2806	831	0.1183		
	SD	0.389	0.339	0.310	0.344	TOTAL	98.4844	833			
	N	166	747	163	1076	BETWEEN GROUPS	51674.8624	2	25837.4312	185.5979	0.2555
16	M	59.741	68.817	84.276	69.758	WITHIN GROUPS	149374.3123	1073	139.2118		
	SD	18.078	10.041	11.177	13.676	TOTAL	201049.1747	1075			
	N	106	485	102	693	BETWEEN GROUPS	3258.0244	2	1629.0122	9.1264	0.0229
17	M	110.547	113.371	118.294	113.664	WITHIN GROUPS	123160.6365	690	178.4937		
	SD	14.156	13.143	13.537	13.516	TOTAL	126418.6609	692			
	N	166	747	164	1077	BETWEEN GROUPS	67528.3961	2	33764.1981	495.2621	0.4786
18	M	54.181	67.803	82.774	67.983	WITHIN GROUPS	73219.3030	1074	68.1744		
	SD	8.320	8.208	8.414	11.437	TOTAL	140747.6992	1076			
	N	162	739	164	1065	BETWEEN GROUPS	2907.3151	2	1453.6576	44.2163	0.0751
19	M	61.981	65.099	67.951	65.064	WITHIN GROUPS	34914.3431	1062	32.8760		
	SD	6.236	5.511	6.187	5.962	TOTAL	37821.6582	1064			
	N	162	736	160	1058	BETWEEN GROUPS	7699.5101	2	3849.7551	82.3773	0.1333
20	M	62.735	68.235	72.450	68.030	WITHIN GROUPS	49303.5220	1055	46.7332		
	SD	7.766	6.707	6.407	7.344	TOTAL	57003.0321	1057			
	N	157	677	145	979	BETWEEN GROUPS	4147.5539	2	2073.7769	35.4275	0.0657
21	M	32.911	36.712	40.317	36.636	WITHIN GROUPS	57130.9916	976	58.5359		
	SD	7.639	7.726	7.302	7.916	TOTAL	61278.5455	978			
	N	157	677	145	979	BETWEEN GROUPS	5111.4068	2	2555.7034	41.6467	0.0767
22	M	32.573	36.600	40.807	36.577	WITHIN GROUPS	59893.5207	976	61.3663		
	SD	7.995	7.963	7.001	8.153	TOTAL	65004.9275	978			
	N	143	615	128	886	BETWEEN GROUPS	4013.6280	2	2006.8140	27.0035	0.0554
23	M	29.734	33.546	37.437	33.493	WITHIN GROUPS	65621.8314	883	74.3169		
	SD	7.680	8.919	8.134	8.870	TOTAL	69635.4594	885			
	N	157	677	145	979	BETWEEN GROUPS	2822.2913	2	1411.1457	20.6791	0.0386
24	M	32.248	35.097	38.366	35.125	WITHIN GROUPS	66602.5054	976	68.2403		
	SD	8.382	8.335	7.763	8.425	TOTAL	69424.7967	978			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14E: WHITE FEMALES - High IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	115	511	91	717	BETWEEN GROUPS	2113.8389	2	1056.9194	10.4789	0.0258
25	M	30.226	32.640	36.637	32.760	WITHIN GROUPS	72014.9003	714	100.8612		
	SD	8.682	10.296	10.198	10.175	TOTAL	74128.7392	716			
	N	156	671	145	972	BETWEEN GROUPS	2474.0026	2	1237.0013	22.6146	0.0426
26	M	35.692	38.648	41.421	38.587	WITHIN GROUPS	53003.5642	969	54.6992		
	SD	7.446	7.423	7.215	7.559	TOTAL	55477.5669	971			
	N	55	345	85	485	BETWEEN GROUPS	3452.3362	2	1726.1681	14.0513	0.0511
27	M	28.982	33.078	38.671	33.594	WITHIN GROUPS	59212.6452	482	122.8478		
	SD	11.336	11.216	10.351	11.379	TOTAL	62664.9814	484			
	N	156	671	144	971	BETWEEN GROUPS	1772.1687	2	886.0843	19.1131	0.0360
28	M	39.724	42.656	44.465	42.453	WITHIN GROUPS	44876.4492	968	46.3600		
	SD	7.249	6.657	7.014	6.935	TOTAL	46648.6179	970			
	N	150	618	137	905	BETWEEN GROUPS	1459.8053	2	729.9026	13.1972	0.0262
29	M	37.273	39.788	41.745	39.667	WITHIN GROUPS	49887.0831	902	55.3072		
	SD	7.742	7.314	7.645	7.537	TOTAL	51346.8884	904			
	N	155	673	145	973	BETWEEN GROUPS	925.4181	2	462.7090	9.7937	0.0178
30	M	38.142	40.244	41.579	40.108	WITHIN GROUPS	45828.2510	970	47.2456		
	SD	6.700	6.873	7.059	6.935	TOTAL	46753.6691	972			
	N	158	677	145	980	BETWEEN GROUPS	6120.0997	2	3060.0498	45.8027	0.0838
31	M	34.513	39.269	43.476	39.124	WITHIN GROUPS	65272.7126	977	66.8093		
	SD	9.161	8.116	7.247	8.540	TOTAL	71392.8122	979			
	N	149	635	140	924	BETWEEN GROUPS	5112.4879	2	2556.2439	31.4650	0.0619
32	M	33.383	37.734	41.786	37.646	WITHIN GROUPS	74822.7881	921	81.2408		
	SD	8.930	9.059	8.892	9.306	TOTAL	79935.2760	923			
	N	142	617	132	891	BETWEEN GROUPS	3534.0298	2	1767.0149	25.6432	0.0524
33	M	32.507	36.220	39.682	36.141	WITHIN GROUPS	61190.1520	888	68.9078		
	SD	7.437	8.529	8.093	8.528	TOTAL	64724.1818	890			
	N	140	595	123	858	BETWEEN GROUPS	3182.8489	2	1591.4245	20.8647	0.0443
34	M	30.014	32.958	36.967	33.052	WITHIN GROUPS	65213.7909	855	76.2734		
	SD	7.515	8.955	8.930	8.934	TOTAL	68396.6399	857			
	N	126	549	114	789	BETWEEN GROUPS	2196.6483	2	1098.3241	15.2377	0.0348
35	M	30.770	33.335	36.807	33.427	WITHIN GROUPS	56654.4113	786	72.0794		
	SD	7.510	8.809	7.915	8.642	TOTAL	58851.0596	788			
	N	116	503	106	725	BETWEEN GROUPS	1446.3809	2	723.1904	14.4548	0.0358
36	M	33.603	36.459	38.660	36.324	WITHIN GROUPS	36122.4467	722	50.0311		
	SD	7.161	7.098	6.852	7.204	TOTAL	37568.8276	724			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14E: WHITE FEMALES - High IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	152	671	146	969	BETWEEN GROUPS	16252.0680	2	8126.0340	63.6303	0.1145
37	M	104.618	111.760	119.390	111.789	WITHIN GROUPS	123364.9846	966	127.7070		
	SD	11.565	11.182	11.564	12.010	TOTAL	139617.0526	968			
	N	130	542	110	782	BETWEEN GROUPS	10529.7328	2	5264.8664	44.4929	0.1001
38	M	106.215	112.301	119.509	112.303	WITHIN GROUPS	92179.4398	779	118.3305		
	SD	11.323	10.777	10.841	11.468	TOTAL	102709.1726	781			
	N	88	383	83	554	BETWEEN GROUPS	1.3920	2	0.6960	0.4042	-0.0022
39	M	3.205	3.120	3.024	3.119	WITHIN GROUPS	948.7452	551	1.7219		
	SD	1.323	1.311	1.306	1.311	TOTAL	950.1372	553			
	N	149	664	144	957	BETWEEN GROUPS	46978.0149	2	23489.0074	91.9200	0.1597
40	M	68.215	80.500	93.542	80.550	WITHIN GROUPS	243782.8775	954	255.5376		
	SD	14.821	16.326	15.545	17.440	TOTAL	290760.8924	956			
	N	154	666	144	964	BETWEEN GROUPS	24201.3300	2	12100.6650	49.6060	0.0916
41	M	66.526	75.471	84.556	75.399	WITHIN GROUPS	234421.9096	961	243.9354		
	SD	14.277	15.594	17.042	16.388	TOTAL	258623.2396	963			
	N	148	664	144	956	BETWEEN GROUPS	49072.8712	2	24536.4356	63.9908	0.1164
42	M	65.453	78.753	91.368	78.594	WITHIN GROUPS	365415.6560	953	383.4372		
	SD	19.337	19.786	18.864	20.833	TOTAL	414488.5272	955			
	N	147	660	142	949	BETWEEN GROUPS	6853.2150	2	3426.6075	31.1108	0.0597
43	M	67.129	72.598	76.796	72.379	WITHIN GROUPS	104194.2202	946	110.1419		
	SD	9.943	10.313	11.811	10.823	TOTAL	111047.4352	948			
	N	143	645	142	930	BETWEEN GROUPS	26128.7946	2	13064.3973	86.6859	0.1556
44	M	67.119	76.316	86.261	76.420	WITHIN GROUPS	139707.8172	927	150.7096		
	SD	11.325	12.199	13.490	13.361	TOTAL	165836.6118	929			
	N	120	512	105	737	BETWEEN GROUPS	20619.4972	2	10309.7486	38.9050	0.0933
45	M	92.775	102.838	111.867	102.486	WITHIN GROUPS	194508.6033	734	264.9981		
	SD	18.291	16.575	11.733	17.097	TOTAL	215128.1004	736			
	N	119	512	105	736	BETWEEN GROUPS	21921.9848	2	10960.9924	57.0912	0.1323
46	M	96.975	107.480	116.686	107.095	WITHIN GROUPS	140729.3576	733	191.9909		
	SD	17.001	13.942	8.375	14.876	TOTAL	162651.3424	735			
	N	120	512	105	737	BETWEEN GROUPS	22306.9404	2	11153.4702	59.1114	0.1362
47	M	94.442	105.158	114.248	104.708	WITHIN GROUPS	138495.3391	734	188.6857		
	SD	16.600	13.810	8.904	14.781	TOTAL	160802.2795	736			
	N	134	570	114	818	BETWEEN GROUPS	1675.9524	2	837.9762	36.9786	0.0809
48	M	11.276	13.611	16.491	13.630	WITHIN GROUPS	18468.8117	815	22.6611		
	SD	4.587	4.853	4.483	4.966	TOTAL	20144.7641	817			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14E: WHITE FEMALES - High IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	131	566	112	809	BETWEEN GROUPS	2021.5660	2	1010.7830	39.8743	0.0877
49	M	11.313	14.428	17.045	14.286	WITHIN GROUPS	20431.4748	806	25.3492		
	SD	5.087	5.164	4.246	5.271	TOTAL	22453.0408	808			
	N	132	573	114	819	BETWEEN GROUPS	1371.0745	2	685.5373	38.3069	0.0835
50	M	14.386	16.428	19.114	16.473	WITHIN GROUPS	14603.0573	816	17.8959		
	SD	4.011	4.175	4.728	4.419	TOTAL	15974.1319	818			
	N	134	568	113	815	BETWEEN GROUPS	706.7497	2	353.3749	12.9667	0.0285
51	M	13.000	14.736	16.381	14.679	WITHIN GROUPS	22129.0245	812	27.2525		
	SD	5.382	5.195	5.152	5.297	TOTAL	22835.7742	814			
	N	134	566	114	814	BETWEEN GROUPS	1854.7933	2	927.3966	44.1740	0.0959
52	M	12.642	15.401	18.114	15.327	WITHIN GROUPS	17026.2829	811	20.9942		
	SD	4.721	4.572	4.462	4.819	TOTAL	18881.0762	813			
	N	133	571	112	816	BETWEEN GROUPS	1824.3092	2	912.1546	36.9691	0.0810
53	M	11.549	13.865	17.018	13.920	WITHIN GROUPS	20059.5131	813	24.6734		
	SD	4.673	5.128	4.442	5.182	TOTAL	21883.8223	815			
	N	134	570	111	815	BETWEEN GROUPS	2033.7262	2	1016.8631	42.5809	0.0926
54	M	11.634	14.660	17.378	14.533	WITHIN GROUPS	19391.1621	812	23.8807		
	SD	4.801	4.943	4.692	5.130	TOTAL	21424.8883	814			
	N	135	569	114	818	BETWEEN GROUPS	2329.9385	2	1164.9693	57.5933	0.1216
55	M	12.926	15.970	19.053	15.897	WITHIN GROUPS	16485.4356	815	20.2275		
	SD	4.948	4.430	4.269	4.799	TOTAL	18815.3741	817			
	N	135	562	112	809	BETWEEN GROUPS	2377.7093	2	1188.8546	46.9616	0.1020
56	M	13.059	16.044	19.286	15.995	WITHIN GROUPS	20404.2710	806	25.3155		
	SD	4.902	5.101	4.826	5.310	TOTAL	22781.9802	808			
	N	166	747	164	1077	BETWEEN GROUPS	61342.4804	2	30671.2402	1375.9300	0.7186
57	M	86.518	100.054	113.787	100.058	WITHIN GROUPS	23940.8344	1074	22.2913		
	SD	5.348	4.602	4.584	8.903	TOTAL	85283.3148	1076			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14D: WHITE FEMALES - Low IQ

NO OF VARIABLES = 57 CLASSIFICATION VAR = # 57 WITH ELIMINATION CODE FOR CLAS. VAR = 999.000

CLAS CATEGORY UPPER LIMITS = 91.000, 108.000, 990.000, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,

RESTRICTION VAR = # 8 WITH RANGE OF 50.000 TO 99.000

CODES TO BE EXCLUDED FOR VARS 1 TO 57 ARE 0.0 , 0.0 , 0.0 , -9.000, 0.0 , 0.0 ,

0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	1.000,	0.0 ,	0.0 ,
0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,
0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,
0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,
0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	999.000,				

FORMAT OF DATA IS (57F6.0)

MAX # OF OBS TO BE INCLUDED THIS PROBLEM = 1670 DATA TO BE READ FROM TAPE WITHOUT REWIND

GROUP 1 = UNDERACHIEVERS

GROUP 2 = AVERAGE ACHIEVERS

GROUP 3 = OVERACHIEVERS

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14D: WHITE FEMALES - Low IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
1	N	74	369	80	523	BETWEEN GROUPS	243.5882	2	121.7941	2.7263	0.0066
	M	140.284	140.976	142.637	141.132	WITHIN GROUPS	23230.3085	520	44.6737		
	SD	6.238	6.619	7.349	6.706	TOTAL	23473.8967	522			
2	N	71	354	77	502	BETWEEN GROUPS	26.2314	2	13.1157	5.7712	0.0187
	M	4.563	4.339	3.779	4.285	WITHIN GROUPS	1134.0336	499	2.2726		
	SD	1.451	1.476	1.691	1.522	TOTAL	1160.2649	501			
3	N	71	354	78	503	BETWEEN GROUPS	7.0172	2	3.5086	1.7801	0.0031
	M	4.366	4.249	3.962	4.221	WITHIN GROUPS	985.4878	500	1.9710		
	SD	1.524	1.402	1.294	1.406	TOTAL	992.5050	502			
4	N	74	369	80	523	BETWEEN GROUPS	7.7752	2	3.8876	1.0029	0.0000
	M	2.581	2.485	2.175	2.451	WITHIN GROUPS	2015.7315	520	3.8764		
	SD	1.760	2.075	1.613	1.969	TOTAL	2023.5067	522			
5	N	71	341	75	487	BETWEEN GROUPS	11.2253	2	5.6126	3.6700	0.0108
	M	4.901	4.613	4.347	4.614	WITHIN GROUPS	740.1998	484	1.5293		
	SD	1.255	1.219	1.300	1.243	TOTAL	751.4251	486			
6	N	70	350	77	497	BETWEEN GROUPS	4.6324	2	2.3162	2.9367	0.0077
	M	3.757	3.666	3.429	3.642	WITHIN GROUPS	389.6171	494	0.7887		
	SD	0.842	0.873	0.992	0.892	TOTAL	394.2495	496			
7	N	71	339	74	484	BETWEEN GROUPS	1037.0074	2	518.5037	34.0326	0.1201
	M	13.944	17.389	19.122	17.149	WITHIN GROUPS	7328.2818	481	15.2355		
	SD	4.133	3.965	3.347	4.162	TOTAL	8365.2893	483			
8	N	74	369	80	523	BETWEEN GROUPS	1156.8681	2	578.4341	7.6064	0.0246
	M	89.176	89.092	84.975	88.474	WITHIN GROUPS	39543.5334	520	76.0453		
	SD	7.757	8.492	10.440	8.830	TOTAL	40700.4015	522			
9	N	36	201	32	269	BETWEEN GROUPS	12.7379	2	6.3689	2.9497	0.0143
	M	2.667	3.229	2.812	3.104	WITHIN GROUPS	574.3476	266	2.1592		
	SD	1.309	1.552	1.030	1.480	TOTAL	587.0855	268			
10	N	38	221	37	296	BETWEEN GROUPS	2.9652	2	1.4826	0.8610	-0.0009
	M	2.579	2.742	2.973	2.750	WITHIN GROUPS	504.5348	293	1.7220		
	SD	1.368	1.304	1.301	1.312	TOTAL	507.5000	295			
11	N	46	256	48	350	BETWEEN GROUPS	2.5880	2	1.2940	0.7409	-0.0015
	M	2.848	2.855	3.104	2.889	WITHIN GROUPS	606.0663	347	1.7466		
	SD	1.349	1.319	1.309	1.321	TOTAL	608.6543	349			
12	N	55	278	51	384	BETWEEN GROUPS	0.4191	2	0.2096	0.1245	-0.0046
	M	2.509	2.511	2.608	2.523	WITHIN GROUPS	641.3699	381	1.6834		
	SD	1.136	1.302	1.429	1.294	TOTAL	641.7891	383			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14D: WHITE FEMALES - Low IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	44	232	38	314	BETWEEN GROUPS	1367.2117	2	683.6059	13.0384	0.0712
13	M	30.455	34.496	38.632	34.430	WITHIN GROUPS	16305.7469	311	52.4301		
	SD	8.079	7.049	7.390	7.514	TOTAL	17672.9586	313			
	N	74	369	80	523	BETWEEN GROUPS	17021.1863	2	8510.5931	17.0689	0.0579
14	M	38.811	48.371	59.737	48.757	WITHIN GROUPS	259272.9744	520	498.6019		
	SD	44.649	16.860	10.756	23.007	TOTAL	276294.1606	522			
	N	53	291	56	400	BETWEEN GROUPS	1.8304	2	0.9152	3.8003	0.0138
15	M	2.547	2.656	2.804	2.662	WITHIN GROUPS	95.6071	397	0.2408		
	SD	0.503	0.490	0.483	0.494	TOTAL	97.4375	399			
	N	74	369	80	523	BETWEEN GROUPS	10246.1215	2	5123.0608	82.6040	0.2378
16	M	44.946	53.092	61.263	53.189	WITHIN GROUPS	32250.1385	520	62.0195		
	SD	7.009	7.421	10.310	9.023	TOTAL	42496.2600	522			
	N	41	248	41	330	BETWEEN GROUPS	1210.9329	2	605.4664	3.2008	0.0132
17	M	92.585	98.306	98.780	97.655	WITHIN GROUPS	61855.6853	327	189.1611		
	SD	11.956	14.233	12.352	13.845	TOTAL	63066.6182	329			
	N	74	369	80	523	BETWEEN GROUPS	19036.6076	2	9518.3038	175.2528	0.3999
18	M	38.176	49.984	60.425	49.910	WITHIN GROUPS	28242.1687	520	54.3119		
	SD	6.317	7.194	8.920	9.517	TOTAL	47278.7763	522			
	N	72	364	80	516	BETWEEN GROUPS	2042.1461	2	1021.0731	21.6947	0.0743
19	M	51.750	56.209	59.012	56.021	WITHIN GROUPS	24144.6194	513	47.0655		
	SD	6.746	6.900	6.781	7.131	TOTAL	26186.7655	515			
	N	73	360	79	512	BETWEEN GROUPS	4305.8433	2	2152.9217	33.2939	0.1120
20	M	50.384	56.906	60.886	56.590	WITHIN GROUPS	32914.0238	509	64.6641		
	SD	7.432	8.084	8.379	8.534	TOTAL	37219.8672	511			
	N	67	336	68	471	BETWEEN GROUPS	1599.2805	2	799.6402	17.2250	0.0645
21	M	23.657	26.509	30.471	26.675	WITHIN GROUPS	21726.0189	468	46.4231		
	SD	6.355	6.672	7.869	7.045	TOTAL	23325.2994	470			
	N	67	336	68	471	BETWEEN GROUPS	1372.4265	2	686.2133	14.3375	0.0536
22	M	23.866	26.271	30.118	26.484	WITHIN GROUPS	22399.2040	468	47.8615		
	SD	6.672	6.719	8.047	7.112	TOTAL	23771.6306	470			
	N	58	297	59	414	BETWEEN GROUPS	509.6355	2	254.8177	3.9555	0.0141
23	M	23.345	24.488	27.271	24.725	WITHIN GROUPS	26476.9732	411	64.4209		
	SD	8.027	7.942	8.444	8.083	TOTAL	26986.6087	413			
	N	67	336	68	471	BETWEEN GROUPS	380.2079	2	190.1040	3.5200	0.0106
24	M	24.119	25.342	27.397	25.465	WITHIN GROUPS	25274.9641	468	54.0063		
	SD	6.894	7.184	8.508	7.388	TOTAL	25655.1720	470			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14D: WHITE FEMALES - Low IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
25	N	44	235	48	327	BETWEEN GROUPS	121.8551	2	60.9275	0.7913	-0.0013
	M	24.705	23.349	24.708	23.731	WITHIN GROUPS	24946.4630	324	76.9953		
	SD	9.011	8.441	10.087	8.769	TOTAL	25068.3180	326			
26	N	65	336	68	469	BETWEEN GROUPS	583.0318	2	291.5159	5.0610	0.0170
	M	28.585	30.375	32.735	30.469	WITHIN GROUPS	26841.7699	466	57.6004		
	SD	7.128	7.667	7.625	7.655	TOTAL	27424.8017	468			
27	N	9	46	17	72	BETWEEN GROUPS	263.5386	2	131.7693	1.1932	0.0053
	M	20.556	23.696	27.000	24.083	WITHIN GROUPS	7619.9614	69	110.4342		
	SD	9.501	10.304	11.511	10.537	TOTAL	7883.5000	71			
28	N	65	330	65	460	BETWEEN GROUPS	708.8101	2	354.4050	6.3396	0.0227
	M	34.677	36.170	39.169	36.383	WITHIN GROUPS	25547.8508	457	55.9034		
	SD	7.947	7.464	7.046	7.563	TOTAL	26256.6609	459			
29	N	63	317	64	444	BETWEEN GROUPS	315.0940	2	157.5470	2.9514	0.0087
	M	32.381	33.274	35.359	33.448	WITHIN GROUPS	23540.7145	441	53.3803		
	SD	7.581	7.456	6.183	7.338	TOTAL	23855.8086	443			
30	N	67	333	65	465	BETWEEN GROUPS	171.6036	2	85.8018	1.4920	0.0021
	M	32.896	33.577	35.077	33.688	WITHIN GROUPS	26568.1813	462	57.5069		
	SD	7.884	7.534	7.521	7.591	TOTAL	26739.7849	464			
31	N	67	336	67	470	BETWEEN GROUPS	1886.5111	2	943.2556	15.8246	0.0593
	M	24.284	27.649	31.761	27.755	WITHIN GROUPS	27836.3506	467	59.6067		
	SD	6.995	7.713	8.419	7.961	TOTAL	29722.8617	469			
32	N	62	322	64	448	BETWEEN GROUPS	1043.3419	2	521.6709	8.1782	0.0311
	M	24.758	27.323	30.484	27.420	WITHIN GROUPS	28385.7653	445	63.7882		
	SD	7.419	7.783	9.415	8.114	TOTAL	29429.1071	447			
33	N	58	301	60	419	BETWEEN GROUPS	473.4676	2	236.7338	4.0100	0.0142
	M	25.638	27.116	29.550	27.260	WITHIN GROUPS	24559.1768	416	59.0365		
	SD	7.407	7.533	8.642	7.739	TOTAL	25032.6444	418			
34	N	50	269	58	377	BETWEEN GROUPS	579.8353	2	289.9176	4.7243	0.0194
	M	23.260	24.480	27.534	24.788	WITHIN GROUPS	22951.1886	374	61.3668		
	SD	7.894	7.608	8.770	7.911	TOTAL	23531.0239	376			
35	N	39	217	44	300	BETWEEN GROUPS	328.2921	2	164.1461	3.0347	0.0134
	M	24.205	25.401	27.955	25.620	WITHIN GROUPS	16064.3879	297	54.0888		
	SD	6.876	7.226	8.339	7.404	TOTAL	16392.6800	299			
36	N	31	191	40	262	BETWEEN GROUPS	288.0892	2	144.0446	3.2631	0.0170
	M	27.484	29.000	31.375	29.183	WITHIN GROUPS	11433.1169	259	44.1433		
	SD	7.663	6.355	7.156	6.701	TOTAL	11721.2061	261			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14D: WHITE FEMALES - Low IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	68	334	69	471	BETWEEN GROUPS	4015.4902	2	2007.7451	20.1180	0.0751
37	M	86.250	92.817	96.884	92.465	WITHIN GROUPS	46705.6817	468	99.7985		
	SD	8.207	10.105	10.974	10.388	TOTAL	50721.1720	470			
	N	41	236	45	322	BETWEEN GROUPS	1147.5845	2	573.7923	5.1524	0.0251
38	M	92.122	94.691	99.178	94.991	WITHIN GROUPS	35525.3875	319	111.3649		
	SD	9.920	10.380	11.936	10.689	TOTAL	36672.9720	321			
	N	22	154	34	210	BETWEEN GROUPS	1.3087	2	0.6543	0.4086	-0.0057
39	M	3.591	3.331	3.382	3.367	WITHIN GROUPS	331.4580	207	1.6012		
	SD	1.297	1.268	1.231	1.262	TOTAL	332.7667	209			
	N	63	325	65	453	BETWEEN GROUPS	7287.0306	2	3643.5153	23.7281	0.0912
40	M	49.857	56.517	64.862	56.788	WITHIN GROUPS	69098.6251	450	153.5525		
	SD	12.319	11.991	14.310	13.000	TOTAL	76385.6556	452			
	N	65	327	67	459	BETWEEN GROUPS	9669.5109	2	4834.7555	28.2651	0.1062
41	M	46.154	56.468	63.015	55.963	WITHIN GROUPS	77998.8595	456	171.0501		
	SD	10.322	12.908	15.984	13.835	TOTAL	87668.3704	458			
	N	61	318	64	443	BETWEEN GROUPS	12757.6411	2	6378.8205	19.9758	0.0789
42	M	39.328	49.997	59.531	49.905	WITHIN GROUPS	140504.3770	440	319.3281		
	SD	14.926	18.000	19.690	18.621	TOTAL	153262.0181	442			
	N	64	317	65	446	BETWEEN GROUPS	535.5750	2	267.7875	2.9648	0.0087
43	M	56.766	58.644	60.831	58.693	WITHIN GROUPS	40013.3421	443	90.3236		
	SD	9.575	9.513	9.390	9.546	TOTAL	40548.9170	445			
	N	59	308	63	430	BETWEEN GROUPS	4325.7442	2	2162.8721	20.6135	0.0836
44	M	50.610	56.636	62.524	56.672	WITHIN GROUPS	44803.0209	427	104.9251		
	SD	10.450	9.762	12.191	10.701	TOTAL	49128.7651	429			
	N	41	228	46	315	BETWEEN GROUPS	1453.7999	2	726.9000	1.7995	0.0051
45	M	76.317	78.022	83.630	78.619	WITHIN GROUPS	126028.4858	312	403.9375		
	SD	21.777	19.317	22.287	20.149	TOTAL	127482.2857	314			
	N	41	228	46	315	BETWEEN GROUPS	4513.6879	2	2256.8440	6.7892	0.0355
46	M	78.122	81.298	91.109	82.317	WITHIN GROUPS	103714.5661	312	332.4185		
	SD	20.300	17.747	18.700	18.565	TOTAL	108228.2540	314			
	N	41	228	46	315	BETWEEN GROUPS	2909.2011	2	1454.6006	4.7940	0.0235
47	M	77.146	79.535	87.478	80.384	WITHIN GROUPS	94667.3195	312	303.4209		
	SD	19.863	16.626	18.939	17.628	TOTAL	97576.5206	314			
	N	49	262	55	366	BETWEEN GROUPS	134.3415	2	67.1707	4.1017	0.0167
48	M	7.796	8.989	10.073	8.992	WITHIN GROUPS	5944.6339	363	16.3764		
	SD	3.518	4.123	4.113	4.081	TOTAL	6078.9754	365			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14D: WHITE FEMALES - Low IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	46	262	54	362	BETWEEN GROUPS	190.1757	2	95.0879	4.6477	0.0198
49	M	8.109	9.378	10.852	9.436	WITHIN GROUPS	7344.8629	359	20.4592		
	SD	4.228	4.470	5.000	4.569	TOTAL	7535.0387	361			
	N	47	257	54	358	BETWEEN GROUPS	125.7828	2	62.8914	4.3774	0.0185
50	M	10.106	11.498	12.315	11.439	WITHIN GROUPS	5100.3653	355	14.3672		
	SD	3.755	3.710	4.184	3.826	TOTAL	5226.1480	357			
	N	47	258	53	358	BETWEEN GROUPS	28.6117	2	14.3058	0.7254	-0.0015
51	M	8.532	9.322	9.491	9.243	WITHIN GROUPS	7001.2459	355	19.7218		
	SD	3.939	4.520	4.466	4.438	TOTAL	7029.8575	357			
	N	46	253	55	354	BETWEEN GROUPS	149.4077	2	74.7039	4.4950	0.0194
52	M	9.283	10.289	11.673	10.373	WITHIN GROUPS	5833.3719	351	16.6193		
	SD	3.588	3.884	5.186	4.117	TOTAL	5982.7797	353			
	N	48	259	52	359	BETWEEN GROUPS	260.6312	2	130.3156	6.5817	0.0302
53	M	7.792	9.008	10.942	9.125	WITHIN GROUPS	7048.7281	356	19.7998		
	SD	4.510	4.399	4.646	4.519	TOTAL	7309.3593	358			
	N	48	252	54	354	BETWEEN GROUPS	381.7863	2	190.8931	10.1487	0.0491
54	M	7.500	9.425	11.370	9.460	WITHIN GROUPS	6602.1601	351	18.8096		
	SD	4.177	4.244	4.877	4.448	TOTAL	6983.9463	353			
	N	49	251	54	354	BETWEEN GROUPS	204.9267	2	102.4634	5.4464	0.0245
55	M	9.224	10.199	11.944	10.331	WITHIN GROUPS	6603.4038	351	18.8131		
	SD	4.896	4.270	4.109	4.392	TOTAL	6808.3305	353			
	N	46	256	52	354	BETWEEN GROUPS	136.1377	2	68.0689	3.5932	0.0144
56	M	9.565	10.277	11.788	10.407	WITHIN GROUPS	6649.2860	351	18.9438		
	SD	4.400	4.142	5.244	4.384	TOTAL	6785.4237	353			
	N	74	369	80	523	BETWEEN GROUPS	24721.7615	2	12360.8808	665.0022	0.7175
57	M	87.730	99.593	113.000	99.966	WITHIN GROUPS	9665.6190	520	18.5877		
	SD	3.586	4.394	4.531	8.116	TOTAL	34387.3805	522			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14B: NEGRO MALES - High SES

NO OF VARIABLES = 57 CLASSIFICATION VAR = # 57 WITH ELIMINATION CODE FOR CLAS. VAR = 999.000

CLAS CATEGORY UPPER LIMITS = 91.000, 108.000, 990.000, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,

RESTRICTION VAR = # 0 WITH RANGE OF 1.000 TO 4.000

CODES TO BE EXCLUDED FOR VARS 1 TO 57 ARE 0.0 , 0.0 , 0.0 , -9.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 1.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 999.000,

FORMAT OF DATA IS (57F6.0)

MAX # OF OBS TO BE INCLUDED THIS PROBLEM = 296 DATA TO BE READ FROM TAPE WITHOUT REWIND

GROUP 1 = UNDERACHIEVERS

GROUP 2 = AVERAGE ACHIEVERS

GROUP 3 = OVERACHIEVERS

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14a: NEGRO MALES - High SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	12	60	18	90	BETWEEN GROUPS	122.7778	2	61.3889	0.7379	-0.0059
1	M	141.353	143.567	145.444	143.644	WITHIN GROUPS	7237.8444	87	83.1936		
	SD	6.972	9.792	7.846	9.094	TOTAL	7360.6222	89			
	N	11	59	16	86	BETWEEN GROUPS	2.9185	2	1.4593	0.7828	-0.0051
2	M	5.273	4.712	4.812	4.802	WITHIN GROUPS	154.7210	83	1.8641		
	SD	1.009	1.403	1.424	1.362	TOTAL	157.6395	85			
	N	12	58	17	87	BETWEEN GROUPS	0.6711	2	0.3355	0.1637	-0.0196
3	M	5.000	4.741	4.765	4.782	WITHIN GROUPS	172.1795	84	2.0498		
	SD	1.044	1.505	1.393	1.418	TOTAL	172.8506	86			
	N	12	60	18	90	BETWEEN GROUPS	11.8278	2	5.9139	0.7619	-0.0053
4	M	4.333	4.617	5.444	4.744	WITHIN GROUPS	675.2944	87	7.7620		
	SD	2.640	2.762	2.955	2.779	TOTAL	687.1222	89			
	N	12	59	17	88	BETWEEN GROUPS	1.6675	2	0.8338	0.8774	-0.0028
5	M	5.000	4.831	5.176	4.920	WITHIN GROUPS	80.7757	85	0.9503		
	SD	0.426	0.950	1.286	0.973	TOTAL	82.4432	87			
	N	12	60	18	90	BETWEEN GROUPS	0.5889	2	0.2944	0.7760	-0.0050
6	M	3.917	3.683	3.778	3.733	WITHIN GROUPS	33.0111	87	0.3794		
	SD	0.289	0.676	0.548	0.614	TOTAL	33.6000	89			
	N	12	57	17	86	BETWEEN GROUPS	382.8325	2	191.4162	8.0195	0.1403
7	M	15.417	17.368	22.059	18.023	WITHIN GROUPS	1981.1210	83	23.8689		
	SD	4.502	4.542	6.139	5.274	TOTAL	2363.9535	85			
	N	12	60	18	90	BETWEEN GROUPS	25.1389	2	12.5694	0.0513	-0.0215
8	M	90.083	88.500	88.833	88.778	WITHIN GROUPS	21336.4167	87	245.2462		
	SD	9.462	15.287	19.651	15.492	TOTAL	21361.5556	89			
	N	8	33	13	54	BETWEEN GROUPS	7.8591	2	3.9296	1.5284	0.0192
9	M	3.250	2.727	3.615	3.019	WITHIN GROUPS	131.1224	51	2.5710		
	SD	2.315	1.420	1.557	1.619	TOTAL	138.9815	53			
	N	10	37	13	60	BETWEEN GROUPS	9.2542	2	4.6271	2.8545	0.0582
10	M	2.600	2.405	3.385	2.650	WITHIN GROUPS	92.3958	57	1.6210		
	SD	1.350	1.142	1.557	1.313	TOTAL	101.6500	59			
	N	11	46	15	72	BETWEEN GROUPS	0.2356	2	0.1178	0.0724	-0.0264
11	M	2.818	2.804	2.667	2.778	WITHIN GROUPS	112.2088	69	1.6262		
	SD	1.328	1.240	1.345	1.258	TOTAL	112.4444	71			
	N	11	50	16	77	BETWEEN GROUPS	8.1334	2	4.0667	1.6748	0.0172
12	M	2.545	2.140	2.937	2.364	WITHIN GROUPS	179.6848	74	2.4282		
	SD	1.968	1.414	1.692	1.572	TOTAL	187.8182	76			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14B: NEGRO MALES - High SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	7	35	9	51	BETWEEN GROUPS	118.6084	2	59.3042	0.8004	-0.0079
13	M	33.429	31.971	36.000	32.882	WITHIN GROUPS	3556.6857	48	74.0976		
	SD	8.541	5.170	5.701	8.574	TOTAL	3675.2941	50			
	N	11	56	17	84	BETWEEN GROUPS	6898.4656	2	3449.2328	28.8949	0.3991
14	M	31.091	40.571	60.176	43.298	WITHIN GROUPS	9669.0940	81	119.3715		
	SD	8.689	10.217	14.081	14.128	TOTAL	16567.5595	83			
	N	8	52	15	75	BETWEEN GROUPS	0.0559	2	0.0279	0.1424	-0.0234
15	M	2.750	2.731	2.800	2.747	WITHIN GROUPS	14.1308	72	0.1963		
	SD	0.463	0.448	0.414	0.438	TOTAL	14.1867	74			
	N	11	56	17	84	BETWEEN GROUPS	3517.1946	2	1758.5973	21.9503	0.3328
16	M	39.545	50.554	62.059	51.440	WITHIN GROUPS	6489.5077	81	80.1174		
	SD	7.448	8.774	10.311	10.980	TOTAL	10006.7024	83			
	N	5	38	12	55	BETWEEN GROUPS	431.2852	2	215.6426	1.0125	0.0005
17	M	96.200	97.368	90.500	95.764	WITHIN GROUPS	11074.6421	52	212.9739		
	SD	20.080	14.255	13.290	14.597	TOTAL	11505.9273	54			
	N	12	60	18	90	BETWEEN GROUPS	6260.9778	2	3130.4889	37.0010	0.4445
18	M	32.167	44.567	60.611	46.122	WITHIN GROUPS	7360.6778	87	84.6055		
	SD	6.900	9.269	10.199	12.371	TOTAL	13621.6556	89			
	N	12	59	18	89	BETWEEN GROUPS	814.1891	2	407.0946	8.0295	0.1364
19	M	48.833	53.203	59.056	53.798	WITHIN GROUPS	4360.1704	86	50.6997		
	SD	4.469	7.056	8.585	7.668	TOTAL	5174.3596	88			
	N	12	59	18	89	BETWEEN GROUPS	1417.9103	2	708.9552	10.4236	0.1748
20	M	47.417	50.373	59.500	51.820	WITHIN GROUPS	5849.2133	86	68.0141		
	SD	9.424	8.047	8.104	9.087	TOTAL	7267.1236	88			
	N	11	54	17	82	BETWEEN GROUPS	368.4000	2	184.2000	3.7218	0.0623
21	M	23.727	25.426	30.176	26.183	WITHIN GROUPS	3909.8561	79	49.4918		
	SD	5.901	7.273	6.885	7.268	TOTAL	4278.2561	81			
	N	11	54	17	82	BETWEEN GROUPS	341.9167	2	170.9583	3.2435	0.0519
22	M	23.727	25.778	30.176	26.415	WITHIN GROUPS	4163.9857	79	52.7087		
	SD	6.051	7.523	7.064	7.458	TOTAL	4505.9024	81			
	N	10	52	16	78	BETWEEN GROUPS	205.0872	2	102.5436	1.4706	0.0119
23	M	24.900	25.481	29.375	26.205	WITHIN GROUPS	5229.6308	75	69.7284		
	SD	5.216	8.676	8.740	8.401	TOTAL	5434.7179	77			
	N	11	54	17	82	BETWEEN GROUPS	289.4977	2	144.7488	2.3688	0.0323
24	M	22.364	24.852	28.588	25.293	WITHIN GROUPS	4827.4779	79	61.1073		
	SD	6.918	7.542	9.131	7.978	TOTAL	5116.9756	81			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-148: NEGRO MALES - High SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	1	9	6	16	BETWEEN GROUPS	16.2153	2	8.1076	0.1289	-0.1222
25	M	30.000	30.889	32.833	31.563	WITHIN GROUPS	817.7222	13	62.9017		
	SD	0.0	6.092	10.206	7.456	TOTAL	833.9375	15			
	N	11	53	17	81	BETWEEN GROUPS	57.2818	2	28.6409	0.8984	-0.0025
26	M	31.091	32.415	33.941	32.556	WITHIN GROUPS	2486.7182	78	31.8810		
	SD	4.369	5.885	5.562	5.639	TOTAL	2544.0000	80			
	N	1	13	4	18	BETWEEN GROUPS	131.2500	2	65.6250	2.1742	0.1154
27	M	20.000	27.000	31.750	27.667	WITHIN GROUPS	452.7500	15	30.1833		
	SD	0.0	5.888	3.500	5.861	TOTAL	584.0000	17			
	N	11	54	17	82	BETWEEN GROUPS	618.1801	2	309.0901	4.4187	0.0770
28	M	25.091	30.222	34.647	30.451	WITHIN GROUPS	5526.1248	79	69.9509		
	SD	7.635	7.871	10.185	8.710	TOTAL	6144.3049	81			
	N	11	54	17	82	BETWEEN GROUPS	107.0986	2	53.5493	0.7240	-0.0068
29	M	29.636	33.019	32.882	32.537	WITHIN GROUPS	5843.2916	79	73.9657		
	SD	9.811	7.849	10.049	8.571	TOTAL	5950.3902	81			
	N	11	54	17	82	BETWEEN GROUPS	374.1508	2	187.0754	2.7334	0.0406
30	M	28.545	32.667	36.000	32.805	WITHIN GROUPS	5406.7273	79	68.4396		
	SD	7.594	7.979	9.539	8.448	TOTAL	5780.8780	81			
	N	11	55	17	83	BETWEEN GROUPS	423.7945	2	211.8973	3.2283	0.0510
31	M	26.273	27.618	32.882	28.518	WITHIN GROUPS	5250.9283	80	65.6366		
	SD	6.544	7.899	9.532	8.319	TOTAL	5674.7229	82			
	N	11	50	16	77	BETWEEN GROUPS	601.5352	2	300.7676	3.9962	0.0722
32	M	23.727	27.360	32.875	27.987	WITHIN GROUPS	5569.4518	74	75.2629		
	SD	8.878	7.787	10.984	9.011	TOTAL	6170.9870	76			
	N	8	46	15	69	BETWEEN GROUPS	253.4207	2	126.7103	1.6120	0.0174
33	M	25.125	26.565	30.867	27.333	WITHIN GROUPS	5187.9127	66	78.6047		
	SD	7.736	8.953	9.109	8.945	TOTAL	5441.3333	68			
	N	6	42	13	61	BETWEEN GROUPS	301.5444	2	150.7722	4.0279	0.0903
34	M	22.833	27.619	31.231	27.918	WITHIN GROUPS	2171.0458	58	37.4318		
	SD	3.125	5.596	8.358	6.419	TOTAL	2472.5902	60			
	N	6	39	13	58	BETWEEN GROUPS	122.5477	2	61.2739	1.3027	0.0103
35	M	25.167	28.026	30.462	28.276	WITHIN GROUPS	2587.0385	55	47.0371		
	SD	4.916	7.372	5.782	6.895	TOTAL	2709.5862	57			
	N	6	34	12	52	BETWEEN GROUPS	172.4642	2	86.2321	2.0367	0.0383
36	M	24.833	27.118	30.750	27.692	WITHIN GROUPS	2074.5127	49	42.3390		
	SD	3.710	6.879	6.355	6.638	TOTAL	2247.0769	51			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14B: NEGRO MALES - High SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	12	50	17	79	BETWEEN GROUPS	439.9605	2	219.9802	1.4340	0.0109
37	M	80.083	81.200	86.647	82.203	WITHIN GROUPS	11658.7990	76	153.4053		
	SD	10.816	12.793	12.124	12.454	TOTAL	12098.7595	78			
	N	6	42	11	59	BETWEEN GROUPS	311.6163	2	155.8081	1.1674	0.0056
38	M	83.000	87.810	91.818	88.068	WITHIN GROUPS	7474.1126	56	133.4663		
	SD	11.419	10.671	14.675	11.586	TOTAL	7785.7288	58			
	N	4	29	10	43	BETWEEN GROUPS	8.9553	2	4.477	2.3896	0.0607
39	M	4.000	2.655	3.400	2.953	WITHIN GROUPS	74.9517	40	1.8738		
	SD	1.414	1.370	1.350	1.413	TOTAL	83.9070	42			
	N	7	48	13	68	BETWEEN GROUPS	481.3898	2	240.6949	2.2199	0.0346
40	M	42.286	44.729	50.923	45.662	WITHIN GROUPS	7047.8308	65	108.4282		
	SD	11.280	9.985	11.543	10.601	TOTAL	7529.2206	67			
	N	10	46	14	70	BETWEEN GROUPS	2251.3814	2	1125.6907	7.6982	0.1606
41	M	44.400	45.565	59.500	48.186	WITHIN GROUPS	9797.2043	67	146.2269		
	SD	9.477	10.151	18.296	13.214	TOTAL	12048.5857	69			
	N	8	36	12	56	BETWEEN GROUPS	549.8194	2	274.9097	1.2106	0.0075
42	M	38.250	40.111	47.250	41.375	WITHIN GROUPS	12035.3056	53	227.0812		
	SD	13.551	14.880	16.515	15.127	TOTAL	12585.1250	55			
	N	10	44	11	65	BETWEEN GROUPS	156.5843	2	78.2921	0.8625	-0.0042
43	M	48.900	51.886	54.364	51.846	WITHIN GROUPS	5627.8773	62	90.7722		
	SD	8.925	8.079	14.507	9.507	TOTAL	5784.4615	64			
	N	6	46	12	64	BETWEEN GROUPS	411.8702	2	205.9351	2.6367	0.0487
44	M	43.833	45.696	51.833	46.672	WITHIN GROUPS	4764.2391	61	78.1023		
	SD	9.786	8.077	11.077	9.064	TOTAL	5176.1094	63			
	N	1	7	5	13	BETWEEN GROUPS	585.0198	2	292.5099	0.5933	-0.0667
45	M	33.000	53.857	59.400	54.385	WITHIN GROUPS	4930.0571	10	493.0057		
	SD	0.0	23.169	20.671	21.438	TOTAL	5515.0769	12			
	N	1	7	5	13	BETWEEN GROUPS	271.9121	2	135.9560	0.3965	-0.1023
46	M	53.000	56.143	65.000	59.308	WITHIN GROUPS	3428.8571	10	342.8857		
	SD	0.0	18.225	18.947	17.561	TOTAL	3700.7692	12			
	N	1	7	5	13	BETWEEN GROUPS	331.4637	2	165.7319	0.4719	-0.0884
47	M	43.000	55.286	61.800	56.846	WITHIN GROUPS	3512.2286	10	351.2229		
	SD	0.0	19.423	17.669	17.897	TOTAL	3843.6923	12			
	N	7	45	14	66	BETWEEN GROUPS	15.5880	2	7.7940	0.4655	-0.0165
48	M	6.143	7.556	7.929	7.485	WITHIN GROUPS	1054.8968	63	16.7444		
	SD	4.488	3.805	4.779	4.058	TOTAL	1070.4848	65			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14B: NEGRO MALES - High SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	7	46	15	68	BETWEEN GROUPS	117.7635	2	58.8818	2.9507	0.0543
49	M	3.571	7.891	7.933	7.456	WITHIN GROUPS	1297.1041	65	19.9554		
	SD	2.820	4.547	4.773	4.595	TOTAL	1414.8676	67			
	N	7	46	15	68	BETWEEN GROUPS	52.4195	2	26.2097	1.7409	0.0213
50	M	6.857	7.674	9.600	8.015	WITHIN GROUPS	978.5658	65	15.0549		
	SD	2.734	3.748	4.641	3.923	TOTAL	1030.9853	67			
	N	7	45	15	67	BETWEEN GROUPS	26.1259	2	13.0630	1.2106	0.0062
51	M	5.143	6.933	5.933	6.522	WITHIN GROUPS	690.5905	64	10.7905		
	SD	3.436	3.394	2.840	3.295	TOTAL	716.7164	66			
	N	7	45	14	66	BETWEEN GROUPS	123.5857	2	61.7929	7.3050	0.1604
52	M	4.143	7.467	9.286	7.500	WITHIN GROUPS	532.9143	63	8.4590		
	SD	1.952	2.676	3.872	3.178	TOTAL	656.5000	65			
	N	7	45	14	66	BETWEEN GROUPS	210.5023	2	105.2512	6.6855	0.1470
53	M	2.143	6.711	8.857	6.682	WITHIN GROUPS	991.8159	63	15.7431		
	SD	1.464	4.065	4.400	4.301	TOTAL	1202.3182	65			
	N	7	45	13	65	BETWEEN GROUPS	28.0654	2	14.0327	1.1735	0.0053
54	M	3.286	4.911	5.769	4.908	WITHIN GROUPS	741.3807	62	11.9578		
	SD	2.498	3.390	4.065	3.467	TOTAL	769.4462	64			
	N	7	43	15	65	BETWEEN GROUPS	114.6138	2	57.3069	4.4212	0.0952
55	M	3.857	7.674	8.667	7.492	WITHIN GROUPS	803.6323	62	12.9618		
	SD	1.464	3.235	5.010	3.788	TOTAL	918.2462	64			
	N	7	43	14	64	BETWEEN GROUPS	1.3943	2	0.6972	0.0519	-0.0305
56	M	6.714	6.256	6.429	6.344	WITHIN GROUPS	819.0432	61	13.4269		
	SD	4.271	3.632	3.458	3.609	TOTAL	820.4375	63			
	N	12	60	18	90	BETWEEN GROUPS	6494.8000	2	3247.4000	113.3905	0.7141
57	M	66.167	99.367	115.333	100.800	WITHIN GROUPS	2491.6000	87	28.6391		
	SD	7.120	4.067	7.507	10.048	TOTAL	8986.4000	89			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14C: NEGRO MALES - Low SES

NO OF VARIABLES = 57 CLASSIFICATION VAR = # 57 WITH ELIMINATION CODE FOR CLAS. VAR = 999.000

CLAS CATEGORY UPPER LIMITS = 91.000, 108.000, 990.000, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,

RESTRICTION VAR = # 6 WITH RANGE OF 5.000 TO 5.000

CODES TO BE EXCLUDED FOR VARS 1 TO 57 ARE 0.0 , 0.0 , 0.0 , -9.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 1.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 999.000,

FORMAT OF DATA IS (57F6.0)

MAX # OF OBS TO BE INCLUDED THIS PROBLEM = 296 DATA TO BE READ FROM TAPE WITHOUT REWIND

GROUP 1 = UNDERACHIEVERS

GROUP 2 = AVERAGE ACHIEVERS

GROUP 3 = OVERACHIEVERS

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14C: NEGRO MALES - Low SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	13	99	17	129	BETWEEN GROUPS	655.0160	2	327.5080	2.3169	0.0200
1	M	144.077	147.040	152.824	147.504	WITHIN GROUPS	17811.2320	126	141.3590		
	SD	9.670	11.672	14.341	12.011	TOTAL	18466.2481	128			
	N	12	95	16	123	BETWEEN GROUPS	0.3059	2	0.1529	0.2366	-0.0126
2	M	5.833	5.695	5.625	5.699	WITHIN GROUPS	77.5640	120	0.6464		
	SD	0.577	0.826	0.806	0.799	TOTAL	77.8699	122			
	N	13	92	16	121	BETWEEN GROUPS	0.3130	2	0.1565	0.1611	-0.0141
3	M	5.077	5.239	5.250	5.223	WITHIN GROUPS	114.0622	118	0.9717		
	SD	1.038	0.976	1.000	0.979	TOTAL	114.9752	120			
	N	13	99	17	129	BETWEEN GROUPS	5.7097	2	2.8549	0.3835	-0.0096
4	M	4.154	4.798	4.471	4.690	WITHIN GROUPS	937.8872	126	7.4435		
	SD	2.734	2.729	2.718	2.715	TOTAL	943.5969	128			
	N	12	95	17	124	BETWEEN GROUPS	0.4975	2	0.2488	0.6977	-0.0049
5	M	6.417	6.632	6.588	6.605	WITHIN GROUPS	43.1396	121	0.3565		
	SD	0.515	0.566	0.795	0.596	TOTAL	43.6371	123			
	N	13	99	17	129	BETWEEN GROUPS	0.0	0	0.0	0.0	0.0
6	M	5.000	5.000	5.000	5.000	WITHIN GROUPS	0.0	0	0.0		
	SD	0.0	0.0	0.0	0.0	TOTAL	0.0	0			
	N	13	97	17	127	BETWEEN GROUPS	149.4364	2	74.7182	3.3228	0.0353
7	M	15.385	17.113	19.706	17.283	WITHIN GROUPS	2788.3589	124	22.4868		
	SD	4.312	4.668	5.440	4.829	TOTAL	2937.7953	126			
	N	13	99	17	129	BETWEEN GROUPS	97.8039	2	48.9020	0.2019	-0.0125
8	M	85.462	83.515	81.824	83.488	WITHIN GROUPS	30522.4286	126	242.2415		
	SD	15.586	15.380	16.633	15.467	TOTAL	30620.2326	128			
	N	10	81	13	104	BETWEEN GROUPS	0.0757	2	0.0378	0.0175	-0.0193
9	M	2.600	2.691	2.692	2.683	WITHIN GROUPS	218.4532	101	2.1629		
	SD	1.350	1.530	1.109	1.457	TOTAL	218.5288	103			
	N	11	81	12	104	BETWEEN GROUPS	4.1249	2	2.0625	0.7572	-0.0047
10	M	2.182	2.765	2.417	2.663	WITHIN GROUPS	275.0962	101	2.7237		
	SD	1.168	1.756	1.165	1.646	TOTAL	279.2212	103			
	N	11	85	13	109	BETWEEN GROUPS	0.2741	2	0.1370	0.0734	-0.0173
11	M	2.636	2.612	2.462	2.596	WITHIN GROUPS	197.9645	106	1.8676		
	SD	1.120	1.407	1.266	1.355	TOTAL	198.2385	108			
	N	10	90	13	113	BETWEEN GROUPS	0.3550	2	0.1775	0.0717	-0.0167
12	M	2.800	2.644	2.769	2.673	WITHIN GROUPS	272.5299	110	2.4775		
	SD	1.989	1.531	1.536	1.561	TOTAL	272.8850	112			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14C: NEGRO MALES - Low SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	9	62	12	83	BETWEEN GROUPS	346.0107	2	173.0053	2.7223	0.0398
13	M	25.667	31.419	33.583	31.108	WITHIN GROUPS	5084.0134	80	63.5502		
	SD	6.245	7.993	6.918	8.138	TOTAL	5430.0241	82			
	N	11	79	15	105	BETWEEN GROUPS	3234.7021	2	1617.3510	15.3189	0.2143
14	M	28.727	38.759	50.800	39.429	WITHIN GROUPS	10769.0122	102	105.5786		
	SD	8.039	10.260	11.688	11.604	TOTAL	14003.7143	104			
	N	12	89	15	116	BETWEEN GROUPS	0.1551	2	0.0776	0.3083	-0.0121
15	M	2.333	2.449	2.467	2.440	WITHIN GROUPS	28.4225	113	0.2515		
	SD	0.492	0.500	0.516	0.498	TOTAL	28.5776	115			
	N	11	79	15	105	BETWEEN GROUPS	2679.3916	2	1339.6958	19.3813	0.2593
16	M	40.455	47.671	59.800	48.648	WITHIN GROUPS	7050.5703	102	69.1232		
	SD	7.202	7.529	12.278	9.673	TOTAL	9729.9619	104			
	N	8	64	11	83	BETWEEN GROUPS	709.7421	2	354.8710	1.5422	0.0129
17	M	84.625	94.453	94.909	93.506	WITHIN GROUPS	18408.6435	80	230.1080		
	SD	10.555	15.506	15.751	15.269	TOTAL	19118.3855	82			
	N	13	99	17	129	BETWEEN GROUPS	4222.3117	2	2111.1558	29.7822	0.3085
18	M	32.077	42.455	55.471	43.124	WITHIN GROUPS	8931.7038	126	70.8865		
	SD	7.274	8.154	10.548	10.137	TOTAL	13154.0155	128			
	N	13	99	17	129	BETWEEN GROUPS	541.8342	2	270.9171	4.6971	0.0542
19	M	47.692	50.758	55.824	51.116	WITHIN GROUPS	7267.4216	126	57.6779		
	SD	6.969	7.171	9.221	7.811	TOTAL	7809.2558	128			
	N	13	97	17	127	BETWEEN GROUPS	629.5809	2	314.7905	4.4576	0.0516
20	M	45.308	49.351	54.353	49.606	WITHIN GROUPS	8756.7341	124	70.6188		
	SD	7.931	8.435	8.558	8.631	TOTAL	9386.3150	126			
	N	12	96	15	123	BETWEEN GROUPS	42.5271	2	21.2635	0.4937	-0.0083
21	M	21.583	23.573	23.200	23.333	WITHIN GROUPS	5168.8063	120	43.0734		
	SD	4.122	6.682	7.272	6.536	TOTAL	5211.3333	122			
	N	12	96	15	123	BETWEEN GROUPS	41.9213	2	20.9607	0.4859	-0.0084
22	M	21.500	23.438	23.600	23.268	WITHIN GROUPS	5176.2250	120	43.1352		
	SD	4.079	6.680	7.337	6.540	TOTAL	5218.1463	122			
	N	10	83	13	106	BETWEEN GROUPS	128.6347	2	64.3174	1.4977	0.0093
23	M	19.300	23.036	23.231	22.708	WITHIN GROUPS	4423.2993	103	42.9447		
	SD	5.100	6.575	7.328	6.584	TOTAL	4551.9340	105			
	N	12	96	15	123	BETWEEN GROUPS	104.2159	2	52.1079	1.0780	0.0013
24	M	19.750	22.875	22.467	22.520	WITHIN GROUPS	5800.4833	120	48.3374		
	SD	6.982	6.942	6.999	6.957	TOTAL	5904.6992	122			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14C: NEGRO MALES - Low SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	0	15	4	19	BETWEEN GROUPS	128.0035	1	128.0035	1.8366	0.0422
25	M	0.0	21.133	27.500	22.474	WITHIN GROUPS	1184.7333	17	69.6902		
	SD	0.0	7.120	12.583	8.540	TOTAL	1312.7368	18			
	N	12	95	15	122	BETWEEN GROUPS	180.4005	2	90.2002	2.7702	0.0282
26	M	28.583	31.032	33.733	31.123	WITHIN GROUPS	3874.7553	119	32.5610		
	SD	5.501	5.780	5.351	5.789	TOTAL	4055.1557	121			
	N	0	8	4	12	BETWEEN GROUPS	4.1667	1	4.1667	0.0629	-0.0647
27	M	0.0	23.750	22.500	23.333	WITHIN GROUPS	662.5000	10	66.2500		
	SD	0.0	7.906	8.660	7.785	TOTAL	666.6667	11			
	N	12	96	15	123	BETWEEN GROUPS	61.3380	2	30.6690	0.4260	-0.0094
28	M	25.583	27.437	26.600	27.398	WITHIN GROUPS	8640.1417	120	72.0012		
	SD	9.414	8.279	9.077	8.445	TOTAL	8701.4797	122			
	N	12	95	15	122	BETWEEN GROUPS	67.2444	2	33.6222	0.7249	-0.0045
29	M	27.667	28.905	30.733	29.008	WITHIN GROUPS	5519.7474	119	46.3844		
	SD	7.303	6.986	4.964	6.795	TOTAL	5586.9918	121			
	N	12	96	15	123	BETWEEN GROUPS	31.2323	2	15.6162	0.2096	-0.0130
30	M	29.583	29.521	31.067	29.715	WITHIN GROUPS	8939.8083	120	74.4984		
	SD	10.086	8.526	8.084	8.575	TOTAL	8971.0407	122			
	N	12	96	15	123	BETWEEN GROUPS	269.2433	2	134.6216	2.0234	0.0164
31	M	22.333	26.563	28.533	26.390	WITHIN GROUPS	7984.0250	120	66.5335		
	SD	5.416	8.329	8.749	8.225	TOTAL	8253.2683	122			
	N	12	89	14	115	BETWEEN GROUPS	351.6376	2	175.8188	2.9655	0.0331
32	M	19.917	24.079	27.286	24.035	WITHIN GROUPS	6640.2232	112	59.2877		
	SD	7.204	7.677	8.241	7.831	TOTAL	6991.8609	114			
	N	7	73	13	93	BETWEEN GROUPS	55.2201	2	27.6100	0.5860	-0.0090
33	M	21.000	23.932	23.846	23.699	WITHIN GROUPS	4240.3498	90	47.1150		
	SD	2.769	6.985	7.537	6.833	TOTAL	4295.5699	92			
	N	6	63	11	80	BETWEEN GROUPS	13.3968	2	6.6984	0.1355	-0.0221
34	M	22.333	23.698	23.000	23.500	WITHIN GROUPS	3806.6032	77	49.4364		
	SD	7.737	6.869	7.629	6.954	TOTAL	3820.0000	79			
	N	5	51	7	63	BETWEEN GROUPS	57.2698	2	28.6349	0.5105	-0.0158
35	M	29.000	25.667	27.000	26.079	WITHIN GROUPS	3365.3333	60	56.0889		
	SD	7.483	7.549	6.976	7.430	TOTAL	3422.6032	62			
	N	3	42	7	52	BETWEEN GROUPS	2.6136	2	1.3068	0.0363	-0.0385
36	M	26.667	26.357	27.000	26.462	WITHIN GROUPS	1764.3095	49	36.0063		
	SD	2.887	6.401	3.367	5.886	TOTAL	1766.9231	51			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14C: NEGRO MALES - Low SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	11	87	14	112	BETWEEN GROUPS	688.1597	2	344.0799	3.0202	0.0348
37	M	77.273	81.701	87.571	82.000	WITHIN GROUPS	12417.8403	109	113.9251		
	SD	11.499	10.301	13.849	10.866	TOTAL	13106.0000	111			
	N	5	55	9	69	BETWEEN GROUPS	178.7875	2	89.3938	0.7312	-0.0079
38	M	81.600	85.127	88.778	85.348	WITHIN GROUPS	8068.8646	66	122.2555		
	SD	11.675	10.398	14.515	11.013	TOTAL	8247.6522	68			
	N	4	39	8	51	BETWEEN GROUPS	4.2888	2	2.1444	0.9766	-0.0009
39	M	4.000	3.282	2.750	3.255	WITHIN GROUPS	105.3974	48	2.1958		
	SD	1.155	1.432	1.832	1.481	TOTAL	109.6863	50			
	N	10	77	10	97	BETWEEN GROUPS	1091.9496	2	545.9748	4.6677	0.0703
40	M	40.600	43.312	53.700	44.103	WITHIN GROUPS	10995.0195	94	116.9683		
	SD	7.486	10.718	13.985	11.221	TOTAL	12086.9691	96			
	N	10	80	11	101	BETWEEN GROUPS	871.7303	2	435.8652	3.3024	0.0436
41	M	43.800	47.837	56.000	48.327	WITHIN GROUPS	12934.4875	98	131.9846		
	SD	9.438	11.541	12.669	11.750	TOTAL	13806.2178	100			
	N	6	69	11	88	BETWEEN GROUPS	923.2258	2	461.6129	3.1109	0.0458
42	M	34.500	40.478	48.182	40.898	WITHIN GROUPS	12612.8538	85	148.3865		
	SD	9.914	12.069	14.211	12.473	TOTAL	13536.0795	87			
	N	9	80	11	100	BETWEEN GROUPS	665.9438	2	332.9719	3.7536	0.0522
43	M	50.889	51.250	59.455	52.120	WITHIN GROUPS	8604.6162	97	88.7074		
	SD	8.373	9.461	9.863	9.677	TOTAL	9270.5600	99			
	N	10	73	10	93	BETWEEN GROUPS	832.2439	2	416.1220	5.6278	0.0905
44	M	43.500	45.055	54.400	45.892	WITHIN GROUPS	6654.6808	90	73.9409		
	SD	7.382	8.120	12.545	9.021	TOTAL	7486.9247	92			
	N	3	15	4	22	BETWEEN GROUPS	834.7136	2	417.3568	1.5382	0.0466
45	M	62.667	60.533	76.750	63.773	WITHIN GROUPS	5155.1500	19	271.3237		
	SD	6.351	17.876	14.151	16.889	TOTAL	5989.8636	21			
	N	3	15	4	22	BETWEEN GROUPS	3437.4682	2	1718.7341	12.6263	0.5138
46	M	60.333	54.267	87.250	61.091	WITHIN GROUPS	2586.3500	19	136.1237		
	SD	5.774	12.453	10.782	16.937	TOTAL	6023.8182	21			
	N	3	15	4	22	BETWEEN GROUPS	1893.0545	2	946.5273	6.2005	0.3210
47	M	61.667	57.533	82.000	62.545	WITHIN GROUPS	2900.4000	19	152.6526		
	SD	3.215	13.336	11.402	15.108	TOTAL	4793.4545	21			
	N	6	62	12	80	BETWEEN GROUPS	71.5208	2	35.7604	2.8382	0.0439
48	M	7.500	7.000	9.667	7.437	WITHIN GROUPS	970.1667	77	12.5996		
	SD	4.930	3.358	3.822	3.631	TOTAL	1041.6875	79			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14C: NEGRO MALES - Low SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	7	67	12	86	BETWEEN GROUPS	121.3408	2	60.6704	5.1966	0.0889
49	M	6.143	6.851	10.167	7.256	WITHIN GROUPS	969.0313	83	11.6751		
	SD	3.485	3.470	3.040	3.582	TOTAL	1090.3721	85			
	N	7	67	13	87	BETWEEN GROUPS	49.7203	2	24.8602	1.5593	0.0127
50	M	5.857	6.776	8.092	6.989	WITHIN GROUPS	1339.2682	84	15.9437		
	SD	2.734	4.007	4.423	4.019	TOTAL	1388.9885	86			
	N	8	69	12	89	BETWEEN GROUPS	5.7484	2	2.8742	0.2190	-0.0179
51	M	7.625	6.797	7.167	6.921	WITHIN GROUPS	1128.7011	86	13.1244		
	SD	4.033	3.575	3.639	3.590	TOTAL	1134.4494	88			
	N	7	69	12	88	BETWEEN GROUPS	31.0996	2	15.5498	1.9337	0.0208
52	M	6.000	7.304	8.583	7.375	WITHIN GROUPS	683.5254	85	8.0415		
	SD	3.162	2.830	2.678	2.866	TOTAL	714.6250	87			
	N	7	69	12	88	BETWEEN GROUPS	9.1243	2	4.5621	0.2728	-0.0168
53	M	8.286	7.159	7.583	7.307	WITHIN GROUPS	1421.5916	85	16.7246		
	SD	3.904	4.075	4.274	4.055	TOTAL	1430.7159	87			
	N	8	64	13	85	BETWEEN GROUPS	95.1209	2	47.5635	4.7735	0.0815
54	M	5.625	4.672	7.615	5.212	WITHIN GROUPS	817.0613	82	9.9642		
	SD	3.021	2.944	4.154	3.295	TOTAL	912.1882	84			
	N	8	66	13	87	BETWEEN GROUPS	54.8223	2	27.4112	2.3373	0.0298
55	M	5.250	5.697	7.846	5.977	WITHIN GROUPS	985.1317	84	11.7278		
	SD	3.655	3.495	2.853	3.477	TOTAL	1039.9540	86			
	N	8	60	11	79	BETWEEN GROUPS	2.2079	2	1.1040	0.0977	-0.0234
56	M	6.000	6.217	6.636	6.253	WITHIN GROUPS	858.7288	76	11.2991		
	SD	3.625	3.211	3.982	3.322	TOTAL	860.9367	78			
	N	13	99	17	129	BETWEEN GROUPS	4827.6837	2	2413.8418	141.0318	0.6846
57	M	88.231	99.485	113.294	100.171	WITHIN GROUPS	2156.5644	126	17.1156		
	SD	2.166	4.181	4.921	7.387	TOTAL	6984.2481	128			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14E: NEGRO MALES - High IQ

NO OF VARIABLES = 57 CLASSIFICATION VAR = # 57 WITH ELIMINATION CODE FOR CLAS. VAR = 999.000

CLAS CATEGORY UPPER LIMITS = 91.000, 108.000, 990.000, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,

RESTRICTION VAR = # 8 WITH RANGE OF 86.000 TO 175.000

CODES TO BE EXCLUDED FOR VARS 1 TO 57 ARE 0.0 , 0.0 , 0.0 , -9.000, 0.0 , 0.0 ,

0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	1.000,	0.0 ,	0.0 ,	
0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	
0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	
0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	
0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	999.000,					

FORMAT OF DATA IS (57F6.0)

MAX # OF OBS TO BE INCLUDED THIS PROBLEM = 296 DATA TO BE READ FROM TAPE WITHOUT REWIND

GROUP 1 = UNDERACHIEVERS

GROUP 2 = AVERAGE ACHIEVERS

GROUP 3 = OVERACHIEVERS

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14E: NEGRO MALES - High IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	13	82	18	113	BETWEEN GROUPS	206.7020	2	103.3510	2.3440	0.0232
1	M	142.846	139.561	142.389	140.389	WITHIN GROUPS	4850.1652	110	44.0924		
	SD	9.091	6.340	5.952	6.7.9	TOTAL	5056.8673	112			
	N	11	80	16	107	BETWEEN GROUPS	5.0225	2	2.5113	1.6727	0.0124
2	M	5.818	5.125	5.375	5.234	WITHIN GROUPS	156.1364	104	1.5013		
	SD	0.603	1.325	0.957	1.233	TOTAL	161.1589	106			
	N	13	79	18	110	BETWEEN GROUPS	1.1430	2	0.5715	0.3980	-0.0111
3	M	5.231	4.924	4.889	4.955	WITHIN GROUPS	153.6298	107	1.4358		
	SD	1.013	1.259	1.023	1.192	TOTAL	154.7727	109			
	N	13	82	18	113	BETWEEN GROUPS	0.7686	2	0.3843	0.0529	-0.0170
4	M	4.462	4.720	4.722	4.690	WITHIN GROUPS	799.3907	110	7.2672		
	SD	2.504	2.617	3.159	2.673	TOTAL	800.1593	112			
	N	12	79	17	108	BETWEEN GROUPS	1.4041	2	0.7020	0.5473	-0.0085
5	M	5.417	5.772	5.647	5.713	WITHIN GROUPS	134.6978	105	1.2828		
	SD	0.793	1.219	0.862	1.128	TOTAL	136.1019	107			
	N	13	78	17	108	BETWEEN GROUPS	0.0471	2	0.0236	0.0407	-0.0181
6	M	4.308	4.372	4.353	4.361	WITHIN GROUPS	60.8695	105	0.5797		
	SD	0.480	0.824	0.606	0.755	TOTAL	60.9167	107			
	N	13	79	17	109	BETWEEN GROUPS	669.9771	2	334.9886	24.0517	0.2972
7	M	15.385	19.494	24.706	19.817	WITHIN GROUPS	1476.3532	106	13.9279		
	SD	3.798	3.633	4.135	4.458	TOTAL	2146.3303	108			
	N	13	82	18	113	BETWEEN GROUPS	175.3556	2	87.6778	1.0378	0.0007
8	M	95.923	98.451	100.722	98.522	WITHIN GROUPS	9292.8391	110	84.4804		
	SD	11.280	8.405	10.964	9.194	TOTAL	9468.1947	112			
	N	8	58	12	78	BETWEEN GROUPS	17.7630	2	8.8815	4.2730	0.0774
9	M	4.000	2.431	2.833	2.654	WITHIN GROUPS	155.8908	75	2.0785		
	SD	1.927	1.440	1.030	1.502	TOTAL	173.6538	77			
	N	10	61	12	83	BETWEEN GROUPS	0.3882	2	0.1941	0.0981	-0.0222
10	M	2.400	2.541	2.667	2.542	WITHIN GROUPS	158.2142	80	1.9777		
	SD	1.430	1.385	1.497	1.391	TOTAL	158.6024	82			
	N	11	69	14	94	BETWEEN GROUPS	3.1874	2	1.5937	1.1894	0.0040
11	M	3.000	2.551	2.286	2.564	WITHIN GROUPS	121.9296	91	1.3399		
	SD	1.183	1.105	1.383	1.160	TOTAL	125.1170	93			
	N	11	74	14	99	BETWEEN GROUPS	10.6567	2	5.3284	2.7354	0.0339
12	M	3.091	2.068	2.429	2.232	WITHIN GROUPS	186.9998	96	1.9479		
	SD	2.071	1.253	1.505	1.420	TOTAL	197.6566	98			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14E: NEGRO MALES - High IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	7	55	10	72	BETWEEN GROUPS	174.6509	2	87.3255	1.7316	0.0199
13	M	33.857	35.345	39.500	35.778	WITHIN GROUPS	3479.7935	69	50.4318		
	SD	8.174	7.108	6.241	7.174	TOTAL	3654.4444	71			
	N	12	70	16	98	BETWEEN GROUPS	7504.3625	2	3752.1813	57.0365	0.5335
14	M	33.500	46.700	65.438	48.143	WITHIN GROUPS	6249.6375	95	65.7857		
	SD	9.170	7.341	10.347	11.908	TOTAL	13754.0000	97			
	N	10	77	16	103	BETWEEN GROUPS	0.2877	2	0.1439	0.7512	-0.0049
15	M	2.600	2.753	2.812	2.748	WITHIN GROUPS	19.1492	100	0.1915		
	SD	0.516	0.434	0.403	0.437	TOTAL	19.4369	102			
	N	12	70	16	98	BETWEEN GROUPS	5005.5129	2	2502.7565	43.9924	0.4673
16	M	41.333	54.029	68.000	54.755	WITHIN GROUPS	5404.6095	95	56.8906		
	SD	8.627	7.087	8.641	10.360	TOTAL	10410.1224	97			
	N	4	54	11	69	BETWEEN GROUPS	260.0261	2	130.0130	0.6690	-0.0097
17	M	99.750	102.315	97.091	101.333	WITHIN GROUPS	12827.3072	66	194.3531		
	SD	21.297	13.771	11.895	13.873	TOTAL	13087.3333	68			
	N	13	82	18	113	BETWEEN GROUPS	7267.3879	2	3633.6939	102.9778	0.6435
18	M	34.615	49.915	65.333	50.611	WITHIN GROUPS	3881.4794	110	35.2862		
	SD	8.471	5.283	6.686	9.977	TOTAL	11148.8673	112			
	N	13	82	18	113	BETWEEN GROUPS	1043.6978	2	521.8489	17.0267	0.2210
19	M	50.615	56.049	62.167	56.398	WITHIN GROUPS	3371.3818	110	30.6489		
	SD	4.610	5.363	6.802	6.279	TOTAL	4415.0796	112			
	N	13	81	18	112	BETWEEN GROUPS	1375.6712	2	687.8356	16.5453	0.2173
20	M	48.692	54.704	61.889	55.161	WITHIN GROUPS	4531.4359	109	41.5728		
	SD	9.844	5.832	6.173	7.295	TOTAL	5907.1071	111			
	N	12	78	17	107	BETWEEN GROUPS	349.6441	2	174.8220	4.7637	0.0657
21	M	23.750	28.269	30.765	28.159	WITHIN GROUPS	3816.6550	104	36.6986		
	SD	5.048	5.864	7.454	6.269	TOTAL	4166.2991	106			
	N	12	78	17	107	BETWEEN GROUPS	350.2634	2	175.1317	4.6373	0.0637
22	M	23.833	28.487	30.824	28.336	WITHIN GROUPS	3927.6244	104	37.7656		
	SD	5.184	5.980	7.410	6.353	TOTAL	4277.8879	106			
	N	11	73	17	101	BETWEEN GROUPS	267.5815	2	133.7908	2.6931	0.0324
23	M	24.273	27.521	30.529	27.673	WITHIN GROUPS	4868.6363	98	49.6800		
	SD	5.746	7.069	7.666	7.167	TOTAL	5136.2178	100			
	N	12	78	17	107	BETWEEN GROUPS	357.2303	2	178.6151	3.8871	0.0512
24	M	22.833	27.295	29.941	27.215	WITHIN GROUPS	4778.8258	104	45.9502		
	SD	6.088	6.533	8.235	6.961	TOTAL	5136.0561	106			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14E: NEGRO MALES - High IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	1	22	8	31	BETWEEN GROUPS	350.3068	2	175.1534	3.3279	0.1306
25	M	30.000	26.909	34.625	29.000	WITHIN GROUPS	1473.6932	28	52.6319		
	SD	0.0	7.157	7.539	7.797	TOTAL	1824.0000	30			
	N	12	78	17	107	BETWEEN GROUPS	213.6134	2	106.8067	3.7711	0.0492
26	M	30.750	32.372	35.765	32.729	WITHIN GROUPS	2945.5268	104	28.3224		
	SD	4.003	5.527	5.106	5.459	TOTAL	3159.1402	106			
	N	0	20	6	26	BETWEEN GROUPS	20.6782	1	20.6782	0.5464	-0.0178
27	M	0.0	26.550	28.667	27.038	WITHIN GROUPS	908.2833	24	37.8451		
	SD	0.0	5.826	7.257	6.096	TOTAL	928.9615	25			
	N	12	78	17	107	BETWEEN GROUPS	779.3938	2	389.6969	7.2053	0.1039
28	M	27.250	32.397	37.647	32.654	WITHIN GROUPS	5624.8118	104	54.0847		
	SD	7.665	7.338	7.211	7.773	TOTAL	6404.2056	106			
	N	12	78	17	107	BETWEEN GROUPS	130.1179	2	65.0590	1.0651	0.0012
29	M	30.083	32.885	34.353	32.804	WITHIN GROUPS	6352.7606	104	61.0842		
	SD	8.826	7.530	8.403	7.820	TOTAL	6482.8785	106			
	N	12	77	17	106	BETWEEN GROUPS	502.2701	2	251.1351	4.4132	0.0605
30	M	29.000	33.468	37.412	33.594	WITHIN GROUPS	5861.2865	103	56.9057		
	SD	7.249	7.701	6.965	7.785	TOTAL	6363.5566	105			
	N	12	78	17	107	BETWEEN GROUPS	755.5179	2	377.7590	8.3604	0.1209
31	M	26.583	31.436	36.765	31.738	WITHIN GROUPS	4699.1550	104	45.1842		
	SD	5.712	6.924	6.369	7.174	TOTAL	5454.6729	106			
	N	12	78	17	107	BETWEEN GROUPS	798.7719	2	399.3859	7.2201	0.1042
32	M	24.000	28.795	34.412	29.150	WITHIN GROUPS	5752.8356	104	55.3157		
	SD	7.616	7.108	8.747	7.862	TOTAL	6551.6075	106			
	N	10	74	17	101	BETWEEN GROUPS	419.1727	2	209.5863	3.0705	0.0394
33	M	22.900	27.446	31.000	27.594	WITHIN GROUPS	6689.1838	98	68.2570		
	SD	5.087	8.587	8.193	8.431	TOTAL	7108.3564	100			
	N	8	66	16	90	BETWEEN GROUPS	309.8003	2	154.9001	3.4447	0.0515
34	M	23.125	27.379	30.625	27.578	WITHIN GROUPS	3912.1553	87	44.9673		
	SD	6.357	6.094	9.003	6.888	TOTAL	4221.9556	89			
	N	7	62	15	84	BETWEEN GROUPS	0.9040	2	0.4520	0.0084	-0.0242
35	M	28.571	28.823	29.000	28.833	WITHIN GROUPS	4342.7627	81	53.6144		
	SD	6.803	7.226	7.928	7.234	TOTAL	4343.6667	83			
	N	6	56	13	75	BETWEEN GROUPS	154.9817	2	77.4908	1.9565	0.0249
36	M	25.333	27.786	30.923	28.133	WITHIN GROUPS	2851.6850	72	39.6067		
	SD	3.445	6.635	5.560	6.374	TOTAL	3006.6667	74			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14E: NEGRO MALES - High IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	12	70	17	99	BETWEEN GROUPS	1587.3744	2	793.6872	8.1460	0.1262
37	M	79.333	87.986	94.353	88.030	WITHIN GROUPS	9353.5347	96	97.4327		
	SD	12.033	9.284	10.647	10.566	TOTAL	10940.9091	98			
	N	7	64	13	84	BETWEEN GROUPS	749.2194	2	374.6097	4.3098	0.0730
38	M	86.000	90.297	97.462	91.048	WITHIN GROUPS	7040.5901	81	86.9209		
	SD	10.661	8.662	11.659	9.688	TOTAL	7789.8095	83			
	N	6	51	13	70	BETWEEN GROUPS	11.1362	2	5.5681	3.1102	0.0569
39	M	4.167	2.804	2.615	2.886	WITHIN GROUPS	119.9495	67	1.7903		
	SD	1.329	1.357	1.261	1.378	TOTAL	131.0857	69			
	N	9	69	14	92	BETWEEN GROUPS	1714.0366	2	857.0183	7.3514	0.1213
40	M	42.889	49.130	59.286	50.065	WITHIN GROUPS	10375.5721	89	116.5795		
	SD	8.298	11.384	8.827	11.526	TOTAL	12089.6087	91			
	N	11	69	15	95	BETWEEN GROUPS	3493.8752	2	1746.9376	14.6822	0.2236
41	M	45.818	51.493	66.600	53.221	WITHIN GROUPS	10946.4827	92	118.9835		
	SD	8.953	10.793	12.603	12.394	TOTAL	14440.3579	94			
	N	9	59	15	83	BETWEEN GROUPS	477.2998	2	238.6499	1.0560	0.0013
42	M	39.778	43.305	48.400	43.843	WITHIN GROUPS	18079.6640	80	225.9958		
	SD	14.167	14.255	18.298	15.043	TOTAL	18556.9639	82			
	N	11	67	14	92	BETWEEN GROUPS	897.9894	2	448.9947	5.8660	0.0957
43	M	51.636	55.627	63.000	56.272	WITHIN GROUPS	6812.2171	89	76.5418		
	SD	9.678	8.572	8.884	9.205	TOTAL	7710.2065	91			
	N	8	65	13	86	BETWEEN GROUPS	1650.5295	2	825.2648	15.2544	0.2490
44	M	46.500	49.385	61.077	50.884	WITHIN GROUPS	4490.3077	83	54.1001		
	SD	7.874	7.526	5.993	8.500	TOTAL	6140.8372	85			
	N	2	15	6	23	BETWEEN GROUPS	1189.9058	2	594.9529	1.6736	0.0553
45	M	51.500	63.000	76.333	65.478	WITHIN GROUPS	7109.8333	20	355.4917		
	SD	26.163	20.139	12.226	19.423	TOTAL	8299.7391	22			
	N	2	15	6	23	BETWEEN GROUPS	2771.5420	2	1385.7710	7.4925	0.3608
46	M	55.000	56.533	81.333	62.870	WITHIN GROUPS	3699.0667	20	184.9533		
	SD	2.828	14.167	13.277	17.150	TOTAL	6470.6087	22			
	N	2	15	6	23	BETWEEN GROUPS	1769.2116	2	884.6058	4.3833	0.2273
47	M	53.500	60.067	78.833	64.391	WITHIN GROUPS	4036.2667	20	201.8133		
	SD	14.849	15.364	10.108	16.245	TOTAL	5805.4783	22			
	N	7	67	16	90	BETWEEN GROUPS	43.3335	2	21.6668	1.5092	0.0112
48	M	7.857	8.164	9.937	8.456	WITHIN GROUPS	1248.9887	87	14.3562		
	SD	5.113	3.608	3.941	3.811	TOTAL	1292.3222	89			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14E: NEGRO MALES - High IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	8	71	16	95	BETWEEN GROUPS	139.0353	2	69.5177	4.0732	0.0608
49	M	5.375	7.958	10.312	8.137	WITHIN GROUPS	1570.1857	92	17.0672		
	SD	3.420	4.183	4.191	4.264	TOTAL	1709.2211	94			
	N	9	71	16	96	BETWEEN GROUPS	187.7709	2	93.8854	6.4360	0.1017
50	M	6.111	8.507	11.500	8.781	WITHIN GROUPS	1356.6354	93	14.5875		
	SD	3.219	3.909	3.688	4.032	TOTAL	1544.4062	95			
	N	9	70	16	95	BETWEEN GROUPS	8.1774	2	4.0887	0.3356	-0.0142
51	M	6.889	7.586	6.937	7.411	WITHIN GROUPS	1120.8121	92	12.1827		
	SD	4.314	3.565	2.516	3.466	TOTAL	1128.9895	94			
	N	8	70	16	94	BETWEEN GROUPS	80.2074	2	40.1037	4.6210	0.0715
52	M	5.500	8.000	9.375	8.021	WITHIN GROUPS	789.7500	91	8.6786		
	SD	3.024	2.909	3.074	3.058	TOTAL	869.9574	93			
	N	8	71	16	95	BETWEEN GROUPS	82.0790	2	41.0395	2.4885	0.0304
53	M	4.250	7.296	8.062	7.168	WITHIN GROUPS	1517.2262	92	16.4916		
	SD	4.496	4.026	4.008	4.125	TOTAL	1599.3053	94			
	N	9	69	16	94	BETWEEN GROUPS	106.0797	2	53.0399	4.5056	0.0694
54	M	4.222	5.841	8.187	6.085	WITHIN GROUPS	1071.2394	91	11.7719		
	SD	3.270	3.359	3.816	3.558	TOTAL	1177.3191	93			
	N	9	69	16	94	BETWEEN GROUPS	213.8074	2	106.9037	8.7734	0.1419
55	M	3.444	7.696	9.500	7.596	WITHIN GROUPS	1108.8309	91	12.1850		
	SD	3.005	3.444	3.916	3.771	TOTAL	1322.6383	93			
	N	9	67	15	91	BETWEEN GROUPS	14.0442	2	7.0221	0.5703	-0.0095
56	M	6.667	6.925	7.933	7.066	WITHIN GROUPS	1083.5602	88	12.3132		
	SD	4.213	3.417	3.494	3.492	TOTAL	1097.6044	90			
	N	13	82	18	113	BETWEEN GROUPS	6389.4064	2	3194.7032	147.5484	0.7217
57	M	86.000	100.232	114.778	100.912	WITHIN GROUPS	2381.7087	110	21.6519		
	SD	6.733	3.646	6.691	8.849	TOTAL	8771.1150	112			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-140: NEGRO MALES - Low IQ

NO OF VARIABLES = 57 CLASSIFICATION VAR = # 57 WITH ELIMINATION CODE FOR CLAS. VAR = 999.000

CLAS CATEGORY UPPER LIMITS = 91.000, 108.000, 990.000, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,

RESTRICTION VAR = # 8 WITH RANGE OF 50.000 TO 85.000

CODES TO BE EXCLUDED FOR VARS 1 TO 57 ARE 0.0 , 0.0 , 0.0 , -9.000, 0.0 , 0.0 ,

0.0	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	1.000,	0.0 ,	0.0 ,
0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,
0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,
0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,
0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	0.0 ,	999.000,					

FORMAT OF DATA IS (57F6.0)

MAX # OF OBS TO BE INCLUDED THIS PROBLEM = 296 DATA TO BE READ FROM TAPE WITHOUT REWIND

GROUP 1 = UNDERACHIEVERS

GROUP 2 = AVERAGE ACHIEVERS

GROUP 3 = OVERACHIEVERS

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RL S

LLOYD 1-14D: NEGRO MALES - Low IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	14	86	18	118	BETWEEN GROUPS	554.1156	2	277.0578	1.8592	0.0144
1	M	146.643	152.012	154.944	151.822	WITHIN GROUPS	17137.1471	115	149.0187		
	SD	12.852	11.898	13.189	12.297	TOTAL	17691.2627	117			
	N	12	78	16	106	BETWEEN GROUPS	2.3056	2	1.1528	1.0144	0.0003
2	M	5.333	5.474	5.062	5.396	WITHIN GROUPS	117.0529	103	1.1364		
	SD	0.985	0.990	1.436	1.066	TOTAL	119.3585	105			
	N	13	78	16	107	BETWEEN GROUPS	1.0550	2	0.5275	0.3727	-0.0119
3	M	4.923	5.231	5.187	5.187	WITHIN GROUPS	147.2067	104	1.4154		
	SD	1.038	1.161	1.424	1.183	TOTAL	148.2617	106			
	N	14	86	18	118	BETWEEN GROUPS	3.2546	2	1.6273	0.2055	-0.0136
4	M	4.357	4.721	5.000	4.720	WITHIN GROUPS	910.5166	115	7.9175		
	SD	2.951	2.823	2.657	2.795	TOTAL	913.7712	117			
	N	13	79	17	109	BETWEEN GROUPS	0.3677	2	0.1838	0.1399	-0.0160
5	M	6.000	6.177	6.118	6.147	WITHIN GROUPS	139.2837	106	1.3140		
	SD	0.816	1.083	1.576	1.137	TOTAL	139.6514	108			
	N	12	81	18	111	BETWEEN GROUPS	0.9234	2	0.4617	0.9263	-0.0013
6	M	4.667	4.630	4.389	4.595	WITHIN GROUPS	53.8333	108	0.4985		
	SD	0.651	0.679	0.850	0.706	TOTAL	54.7568	110			
	N	14	81	18	113	BETWEEN GROUPS	97.5057	2	48.7528	2.4359	0.0248
7	M	14.643	14.691	17.222	15.088	WITHIN GROUPS	2201.6093	110	20.0146		
	SD	4.986	4.355	4.609	4.531	TOTAL	2299.1150	112			
	N	14	86	18	118	BETWEEN GROUPS	582.1537	2	291.0768	3.9726	0.0480
8	M	78.786	72.326	70.944	72.881	WITHIN GROUPS	8426.1853	115	73.2712		
	SD	7.423	8.476	9.710	8.775	TOTAL	9008.3390	117			
	N	11	60	14	85	BETWEEN GROUPS	13.1646	2	6.5823	2.7480	0.0395
9	M	2.000	2.983	3.429	2.929	WITHIN GROUPS	196.4119	82	2.3953		
	SD	1.095	1.589	1.651	1.580	TOTAL	209.5765	84			
	N	13	62	13	88	BETWEEN GROUPS	1.6338	2	0.8169	0.2732	-0.0168
10	M	2.692	2.806	3.154	2.841	WITHIN GROUPS	254.1390	85	2.9899		
	SD	1.437	1.836	1.405	1.715	TOTAL	255.7727	87			
	N	13	66	14	93	BETWEEN GROUPS	0.0147	2	0.0074	0.0031	-0.0219
11	M	2.846	2.879	2.857	2.871	WITHIN GROUPS	214.4369	90	2.3826		
	SD	1.519	1.613	1.167	1.527	TOTAL	214.4516	92			
	N	12	71	15	98	BETWEEN GROUPS	2.2181	2	1.1090	0.3927	-0.0125
12	M	2.750	2.887	3.267	2.929	WITHIN GROUPS	268.2819	95	2.8240		
	SD	2.050	1.626	1.624	1.670	TOTAL	270.5000	97			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14D: NEGRO MALES - Low IQ

		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	11	44	11	66	BETWEEN GROUPS	170.9621	2	85.4811	1.7999	0.0237
13	M	24.818	26.568	30.182	26.879	WITHIN GROUPS	2992.0682	63	47.4931		
	SD	5.636	7.337	5.997	6.976	TOTAL	3163.0303	65			
	N	10	73	17	100	BETWEEN GROUPS	3501.0398	2	1750.5199	28.6066	0.3557
14	M	25.600	32.945	46.706	34.550	WITHIN GROUPS	5935.7102	97	61.1929		
	SD	4.300	7.890	8.971	9.763	TOTAL	9436.7500	99			
	N	12	72	14	98	BETWEEN GROUPS	0.0853	2	0.0427	0.1808	-0.0170
15	M	2.333	2.347	2.429	2.357	WITHIN GROUPS	22.4147	95	0.2359		
	SD	0.492	0.479	0.514	0.482	TOTAL	22.5000	97			
	N	10	73	17	100	BETWEEN GROUPS	2063.4096	2	1031.7048	23.6252	0.3115
16	M	38.400	43.808	54.471	45.080	WITHIN GROUPS	4235.9504	97	43.6696		
	SD	4.858	6.235	8.747	7.977	TOTAL	6299.3600	99			
	N	11	51	12	74	BETWEEN GROUPS	378.6748	2	189.3374	1.0921	0.0025
17	M	81.273	87.275	88.500	86.581	WITHIN GROUPS	12309.3387	71	173.3710		
	SD	12.924	12.603	15.658	13.184	TOTAL	12688.0135	73			
	N	14	86	18	118	BETWEEN GROUPS	4286.5314	2	2143.2657	52.5281	0.4662
18	M	28.929	36.826	50.944	38.042	WITHIN GROUPS	4692.2567	115	40.8022		
	SD	3.583	6.295	8.250	8.760	TOTAL	8978.7881	117			
	N	14	85	18	117	BETWEEN GROUPS	465.9921	2	232.9960	5.5055	0.0715
19	M	46.357	47.118	52.500	47.855	WITHIN GROUPS	4824.5378	114	42.3205		
	SD	6.721	6.105	8.068	6.753	TOTAL	5290.5299	116			
	N	14	84	18	116	BETWEEN GROUPS	871.8325	2	435.9163	8.6258	0.1162
20	M	43.286	44.750	52.000	45.698	WITHIN GROUPS	5710.6071	113	50.5363		
	SD	5.993	7.154	7.654	7.566	TOTAL	6582.4397	115			
	N	12	79	16	107	BETWEEN GROUPS	75.7758	2	37.8879	1.3551	0.0066
21	M	20.833	20.304	22.687	20.720	WITHIN GROUPS	2907.8130	104	27.9597		
	SD	5.096	5.261	5.558	5.305	TOTAL	2983.5888	106			
	N	12	79	16	107	BETWEEN GROUPS	112.8601	2	56.4301	2.0556	0.0193
22	M	20.667	20.089	23.000	20.589	WITHIN GROUPS	2855.0464	104	27.4524		
	SD	5.015	5.140	5.877	5.291	TOTAL	2967.9065	106			
	N	10	69	13	92	BETWEEN GROUPS	47.0463	2	23.5231	0.6882	-0.0068
23	M	18.500	20.101	21.385	20.109	WITHIN GROUPS	3041.8668	89	34.1783		
	SD	5.482	5.770	6.500	5.826	TOTAL	3088.9130	91			
	N	12	79	16	107	BETWEEN GROUPS	54.3388	2	27.1694	0.7883	-0.0040
24	M	18.667	19.772	21.375	19.888	WITHIN GROUPS	3584.3154	104	34.4646		
	SD	7.240	5.517	6.500	5.859	TOTAL	3638.6542	106			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14D: NEGRO MALES - Low IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	0	5	2	7	BETWEEN GROUPS	6.9143	1	6.9143	0.1401	-0.1401
25	M	0.0	17.200	15.000	16.571	WITHIN GROUPS	246.8000	5	49.3600		
	SD	0.0	7.014	7.071	6.503	TOTAL	253.7143	6			
	N	12	77	16	105	BETWEEN GROUPS	58.3342	2	29.1671	0.8807	-0.0023
26	M	28.833	30.494	31.750	30.495	WITHIN GROUPS	3377.9134	102	33.1168		
	SD	5.734	5.926	4.810	5.748	TOTAL	3436.2476	104			
	N	1	2	2	5	BETWEEN GROUPS	57.5000	2	28.7500	0.3538	-0.3485
27	M	20.000	15.000	22.500	19.000	WITHIN GROUPS	162.5000	2	81.2500		
	SD	0.0	7.071	10.607	7.416	TOTAL	220.0000	4			
	N	12	79	16	107	BETWEEN GROUPS	81.3214	2	40.6607	0.7082	-0.0055
28	M	22.167	24.570	25.500	24.439	WITHIN GROUPS	5971.0338	104	57.4138		
	SD	9.456	7.096	8.406	7.556	TOTAL	6052.3551	106			
	N	11	78	16	105	BETWEEN GROUPS	40.6435	2	20.3217	0.4602	-0.0104
29	M	27.000	27.833	29.312	27.971	WITHIN GROUPS	4504.2708	102	44.1595		
	SD	8.124	6.431	6.630	6.611	TOTAL	4544.9143	104			
	N	12	79	16	107	BETWEEN GROUPS	57.4307	2	28.7153	0.3998	-0.0113
30	M	28.833	27.975	30.000	28.374	WITHIN GROUPS	7469.6160	104	71.8232		
	SD	10.179	7.987	9.501	8.427	TOTAL	7527.0467	106			
	N	11	80	16	107	BETWEEN GROUPS	67.0558	2	33.5279	0.7676	-0.0044
31	M	21.636	22.512	24.500	22.720	WITHIN GROUPS	4542.5330	104	43.6782		
	SD	5.836	6.574	7.248	6.594	TOTAL	4609.5888	106			
	N	12	68	14	94	BETWEEN GROUPS	239.0238	2	119.5119	2.4633	0.0302
32	M	18.500	21.147	24.500	21.309	WITHIN GROUPS	4415.0294	91	48.5168		
	SD	8.285	6.242	8.985	7.074	TOTAL	4654.0532	93			
	N	6	52	12	70	BETWEEN GROUPS	32.4280	2	16.2140	0.5661	-0.0126
33	M	22.833	21.115	22.583	21.514	WITHIN GROUPS	1919.0577	67	28.6427		
	SD	8.010	4.378	7.513	5.318	TOTAL	1951.4857	69			
	N	4	45	9	58	BETWEEN GROUPS	2.9648	2	1.4824	0.0438	-0.0341
34	M	21.500	21.756	22.333	21.828	WITHIN GROUPS	1859.3111	55	33.8057		
	SD	4.435	5.970	5.385	5.716	TOTAL	1862.2759	57			
	N	4	34	6	44	BETWEEN GROUPS	119.7914	2	59.8957	1.8716	0.0381
35	M	24.000	22.235	27.000	23.045	WITHIN GROUPS	1312.1176	41	32.0029		
	SD	4.243	5.836	5.177	5.771	TOTAL	1431.9091	43			
	N	3	25	6	34	BETWEEN GROUPS	14.1145	2	7.0573	0.2366	-0.0470
36	M	25.667	24.440	26.000	24.824	WITHIN GROUPS	924.8267	31	29.8331		
	SD	4.041	5.731	4.561	5.334	TOTAL	938.9412	33			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14D: NEGRO MALES - Low IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	11	71	15	97	BETWEEN GROUPS	229.8213	2	114.9107	1.3299	0.0068
37	M	78.091	75.549	79.533	76.454	WITHIN GROUPS	8122.2199	94	86.4066		
	SD	10.261	8.996	10.013	9.327	TOTAL	8352.0412	96			
	N	4	39	8	51	BETWEEN GROUPS	51.4040	2	25.7020	0.2438	-0.0306
38	M	76.000	78.718	80.375	78.765	WITHIN GROUPS	5059.7724	48	105.4119		
	SD	9.416	10.105	11.426	10.111	TOTAL	5111.1765	50			
	N	2	21	5	28	BETWEEN GROUPS	3.1690	2	1.5845	0.7777	-0.0161
39	M	3.500	3.524	4.400	3.679	WITHIN GROUPS	50.9381	25	2.0375		
	SD	0.707	1.401	1.673	1.416	TOTAL	54.1071	27			
	N	9	60	10	79	BETWEEN GROUPS	103.8915	2	51.9457	0.8456	-0.0039
40	M	40.111	38.650	42.000	39.241	WITHIN GROUPS	4668.5389	76	61.4281		
	SD	9.400	7.494	8.485	7.822	TOTAL	4772.4304	78			
	N	10	62	11	83	BETWEEN GROUPS	184.2979	2	92.1490	1.0977	0.0023
41	M	41.200	41.823	46.091	42.313	WITHIN GROUPS	6715.5575	80	83.9445		
	SD	9.402	8.848	10.700	9.173	TOTAL	6899.8554	82			
	N	8	50	9	67	BETWEEN GROUPS	684.5093	2	342.2547	3.6702	0.0738
42	M	32.375	36.720	44.556	37.254	WITHIN GROUPS	5968.1772	64	93.2528		
	SD	5.263	10.321	8.323	10.040	TOTAL	6652.6866	66			
	N	9	62	9	80	BETWEEN GROUPS	13.4695	2	6.7348	0.1118	-0.0227
43	M	46.556	46.903	48.111	47.000	WITHIN GROUPS	4638.5305	77	60.2407		
	SD	6.366	7.355	11.263	7.674	TOTAL	4652.0000	79			
	N	9	57	10	76	BETWEEN GROUPS	42.1076	2	21.0538	0.5460	-0.0121
44	M	40.778	40.579	42.800	40.895	WITHIN GROUPS	2815.0503	73	38.5623		
	SD	7.102	5.855	7.391	6.172	TOTAL	2857.1579	75			
	N	2	9	3	14	BETWEEN GROUPS	183.0476	2	91.5238	0.5198	-0.0736
45	M	59.000	48.667	48.667	50.143	WITHIN GROUPS	1936.6667	11	176.0606		
	SD	0.0	12.430	18.717	12.769	TOTAL	2119.7143	13			
	N	2	9	3	14	BETWEEN GROUPS	178.1349	2	89.0675	0.3136	-0.1087
46	M	62.000	54.556	62.000	57.214	WITHIN GROUPS	3124.2222	11	284.0202		
	SD	7.071	15.076	25.060	15.938	TOTAL	3302.3571	13			
	N	2	9	3	14	BETWEEN GROUPS	136.1111	2	68.0556	0.3733	-0.0983
47	M	60.500	51.556	54.667	53.500	WITHIN GROUPS	2005.3889	11	182.3081		
	SD	3.536	11.865	20.817	12.835	TOTAL	2141.5000	13			
	N	7	46	11	64	BETWEEN GROUPS	6.0444	2	3.0222	0.2529	-0.0239
48	M	6.286	6.000	6.818	6.172	WITHIN GROUPS	729.0649	61	11.9519		
	SD	4.071	3.148	4.285	3.416	TOTAL	735.1094	63			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-140: NEGRO MALES - Low IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	7	48	12	67	BETWEEN GROUPS	42.7072	2	21.3536	2.1423	0.0330
49	M	4.143	6.062	7.250	6.075	WITHIN GROUPS	637.9196	64	9.9675		
	SD	3.078	3.097	3.441	3.211	TOTAL	680.6269	66			
	N	6	48	13	67	BETWEEN GROUPS	29.6524	2	14.8262	1.8247	0.0240
50	M	6.667	4.958	6.308	5.373	WITHIN GROUPS	520.0192	64	8.1253		
	SD	1.366	2.790	3.473	2.886	TOTAL	549.6716	66			
	N	7	49	12	68	BETWEEN GROUPS	0.8547	2	0.4274	0.0385	-0.0291
51	M	6.143	5.816	6.000	5.882	WITHIN GROUPS	722.2041	65	11.1108		
	SD	3.132	3.206	3.931	3.285	TOTAL	723.0588	67			
	N	7	49	11	67	BETWEEN GROUPS	47.8952	2	23.9476	3.2660	0.0634
52	M	4.857	6.673	8.182	6.731	WITHIN GROUPS	469.2690	64	7.3323		
	SD	2.340	2.528	3.601	2.799	TOTAL	517.1642	66			
	N	7	48	11	66	BETWEEN GROUPS	33.5511	2	16.7756	0.9834	-0.0005
53	M	7.000	6.521	8.455	6.894	WITHIN GROUPS	1074.7064	63	17.0588		
	SD	3.830	4.032	4.719	4.129	TOTAL	1108.2576	65			
	N	7	46	11	64	BETWEEN GROUPS	26.2176	2	13.1088	2.0444	0.0316
54	M	4.857	3.304	4.636	3.703	WITHIN GROUPS	391.1417	61	6.4122		
	SD	2.410	2.250	3.585	2.574	TOTAL	417.3594	63			
	N	7	45	13	65	BETWEEN GROUPS	34.9695	2	17.4847	1.8233	0.0247
55	M	5.571	4.778	6.615	5.231	WITHIN GROUPS	594.5690	62	9.5898		
	SD	2.440	2.976	3.754	3.136	TOTAL	629.5385	64			
	N	7	42	11	60	BETWEEN GROUPS	6.5504	2	3.2752	0.3476	-0.0222
56	M	6.143	5.333	4.909	5.350	WITHIN GROUPS	537.0996	57	9.4228		
	SD	3.237	3.034	3.113	3.036	TOTAL	543.6500	59			
	N	14	86	18	118	BETWEEN GROUPS	5431.2107	2	2715.6053	120.3891	0.6693
57	M	88.071	98.884	113.611	99.847	WITHIN GROUPS	2594.0436	115	22.5569		
	SD	3.125	4.641	6.118	8.282	TOTAL	8025.2542	117			

LLJYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLJYD 1-14b: NEGRO FEMALES - High SES

NO OF VARIABLES = 57 CLASSIFICATION VAR = # 57 WITH ELIMINATION CODE FOR CLAS. VAR = 999.000

CLAS CATEGORY UPPER LIMITS = 91.000, 108.000, 990.000, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,

RESTRICTION VAR = # 6 WITH RANGE OF 1.000 TO 4.000

CODES TO BE EXCLUDED FOR VARS 1 TO 57 ARE 0.0 , 0.0 , 0.0 , -9.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 1.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 999.000,

FORMAT OF DATA IS (57F6.0)

MAX # OF OBS TO BE INCLUDED THIS PROBLEM = 259 DATA TO BE READ FROM TAPE WITHOUT REWIND

GROUP 1 = UNDERACHIEVERS

GROUP 2 = AVERAGE ACHIEVERS

GROUP 3 = OVERACHIEVERS

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14B: NEGRO FEMALES - High SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	5	48	13	66	BETWEEN GROUPS	30.7231	2	15.3615	0.1842	-0.0253
1	M	142.600	140.917	142.385	141.333	WITHIN GROUPS	5253.9436	63	83.3959		
	SD	16.697	7.205	11.899	9.017	TOTAL	5284.6667	65			
	N	5	47	13	65	BETWEEN GROUPS	5.9391	2	2.9696	1.2587	0.0079
2	M	4.200	4.660	3.923	4.477	WITHIN GROUPS	146.2763	62	2.3593		
	SD	2.049	1.372	1.891	1.542	TOTAL	152.2154	64			
	N	5	46	13	64	BETWEEN GROUPS	0.9478	2	0.4739	0.2003	-0.0256
3	M	4.800	4.370	4.308	4.391	WITHIN GROUPS	144.2866	61	2.3654		
	SD	1.095	1.511	1.750	1.518	TOTAL	145.2344	63			
	N	5	48	13	66	BETWEEN GROUPS	5.0874	2	2.5437	0.2842	-0.0222
4	M	4.000	4.167	3.462	4.015	WITHIN GROUPS	563.8974	63	8.9508		
	SD	3.082	3.027	2.817	2.959	TOTAL	568.9848	65			
	N	5	47	13	65	BETWEEN GROUPS	1.2484	2	0.6242	0.8267	-0.0054
5	M	5.200	4.745	4.615	4.754	WITHIN GROUPS	46.8131	62	0.7550		
	SD	0.447	0.820	1.121	0.867	TOTAL	48.0615	64			
	N	5	48	13	66	BETWEEN GROUPS	1.3106	2	0.6553	1.7676	0.0227
6	M	3.800	3.729	3.385	3.667	WITHIN GROUPS	23.3561	63	0.3707		
	SD	0.447	0.536	0.870	0.616	TOTAL	24.6667	65			
	N	5	46	10	61	BETWEEN GROUPS	241.9833	2	120.9916	3.9806	0.0890
7	M	14.000	19.348	22.500	19.426	WITHIN GROUPS	1762.9348	58	30.3954		
	SD	6.519	5.638	4.249	5.781	TOTAL	2004.9180	60			
	N	5	48	13	66	BETWEEN GROUPS	177.8204	2	88.9102	0.3446	-0.0203
8	M	85.000	88.229	91.462	88.621	WITHIN GROUPS	16255.7099	63	258.0271		
	SD	15.083	15.335	18.915	15.900	TOTAL	16433.5303	65			
	N	4	38	9	51	BETWEEN GROUPS	32.8705	2	16.4352	6.8709	0.1871
9	M	3.500	2.289	4.333	2.745	WITHIN GROUPS	114.8158	48	2.3920		
	SD	2.082	1.313	2.179	1.719	TOTAL	147.6863	50			
	N	4	42	9	55	BETWEEN GROUPS	3.6955	2	1.8478	1.0111	0.0004
10	M	3.500	2.524	2.778	2.636	WITHIN GROUPS	95.0317	52	1.8275		
	SD	2.380	1.330	0.833	1.352	TOTAL	98.7273	54			
	N	3	41	8	52	BETWEEN GROUPS	3.7337	2	1.8668	1.8012	0.0299
11	M	3.667	2.512	2.625	2.596	WITHIN GROUPS	50.7856	49	1.0364		
	SD	0.577	0.978	1.302	1.034	TOTAL	54.5192	51			
	N	5	40	9	54	BETWEEN GROUPS	4.0444	2	2.0222	1.5327	0.0193
12	M	2.800	2.400	3.111	2.556	WITHIN GROUPS	67.2889	51	1.3194		
	SD	0.447	1.057	1.691	1.160	TOTAL	71.3333	53			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14B: NEGRO FEMALES - High SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	4	24	7	35	BETWEEN GROUPS	783.8988	2	391.9494	4.6275	0.1717
13	M	26.500	34.208	43.286	35.143	WITHIN GROUPS	2710.3869	32	84.6996		
	SD	13.626	9.132	6.264	10.138	TOTAL	3494.2857	34			
	N	5	41	13	59	BETWEEN GROUPS	5380.5042	2	2690.2521	26.7779	0.4663
14	M	27.800	45.463	63.385	47.915	WITHIN GROUPS	5626.0720	56	100.4656		
	SD	4.494	10.385	10.129	13.776	TOTAL	11006.5763	58			
	N	3	44	10	57	BETWEEN GROUPS	0.3103	2	0.1551	0.6348	-0.0130
15	M	2.333	2.614	2.700	2.614	WITHIN GROUPS	13.1985	54	0.2444		
	SD	0.577	0.493	0.483	0.491	TOTAL	13.5088	56			
	N	5	41	13	59	BETWEEN GROUPS	2808.5861	2	1404.2931	11.9191	0.2701
16	M	42.800	54.439	67.923	56.424	WITHIN GROUPS	6597.8206	56	117.8182		
	SD	8.044	9.857	14.297	12.735	TOTAL	9406.4068	58			
	N	3	31	7	41	BETWEEN GROUPS	537.7049	2	268.8525	0.9628	-0.0018
17	M	88.333	96.774	103.714	97.341	WITHIN GROUPS	10611.5146	38	279.2504		
	SD	20.207	15.682	20.072	16.695	TOTAL	11149.2195	40			
	N	5	48	13	66	BETWEEN GROUPS	4302.8542	2	2151.4271	27.2809	0.4433
18	M	33.000	49.313	65.000	51.167	WITHIN GROUPS	4968.3125	63	78.8621		
	SD	6.671	8.627	10.376	11.943	TOTAL	9271.1667	65			
	N	5	47	13	65	BETWEEN GROUPS	796.9938	2	398.4969	6.7815	0.1510
19	M	48.600	54.489	61.769	55.492	WITHIN GROUPS	3643.2524	62	58.7621		
	SD	8.112	7.471	8.228	8.329	TOTAL	4440.2462	64			
	N	5	46	13	64	BETWEEN GROUPS	1031.2626	2	515.6313	8.8035	0.1961
20	M	47.800	55.304	63.231	56.328	WITHIN GROUPS	3572.8468	61	58.5713		
	SD	9.094	7.814	6.418	8.549	TOTAL	4604.1094	63			
	N	4	47	13	64	BETWEEN GROUPS	240.1097	2	120.0548	1.8674	0.0264
21	M	23.750	29.915	32.538	30.063	WITHIN GROUPS	3921.6403	61	64.2892		
	SD	7.676	8.206	7.344	8.128	TOTAL	4161.7500	63			
	N	4	47	13	64	BETWEEN GROUPS	374.8495	2	187.4248	2.7645	0.0523
22	M	23.250	29.957	33.923	30.344	WITHIN GROUPS	4135.5880	61	67.7965		
	SD	6.994	8.343	8.098	8.461	TOTAL	4510.4375	63			
	N	4	44	11	59	BETWEEN GROUPS	430.7072	2	215.3536	4.3587	0.1022
23	M	21.250	30.841	33.273	30.644	WITHIN GROUPS	2766.8182	56	49.4075		
	SD	5.058	7.159	6.973	7.425	TOTAL	3197.5254	58			
	N	4	47	13	64	BETWEEN GROUPS	266.1499	2	133.0749	1.7884	0.0240
24	M	20.250	28.021	29.462	27.828	WITHIN GROUPS	4538.9595	61	74.4092		
	SD	7.411	8.751	8.422	8.733	TOTAL	4805.1094	63			

LLOYD 1-148: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-148: NEGRO FEMALES - High SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	0	24	2	26	BETWEEN GROUPS	27.7212	1	27.7212	0.3251	-0.0267
25	M	0.0	28.875	25.000	28.577	WITHIN GROUPS	2046.6250	24	85.2760		
	SD	0.0	9.317	7.071	9.109	TOTAL	2074.3462	25			
	N	4	47	12	63	BETWEEN GROUPS	287.2554	2	143.6277	2.8030	0.0541
26	M	28.250	33.979	37.667	34.317	WITHIN GROUPS	3074.3954	60	51.2399		
	SD	6.131	7.571	5.433	7.363	TOTAL	3361.6508	62			
	N	0	10	8	18	BETWEEN GROUPS	0.9000	1	0.9000	0.0080	-0.0583
27	M	0.0	30.800	31.250	31.000	WITHIN GROUPS	1791.1000	16	111.9437		
	SD	0.0	9.976	11.311	10.267	TOTAL	1792.0000	17			
	N	4	46	13	63	BETWEEN GROUPS	272.7421	2	136.3711	2.2212	0.0373
28	M	29.500	35.978	38.846	36.159	WITHIN GROUPS	3683.6706	60	61.3945		
	SD	6.658	7.965	7.614	7.988	TOTAL	3956.4127	62			
	N	4	46	13	63	BETWEEN GROUPS	132.7344	2	66.3672	0.9668	-0.0011
29	M	30.000	35.826	36.231	35.540	WITHIN GROUPS	4118.9164	60	68.6486		
	SD	8.165	8.182	8.691	8.281	TOTAL	4251.6508	62			
	N	4	45	12	61	BETWEEN GROUPS	579.6047	2	289.8024	2.7822	0.0552
30	M	23.250	32.222	36.917	32.557	WITHIN GROUPS	6041.4444	58	104.1628		
	SD	10.751	10.410	9.180	10.505	TOTAL	6621.0492	60			
	N	4	48	11	63	BETWEEN GROUPS	291.1714	2	145.5857	1.5406	0.0169
31	M	26.000	32.042	35.727	32.302	WITHIN GROUPS	5670.0985	60	94.5016		
	SD	8.124	9.629	10.555	9.806	TOTAL	5961.2698	62			
	N	3	47	10	60	BETWEEN GROUPS	696.0475	2	348.0238	3.8393	0.0865
32	M	21.333	31.596	37.900	32.133	WITHIN GROUPS	5166.8858	57	90.6471		
	SD	9.815	9.514	9.492	9.969	TOTAL	5862.9333	59			
	N	2	45	10	57	BETWEEN GROUPS	406.8193	2	203.4096	2.0753	0.0364
33	M	23.500	30.267	36.200	31.070	WITHIN GROUPS	5292.9000	54	98.0167		
	SD	2.121	10.319	8.189	10.089	TOTAL	5699.7193	56			
	N	2	41	10	53	BETWEEN GROUPS	292.7900	2	146.3950	2.0573	0.0364
34	M	24.000	29.049	34.300	29.849	WITHIN GROUPS	3558.0024	50	71.1600		
	SD	5.657	8.789	6.961	8.605	TOTAL	3850.7925	52			
	N	1	31	9	41	BETWEEN GROUPS	2.9029	2	1.4514	0.0249	-0.0499
35	M	32.000	30.290	30.444	30.366	WITHIN GROUPS	2214.6093	38	58.2792		
	SD	0.0	7.249	8.932	7.446	TOTAL	2217.5122	40			
	N	1	28	7	36	BETWEEN GROUPS	73.8929	2	36.9464	0.7023	-0.0108
36	M	22.000	29.179	31.000	29.333	WITHIN GROUPS	1736.1071	33	52.6093		
	SD	0.0	7.498	6.028	7.191	TOTAL	1810.0000	35			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14B: NEGRO FEMALES - High SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	4	41	11	56	BETWEEN GROUPS	1392.9359	2	696.4679	5.5189	0.1390
37	M	75.000	87.634	96.091	88.393	WITHIN GROUPS	6688.4213	53	126.1966		
	SD	14.376	11.115	10.616	12.122	TOTAL	8081.3571	55			
	N	2	39	10	51	BETWEEN GROUPS	431.7529	2	215.8765	1.8076	0.0307
38	M	89.500	90.000	97.300	91.412	WITHIN GROUPS	5732.6000	48	119.4292		
	SD	0.707	11.143	10.615	11.103	TOTAL	6164.3529	50			
	N	1	25	8	34	BETWEEN GROUPS	1.1203	2	0.5601	0.5581	-0.0267
39	M	4.000	3.480	3.875	3.588	WITHIN GROUPS	31.1150	31	1.0037		
	SD	0.0	1.046	0.835	0.988	TOTAL	32.2353	33			
	N	3	32	10	45	BETWEEN GROUPS	414.4424	2	207.2212	1.6646	0.0287
40	M	44.667	49.969	56.100	50.978	WITHIN GROUPS	5228.5354	42	124.4889		
	SD	7.234	11.619	10.214	11.325	TOTAL	5642.9778	44			
	N	3	33	9	45	BETWEEN GROUPS	623.9111	2	311.9556	1.5977	0.0259
41	M	46.667	61.000	62.667	60.378	WITHIN GROUPS	8200.6667	42	195.2540		
	SD	18.771	13.736	13.500	14.162	TOTAL	8824.5778	44			
	N	3	30	9	42	BETWEEN GROUPS	626.8159	2	313.4079	1.0590	0.0028
42	M	40.333	55.433	53.222	53.881	WITHIN GROUPS	11541.5889	39	295.9382		
	SD	13.796	15.999	21.615	17.228	TOTAL	12168.4048	41			
	N	3	32	9	44	BETWEEN GROUPS	211.8242	2	105.9121	0.9346	-0.0030
43	M	46.333	54.781	55.556	54.364	WITHIN GROUPS	4646.3576	41	113.3258		
	SD	2.517	10.493	12.350	10.629	TOTAL	4858.1818	43			
	N	3	31	9	43	BETWEEN GROUPS	374.1389	2	187.0694	1.6459	0.0292
44	M	44.000	53.871	56.889	53.814	WITHIN GROUPS	4546.3728	40	113.6593		
	SD	7.937	10.516	11.741	10.824	TOTAL	4920.5116	42			
	N	0	8	6	14	BETWEEN GROUPS	54.8571	1	54.8571	0.1447	-0.0651
45	M	0.0	71.000	75.000	72.714	WITHIN GROUPS	4548.0000	12	379.0000		
	SD	0.0	17.038	22.432	18.817	TOTAL	4602.8571	13			
	N	0	8	6	14	BETWEEN GROUPS	14.2917	1	14.2917	0.0238	-0.0750
46	M	0.0	70.625	72.667	71.500	WITHIN GROUPS	7191.2083	12	599.2674		
	SD	0.0	21.179	28.465	23.543	TOTAL	7205.5000	13			
	N	0	8	6	14	BETWEEN GROUPS	30.0060	1	30.0060	0.0682	-0.0713
47	M	0.0	70.875	73.833	72.143	WITHIN GROUPS	5281.7083	12	440.1424		
	SD	0.0	18.138	24.408	20.214	TOTAL	5311.7143	13			
	N	2	41	10	53	BETWEEN GROUPS	17.9122	2	8.9561	0.8082	-0.0073
48	M	8.000	7.707	9.200	8.000	WITHIN GROUPS	554.0878	50	11.0818		
	SD	1.414	3.363	3.327	3.317	TOTAL	572.0000	52			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-148: NEGRO FEMALES - High SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	2	42	10	54	BETWEEN GROUPS	37.9101	2	18.9550	1.1853	0.0068
49	M	3.500	7.786	7.000	7.481	WITHIN GROUPS	815.5714	51	15.9916		
	SD	3.536	4.170	3.162	4.013	TOTAL	853.4815	53			
	N	2	42	10	54	BETWEEN GROUPS	67.0402	2	33.5201	1.9507	0.0340
50	M	10.000	9.929	12.800	10.463	WITHIN GROUPS	876.3857	51	17.1840		
	SD	2.828	3.777	5.613	4.219	TOTAL	943.4259	53			
	N	2	41	10	53	BETWEEN GROUPS	26.2912	2	13.1456	0.9303	-0.0026
51	M	3.500	7.195	7.200	7.057	WITHIN GROUPS	706.5390	50	14.1308		
	SD	0.707	3.378	5.266	3.754	TOTAL	732.8302	52			
	N	2	42	10	54	BETWEEN GROUPS	70.3989	2	35.1995	2.4130	0.0497
52	M	7.500	8.786	11.600	9.259	WITHIN GROUPS	743.9714	51	14.5877		
	SD	0.707	3.867	3.806	3.920	TOTAL	814.3704	53			
	N	2	41	10	53	BETWEEN GROUPS	8.1016	2	4.0508	0.2062	-0.0309
53	M	7.000	6.415	7.400	6.623	WITHIN GROUPS	982.3512	50	19.6470		
	SD	5.657	4.129	5.461	4.364	TOTAL	990.4528	52			
	N	2	41	10	53	BETWEEN GROUPS	107.6243	2	53.8121	3.7979	0.0955
54	M	3.000	6.415	9.500	6.868	WITHIN GROUPS	708.4512	50	14.1690		
	SD	0.0	3.654	4.403	3.962	TOTAL	816.0755	52			
	N	2	40	10	52	BETWEEN GROUPS	80.7558	2	40.3779	2.6684	0.0603
55	M	8.500	7.625	10.800	8.269	WITHIN GROUPS	741.4750	49	15.1321		
	SD	0.707	3.953	3.824	4.015	TOTAL	822.2308	51			
	N	1	40	10	51	BETWEEN GROUPS	76.3368	2	38.1684	2.2813	0.0478
56	M	8.000	8.225	11.300	8.824	WITHIN GROUPS	803.0750	48	16.7307		
	SD	0.0	3.906	4.809	4.194	TOTAL	879.4118	50			
	N	5	48	13	66	BETWEEN GROUPS	3446.2990	2	1723.1495	94.5066	0.7391
57	M	85.000	99.708	113.692	101.348	WITHIN GROUPS	1148.6859	63	18.2331		
	SD	5.612	4.356	3.301	8.408	TOTAL	4594.9848	65			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14C: NEGRO FEMALES - Low SES

NO OF VARIABLES = 57 CLASSIFICATION VAR = # 57 WITH ELIMINATION CODE FOR CLAS. VAR = 999.000

CLAS CATEGORY UPPER LIMITS = 91.000, 108.000, 990.000, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,

RESTRICTION VAR = # 6 WITH RANGE OF 5.000 TO 5.000

CODES TO BE EXCLUDED FOR VARS 1 TO 57 ARE 0.0 , 0.0 , 0.0 , -9.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 1.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 999.000,

FORMAT OF DATA IS (57F6.0)

MAX # OF OBS TO BE INCLUDED THIS PROBLEM = 259 DATA TO BE READ FROM TAPE WITHOUT REWIND

GROUP 1 = UNDERACHIEVERS

GROUP 2 = AVERAGE ACHIEVERS

GROUP 3 = OVERACHIEVERS

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14C: NEGRO FEMALES - Low SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	15	88	13	116	BETWEEN GROUPS	755.3987	2	377.6993	3.3748	0.0393
1	M	146.200	142.307	149.846	143.655	WITHIN GROUPS	12646.8062	113	111.9187		
	SD	14.972	9.666	10.723	10.795	TOTAL	13402.2069	115			
	N	14	84	13	111	BETWEEN GROUPS	0.2326	2	0.1163	0.1786	-0.0150
2	M	5.714	5.595	5.538	5.604	WITHIN GROUPS	70.3260	108	0.6512		
	SD	0.726	0.808	0.877	0.801	TOTAL	70.5586	110			
	N	15	83	13	111	BETWEEN GROUPS	0.6535	2	0.3268	0.2603	-0.0135
3	M	5.200	5.241	5.000	5.207	WITHIN GROUPS	135.5807	108	1.2554		
	SD	1.014	1.066	1.528	1.113	TOTAL	136.2342	110			
	N	15	88	13	116	BETWEEN GROUPS	1.8973	2	0.9486	0.1229	-0.0154
4	M	4.933	5.023	4.615	4.966	WITHIN GROUPS	871.9648	113	7.7165		
	SD	2.738	2.729	3.150	2.757	TOTAL	873.8621	115			
	N	15	85	13	113	BETWEEN GROUPS	0.4767	2	0.2383	0.6889	-0.0055
5	M	6.800	6.682	6.538	6.681	WITHIN GROUPS	38.0543	110	0.3459		
	SD	0.775	0.561	0.519	0.587	TOTAL	38.5310	112			
	N	15	88	13	116	BETWEEN GROUPS	0.0	0	0.0	0.0	0.0
6	M	5.000	5.000	5.000	5.000	WITHIN GROUPS	0.0	0	0.0		
	SD	0.0	0.0	0.0	0.0	TOTAL	0.0	0			
	N	14	87	13	114	BETWEEN GROUPS	123.1144	2	61.5572	2.0319	0.0178
7	M	18.214	19.483	22.308	19.649	WITHIN GROUPS	3362.8505	111	30.2960		
	SD	5.041	5.500	5.991	5.554	TOTAL	3485.9649	113			
	N	15	88	13	116	BETWEEN GROUPS	421.8052	2	210.9026	0.8763	-0.0021
8	M	85.467	88.648	83.154	87.621	WITHIN GROUPS	27197.2052	113	240.6859		
	SD	18.860	14.284	19.295	15.497	TOTAL	27619.3103	115			
	N	13	72	10	95	BETWEEN GROUPS	5.0685	2	2.8343	0.9946	-0.0001
9	M	3.615	2.986	2.700	3.042	WITHIN GROUPS	262.1630	92	2.8496		
	SD	2.103	1.570	1.947	1.688	TOTAL	267.8316	94			
	N	13	76	11	100	BETWEEN GROUPS	5.9895	2	2.9947	1.0523	0.0010
10	M	3.231	2.724	3.364	2.860	WITHIN GROUPS	276.0505	97	2.8459		
	SD	2.048	1.537	2.203	1.688	TOTAL	282.0400	99			
	N	15	77	10	102	BETWEEN GROUPS	1.8140	2	0.9070	0.3789	-0.0123
11	M	3.133	2.779	3.000	2.853	WITHIN GROUPS	236.9801	99	2.3937		
	SD	1.125	1.578	1.826	1.538	TOTAL	238.7941	101			
	N	14	81	11	106	BETWEEN GROUPS	17.5709	2	8.7854	4.7956	0.0668
12	M	3.286	2.321	3.273	2.547	WITHIN GROUPS	188.0933	103	1.8320		
	SD	1.204	1.340	1.618	1.402	TOTAL	206.2642	105			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14C: NEGRO FEMALES - Low SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	14	54	2	70	BETWEEN GROUPS	306.7714	2	153.3857	2.8478	0.0501
13	M	30.357	35.500	37.000	34.514	WITHIN GROUPS	3608.7143	67	53.8614		
	SD	5.904	7.628	8.485	7.533	TOTAL	3915.4857	69			
	N	13	71	12	96	BETWEEN GROUPS	4685.8954	2	2342.9477	17.4958	0.2558
14	M	30.462	46.268	57.417	45.521	WITHIN GROUPS	12454.0629	93	133.9147		
	SD	10.485	11.494	13.097	13.432	TOTAL	17139.9583	95			
	N	12	70	6	88	BETWEEN GROUPS	0.5132	2	0.2566	0.9583	-0.0009
15	M	2.417	2.629	2.500	2.591	WITHIN GROUPS	22.7595	85	0.2678		
	SD	0.515	0.516	0.548	0.517	TOTAL	23.2727	87			
	N	13	71	12	96	BETWEEN GROUPS	3872.7563	2	1936.3782	21.4766	0.2990
16	M	40.538	53.239	65.417	53.042	WITHIN GROUPS	8385.0770	93	90.1621		
	SD	10.829	8.195	14.387	11.359	TOTAL	12257.8333	95			
	N	9	64	7	80	BETWEEN GROUPS	386.8851	2	193.4425	0.7734	-0.0057
17	M	84.778	90.828	94.000	90.425	WITHIN GROUPS	19258.6649	77	250.1125		
	SD	16.917	15.157	20.396	15.770	TOTAL	19645.5500	79			
	N	15	88	13	116	BETWEEN GROUPS	4197.8498	2	2098.9249	23.7057	0.2813
18	M	35.133	49.193	59.154	48.491	WITHIN GROUPS	10005.1416	113	88.5411		
	SD	9.694	9.040	11.473	11.813	TOTAL	14202.9914	115			
	N	15	88	12	115	BETWEEN GROUPS	644.0493	2	322.0247	4.9090	0.0637
19	M	47.533	54.443	55.167	53.617	WITHIN GROUPS	7347.1159	112	65.5992		
	SD	9.054	7.907	8.310	8.372	TOTAL	7991.1652	114			
	N	15	88	13	116	BETWEEN GROUPS	1076.3804	2	538.1902	6.0079	0.0795
20	M	48.133	57.023	58.077	55.991	WITHIN GROUPS	10122.6110	113	89.5806		
	SD	10.629	8.878	11.842	9.868	TOTAL	11198.9914	115			
	N	14	77	11	102	BETWEEN GROUPS	155.6628	2	77.8314	1.2191	0.0043
21	M	27.143	30.597	31.273	30.196	WITHIN GROUPS	6320.4156	99	63.8426		
	SD	8.448	7.868	8.296	8.007	TOTAL	6476.0784	101			
	N	14	77	11	102	BETWEEN GROUPS	154.9375	2	77.4687	1.1802	0.0035
22	M	27.214	30.649	31.364	30.255	WITHIN GROUPS	6498.4351	99	65.6408		
	SD	8.294	8.032	8.370	8.116	TOTAL	6653.3725	101			
	N	14	75	10	99	BETWEEN GROUPS	115.4281	2	57.7141	0.8426	-0.0032
23	M	27.357	29.333	31.800	29.303	WITHIN GROUPS	6575.4810	96	68.4946		
	SD	6.990	8.519	7.955	8.263	TOTAL	6690.9091	98			
	N	14	77	11	102	BETWEEN GROUPS	385.2040	2	192.6020	3.0585	0.0388
24	M	23.143	28.571	25.818	27.529	WITHIN GROUPS	6234.2078	99	62.9718		
	SD	7.804	7.604	10.235	8.096	TOTAL	6619.4118	10[illegible]			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14C: NEGRO FEMALES - Low SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	4	37	3	44	BETWEEN GROUPS	105.2222	2	52.6111	0.9743	-0.0012
25	M	26.500	29.784	34.333	29.795	WITHIN GROUPS	2213.9369	41	53.9985		
	SD	11.818	6.852	7.234	7.344	TOTAL	2319.1591	43			
	N	14	75	11	100	BETWEEN GROUPS	203.4693	2	101.7347	1.7725	0.0152
26	M	29.571	33.707	32.636	33.010	WITHIN GROUPS	5567.5207	97	57.3971		
	SD	7.122	7.396	9.277	7.635	TOTAL	5770.9900	99			
	N	1	8	0	9	BETWEEN GROUPS	1.6806	1	1.6806	0.0316	-0.1206
27	M	35.000	36.375	0.0	36.222	WITHIN GROUPS	371.8750	7	53.1250		
	SD	0.0	7.289	0.0	6.833	TOTAL	373.5556	8			
	N	14	76	11	101	BETWEEN GROUPS	141.8439	2	70.9219	1.2984	0.0059
28	M	32.357	35.513	33.455	34.851	WITHIN GROUPS	5352.9284	98	54.6217		
	SD	7.366	7.541	6.154	7.413	TOTAL	5494.7723	100			
	N	14	76	11	101	BETWEEN GROUPS	49.1854	2	24.5927	0.4820	-0.0104
29	M	34.266	35.092	32.909	34.743	WITHIN GROUPS	5000.1215	98	51.0216		
	SD	7.640	6.880	8.312	7.106	TOTAL	5049.3069	100			
	N	13	75	11	99	BETWEEN GROUPS	122.2357	2	61.1179	0.6581	-0.0070
30	M	28.923	32.147	30.818	31.576	WITHIN GROUPS	8915.9461	96	92.8744		
	SD	11.982	9.194	9.683	9.603	TOTAL	9038.1818	98			
	N	14	77	11	102	BETWEEN GROUPS	293.9497	2	146.9749	1.6793	0.0131
31	M	28.714	33.117	35.000	32.716	WITHIN GROUPS	8664.8052	99	87.5233		
	SD	10.440	8.918	10.973	9.418	TOTAL	8958.7549	101			
	N	14	73	11	98	BETWEEN GROUPS	400.0695	2	200.0347	2.2085	0.0241
32	M	26.286	31.959	29.545	30.878	WITHIN GROUPS	8604.4611	95	90.5733		
	SD	9.269	9.253	11.501	9.635	TOTAL	9004.5306	97			
	N	12	72	5	89	BETWEEN GROUPS	146.1361	2	73.0680	0.8407	-0.0036
33	M	26.500	30.111	28.000	29.506	WITHIN GROUPS	7474.1111	86	86.9083		
	SD	9.606	9.317	8.602	9.306	TOTAL	7620.2472	88			
	N	9	59	3	71	BETWEEN GROUPS	41.5613	2	20.7807	0.3872	-0.0176
34	M	28.444	29.881	32.667	29.817	WITHIN GROUPS	3649.0584	68	53.6626		
	SD	9.396	7.100	3.055	7.261	TOTAL	3690.6197	70			
	N	5	49	3	57	BETWEEN GROUPS	62.4305	2	31.2153	0.6973	-0.0107
35	M	32.600	29.612	32.667	30.035	WITHIN GROUPS	2417.4993	54	44.7685		
	SD	6.768	6.645	7.572	6.655	TOTAL	2479.9298	56			
	N	5	41	3	49	BETWEEN GROUPS	66.0285	2	33.0142	0.9115	-0.0036
36	M	31.400	28.976	33.000	29.469	WITHIN GROUPS	1666.1756	46	36.2212		
	SD	6.618	5.824	8.185	6.007	TOTAL	1732.2041	48			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14C: NEGRO FEMALES - Low SES

J		1	2	3	TOTAL
	N	12	78	10	100
37	M	80.583	88.346	90.200	87.600
	SD	10.942	11.552	9.438	11.501
	N	10	56	3	69
38	M	87.400	89.857	98.000	89.855
	SD	8.449	9.732	9.165	9.609
	N	5	45	2	52
39	M	4.200	3.578	4.500	3.673
	SD	1.789	1.515	0.707	1.517
	N	10	67	9	86
40	M	44.300	48.657	57.556	49.081
	SD	7.973	9.931	15.322	10.763
	N	11	69	10	90
41	M	46.000	60.623	75.100	60.444
	SD	13.914	16.413	13.068	17.169
	N	10	61	9	80
42	M	42.600	47.344	57.667	47.912
	SD	21.277	16.952	16.538	17.669
	N	10	65	10	85
43	M	50.500	54.569	54.500	54.082
	SD	9.455	9.884	10.320	9.856
	N	10	66	9	85
44	M	45.700	51.864	57.556	51.741
	SD	10.166	9.926	12.063	10.447
	N	3	24	0	27
45	M	54.000	65.792	0.0	64.481
	SD	26.907	21.431	0.0	21.823
	N	3	24	0	27
46	M	59.333	71.292	0.0	69.963
	SD	16.862	15.479	0.0	15.764
	N	3	24	0	27
47	M	56.667	68.583	0.0	67.259
	SD	21.008	16.741	0.0	17.217
	N	12	65	6	83
48	M	5.833	7.077	8.333	6.988
	SD	4.174	3.144	2.338	3.274

SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
BETWEEN GROUPS	701.8295	2	350.9147	2.7463	0.0337
WITHIN GROUPS	12394.1705	97	127.7750		
TOTAL	13096.0000	99			
BETWEEN GROUPS	259.2936	2	129.6468	1.4216	0.0121
WITHIN GROUPS	6019.2571	66	91.2009		
TOTAL	6278.5507	68			
BETWEEN GROUPS	3.1645	2	1.5823	0.6784	-0.0125
WITHIN GROUPS	114.2778	49	2.3322		
TOTAL	117.4423	51			
BETWEEN GROUPS	887.0035	2	443.5018	4.1086	0.0674
WITHIN GROUPS	8959.4267	83	107.9449		
TOTAL	9846.4302	85			
BETWEEN GROUPS	4445.1193	2	2222.5597	8.8735	0.1489
WITHIN GROUPS	21791.1029	87	250.4724		
TOTAL	26236.2222	89			
BETWEEN GROUPS	1158.2170	2	579.1085	1.8972	0.0219
WITHIN GROUPS	23504.1705	77	305.2490		
TOTAL	24662.3875	79			
BETWEEN GROUPS	145.4851	2	72.7425	0.7442	-0.0061
WITHIN GROUPS	8014.9385	82	97.7432		
TOTAL	8160.4235	84			
BETWEEN GROUPS	670.2109	2	335.1055	3.2335	0.0499
WITHIN GROUPS	8498.0949	82	103.6353		
TOTAL	9168.3059	84			
BETWEEN GROUPS	370.7824	1	370.7824	0.7717	-0.0085
WITHIN GROUPS	12011.9583	25	480.4783		
TOTAL	12382.7407	26			
BETWEEN GROUPS	381.3380	1	381.3380	1.5681	0.0206
WITHIN GROUPS	6079.6250	25	243.1850		
TOTAL	6460.9630	26			
BETWEEN GROUPS	378.6852	1	378.6852	1.2918	0.0107
WITHIN GROUPS	7328.5000	25	293.1400		
TOTAL	7707.1852	26			
BETWEEN GROUPS	27.3726	2	13.6863	1.2857	0.0068
WITHIN GROUPS	851.6154	80	10.6452		
TOTAL	878.9880	82			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14C: NEGRO FEMALES - Low SES

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	12	66	6	84	BETWEEN GROUPS	26.0216	2	13.0108	1.0506	0.0012
49	M	5.167	6.576	5.333	6.286	WITHIN GROUPS	1003.1212	81	12.3842		
	SD	2.758	3.625	3.615	3.521	TOTAL	1029.1429	83			
	N	12	66	6	84	BETWEEN GROUPS	85.2078	2	42.6039	2.7942	0.0410
	M	7.667	9.712	12.167	9.595	WITHIN GROUPS	1235.0303	81	15.2473		
	SD	4.376	3.757	4.622	3.988	TOTAL	1320.2381	83			
	N	12	64	6	82	BETWEEN GROUPS	19.3638	2	9.6819	0.9467	-0.0013
51	M	4.583	5.875	5.000	5.622	WITHIN GROUPS	807.9167	79	10.2268		
	SD	2.021	3.425	2.191	3.196	TOTAL	827.2805	81			
	N	12	63	6	81	BETWEEN GROUPS	43.9572	2	21.9786	2.2555	0.0301
52	M	7.750	8.127	10.833	8.272	WITHIN GROUPS	760.0675	78	9.7445		
	SD	2.864	3.129	3.545	3.170	TOTAL	804.0247	80			
	N	12	64	6	82	BETWEEN GROUPS	47.4038	2	23.7019	1.6333	0.0152
53	M	5.333	7.109	6.500	6.951	WITHIN GROUPS	1146.4010	79	14.5114		
	SD	3.798	3.577	6.025	3.839	TOTAL	1193.8049	81			
	N	12	65	6	83	BETWEEN GROUPS	108.4648	2	54.2324	3.9588	0.0666
54	M	4.750	7.046	9.833	6.916	WITHIN GROUPS	1095.9449	80	13.6993		
	SD	3.306	3.642	5.037	3.832	TOTAL	1204.4096	82			
	N	12	62	6	80	BETWEEN GROUPS	7.1660	2	3.5830	0.3446	-0.0167
55	M	7.167	7.548	8.500	7.562	WITHIN GROUPS	800.5215	77	10.3964		
	SD	3.589	3.243	1.871	3.197	TOTAL	807.6875	79			
	N	12	63	6	81	BETWEEN GROUPS	42.6389	2	21.3194	1.6861	0.0167
56	M	6.750	7.667	10.000	7.704	WITHIN GROUPS	986.2500	78	12.6442		
	SD	3.621	3.469	4.382	3.586	TOTAL	1028.8889	80			
	N	15	88	13	116	BETWEEN GROUPS	4393.2207	2	2196.6104	143.6596	0.7110
	M	87.133	99.341	112.231	99.207	WITHIN GROUPS	1727.8138	113	15.2904		
	SD	3.796	3.965	3.632	7.296	TOTAL	6121.0345	115			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14E: NEGRO FEMALES - High IQ

NO OF VARIABLES = 57 CLASSIFICATION VAR = # 57 WITH ELIMINATION CODE FOR CLAS. VAR = 999.000

CLAS CATEGORY UPPER LIMITS = 91.000, 108.000, 990.000, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,

RESTRICTION VAR = # 8 WITH RANGE OF 86.000 TO 175.000

CODES TO BE EXCLUDED FOR VARS 1 TO 57 ARE 0.0 , 0.0 , 0.0 , -9.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 1.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 999.000,

FORMAT OF DATA IS (57F6.0)

MAX # OF OBS TO BE INCLUDED THIS PROBLEM = 259 DATA TO BE READ FROM TAPE WITHOUT REWIND

GROUP 1 = UNDERACHIEVERS

GROUP 2 = AVERAGE ACHIEVERS

GROUP 3 = OVERACHIEVERS

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14E: NEGRO FEMALES - High IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	11	86	14	111	BETWEEN GROUPS	38.7646	2	19.3823	0.5979	-0.0073
1	M	140.727	138.756	138.714	138.946	WITHIN GROUPS	3500.9111	108	32.4158		
	SD	7.938	5.445	5.195	5.673	TOTAL	3539.6757	110			
	N	9	82	13	104	BETWEEN GROUPS	16.9747	2	8.4873	6.1001	0.0893
2	M	6.000	5.317	4.308	5.250	WITHIN GROUPS	140.5253	101	1.3913		
	SD	0.0	1.132	1.750	1.237	TOTAL	157.5000	103			
	N	11	81	13	105	BETWEEN GROUPS	16.1591	2	8.0796	5.0347	0.0714
3	M	5.000	5.123	3.923	4.962	WITHIN GROUPS	163.6885	102	1.6048		
	SD	1.612	1.088	1.891	1.315	TOTAL	179.8476	104			
	N	11	86	14	111	BETWEEN GROUPS	11.9821	2	5.9910	0.7807	-0.0040
4	M	4.364	4.756	3.786	4.595	WITHIN GROUPS	828.7747	108	7.6738		
	SD	2.803	2.799	2.547	2.765	TOTAL	840.7568	110			
	N	11	82	14	107	BETWEEN GROUPS	11.5038	2	5.7519	4.1690	0.0559
5	M	6.455	6.085	5.214	6.009	WITHIN GROUPS	143.4869	104	1.3797		
	SD	1.128	1.124	1.477	1.209	TOTAL	154.9907	106			
	N	10	83	13	106	BETWEEN GROUPS	7.3941	2	3.6970	6.6859	0.0969
6	M	4.800	4.614	3.846	4.538	WITHIN GROUPS	56.9550	103	0.5530		
	SD	0.422	0.678	1.214	0.783	TOTAL	64.3491	105			
	N	10	83	12	105	BETWEEN GROUPS	153.0752	2	76.5376	2.9778	0.0363
7	M	20.000	21.747	25.000	21.952	WITHIN GROUPS	2621.6867	102	25.7028		
	SD	4.714	5.146	4.767	5.165	TOTAL	2774.7619	104			
	N	11	86	14	111	BETWEEN GROUPS	503.0519	2	251.5260	2.6613	0.0291
8	M	99.545	97.733	104.143	98.721	WITHIN GROUPS	10207.2904	108	94.5119		
	SD	9.363	9.513	11.224	9.867	TOTAL	10710.3423	110			
	N	11	69	10	90	BETWEEN GROUPS	11.9225	2	5.9612	2.6101	0.0345
9	M	3.455	2.449	3.100	2.644	WITHIN GROUPS	198.6997	87	2.2839		
	SD	2.018	1.430	1.449	1.538	TOTAL	210.6222	89			
	N	10	73	10	93	BETWEEN GROUPS	2.5539	2	1.2769	0.5847	-0.0090
10	M	3.000	2.466	2.600	2.538	WITHIN GROUPS	196.5644	90	2.1840		
	SD	1.886	1.454	1.174	1.471	TOTAL	199.1183	92			
	N	10	73	9	92	BETWEEN GROUPS	4.6110	2	2.3055	1.3474	0.0075
11	M	3.100	2.425	2.778	2.533	WITHIN GROUPS	152.2912	89	1.7111		
	SD	0.994	1.279	1.787	1.313	TOTAL	156.9022	91			
	N	10	74	10	94	BETWEEN GROUPS	13.8626	2	6.9313	4.8353	0.0754
12	M	2.800	2.027	3.100	2.223	WITHIN GROUPS	130.4459	91	1.4335		
	SD	0.919	1.098	1.969	1.246	TOTAL	144.3085	93			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14E: NEGRO FEMALES - High IQ

J		1	2	3	TOTAL
	N	11	46	5	62
13	M	33.364	37.978	46.600	37.855
	SD	6.423	7.594	4.099	7.767
	N	9	71	14	94
14	M	36.222	52.521	70.357	53.617
	SD	8.729	7.223	7.099	11.191
	N	8	72	10	90
15	M	2.750	2.792	2.700	2.778
	SD	0.463	0.442	0.483	0.444
	N	9	71	14	94
16	M	47.889	57.056	74.143	58.723
	SD	5.442	8.500	13.496	11.475
	N	8	56	7	71
17	M	93.750	97.375	111.571	98.366
	SD	11.184	13.442	17.681	14.210
	N	11	86	14	111
18	M	41.182	54.314	71.214	55.144
	SD	6.210	5.930	6.399	9.403
	N	11	85	14	110
19	M	51.818	57.965	65.286	58.282
	SD	6.447	7.057	5.497	7.509
	N	11	85	14	110
20	M	53.000	60.482	66.857	60.545
	SD	9.033	6.933	6.237	7.748
	N	10	81	14	105
21	M	30.600	33.728	34.857	33.581
	SD	8.030	6.237	6.347	6.452
	N	10	81	14	105
22	M	30.500	33.827	35.929	33.790
	SD	7.735	6.446	6.673	6.660
	N	10	79	13	102
23	M	29.500	32.380	34.000	32.304
	SD	6.468	7.238	6.795	7.129
	N	10	81	14	105
24	M	27.300	31.198	32.000	30.933
	SD	6.038	7.589	8.096	7.558

SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
BETWEEN GROUPS	604.9698	2	302.4849	5.8043	0.1342
WITHIN GROUPS	3074.7237	59	52.1140		
TOTAL	3679.6935	61			
BETWEEN GROUPS	6731.7246	2	3365.8623	62.2992	0.5660
WITHIN GROUPS	4916.4882	91	54.0273		
TOTAL	11648.2128	93			
BETWEEN GROUPS	0.0806	2	0.0403	0.2005	-0.0181
WITHIN GROUPS	17.4750	87	0.2009		
TOTAL	17.5556	89			
BETWEEN GROUPS	4582.4307	2	2291.2153	27.2110	0.3580
WITHIN GROUPS	7662.3778	91	84.2020		
TOTAL	12244.8085	93			
BETWEEN GROUPS	1446.1396	2	723.0698	3.8751	0.0749
WITHIN GROUPS	12688.3393	68	186.5932		
TOTAL	14134.4789	70			
BETWEEN GROUPS	5819.1769	2	2909.5885	80.4388	0.5887
WITHIN GROUPS	3906.5168	108	36.1715		
TOTAL	9725.6937	110			
BETWEEN GROUPS	1154.8760	2	577.4380	12.3785	0.1714
WITHIN GROUPS	4991.3876	107	46.6485		
TOTAL	6146.2636	109			
BETWEEN GROUPS	1184.3349	2	592.1675	11.8236	0.1644
WITHIN GROUPS	5358.9378	107	50.0835		
TOTAL	6543.2727	109			
BETWEEN GROUPS	113.4229	2	56.7115	1.3720	0.0070
WITHIN GROUPS	4216.1390	102	41.3347		
TOTAL	4329.5619	104			
BETWEEN GROUPS	172.3817	2	86.1908	1.9796	0.0183
WITHIN GROUPS	4441.0088	102	43.5393		
TOTAL	4613.3905	104			
BETWEEN GROUPS	116.4708	2	58.2354	1.1491	0.0029
WITHIN GROUPS	5017.1076	99	50.6779		
TOTAL	5133.5784	101			
BETWEEN GROUPS	153.5938	2	76.7969	1.3536	0.0067
WITHIN GROUPS	5786.9395	102	56.7347		
TOTAL	5940.5333	104			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14E: NEGRO FEMALES - High IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	4	47	3	54	BETWEEN GROUPS	85.3652	2	42.6826	0.7151	-0.0107
25	M	26.500	31.106	32.333	30.833	WITHIN GROUPS	3044.1348	51	59.6889		
	SD	11.818	7.218	10.693	7.684	TOTAL	3129.5000	53			
	N	10	81	14	105	BETWEEN GROUPS	115.0711	2	57.5355	1.3891	0.0074
26	M	33.100	36.568	37.000	36.295	WITHIN GROUPS	4224.7765	102	41.4194		
	SD	5.896	6.557	6.026	6.460	TOTAL	4339.8476	104			
	N	1	16	7	24	BETWEEN GROUPS	11.9107	2	5.9554	0.0594	-0.0851
27	M	35.000	34.000	32.571	33.625	WITHIN GROUPS	2105.7143	21	100.2721		
	SD	0.0	9.011	12.164	9.595	TOTAL	2117.6250	23			
	N	10	80	14	104	BETWEEN GROUPS	52.6117	2	26.3058	0.5118	-0.0095
28	M	36.400	37.312	39.143	37.471	WITHIN GROUPS	5191.3018	101	51.3990		
	SD	5.296	7.515	6.062	7.135	TOTAL	5243.9135	103			
	N	10	80	14	104	BETWEEN GROUPS	1.5125	2	0.7562	0.0172	-0.0193
29	M	37.500	37.262	37.000	37.250	WITHIN GROUPS	4447.9875	101	44.0395		
	SD	5.482	6.573	7.666	6.573	TOTAL	4449.5000	103			
	N	9	79	14	102	BETWEEN GROUPS	10.2967	2	5.1484	0.0741	-0.0185
30	M	35.000	35.089	36.000	35.206	WITHIN GROUPS	6880.3797	99	69.4988		
	SD	9.513	8.502	6.312	8.260	TOTAL	6890.6765	101			
	N	10	81	12	103	BETWEEN GROUPS	118.4396	2	59.2198	0.9101	-0.0017
31	M	33.300	36.667	37.583	36.447	WITHIN GROUPS	6507.0167	100	65.0702		
	SD	9.978	7.538	9.839	8.059	TOTAL	6625.4563	102			
	N	10	80	13	103	BETWEEN GROUPS	503.6535	2	251.8268	3.7087	0.0500
32	M	30.600	35.037	39.923	35.223	WITHIN GROUPS	6790.2106	100	67.9021		
	SD	8.409	8.434	6.677	8.456	TOTAL	7293.8641	102			
	N	10	79	12	101	BETWEEN GROUPS	310.9621	2	155.4810	2.1726	0.0227
33	M	28.100	33.696	34.833	33.277	WITHIN GROUPS	7013.2755	98	71.5640		
	SD	8.582	8.279	9.552	8.558	TOTAL	7324.2376	100			
	N	9	72	10	91	BETWEEN GROUPS	181.9585	2	90.9792	1.4940	0.0107
34	M	28.778	31.125	34.800	31.297	WITHIN GROUPS	5359.0306	88	60.8981		
	SD	9.311	7.771	6.477	7.846	TOTAL	5540.9890	90			
	N	6	61	10	77	BETWEEN GROUPS	8.6030	2	4.3015	0.0886	-0.0242
35	M	32.500	31.410	32.000	31.571	WITHIN GROUPS	3594.2541	74	48.5710		
	SD	6.058	6.756	8.641	6.885	TOTAL	3602.8571	76			
	N	6	55	8	69	BETWEEN GROUPS	79.1731	2	39.5865	1.1761	0.0051
36	M	29.833	30.364	33.625	30.696	WITHIN GROUPS	2221.4356	66	33.6581		
	SD	7.055	5.691	5.655	5.817	TOTAL	2300.6087	68			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14E: NEGRO FEMALES - High IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	10	77	11	98	BETWEEN GROUPS	1013.0184	2	506.5092	5.7266	0.0880
37	M	85.100	93.260	98.909	93.061	WITHIN GROUPS	8402.6143	95	88.4486		
	SD	7.355	9.397	10.977	9.852	TOTAL	9415.6327	97			
	N	10	70	10	90	BETWEEN GROUPS	731.5175	2	365.7587	4.0238	0.0630
38	M	88.900	92.757	100.500	93.189	WITHIN GROUPS	7908.2714	87	90.8997		
	SD	7.965	9.836	8.580	9.853	TOTAL	8639.7889	89			
	N	6	55	8	69	BETWEEN GROUPS	2.5589	2	1.2794	0.6917	-0.0090
39	M	4.167	3.509	3.750	3.594	WITHIN GROUPS	122.0788	66	1.8497		
	SD	1.602	1.399	0.707	1.354	TOTAL	124.6377	68			
	N	10	69	8	87	BETWEEN GROUPS	1822.2947	2	911.1474	10.1946	0.1745
40	M	44.400	52.841	64.625	52.954	WITHIN GROUPS	7507.5214	84	89.3753		
	SD	8.462	9.488	10.295	10.416	TOTAL	9329.8161	86			
	N	10	72	8	90	BETWEEN GROUPS	2198.0111	2	1099.0056	5.7167	0.0949
41	M	51.700	65.556	72.250	64.611	WITHIN GROUPS	16725.3778	87	192.2457		
	SD	13.081	13.810	15.323	14.582	TOTAL	18923.3889	89			
	N	10	69	8	87	BETWEEN GROUPS	840.9606	2	420.4803	1.2452	0.0056
42	M	47.900	51.667	61.125	52.103	WITHIN GROUPS	28365.1083	84	337.6799		
	SD	18.003	17.697	24.351	18.428	TOTAL	29206.0690	86			
	N	9	67	8	84	BETWEEN GROUPS	357.9070	2	178.9535	2.6299	0.0374
43	M	52.556	58.448	61.125	58.071	WITHIN GROUPS	5511.6644	81	68.0452		
	SD	7.282	8.223	9.448	8.409	TOTAL	5869.5714	83			
	N	10	68	7	85	BETWEEN GROUPS	1102.6122	2	551.3061	6.8885	0.1217
44	M	48.300	55.956	64.571	55.765	WITHIN GROUPS	6562.6819	82	80.0327		
	SD	7.931	9.000	9.744	9.553	TOTAL	7665.2941	84			
	N	3	25	3	31	BETWEEN GROUPS	1212.8594	2	606.4297	1.2577	0.0164
45	M	54.000	70.760	82.000	70.226	WITHIN GROUPS	13500.5600	28	482.1629		
	SD	26.907	20.263	33.151	22.146	TOTAL	14713.4194	30			
	N	3	25	3	31	BETWEEN GROUPS	1018.3363	2	509.1682	1.4688	0.0294
46	M	59.333	73.280	85.333	73.097	WITHIN GROUPS	9706.3733	28	346.6562		
	SD	16.862	17.360	30.860	18.907	TOTAL	10724.7097	30			
	N	3	25	3	31	BETWEEN GROUPS	1110.4809	2	555.2404	1.5472	0.0341
47	M	56.667	72.040	83.667	71.677	WITHIN GROUPS	10048.2933	28	358.8676		
	SD	21.008	17.220	32.005	19.286	TOTAL	11158.7742	30			
	N	10	76	11	97	BETWEEN GROUPS	26.5557	2	13.2778	1.2256	0.0046
48	M	7.200	7.789	9.273	7.897	WITHIN GROUPS	1018.4134	94	10.8342		
	SD	3.645	3.259	3.197	3.299	TOTAL	1044.9691	96			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14E: NEGRO FEMALES - High IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	10	75	12	97	BETWEEN GROUPS	62.2889	2	31.1445	2.2374	0.0249
49	M	4.800	7.413	6.667	7.052	WITHIN GROUPS	1308.4533	94	13.9197		
	SD	2.530	3.956	2.902	3.779	TOTAL	1370.7423	96			
	N	10	76	12	98	BETWEEN GROUPS	207.1980	2	103.5990	7.3240	0.1143
50	M	9.100	10.789	14.750	11.102	WITHIN GROUPS	1343.7816	95	14.1451		
	SD	3.542	3.693	4.351	3.999	TOTAL	1550.9796	97			
	N	10	74	12	96	BETWEEN GROUPS	45.0355	2	22.5178	1.7721	0.0158
51	M	4.900	6.662	7.750	6.615	WITHIN GROUPS	1181.7041	93	12.7065		
	SD	1.912	3.536	4.634	3.593	TOTAL	1226.7396	95			
	N	10	75	12	97	BETWEEN GROUPS	121.9765	2	60.9883	5.2509	0.0806
52	M	8.200	9.027	12.250	9.340	WITHIN GROUPS	1091.7967	94	11.6149		
	SD	2.150	3.503	3.596	3.556	TOTAL	1213.7732	96			
	N	10	75	12	97	BETWEEN GROUPS	51.7415	2	25.8707	1.4827	0.0099
53	M	6.400	7.293	9.250	7.443	WITHIN GROUPS	1640.1967	94	17.4489		
	SD	4.248	3.879	5.754	4.198	TOTAL	1691.9381	96			
	N	10	75	12	97	BETWEEN GROUPS	170.2256	2	85.1128	7.0769	0.1113
54	M	5.200	7.867	10.750	7.948	WITHIN GROUPS	1130.5167	94	12.0268		
	SD	2.821	3.334	4.634	3.681	TOTAL	1300.7423	96			
	N	10	72	12	94	BETWEEN GROUPS	105.3072	2	52.6536	5.9635	0.0955
55	M	7.900	8.319	11.417	8.670	WITHIN GROUPS	803.4694	91	8.8293		
	SD	2.331	3.053	2.906	3.126	TOTAL	908.7766	93			
	N	9	72	12	93	BETWEEN GROUPS	177.3911	2	88.6956	7.1329	0.1165
56	M	8.111	8.736	12.750	9.194	WITHIN GROUPS	1119.1250	90	12.4347		
	SD	3.180	3.525	3.769	3.754	TOTAL	1296.5161	92			
	N	11	86	14	111	BETWEEN GROUPS	4726.4359	2	2363.2179	136.3949	0.7093
57	M	85.636	99.616	113.214	99.946	WITHIN GROUPS	1871.2398	108	17.3263		
	SD	5.143	4.070	3.906	7.745	TOTAL	6597.6757	110			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14D: NEGRO FEMALES - Low IQ

NO OF VARIABLES = 57 CLASSIFICATION VAR = # 57 WITH ELIMINATION CODE FOR CLAS. VAR = 999.000

CLAS CATEGORY UPPER LIMITS = 91.000, 108.000, 990.000, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,

RESTRICTION VAR = # 8 WITH RANGE OF 50.000 TO 85.000

CODES TO BE EXCLUDED FOR VARS 1 TO 57 ARE 0.0 , 0.0 , 0.0 , -9.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 1.000, 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 999.000,

FORMAT OF DATA IS (57F6.0)

MAX # OF OBS TO BE INCLUDED THIS PROBLEM = 259 DATA TO BE READ FROM TAPE WITHOUT REWIND

GROUP 1 = UNDERACHIEVERS

GROUP 2 = AVERAGE ACHIEVERS

GROUP 3 = OVERACHIEVERS

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14D: NEGRO FEMALES - Low IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	10	62	13	85	BETWEEN GROUPS	399.3870	2	199.6935	1.2079	0.0049
1	M	149.200	147.129	153.154	148.294	WITHIN GROUPS	13556.2600	82	165.3202		
	SD	19.487	11.674	12.335	12.889	TOTAL	13955.6471	84			
	N	10	57	13	80	BETWEEN GROUPS	2.2215	2	1.1108	0.7053	-0.0074
2	M	4.700	5.211	5.154	5.137	WITHIN GROUPS	121.2660	77	1.5749		
	SD	1.636	1.114	1.519	1.250	TOTAL	123.4875	79			
	N	10	56	13	79	BETWEEN GROUPS	5.0028	2	2.5014	1.2975	0.0075
3	M	4.800	4.696	5.385	4.823	WITHIN GROUPS	146.5162	76	1.9278		
	SD	1.033	1.513	0.961	1.394	TOTAL	151.5190	78			
	N	10	62	13	85	BETWEEN GROUPS	1.1918	2	0.5959	0.0677	-0.0224
4	M	4.800	4.452	4.385	4.482	WITHIN GROUPS	722.0318	82	8.8053		
	SD	2.860	2.895	3.380	2.934	TOTAL	723.2235	84			
	N	10	55	13	78	BETWEEN GROUPS	0.8669	2	0.4334	0.2825	-0.0187
5	M	6.300	5.982	6.000	6.026	WITHIN GROUPS	115.0818	75	1.5344		
	SD	0.823	1.354	0.913	1.227	TOTAL	115.9487	77			
	N	10	53	13	76	BETWEEN GROUPS	0.2240	2	0.1120	0.2352	-0.0205
6	M	4.600	4.453	4.538	4.487	WITHIN GROUPS	34.7628	73	0.4762		
	SD	0.699	0.695	0.660	0.683	TOTAL	34.9868	75			
	N	10	60	12	82	BETWEEN GROUPS	253.8821	2	126.9411	6.5260	0.1188
7	M	14.500	15.750	20.417	16.280	WITHIN GROUPS	1536.6667	79	19.4515		
	SD	4.972	4.201	4.981	4.702	TOTAL	1790.5488	81			
	N	10	62	13	85	BETWEEN GROUPS	98.4276	2	49.2138	0.6169	-0.0091
8	M	71.100	73.677	71.385	73.024	WITHIN GROUPS	6541.5253	82	79.7747		
	SD	10.290	8.548	9.709	8.891	TOTAL	6639.9529	84			
	N	7	47	9	63	BETWEEN GROUPS	5.9554	2	2.9777	0.8702	-0.0041
9	M	4.000	3.234	3.889	3.413	WITHIN GROUPS	205.3144	60	3.4219		
	SD	2.082	1.591	2.804	1.846	TOTAL	211.2698	62			
	N	8	50	10	68	BETWEEN GROUPS	7.0774	2	3.5387	1.3566	0.0104
10	M	3.625	2.880	3.600	3.074	WITHIN GROUPS	169.5550	65	2.6085		
	SD	2.200	1.409	2.066	1.624	TOTAL	176.6324	67			
	N	9	52	9	70	BETWEEN GROUPS	0.5001	2	0.2500	0.1238	-0.0257
11	M	3.222	3.058	2.889	3.057	WITHIN GROUPS	135.2714	67	2.0190		
	SD	1.202	1.447	1.453	1.403	TOTAL	135.7714	69			
	N	10	54	10	74	BETWEEN GROUPS	4.2939	2	2.1469	1.2032	0.0055
12	M	3.500	2.870	3.300	3.014	WITHIN GROUPS	126.6926	71	1.7844		
	SD	1.080	1.388	1.252	1.340	TOTAL	130.9865	73			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14D: NEGRO FEMALES - Low IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	8	35	4	47	BETWEEN GROUPS	441.7824	2	220.8912	4.9470	0.1438
13	M	24.000	30.543	36.000	29.894	WITHIN GROUPS	1964.6857	44	44.6519		
	SD	5.855	7.014	4.163	7.233	TOTAL	2406.4681	46			
	N	10	52	12	74	BETWEEN GROUPS	3853.8549	2	1926.9274	34.2095	0.4730
14	M	24.400	35.962	50.583	36.770	WITHIN GROUPS	3999.2397	71	56.3273		
	SD	4.477	8.083	6.653	10.372	TOTAL	7853.0946	73			
	N	7	50	7	64	BETWEEN GROUPS	0.8157	2	0.4079	1.9235	0.0281
15	M	2.000	2.340	2.429	2.312	WITHIN GROUPS	12.9343	61	0.2120		
	SD	0.0	0.479	0.535	0.467	TOTAL	13.7500	63			
	N	10	52	12	74	BETWEEN GROUPS	2700.4283	2	1350.2141	27.3985	0.4164
16	M	36.000	48.212	58.250	48.189	WITHIN GROUPS	3498.9231	71	49.2806		
	SD	9.730	6.060	8.390	9.215	TOTAL	6199.3514	73			
	N	5	42	7	54	BETWEEN GROUPS	639.3905	2	319.6952	1.3437	0.0126
17	M	73.800	85.571	86.143	84.556	WITHIN GROUPS	12133.9429	51	237.9204		
	SD	16.285	15.593	13.570	15.524	TOTAL	12773.3333	53			
	N	10	62	13	85	BETWEEN GROUPS	3595.4504	2	1797.7252	40.7563	0.4833
18	M	28.100	41.065	53.231	41.400	WITHIN GROUPS	3616.9496	82	44.1091		
	SD	5.587	6.767	6.723	9.266	TOTAL	7212.4000	84			
	N	10	62	12	84	BETWEEN GROUPS	428.5594	2	214.2797	4.7258	0.0815
19	M	43.200	48.887	51.917	48.643	WITHIN GROUPS	3672.7263	81	45.3423		
	SD	8.257	6.516	6.529	7.029	TOTAL	4101.2857	83			
	N	10	61	13	84	BETWEEN GROUPS	935.1416	2	467.5708	8.3319	0.1486
20	M	42.100	49.934	54.923	49.774	WITHIN GROUPS	4545.5608	81	56.1180		
	SD	7.445	7.090	9.269	8.126	TOTAL	5480.7024	83			
	N	8	51	11	70	BETWEEN GROUPS	341.4082	2	170.7041	3.4024	0.0642
21	M	21.125	23.706	29.000	24.243	WITHIN GROUPS	3361.4632	67	50.1711		
	SD	4.794	7.111	8.198	7.326	TOTAL	3702.8714	69			
	N	8	51	11	70	BETWEEN GROUPS	385.5294	2	192.7647	3.7993	0.0741
22	M	21.125	23.627	29.364	24.243	WITHIN GROUPS	3399.3420	67	50.7364		
	SD	4.794	7.079	8.559	7.406	TOTAL	3784.8714	69			
	N	8	46	9	63	BETWEEN GROUPS	425.2792	2	212.6396	3.9340	0.0852
23	M	21.625	24.761	31.111	25.270	WITHIN GROUPS	3243.1335	60	54.0522		
	SD	5.012	7.558	7.881	7.692	TOTAL	3668.4127	62			
	N	8	51	11	70	BETWEEN GROUPS	302.9764	2	151.4882	3.2796	0.0611
24	M	16.500	22.784	23.727	22.214	WITHIN GROUPS	3094.8093	67	46.1912		
	SD	4.408	6.420	9.477	7.017	TOTAL	3397.7857	69			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14D: NEGRO FEMALES - Low IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	0	17	2	19	BETWEEN GROUPS	32.9969	1	32.9969	0.5612	-0.0236
25	M	0.0	23.706	28.000	24.158	WITHIN GROUPS	999.5294	17	58.7958		
	SD	0.0	7.872	2.828	7.574	TOTAL	1032.5263	18			
	N	8	49	10	67	BETWEEN GROUPS	335.3098	2	167.6549	3.6754	0.0740
26	M	24.500	28.184	33.000	28.463	WITHIN GROUPS	2919.3469	64	45.6148		
	SD	4.408	6.480	9.238	7.022	TOTAL	3254.6567	66			
	N	0	3	2	5	BETWEEN GROUPS	22.5333	1	22.5333	0.3583	-0.1472
27	M	0.0	26.667	31.000	28.400	WITHIN GROUPS	188.6667	3	62.8889		
	SD	0.0	7.638	8.485	7.266	TOTAL	211.2000	4			
	N	8	50	11	69	BETWEEN GROUPS	284.9773	2	142.4887	2.7826	0.0491
28	M	25.875	31.760	33.182	31.304	WITHIN GROUPS	3379.6314	66	51.2065		
	SD	4.190	7.414	7.508	7.341	TOTAL	3664.6087	68			
	N	8	50	11	69	BETWEEN GROUPS	80.0050	2	40.0025	0.7174	-0.0083
29	M	28.125	31.240	32.000	31.000	WITHIN GROUPS	3679.9950	66	55.7575		
	SD	7.120	7.249	8.660	7.436	TOTAL	3760.0000	68			
	N	8	49	10	67	BETWEEN GROUPS	682.6672	2	341.3336	3.6337	0.0729
30	M	19.250	26.714	31.600	26.552	WITHIN GROUPS	6011.9000	64	93.9359		
	SD	7.498	9.305	12.747	10.071	TOTAL	6694.5672	66			
	N	8	53	11	72	BETWEEN GROUPS	767.7795	2	383.8897	5.9566	0.1210
31	M	21.625	25.377	33.364	26.181	WITHIN GROUPS	4446.8733	69	64.4474		
	SD	4.406	7.766	10.838	8.570	TOTAL	5214.6528	71			
	N	7	48	9	64	BETWEEN GROUPS	335.7986	2	167.8993	2.4762	0.0441
32	M	18.000	25.188	25.889	24.500	WITHIN GROUPS	4136.2014	61	67.8066		
	SD	3.651	7.908	11.816	8.425	TOTAL	4472.0000	63			
	N	4	44	4	52	BETWEEN GROUPS	393.8601	2	196.9301	2.5692	0.0569
33	M	21.000	23.045	33.000	23.654	WITHIN GROUPS	3755.9091	49	76.6512		
	SD	8.718	8.653	10.132	9.020	TOTAL	4149.7692	51			
	N	2	32	4	38	BETWEEN GROUPS	211.4260	2	105.7130	2.3418	0.0660
34	M	22.500	24.906	32.250	25.553	WITHIN GROUPS	1579.9687	35	45.1420		
	SD	3.536	6.953	4.787	6.958	TOTAL	1791.3947	37			
	N	0	21	3	24	BETWEEN GROUPS	25.9286	1	25.9286	1.2660	0.0110
35	M	0.0	24.857	28.000	25.250	WITHIN GROUPS	450.5714	22	20.4805		
	SD	0.0	4.442	5.292	4.552	TOTAL	476.5000	23			
	N	0	16	3	19	BETWEEN GROUPS	11.6327	1	11.6327	0.2727	-0.0398
36	M	0.0	24.187	26.333	24.526	WITHIN GROUPS	725.1042	17	42.6532		
	SD	0.0	6.853	3.215	6.398	TOTAL	736.7368	18			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14D: NEGRO FEMALES - Low IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	6	49	11	66	BETWEEN GROUPS	1599.8046	2	799.9023	9.7922	0.2104
37	M	69.333	79.816	89.182	80.424	WITHIN GROUPS	5146.3166	63	81.6876		
	SD	11.057	8.995	8.072	10.188	TOTAL	6746.1212	65			
	N	2	29	4	35	BETWEEN GROUPS	222.9153	2	111.4576	2.2720	0.0678
38	M	82.000	82.621	90.500	83.486	WITHIN GROUPS	1569.8276	32	49.0571		
	SD	0.0	6.889	8.963	7.261	TOTAL	1792.7429	34			
	N	0	16	2	18	BETWEEN GROUPS	3.6736	1	3.6736	2.4555	0.0748
39	M	0.0	3.562	5.000	3.722	WITHIN GROUPS	23.9375	16	1.4961		
	SD	0.0	1.263	0.0	1.274	TOTAL	27.6111	17			
	N	3	37	11	51	BETWEEN GROUPS	722.0999	2	361.0500	4.7875	0.1293
40	M	44.333	41.865	51.091	44.000	WITHIN GROUPS	3619.9001	48	75.4146		
	SD	4.041	8.080	11.122	9.319	TOTAL	4342.0000	50			
	N	4	37	11	52	BETWEEN GROUPS	4331.2334	2	2165.6167	12.2832	0.3026
41	M	32.250	49.135	67.000	51.615	WITHIN GROUPS	8639.0743	49	176.3076		
	SD	2.630	13.604	13.986	15.947	TOTAL	12970.3077	51			
	N	3	26	10	39	BETWEEN GROUPS	1859.0103	2	929.5051	4.9222	0.1675
42	M	22.667	45.885	50.900	45.385	WITHIN GROUPS	6798.2205	36	188.8395		
	SD	6.351	14.586	12.467	15.094	TOTAL	8657.2308	38			
	N	4	37	11	52	BETWEEN GROUPS	212.4915	2	106.2458	1.4979	0.0188
43	M	42.750	46.676	50.545	47.192	WITHIN GROUPS	3475.5854	49	70.9303		
	SD	7.455	7.937	10.202	8.504	TOTAL	3688.0769	51			
	N	3	36	11	50	BETWEEN GROUPS	863.7872	2	431.8936	5.7980	0.1610
44	M	35.333	44.806	52.545	45.940	WITHIN GROUPS	3501.0328	47	74.4901		
	SD	7.371	8.127	10.396	9.438	TOTAL	4364.8200	49			
	N	0	8	3	11	BETWEEN GROUPS	252.1364	1	252.1364	1.1441	0.0129
45	M	0.0	57.250	68.000	60.182	WITHIN GROUPS	1983.5000	9	220.3889		
	SD	0.0	16.731	3.464	14.952	TOTAL	2235.6364	10			
	N	0	8	3	11	BETWEEN GROUPS	57.3068	1	57.3068	0.2308	-0.0752
46	M	0.0	65.125	60.000	63.727	WITHIN GROUPS	2234.8750	9	248.3194		
	SD	0.0	12.253	24.331	15.140	TOTAL	2292.1818	10			
	N	0	8	3	11	BETWEEN GROUPS	16.5000	1	16.5000	0.1073	-0.0883
47	M	0.0	61.250	64.000	62.000	WITHIN GROUPS	1383.5000	9	153.7222		
	SD	0.0	12.151	13.229	11.832	TOTAL	1400.0000	10			
	N	4	36	5	45	BETWEEN GROUPS	45.8000	2	22.9000	2.6496	0.0683
48	M	3.500	6.333	8.000	6.267	WITHIN GROUPS	363.0000	42	8.6429		
	SD	3.786	2.918	2.345	3.048	TOTAL	408.8000	44			

LLOYD 1-14: READING DEFICIENCY ANALYSIS OF VARIANCE RUNS

LLOYD 1-14D: NEGRO FEMALES - Low IQ

J		1	2	3	TOTAL	SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO	OMEGA SQ
	N	4	39	5	48	BETWEEN GROUPS	4.3833	2	2.1917	0.1728	-0.0357
49	M	5.250	6.333	6.400	6.250	WITHIN GROUPS	570.6167	45	12.6804		
	SD	3.775	3.413	4.615	3.498	TOTAL	575.0000	47			
	N	4	38	5	47	BETWEEN GROUPS	26.8806	2	13.4403	1.3068	0.0129
50	M	5.250	7.974	7.800	7.723	WITHIN GROUPS	452.5237	44	10.2846		
	SD	4.924	3.123	2.168	3.228	TOTAL	479.4043	46			
	N	4	37	5	46	BETWEEN GROUPS	45.8625	2	22.9312	2.3177	0.0512
51	M	3.250	6.054	3.800	5.565	WITHIN GROUPS	425.4419	43	9.8940		
	SD	1.500	3.358	1.789	3.236	TOTAL	471.3043	45			
	N	4	36	5	45	BETWEEN GROUPS	30.6944	2	15.3472	1.5168	0.0225
52	M	6.500	7.083	9.600	7.311	WITHIN GROUPS	424.9500	42	10.1179		
	SD	3.697	3.157	2.966	3.218	TOTAL	455.6444	44			
	N	4	36	5	45	BETWEEN GROUPS	18.1778	2	9.0889	0.7619	-0.0107
53	M	3.500	5.722	5.200	5.467	WITHIN GROUPS	501.0222	42	11.9291		
	SD	1.732	3.559	3.493	3.435	TOTAL	519.2000	44			
	N	4	37	5	46	BETWEEN GROUPS	56.2551	2	28.1275	2.6897	0.0684
54	M	2.750	4.703	7.600	4.848	WITHIN GROUPS	449.6797	43	10.4577		
	SD	3.500	3.213	3.209	3.353	TOTAL	505.9348	45			
	N	4	36	5	45	BETWEEN GROUPS	3.8278	2	1.9139	0.1228	-0.0406
55	M	6.000	6.083	7.000	6.178	WITHIN GROUPS	654.7500	42	15.5893		
	SD	5.354	3.974	2.000	3.869	TOTAL	658.5778	44			
	N	4	36	5	45	BETWEEN GROUPS	18.2222	2	9.1111	0.8843	-0.0052
56	M	4.000	6.111	6.600	5.978	WITHIN GROUPS	432.7556	42	10.3037		
	SD	2.449	3.336	2.510	3.201	TOTAL	450.9778	44			
	N	10	62	13	85	BETWEEN GROUPS	3594.4421	2	1797.2210	111.8485	0.7229
57	M	87.700	99.210	112.538	99.894	WITHIN GROUPS	1317.6050	82	16.0684		
	SD	2.541	4.350	2.961	7.647	TOTAL	4912.0471	84			