

NINTH GRADE VOCATIONAL MATURITY AND OTHER  
PREDICTORS OF CAREER BEHAVIOR AND OCCUPATIONAL CRITERIA AT AGE 25<sup>1</sup>

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This paper reports the results of preliminary work on two major questions which have arisen in the course of a longitudinal study of vocational development: 1) the predictive validity of measures of early adolescent vocational maturity, and 2) the appropriateness of various criteria of success in early adulthood.

A priori indices of vocational maturity in the ninth grade were first validated only by construct methods, in this case by analysis of their intercorrelations, as reported in the second monograph of the Career Pattern Study (Super and Overstreet, 1960). Vocational maturity at that stage appeared to consist of a planning orientation to life and in particular to occupational choice, and of a tendency to look toward various points of time in the future, rather than of consistency or wisdom of preferences or crystallization of vocationally relevant traits. The ascertaining of the relationship between ninth grade vocational maturity

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<sup>2</sup>The ninth grade predictor variables used in this study were prepared by staff members and students associated with the Career Pattern Study of the Horace Mann-Lincoln Institute during the years 1952 to 1958, as reported in Super and Overstreet (1960). The adult career criteria were developed by Elizabeth Gotkin (1963), the adult occupational criteria and one career behavior criterion by Ralph LoCascio, and one by Louise Chatel. Charles M. Super was responsible for computer work.

and later vocational behavior had of necessity to await the maturing of the subjects, and still more nearly adequate answers will be possible only after data on a larger group, made up of pooled 8th and 9th graders, have been analyzed.

The criterion problem has often been faced (Stott, 1950; Super, 1951; Thorndike and Hagen, 1959) but never adequately solved, especially when the occupational adjustment of young people is considered (Super, 1961, 1963), for in early adulthood vocational exploration is still in process, or else establishment has only just begun.

Subjects. This report deals with the 52 members of the original ninth grade subjects of the Career Pattern Study whose work histories, during the last four years of the decade in which they had been studied, included paid work experience and for whom all necessary data were available. The representativeness of these 52 subjects is shown by the comparison of their basic data when in ninth grade with the basic data on the total class of 142 boys, reported in Table 1. It is clear that this sample is representative of the total group in intelligence, grades, socioeconomic status, adjustment, vocational aspiration level, and to a lesser extent perhaps, age.

(Insert Table 1 about here)

Methods. The ninth grade predictor variables are described in the second CPS monograph (Super and Overstreet, 1960); it must suffice here to note that they were derived from standard tests, custom-built tests, questionnaires, interviews, and school records. The criterion variables have been described by Gotkin (1963) in the preceding paper,

or need no explanation other than the statement that the distinction between job, occupation, and career was made by a series of questions designed for this purpose.

(Insert Table 2 about here)

Results. The criteria developed and tried out are reported in Table 2, which repeats the intercorrelational data of the Gotkin career development scales and career behaviors and shows, incidentally, the degree of success attained in making the distinctions between job, occupation, and career. That this effort was reasonably successful is indicated by correlations of .11, .08, and .46, respectively, between job and occupational, job and career, and occupational and career success. The distinction is also made between success and satisfaction, as shown by correlations of .12 between job success and satisfaction, and .48 between occupational success and satisfaction.

Table 2 also shows that the additive Career Development Score, minus the specific scale with which it is compared, correlates with all of its components except the scale of Goodness of Job-Fit in Terms of Abilities; it seems that, even though these scales may not properly be additive, they are assessing a common variable. The career behaviors which were not included in the career development scales are correlated in the expected ways with the CD scales, with the exception of the measure of the number of months of self-support during the years 1958-62. The occupational criteria also tend to show appropriate correlations with the career development and behavior measures, except in the case of Self-Estimated Job Success. Self-Estimated Career Success appears to be the

best single criterion at age 25 if one judges by the number of other criteria with which it is correlated; it is followed by Average Change in Equity, Realism of Reasons for Moves, Rated Establishment in Occupation, Self-Estimated Occupational Satisfaction, Goodness of Job-Fit in Terms of Interests, and Occupational Level Achieved. Only Goodness of Job-Fit in Terms of Abilities, Self-Support, and Self-Estimated Job Success appear not to be adequate criteria of success at age 25, using this construct validity method.

Other, especially external, criteria need to be developed and are in process, e.g., employers' ratings of job success; a method of combining criteria, superior to mere addition, remains to be tried. In the meantime, it may be of interest to examine relationships between ninth grade predictor variables and adult criteria as reflected in available data.

(Insert Table 3 about here)

Table 3 reports the correlations between the vocational maturity indices which, in grade 9, seemed to have construct validity, and success in dealing with the vocational developmental tasks of young adulthood. Concern with Choice is correlated as hypothesized, .23 to .36, with Fitness of Interests, Occupational Improvement, Career Development Total, Self-Estimated Career Success, and Self-Estimated Occupational Success. Other VM Indices are predictive of fewer criteria, and the VM Total is correlated only with Self-Estimated Career Success, to the extent, however, of .40, significant at the .01 level. The significant coefficients are more than twice as numerous as would be obtained with independent predictors and criteria in such a matrix, but they of course are not independent.

(Insert Table 4 about here)

Table 4 reports similar data for the vocational maturity indices which did not appear to have construct validity at age 15. Three of the 17 variables which were considered invalid appear to have some predictive validity: Consistency of Occupational Field Preferred is related to Fitness of Interest (among the construct-valid criteria); and Wisdom of All Occupational Preferences in grade 9, judged by abilities and by interests (when fantasy preferences are involved in the latter agreement measure), are related to several career development and behavior measures and to some occupational criteria. But this is not true of Wisdom of the First Preference. Other doubtful indices such as Patterning of Interests on the SVIB show only occasional but interesting relations, such as an  $r$  of  $-.34$  with Number of Jobs Held for this last index. If the predictors and criteria were independent of each other one might expect 12 or 13 such correlations by chance; 21 were obtained with sets of non-independent predictors and criteria, making it seem wise to doubt singleton predictors of an isolated but non-independent criterion.

(Insert Table 5 about here)

Table 5 contains data on the predictive value of 9th grade environmental, ability, and achievement variables. Correlated with a number of apparently meaningful criteria are parental occupational level, father's education, mother's education, cultural stimulation, participation in out-of-school activities, and school grades. A number of other, isolated, relationships appear, but again these are too likely to be due to chance, which could produce 14 or 15 at the .05 level with independent predictors

of independent criteria; but we have here sets of non-independent variables, and 26 apparently significant coefficients, making essential caution in viewing isolated relationships.

(Insert Table 6 about here)

Table 6 gives findings on motivation and adjustment variables in grade 9 and young adult success. If sets of separate predictors and criteria were involved, 9 seemingly significant  $r$ 's (.05 level) might occur by chance, but the sets are non-independent, and 11 apparently significant coefficients were obtained. No one predictor predicts many criteria, the Boy's Vocational Aspiration Level, Choice of Regents' or Local Curricula, Parental Occupational Mobility, and Family Social Mobility having possible significance. Adjustment as measured by the Rotter and by the TAT, Family Cohesiveness, and Father Identification clearly lacked predictive validity for career and occupational criteria.

(Insert Table 7 about here)

Table 7 gives the multiple correlation of the grade 9 vocational maturity indices with the age 25 Career Development Score (improved by omitting the uncorrelated scale of Goodness of Fit in Terms of Abilities). It also shows the beta weights for each variable.  $R$  equals .69, which will of course shrink replication. Concern with Choice, Consistency of Family of Interests, Interest Maturity, Acceptance of Responsibility, Wisdom of Preferences in Terms of Abilities, and Adolescent Independence are the positive contributors to the prediction, while Use of Resources, Information About the Preferred Occupation, Independence of Work Experience, Age in Grade 9, and IQ make negative contributions which are in some instances surprising and may be due to chance in this small group.

### Conclusions

Only preliminary conclusions can be drawn at present, as the number of subjects will be doubled by this time next year and significance levels will therefore change, and as different, and perhaps more refined criteria will be worked up. Even then, it will be necessary to recognize that in this study, as in most, developmental work on predictors goes hand-in-hand with the selection and refinement of criteria, and the fundamental construct validity of both remains something of an open question even when one does predict the other.

At this stage of the Career Pattern Study research, however, it may be stated that:

1. The best of the criteria examined as measures of the success of young men are apparently: self-estimated career success, change in equity with position change, realism of reasons for position change, rated occupational establishment, self-estimated occupational satisfaction, goodness of fit of job in terms of interests, and occupational level achieved. An additive career development score has limited value, but may be improved by the use of refined methods of combining scores. It seems that fitness of job in terms of abilities, number of months self-supporting during the last four years, and self-estimated job success, are not likely to be sound criteria. The others used may have some value.

2. The best predictors, in ninth grade, of the career and occupational behavior of young men at age 25 appear to be: concern with educational and vocational choices, acceptance of responsibility for choice and planning, planning itself, consistency of field preferred, wisdom of

combined preferences when judged by abilities and interests (the latter when fantasy preferences are used), parental occupational level, father's and mother's educational levels, cultural stimulation, out-of-school activities, and high school grades. An additive vocational maturity score appears to have limited value, but like the career development score may perhaps be improved by using non-additive methods. Some indices which seemed to assess vocational maturity in the ninth grade appear to have little predictive validity, some appear to have negative validity, and a few which seemed to lack construct validity at that time do appear to have some predictive value. The number involved requires caution in drawing conclusions until data are analyzed for larger numbers.

### Bibliography

- Gotkin, Elizabeth H. "The measurement of career behavior in young men." Paper read at the American Psychological Association, Philadelphia, 1963.
- Stott, Mary B. "What is occupational success?" Occupational Psychol., 1950, 24, 105-112.
- Super, D. E. "The criteria of vocational success." Occupations, 1951, 30, 5-9.
- Super, D. E. "Some unresolved issues in vocational development research." Personnel and Guidance J., 1961, 40, 11-15.
- Super, D. E. "The definition and measurement of early career behavior." Personnel and Guidance J., 1963, 41, 775-780.
- Super, D. E., and Overstreet, Phoebe L. The vocational maturity of ninth grade boys. New York: Teachers College Bureau of Publications, 1960.
- Thorndike, R. L., and Hagen, Elizabeth. Ten thousand careers. New York: John Wiley, 1959.

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Tables

Preliminary Report of U.S. Office of Education  
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Table 1  
 Comparison of Career Criterion Subjects with 1958-62 Work Histories Scorable  
 For Career Behavior With Total 9th Grade

<u>Variable</u>	<u>Mean</u>		<u>Standard Deviation</u>		<u>Difference</u>
	Career Criterion Group	Total Group	Career Criterion Group	Total	
IQ in Grade 9	102.5	102	9	12	NS
Grades in Grade 9	76	76	7	7	NS
Age in Years	15	14.4	9 mos	11 mos	NS
Socioeconomic Status	4	4.5	1	1	NS
Adjustment: ISB	121	119	12	8	NS
Vocational Aspiration Level	3	3	1	1	NS
N	52	142			

Table 2  
Intercorrelations<sup>1</sup> of Career<sup>2</sup> and Occupational Criteria

Career Development	1	2	3	4	5	6	7	8*	9	10	11	12	13	14	15	16	17	18	19
1 Equity Change		.49	.11	.16	.13	.21	.43	.45	-.33	-.24	.03	-.43	.40	.24	.33	.27	.42	-.15	.09
2 Movement Realism			.01	.18	.33	.10	.44	.53	-.29	-.25	-.05	-.36	.49	.08	.18	.07	.35	-.01	.26
3. Fit: Abilities-Job				.07	.15	-.02	-.09	.12	-.10	-.15	-.07	-.01	.16	.23	.05	.23	.14	.09	.10
4 Fit: Interests-Job					.25	-.04	.06	.25	.09	.07	.37	.25	.25	.50	.21	.42	.42	.22	.22
5 Goal Relation						.05	.13	.37	-.05	.00	.14	-.17	.31	.32	.30	.16	.40	.07	.25
6 Occ'l Improvement							.03	.27	-.32	-.25	-.12	-.04	.08	-.02	.32	.06	.14	-.09	.13
7 Educ'l Improvement								.30	-.06	-.09	.10	-.20	.40	-.15	.27	-.13	.09	-.45	-.03
8 CD Total									-.29	-.26	.14	-.28	.54	.29	.45	.27	.51	-.09	.28
8a CD Improved									-.29	-.24	.16	-.29	.53	.26	.47	.22	.50	-.12	.27
<u>Career Behaviors</u>																			
9 Unemployed: Times										.86	-.07	.18	-.23	-.02	-.11	-.05	-.10	.18	-.12
10 Unemployed: Months											-.14	.13	-.23	.02	-.18	-.01	-.03	.13	-.11
11 Self-Support: Months												.14	.08	.13	.19	.19	.19	-.01	.05
12 Jobs Held: N													-.22	.05	.05	.17	-.14	.14	-.03
13 Career Success: Self-Est.														.22	.32	.09	.40	.08	.46
14 Occ'l Establ.: Rated															.25	.44	.71	.37	.26
<u>Occupational Criteria</u>																			
15 Occ'l Level Achieved																.30	.52	-.08	.21
16 Job Satis.: Self-Est.																	.58	.12	.23
17 Occ'l Satis.: Self-Est.																		.17	.48
18 Job Success: Self-Est.																			
19 Occ'l Success: Self-Est.																			

1  $r = .23$  significant at .05 level, one-tailed test,  $r = .32$  significant at .01 level, one-tailed test.

2 Rationale described in Super, D.E., "The definition and measurement of early career behavior: a first formulation." Personnel and Guidance J., 1963, 41, 775-780. Development and intercorrelations of measures reported in Gotkin, Elizabeth H., "The measurement of career behavior in young men," paper read at APA meeting, Philadelphia, Aug. 30, 1963.

\* Total minus relevant scale.

Table 3  
Correlations<sup>1</sup> of Indices of Vocational Maturity<sup>2</sup> Which Had Construct Validity  
in Grade 9 with Career Behavior and Occupational Criteria At Age 25 (N=52)

Predictors: Vocational Maturity in Grade 9	<u>Career Development Scales</u>										<u>Career Behaviors</u>										<u>Occupational Criteria</u>									
	I Equity Change	II Movement Realism	IIIA Fit-Abilities	IIIB Fit-Interests	IV Goal Relation	V Status Improvement Occupational	VI CD Total	CD Improved	Unemployed: Times	Self Support	Jobs Held	Career Success: Self-Est.	Occ'l Establ.: Rated	Occ'l Level Achieved	Job Satis.: Self-Est.	Occ'l Satis.: Self-Est.	Job Success: Self-Est.	Occ'l Success: Self-Est.												
IA Concern: Choice	12	05	20	30	03	24	27	23	06	04	24	36	-03	-03	07	00	11	23												
IVF Responsibility	02	02	03	-05	00	01	04	03	-01	27	-06	24	-03	-02	-23	-12	-01	-11												
IIA Information	-07	-06	19	-01	00	-01	04	-01	-13	08	27	16	-06	-14	-13	-26	-04	-23												
IIB Planning	13	16	-03	09	-03	-05	17	19	09	20	03	33	-10	00	-12	-11	13	00												
IB Use: Resources	-19	30	00	01	-15	00	-24	-26	34	04	09	-28	02	-21	03	-16	11	-08												
Total	08	06	12	12	00	06	17	15	01	20	15	36	-11	-08	-14	-17	06	-03												

<sup>1</sup>  $r=.23$  significant at .05 level, one-tailed test,  $r=.32$  significant at .01 level, one-tailed test.

<sup>2</sup> Development and construct validation reported in Super, D.F., and Overstreet, Phoebe L., The vocational maturity of ninth grade boys. New York: Teachers College Bureau of Publications, 1960.

Table 4  
 Correlations\* of Indices of Vocational Maturity Which Lacked Construct Validity  
 in Grade 9 With Career Behavior and Occupational Criteria At Age 25 (N=52)

Predictors: Inadequate VM Indices in Grade 9	Career Development Scales																
	I Equity Change	II Movement Realism	IIIA Fit-Abilities	IIIB Fit-Interests	IV Goal Relation	V Status Improvement Occupational	VI CD Total CD Improved	Career Behaviors		Unemployed: Times							
III Consistency: Preferences	-19	06	-11	38	-04	10	10	08	13	19	-07	11	-01	09	04	30	10
A Occupational Field	07	-03	-16	-05	06	32	07	10	00	-01	-16	-14	-05	05	-13	10	16
B Occupational Level	-03	-02	-04	18	09	30	17	11	13	05	-11	-05	-09	-06	-06	17	13
C Occupational Family																	
IV Crystallization: Traits																	
A Patterning: SVIB Interests	-01	09	14	-14	-16	-08	-10	-03	-11	-34	-13	-01	-24	06	01	14	-08
B Interest Maturity: SVIB	07	06	-06	19	22	15	25	-04	04	11	04	00	17	13	-03	-15	01
C Liking for Work	-19	-05	-14	-25	-17	10	-21	-15	01	05	-19	-20	07	-13	-20	-21	-21
D Patterning: WVI Values	-04	01	11	04	-06	-11	02	18	12	10	-04	-25	-17	-06	-20	-10	-19
E Discussion: Rewards	00	-03	03	17	11	15	07	07	05	11	07	20	19	24	23	16	47
V Vocational Independence																	
A Independence: Work	-14	-11	20	00	-08	-11	-14	-03	-14	-01	05	08	00	09	-04	-03	20
VI Wisdom: Voc'l Preference																	
A1 Agree: Ability-1st Pref.	-05	-05	-02	11	11	12	01	-01	-01	07	-10	26	02	14	18	02	00
A2 Agree: Ability-A11 Pref's	31	-01	29	27	35	16	38	04	14	-13	08	16	21	36	25	-01	-08
B1 Agree: SVIB-1st Pref.	-01	06	-02	05	23	10	10	07	-15	-16	19	08	-11	-06	01	-05	20
B2 Agree: SVIB-A11 Pref's	-02	08	-02	-05	28	00	11	14	-10	-19	-05	11	-07	-08	07	-03	08
C Agree: SVIB-Fantasy	03	15	00	13	57	-07	25	17	-14	28	24	09	09	13	34	15	26
D Agree: SVIB OL-1st Pref.	02	-28	07	-38	-28	-21	-34	21	-10	-15	-15	-15	-14	-12	-16	09	04
E Socioeconomic Access.	-16	-08	02	-04	05	10	-02	01	-04	11	-05	-12	-04	-19	-11	00	03

\* r=.23 significant at .05 level, one-tailed test, r=.32 significant at .01 level, one-tailed test.

Table 5  
Correlations\* of Measures of Environment, Ability, and Achievement  
In Grade 9 with Career Behavior and Occupational Criteria at Age 25 (N=52)

Predictors: Grade 9	Career Development Scales										Career Behaviors										Occupational Criteria									
	I Equity Change	II Movement Realism	IIIA Fit-Abilities	IIIB Fit-Interests	IV Goal Relation	V Status Improvement Occupational	VI CD Total	CD Improved	Unemployed: Times	Self-Support	Jobs Held	Career Success: Self-Est.	Occ'l Establ.: Rated	Occ'l Level Achieved	Job Satis.: Self-Est.	Occ'l Satis.: Self-Est.	Job Success: Self-Est.	Occ'l Success: Self-Est.												
<u>Environment</u>																														
Parental Occ'l Level*	-16	-37	02	-20	02	-07	-24	-26	25	09	-06	-42	01	-10	-08	10	-24	-06												
Father's Educ'l Level*	-17	-35	02	-16	10	00	-29	-31	09	-02	-02	-29	24	-02	-09	-08	14	-19												
Mother's Educ'l Level*	-25	-46	26	-15	06	-16	-26	-35	20	-01	14	-32	14	-18	-09	-09	14	-01												
(*reverse sign)																														
Cultural Stimulation	08	14	21	31	-11	-15	24	19	-16	-09	13	37	01	10	18	11	06	14												
Urban-Rural Resid.	-20	00	-28	16	25	-14	-01	07	16	00	-01	-03	02	04	-17	-08	-07	-06												
Protestant	-06	-13	-06	-16	-03	-15	-22	-22	-05	01	04	-19	-05	-05	15	01	-10	00												
Catholic	07	11	06	34	09	05	24	24	16	09	-05	15	20	16	05	18	13	06												
First or Only Child	-05	-03	-07	-27	-13	-06	-20	-20	-21	-25	00	-08	15	-11	02	-03	04	02												
<u>Ability</u>																														
IQ-Otis	08	02	-16	33	04	04	08	13	10	16	28	08	08	03	-01	09	10	00												
<u>Early Achievement</u>																														
Peer Acceptance	10	13	09	10	26	-04	21	20	-17	03	-08	22	22	19	-07	21	29	12												
School Activities	-11	-13	03	19	16	-03	18	18	-19	22	07	24	13	02	-33	01	15	10												
Out-of-School Act.	11	17	19	42	34	28	40	37	-10	00	07	24	16	31	09	22	00	28												
<u>Independence-BI</u>																														
School Grades	05	17	09	22	13	-17	17	16	02	18	13	07	10	25	13	19	10	09												
Achiever-Underach.	29	19	-13	11	-01	03	17	22	17	08	-02	37	07	20	-09	21	12	06												
	16	17	-18	-03	-02	08	02	07	12	14	-05	22	12	06	06	20	25	07												

\* r=.23 significant at .05 level, one-tailed test, r=.32 significant at .01 level, one-tailed test.

Table 6  
Correlations\* of Motivation and Adjustment Measures in Grade 9  
With Career Behavior and Occupational Criteria At Age 25 (N=52)

Predictors in Grade 9		Career Development Scales									
<u>Motivation</u>	Voc'1 Aspiration Level*	I Equity Change									
		00	-.18	.11	-.08	.04	-.04	-.12	-.16	.12	-.15
*reverse sign	Agree: Aspir-Expect. Level	II Movement Realism									
		10	.27	.14	.08	.19	-.19	.12	.08	-.34	.14
*reverse sign	Curric: Regents'-Local	IIIA Fit-Abilities									
		01	.03	-.03	.41	.34	.01	.26	.23	.16	.19
Parent-Boy Voc'1 Aspir.	Parental Mobility	IIIB Fit-Interests									
		-.04	-.05	-.17	-.08	-.12	.01	-.11	-.07	.07	-.06
Family Soc'1 Mobility	Family Soc'1 Mobility	IV Goal Relation									
		-.07	.11	.11	.26	.08	-.13	.13	.11	-.12	.24
Intrin-Extrin. Values	Intrin-Extrin. Values	V Status Improvement Occupational									
		-.21	-.05	-.28	.32	.12	.10	-.06	.02	.10	.21
Adjustment	TAT Total (reverse sign)	VI CD Total									
		.17	-.04	-.21	-.06	.05	-.10	-.07	-.02	.14	-.08
ISB(Rotter) "	Family Cohesiveness-BI	CD Improved									
		-.11	-.23	.18	.08	.12	-.10	-.03	-.08	-.04	.27
Father Ident.-HH	Father Ident.-HH	Career Behaviors Unemployed: Times									
		.10	.10	.26	.04	-.06	-.06	.10	.03	-.18	.00
		Self Support									
		.00	.17	.02	.01	-.15	.08	.01	.01	-.18	-.04
		Jobs Held									
		.00	.17	.02	.01	-.15	.08	.01	.01	-.18	-.04
		Career Success: Self Est.									
		.00	.17	.02	.01	-.15	.08	.01	.01	-.18	-.04
		Occ'l Establishment: Rated									
		.00	.17	.02	.01	-.15	.08	.01	.01	-.18	-.04
		Occupational Criteria Occupational Level Achieved									
		.00	.17	.02	.01	-.15	.08	.01	.01	-.18	-.04
		Job Satis.: Self-Est.									
		.00	.17	.02	.01	-.15	.08	.01	.01	-.18	-.04
		Occ'l Satis.: Self-Est.									
		.00	.17	.02	.01	-.15	.08	.01	.01	-.18	-.04
		Job Success: Self-Est.									
		.00	.17	.02	.01	-.15	.08	.01	.01	-.18	-.04
		Occ'l Success: Self-Est.									
		.00	.17	.02	.01	-.15	.08	.01	.01	-.18	-.04

\* r=.23 significant at .05 level, one-tailed test, r=.32 significant at .01 level, one-tailed test.

Table 7  
 Contributions of Ninth Grade Variables To Prediction  
 of Career Development (Improved Scale) at Age 25  
 R=.69

VM Index	<u>Variable</u>	<u>Beta Weights</u>
IA	Concern with Choice	.20
IB	Use of Resources	-.43
IIA	Information	-.24
IIB	Planning	-.10
IIIA	Occupational Field	Omitted
IIIB	Occupational Level	Omitted
IIIC	Occupational Family	.35
IVA	Patterning: SVIB Interests	Omitted
IVB	Interest Maturity: SVIB	.27
IVC	Liking for Work	-.05
IVD	Patterning: WVI Values	-.01
IVE	Discussion: Rewards	Omitted
IVF	Acceptance of Responsibility	.14
VA	Independence: of Work Experience	-.15
VIA2	Agreement: Ability-All Preferences	.22
VIB2	Agreement: SVIB-All Preferences	-.03
VIC	Agreement: SVIB-Fantasy Preference	Omitted
VID	Agreement: SVIB OL-1st Preference	Omitted
VIE	Socioeconomic Accessibility	-.01
	Age in Grade 9	-.30
	IQ	-.21
	Cultural Stimulation	-.11
	Family Cohesiveness	-.11
	Adolescent Independence	.15