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ABSTRACT

Holland's theory of vocational choice assumes that most persons can be categorized into six types in accordance with their personality attributes. These six types are: Realistic, Investigative, Social, Conventional, Enterprising and Artistic. From Holland's theory, a high degree of congruence between personality type and occupational choice is postulated. To examine such congruence and occupational stability rates, the data from Project TALENT is reviewed. The sample consisted of more than 31,000 high school seniors who responded to the followup survey conducted five years after their graduation. The occupational choices obtained at the two points in time were classified into one of the six occupational types, and constituted the data for this study. It was found that only 18.5% of the males and 26.2% of the females chose the same occupation on both occasions. The higher stability rate for females is accounted for by the 60.3% stability rate of girls planning to be housewives. These and other results are discussed. (SJL)

Five Year Stability of Holland Occupational Types

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FIVE YEAR STABILITY OF HOLLAND OCCUPATIONAL TYPES

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Holland (1959, 1966; Holland, et al., 1969) has proposed a theory of vocational choice based on the assumption that most persons can be categorized into six groups or types in accordance with their personality attributes. These six types are: Realistic, Intellectual, Social, Conventional, Enterprising, and Artistic. Holland (1970) later changed the name of the Intellectual scale to Investigative. It is further hypothesized that most occupations can be categorized into the same six types according to the physical and psychological requirements of the occupation. Since persons of a particular Holland type tend to have the sort of personality traits required for occupations of the same type, a high degree of congruence between personality type and occupational choice is postulated. Implicit in this formulation is the assumption that a person's personality type can be inferred from his occupational choice. Though not used for this study, it is also possible to sub-classify an occupation within a given category. Thus, for example, the primary classification for a college professor is in the Investigative category and within that in the Artistic category and finally as a third order classification in the Social category.

As with all theories of vocational psychology, the Holland theory must come to grips with the problems raised by changes in a person's occupational choice. Since a change of occupational choice within a particular occupational type category does not imply a conflict with personality type, it can be attributed to refinements in a person's knowledge of his own particular aptitude patterns. However, occupational choice changes between occupational type categories are more difficult to deal with. This sort of change must be

accounted for by either changes in personality type, or an occupational choice type-personality type incongruence at one or both of the times that occupational choice was determined. Since this sort of change is analogous to cognitive dissonance (Festinger, 1957), the changes should be in the direction of occupational choice-personality congruence.

Several studies have examined the change and stability rates for persons initially selecting occupations in the various occupational type categories; however, only rather limited populations have been studied: National Merit Finalists (Holland and Nichols, 1964); male college graduates (Elton and Rose, 1970, 1971); and college freshmen (Holland, 1968). Since Holland's theory was formulated as general rather than college-student-specific, an examination of the occupational choice change and stability rates for a large sample from the general population was desired. It is the objective of this paper to present the initial results of such a broad based examination using data collected by Project TALENT.

Thus, a brief introduction to Project TALENT is necessary to provide a background for what will follow. In the spring of 1960 a probability sample of approximately five percent of the public, private and parochial high schools in the United States agreed to participate in a national longitudinal study of the development of youth into adults. This study was called Project TALENT. The 400,000 students in grades 9 through 12 attending 1225 selected schools were administered a two-day battery of specially constructed tests and inventories. This battery consisted of both maximum performance and typical behavior measures and collected data about the student's future plans, family background, and interests as well as his aptitudes and abilities.

In addition to the original testing in 1960, a series of follow-up studies has been completed or is being planned for one, five, eleven, and twenty years after each of the classes in the sample graduated from high school. At the present time all of the five-year follow-ups and one eleven-year follow-up have been completed. Associated with each of the follow-up surveys has been the selection and field interviewing of an approximately four percent random sample of the non-respondents. Appropriate weights for members of the non-respondent groups, when combined with the regular probability weights for all

subjects, permit correction for non-respondent bias in the estimation of national population distributions for the high school classes of 1960, 61, 62, and 63.

Among the questions asked in 1960 were several related to the student's plans for the future. These included the career the student thought he would enter. In the follow-up study conducted five years after the Project TALENT participant's class graduated from high school, information was obtained about his current career plans. Thus it is possible to compare the student's career plans over a period ranging from 5 years for the 1960 12th graders to 8 years for the 1960 9th graders and to relate them to the 1960 and follow-up data.

The sample used in this study consisted of the more than 31,000 persons who were high school seniors in 1960 and who responded to the follow-up survey conducted five years after their classes graduated from high school. Since it could not be assumed that these 31,000 respondents constituted a random sample of the 1960 12th graders, their responses were appropriately weighted, using the regular 1960 and special non-respondent weights, to produce estimates for their entire 1960 populations. Thus the statistics to be reported are estimates of the population parameters.

On the original 1960 TALENT questionnaires, the students indicated their career plans by choosing one of the occupations listed as the alternatives for a single item. On the five-year follow-up questionnaires the students wrote in the occupation they planned to make their life work--regardless of whether they were currently working in that occupation--in answer to a free response question. Each such response to the follow-up questionnaire was classified by a trained coder into a highly specific occupational category. The occupational choices obtained at the two points in time were classified into one of the six Holland occupation types, or an undecided category, and constituted the basic data for this study.

Before considering the stability rates for different occupation types and changes between the types, it is of more than passing interest to consider the distribution of persons among the six occupation types at the two points in time being discussed. These figures are presented in Table 1. With these figures in view, consider the sorts of jobs included in each occupation type.

The Realistic type includes the skilled trades, technical occupations, and some service occupations.

The Investigative type includes scientific and some technical occupations.

The Artistic type includes occupations in the artistic, musical, and literary fields.

The Social type includes educational and social welfare occupations.

The Enterprising type includes most of the managerial and sales occupations.

And finally, the Conventional type is composed of office and clerical occupations.

The level of training or amount of education required for a given job is not considered in the assignment of a job to an occupation type; thus, all six categories include persons of all levels.

Notice the rather dramatic shifts which occured over the five year time span. In one category, with an admittedly small initial level, the proportion increased over 500%, while in two categories with high initial proportions there was a 50% reduction.

Almost 50% of the females initially fell into the Social type because teachers, nurses, and housewives are all in this category. The even higher proportion of females in the Social type five years after high school is due almost entirely to females selecting housewife at this point in time. While not presented as a part of the table, Project TALENT data indicate that the proportion selecting housewife increased almost 400% over the five year period while the proportions selecting both nurse and teacher decreased over the same period. Regretfully we do not have data available to indicate why so many girls gave up their initially chosen occupations and decided to become housewives.

Among males the most striking feature is the decrease of persons in the Investigative or scientific type occupations and the increase of persons in Realistic and Enterprising type occupations. This appears in large part to be the result of initially unrealistic views of the demand for and educational requirements of persons in Investigative occupations.

The degree of occupational instability when individual occupations are the unit of analysis has been presented elsewhere (Claudy, 1970).

For this same sample of 12th graders, only 18.5% of the males and 26.2% of the females chose the same occupation five years after high school that they chose as high school seniors. The higher stability rate for females is due almost entirely to girls planning to be housewives having a 60.3% stability rate.

In spite of these low overall stability rates for individual occupations, it might be postulated that many changes are between similar occupations and thus a classification such as that proposed by Holland would show somewhat greater stability rates. Tables 2 and 3 present these rates which are underlined on the major diagonal. The overall stability rates are 33.86% for males and 46.94% for females. That is 33.86% of the males and 46.94% of the females fell into the same category five years after high school that they fell into as seniors in high school. Again the overall rate for females is higher, but note on Table 3 that the stability rate for the Social type is 74.50%. Housewives fall into the Social type, so here again the higher overall stability rate is largely due to this stable subgroup.

Another way to view occupation type stability is to consider the high school origins of persons who are in each category five years after high school. These data are presented in Tables 4 and 5. To see how these two sets of tables fit together note from Table 2 that 32.92% of the males who were in the Investigative type in high school were in that same type five years later; yet from Table 4, 63.20% of those who ended up in the Investigative type had started out there. Thus the tables present the inter-group migration patterns from two different angles.

Once these data were in hand I spent a good deal of time trying to find some underlying order or pattern among them. I frankly admit that I have not been able to do so. There does not seem to be any strong tendency for persons who leave a given occupation type group to move to any other particular groups. While there are some trends, the overall effect seems to be a general shuffling of occupation types which is roughly proportional to the migration rates for the group as a whole.

The reason for this lack of a systematic effect is not clear, but since I believe that most behavior is lawful rather than random, I am inclined

to think that the absence of a pattern is due to a very large number of unrealistic occupational choices during high school. Such choices were probably made on the basis of whim and fancy rather than knowledge and thus can't be expected to correlate highly with subsequent behavior.

Thus, while these data do not provide any startling insights into vocational decision making, they do provide what I feel is a useful description of the outcomes of such decisions. Perhaps some vocational theorist among us can weave them into his theory.

TABLE 1

Occupation Type of 12th Graders*

Occupation Type	MALES		FEMALES	
	In High School	5 Years Beyond High School	In High School	5 Years Beyond High School
Realistic	18.81	27.11	.62	3.44
Investigative	38.02	19.80	6.91	4.27
Artistic	2.61	4.31	3.09	4.68
Social	12.09	8.93	48.06	63.81
Enterprising	11.53	20.09	1.02	2.10
Conventional	5.24	5.56	31.37	14.39
Undecided	11.71	14.20	8.92	7.32

* Weighted percents of columns (Unweighted N for males = 15,449)
(Unweighted N for females = 16,100)

TABLE 2

Outcomes for 12th Grade Males Initially Falling into Each Occupation Type*

Occupation Type 5 Years Beyond High School	Occupation Type in High School						
	Realistic	Investigative	Artistic	Social	Enterprising	Conventional	Undecided
Realistic	51.36	23.76	13.87	14.90	16.80	19.12	28.37
Investigative	10.78	32.92	11.50	16.48	6.31	10.39	14.49
Artistic	1.41	2.83	34.78	6.19	5.08	.91	5.76
Social	2.92	7.19	7.36	26.07	9.51	8.15	6.67
Enterprising	13.15	16.62	17.05	22.25	41.74	22.79	18.39
Conventional	4.67	4.64	4.11	1.79	8.56	19.68	4.87
Undecided	15.70	12.03	11.33	12.32	12.00	18.96	21.45

* Weighted percents of columns (Unweighted N = 15,449)

TABLE 3

Outcomes for 12th Grade Females Initially Falling into Each Occupation Type*

Occupation Type 5 Years Beyond High School	Occupation Type in High School						
	Realistic	Investigative	Artistic	Social	Enterprising	Conventional	Undecided
Realistic	19.16	.80	3.16	2.69	1.20	4.81	3.91
Investigative	12.42	23.38	3.52	2.89	3.13	1.61	5.99
Artistic	1.80	6.66	34.62	3.83	3.50	2.39	5.79
Social	41.72	50.47	45.56	74.50	56.73	54.68	57.31
Enterprising	-	1.89	2.80	2.05	2.72	2.02	2.60
Conventional	11.05	9.13	5.52	7.91	20.74	25.13	18.19
Undecided	13.84	7.65	4.83	6.13	11.97	9.35	6.22

* Weighted percents of columns (Unweighted N = 16,100)

TABLE 4

Initial Occupation Type for 12th Grade Males Falling into Each Occupation Type 5 Years Beyond High School*

Occupation Type in High School	Occupation Type 5 Years Beyond High School						
	Realistic	Investigative	Artistic	Social	Enterprising	Conventional	Undecided
Realistic	35.62	10.24	6.17	6.15	12.81	15.80	20.80
Investigative	33.31	63.20	25.00	30.61	31.46	31.78	32.21
Artistic	1.34	1.52	21.09	2.15	2.22	1.93	2.08
Social	6.64	10.06	17.37	35.29	13.39	3.89	10.49
Enterprising	7.14	3.68	13.61	12.28	23.97	17.78	9.75
Conventional	3.69	2.75	1.10	4.78	5.94	18.55	6.99
Undecided	12.25	8.56	15.65	8.75	10.71	10.26	17.68

* Weighted Percents of columns (Unweighted N = 15,449)

TABLE 5

Initial Occupation Type for 12th Grade Females Falling into Each Occupation Type 5 Years Beyond High School*

Occupation Type in High School	Occupation Type 5 Years Beyond High School						
	Realistic	Investigative	Artistic	Social	Enterprising	Conventional	Undecided
Realistic	3.47	1.81	.24	.41		.48	1.18
Investigative	1.62	37.89	9.83	5.47	6.24	4.39	7.23
Artistic	2.84	2.54	22.83	2.20	4.13	1.18	2.04
Social	37.64	32.61	39.29	56.12	46.99	26.43	40.22
Enterprising	.36	.75	.76	.91	1.32	1.47	1.67
Conventional	43.93	11.87	16.02	26.88	30.27	54.78	40.08
Undecided	10.14	12.53	11.03	8.01	11.05	11.27	7.58

* Weighted percents of columns (Unweighted N = 16,100)

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