THE INFLUENCE OF PLANNING TO ENTER FARMING
ON PLANS TO ATTEND COLLEGE*

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ABSTRACT

To date there are few empirical data available concerning factors responsible for the relatively low levels of urban labor-market achievement of farm-reared persons. The present study, based upon data for farm boys in a one-sixth random sample of Wisconsin high-school seniors in 1949, shows that planning to enter farming acts as a deterrent toward planning to attend college, in that fewer farm boys who plan to farm plan to go to college. Farm boys who plan to go to college also have higher intelligence test scores than those who do not, and those who plan to farm have lower scores than others. Contrary to expectations, however, the adverse influence of planning to farm on planning to go to college is strongest among the most intelligent farm boys. The blocking of college training by plans to farm, that are not actually carried out, may offer a partial explanation for the low levels of urban occupational achievement of farm-reared persons, and no doubt is personally and socially dysfunctional.

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Studies in several countries have shown that farm-reared persons have lower levels of occupational achievement than do persons reared in urban areas.[1] Recently Lipset, in attempting to explain this fact, hypothesized that certain rural-urban differences in social structure influence levels of educational and occupational aspiration, which in turn influence levels of educational and occupational achievement.[2] This hypothesis has been tested by comparing farm-nonfarm differences in levels of educational and occupational aspiration among Wisconsin high-school seniors who were not planning to enter farming.[3] The latter research shows that farm-nonfarm residence influences the levels of educational aspiration but not levels of occupational aspiration. However, even the relationship of levels of educational aspiration to farm-nonfarm residence appears too low to account for much of the observed differences in levels of occupational achievement. If this is true, it follows that factors other than levels of aspiration may inhibit the farm-reared person in his occupational achievement.

One alternative explanation is that the low levels of urban occupational achievement of farm-reared males may be due partly to an unfulfilled plan to become a farm operator. Participant observation suggests that many farm people believe that boys planning to enter farming do not need a college education. Since college education seems to have become a requirement for high-level nonfarm occupational achievement, a boy who subscribes to this belief about college education for farmers may forego the college training that he might otherwise gain. This should be reflected in the college plans of seniors in high school who are planning to enter farming. It was the purpose of the present study to determine whether the proportion of farm boys who plan to obtain a college education is lower among those planning to become farmers than it is among those not planning to become farmers, and whether this is due to the influence of intelligence differences between those who plan to farm and those who do not plan to farm. The findings will provide the basis for field research concerning the influence of college plans on actual levels of nonfarm occupational achievement.

The purpose of this study was carried out by testing two related null hypotheses, as follows: (1) Among farm boys who are seniors in high school, there is no significant association between plans regarding college and plans regarding farming as a vocation; (2) among farm boys who are seniors in high school, there is no significant association between plans regarding college and plans regarding farming as a vocation, when the influence of intelligence is controlled.

METHOD

Data for testing the hypotheses were secured from a one-sixth random sample of all high-school seniors in the state of Wisconsin, in the school year 1947-1948.[4] The subjects of the present study include all males who reported that their parents are farmers, a total of 565 persons. Data concerning college plans were taken from a pair of questions asking whether the subject definitely planned to attend college and the name of the college in which he planned to enroll. All those who stated that they planned to enter a regular four-year degree-granting college or university were coded as "planning to attend college." All others were coded as "not planning to attend college." The dichotomy "planning to attend college" versus "not planning to attend college" is used as the dependent variable of the study. Data for the independent variable--the subject's plans regarding farming--were taken from a question asking the subject to name the vocation he planned to pursue; respondents were coded as "planning to farm" or "not planning to farm." Data for the control variable--intelligence--were the students' scores on the Henmon-Nelson Test of Mental Ability.[5] The I.Q. scores were rank-ordered from highest to lowest, then divided into three groups of equal size: "high I.Q." (range: 111-132), "middle I.Q." (range: 104-111), and "low I.Q." (range 61-104).

RESULTS

Data testing the first hypothesis are presented in Table 1. In general, the percentages appear to show a disproportionate number of college aspirants among farm boys not planning to farm. The chi-square test of the significance of the apparent relationship fails to refute this.[6] Thus, the hypothesis of no association between plans regarding college and plans regarding farming must be rejected. It must be concluded that farm boys in the final year of high school who intend to farm plan to attend college less frequently than do those who do not plan to farm.

However, this finding does not necessarily mean that planning to farm directly influences college plans. This is because there is considerable evidence that each of these variables, plans regarding farming and plans regarding college, is related to intelligence. While the evidence is conflicting, most studies indicate that the more intelligent farm boys tend to leave farming to enter nonfarm occupations.[7] As shown in Table 2, the present data, in agreement with the bulk of previous findings, indicate that significantly fewer of the more intelligent farm boys plan to farm. Moreover, present data (Table 3), again in agreement with previous research, indicate that the more intelligent persons are disproportionately represented among those planning to attend college.[8] Thus, by inference, it could be argued that planning to farm does not inhibit the desire to attend college, but that both are due to low intelligence. More concretely, the boy who is not very bright may plan to farm rather than to go to college, while the converse may hold for his more gifted peers. For this reason, the effects of intelligence must b e controlled before definite conclusions are drawn.

Data testing the hypothesis when the effect of intelligence is minimized (Hypothesis 2) are presented in Table 4. Since there is still a significant relationship, the null hypothesis obviously must be rejected.[9] The direction of the relationship is indicated by the percentages in the table. At each intelligence level, farm boys planning to farm tend not to plan to go to college. Moreover, the higher the ingelligence level, the more marked the relationship, as indicated by the coefficients of contingency (C) in Table 4.[10]

DISCUSSION

The actual educational impact of definite plans to enter farming, and the consequences attendant to this impact, can be discovered only by field research among persons several years removed from high school. However, it is probable that many of those who decide not to attend college in order to enter farming will leave the farm in a few years. This would have theoretical importance in that the influence of unfulfilled plans to enter farming on levels of educational attainment may be a factor in the low levels of nonfarm labor-market achievement of farm-reared persons noted by social scientists.[11] Practically speaking, this means that the adverse influence of planning to farm on plans to attend college may have the dysfunctional personal consequence of handicapping individuals in the face for valued occupations.[12] For the society, too, the blockage of training introduced by unfulfilled plans to enter farming may result in important practical dysfunctional consequences; for the effect of farming plans on college plans is most pronounced among the more intelligent. If a large proportion of the farm boys who have the highest mental ability are prevented from receiving college training by their plans to enter farming, but these plans are not fulfilled, many probably will be forced to enter nonfarm occupations requiring less intelligence than they possess. This will represent a distinct loss to society.

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Footnotes

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1 Otto Ammon, Die Gesellschaftordnung und Ihre Naturlichen Grundlagen (Jena: Verlag von Gustav Fischer, 1895), p. 145; Gunnar Boalt, "Social Mobility in Stockholm," Transactions of the Second World Congress of Sociology (London: International Sociological Association, 1954), II, pp. 67-73; Seymour Martin Lipset, "Social Mobility and Urbanization," Rural Sociology, XX:3-4 (Sept.-Dec., 1955), pp. 220-228.

Concerning Ammon's data, see Pitirim Sorokin, Social Mobility (New York: Harper & Bros., 1927), p. 451. Also, see ibid., pp. 144 ff.; and Pitirim A. Sorokin, Carle C. Zimmerman, and Charles C. Galpin, A Systematic Source Book in Rural Sociology (Minneapolis: University of Minnesota Press, 1932), III, p. 531.

2 Lipset, op. cit.

3 Archie O. Haller and William H. Sewell, "Residence and Levels of Educational and Occupational Aspiration," American Journal of Sociology, LXII (Jan., 1957), pp. 407-411.

4 The data were collected by the Wisconsin Student Counseling Center as a part of its regular program of intelligence testing in the state's high schools. The year 1947-1948 was chosen because it is the earliest period for which complete data are available for a projected longitudinal study of educational and occupational behavior.

5 V.A.C. Henmon and M. J. Nelson, The Henmon-Nelson Test of Mental Ability (Chicago, Ill.: Houghton-Mifflin Co., 1942).

6 The standard formula for chi-square, $X^2 = \Sigma \frac{f - f'}{f'}$ (where f = observed frequency, f' = expected frequency) is used in all zero-order tests of significance. See G. Udny Yule and M. G. Kendall, An Introduction to the Theory of Statistics (13th ed., rev.; London: Charles Griffin & Co., 1948), pp. 413-433, esp. 416.

7 E.g., Sorokin, Zimmerman, and Galpin, op. cit., pp. 266-293; and C. T. Pihlblad and C. L. Gregory, "Selective Aspects of Migration among Missouri High School Graduates," American Sociological Review, XIX (June, 1954), pp. 314-324.

8 Ralph F. Berdie, "Why Don't They Go to College?" Personnel and Guidance Journal (Mar., 1953), pp. 352-356; Joseph A. Kahl, "Educational and Occupational Aspirations of 'Common Man' Boys," Harvard Educational Review, XXIII (Summer, 1953), pp. 186-203; T. E. Livesay, "Test Ingelligence and College Expectation of High School Seniors in Hawaii," Journal of Educational Research, XXXV (Jan., 1942), pp. 334-337.

9 See George W. Snedecor, Statistical Methods (4th ed.; Ames Iowa: Iowa State College Press, 1946), pp. 188 f.; and Yule and Kendall, op cit., p. 426.

A summary chi-square with three degrees of freedom was used to test the null hypothesis. It consists of three specific chi-square values, one for the association of plans regarding college and plans regarding farming for each level of intelligence. The over-all test of the nyll hypothesis is provided by summing these three specific chi-square values and their respective degrees of freedom.

10 The coefficient of contingency is defined as $C = \sqrt{\frac{X^2}{X^2 + N}}$; see Yule and Kendall, op. cit., pp. 68 f.

11 See Ammon, op. cit.; Boalt, op. cit.; and Lipset, op. cit.

12 For a theoretical discussion of dysfunctional consequences of action, see Robert K. Merton, Social Theory and Social Structure (Glencoe, Ill.: The Free Press, 1951), pp. 21-81.

TABLE 1. Percentage Distribution of Respondents by Plans Regarding College
and Plans Regarding Farming as a Vocation

| Plans regarding college | Plans regarding farming | | All (N = 565) |
	Planning to farm (N = 237)	Not planning to farm N = 328	
	Per cent		
Planning to attend.. (N = 185)	18	43	33
Not planning to attend.......... (N = 380)	82	57	67
All................. (N = 565)	100	100	100

x^2 = 39.52, d.f. = 1, P < .001.

TABLE 2. Percentage Distribution of Respondents by Plans Regarding
Farming as a Vocation and Intelligence Test Scores

| Plans regarding farming | Intelligence Test Scores | | | All (N = 565) |
	Highest one-third (IQ: 111-132) (N = 189)	Middle one-third (IQ: 104-111) (N = 188)	Lowest one-third (IQ: 61-104) (N - 188)	
	Per cent			
Planning to farm... (N = 237)	35	43	48	42
Not planning to farm......... (N = 328)	65	57	52	58
All................. (N = 565)	100	100	100	100

x^2 = 7.08, d.f. = 2, P < .05.

TABLE 3. Percentage Distribution of Respondents by Plans
Regarding College and Intelligence Test Scores

Plans regarding college	Intelligence test scores			All (N = 565)
	Highest one-third (IQ: 111-132) (N = 189)	Middle one-third (IQ: 104-111) (N = 188)	Lowest one-third (IQ: 61-104) (N = 188)	
	Per cent			
Planning to attend............ (N = 185)	50	29	19	33
Not planning to attend........ (N = 380)	50	71	81	67
All......................... (N = 565)	100	100	100	100

x^2 = 44.44, d.f. = 2, P < .001.

TABLE 4. Relationship Between Plans Regarding College and Plans Regarding
Farming as a Vocation, with Intelligence Test Scores Controlled

Intelligence test scores	Plans regarding farming			C values
	Planning to farm (N=237)	Not planning to farm (N=328)	All (N=565)	
	Percentage in each group planning to attend college			
Highest one-third............... (IQ: 111-132; N = 189)	26	63	50	.34
Middle one-third................ (IQ: 104-111; N = 188)	15	40	29	.26
Lowest one-third................ (IQ: 61-104; N = 188)	15	22	19	.08
All......................... (N = 565)	18	43	33	....

x^2 = 39.22, d.f. = 3, P < .001.