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## Chapter 10

## Educational and Occupational Perspectives of Farm and Rural Youth

## Based on

The Educational and Occupational Perspectives of Rural Youth William H. Sewell, Ph.D., Vilas Research Professor of Sociology at the University of Wisconsin.

Educational and Occupational Choices of Farm Youth

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## INTRODUCTION

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In the United States, educational and occupational plans are made through the free choices of the individuals involved. For our system of free choice to function effectively, the society must provide the information, opportunities and rewards which make it possible for each individual to make a wise choice—one which will make appropriate use of his talents and provide the personal satisfactions he seeks. Such a choice will contribute maximally to the welfare of society as well.

How well does the system of free choice operate for rural youth and how well are their talents utilized for the welfare of the United States? Information pertaining to the educational and occupational aspirations of rural youth provides at least a partial answer to this question. Much of the basic data to be discussed comes from Sewell's continuing research program dealing with educational and occupational aspirations of Wisconsin high school seniors <sup>1</sup> (28, 29).

## **Educational Plans**

During the past 10 years a number of studies have been made which provide comparative data on the educational aspirations and plans of

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rural and urban youth. Only two studies have been based on national samples. One study by Nam and Cowhig clearly shows that students from farm families are considerably less likely to plan on attending college after graduation from high school than are rural-nonfarm and urban students, and that girls in all residence categories are less likely to plan on college than boys—although there is little difference between farm boys and girls (8, 24). The second study, by Rogoff, does not provide data on farm youth or for boys and girls separately but shows that seniors who attend high school in rural communities (under 2,500) are considerably less likely to plan on college than those who attend school in larger communities (25). Other studies in widely separated States also report that farm or rural students lag well behind urban students in educational aspirations (3, 4, 7, 12, 21, 23, 26, 32).

Sewell's current study of rural-urban differences in educational and occupational aspirations provides the most complete data on the subject and permits much more detailed tabulation and analysis than was possible in the previous studies. Data on educational plans of Wisconsin high school seniors are classified by place of residence and sex. The residence categories used in the study are farm, village (open country nonfarm and those residing in places of under 2,500), small city (2,500 -25,000), medium city (25,000-100,000), and large city (over 100,000). The total of the farm and village categories roughly corresponds to the rural category of the U.S. Census, and the total of the second three corresponds to the urban category. Educational plans are classified in three categories: no further educational plans, plans to attend a school offering vocational training not at the college level (e.g., business college, electronics school), and plans to attend a degree-granting college (or one whose credits are transferable to the University of Wisconsin). Data classified in this way are given in table 1.

It is quite apparent that the proportion planning on continuing their education beyond high school is closely related to the size of community of residence. Only 37 percent of students from farms and 44 percent of those from villages, in comparison with 50 percent of those from cities, Within the urban category the differences plan on further education. are not great but always favor the larger cities. This same general trend holds both for males and females, although farm girls are considerably more likely to continue their education after high school graduation than are farm boys. For the village and urban groups, the sex differences are small and favor the girls. Farm boys are more likely than other boys to choose vocational training, with the proportions decreasing as the size of community increases. Among girls, the same overall relationship holds except that village girls are more likely than farm girls to choose vocational training. In all communities girls are at least twice as likely as boys to seek vocational training. This is probably directly related to the fact that the occupational opportunities for which girls compete are predominantly white-collar jobs that require vocational training.

		M	ales			Fer	nales			Te	otal	
Community size	Not con- tinu- ing	Voca- tional train- ing	Col- lege	Total	Not con- tinu- ing	Voca- tional train- ing	Col- lege	Total	Not con- tinu- ing	Voca- tional train- ing	Col- lege	Tota)
Farm	67.7	10.3	22.0	100.0	58.1	20.8	21.1	100.0 (949)	62.9	15.6	21.5	100.0
Village (under 2,500)	58.6	9.6	31.8	100.0	53.2	22.9	23.9	100.0	55.9	16.2	27.9	100.0
Small city (2,500- 25,000)	53.7	7.9	38.4	100.0	49.7	20.8	29.5	100.0 (1219)	51.7	14.3	34.0	100.0
Medium city (25,000- -100,000)	51.1	7.1	41.8	100.0 (1093)	49.3	18.0	32.7	100.0 (1228)	50.2	12.9	36.9	100.0
Large city (100.000				·,				(/				<b>,</b> ,
or more)	42.3	6.9	50.8	100.0 (806)	48.6	15.8	35.6	100.0 (990)	45.8	11.8	42.4	100.0 (1796)
Total rural	63.2	9.9	26.9	100.0	55.7	21.9	22.4	100.0	59.4	15.9	24.7	100.0
Total urban	49.9	7.4	42.7	100.0	49.2	18.4	32.4	100.0	49.5	13.1	37.4	100.0
Total	54.8	8.4	36.8	(5003)	51.5	19.6	28.9	(5318)	53.1	14.1	32.8	(10321)

# Wisconsin High School Seniors

By far the most important data in the table are those related to college plans, and it is here that we find the largest rural-urban differences. While only 21 percent of the seniors from farms and 28 percent from villages plan on college, over 37 percent of those from cities have such plans. Within the urban category the proportions range from 34 percent for small cities to 42 percent for large cities. Without a single exception the percentage planning on college increases in each size category and for both sexes as the size of community of residence increases. The differences are much greater for the males than the females—ranging from 22 percent for the boys from farms to 51 percent for boys from the large cities, and from 21 percent for the girls from farms to 36 percent from the large cities.

Thus, it seems quite apparent that the results of earlier studies are generally confirmed and considerably extended by the Wisconsin data. Clearly rural life seems to be associated with limited educational perspectives. In every comparison made, the more rural the group the lower the educational aspirations of youth. This effect is greatest on boys but is still considerable for girls and particularly in relation to college plans.

## **Occupation Perspectives**

While a number of studies of occupational aspirations have been made during the past 10 years, most of them have not presented rural-urban

comparisons, and only two studies are based on statewide samples. The statewide studies include one in Florida which compared the occupational aspirations of ninth grade boys attending school in communities of under 2,500 with those of boys attending school in urban communities of various sizes, and found that the larger the community the higher the occupational aspirations of the boys (11). In a later analysis, differences were also found favoring urban over rural 12th grade boys, and this relationship held even when intelligence and father's occupation were taken into account (23). An earlier Wisconsin study providing data only on farm and nonfarm high school students found no significant differences between farm and nonfarm seniors (18). Studies in counties of Michigan (7, 13), Kentucky (26, 32), and Iowa (3) agreed in finding that farm boys ranked behind nonfarm boys in occupational aspirations. Only slight differences existed among occupational aspirations of girls from farm, rural-nonfarm, and urban areas.

The data from Sewell's Wisconsin study are much more complete. Two methods of treating level of occupational aspiration have been used in the analysis. One is to classify occupational choices into the traditional categories: professional and executive, other white-collar (sales, clerical, secretarial, small retail business, etc.), skilled, farming, and other blue-collar occupations (operatives, unskilled workers, service workers, etc.). The second method has been to rate vocational choices according to scores on the Duncan revision of the NORC scale, a widely used, standardized scale of occupational prestige (9). Data are presented using each method for each sex with students classified according to residence using the five community-size categories previously employed in presenting the data on educational plans.

Table 2 gives the data for boys according to the above classification The proportion of farm boys aspiring to the professional schemes. occupations is considerably lower than for village boys (24 percent and 34 percent respectively), and both are markedly lower than for urban boys (48 percent). Among the city-size categories, only boys from the large cities differ much from the average urban proportion. For other whitecollar positions the farm boys are somewhat below the other groups, but the difference between the village and city boys is small. The same is true for the skilled occupations. Farm boys are the only group to have a significantly large proportion wishing to enter farming (27 percent), and rural boys are more likely to plan on semiskilled, unskilled, and service jobs (other blue-collar) than urban boys, with village boys being highest in this category. The conclusion drawn from these data is that rural. boys expect to enter blue-collar occupations (including farming) to a much greater extent than urban boys, whose choices are predominantly in the white-collar group. The proportion of white-collar choices, particularly the aspiration to professional occupations, tends to increase sharply as the size of the community increases, with well over half of the boys from large cities aspiring to a career in the professions.

## TABLE 2. Community of Residence and Occupational Aspirations of Wisconsin High School Senior Boys

	Professional and executive	Other white collar	Skilled	Farmer	Other blue- collar	Ta	taì
Farm	24.0	10.5	8.5	27.3	29.7	100.0	(932)
Village	34.5	13.9	11.1	3.5	37.0	100.0	(938)
Small city	44.7	14.0	10.2	1.5	29.6	100.0	(1235)
Medium city	45.4	14.6	11.2	0.7	28.1	100.0	(1093)
Large city	56.9	12.8	9.4	0.5	20.4	100.0	(806)
Total rural	29.2	12.2	9.8	15.4	33.4	100.0	(1870)
Total urban	48.1	13.9	10.4	0.9	26.7	100.0	(3134)
Total	41.1	13.3	10.1	6.3	29.2	100.0	(5004)
	<u>,                                     </u>	RESTIGE	CLASSES	· <u> </u>		·	

#### OCCUPATIONAL CLASSIFICATIONS

·	High third	Middle third	Low third	Total "	
Farm	17.1	27.2	55.7	100.0	(932)
Village	- 24.4	36.6	39.0	100.0	(938)
Small city	- 34.4	36.0	29.6	100.0	(1235)
Medium city	_ 34.7	37.9	27.4	100.0	(1093)
Large city	- 45.2	35.1	19.7	100.0	(806)
Total rural	_ 20.8	31.9	47.3	100.0	(1870)
Total urban	. 37.3	36.4	26.3	100.0	(3134)
Total	- 31.1	34.7	34.2	100.0	(5004)

When the boys' occupational choices are assigned prestige scores, and these scores are divided into high (includes mainly professional occupations ranging from school teachers to medical doctors), middle (includes mainly technicians, office workers, small retailers, and skilled workers), and low (includes mainly unskilled and semiskilled factory workers, service workers, and farmers) thirds, the lower prestige choices of the rural boys are even more clearly indicated. Only 21 percent of the rural boys aspire to high prestige occupations, whereas 37 percent of the urban boys have such aspirations; the range is from 17 percent for farm boys to 45 percent for large-city boys. The rural boys clearly tend to concentrate their choices in the low status occupations.

The occupational choices of girls are somewhat more concentrated because a relatively more limited set of choices is available to girls. Also employment, although increasingly important to women, is still secondary to the major adult role of wife and mother for the great majority of women in our society. However, most girls do intend to work or at least to prepare themselves for gainful employment after completion of their education, and if present trends continue, it seems likely that most girls will be employed in jobs outside the home at sometime during their adult lives.



## TABLE 3. Community of Residence and Occupational Aspirations of Wisconsin High School Senior Girls OCCUPATIONAL CLASSIFICATIONS

	Professional and executive	Other white collar	Blue collar	No job plans	To	tal
Farm	27.2	51.1	12.9	8.8	100.0	(949)
Village	31.0	45.5	12.6	10.9	100.0	(932)
Small city	38.1	42.9	10.0	9.0	100.0	(1219)
Medium city	40.8	42.5	9.6	7.1	100.0	(1228)
Large city	41.7	46.2	6.7	5.4	100.0	(989)
Total rural	29.1	48.3	12.7	9.9	100.0	(1881)
Total urban	40.1	43.7	8.9	7.3	100.0	(3436)
Total	36.2	45.3	10.3	8.2	100.0	(5317)

#### PRESTIGE CLASSES

· · · · · · · · · · · · · · · · · · ·	High third	Middle third	Low third	Total	
Farm	30.0	47.0	23.0	100.0	(949)
Village.	29.8	44.6	25.6	100.0	(932)
Small city	85.4	43.6	21.0	100.0	(1219)
Medium city	37.0	43.9	19,1	100.0	(1228)
Large city	43.0	44.1	12.9	100.0	(989)
Total rural	29.9	45.8	24.3	100.0	(1881)
Total urban	38.2	43.8	18.0	100.0	(3436)
Total	35.3	44.5	20.2	100.0	(5317)

When the occupational choices of girls are examined, using the traditional occupational categories, the overwhelming majority of girls plan on professional or other white-collar occupations, and relatively few plan to enter the lower status occupations. However, when we examine the distributions, it is immediately apparent that the farm and village girls are much less likely to plan on the professional occupations and more likely to plan on the lower prestige white-collar jobs than are the girls from urban areas. Again, for girls as for boys, the general rule seems to be that the more urban the girl's background the higher is her occupational aspiration.

If we examine the occupational prestige levels by place of residence categories, there is even more marked evidence of this trend. A lower proportion of rural than urban girls are in the high prestige third, and the proportion increases with size of urban community. Rural girls, and particularly the village girls, tend to pile up in the middle and low prestige thirds; in contrast, city girls are particularly underrepresented in the low prestige third, and are overrepresented in the high prestige third.

## FACTORS IN RURAL-URBAN DIFFERENCES IN EDUCATIONAL AND OCCUPATIONAL PERSPECTIVES

What are the factors which help to account for these rural-urban differences in educational and occupational perspectives? Are there

characteristics of the youths themselves which may help to account the these differences? Are there differences in their family environments which cause rural youths to set lower educational and occupational goals? Are there factors in the rural school climates or in rural communities which furnish less incentive to high aspirations and offer less opportunity for high level achievement? If we had even tentative answers to these questions we might gain a better understanding of the problem. Such knowledge would also be useful in practical programs designed to broaden the perspectives of rural youth.

The few studies which have investigated these questions offer some evidence to indicate that there are differences in each of these areas that adversely affect the perspectives of rural youth. None of these questions has been studied with sufficiently large and representative samples to provide definitive answers but suggestive leads are contained in some studies (3, 8, 14, 15, 17, 19, 21, 26, 30, 32). From studies so far available, most of which do not deal with rural-urban differences, it seems clear that certain personal characteristics of youths themselves are closely related to their educational and occupational perspectives. Certainly one factor of paramount importance is the youth's intellectual ability. Numerous studies have shown that measured intelligence is highly related to aspirations and is an excellent predictor of future success in educational and occupational endeavors. (See the references cited in 27.) Another characteristic which is highly related to future academic and occupational aspiration and achievement is past academic performance. as indicated by such measures as grades and rank in high school class. The motivation to succeed in tasks requiring persistence and high level performance is likewise an important factor. The individual's attitudes and values about mobility, security, independence, the kinds of work he likes, the place he wants to live, and possibly some deeper traits of personality are doubtless related to his educational and occupational perspectives (3, 4, 14, 15, 19, 21, 30).

Several studies have shown that the educational climate of the home including the educational level of the parents, of older brothers and sisters, and of other relatives—is related to aspirations (6). The extent to which the parents stress high level educational and occupational goals clearly influences the perspectives of their children (1, 20). Other studies have shown that the family's socioeconomic status, whether measured with some index or scale or by father's occupation, family income or wealth, or other measures, is directly related to educational and occupational perspectives (20, 27).

Certainly the school itself must be important since in a very real sense it is a testing ground for the student and serves as one of the mechanisms for sorting out those who have the skills and other qualities which make them candidates for additional training or for direct entry, into various occupations. The teachers and counselors perform an important function in this process by encouraging some and discouraging others, by giving information about adult occupational opportunities and scholarships, and by serving as role models for youth. The standards and aspirations of one's peers, particularly in adolescence greatly influence one's behavior. Those who associate with classmates having high aspirations are more likely to aspire to college and to high level occupations than are those whose associates have low aspirations (5, 16). Finally, the communities themselves differ greatly in the extent to which they stress academic and occupational achievement, in the number and kinds of occupational and educational opportunities which are visible and available to youth, and in the extent to which social mobility is possible in the local community (25).

In the Wisconsin study, a number of variables may be examined in relation to the educational plans and occupational aspirations of farm, village, and urban students. Those dealing with the individual characteristics of the students include:

- the student's measured intelligence
- · his rank in his high school class
- whether he found high school work interesting
- the extent to which he places a high value on education, etc.
- whether he followed a college preparatory course
- whether he had given much consideration to college
- whether he had applied for a college scholarship
- his college plans, and
- the prestige level of his occupational aspiration.

Also included are the following variables dealing with the school and community:

- whether most of his best friends in high school plan on college
- whether he had much discussion of his plans with his teachers and counselors
- whether his teachers had encouraged him to plan on college
- the size of his high school class
- whether he attended a school in which a high proportion of the senior class plans on going to college
- whether he lives in a community in which there is a college, and
- whether he lives in an urbanized county.

Variables dealing with the educational climate and socioeconomic level of his home include:

- the socioeconomic status of his family as measured by a factorweighted scale
- his father's occupation
- the educational level of his parents
- the economic status of his family
- whether he had much discussion of his plans with his parents, and
  whether his parents had encouraged him to attend college.

The relationship of each of these variables to educational and occupational plans and to rural-urban residence has been tested. While the



statistical analysis is too complicated to present in full, two simplified tables give some of the data. (The analysis has been done for each intelligence third, for the total sample, and by sex, but only the figures for the total sample and the high intelligence third are given in the tables.) Table 4 lists the variables which differentiate between those who plan on college and those who do not, and those who plan on professional occupations and those who do not. Table 5 presents data showing how these variables are distributed between the major residential categories: farm, village, and urban. From the data in tables 4 and 5 we can infer which variables may help to explain the rural-urban differences in the educational and occupational plans of the youth in this sample.

## TABLE 4. Relation of Selected Variables to College Plans and High Occupational Choices for Wisconsin High School Seniors

			Percent	with-	;
		College plans		lans High occupat	
·		Total sample	Top one- third IQ	Total sample	Top one- third IQ
1.	Intelligence level:				
	Top one-third.	55		61	
	Bottom two-thirds	22		28	
2.	Rank in high school				
	Ton one-half	46	60	52	66
	Bottom one-half	19	38	24	43
2	Interest in high school work.	~~			
0.	High	50	87	57	79
	Tow	11	24	15	74
	Volue of college advection:		1 <sup>47</sup>	10	
4.	Value of conege education.			<b>c</b> 2	
	Higo	00	07	00	
-	LOW	14	24	19	21
5.	Took college preparatory:				
	Yes	50	64	58	71
	No	9	19	12	18
6.	Consideration of college:				
	Bigh	41	58	48	64
	Low	5	18	8	24
7.	Application for scholarship:				
	Yes	86	- 89	93	93
	No	25	42	30	48
8.	College plans:				
-	Yes	33	55	93	94
	No			12	20
9	Prestige of occupational aspiration:				
	High	62	. 75	76	. 84
	I or	· 4	10	1	9
*0	Properties of high cabool along going to college:			î	
10.	Troportion of ingli school class going to conege.	20	50		
	11g0		55	24 20	- 00
	Discourse and the metal teachers	. 28	00	40	5/
11,	Discussed plans with teacher:				
	Much	41		48	. 63
	Little	12	27	16	31
12.	Teachers encouraged going to college:				
	Yes	56	68	63	74
	No	15	32	20	38

TABLE 4.	Relation of	Selected Var	riables to Co	llege Plans ar	nd High
Occupation	al Choices f	or Wisconsin	High School	l SeniorsCo	ntinued

		Percent with-				
		College plans		High occ ch	upational pice	
		Total sample	Top one- third IQ	Total sample	Top one- third IQ	
13.	Size of high school class:					
	Over 100	36	58	43	. 85	
	Under 100	29	50	33	54	
14.	Friends' college plans:			-•	. •••	
	Going	62	75	70	81	
	Not going	16	31	21	36	
15.	Availability of college:					
	Within 15 miles	36	60	40	62	
	None within 15 miles	27	52	32	54	
16.	Degree of urbanization of county:		.	1		
	Has city of 25,000	36	59	43	64	
	Has no city of 25,000	28	48	33	54	
17.	Socioeconomic status:	· · · ·	[			
	Top one-third	56	73	61	76	
	Bottom two-thirds	21	40	27	47	
18.	Father's occupation:		1			
	White-collar	54	70	60	75	
	Blue collar	23	43	29-	50	
19.	Educational status of parents:					
	High	51	68	56	73	
	Low	22	41	28	48	
20.	Economic status:	1				
	High	47	66	52	71	
	Low	22	43	28	49	
21.	Discussed plans with parents:		[	ĺ		
	Much	39	60	46	66	
	Little	23	46	27	49	
22.	Parents encouraged college going:		J	ļ	•	
	Yes	57	71	64	77	
	No	6	15	11	21	
				1		

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Some examples may help to clarify the presentation and the method of reasoning. If we take variable No. 17, family socioeconomic status, which is based upon a carefully constructed factor-weighted index of five items dealing with the financial and educational level of the student's family, we find from table 4 that 56 percent of the students whose families' socioeconomic status ranks in the top one-third of the sample plan on college while only 21 percent of those whose families' socioeconomic status is in the bottom two-thirds have such plans. This is a very large difference and shows that the socioeconomic status of the student's family is an important determinant of his educational plans. We also find from table 5 that there are large and significant differences in socioeconomic status among the residence groups; 20 percent of the farm students come from families ranking high in socioeconomic status in contrast with 29 percent of the village, and 38 percent of the urban students. Therefore, we may infer that the lower socioeconomic status

Variable		Total :	sample		ji	Top or ntelligen	e-third ce sampl	0
	Farm	Village	Urban	Total	Farm	Village	Urban	Total
1. Top one-third in intelligence	27	29	36	33				
2. Ranked in top half of high school								
class.	54	46	52	51	80	78	76	7
3. Found high school work in-	-							
teresting	51	53	59	56	67	68	73	71
4. Places high value on education	39	45	50	47	24	22	25	2
5. Took college preparatory course	44	55	63	58	65	74	. 85	80
6. Gave consideration to college	70	75	79	77	87	03	02	
7. A pulled for college scholarship	ů,	13	15	14	20	27	.90	
8 Plans on college	22	28	37	33	40	47	60	50
0 Plans on high prestige occu-					10	11		
nation	36	44	56	50	54	60	75	7(
10 High proportion of class plane	~				••	, v	10	
on college	42	45	59	40	46	49	56	· 5/
11 Discussed plans with teachare	60 60	0x 03	73	49 70		90 91	00 63	3 O
12 Teachers encouraged collage	00	05		,0	-01	. 01	97	Ċ.
nlong	. 11	44	43	12	61	65	64	6/
13 Large high school alogs	-11	10		-10 57	03	10	60	60
14 Most sabool friends plan on	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	10		. 01	20	10	ov .	
and an and a second menus plan on	10		10	26	95	41	67	E.
If College within 15 miles of year	27	20	42	00	00	41	01	04
donos		07	00	60	07		00	-
	49	21	84	65	21	<i>24</i>	80	- 52
of oco an meant	05			F.0		àn	<b>70</b>	
25,000 or more	25	29	. 70	25	27	29	79	03
17. High family socioeconomic							-	
	20	29	38	33	25	41	52	47
18. Father a white-collar worker		32	- 40	32		41	- 63	44
is. High family educational status	21	32	44	38	29	46	58	. 51
20. High ismily economic status	38	41	46	43	42	51	55	53
a. Much discussion of plans with								
parents	54	55	63	60	60	61	69	66
22. Parents encouraged college plans	37	50	57	52	53	68	76	71

## TABLE 5. Percent of Wisconsin Farm, Village, and Urban High School Seniors Possessing Selected Characteristics

of the farm and village students may help to account for their lower educational aspirations.

Another variable which several studies have shown to be related to educational plans is the student's past record in high school. One would expect this to be an important factor in educational plans because it provides the student with a basis for estimating what he may hope for in the way of future educational attainment. In the present study this variable is assessed by the student's rank in his high school class (variable 2). Data presented in table 4 show that approximately 46 percent of the students in our sample who rank in the top half of their high school class plan on college, whereas only 19 percent of the students who rank in the lower half of their high school class have such plans. Obviously rank in high school class has an important bearing on educational plans for the students in this sample. However, when we examine the data on rank in high school class (in table 5), we find that there are only small differences among the rural and urban seniors in the proportion

who rank in the top half of their class, and these differences favor the farm group. Consequently, we cannot expect rank in high school class to explain why the farm and village students differ from the urban students in educational plans.

In a similar fashion we could proceed through the tables, examining each of the 22 variables to identify those which might help to explain the rural-urban differences in the educational and occupational aspirations of this group of boys and girls. Space will not permit an extended treatment of this sort, but we may mention the ways in which the rural students differ from the urban group on the variables that are relevant to high educational aspirations. Although the data for occupational aspiration also are shown in the table, our attention is focused mainly on the college plans data because the two sets of aspiration are very clearly related and space will not permit discussing them separately.

The rural students definitely rank well below the urban students in measured intelligence, which past studies have shown is one of the most important determinants of college plans. The farm and village students make about the same showing. The rural students tend to find high school work somewhat less interesting than the urban students. and the value placed on education by rural students, particularly those from farms, is considerably lower than for urban students. The rural students, especially the farm group, are much less likely to have followed the college preparatory curriculum than are the urban students-thus indicating an early lack of interest in college. The rural group is somewhat less likely than the urban group even to have given serious consideration to college; they are also less likely to have applied for a college scholarship. As was noted earlier, the farm students are less likely than either the village students or the urban students to aspire to a high prestige occupation requiring post high school training. From all of the evidence it seems quite apparent that the rural students, particularly the farm students, are less academically oriented, somewhat less able, and considerably less convinced of the value of higher education than urban Consequently they have taken few of the steps which are students. necessary for college entrance, such as following the college preparatory curriculum, giving consideration to college, and applying for scholarships, than the urban students.

The rural students attend smaller high schools and schools that send smaller proportions of their graduating class to college than do urban students. They are considerably less likely than urban students to have as their best friends other boys and girls who plan on college. They are somewhat less likely than urban students to have discussed their post high school plans with their teachers and counselors, but are equally likely to have been encouraged by them to attend college. They are less likely than urban students to live within commuting distance of a college and are less likely to have lived in an urbanized county where a wide variety of educational and occupational opportunities are visible to them. Ŀ

Thus rural youth, in comparison with urban youth, find themselves in a school and community environment with considerably less potential for arousing and maintaining high level educational and occupational aspirations.

Variables related to the socioeconomic and educational level of the student's family are among the most powerful determinants of educational and occupational perspectives. Each is significantly related to college plans and on every one of them the rural students rank well below urban students in the Wisconsin study. Perhaps of greatest significance is their relatively low ranking on the general measure of socioeconomic status used in this study. This variable is highly related to educational and occupational aspirations not only in this sample but in every study in which it has been tested. Farm students rank well below village students and village students rank well below urban students on general socioeconomic status. On the other socioeconomic status indicators. such as father's occupation and economic status of the family, the rural students also are disadvantaged. The educational status measure, which is based on the educational attainments of both parents, reflects the lower educational climate of the farm homes in contrast to the other Finally, the rural students are somewhat less likely than the homes. urban students to have discussed their post high school plans with their parents and are much less likely to have been encouraged to go to college. This is especially true for the farm students.

Relationship between the foregoing variables and rural-urban differences in educational and occupational plans is by no means a simple one. This is indicated by the analysis undertaken by Sewell in which he tried to diminish the rural-urban differences by controlling the effects of some of the variables related to educational plans. Because the analysis is complicated, it need not be given here; we can summarize the results by noting that separate controls for intelligence and socioeconomic status. although generally reducing the rural-urban differences, did not remove them for either the boys or the girls in the sample. However, when both were controlled simultaneously, rural-urban differences in educational aspirations for the girls were largely eliminated. For the boys there were still significant differences at all socioeconomic status levels, especially in the high ability group. In fact, the largest rural-urban differences were for the high ability and high socioeconomic status boys. Finally, each of the 16 variables (out of the original list of 22 discussed above) that were related to rural-urban differences in educational plans of boys in the top ability group was controlled along with socioeconomic status and intelligence to see if any of these combinations of variables could account for the rural-urban differences in educational aspiration we had previously noted.

To make a long story short, no combination of any of these variables with socioeconomic status and intelligence was sufficiently powerful to account for the original rural-urban differences. Still more complex statistical analysis is now under way to test other explanations, but at least we may conclude that causes of rural-urban differences in aspirations of youth are by no means simple and that the differences are real and persistent.

## THE RURAL CONTRIBUTION TO TALENT LOSS

A number of studies have shown that a high proportion of those with high academic ability do not have high levels of educational and occupational aspiration, and that many who do will fail to achieve their aspirations (20, 27). The data from the Wisconsin study are particularly revealing on this point because they permit rural-urban comparisons of talent wastage, which until now have been unavailable. Most experts would agree that students in the top one-third in academic ability. whether measured by intelligence or college aptitude tests, should profit from a college education and, if they have other requisite interests and basic skills, should be able to master the increasingly complex requirements of high level occupations. When the Wisconsin sample of high school seniors is divided into three ability levels-high, middle, and low--according to their scores on a standardized test of mental ability, it is apparent that a considerable proportion of high ability youths do not plan on college or aspire to high level occupations. For the total sample almost two-thirds of the high ability boys plan on college and aspire to professional and executive positions. Less than one-half of the highly talented girls plan on college and only 57 percent on professional occu-If as high a proportion as one-half of those with high eduvations. cational aspirations actually enter and complete college, which from past experience seems a reasonable estimate, the loss of talented youth is To illustrate, according to the Wisconsin data, of every staggering. 1,000 highly talented high school seniors, 550 plan on college; if no more than one-half of these enter and graduate, the maximum yield will be only 275 college graduates, which figure squares quite well with earlier estimates (31). This is an overwhelming loss. Obviously, not all of the talented group who do not graduate from college will fail to attain important positions in society because many will find it possible to compete successfully despite their educational handicaps, but all manpower experts agree that it is becoming increasingly difficult for those without a college education to compete for the better positions.

Turning now to rural-urban comparisons of educational plans and occupational aspirations of the highly talented third, again Sewell found that farm boys and girls have the lowest aspirations. Most notable is the fact that the farm boys rank well behind the village boys, who in turn rank well below the urban boys; 44 percent of the farm boys, 55 percent of the village boys, and 67 percent of the urban boys in this talented group plan on college. The same general trend holds also for high level occupational aspirations. Rural girls also lag behind urban girls in their

	Percen	t with college	plans	Per profes	cent aspiring sional occupa	to tions
•	Males	Females	Total	Males	Females	Total
Farm	44	36	40	48	43	45
Village	55	39	47	54	47	51
Urban	67	53	60	70	62	66
(Total rural)	50	37	43	51	45	48
Total	62	48	55	64	57	61
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 TABLE 6.
 Percent of High Ability Seniors (Top One-Third in Intelligence) Who Plan on College and Aspire to Professional Occupations, by Community of Residence and Sex

educational and occupational plans, but the difference between farm and village girls is not great. Only 36 percent of the highly talented farm girls and 39 percent of the village girls plan on college, whereas 53 percent of the urban girls have such plans. For occupational plans the results are very similar.

Some idea of the talent loss which is likely to result from these differences in plans may be indicated by the following figures resulting from applying the procedures used in the preceding illustration. For each 1,000 highly talented farm boys the yield of college graduates would be 220, for village boys, 275, and for urban boys, 335. For girls, the yields would be 180 for the farm group, 195 for the village, and 265 for the urban group Thus, it can be clearly seen that the lower educational perspectives of the highly able rural boys and girls contribute substantially to the talent loss problem.

The low educational and occupational aspirations of farm boys in the talented third is worthy of comment. One of the most common explanations for the lower educational aspirations of the farm boys is that most farm boys who plan to farm do not think college is necessary for success in agriculture, and therefore do not plan on going to college (3, 12, 15, 21). This explanation, however, is not sufficient to explain lower levels of educational aspirations among Wisconsin farm boys. Of the boys in the high intelligence category who plan to farm, only 10 percent plan to attend college; in contrast, 52 percent of the equally intelligent farm boys, who do not plan to farm, plan to go to college. Eliminating the farm boys who plan to farm from the computations materially raises the proportion of farm boys with high educational plans (52 percent in comparison with 44 percent when the boys who plan to farm are included) and high occupational choices (30 percent choosing professions in comparison with 26 percent when the boys who plan to farm are included); it does not, however, bring the farm group up to the level of the village boys, and still leaves them far behind the urban boys. Thus, other factors than farm plans must be called upon to explain the differences in the

educational perspectives of the talented farm, village, and urban boys in this sample. Needless to say, the rural-urban differences between the high ability girls also must be explained by other factors.

The failure of the bright boys who plan to farm to aspire to a college education represents a potentially tragic talent wastage. This is not only because there is great need for college-educated farmers in rural communities, but also because many of the talented boys who plan to farm may eventually end up in the nonfarm labor market working at jobs well below their ability levels. This is because fewer and fewer farmers are needed, and it is becoming increasingly difficult to get started Many who are determined to farm will not have adecuate in farming. capital or credit resources to finance the purchase of a commercial farm. Some will take poorer farms and work against unfavorable odds and either become discouraged and quit farming for nonfarm employment or continue to work under unfavorable conditions. Others will try their hand at nonfarm employment in the hope that they can save enough to make a down payment on a farm-and few will succeed. In any case, the probability is high that many of the talented boys who plan to farm and do not plan to continue their education beyond high school will neither follow a farming career nor obtain the education required for good positions in the nonfarm labor market.

#### Farm Boys

The serious degree of talent loss and some special problems in occupational planning among farm boys indicate the value of more detailed examination of their educational and occupational perspectives. Practically all young men who enter farming come from farm homes, yet only a fraction of farm youth can expect to become established in farming. Studies in Iowa (21), Michigan (14), and Wisconsin (18) indicate that about 40 percent of the high school senior farm boys wanted or expected to farm.

In contrast, for the 1960's, Manderscheid (22) has estimated that only every 1 to 16 farm boys could expect to become established as farm operators. The problem of occupational planning among farm boys is complicated because farm boys are usually reared in a situation which stresses farming as a way of life and as an occupation. So it is hardly surprising that many farm boys report that they plan to be farmers. The fact that needs explanation is that so many of them decide to pursue nonfarm work.

## Planning to Farm

Three factors are known to be related to farm-nonfarm occupational choices of farm boys: (a) The personalities of the boys, (b) the degree to which the parents stress farming or nonfarming occupations for the boys, and (c) the resources available to the boys for entering farming. The few data on personality correlates of farm residence and of planning to farm which are available are inconsistent with widely held myths about the personalities of farm people, but they are quite consistent with sociological theory. The Michigan study, conducted in a good agricultural county in the midst of an industrial economy, showed, among other things, that farm boys tended to be lower in measured intelligence, more tied to relatives and to the local area, and lower in faith in their own ability to influence events than were nonfarm boys (19).

The same investigation also showed that farm boys who do not plan to farm are more adventurous, more independent, have more control over their behavior, and have greater character stability than those who plan to farm (15). While the Michigan study did not find differences in measured intelligence between the two groups, these differences have been found in other studies, with those planning to farm having the lower scores (12, 21).

Studies in Iowa and Michigan also concur in showing that despite the general social support for farming as an occupation for boys, parents of farm boys fairly often urge them to take nonfarm jobs. Generally, those whose parents have higher than average educational and occupational aspirations for them plan to leave farming (15, 21).

Finally, the best available evidence shows that when the boy's economic resources for entering farming are high, he will tend to plan to farm; conversely, when his economic resources are low, he will tend to plan not to farm (21). In the above-mentioned Michigan project, it was found that those boys who came from small families were more likely to plan to farm than were others (15). This is probably a reflection of the relatively low competition among farm boys from small families for the limited resources that are available.

There also seems to be a mediating factor between personality characteristics of youth and orientations of their parents on the one hand, and plans regarding farming on the other hand. Although the exact chain of relations is not clear, it is quite clear that boys who plan to farm are strongly influenced by nonmonetary values commonly associated with farming. Kaldor, et al. (21) for example, have shown that many farm boys say they are willing to become farmers even when it would mean a considerable financial loss as compared to taking a nonfarm job. Some of the nonmonetary values preferred more often by those who plan to farm are: out-of-doors work, physical activity, work with machines and tools, work in the local community, contact with people (21), and a relative dislike for change (15, 21).

It may be that value orientations such as these are the influences which boys with mobility-oriented parents primarily reject. They tend to accept opposing value orientations which are believed to be associated with nonfarm occupations. Similarly, it looks as though the boy with nonmobility-oriented parents probably incorporates such values. On the other hand, there is little reason to suspect that the presence or absence of monetary resources has any appreciable effect on nonmonetary value orientations, although the latter variable is correlated with planning to farm. Hence, there is reason to think that monetary resources exert a direct influence on plans regarding farming as an occupation; but that personality and parents' mobility orientations exert an indirect influence on the plan regarding farming through their effect on accepting or rejecting the values regarding farming.

## The Effects of Planning to Farm

Once formed, the plan regarding farming appears to have important consequences for the rest of the boy's career. For instance, plans to farm are associated with lower levels of educational aspirations (3, 15, 21) Data on this point from Sewell's investigation in Wisconsin have already been given. Also, those who plan to farm less actively seek occupational information (2), spend less of their school time in nonagricultural courses (15), and know less about the occupational world (21) than do boys who do not plan to farm. Thus, it is clear that the plan regarding farming is of great importance. Farm boys who plan to farm usually are insensitive to the objective requirements of today's world of work. Farm boys who do not plan to farm, however, differ only slightly from nonfarm boys in these respects (3, 13, 15).

The evidence overwhelmingly supports the proposition that if a boy decides to farm—a decision which often becomes firm before the 10th grade (21)—he effectively seals himself off from much of the occupational information which is around him.

## Farm Girls

Data for analyzing the occupational achievement process of farmreared girls are more limited than for boys. Still, the most comprehensive study indicates that the urban occupational achievement levels of women who were reared on farms are lower than those who were not reared on farms, but these differences are not as pronounced as among males (10). The same seems to be true of educational achievement, if one can judge by enrollment in the first year of college (21). Moreover, all the available data on farm girls' educational and occupational aspirations indicate that they are either equal to or slightly lower than those of nonfarm girls (18, 23).

In terms of the frame of reference used previously, it appears likely that relative geographical isolation and its attendant features such as relatively poor schools, few occupations visible to the youth, etc., may well be the main factor producing the chain of somewhat low educational and occupational aspirations, reduced educational achievement, and finally, relatively low occupational achievement among farm as compared to nonfarm girls. Because for all practical purposes, farming is not open to girls as a career, they do not plan to be farm operators. Thus, their levels of aspiration and achievement are not further depressed by planning to farm, as are those of boys.