

Family Structure Variables as Predictors of Educational and Vocational Aspirations of High School Seniors

THOMAS D. HANSEN, PH.D.¹ AND WALTER G. MCINTIRE, PH.D.²

This paper reports the results of an examination of educational and vocational aspirations of high school students by family structure variables. The data is from the High School and Beyond (NCES) data set. Differences are described and the implications for further research are discussed.

The existing research on student aspirations has examined a broad array of variables. Many of the studies have been conducted with high school students as samples, with a few longitudinal studies following their samples into early adulthood. Rural-urban, socioeconomic, gender and race differences have been explored.

The purpose of this paper was to explore, with a nationally representative data base, the effects of family structure variables on the educational and vocational aspiration of high school students. While there was a relative abundance of research on adolescents' aspirations in the 1960's and early 1970's, there was a paucity of research on this subject in the later 1970's and 1980's. More recently there has been a revival of interest (McIntire, Cobb and Pratt, 1986; MacBrayne, 1987; Odell, 1988, 1989).

The research has generally differentiated between student aspirations and expectations. Aspirations are most often defined as an individual's desire to obtain status objectives or goals such as a particular occupation or level of education. Expectations are the individual's estimation of the likelihood of attaining those goals, plans, ambitions or dreams. These are terms of Kuvlesky and Bealer (1966) who attempted to define occupational choice in terms of individual aspirations or preferences concerning work status. A few studies have compared aspirations and expectations to attainment, defined as a behavioral realization of a goal.

The traditional literature has indicated that aspirations of youth are higher than their expectations. Studies which have examined these variables longitudinally have found that although expectations generally decline with age, aspirations remain high. For example, Boyd, Farris and Shoffner (1984) examined occupational aspirations of a sample of low-income, southern rural youth adults over three time periods which were assumed to approximate the three developmental states suggested by Ginzberg (1951): fantasy, tentative, and realism. Over time,

aspirations declined only slightly while occupational expectations declined dramatically for each time period. Their study raised the question of why young adults continue to dream dreams that they never expect to fulfill. Kuvlesky's (1970) work suggested that aspirations do not become significantly more realistic with maturation, at least within the time-frame of high school, contrary to Ginzberg's theory. Sollie and Lightsey (1975) reported that aspirations of students increased from 1966 (as tenth graders) to 1972 when they had achieved full-time employment status and expectations during this time period decreased. Both aspirations and expectations were substantially higher than actual occupational attainment. Neither race, sex nor residence (small city, small town, rural farm or rural nonfarm) altered the nature of the relationship. Costy (1978) reported that rural youth, when examined as adults, showed stability in occupational aspirations, decline in occupational expectations, and increases in educational aspirations. He suggested that educational attainment in early adulthood was influenced by career preferences developed during high school years.

Yoesting, Beal and Bohlen (1969) examined a sample of 143 males and females from eight rural high schools in Iowa as seniors in 1948, and again in 1956 and 1967. Significant relationships between occupational aspirations of the youth and their mothers' educational aspirations and attainment were found. No relationships were found for residential or socioeconomic background, father's education or occupation or the frequency of discussion of future plans with parents. Significant relationships were found between occupations attained by the young adults and their socioeconomic backgrounds, educational attainment, and father's and mother's education. Greater proportions of males than females attained the occupations they had aspired to as seniors in high school. However, greater proportions of females got additional education beyond high school. Dunkelberger and Sind (1975) examined patterns of attainment of young adults. Although

¹Assistant Professor of Social Work, University of Maine, Orono, Maine.

²Professor of Education, University of Maine, Orono, Maine.

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some relatively small differences were found by sex, race and socioeconomic status their data suggested that the basic patterns of attainment were similar for all groups. Their study also reported that educational aspirations remained high even when educational attainment was low.

While studies in the 1950's and 1960's tended to suggest that aspirations characterized youth in economically deprived and minority groups, more recent studies have shown all groups to have similar aspiration levels. Racial differences in the educational aspirations of rural youth were examined by Kuvlesky and Ohlendorf (1967). In a study in Texas, they reported that low-income black children had higher educational aspirations than white children. Bales (1979), Coleman et al. (1966) and DeBord, Griffin and Clark (1977) have shown the educational aspirations of blacks to be higher than whites. Thomas and Cosby (1975) report that blacks had lower occupational aspirations and expectations than whites and equivalent educational aspirations and expectations. Aspirations were higher than expectations and both exceeded attainment for all groups. Chu and Culbertson (1982) examined socioeconomic factors influencing educational expectations of three isolated rural Alaska towns. Significant differences were found between the white and Alaska Native youth, with the whites having higher educational expectations. Despite that, the native youth's educational aspirations were comparable to whites which appears to support Merton's (1957) contention that educational goals tend to be universal and to cut across cultural differences.

In a study of rural-urban differences in educational aspirations of 6,000 Minnesota youth, Nelson (1971) reported that rural and urban students had similar academic aptitude scores. For a more thorough analysis of the related research, MacBrayne's (1987) comprehensive review is recommended.

The High School and Beyond Data

The HSB data were collected by the National Center for Education Statistics (NCES) "to study longitudinally the educational, vocational, and personal development of high school students and the personal, familiar, social, institutional, and cultural factors that may affect that development" (NCES, 1983).

In the 1980 sample of the HSB data base, students were selected through a two-stage, stratified probability sample with schools as the first stage units and students within schools as the second stage units of the sampling procedure. Strata used in the school sampling included: nine U.S. census regions; size of enrollment; racial composition; urban, suburban or rural settings; and public, private or parochial focus. The total number of schools selected for the sample was 1,015 from a sampling frame of 24,725 schools.

Within each school, 36 seniors and 36 sophomores were randomly selected to participate as subjects in the HSB data collection. In those schools with fewer than 36 senior or 36 sophomores, all eligible students were included

in the sample. In this study, data from 10,415 seniors were analyzed.

RESULTS

We find, by virtually all the family structure variables examined, differences in aspiration level are identifiable.

When educational aspiration is the question (see Table 1) students from highest quartile SES backgrounds are twice as apt to expect to complete a Ph.D. as those from 3rd quartile backgrounds and three times more likely than those from 1st quartile backgrounds. At the other extreme, almost one-fourth of lowest SES quartile students expect not to go beyond high school, compared to less than four percent of their 4th quartile SES peers.

When occupation is the question (see Table 2), again, SES quartile status relates dramatically to aspiration level. As we would expect, highest SES students much more often aspire to professional and managerial vocations than their lower SES peers.

Family size (number of siblings) similarly predicts educational and vocational aspirations (see Tables 3 & 4). Approximately twenty percent of children from families with four or more children expect to complete only a high school education compared to ten percent of students from one or two child families. About sixty percent of children from one to two child families expect at least a Bachelor's degree compared to forty percent from large families.

While the differences in occupational aspiration are less dramatic by family size, we observe the tendency of children from smaller families to more often expect to hold managerial and higher and lower professional positions than their larger family peers (see Table 4). Conversely, the students from larger families more often report expecting to hold clerical, craftsman, homemaker, laborer, military, operative, service, and "not working" positions.

Interestingly, there appear to be a few educational or vocational aspiration differences by number of parents or gender of single parent (see Tables 5 and 6). Fewer children (7.6%) living with their father report expecting to be in clerical positions than their peers living with mothers or both parents (11.1%, 9.1%). More children living with fathers only report expecting to be a craftsperson (9.4% vs. 5.7% and 6.8%).

Rural students report more often than urban or suburban students that they would be satisfied with lower levels of education up to the category "less than two years at vocational school." Beyond that they "trail" their peers (see Table 7).

Rural students also report less often aspiring to professions (33%) than their urban peers (44%) and more often aspiring to lower level positions (*i.e.*, craftsman, laborer, service) (see Table 8).

When rural and urban students' perceptions of their parents' vocational expectations for them are examined we see that urban students more often than their rural counterparts report that both their mothers and fathers

TABLE 1
Educational Aspirations by SES Quartile

	Lowest	2nd	3rd	Highest
Less than high school	55.7% (0.8%)	6.6% (0.2%)	16.4% (0.4%)	4.9% (0.1%)
High school grad. only	54.7% (23.5%)	24.2% (17.4%)	12.1% (9.5%)	4.3% (3.7%)
Less than two years at business or voc. school	47.1% (9.1%)	25.4% (8.2%)	19.9% (7.0%)	4.7% (1.8%)
Two years or more at business or voc. school	45.9% (13.9%)	24.2% (12.2%)	18.4% (10.2%)	8.9% (5.5%)
Less than two years of college	44.4% (3.4%)	24.4% (3.1%)	19.1% (2.7%)	9.3% (1.4%)
Two or more years of college with Associates degree	38.1% (12.6%)	25.0% (13.8%)	20.5% (12.4%)	14.4% (9.7%)
Finish college with Bachelor's	29.1% (20.0%)	21.0% (24.1%)	24.3% (30.6%)	23.9% (33.2%)
Master's degree	23.1% (7.6%)	18.1% (10.0%)	23.4% (14.2%)	33.9% (22.7%)
Ph.D. degree	23.8% (6.7%)	19.0% (8.9%)	20.8% (10.7%)	34.4% (19.5%)

Note: For purposes of efficient presentation of an unusual amount of data, we have omitted, including in row and column, totals the percentages of students who provided "no answer" or "multiple answers" to questions. As a consequence, seldom can one sum row (or column) percentages to 100%.

TABLE 2
Occupational Aspirations by SES Quartile

	Lowest	2nd	3rd	Highest
Clerical	52.9% (13.9%)	23.6% (10.3%)	14.4% (6.9%)	6.6% (3.5%)
Craftsperson	41.9% (7.6%)	25.5% (7.7%)	20.1% (6.6%)	8.4% (3.1%)
Farmer	33.5% (1.4%)	25.4% (1.7%)	24.9% (1.9%)	15.0% (1.2%)
Homemaker Only	48.8% (2.8%)	20.4% (1.9%)	17.1% (1.8%)	9.6% (1.1%)
Laborer	46.7% (1.8%)	23.4% (1.5%)	16.8% (1.2%)	7.2% (0.6%)
Manager	32.4% (5.8%)	18.1% (5.4%)	22.5% (7.4%)	25.0% (9.0%)
Military	49.2% (2.9%)	24.8% (2.5%)	14.0% (1.5%)	10.0% (1.2%)
Operative	45.4% (3.1%)	28.9% (3.3%)	14.7% (1.8%)	7.9% (1.1%)
Professional—Tea.	31.7% (22.8%)	21.1% (25.4%)	22.5% (29.7%)	22.8% (33.1%)
Professional—Pro	27.6% (9.7%)	19.7% (11.5%)	20.9% (13.4%)	30.4% (21.5%)
Owner	25.2% (2.1%)	24.6% (3.5%)	25.2% (3.9%)	22.4% (3.8%)
Protective Services	34.8% (1.7%)	25.5% (2.1%)	23.0% (2.0%)	15.2% (1.5%)
Sales	35.6% (1.7%)	16.1% (1.3%)	24.4% (2.2%)	21.0% (2.1%)
School Teacher	36.8% (3.5%)	21.8% (3.4%)	20.8% (3.6%)	19.0% (3.6%)
Service	45.4% (4.0%)	26.8% (3.9%)	15.7% (2.5%)	8.6% (1.5%)
Technical	38.2% (9.2%)	23.7% (9.5%)	21.4% (9.4%)	15.1% (7.3%)
Not Working	42.0% (1.4%)	23.9% (1.3%)	7.2% (0.4%)	11.6% (0.8%)

TABLE 3
Educational Aspirations by Number of Siblings

	None or One	Two or Three	Four or More
Less than high school	12.7% (0.3%)	27.3% (0.4%)	49.1% (0.7%)
High school grad. only	11.7% (9.7%)	33.3% (13.2%)	49.7% (20.5%)
Less than two years at business or voc. school	15.1% (5.7%)	37.3% (6.7%)	43.3% (8.1%)
Two years or more at business or voc. school	15.6% (9.1%)	36.0% (10.0%)	43.3% (12.5%)
Less than two years of college	12.0% (1.8%)	38.5% (2.7%)	43.1% (3.2%)
Two or more years of college with Assoc. degree	19.5% (12.7%)	39.8% (12.4%)	35.8% (11.6%)
Finish college with Bachelor's	21.4% (29.2%)	41.8% (27.3%)	33.4% (22.6%)
Master's degree	22.9% (15.1%)	44.5% (14.0%)	29.2% (9.6%)
Ph.D. degree	25.4% (14.1%)	40.7% (10.8%)	30.8% (8.5%)

TABLE 4
Occupational Aspirations by Number of Siblings

	None or One	Two or Three	Four or More
Clerical	18.3% (9.5%)	34.7% (8.6%)	42.4% (10.9%)
Craftsperson	14.2% (4.9%)	34.9% (3.5%)	43.5% (7.5%)
Farmer	17.2% (1.4%)	41.7% (1.6%)	38.0% (1.5%)
Homemaker Only	15.1% (1.7%)	33.2% (1.8%)	47.8% (2.7%)
Laborer	10.8% (0.8%)	37.3% (1.4%)	44.9% (1.7%)
Manager	21.2% (7.4%)	38.8% (6.3%)	36.6% (6.3%)
Military	15.0% (1.6%)	31.3% (1.6%)	48.6% (2.5%)
Operative	16.0% (2.1%)	33.2% (2.1%)	47.4% (3.1%)
Professional—Tea.	20.0% (28.5%)	41.6% (28.4%)	34.3% (24.3%)
Professional—Pro.	23.5% (16.3%)	41.8% (13.8%)	31.5% (10.8%)
Owner	17.5% (2.8%)	45.2% (3.5%)	34.2% (2.7%)
Protective Services	19.5% (1.8%)	37.9% (1.7%)	36.8% (1.7%)
Sales	19.9% (1.9%)	39.3% (1.8%)	34.6% (1.6%)
School Teacher	19.0% (3.6%)	43.1% (3.9%)	35.8% (3.4%)
Service	14.6% (2.5%)	40.0% (3.3%)	41.7% (3.6%)
Technical	18.2% (8.6%)	39.8% (9.0%)	38.3% (9.0%)
Not Working	15.7% (0.9%)	36.4% (1.0%)	41.3% (1.2%)

TABLE 5
Educational Aspirations by Number and Gender of Parent

	Mother Only	Father Only	Both
Less than high school	35.3% (0.7%)	7.8% (0.8%)	56.9% (0.4%)
High school grad. only	25.6% (15.7%)	4.5% (14.6%)	69.9% (15.0%)
Less than two years at business or voc. school	24.4% (7.0%)	6.9% (10.4%)	68.7% (6.9%)
Two years or more at business or voc. school	26.3% (11.8%)	4.4% (10.4%)	69.3% (10.9%)
Less than two years of college	24.5% (2.7%)	5.8% (3.4%)	69.7% (2.7%)
Two or more years of college with Associates degree	27.1% (13.4%)	4.5% (11.8%)	68.4% (11.9%)
Finish college with Bachelor's	26.1% (24.2%)	4.0% (21.8%)	72.9% (26.7%)
Master's degree	22.4% (11.2%)	4.2% (11.0%)	73.5% (12.9%)
Ph.D. degree	25.3% (10.7%)	5.4% (12.0%)	69.3% (10.3%)

TABLE 6
Occupational Aspirations by Number and Gender of Parents

	Mother Only	Father Only	Both
Clerical	28.7% 3.8% (11.1%)	67.5% (7.6%)	(9.1%)
Craftsperson	21.1% (5.7%)	6.7% (9.4%)	72.2% (6.8%)
Farmer	11.4% (0.7%)	8.9% (2.8%)	79.7% (1.7%)
Homemaker Only	19.2% (1.6%)	3.3% (1.4%)	77.6% (2.2%)
Laborer	18.5% (1.1%)	6.6% (2.0%)	74.8% (1.5%)
Manager	26.6% (7.1%)	4.0% (5.6%)	69.4% (6.5%)
Military	32.4% (2.5%)	5.3% (2.2%)	62.3% (1.7%)
Operative	27.4% (2.8%)	4.1% (2.2%)	68.5% (2.5%)
Professional—Tea.	24.6% (26.6%)	4.6% (26.3%)	70.8% (26.9%)
Professional—Pro	24.2% (12.8%)	4.7% (13.2%)	71.1% (13.2%)
Owner	22.8% (2.9%)	5.1% (3.4%)	72.1% (3.2%)
Protective Services	23.7% (1.7%)	1.6% (0.6%)	74.7% (1.9%)
Sales	25.1% (1.9%)	6.2% (2.4%)	68.7% (1.8%)
School Teacher	24.4% (3.5%)	4.3% (3.2%)	71.3% (3.5%)
Service	21.4% (2.8%)	5.0% (3.4%)	73.6% (3.3%)
Technical	26.1% (9.4%)	4.2% (8.0%)	69.7% (8.8%)
Not Working	23.1% (1.1%)	5.0% (1.2%)	71.9% (1.2%)

TABLE 7
Educational Aspirations by Urbanness
(What is the lowest level of education you'd be satisfied with?)

	Urban	Suburban	Rural
Less than high school	1.6%	1.1%	1.9%
High school graduate	24.1%	25.5%	37.3%
Less than two years at vocational school	5.5%	5.7%	6.8%
Two years or more at business or vocational school	10.0%	9.0%	10.7%
Less than two years of college	6.4%	5.7%	5.2%
Two or more years of college	18.4%	18.3%	14.6%
B.S./B.A. degree	22.6%	24.9%	18.1%
Master's degree	7.2%	6.1%	3.2%
Ph.D. degree	4.2%	3.7%	2.1%

TABLE 8
Occupational Aspirations by Urbanness

	Urban	Rural
Clerical	11.3%	11.6%
Craftsperson	5.9%	9.3%
Farmer	0.5%	3.5%
Housewife	1.2%	3.4%
Laborer	0.7%	2.7%
Manager-Administrator	7.6%	5.3%
Military	2.5%	2.6%
Operative	1.9%	3.9%
Professional (Lower)	29.1%	24.2%
Professional (Higher)	15.2%	9.0%
Proprietor-owner	2.9%	3.3%
Protective Services	1.7%	1.7%
Sales	1.8%	1.8%
School Teacher	3.5%	4.2%
Service	3.3%	4.1%
Technical	9.7%	8.1%
Not Working	1.3%	1.5%

expect them to complete college. Rural students on the other hand report that their parents more often expect them to a) get a full-time job, b) go to trade school, c) enter the military, or d) "don't care" what they do (see Table 9).

Summary

The data outlined here suggest that family structure and setting variables do relate to student occupational and educational aspirations. While these findings are

not new discoveries, the verification of these relationships with such an exemplary sample provides us with the opportunity to go forward with multivariate exploration of these ideas.

It further confirms the existence in the 1980's of demographic influences identified in prior decades; the implications for educators, social workers, media professionals, family life specialists, and public policy makers are immense. Our youth are, in the significant arena of their expectations for their quality of life, captives of family and social history. Providing alternatives challenges every one of us.

TABLE 9
Parental Vocational Expectations by Urbanness

	Father		Mother	
	Urban	Rural	Urban	Rural
College	57.9%	49.2%	72.3%	60.0%
Full-time Job	8.5%	14.1%	9.2%	14.1%
Trade School	6.0%	9.5%	7.7%	11.5%
Military	3.1%	4.1%	2.9%	3.2%
They don't care	2.5%	3.9%	1.6%	3.1%
I don't know	8.8%	9.9%	3.8%	5.7%
Does not apply	13.2%	9.3%	2.4%	2.3%

REFERENCES

- Bales, K. The Single Parent Family Aspirations and Academic Achievement. *The Southern Journal of Educational Research*. 1979, 13 (4), 145-160.
- Boyd, J., Farris, C., & Shoffer, S. *Longitudinal Determinants of Occupational Plans of Low-Income Rural Young Adults*. Greensboro: University of North Carolina at Greensboro, 1984
- Burchinal, L. Differences in Educational and Occupational Aspirations of Farm, Small Town and City Boys. *Rural Sociology*. June 1961, 26, 107-121.
- Chu, L., & Culbertson, J. Rural Alaskan Youth's Attitudes Toward Education. *Research in Rural Education*. 1982. 1 (1), 27-30.
- Coleman, J., et al. *Equality of Educational Opportunity*. Washington: U.S. Office of Education, 1966.
- Coleman, L. Status Projections of Low-Income Youth in the U.S.A.: Changes Over Time and a Look to the Future. Lexington: University of Kentucky, 1976.
- Cosby, A. *Career Decisions and Attainment of Rural Youth: Sex and Race Comparisons*. Washington, DC: Cooperative State Research Service, 1978.
- Cowhig, J., et al. *Orientation Toward Occupation and Residence: A Study of School Seniors in Four Rural Counties of Michigan*. East Lansing: Michigan Agriculture Experiment Station, Special Bulletin 428, 1960.
- DeBord, L., Griffin, L., and Clark, M. Race and Sex Influences in the Schooling Processes of Rural and Small Town Youth. *Sociology of Education*. April, 1977, 42, 85-102.
- Deosaran, R. Educational Aspirations, What Matters? A Literature Review. Ontario: Toronto Board of Education, April, 1977, 42, 85-102.
- Dunkelberger, J., & Sink, C. *Alternative Educational Attainment Mechanism in Early Adulthood*. Alabama: Auburn University, Department of Agricultural Economics and Rural Sociology, 1975.
- Dunne, F., Elliott, R., & Carlsen, W. Sex Differences in the Educational and Occupational Aspirations of Rural Youth. *Journal of Vocational Behavior*. 1981, 18, 56-66.
- Ginzberg, E., Ginsburg, S., Axelrod, S., & Herman, J. *Occupational Choice*. New York: Columbia University Press, 1951.
- Harris, R., et al. *Isolation and Education: Educational Aspirations and Achievement in South Australia*. Adelaide: South Australia Educational Department, 1975.
- Kuvlesky, W. *Dynamics of Occupational and Educational Status Projections: A Theoretical Perspective*. Paper presented

to the 1970 Rural Sociological Society, Washington, DC, 1970.

16. Kuvlesky, W., & Bealer, R. A Clarification of the Concept of Occupational Choice. *Rural Sociology*. 1966, 21, 265-276.

17. Kuvlesky, W., & Ohlendorf, G. *A Bibliography of Literature on Status Projections of Youth: I. Occupational Aspirations and Expectations*. College Station: Texas A & M University, Department of Agricultural Economics and Sociology, Report #67-10, September 1967.

18. Lyson, T., & Stover, P. *From High School to Adulthood: A Survey of South Carolina Young People, Bulletin 641*. Clemson: South Carolina Agricultural Experiment Station, 1982.

19. McIntire, W., Cobb, R., & Pratt, P. Where are the Dreamers? Aspirations of Maine's Rural High School Students. *Explorations: A Journal of Research*. 1985, 6-11.

20. Marini, M., & Greenberger, E. Sex Differences in Educational Aspirations and Expectations. *American Educational Research Journal*. 1978, 15 (1), 67-79.

21. Merton, R. *Social Theory and Social Structure*. Glencoe, Illinois: The Free Press, 1957.

22. Middleton, R., & Grigg, C. Rural-Urban Differences in Aspirations. *Rural Sociology*. December, 1959, 24, 347-354.

23. Nelson, J. *Educational Aspirations in Minnesota: Rural-Urban Comparisons*, St. Paul: University of Minnesota, 1971.

24. Nelson, J. Participation and College Aspirations: Complex Effects of Community Size. *Rural Sociology*. 1973, 38, 7-16.

25. Picou, S., & Carter, M. Residence and the Dynamics of Status Attainment as Related to Aspiration Formation. College Station: Texas A & M University, 1974.

26. Ramsy, N. Social Stratification in France and the United States, in R. Bendix and S. Lipset, (Eds.) *Class, Status and Power*. Glencoe, Illinois: The Free Press, 1953, 577-587.

27. Schwarzweller, J. *Sociocultural Factors and the Career Aspirations and Plans of Kentucky High School Seniors*. Lexington: Kentucky Agricultural Experiment Station, Report 94, September 1960, p. 13.

28. Sewall, W. The Educational and Occupational Perspectives of Rural Youth, Department of Health, Education and Welfare, 1963.

29. Slocum, W. *Occupational and Educational Plans of High School Seniors from Farm and Homes*. Pullman: Washington Agricultural Experiment Station, Bulletin 564, February, 1956.

30. Sollie, R., & Lightsey, M. Occupational Status Projections During High School and Post High School and Full-time Work Experience. Paper presented at the annual meeting of the Rural Sociology Society in San Francisco, 1975.

31. Thomas, J., & Cosby, A. *Early Achievement Patterns of Southern Males: Racial Profiles of Status Attainment and Mobility Attitudes*. College Station: Texas A & M University, 1975.

32. Yoesting, D., Beal, G., & Bohlen, J. *Career Decision-Making Processes of Iowa Young Adults*. Ames: Iowa State University Press, 1968.