

Journal of Rural Social Sciences

Volume 12
Issue 1 *Southern Rural Sociology Volume 12,*
Issue 1 (1996)

Article 3

12-31-1996

Changing Employment Patterns in Nonmetropolitan America: Implications for Family Structure

Don E. Albrecht
Texas A&M University

Stan L. Albrecht
University of Florida

Follow this and additional works at: <https://egrove.olemiss.edu/jrss>



Part of the [Rural Sociology Commons](#)

Recommended Citation

Albrecht, Don, and Stan Albrecht. 1996. "Changing Employment Patterns in Nonmetropolitan America: Implications for Family Structure." *Journal of Rural Social Sciences*, 12(1): Article 3. Available At: <https://egrove.olemiss.edu/jrss/vol12/iss1/3>

This Article is brought to you for free and open access by the Center for Population Studies at eGrove. It has been accepted for inclusion in *Journal of Rural Social Sciences* by an authorized editor of eGrove. For more information, please contact egrove@olemiss.edu.

**CHANGING EMPLOYMENT PATTERNS IN
NONMETROPOLITAN AMERICA:
IMPLICATIONS FOR FAMILY STRUCTURE**

By Don E. Albrecht and Stan L. Albrecht¹

ABSTRACT

During the past few decades, the industrial/employment structure of rural America has changed dramatically. The major causes of these changes have been technological developments which have reduced the human labor needs in the natural resources industries of agriculture, forestry, fisheries, and mining. While employment in the natural resources industries has declined, the loss of these jobs has been offset by increased employment in the manufacturing and service industries. This paper explores the relationship between variations in the industrial structure of nonmetropolitan counties in the United States and several family structure variables. It was found that counties with larger proportions of their labor force employed in natural resources industries had fewer female-headed households, a larger proportion of children living in married-couple families, and higher fertility rates. In contrast, counties with high levels of employment in service and manufacturing industries had larger proportions of female-headed households, fewer children in married-couple households, and lower fertility rates. The implications of these findings are discussed.

INTRODUCTION

Residence in rural areas of the United States has, historically, been virtually synonymous with employment in a natural resource-based industry. In many parts of the country, agriculture was the primary employer of rural Americans (Albrecht & Murdock, 1990), but in other areas, large numbers of workers made their living in timber, mining, or the

¹Don E. Albrecht is an Associate Professor in the Department of Rural Sociology at Texas A&M University. Stan L. Albrecht is a Professor in the Department of Health Policy and Epidemiology at the University of Florida.

fisheries industry (Field & Burch, 1988; Machlis et al., 1990). Later, as technological breakthroughs allowed human labor to be replaced by machines (Berardi & Geisler, 1984; Luloff & Swanson, 1990), employment in the natural resources industries declined dramatically. In some rural areas, such changes led to substantial outmigration and population loss (Brown & Beale, 1981). In other areas, the decline in natural resources employment was offset by increases in other sectors. Initially, manufacturing employment became paramount, while more recently there have been large increases in the number of jobs in the service sector (Kassab & Luloff, 1993; Miller & Bluestone, 1987; Smith, 1993).

A growing literature is addressing the implications of these industrial changes for local communities and their residents (Kassab, 1992). Of special concern is the recognition that while service sector jobs vary greatly in quality, many are low-skill, low-wage, and less stable (Kassab & Luloff, 1993; Noyelle, 1986), resulting in a situation in which many rural households may be left with an increase in the number of workers but a generally lower standard of living (Davidson, 1990). Further, this greater reliance on service sector employment in rural areas is increasingly acknowledged as a factor contributing to the increased discrepancies in income between metropolitan and nonmetropolitan residents (Jensen & Tienda, 1989; Lichter, 1989) and in higher levels of rural poverty (Garrett, et. al, 1994; Goreham, 1992; Jensen & Eggebeen, 1994).

An important topic that has yet to be explored directly is the effect of changing rural employment patterns on family structure. Increasing our understanding of this relationship is important because there is a growing body of research relating family structure to a number of other factors that are generally associated with individual quality of life and well-being. If employment patterns in rural America are related to variations in family structure, the implications of changing employment patterns for rural families and rural communities need to be explored.

This paper takes an initial step in addressing the link between economic and family structures in rural America. Using county-level data from the 1990 Census of Population and Housing for all nonmetropolitan counties in the United States, it discusses how variations in the economic structure are related to differences in family structure. It concludes with some preliminary observations on the implications of this relationship for communities and quality of life in rural areas.

The Importance of Family Structure

Family structure and living arrangements have been undergoing dramatic changes in this country for a number of years. Among the most widely discussed of these changes is the substantial increase in the number of families headed by a single female (Albrecht et al., 1984; Wu & Martinson, 1993) and the concomitant reduction in the number of children living in homes with both biological parents (Dawson, 1991). A growing body of social science research has addressed the relationship between these and other family structural changes and a variety of quality of life outcomes, mostly outcomes generally viewed as negative. Among the negative effects of single-parent family arrangements are substantial adverse economic impacts on children (Farley & Allen, 1987; Garrett et al., 1994; Jaynes & Williams, 1989; McLanahan, 1985), which appear prominent in rural areas (Eggebeen & Lichter, 1991; Lichter & Eggebeen, 1992, 1993).

Other observed consequences of single-parent family structures for children include increased frequencies of premarital parenthood (McLanahan, 1985, 1988; Wu & Martinson, 1993), a greater likelihood that their own marriage will end in divorce (Heaton & Jacobson, 1993), and a number of health-related problems (Pilisuk & Parks, 1983; Ross et al., 1992). The health effects of the single parent family structure apparently extend across the life cycle. For example, in their study of birth outcomes, Ramsey et al. (1986) found that women who live alone are at risk for having a low-birthweight baby. Other researchers (Gee et al., 1976) have observed that second to birthweight, the marital status of parents is the most important factor associated with neonatal mortality. Further, several researchers have noted that the substantial increase in single parenthood is a primary contributor to the "feminization of poverty" (Hardy & Hazelrigg, 1993; Starrels et al., 1994). Moreover, Ross et al. (1992) have noted that marriage is associated with physical health, psychological well-being, and lower mortality.

Of course, family structure is not the only factor related to these quality-of-life outcomes. Numerous researchers have found that a person's race is strongly related to most of these measures, even across SES and family structure categories (Adler et al., 1994; Lichter & Eggebeen, 1992; Williams et al., 1994). Furthermore, it cannot be assumed that two-parent families necessarily result in more positive outcomes (Dawson, 1991; Scanzoni & Marsiglio, 1993). Structure is, of course, related to process in

that family structure allows opportunities for certain types of interaction and places constraints on others (Amato, 1993). However, the relative importance of structure, independent of its traditional or nontraditional nature, remains an important question (Albrecht et al., 1994).

The Changing Economic Structure of Rural America

In the half century since the end of World War II, the industrial/employment structure of rural America has undergone a dramatic transition. In 1940, there were over 6 million farms in the United States, and the farm population exceeded 30 million. This meant that about one of every four Americans was living on a farm (Albrecht & Murdock, 1990). A large majority of the farm families of that time worked full-time, medium-sized operations, and it was relatively rare for a farm operator or spouse to work off-farm. In addition, a large proportion of the rural labor force not involved in agriculture was employed in the other natural resources industries, forestry, fisheries, and mining. In 1940, the natural resources industries employed about 9.4 million workers, or 46.5 percent of the rural labor force.

During the time when the natural resources industries employed most rural workers, the structure of the rural family differed significantly from the structure of families in urban America. Specifically, rural adults were more likely to be married and their marriages were more resistant to dissolution, rural children were more likely to live with both biological parents, and rural fertility rates were higher (Cho et al., 1970; Duncan & Reiss, 1956; Hathaway et al., 1968). These differences have generally been attributed to the unique constraints associated with rural life, especially with farm life (Nelson, 1955). Specifically, on most farms the entire family worked together in the production process, and so children were an economic asset rather than a liability.

In the past half century, however, rural America has undergone massive social change, rendering the above description inapplicable. Much of this change can be attributed to the development of a number of labor saving technologies in the natural resources industries. In agriculture, the tractor and other technologies made it possible for a single farm family to work a much larger acreage than before (Bertrand, 1978). Consequently, the number of farms declined to 1.9 million in 1992, and in 1990, the farm population declined to about 3.9 million, less than 2 percent of the total American population.

The changes are even more extensive than the declines in the numbers of farms and farm people indicate. The majority of farms are now operated by someone who considers his/her primary occupation to be something other than farming, and, because of the extensive nonfarm employment of both farmers and their spouses, most of farm families' income comes from nonfarm sources (Paarlberg, 1980). Further, as the farm population was declining, technological developments were also reducing human labor needs in other natural resources industries (Dix, 1988; Stier, 1980). Consequently, by 1990, the natural resources industries employed only 1.6 million rural workers, less than 10 percent of the rural labor force.

Despite the loss of natural resources jobs, and the subsequent migration of rural people to urban areas, the population of rural America remained remarkably stable through the decades. The net outmigration was offset by a natural population increase of births exceeding deaths (Johnson, 1989) and by an increase in the number of jobs in manufacturing and the service industries (Fuguitt et al., 1989; Kassab & Luloff, 1993). Thus, by 1990, the number of rural workers employed in the manufacturing and service industries far exceeded the number employed in natural resources.

While the employment structure of rural areas was changing, so was the structure of rural families. As rural families were becoming more consistent with the typical urban family, rural areas were being increasingly characterized by larger numbers of single-parent families, more divorces, smaller family sizes, and more dual-employment families (Coward & Smith, 1982). Researchers also noted that during the 1980s, for the first time, nonmetropolitan birth rates declined to the point that they were not significantly different from metropolitan birth rates (Beale & Fuguitt, 1990; Johnson & Beale, 1992). Researchers have yet to explore the extent to which these changes in family structure are related to changes in the industrial/employment structure, specifically to the reduction in natural resource employment.

To fill partially this void in understanding, this research explores the relationship between the industrial/employment structure in nonmetropolitan counties in the United States and three major family structure indicators. The industrial/employment structure of the county is the primary independent variable and is determined by the percent of the labor force employed in three industries that include natural resources, manufacturing, and service. The family structure variables include a

measure of marital living arrangements (percent of female-headed households), a measure of living arrangements for children (percent of children living in married-couple households), and a measure of fertility.

This research begins with the assumption that in U.S. counties where the percent of the labor force employed in natural resources industries is greatest, the traditional family structures will be more prevalent. That is, the percent of female-headed households will be lower, the percent of children living in married-couple households will be greater, and fertility rates will be higher. In contrast, it is expected that in counties where employment in manufacturing and the service industries is greater, the proportion of female-headed households will be greater, the percent of children living in married-couple households will be lower, and the fertility rate will be lower.

There are several reasons for expecting the relationships hypothesized above. First, farming, and to a lesser extent fisheries, are industries that have been characterized by high levels of family involvement in production activities. In the past, at least, many farm wives chose not to take employment off of the farm because of the contribution they could make to the farm enterprise (Bokemeier et al., 1983). Perhaps a consequence of families working closely together is a stronger family unit with fewer divorces, and thus a lower proportion of female-headed households and a higher proportion of children living in married-couple households. Higher fertility rates in families employed in natural resources industries would be expected because of the economic contribution that children make to the family enterprise.

Even in those cases in which the family is not directly involved in the production process, natural resources employment tends to be male dominated. According to the 1990 census, less than 20 percent of the 3.8 million Americans with primary employment in a natural resources industry were female. In contrast, 33.2 percent of the persons with primary employment in manufacturing were female, as were 62.5 percent of service industry workers. These gender-based employment patterns could have important consequences for family structure (Sapiro, 1994). For example, in counties where natural resources employment is prominent, there may be few employment opportunities for females. The subsequent lack of economic independence for females may lead to fewer divorces and, thus, more married-couple households. In addition, when there is the dissolution of a marriage in a county with high levels of employment in natural

resources, the female may be forced to migrate to areas where employment opportunities for her are better.

There are a number of factors in addition to the employment structure of the county that potentially are related to family structure variations, and thus it is critical that the effects of several other variables be statistically controlled. For example, several researchers have observed a relationship between family structure and family income (McLanahan, 1985; Wilson & Neckerman, 1986). Since income levels vary by the industrial structure of the county, it could be argued that family structure variations from one county to another could be a function of income variations and not industrial structure variation.

Further, some scholars have argued that there are important differences between rural and urban areas in the norms and values associated with the family (Duncan & Reiss, 1956; Glenn & Hill, 1977). It could be argued that the invasion of mass culture into rural America has resulted in the acceptance of urban values (Bender, 1975; Ewen & Ewen, 1982), and that this invasion is more complete in nonmetropolitan counties with larger population sizes. Thus, it is critical that the population size of the county be controlled. Finally, it has already been noted that there are important family structure variations by race. Therefore, it is also important that the racial composition of the county be controlled in any analysis of family structure.

METHODS

Data for this analysis were obtained from the STF3C files of the 1990 Census of Population and Housing. The county is the unit of analysis, and all nonmetropolitan counties in the United States are utilized. Among other problems associated with using counties as units of analysis, county boundaries are somewhat arbitrary. However, more attractive data sources for other geographic units are simply not available. Macro-level measures should provide insights about the context in which the variations in family structure occur.

Three family structure variables are used as dependent variables. These variables are defined as follows: 1) the percent of female-headed households, which was determined by computing the percent of all households in the county headed by a single female; 2) the percent of dependent children 18 years old or younger who live in a household

headed by a married couple; and 3) the number of children born to females age 15 and older.

The primary independent variables are the percent of the labor force employed in 1) natural resources industries, which include agriculture, forestry, fisheries, and mining; 2) manufacturing industries, both durable and nondurable; and 3) service industries, which include business and repair, personal, recreational, health, educational, and other services. The percent employed in other industries such as transportation, communication, and trade are not included, and there is no problem of over-specifying the models. Three control variables are included in the model: the median family income in the county, the total population of the county, and the percent of the population that is minority. Minority is defined here as Hispanic and African-American.

The first part of the analysis consists of categorizing counties into quartiles based on the percentage of the labor force employed in natural resources, manufacturing, and service industries, and then comparing the family structures of these various categories of counties. For example, for natural resources employment, those counties with 17.7 percent or more of their labor force employed in natural resources industries comprise the highest quartile, those with between 9.7 and 17.7 percent are the next highest quartile, those with between 5.6 and 9.7 percent are the third quartile, and those with less than 5.6 percent are the lowest. The categories for the manufacturing and service industries are similarly constructed.

Following the categorical analysis, a regression analysis is conducted to allow a determination of the strength of the relationship between employment structure and family structure. The regression analysis also allows an assessment of the extent to which the relationships between employment and family structure remain after the effects of the other industrial structure variables and the control variables have been considered. A separate regression model is computed for each of the three family structure variables using the independent and control variables described above.

FINDINGS

Table 1 shows the bivariate relationship between industrial structure and family structure. In counties where a high proportion of the labor force was employed in natural resources industries, traditional family structures occurred more frequently. For example, in counties in the

highest quartile of natural resource employment, the proportion of female-headed households was smaller, the proportion of children in married-couple households was larger, and the fertility rate was higher.

Table 1. Family structure characteristics in nonmetropolitan counties by quartile for the percent of the labor force employed in natural resource, manufacturing, and service industries, 1990 (N=2,287).

Family structure characteristic and industry	--Percent of labor force employed in industry--			
	Lowest quartile	Second quartile	Third quartile	Highest quartile
Percent of female-headed households				
Natural resource	10.5	10.3	8.7	6.5
Manufacturing	7.2	8.3	9.6	10.9
Service	9.6	8.7	8.4	9.2
Percent of children in married-couple households				
Natural resource	80.3	80.2	82.8	86.8
Manufacturing	85.4	83.0	81.6	80.2
Service	82.3	83.2	83.3	81.2
Fertility--number of children ever born				
Natural resource	2.08	2.20	2.28	2.48
Manufacturing	2.38	2.25	2.22	2.20
Service	2.27	2.30	2.30	2.18

The relationships with family structure for manufacturing and service employment were not as consistent as they were for natural resource employment, but the relationship for manufacturing was generally in the opposite direction. That is, those counties with large proportions of their labor force employed in manufacturing tended to have more female-headed households, fewer children in married-couple households, and lower fertility rates. There was no consistent pattern for service employment.

As noted earlier, the relationships found in Table 1 may at least partially be a function of county income levels, population size, or percent minority. However, the results of the regression analysis, shown in Table 2, provide additional support for the contention that the employment structure of a county is related to the subsequent family structure that emerges. For each of the three family structure variables analyzed, higher levels of employment in the natural resources industries was related to more traditional family structures. These relationships persisted even when the effects of employment levels in other industries and of the control variables were considered. Thus, as the percent of the labor force employed in natural resources industries increased, the percent of female-headed households decreased, the percent of children in married-couple households increased, and the fertility rate increased.

For manufacturing and service employment, regression results show that for each variable analyzed, increased levels of employment in these industries are related to an increased likelihood of nontraditional family structures. The results, however, were not as strong as for natural resources employment. The regression models explained 65 percent of the variation in the percent of female-headed households, 55 percent of the variation in the percent of children in married-couple households, and 44 percent of the variation in fertility rates.

DISCUSSION AND CONCLUSIONS

The findings indicate that the economic structure of counties in rural America is significantly related to the family structure and living arrangements in those counties. While the data do not allow for addressing the cause-effect relationship, previous research and theory are strongly suggestive of causal direction and allow some speculation on the broader theoretical significance of what was observed. One of the most hotly debated issues in the literature in recent decades has been the root causes

Table 2. Regression analysis showing the effects of percent of labor force employed in natural resources, manufacturing, and service industries and control variables on family structure characteristics in nonmetropolitan counties (N=2,287).

Independent variables	Percent of female-headed households		Percent of children in married-couple households		Fertility--number of children ever born	
	Unstandardized	Standardized	Unstandardized	Standardized	Unstandardized	Standardized
Intercept	.0664*	.000	.8244*	.000	3.0253*	.000
% of labor force employed in:						
Natural Resources	-.0989*	-.234	.2189*	.281	.9666*	.339
Manufacturing	.0477*	.128	-.0500*	-.073	-.1592*	-.064
Service	.0526*	.071	-.1812*	-.132	-.5275*	-.105
Median family income (\$1,000)	-.0018*	-.245	.0035*	.255	-.0190*	-.373
Total population	.0047	.099	-.0035	-.040	-.0244*	-.076
Percent minority	.1368*	.585	-.2251*	-.522	.1585*	.100
F-value	706.4*		472.3		298.5*	
R ²	.65		.55		.44	

*Statistically significant at the .05 level.

Albrecht and Albrecht

53

of continuing urban poverty, especially among minority populations. Some of the more popularized explanations have blamed such poverty on a range of individual and cultural deficiencies, rather than on structural characteristics and changes reflective of the larger social, political, and economic environments. The cultural deficiency model (Baca Zinn 1989), for example, has assumed that the poor are characterized by a value system of low aspirations, one that is reinforced by a welfare system that encourages illegitimate births, female-headed households, and low motivation to work. Such a perspective was broadly consistent with many of the social policies of the Reagan era and is increasingly popular in today's political world.

An alternative view, more firmly rooted in social science theory and research, focuses on structural factors and argues that the transformation of the economy and the labor force since World War II have "caused" the social and economic marginalization of those individuals and groups who have been concentrated in industries that have borne the brunt of the restructuring that has resulted in the closing of manufacturing jobs, primarily, but not exclusively, in the central cities. This view argues that urban minority poverty cannot be explained by individual "choices" to drop out of the labor force, form female-headed families, collect welfare, or acquire inferior education and skills (Shulman, 1990, p. 1011). Instead, changes in the larger social and economic structure have effectively left the urban impoverished behind and neither individual effort nor social policy has worked effectively to minimize the resulting economic disadvantage.

As opposed to popular stereotypes of inner-city minorities, those of rural Americans have often been positive. While widely circulated caricatures of rural people have emphasized illiteracy, backwardness, and a lack of social adjustment, these have existed alongside perceptions of rural Americans as hard-working, self-disciplined and independent. In addition to the studies reviewed previously, this research suggests that these individual characteristics, including the kinds of human capital with which they are associated, cannot effectively overcome important structural forces that are changing the face of rural America. The result is that these individual characteristics may not protect individuals and families from an increasing risk of a decline into poverty (Conger & Elder, 1994).

What this may mean is that rural Americans, like their disadvantaged counterparts in the inner cities, may be particularly affected by the change in family structure. In other words, the increased probability of changes in family structure being compounded by changes in economic

Albrecht and Albrecht

structure--specifically, the increased probability of living in a single-parent household--carries the potential of making a difficult situation even worse. Since previous research findings have noted a relationship between single-parent families and increases in child poverty, premarital parenthood, divorce, and ill health and accidental injury, any comparative advantages enjoyed by rural residents may be lost. Further, in those situations in which rural America has already operated at a comparative disadvantage, problems will only be exacerbated, a situation that Lichter and Eggebeen (1992, 1993) have already noted in the case of the economic welfare of rural children. Many of these problems may only be compounded in rural America because nonmetro families rely less on public assistance and more on earnings (Jensen & Eggebeen, 1994), meaning that nonmetro areas do not benefit from the poverty-alleviating impact of public programs.

In the urban context, the decline of employment opportunities for blacks, especially black men, has been related to the explosive growth of black families headed by females, a phenomenon that is the basis of William J. Wilson's (1987) analysis of the underclass. Does rural America face a similar future, in which an increased occurrence of patterns like the mother-headed family becomes the consequence, not the cause, of poverty? At the least, a continuation of current trends could mean that, like the urban ghettos, rural America may face the prospect of becoming more isolated, with increasingly vulnerable social institutions, including schools, families, businesses, churches, and hospitals (Baca Zinn, 1989).

The growth of low-wage employment in rural America will increasingly exacerbate the poor economic circumstances of rural Americans (Lichter & Eggebeen, 1993). And, if these observations are supported by further analysis, the changing structure of two of its most important social institutions--its families and its economy--has much broader implications for what life will be like in rural America in the future.

REFERENCES

- Adler, N.E., Boyce, T., Chesney, M.A., Cohen, S., Folkman, S., Khan, R.L., Syme, S.L. (1994). Socioeconomic status and health: The challenge of the gradient. *The American Psychologist*, 49, 15-24.
- Albrecht, D.E., & Murdock, S.H. (1990). *The sociology of U.S. agriculture: An ecological perspective*. Ames: Iowa State University Press.

- Albrecht, S.L., Bahr, H.M., & Goodman, K.L. (1984). *Divorce and remarriage*. Westport, Conn.: Greenwood Press.
- Albrecht, S.L., Miller, M.K., & Clarke, L.L. (1994). Assessing the importance of family structure in understanding birth outcomes. *Journal of Marriage and the Family*, 56, 987-1003.
- Amato, P.R. (1993). Children's adjustment to divorce: Theories, hypotheses, and empirical support, *Journal of Marriage and the Family*, 55, 23-38.
- Baca Zinn, M. (1989). Family, race and poverty in the eighties. *Signs: Journal of Women in Culture and Society*, 14, 856-874.
- Beale, C.L., & Fuguitt, G.V. (1990). Decade of pessimistic nonmetro population trends ends on optimistic note. *Rural Development Perspectives*, 6(3), 14.
- Bender, T. (1975) *Toward an urban vision: Ideas and institutions in nineteenth century America*. Lexington: University Press of Kentucky.
- Berardi, G.M. and Geisler, C.C. (1984). *The social consequences and challenges of new agricultural technologies*. Boulder, Colorado: Westview Press.
- Bertrand, A.L. (1978). Rural social organizational implications of technology and industry. In T.R. Ford (Ed.), *Rural U.S.A.: Persistence and change* (Ch. 4). Ames: Iowa State University Press.
- Bokemeier, J.L., Sachs, C. & Keith, V. (1983). Labor force participation of metropolitan, nonmetropolitan, and farm women: a comparative study. *Rural Sociology*, 48(4):515-539.
- Brown, D.L. & Beale, C.L. (1981) Diversity in post-1970 population trends. In A.H. Hawley and S.M. Mazie (Eds.), *Nonmetropolitan America in Transition* (27-71). Chapel Hill: The University of North Carolina Press.
- Cho, L.J., Grabill, W.H. & Bogue, D.J. (1970). *Differential current fertility in the United States*. Chicago: Community and Family Study Center, University of Chicago.
- Conger, R., & Elder, G.H. (1994). *Families in troubled times: Adapting to change in rural America*. New York: A. de Gruyter.
- Coward, R.T., & Smith, W.J. (1982). Families in rural society. In D.A. Dillman and D.J. Hobbs (Eds.), *Rural society in the U.S.: Issues for the 1980s* (Ch. 8). Boulder, Colorado: Westview Press.
- Davidson, O.G. (1990). *Broken heartland: The rise of America's rural ghetto*. New York: The Free Press, Macmillan.
- Dawson, D.A. (1991). Family structure and children's health and well-being: Data from the 1988 National Health Interview Survey on child health. *Journal of Marriage and the Family*, 53, 573-584.
- Dix, K. (1988). *What's a coal miner to do? The mechanization of coal mining*. Pittsburgh: University of Pittsburgh Press.
- Duncan, O.D., & Reiss, A.J. (1956). *Social characteristics of urban and rural communities, 1950*. New York: Wiley.

- Eggebeen, D.J., & Lichter, D.T. (1991). Race, family structure, and changing poverty among American children. *American Sociological Review*, 56, 801-817.
- Ewen, S., & Ewen, E. (1982). *Channels of desire: Mass images and the shaping of American consciousness*. New York: McGraw-Hill.
- Farley, R., & Allen, W.R. (1987). *The color line and the quality of life in America*. New York: Russell Sage Foundation.
- Field, D.R., & Burch, W.R., Jr. (1988). *Rural sociology and the environment*. New York: Greenwood Press.
- Fuguitt, G.V., Brown, D.L., & Beale, C.L. (1989). *Rural and small town America*. New York: Russell Sage Foundation.
- Garrett, P., Ng'andu, N., & Ferron, J. (1994). Is rural residency a risk factor for childhood poverty? *Rural Sociology*, 59, 66-83.
- Gee, S.C., Lee, E.S., & Forthofer, R.N. (1976). Ethnic differentials in neonatal and postneonatal mortality: A birth cohort analysis by a binary variable multiple regression method. *Social Biology*, 23, 317-325.
- Glenn, N.D., and Hill, L. (1977). Rural/urban differences in attitudes and behavior in the United States. *The Annals*, 429 (January), 36-50.
- Gorham, L. (1992). The growing problem of low earnings in rural areas. In C. M. Duncan (Ed.), *Rural poverty in America*, New York: Auburn House.
- Hardy, M.A., & Hazelrigg, L.E. (1993). The gender of poverty in an aging population. *Research on Aging*, 15, 243-278.
- Hathaway, D.E., Beegle, J.A., & Bryant, W.K. (1968). *People of rural America*. Washington, DC: U.S. Government Printing Office.
- Heaton, T.B., & Jacobson, C.K. (1993, October). *Race differentials in changing family demographics*. Paper presented at conference on Racial and Ethnic Families in the United States, Brigham Young University, Provo, UT.
- Jaynes, G.D., & Williams, R.M., Jr. (1989). *A common destiny: Blacks and society*. Washington, DC: National Academy Press.
- Jensen, L., & Eggebeen, D.J. (1994). Nonmetropolitan poor children and reliance on public assistance. *Rural Sociology*, 59, 45-65.
- Jensen, L., & Tienda, M. (1989). Nonmetropolitan minority families in the United States: Trends in racial and ethnic economic stratification, 1959-1986. *Rural Sociology*, 509-532.
- Johnson, K.M. (1989). Recent population redistribution trends in nonmetropolitan America. *Rural Sociology*, 54(3), 301-326.
- Johnson, K.M., & Beale, C.L. (1992). Natural population decrease in the United States. *Rural Development Perspectives*, 8, 8-15.
- Kassab, C. (1992). *Income and inequality: The role of the service sector in the changing distribution of income*. New York: Greenwood Press.
- Kassab, C., & Luloff, A.E. (1993). The new buffalo hunt: Chasing the service sector. *Journal of Community Development Society*, 24, 175-195.

- Lichter, D.T. (1989). Race, employment hardship, and inequality in the American nonmetropolitan south. *American Sociological Review*, 54, 436-446.
- Lichter, D.T., & Eggebeen, D.J. (1992). Child poverty and the changing rural family. *Rural Sociology*, 57, 151-172.
- Lichter, D.T., & Eggebeen, D.J. (1993). Rich kids, poor kids: Changing income inequality among American children. *Social Forces*, 71, 761-780.
- Luloff, A.E., & Swanson, L.E. (1990). *American rural communities*. Boulder, CO: Westview Press.
- Machlis, G.E., Force, J.E., & Balice, R.G. (1990). Timber, minerals, and social change: An exploratory test of two resource-dependent communities. *Rural Sociology*, 55, 411-424.
- McLanahan, S. (1985). Family structure and the reproduction of poverty. *American Journal of Sociology*, 90, 873-901.
- McLanahan, S. (1988). Family structure and dependency: Early transitions to female household headship. *Demography*, 25, 1-16.
- Miller, J.P., & Bluestone, H. (1987). Prospects for service sector employment growth in nonmetro America. In *Rural economic development in the 1980s: Preparing for the future*. Washington, DC: USDA, Economic Research Service, Staff Report #AGES870724.
- Nelson, L. (1955). *Rural sociology* (2nd Ed.). New York: American Book Company.
- Noyelle, T.J. (1986). Economic transformation. *The Annals. AAPSS*, 488(Nov.), 9-17.
- Paarlberg, D. (1980). *Farm and food policy: Issues of the 1980s*. Lincoln: University of Nebraska Press.
- Pilisuk, M., & Parks, S.H. (1983). Social support and family stress. *Marriage and Family Review*, 6, 137-156.
- Ramsey, C.N., Jr., Troy, D.A., & Baker, L.C. (1986). The relationship between family functioning, life events, family structure, and the outcome of pregnancy. *The Journal of Family Practice*, 22, 521-527.
- Ross, C.E., Mirowsky, J., & Goldsteen, K. (1992). The impact of the family on health: The decade in review. In A. Booth (Ed.), *Contemporary families: Looking forward, looking backward* (pp. 341-360). Minneapolis: National Council on Family Relations.
- Sapiro, V. (1994). *Women in American society* (3rd Ed.). Mountain View, CA: Mayfield Publishing Co.
- Scanzoni, J., & Marsiglio, W. (1993). New action theory and contemporary families. *Journal of Family Issues*, 14, 105-132.
- Shulman, S. (1990). The causes of black poverty: Evidence and interpretation. *Journal of Economic Issues*, 24, 995-1016.

- Smith, S.M. (1993). Service industries in the rural economy: The role and potential contributions. In Barkley (Ed.), *Economic adaptation: Alternatives for nonmetropolitan areas* (pp. 105-127). Boulder, CO: Westview Press.
- Starrels, M.E., Bould, S., & Nicholas, L.J. (1994). The feminization of poverty in the United States: Gender, race, ethnicity, and family factors. *Journal of Family Issues, 15*, 590-608.
- Stier, J.C. (1980). Estimating the production technology in the U.S. forest products industries. *Forest Science, 26*(3), 471-482.
- Williams, D.R., Lavizzo-Mourey, R., & Warren, R. C. (1994). The concept of race and health status in America. *Public Health Reports, 109*, 26-41.
- Wilson, W.J. (1987). *The truly disadvantaged*. Chicago: University of Chicago Press.
- Wilson, W.J., & Neckerman, K. (1986). Poverty and family structure: The widening gap between evidence and public policy issues. In S. Danziger and D. Weinberg (Eds.), *Fighting poverty* (pp. 232-282). Cambridge, MA: Harvard University Press.
- Wu, L.L., & Martinson, B.C. (1993). Family structure and the risk of a premarital birth. *American Sociological Review, 58*, 210-232.