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# Microdynamics of Debt, Drought, and Default in South Georgia

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Georgia -- Agriculture



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The literature on the changing structure of U.S. agriculture stresses an emerging polarization between numerous small, mostly part-time farms and small numbers of large commercial farms (Breimyer; Carter and Johnston; Tweeten and Huffman; USDA 1979, 1981). Around the country, serious farm losses and headline-catching foreclosures have resulted from a financial squeeze caused by depressed commodity prices, high interest rates, and high input, machinery, and energy costs (Cochrane; Molnar; Schertz). Several researchers have predicted that as land concentration continues, farm sizes will continue to increase, and farming will become more stratified as owner-managers supervise increasing numbers of hired laborers (Buttel; Cochrane; Goss, Rodefeld and Buttel; Heffernan). These larger, more capitalized farms are predicted to be more able to take advantage of sophisticated, productivity-enhancing technology and to have a competitive advantage during this commodity slump (Vogeler; Wessel). Thus, the cost-price squeeze is linked to the polarization of farm size, an increase in the use of hired labor, and the demise of the moderate-sized full-time family farm.

Georgia is well suited to the study of these issues. Aggregate farm income in Georgia in 1982 was equal in real dollars to farm income in 1930. Exacerbating the national economic slump, repeated severe droughts have hit Georgia farmers over the last seven years and contributed to the highest farm loan delinquency rate in the country. Several bankers in central-south Georgia, the state's primary agricultural region, predict that 40% of the current farms will be forced out before conditions improve.

To understand the structure effects of the drought and cost-price squeeze, an in-depth study of one Georgia county was carried out in 1982 and 1983. The results indicate that the family farm is clearly not yet moribund, and the ostensible "disappearing middle" is doing remarkably well. Patterns of debt and default show that highly-sophisticated large commercial farmers and

young, relatively new "renter" farmers face the most serious financial problems. Strategies for survival during this period also reflect the importance of accurate categorization of farm types.

Many of the analyses of the changing structure of U.S. agriculture are based on highly aggregated data. Single-variable categorizations of farms, by size, income, or gross sales are often used, and the beleaguered medium-sized family farm is often referred to as the $40,000-$100,000 gross sales category (Breimyer; Day; Tweeten 1981). The data from Dodge County, Georgia, show that this sales category is an extremely heterogeneous group that includes many different kinds of farms in addition to small-to-medium sized family farms. In the group are farms from 250 acres to over 1000, farms dedicated to either or both rowcrop and livestock production, or to timber. Some of these farms are operated by young families with small children, but others are families with grown children or older couples nearing retirement. Some are partnerships, both father-son and brother-brother types, and others are part-time farms, in which the operator has a full-time off-farm job. Farmers range in age from 26 to 67 years and from 4 years of education to 19. The group includes younger farmers in severe financial straits and comfortably-off older farmers with few debts. The only type of farmer in the county that is not represented in this group is the older couple past retirement. In sum, the use of a gross sales category to identify a coherent group of disappearing farmers is inadequate and misleading. A more detailed and qualitative categorization is necessary to clarify the types of farmers in the county and the outlook for their survival through this difficult period.

## Farm Types -- Part-time and Retirement Farms

This intensive study of one south Georgia county was designed to combine anthropological, economic, and sociological methods to test some of the

the conclusions from large-scale surveys and census figures.[1] Dodge County was chosen with the advice of experts at the University of Georgia College of Agriculture, the cooperative extension service regional headquarters at Tifton, and local county extension agents. Dodge County is typical of the Coastal Plain, Georgia's primary agricultural and region, and includes a range of farm sizes and levels of technological sophistication. The primary crops are corn, soybeans, wheat, peanuts, cotton, and tobacco; cattle and hogs are commonly included in farming operations. No evidence has been found to suggest that the results of this study are unique to Dodge County. The data presented here are drawn from a 1982 in-depth survey and open-ended interviews administered by the author and three assistants to a random sample of half the active farmers in the county.[2]

Using a multivariate approach based on analysis of the data and familiarity with individual cases, the farmers of Dodge County can be divided into three farm types: retired/disabled farmers, part-time farmers, and full-time farmers. These groups are shown in Table 1 to be distinct in size, off-farm employment, and financial situation. Since the full-time farmers produce the majority of the crops and livestock sold in the county and control the majority of the land, they will be the main focus of the discussion below. A few points will serve to clarify the situation of the part-time and retired/disabled groups.

--Table 1 About Here--

Retired/disabled farms tend to be the smallest in area, with a median size of 102 acres operated. Most of these farm operators are over 65, retired, and receive social security. Some cases of younger farmers with disabling health problems that interfere with full-time farming have been placed in this category as well. Though this group has a median of only 50 acres in crops and pasture, two-thirds plant several of the major rowcrops

and raise cattle and hogs as well (the remaining third concentrates exclusively on livestock production). Their median gross sales for 1982 is under $5,000.

Though these operations are small in size and sales, the farms provide an important contribution to the family welfare of this one-fifth of the sample. Many of these families would have difficulty surviving on social security without the food and income from the farm. The farm work is also cited by many as important for maintaining health. Though most of the operators in this group have reached retirement age, over a third of the families have at least one wage earner to provide additional income.

As a group, the retired/disabled farmers are in the least threatened economic situation in the current crisis. Sixty five percent operate without any borrowed money, and only 12% find their assets threatened by debts which equal or exceed 75%. Most farmers in this group have completed land and equipment purchases and are thereby better able to withstand the recent sequence of low-profit or no-profit years.

Part-time farms are defined as those operations in which the operator (male or female) is under 65 and has either a full-time off-farm job or a part-time job that seriously reduces the amount of time available for farming and that provides an average of $75 a week income. The vast majority of the operators work 40 hours a week off the farm, and in 52% of the cases, the wife also has off-farm employment. Part-time farmers in Dodge County are not displaced full-time farmers; most never intended to farm full-time but prefer the combination of a steady salary and farm work on evenings and weekends. Some call themselves "hobby farmers," while a few manage several hundred acres with hired hands to do the labor. Their jobs range from blue collar factory

work to professional occupations, and their mean family income is over $24,000.

This type of farm is the largest group in the county--37%--and operates 22% of the farm acreage. The median farm size is 131 acres, slightly larger than the retirement farms, but the median acreage in crops and pasture is 57 acres, almost identical to the previous group. The median gross sales for part-time farmers falls in the $10,000-$19,999 category. Between a fifth and a fourth of part-time farmers have no farm debts, while an equal number find their financial situation "serious" or "critical," with debts $\geq$ 75% of assets. The security of salaries make many of these families less vulnerable than full-time farmers, but the risk of losing long-term investments in the farm creates considerable concern in a number of cases. Because of their numbers, part-time farmers are an important component of the health of the county farm economy. Their machinery and input purchases are substantial, and data suggest they may provide the critical mass to sustain implement dealers and other local suppliers.

In sum, part-time and retired/disabled farmers together have suffered losses of savings and income from the drought and poor prices, but few are faced with imminent bankruptcy or foreclosure. This conclusion is significant because these two groups make up 58% of farmers in the county. They are not a marginal group, either; they control 30% of the farmland in the county, show substantial enterprise diversity of rowcrops and livestock, and even the retirement farms cannot be characterized as "just pasture and a few cows." These farms rely heavily on off-farm income: 38% of the retired/disabled group and all of the part-time group have at least one jobholder per household. Many farms also receive social security, pensions, or investment income. Farming activities are thus only one part of complex family strategies for economic survival and improvement.

Farm Types -- Full-time Farms

Full-time farms are defined as operations in which the primary operator is full-time on the farm, regardless of whether the farm is supplemented by off-farm employment. The common distinction between farms in which the wife has a job and those in which the farm is the sole support of the ~~farm~~ family (Frauendorfer; Fuller; Kada) was found to be arbitrary in Dodge County and did not separate distinct types of farming operations. Full-time farms make up slightly less than half of the farmers in the county, but, as would be expected, they control disproportionate amounts of farmland (70% of the county total) and market over 80% of the total gross sales. Full-time farms vary considerably in scale, and many of the largest and moxt sophisticated farmers are partnerships between fathers and sons or brothers. No corporations or large absentee-owned estates appeared in the sample. The median acres operated for this group is 698 (with 338 acres in crops and pasture), over five times the size of part-time or retirement farms. Most households have some off-farm income--in 49% of the sample, the wife has either a part-time or full-time job, and in 20%, the farm operator does seasonal or part-time work such as lumbering or crop dusting. In many of these cases, the wife's job "provides the living" for the family, while the farm struggles to keep up with its own expenses. Median gross sales are $40,000-$99,999.

Full-time farmers are in the most serious financial situation of the three groups discussed. Operating larger farms with larger overhead, some of them young and just establishing their enterprises, ~~37%~~ 38% are in serious or critical condition with debts equalling or exceeding 75% of assets. Many of these farmers are delinquent in loan repayments, and as will be discussed

below, all of the recent bankruptcies are from this full-time farmers group.

Strategies to Survive the Crisis

Each of these groups follows a somewhat different combination of strategies for coping with the drought and poor price conditions of the last five years. Table 2 shows four different types of strategies: changing farm size, changing hired labor input, adding off-farm income, and adding irrigation facilities, which correspond to each of the four factors of production: land, labor, capital, and technology. The strategy of increasing farm size is usually accomplished through land rentals, and seeks to "double up to catch up." This strategy was supported by lending agencies which needed to justify continuing levels of support. The expansion strategy also followed weather history, since farmers had never seen a severe drought more than one year at a time. Retired farmers were least interested in expansion, while a third of the part-time and 42% of the full-time farmers sought this strategy to overcome the losses of the disaster years. The alternative strategy of cutting costs and scale of operation is designed to reduce both annual expenses and losses, should the drought and price slump continue. As the figures show, some cases in all groups followed this conservative strategy, but full-time farmers were least likely, and retired farmers most likely, to do so. Adjustments to labor inputs over the crisis years show few farms interested in increasing hired labor, in spite of the predominance of the expansion strategy. The three groups show a similar pattern of reducing hired labor, usually as a way to cut costs. Some of this decrease is attributable to larger machinery and reductions in labor-intensive crops or techniques, but it also reflects in many cases an increasing level of "self-exploitation" of the farm operator (Chayanov).

--Table 2 About Here--

A third area of response to the difficult times is to increase off-farm employment. While only 12% of the retired farmers followed this strategy, 28% of the part-time farmers, 29% of the full-time farmers added off-farm jobs during the last five years. The contribution of off-farm jobs to the family farm is crucial and increasing; few farms can survive such a period of extended drought and unfavorable prices without some such income subsidy. Though there have been a number of technological changes in recent years, the strategy of greatest significance is the use of irrigation. Almost half of the full-time farmers now use some kind of irrigation system, and most of this equipment was purchased since the drought began. With a cost range from a few thousand dollars to over $100,000, these investments have proved to be a lifesaver for some farms, but are seen by others as a major contributor to their critical financial situation. Retired and part-time farmers, with their smaller acreages, are understandably reluctant to add such expensive facilities, though a few cases in each category have done so. As with most technological innovations, early adopters of irrigation seem to be reaping considerable benefit, as their neighbors' crops burn up in the fields. But the increased cost per acre plus the burden of debt retirement both sharply increase the risk of farming in such precarious times. With high electricity costs and unknown ecological consequences, the final assessment of the utility of irrigation in this area remains to be seen.

Some authors have predicted that large farms will continue to grow during this bad period, buying out less fortunate, smaller farms. In Dodge County, however, land purchases (except by timber companies) are virtually at a standstill. Even large farmers with few debts say they are not in a position to expand the farm, and increases in acreage operated have come through rentals, not purchases. There is no evidence that large farmers have a competitive edge over other types in obtaining farm rentals at this time.

Further, many of the largest farmers have expressed a preference to cut back, citing the increased efficiency and productivity of supervising a smaller operation more closely. The patterns indicated above show that the tendency to increase the hired labor force on these large farms has also slowed, as workers are let go and farm operators make do with less or no hired help. Thus, the strategies being pursued at this point in Dodge County show a slowing of the trend toward a dual structure of farms.

Outlook for Survival and the Situation of the Family Farm

The high debt loads faced by full-time farmers, as opposed to part-time or retired/disabled farmers are reflected in bankruptcies and foreclosures. Efforts were made during the period of this research to interview all farmers in the county who had gone bankrupt or had been foreclosed by lending institutions. These farmers fell into two distinct groups. The vast majority were operators who had only recently begun full-time farming and had been hit by the crisis years before they had had a chance to establish themselves. A smaller second group of such operators had larger, more capital-intensive operations that used full-time hired labor. This distinction in farm organizational structure is essential for an accurate understanding of the dynamics reflected in the financial distress of the 37% of full-time farmers shown in Table 1. Rodefeld's method of categorizing farms uses a structural approach, and once it was modified to fit the county situation, it proved very useful in separating three distinct groups of full-time farmers, groups for which there are very different outlooks for survival at this time.

The Rodefeld method divides farms into four structural types, according to whether 50% or more of the land is owned and whether 50% or more of the labor is hired. These two criteria create four categories in which farms

using mostly family labor are broken into two types -- "family-type farms" in which the land is mostly owned and "tenant-type farms" where land is mostly leased or rented. This distinction forms two useful groups in Dodge County and are relabelled "family farms" and "renters"[3]. Farms using as much or more hired labor than family labor are also broken into two Rodefeld types -- the "larger-than-family farms" in which land is mostly owned and the "industrial-type farms" in which land is mostly rented. Rodefeld's distinction between these two types is not meaningful in the county; the scale and activity of farms fulfilling the "industrial-type" criteria are very similar to "larger than family farms," and in all of these cases, the land being rented is family land that the operator can use with considerable security. Thus, the functional distinction between ownership and rental is blurred, and these two categories are merged here to form a new category, "large scale farms," defined as using 50% or more hired labor.

--Table 3 About Here--

These three Rodefeld categories reveal striking and statistically significant differences among the full-time farmers in scale of production, farming experience, and financial situation. Family farms are the largest group (46%), and their gross sales make up 36% of the total for full-time farms. With a median farm size of 340 acres, they are mostly older farmers who have been farming a median of 30 years, and the majority have debts that are 25% of assets or less. Only 13% are in serious or critical financial condition with debts equal to or exceeding 75% of assets. These family farmers have been generally conservative over the last decade. They are less likely to have expanded their farms rapidly with borrowed money. Fewer of them have bought the largest new tractors and combines, and only one-third have invested in irrigation systems. Their less expansive strategy

has not protected them from significant losses during these bad years, but their financial troubles are unlikely to threaten the continued viability of the farm.

The renters group, on the other hand, faces serious problems; 71% are facing high debt-to-asset ratios. Comprising one-third of the full-time farmers, and contributing one-third of the total full-time gross sales, these operators are young, operate mostly rented land, and have been in farming a median of only seven years. Though most of them find land rentals to be economically more favorable than purchases, many of them are trying to keep up with some land payments and make equipment payments as well. Almost half have irrigation. This group is made up of younger versions of the family farm group--operators who have not yet bought enough land and built up their equity to put them into that more fortunate category.

The third group, large scale farmers, is the smallest of the three, but operates the largest farms, with a median of 1042 acres in operation. They produce 31% of the gross sales of full-time farmers, and include a range of ages, with a mean of 25 years of farming experience. Large scale farmers are technologically sophisticated, grow large acreages of high-cost crops, and nearly all have irrigation. Almost half of them face financial troubles, a figure which reveals the risk involved with the expansive, capital-intensive strategies they have followed.

## Conclusions

This in-depth study of half the farms in one county reveals that questions about the survival of the family farm and the "disappearing middle" must be answered with a fine-grained analysis of farm scale, management style, and financial situation. Qualitative and quantitative indicators show that there are three distinct types of farms: full-time,

part-time, and retirement farms. These groups have followed different strategies for coping with successvie drought years and adverse economic conditions, and the data show the part-time and retirement farmers to be in much less danger of losing the family farm than are full-time farmers.

A division of the full-time farmers into three structural types (family farms, renters, and large scale farms) reveals that the heavy debt load in this group is carried disproportionately by the last two structural types. All of the recent bankruptcies in the county are found in these two groups. Large scale farms, using hired labor on large acreages, are more likely to face severe financial difficulties than the smaller, more conservative family farms who own half or more of their land and supply most of their own labor. Evidence from land sales and reductions in hired labor suggest that the polarization of farm types has slowed during this economic slump.

The youngest renters group, however, faces the most critical situation of the three full-time farming groups, with 71% reporting crippling debt loads. The data suggest that the family farms established and developed prior to the energy crisis and the cost-price squeeze of the last decade have been able to sustain their operations with fewer losses and less credit through this drought period. The younger farmers are more vulnerable and provide support for those researchers who are concerned about the ability of the family farm to reproduce itself (Carter and Johnston; Goss, Rodefeld, and Buttel; Tweeten and Huffman). The situation for the renters is cause for concern, but it is also important to note that a few of the operators in the family farm category are under 40, have inherited or purchased land successfully, and are farming without high debt levels at present. Especially by forming partnerships, other younger farmers have found ways of entry into agriculture without debts that threaten the farm's survival.

Some agricultural experts have predicted that the current crisis will serve to weed out the inefficient operators and that only the best managers will survive. Though skill and hard work are crucial, operators who have inherited substantial property or who began farming in time to pay off their land and accumulate considerable savings are able to withstand extended drought years that will bankrupt equally hard-working or efficient farmers. Thus, family and farm lifecycle considerations are important variables in understanding current processes of farm survival.

The data presented here show the family farm to be a surprisingly robust segment of the current farm economy. Farming units where land ownership, labor, and management are combined are the least vulnerable to high debt loads of the three groups of full-time farmers. Though smaller in scale than the large-scale farms, they nevertheless comprise the backbone of the agricultural production in the county. The smaller part-time and retirement farms are also in relatively good condition, suggesting that the current crisis places an advantage on the more conservative farming strategies they have followed. With land concentration at a standstill and the use of hired labor on the decline, this study seems to suggest that discussions of the demise of the family farm are premature, and the predominance of very large-scale farms in the Coastal Plain of Georgia is not yet established.

FOOTNOTES

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1) In selecting the site, counties with recent strong industrial growth were excluded, as were counties with large urban areas. Counties more heavily dependent on peanut and tobacco programs were also excluded because the goal of the research was to study the effects of the drought and the unfavorable economic situation on all kinds of farmers, and heavy participation in these two crops creates a somewhat more favorable economic situation.

2) An active farmer was defined as cultivating ten or more acres of land from which either crops or livestock was sold in the preceding year. The sample was drawn from the ASCS list of farm operators in the county, from which timber companies, farmers not residing in the county, and farm owners who were not currently operating their farms were excluded. Even-numbered farmers from the resulting list were contacted and 94% were interviewed. In a few cases, legally separate farms were operated jointly, and these partnerships were combined into the final 50% sample of 124 farms. In addition to the in-depth survey, follow-up interviews, a short mailed questionnaire, and telephone interviews continued for a total of nine months in 1982 and 1983, during which the author was in residence in the county. Interviews were also conducted with agricultural officials, lending agencies, farm suppliers, and county officials.

The term "farmer" is used here to describe the primary farm operator, either male or female. The sample includes no married women who consider themselves and not their husbands to be the primary operator; all women operators in the sample are not married. Therefore, reference will be made to "farm wives" and not "husbands and wives." This use of language is not intended to imply that all work and decision making is carried out only by the primary operator.

3) In Dodge County, Rodefeld's "family-type farms" are, in every case, actually family farms and have therefore been labelled as such. "Tenant" farms implies a specific form of non-ownership in the South; to avoid that connotation, these farmers are called "renters."

References

Breimyer, Harold F. "The Problems and the Issues." Can the Family Farm Survive? Special Report 219, Agricultural Experiment Station, University of Missouri-Columbia. 1978.

Buttel, Frederick H. "Beyond the Family Farm." Technology and Social Change in Rural Areas, ed. G.F. Summers, pp. 87-107. Boulder: Westview, 1983.

Carter, Harold O., and Warren E. Johnston. "Some Forces Affecting the Changing Structure, Organization, and Control of American Agriculture." American Journal of Agricultural Economics, vol. 60 (December 1978), 1978.

Chayanov, A.V. The Theory of Peasant Economy. D. Thorner, R.E.F. Smith, and B. Kerblay, eds. Homewood, IL: Irwin, Inc. 1966 (1925).

Cochrane, Willard W. The Development of American Agriculture: A Historical Analysis. Minneapolis: University of Minnesota Press, 1979.

Day, Lee M. "Research and the Family Farm: Implications for Agricultural Economics Research." American Journal of Agricultural Economics 63:(5) (1981), pp. 997-1004.

Frauendorfer, Sigmund. "Part-time Farming: A Review of World Literature." World Agricultural Economics/Rural Sociology Abstracts 8(1) (1966):v-xxxvii.

Fuller, Anthony M. "The Problems of Part-Time Farming Conceptualized." Part-Time Farming: Proceedings of the First Rural Geography Symposium, ed. Anthony Fuller and Julius Mage, pp. 38-56. Norwich, England: Geo Abstracts, Ltd, 1976.

Goss, Kevin F., Richard D. Rodefeld, and Frederick H. Buttel. "The Political Economy of Class Structure in U.S. Agriculture: A Theoretical Outline." The Rural Sociology of Advanced Societies, ed. F.H. Buttel and H. Newby, pp.83-132. Montclair, N.J.: Allanheld, Osmun, 1980.

Heffernan, William D. "Agricultural Structure and the Community." Can the Family Farm Survive? Special Report 219, Agricultural Experiment Station. University of Missouri-Columbia, 1978.

Kada, Ryohei, Part-Time Farming: Off-Farm Employment and Farm Adjustments in the United States and Japan. Tokyo: Center for Academic Publications Japan, 1980.

Molnar, Joseph J. Issues and Trends in Alabama Agriculture. Department of Agricultural Economics and Rural Sociology. Auburn University, 1981.

Rodefeld, Richard D. The Family-Type Farm and Structural Differentiation: Trends, Causes and Consequences of Change, Research Needs. Staff Paper 24, University Park: Pennsylvania State University, Department of Agricultural Economics and Rural Sociology, 1979.

Schertz, Lyle P. et al. Another Revolution in U.S. Farming? U.S.D.A. Agricultural Economic Report #441, 1979.

Tweeten, Luther. "Agriculture at a Crucial Evolutionary Crossroads." Research in Domestic and International Agribusiness Management 2 (1981), pp.1-15.

Tweeten, Luther, and Wallace Huffman. "Structural Change." Structure of Agriculture and Information Needs Regarding Small Farms. Paper VII of the Small Farms Project. Washington: National Rural Center, 1980.

Vogeler, Ingolf. The Myth of the Family Farm: Agribusiness Dominance of U.S. Agriculture. Boulder: Westview Press, 1981.

U.S. Department of Agriculture. Structure Issues of American Agriculture Economics, Statistics, and Cooperative Service. Washington, D.C.: Agricultural Economic Report 438. November, 1979.

_____. A Time to Choose: Summary Report on the Structure of Agriculture. Washington, D.C.: U.S. Government Printing Office, 1981.

Wessel, James. Trading the Future: Farm Exports and the Concentration of Economic Power in Our Food System. San Francisco: Institute for Food and Development Policy, 1983.

TABLE 1: CHARACTERISTICS OF FARM TYPES

| FARM TYPE | N | PERCENT OF TOTAL FARMS | PERCENT OF ACRES OPERATED | MEDIAN ACRES OPERATED a) | PERCENT WITH OFF-FARM JOBS b) | PERCENT WITH NO FARM DEBTS c) | DEBTS $\geq$ 75% OF ASSETS d) |
|---|---|---|---|---|---|---|---|
| RETIRED/DISABLED | 26 | 21% | 8% | 102 | 38% | 65% | 12% |
| PART-TIME | 46 | 37% | 22% | 131 | 100% | 22% | 22% |
| FULL-TIME | 52 | 42% | 70% | 698 | 62% | 4% | 38% |
| TOTALS | 124 | 100% | 100% | -- | -- | -- | -- |

a) Significant at the .0001 level using Kruskal-Wallace rank sum test

b) Test of significance is not appropriate since off-farm jobs are part of the definition of the farm types

c) Significant at the .0001 level using $\text{chi}^2$ test

d) Significant at the .05 level using $\text{chi}^2$ test

TABLE 2: FARMING STRATEGIES IN LAST FIVE YEARS BY TYPE OF FARM

| | INCREASE ACRES OPERATED | DECREASE ACRES OPERATED | INCREASE HIRED LABOR | DECREASE HIRED LABOR | INCREASE OFF-FARM JOBS | USE IRRIGATION |
|---|---|---|---|---|---|---|
| RETIRED/ DISABLED N=26 | 15% | 38% | 8% | 31% | 12% | 4% |
| PART-TIME N=46 | 33% | 30% | 9% | 33% | 28% | 17% |
| FULL-TIME N=52 | 42% | 23% | 15% | 35% | 29% | 46% |

TABLE 3: SIZE, AGE, AND FINANCIAL SITUATION OF FULL-TIME FARMERS, BY STRUCTURAL GROUPS

| | PERCENT OF FARMS | MEDIAN ACRES OPERATED a) | MEDIAN YEARS FARMING b) | PERCENT WITH DEBTS $\geq$ 75% OF ASSETS c) |
|---|---|---|---|---|
| FAMILY FARMS N=24 | 46% | 340 | 30 | 13% |
| RENTERS N=17 | 33% | 325 | 7 | 71% |
| LARGE SCALE FARMS N=11 | 21% | 1042 | 25 | 46% |
| | 100% | | | |

a) Significant at the .0001 level using Kruskal-Wallace rank sum test

b) Significant at the .001 level using Kruskal-Wallace rank rum test

c) Significant at the .001 level using $chi^2$ test