

## **ORGANIZATION AND STRUCTURE OF MISSISSIPPI DELTA COTTON FARMS IN 2002**

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### **Abstract**

Much has been written that suggests the structure of cotton farms is changing (Morehart et. al., Christensen, and Hoppe et. al.). The direction of the change has been toward larger and more efficient farms. The 1997 Census of Agriculture revealed 1700 cotton producers in Mississippi, 72 percent of which were located in the MS Delta. Overall characteristics of Mississippi farms as reported in the 1997 Census were 65 percent full ownership of farm land, 96% family/partner ownership of the farming operation, 3% corporate ownership, 6.8% of the farms contained 1000 acres or more. Planted acres of cotton in Mississippi Agricultural Statistics Service (MASS) districts 10 and 40 totaled 525,000 acres in 1997. The future of cotton production in the MS Delta depends on how farm structure adjusts as government policies, market prices and production costs change. In order to capture all the effects of policy, price and cost changes, a current description of MS Delta cotton farm structure is needed. A mail survey was conducted in the spring of 2002 of cotton producers in the MS Delta. A mailing list was obtained from county agricultural agents consisting of cotton producers in their respective counties. The counties included were Bolivar, Coahoma, Humphreys, Issaquena, Leflore, Quitman, Sharkey, Sunflower, Tunica, and Washington. These are often referred to as the ten all "Delta" counties and correspond to MASS reporting districts 10 and 40. The purpose of the survey was to solicit information regarding the structure of MS Delta cotton farms. Based on the information the respondents provided, cotton farm structure in the MS Delta appears to be changing. The trend is toward larger equipment, more acres per farm and more acres per piece of equipment. These larger farms utilize less labor than in the past, due possibly to larger equipment. Respondents to the survey appear to be younger than the general farm population. The most common farm sizes appear to be farms of 501-2500 acres followed by farms ranging from 2501-4500 acres.

### **Objectives**

The objectives of this study were 1) determine the current status of cotton farm structure in the MS Delta, 2) compare the changes in current farm structure to past farm structure, and 3) provide indications of trends in future cotton farm structure.

### **Methods**

A mail survey was conducted in the spring of 2002 of cotton producers in the MS Delta. A mailing list was obtained from county agricultural agents consisting of cotton producers in their respective counties. The counties included were Bolivar, Coahoma, Humphreys, Issaquena, Leflore, Quitman, Sharkey, Sunflower, Tunica, and Washington. These are often referred to as the ten all "Delta" counties and correspond to MASS reporting districts 10 and 40. A total of 988 survey questionnaires were mailed. A total of 186 useable questionnaires were returned. Additionally, 70 questionnaires were returned as no longer farming. Assuming the remaining non-responders were cotton producers, a useable response rate of 20% was obtained. The purpose of the survey was to solicit information regarding the structure of MS Delta cotton farms. A similar study (Cameron et. al.) was performed in 1977 and is used as a comparison. Additionally, results from the 1997 Census are presented for comparison and validation. There are important differences between the 2002 survey and the studies used for comparison. The 2002 survey consisted of all cotton producers in these 10 counties. The 1977 study surveyed all farms with at least 320 acres in these counties and the 1997 Census canvassed all farms in these districts. Thus, for comparison purposes, the 1977 study and the Census results are truncated to consider only cotton farms in the described 10 county area.

### **Results**

Results were presented in two segments. The first segment, which includes figures 1-9, compare the 2002 survey to the 1977 survey and the 1997 Census. The second segment, which includes figures 10-15, discusses the 2002 survey by farm size. Farm sizes included small farms (0-500 acres), two groups of medium sized farms (501-2500 and 2501-4500 acres) and large farms (4501+ acres).

## Conclusions

Cotton producers in MASS reporting districts 10 and 40 were surveyed in the spring of 2002. Based on the information the respondents provided, cotton farm structure in the MS Delta appears to be changing. The trend is toward larger equipment, more acres per farm and more acres per piece of equipment. These larger farms utilize less labor than in the past, due possibly to larger equipment. Respondents to the survey appear to be younger than the general farm population. The most common farm size appears to be medium sized farms of 501-2500 acres followed by medium sized farms ranging from 2501-4500 acres. The trend also appears to be toward a larger percentage of rented farmland rather than owned farmland. Crop distribution on these cotton farms suggests most plant more than 60% of their farms to cotton. Current farm policy as well as market conditions may influence crop selections in the future. Producers were asked in the survey to indicate their cotton planting intentions for 2002 compared to 2001. On all farm sizes, intended cotton planted acres in 2002 were reported to be lower than planted acres in 2001. The overall reduction was 14%. The biggest reduction was in farms ranging from 2501-4500 acres (25%).

## References

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Hoppe, Robert A., James Johnson, Janet E. Perry, Penni Korb, Judith E. Sommer, James T. Ryan, Robert C. Green, Ron Durst, and James Monke. "Structural and Financial Characteristics of U. S. Farms: 2001 Family Farm Report." Available at [www.ers.usda.gov/Publications/aib768/](http://www.ers.usda.gov/Publications/aib768/) accessed May 6, 2002.

Morehart, Mitch, Bob McElroy and James Johnson. "Farm Economy Outlook, January 2002." Economic Research Service. USDA. Washington, D.C.

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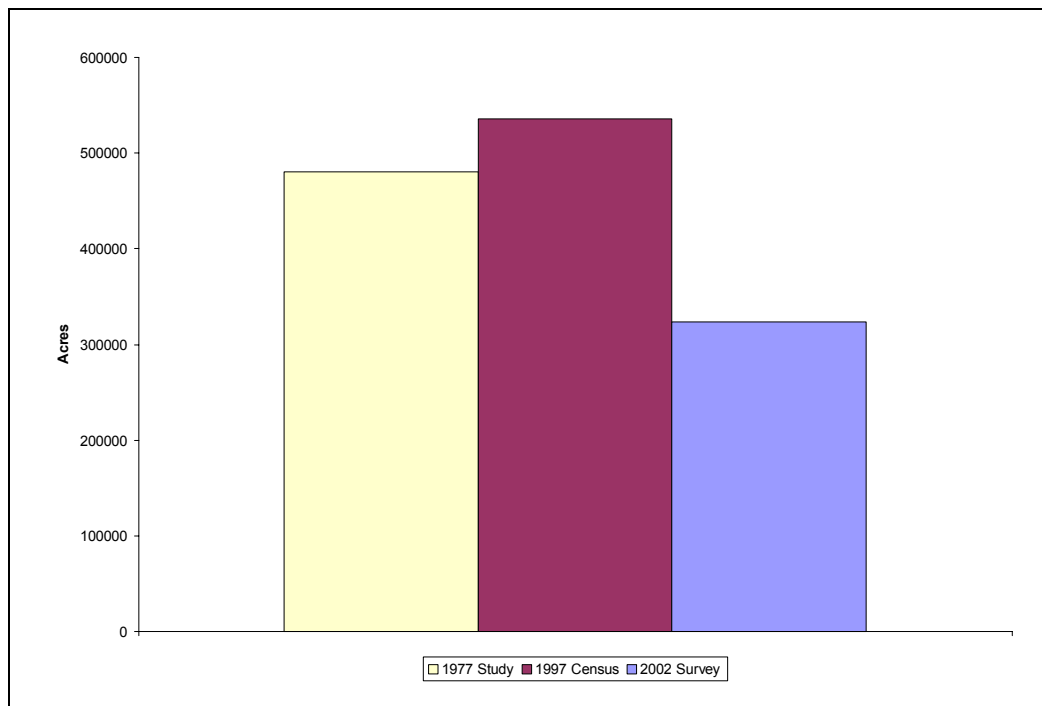


Figure 1. Total Cotton Acres, MASS Districts 10 and 40 per Study Year.

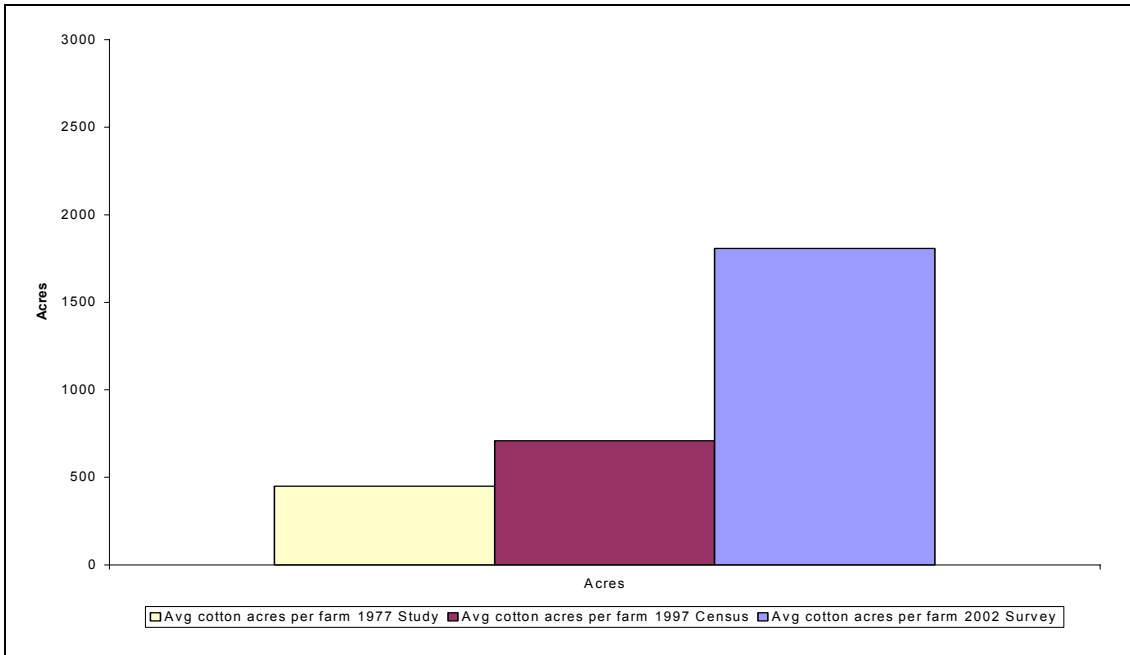


Figure 2. Average Cotton Acres per Farm.

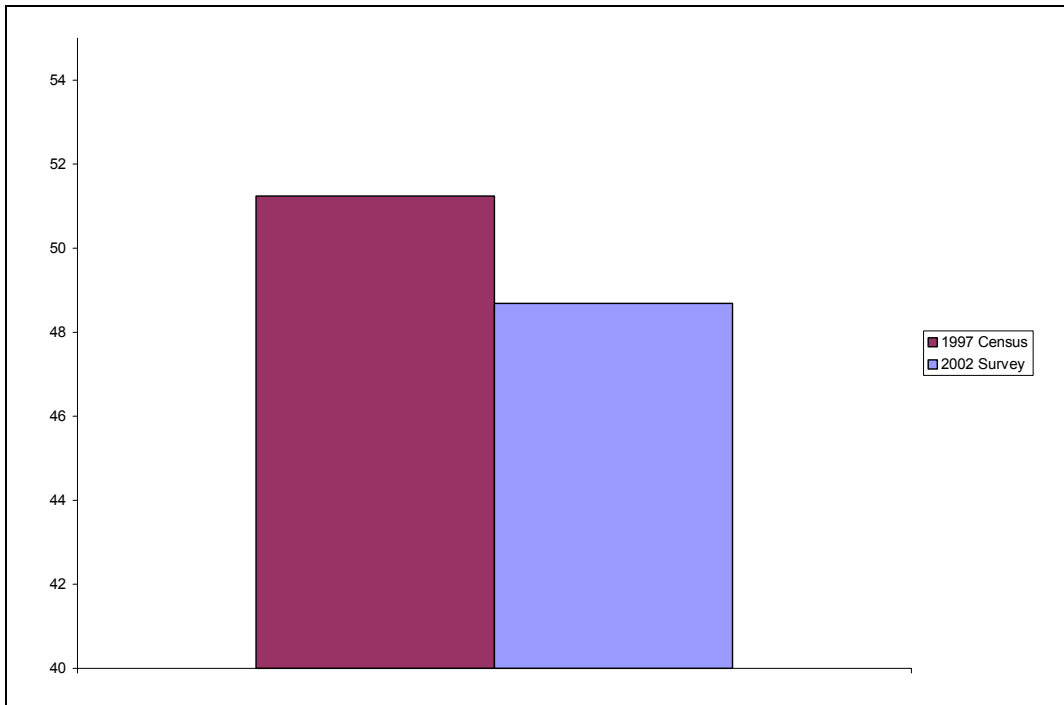


Figure 3. Average Age of Producers.

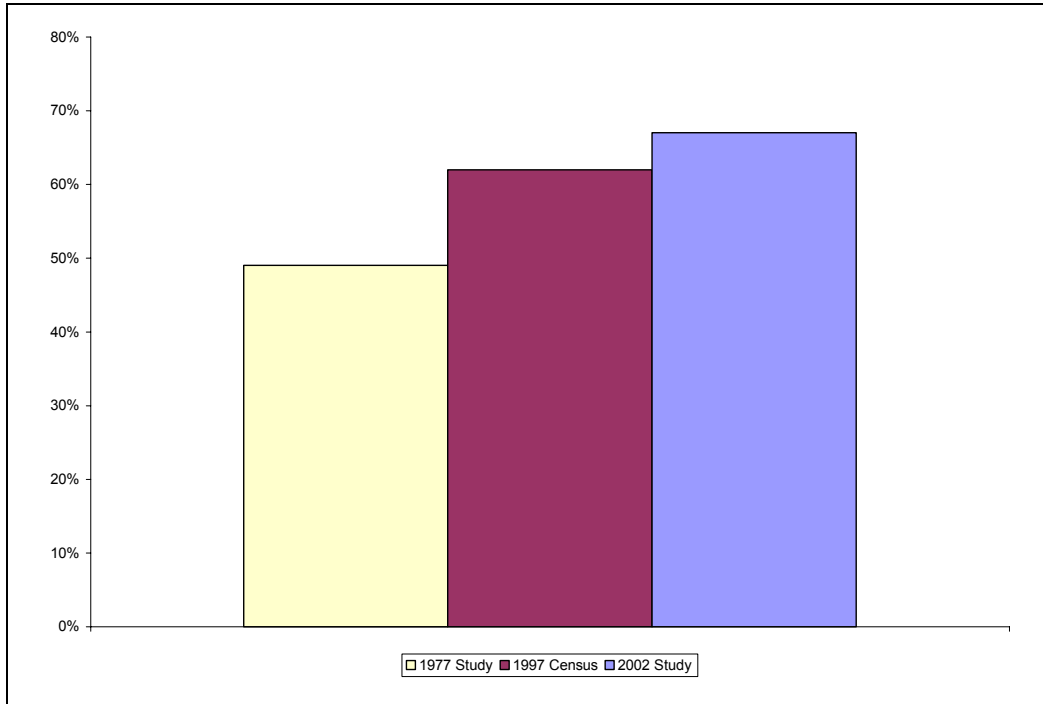


Figure 4. Rented Land as a Percentage of Total Land Farmed.

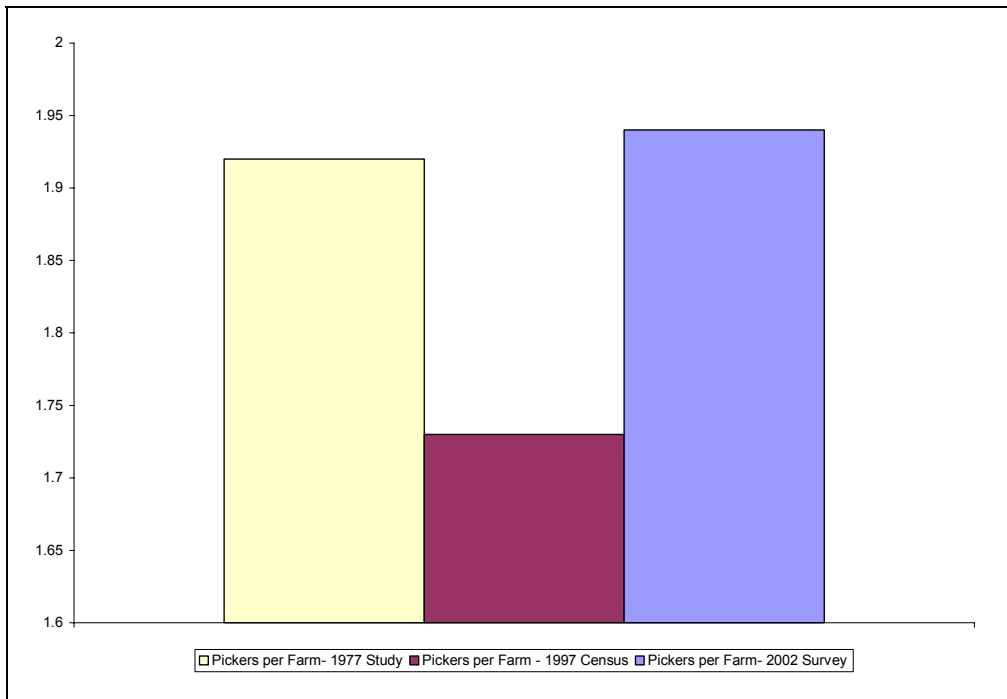


Figure 5. Average Number of Cotton Pickers per Cotton Farm.

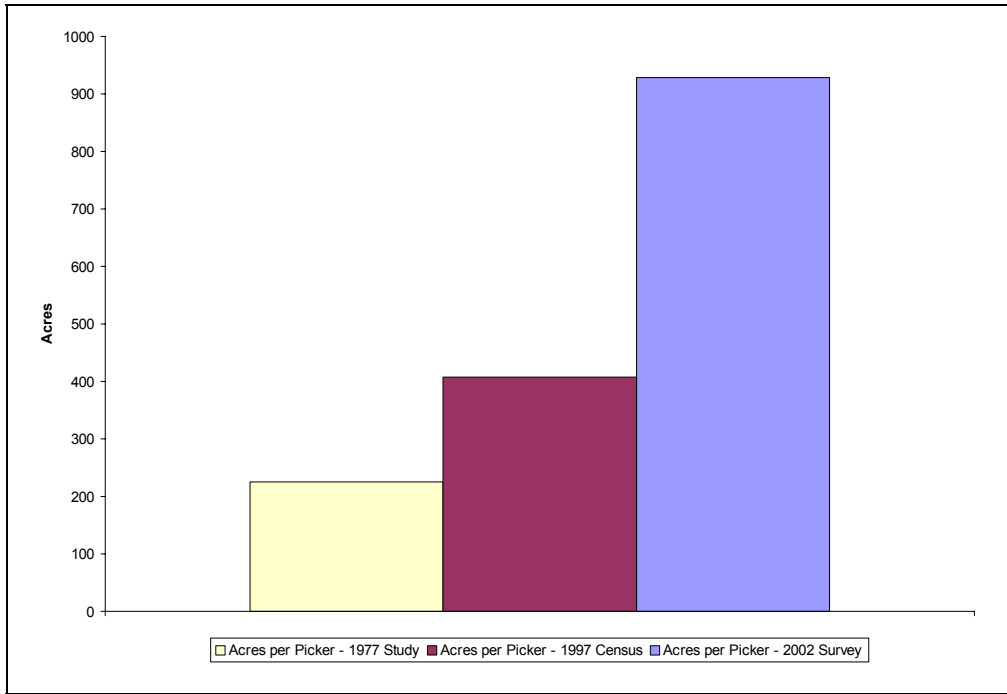


Figure 6. Average Number of Cotton Acres per Picker.

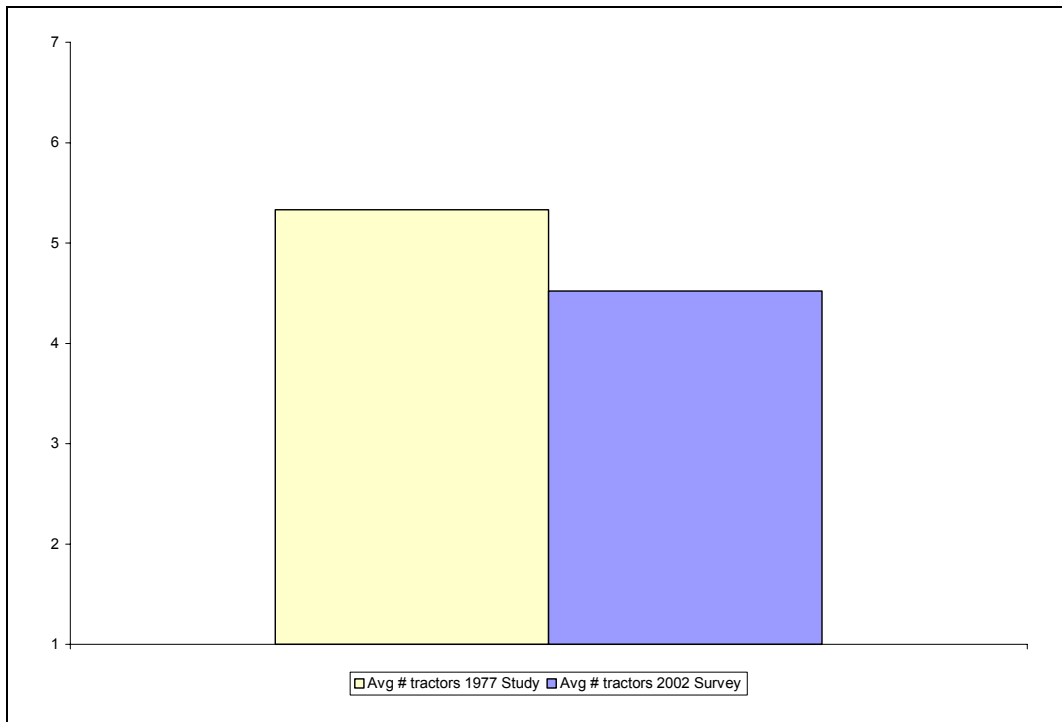


Figure 7. Average Number of Tractors per Cotton Farm.

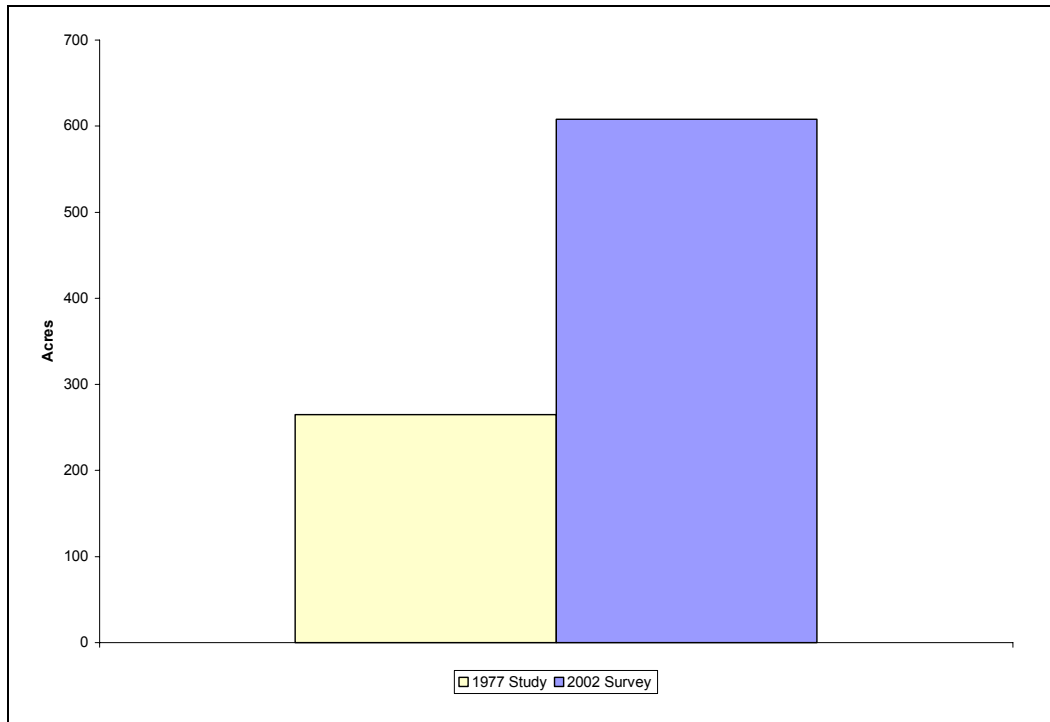


Figure 8. Average Cotton Acres per Tractor.

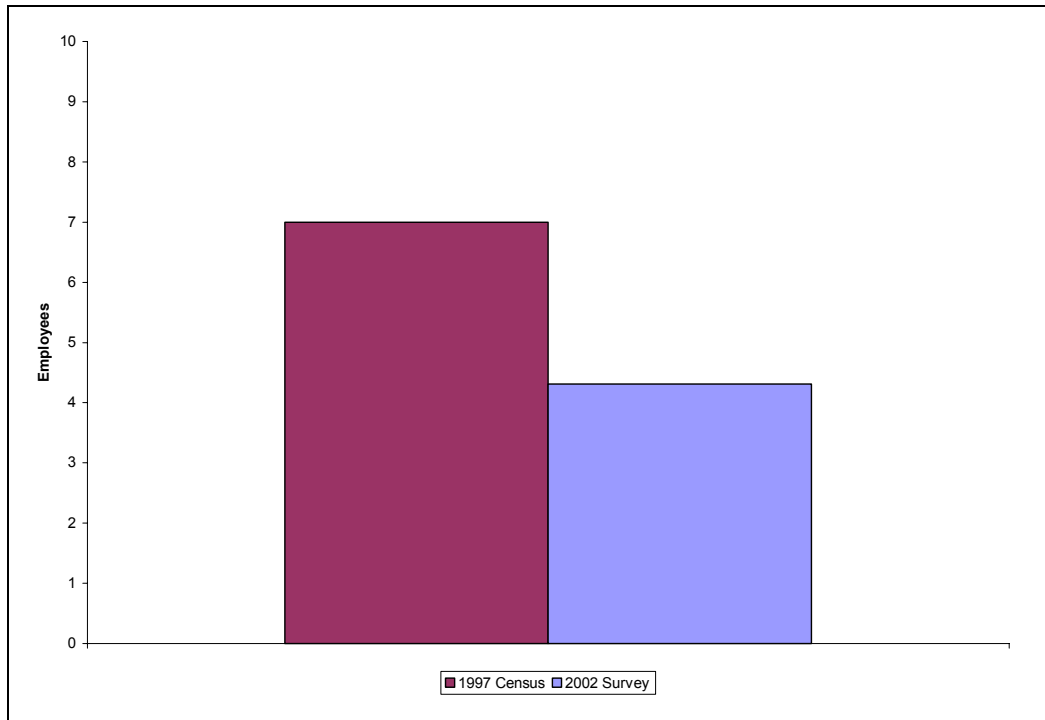


Figure 9. Full Time Employees per Cotton Farm.

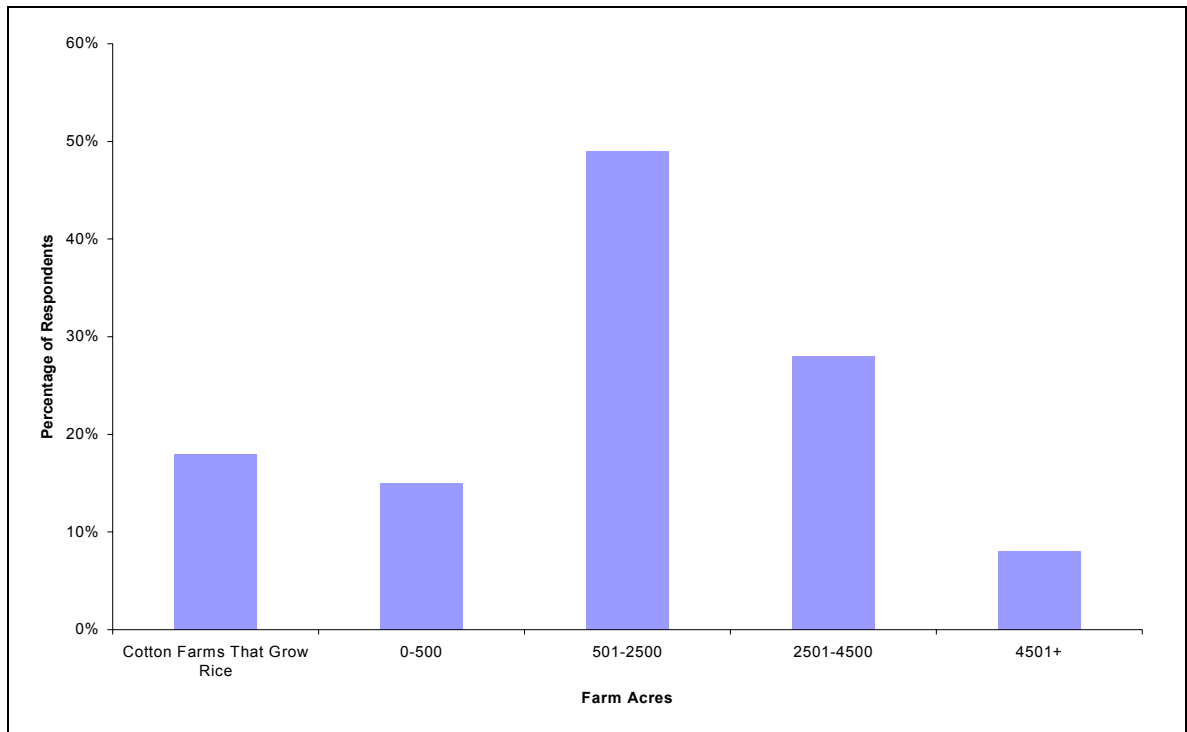


Figure 10. Cotton Farm Size Distribution, 2022 Survey.

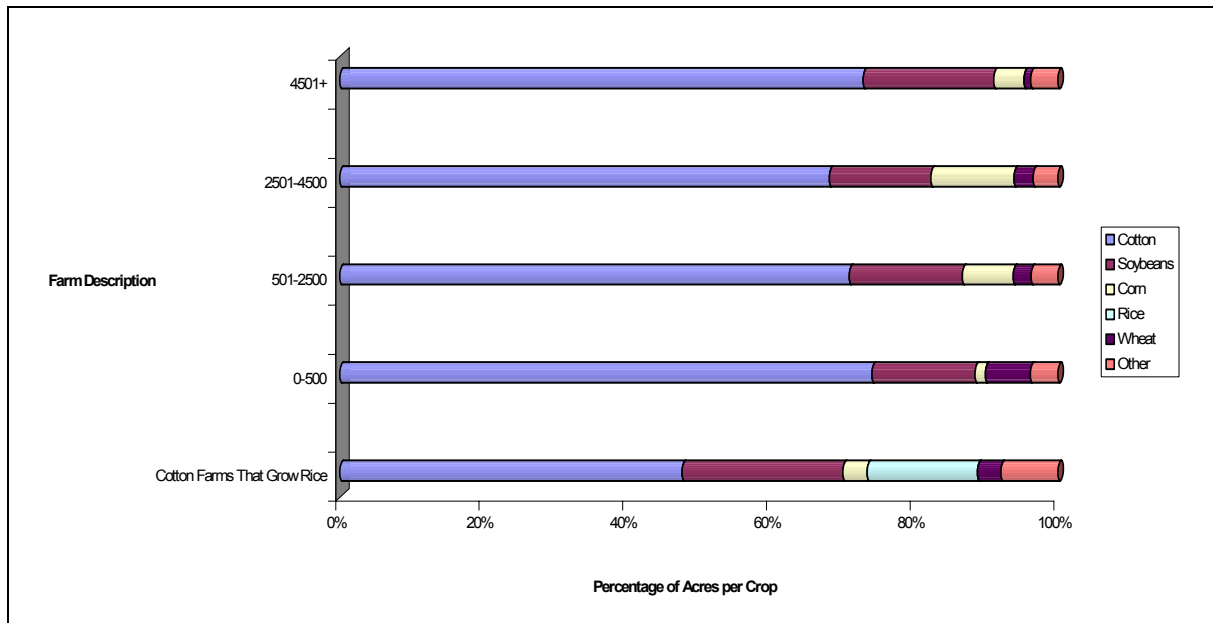


Figure 11. Crop Distribution Percentage of Respondents, 2022 Survey.

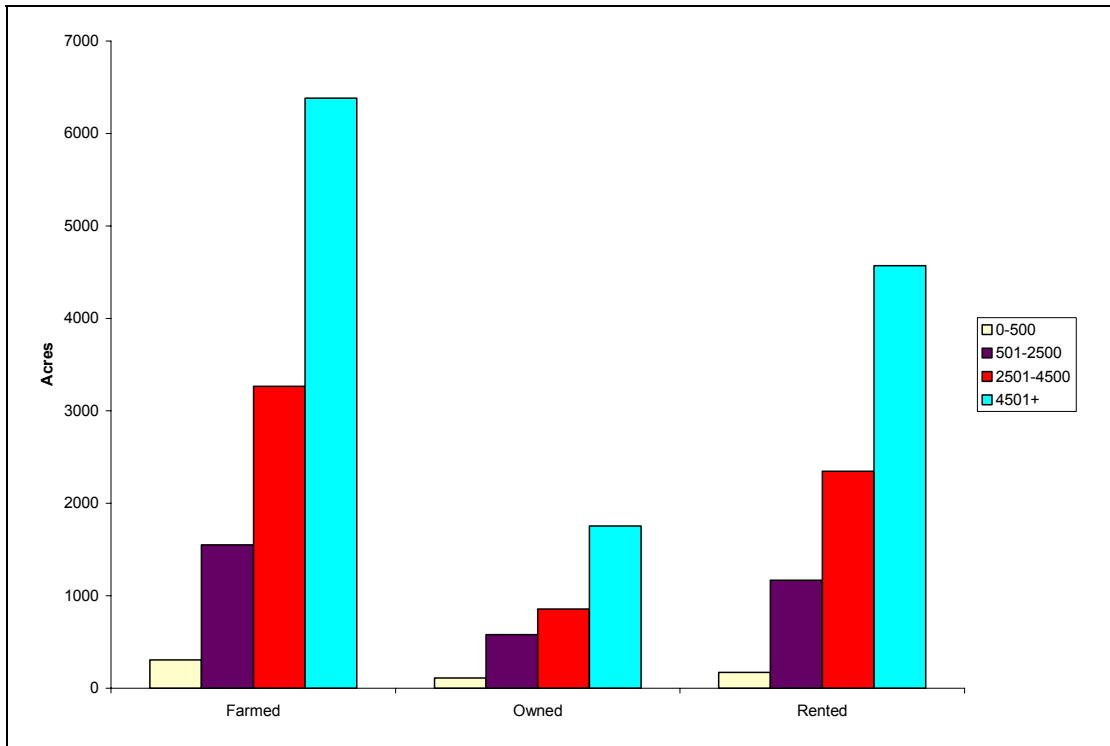


Figure 12. Farmed, Owned, and Rented Land by Farm Size, 2002 Survey.

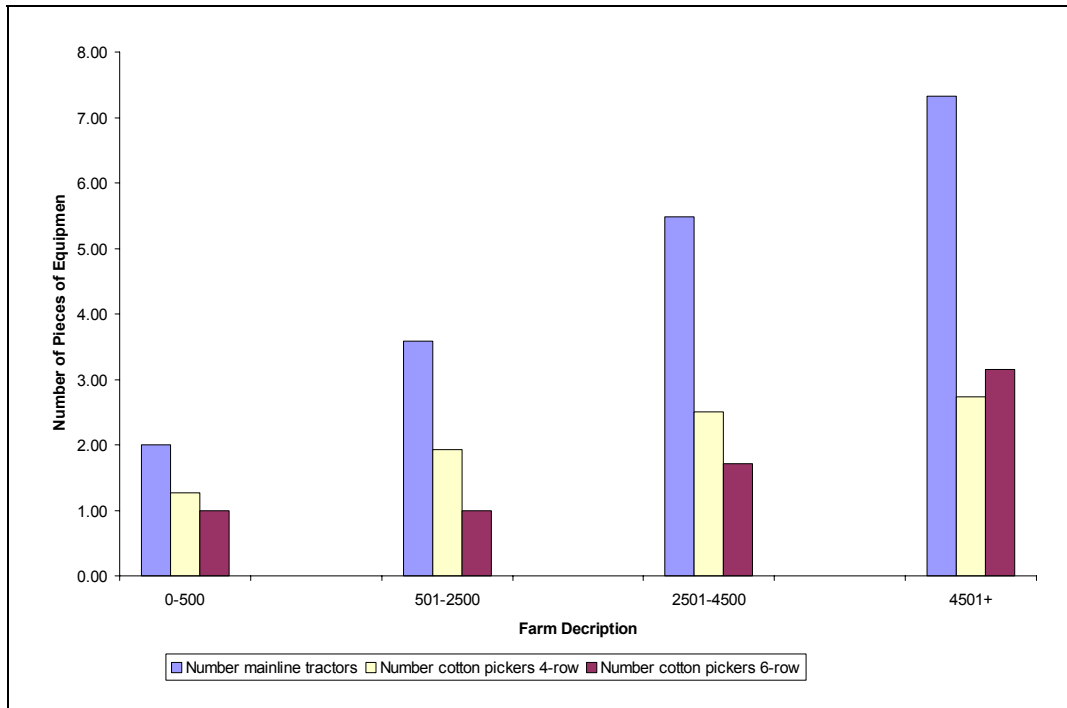


Figure 13. Selected Self Propelled Equipment by Equipment Size, 2002 Survey.



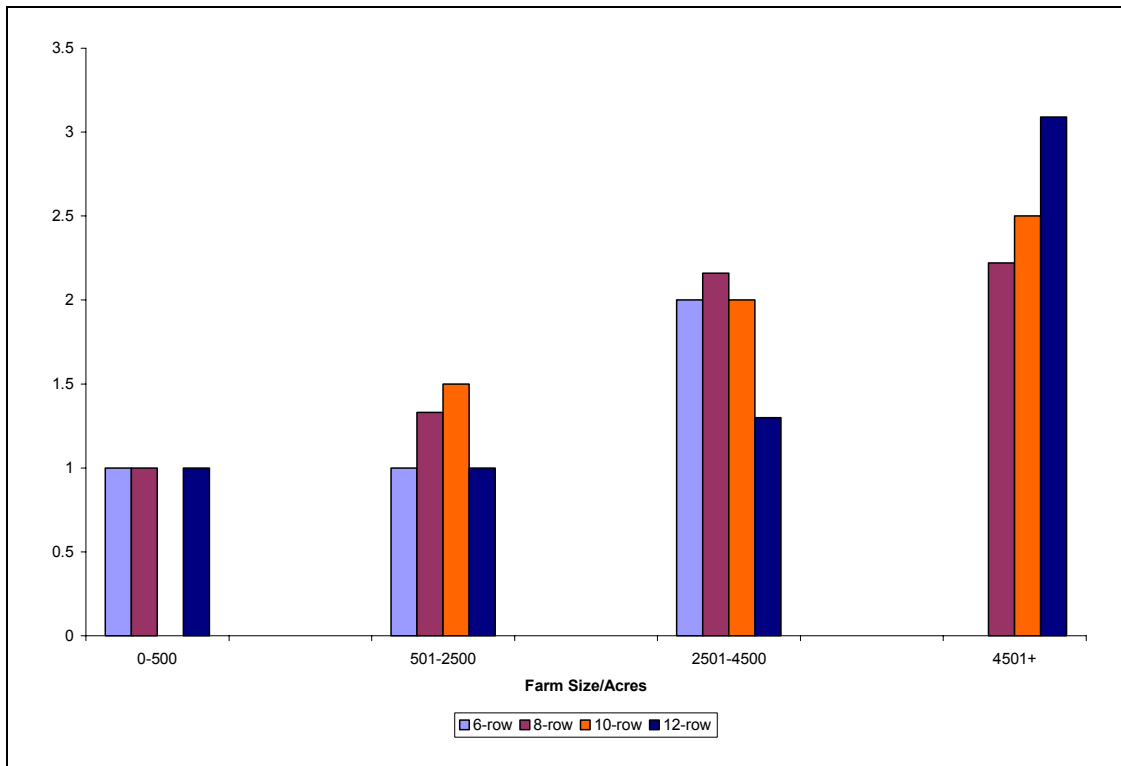


Figure 14. Average Number of Planters per Cotton Farm, 2002 Survey.

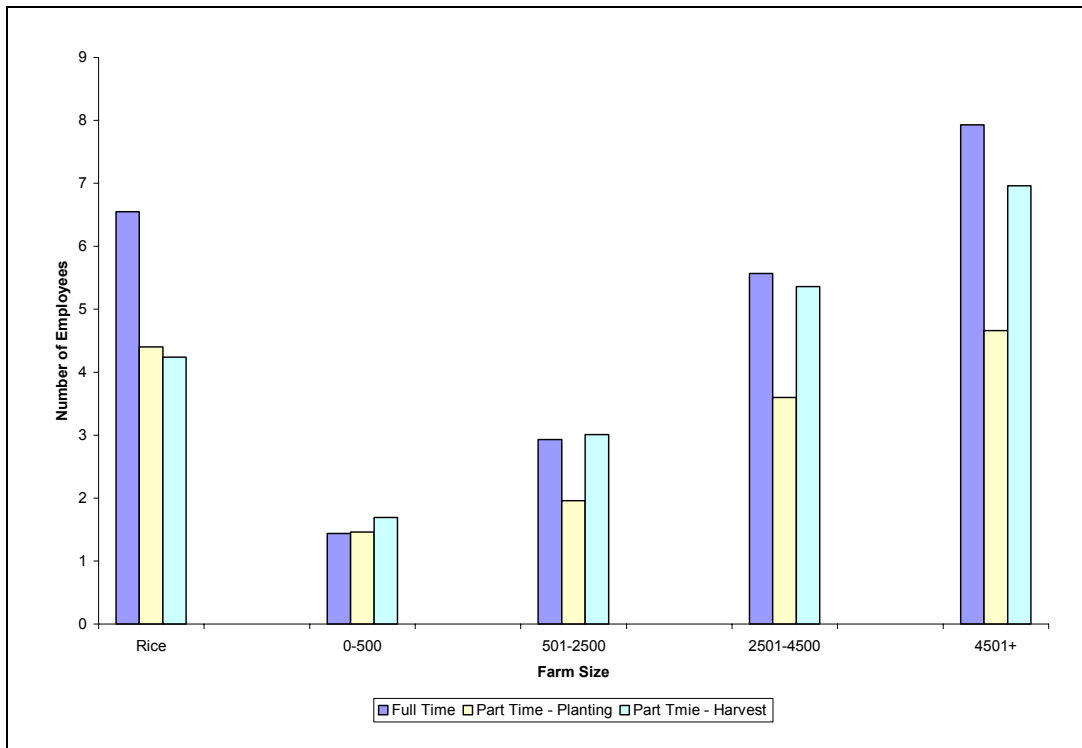


Figure 15. Full and Part-Time Labor by Farm Size, 2002 Survey.