Union Parish, Louisiana: The Third Phase of a Thirty Year Longitudinal Study

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Introduction

Prior to the middle of the 20th century, a flock of chickens could have been found on most diversified farms in this country. Probably no other farm commodity was raised on as many farms in as many regions as poultry. The chicken farmer was supported by literally thousands of competing small, often family-owned and operated hatcheries, feed mills and processors where chicks, feed and other supplies could be purchased and the birds could be sold (Heffernan 1984). Over the past five decades this dispersed system of production has been radically transformed through the conversion of these local producers, suppliers, processors and distributors into a few horizontally and vertically integrated agribusiness firms, commonly referred to as "integrating firms" or "integrators".

In 1950, 95 percent of all broiler producers in the United States operated independently. Over the following five years, firms in the broiler sector, especially feed producing firms, seeing a large market for their feed and great potential for growth, moved quickly into the major producing areas and vertically integrated into the production stage by establishing production contracts with growers. By 1955, independent producers were the minority with 88 percent of broilers being produced under contract (Martinez 1999).

At the same time, horizontal integration was also underway in the broiler sector as a limited number of firms began to dominate (Breimeyer 1965). Today, over 95 percent of the broilers are produced by about 40 integrating firms. The horizontal integration not only increased concentration of ownership and control in the processing of the feed and the birds, but it also reduced the number of operations directly involved in broiler production. As these integrating firms increased their processing operations, independent processors and independent producers found themselves with few markets, and eventually, with none. Many independent producers were forced out of business. Small processors either ceased operation or signed contracts with the feed companies and became producers themselves.

In 1960, 286 firms were selling broilers. In the 1980's production and processing of broilers by the four largest firms increased from 23 to 45 percent of total output. Today, the largest four firms (Tyson Foods, ConAgra, Gold Kist, and Perdue Farms) produce and process over half of the broilers in the United States. These top-ranked integrating firms breed their own birds, hatch them, and provide feed, veterinary services and advice to growers contracted to raise and house their chickens. They then slaughter, process, and distribute a myriad of different poultry products. In such an integrated system, "the only point where basic supply and demand conditions generate a publicly visible price is at the interface between processor and retailer" (Martinez 1999:7).[15] Today even those conditions are changing as firms like Tyson Foods and major retail firms like Wal-Mart begin to develop special formalized relationships.

The organizational and structural changes in the poultry sector involved the use of production contracts that are very different from marketing contracts. A marketing contract is a sales agreement that typically predetermines price, quantity, and time of delivery, but leaves the production decisions to the discretion of the farmer. A production contract is a more intrusive arrangement based on an industrial model of production in which the integrating firm outsources a needed raw material, in this case the chicken meat. Under this arrangement the grower is subjected to working conditions more like those experienced by workers in an industrial setting who are paid on a piece rate bases as opposed to an hourly wage basis. Through these contractual arrangements agribusiness gained an unprecedented degree of control over farm-level production. Most major production decisions are now made off the farm by the integrating firm. Today the poultry industry is often seen to typify "the industrialization of agriculture" and is increasingly cited as a model of the organization that may come to characterize much of U.S. farming in the future (Heffernan et. al., 1999).

While contracts vary from company to company, a typical production contract outlines the roles and responsibilities of each party and provides for a variety of incentives and penalties based on management performance and quality standards. Typically the grower is required to provide land, labor, and the facilities needed to care for the birds. The typical grower is also responsible for utilities, manure and dead chicken disposal, chicken house cleaning, and other operating expenses, such as repairs and maintenance. The integrating firm provides chicks, transportation to and from the farm, feed, veterinary services, and management services. The integrator determines the capacity and design of the chicken house, as well as the equipment used in production. Integrating firms also establish the size and rotation of flocks, genetic characteristics of birds, and specific feed ingredients and catching crew. Feeding schedules are also often automated and specified by the integrator. Thus, the integrating firm makes most of the major managerial decisions.

The incentives and penalties outlined in the contract are tied to settlement costs and feed conversion ratios. During any given week a grower is compared to the pool of producers who have also grown out their chickens during this time in order to establish the incentive payment. The incentive payment is a percentage of the difference between average settlement costs of all contractor flocks during that week and costs associated with the individual grower. Settlement costs are calculated by adding chicks[16], feed, and

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[15] Beginning in the early 1980's, integrating firms were gaining access to retail outlets through joint ventures with retail chains and separate operating divisions (Heffernan 1984). Many restaurants have entered into long-term contracts with processors, the terms of which are not disclosed. Price information is increasingly difficult to obtain.

[16]. The live chicken is at no point the property of the grower. The integrator owns the chicken unless it dies on the grower's property. At that point it becomes the grower's responsibility to dispose of the chicken.

medication divided by total marketable live pounds of broilers delivered[17]. Growers are penalized when their cost per pound is higher than the average (i.e. the difference is subtracted from their base pay) and receive a bonus when their cost per pound is below average. The main concern of the integrating firms is to provide the growers with incentives to manage their broiler production in ways that maximize net returns to the integrating firm (Johnson et. al. 1996). Only minor decisions are left to the growers and even then a fieldman frequently calls on the growers and outlines standard operating procedures for most unplanned events such as when the water system fails or when temperatures are extremely high.

Union Parish

Characteristics of the Parish

Union Parish is located in the northern most part of Louisiana. It was established in 1839 out of the northern part of Ouachita Parish. The terrain of the area consists of rolling hills covered by a variety of conifers. In 1990, 84 percent of the population was described as rural. The soil is not especially fertile and relatively small farms predominate, averaging around 145 acres compared to a state average of 331 acres.

Researchers have noted that integrating firms in the poultry sector have tended to locate their operations and develop contractually structured relationships in areas of the country where the farm sector is struggling due to less-productive soil and/or a lack of alternative uses for land and labor (Heffernan 1984, Perry et. al. 1999, Lasley 1983). The history of Union Parish would tend to support this observation. In 1940, more than one-third of the harvested cropland produced cotton (32,581 acres). In the 1950's and 1960's, as in much of the rest of the south, cotton production had moved westward leaving behind depleted soil and farming communities struggling to find ways to maintain a viable economic and social life. Today there is no cotton produced in the parish. By 1997, harvested cropland had fallen to 11,578 acres, all of which were producing hay. Not a single commodity/cash crop is raised in the parish and consequently broiler production defines the agricultural landscape. Integrating firms offered broiler production contracts as a new alternative structural arrangement for farm families unable to raise adequate capital to establish the industrialized poultry operation that evolving technology encouraged.

Throughout the 1990's, broiler production followed by forestry, beef cattle, and hogs have allowed Union to repeatedly lead the state in gross farm value as stated in dollars generated at the farm level.

Because the broiler industry is dominated by production contracts, it is important to differentiate between the value of the live chicken that goes to the integrating firm and the income received from contracting by the grower. Contract broiler growers are more like workers in an industrial setting that are paid on a piece rate basis. The fee they receive for caring for the chickens is quite different from the value of the live chickens. The estimation of the gross farm value is just that – an estimation. Live broilers are not

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17. The denominator in this equation is the total marketable live pounds of broilers returned to the processing facility.

bought or sold. There is no "price discovery" at the farm gate. The estimated gross farm value is the value of the commodity being produced; it is not the income from the farm production process stage that goes to the grower. Only the wage paid by the integrating firm to the grower, and possibly some small amount for return to the capital the grower provides, goes to the grower. The rest of this value goes to the integrating firm and could be attributed to the production of the live animal stage or it could be attributed to whatever stage in the total production system the firm chooses, from feed and baby bird production to processing of the bird and/or the further processing of the chicken meat into TV dinners. Little of what is called gross farm income passes through the hands of the growers. The significance of this estimated gross farm income has quite different implications for the local community than gross farm value has in a family farm structure.

Although broiler production led the parish to become the state leader in gross farm value in what the USDA Economic Research Service a "farming dependent" county, this did not appear to reduce the poverty in the parish. Union Parish has been a persistent poverty parish at the start of each of the four decades spanned by this study (1960, 1970, 1980 and 1990). A persistent poverty county is characterized as having 20 percent or more of its population below the poverty line. The estimated percentage of all Union Parish residents living in poverty in 1995 was also 20 percent. The estimated median family income for 1995 was $24,857, well below the estimates for both Louisiana ($27,265) and the nation ($34,076) (US Bureau of the Census1999). The increased poultry production and processing in Union Parish has apparently had little impact on the persistent poverty rate in the parish. Gross farm income appears to be a misleading measure of economic activity in a county characterized by a highly integrated industry that makes use of production contracts to secure local resources.

Over the past three decades, the dominance of broiler production in Union Parish has been characterized by an increasing concentration in the integrating firms that service the local community. In 1969, four firms were operating in the parish. Two of these were locally owned and operated, but by the mid-seventies they had both ceased operation. The owners of one of these operations had chicken houses of their own and became a grower for one of the two remaining integrators. By 1981 there were only two firms operating in Union Parish, ConAgra and Country Pride. In 1982, soon after the 1981 study was completed, Country Pride and ConAgra merged and consequently only one integrator remained in the parish.

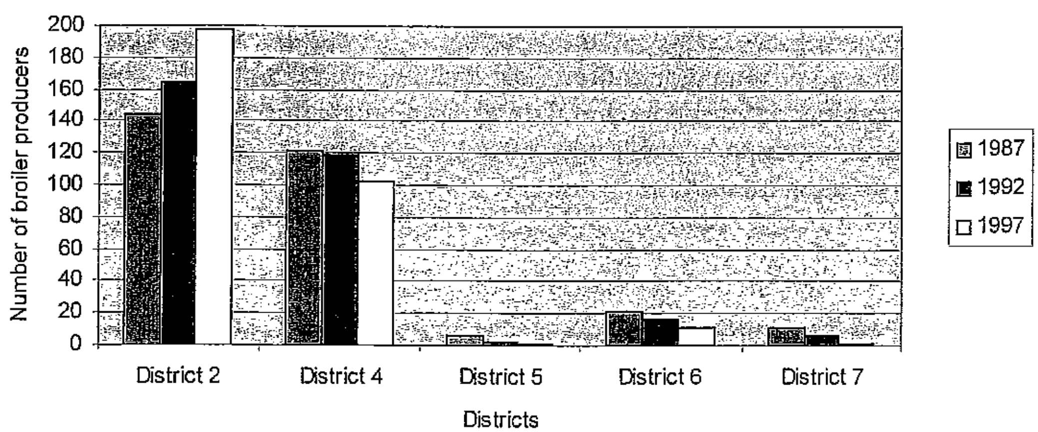
ConAgra remained the only integrator available to Union Parish growers throughout the eighties and most of the nineties. Today, two processing plants, both owned by ConAgra, service a majority of the growers in the parish. One is located in the parish a few miles north of the parish seat. A second is located in El Dorado, Arkansas just across the state line. A third ConAgra plant in Arcadia, Louisiana was shut down in October of 1996, but early in 1997 it was sold to Randall Foods in a "complex financial transfer."

Throughout the 1980's research indicated that most integrators only offered contracts to growers within a 25 to 30 mile radius of the processing plant because the cost of transporting feed and live chickens is high (Heffernan 1984). Today, researchers suggest that the distance has shrunk and integrators prefer to procure broilers within a 20 mile radius (Martinez 1999 citing Rogers 1992). Although Randall Foods currently holds contracts with eight growers in the parish, most Union Parish growers are well beyond the 20 to 30 mile radius most efficient for integrators and have little option but to produce for ConAgra.

The increasing geographic concentration of agribusiness firms in the poultry industry is reflected in Louisiana. In 1982, a total of 32 parishes reported grower operations that grew out broilers. Over the next 15 years that number fell steadily until in 1997 only 20 parishes reported grower operations. Only nine of the parishes had more than five operations producing broilers. During this same period in Union Parish, the number of farms that produced broilers increased from 26 to 34 percent of the state total.

This concentration becomes even more apparent when we consider Louisiana Agricultural Districts. Agricultural Census data from 1987, 1992, and 1997 indicate that over the coarse of these ten years the number of broiler producers in the state increased slightly from 312 to 319. During this same period, five Districts reported more than five chicken operations in any of these three years. Of those five Districts, District 2, of which Union Parish is a part, was the only District that saw a growth in the number of operations raising broilers. All of the other Districts experienced a decrease (Figure 1.). In 1987, District 2 accounted for 144 growers, 46 percent of the state total. By 1997 the

Figure 1. Geographic concentration of broiler producers as a measure of number of grow ers producing in each of three years.



number of growers in District 2 had risen to 197, 63 percent of the state total. In 1997, Union Parish alone accounted for 110 of the 197 growers in District 2.

Purpose

This research expands our previous efforts to examine the social consequences of changes in the structure of agriculture. For over three decades we have focused attention on structural change in the U. S. broiler industry which was the first major farm commodity to become vertically integrated and operated under production contracts. Our empirical studies focused on Union Parish, Louisiana. This study is the third phase of a longitudinal study that began in 1969 when there were four integrating firms in Union Parish (Heffernan, 1972). The original study focused on comparing the community involvement of those providing labor on family farms (family members), corporate-integratee (growers) structures, and corporate-farmhand (workers and managers) structures.

The second study was done in 1981 when there were two integrating firms in the parish. The following year that number was reduced to one when one firm purchased the other. In 1981 only those involved in family farms and corporate-integratee structures were interviewed because in the geographic, social, and cultural setting there were not many good examples of corporate-farmhand structures. Although differences were apparent between workers on corporate-farmhand structures and those on family farm and corporate-integratee structures in 1969, there were few differences between those on family farms and those on corporate-integratee systems. In 1981 the small differences between the two categories suggested that the broiler producers who had production contracts might have a slightly higher quality of life than those on family farms. However, as the number of integrating firms continued to decrease, the growers were becoming very concerned about the changing power relationships between the growers and the integrating firms.

Information from this study is important for examining the long-term social and economic consequences of changes in the structure of agriculture. As production contracts have become common in turkey, egg, and hog production and, more recently with their appearance in crop production, interest in production contracts has increased. Thus, it becomes important to better understand the consequences of such organizational arrangements over a period of time.

Methodology

Union Parish (county) was chosen as the location for the original study in 1969 because it had the largest number of broiler growers of any parish in the state. According to the 1998 edition of the Louisiana Summary: Agriculture and Natural Resources published by Louisiana State University Agricultural Center, Union Parish remains the largest broiler producing parish in the state of Louisiana. Thirty-seven percent (42,682,778 out of 115,258,369) of the broilers produced in Louisiana in 1997 were produced in Union Parish (1997 Census of Agriculture).

In developing the survey instrument for the 1999 study there were two main objectives. First, an attempt was made to maintain a certain level of integrity between the 1999 survey and the surveys conducted in 1969 and 1981. Questions that were determined to still be relevant and that would provide an indication of how broiler production had affected the parish over time were identified and included in an initial rough draft of the instrument.

A second objective was to obtain information that the local growers felt was important to help others understand the benefits and problems for the growers of this type of production system. Thus growers were involved in the development of the 1999 interview schedule. This methodological approach was also compatible with the philosophy of sustainable agriculture that perceives farmers (growers) and professional researchers as equal partners in the research process. A number of informal visits between the researchers and local growers resulted in the creation of a group of local growers who were involved with the entire data collection process. The original questions generated by the researchers were reviewed by this group who gathered early in the summer of 1999 for two working sessions. These formal work groups, as well as the informal interviews and the general support that was offered throughout the course of the research, were an invaluable resource and contributed greatly to contemporizing issues addressed in the survey.

This group of growers also provided a short list of the producers in their area. A formal list, if it exists, was not publicly available, but through the course of the summer a list of 118 growers was identified. Two of the growers on this list were newcomers who had not grown out more than two flocks of chickens and were consequently not included in the official interviews. The 1997 Census of Agriculture identified 110 farms with broiler sales in Union Parish, a number that would tend to support our list. With the assistance of some local residents, every broiler grower was contacted, 21 refused or were unavailable during the study period. Ninety-five interviews were completed, a response rate of 82 percent.

One of the initial objectives of the study was to obtain detailed financial data from the growers concerning their costs and income. Several studies that have been done in the past have reported data relative to the profitability of such broiler operations. However, in this parish, and several areas of the country, we have heard growers complain that academic researchers and integrating firms do not include all the costs and/or overstate the income growers receive from the production of broilers. Considerable time was spent in informal discussions and in the formal meetings with our group of local growers discussing how we could collect such information and the accuracy of it. The conclusion was that even if the growers did trust the interviewer and the confidential nature of the study, the majority of the growers would probably give us information they reported for income tax purposes. These data were not considered sufficient to build an adequate financial picture.

Those involved in the grower group felt that probably the best data set could be obtained by carefully selecting about a dozen growers and asking them to bring their records to a work session where they could collectively assemble such a financial profile. Some of the growers we would select were members of the group assembled and they agreed to participate. However, methodologically one would have to accept the assumption that a group of growers who kept such detailed records would have financial outcomes that were representative of all growers. Ultimately the collective decision was made not to ask the growers in the survey detailed financial information. We attempted to obtain the general financial information in other ways.

Findings

General Characteristics of Growers

The average grower in Union Parish has been raising chickens for 16 years. However there are a few producers that have been growing for less than two years and others that have been in the business for forty years. Similarly, some growers have lived in the parish their whole life while others have been in the parish for just over a year. The average grower has lived in the parish about 35 years. All but 10 percent of the growers have at least a high school education and almost 40 percent have some formal education beyond high school. The average grower has 13 years of education.

Farming in General

The average growers in Union Parish farms 149 acres, but farms range in size from three to 1,200 acres. Average farm size, measured in acreage, seems to be decreasing. Of the growers that entered production over the past three decades, the long-term growers have more acres than the recently arrived growers. Those growers who began producing in the 1970' average 219 acres: those who began in the 1980's average 126 acres; and those who began in the 1990's average 94 acres. This may simply be a matter of starting the operation with a smaller acreage and then expanding when economic resources allow. However, broiler production requires very little land and the newer growers may not want additional acres. This raises questions about the methods used to utilize the litter in an environmentally responsible way.

Over 349 chicken houses are currently in operation in the parish. The average broiler producer operates 4 houses, a number in accordance with recommendations from both growers and creditors in northern Louisiana who advise prospective growers that a viable broiler operation requires a minimum of four buildings. Again, there was a wide range in the size of the broiler operations, and while some growers had only one house, others had 14. Chicken houses built in the parish during the last five years have cost an averaged of $109,500 each. A chicken house that meets all the company specifications for a Class A facility costs about $127,000 during the period of the interviewing process in 1999.

Almost two-thirds (64%) of the growers raised cattle in addition to growing chickens. For some, this is little more than an enjoyable hobby. However, herds ranged from as few as 12 head to as many as 375, but the average broiler/cattle producer has a 90 head herd. Broiler and cattle production are quite compatible. The soil in Union Parish is poor and given that one of the major costs of establishing and maintaining improved pastures is the cost of fertilizers, especially nitrogen, the litter from poultry production becomes a valuable asset for cattle producers. Ninety-seven percent of the growers considered their litter to be an economic asset.

Financial Information

Of the 86 respondents who reported their net family income, 18 percent report a net family income of under \$20,000. The remainder is evenly divided between those that have net family incomes between \$20,000 and \$50,000 (41 %) and those with net family incomes over \$50,000 (41%).

Growers were asked to estimate what percent of their family income came from the farm operation, nonfarm employment, and other non-employment sources of income. Based on these estimates, the average grower procured 63 percent of his or her family income from the farm, 26 percent from nonfarm employment, and 10 percent from some source other than farm or nonfarm employment.

Despite the fact that a majority of growers raise cattle, farm commodities other than broilers contribute only nine percent to total family income. Broilers by themselves provided, on average, just over half (54%) of a grower's total family income for those families with other farm income, but the broiler operation's contribution covered a wide range. Four growers claimed that their broiler operation contributed nothing to their total family income and five claimed that it was their sole source of family income.

In Union Parish, the median net income from broiler production in 1998 was \$24,000. It is not possible to ascertain how the growers calculated this. All we can conclude is that on average growers perceive their broiler operation contributes about \$24,000 to their families' financial well-being. Most producer families needed to rely on some other source of income. In 56 percent of the households the husband, the wife, or both have a nonfarm job.

Because the current cost of building a broiler house is about \$125,000 and the average number per grower is four, a set of new buildings would be about \$500,000. (Even in 1981, a building was costing over \$100,000.) From this investment the grower generates \$24,000 to \$27,500 net income from broiler production. This is about a five percent return on their investment in buildings and equipment, but excludes a return on farm machinery like a tractor and loader. In addition it does not include anything for the family's labor. Growers were asked if they had tried to calculate a return on their investment, but only eleven indicated that they had done so. Nine of those eleven growers who said they had calculated a return on their investment were willing to report it. Three reported their return was about 4.5 percent and six reported theirs was below 4.5 percent. Eight of these nine growers indicated they averaged four houses a piece with an average profit of \$11,500 (median \$8,500) for the four houses. Some of these growers carried significant debts and other were debt free. One of the major problems in determining return on investment is that of determining the current value of buildings and equipment.

Although not all buildings are new, they are often updated because the integrating firms have minimum standards they require for buildings and equipment. If they are to receive a contract, growers must retrofit their old buildings and respond to a variety of equipment modifications ranging from changes in the watering and brooding systems to changes in setup and clean-out procedures. These periodic modifications to buildings and equipment, while defined by the integrator, come at a considerable cost to the grower and must be taken into account when calculating a return on the investment.

The difficulty of determining the current value of the buildings is further complicated by difficulty many growers have selling their buildings, especially if they wish to retain their family's house. The poultry buildings and the family's house are usually in the same geographic area. In addition, the only integrating firm in the area has no obligation to offer a contract to the new owner who could be a potential grower. If the potential grower cannot get a contract with the integrating firm, the poultry building is basically worth nothing because it is designed for such a special use and there is no market for independent producers. One debt-free grower put it this way: "The worth of my broiler operation is according to ConAgra. I can't sell the farm unless ConAgra says I can." In fact, if the potential buyer does not wish to raise chickens, the buildings may be a liability. So the question becomes, what value does one assign to the buildings when calculating a return on investment?

Sources of Grower Family Income

Growers in the parish can be divided into three basic groups according to their source of income (Table 1.). All of the groups derive at least some of their income from the farming operation. The first group derives all of its income from the farm. The second group, in addition to farm income, has other sources of income ranging from social security to business investments but does not need to work a nonfarm job. The third group uses a combination of farm employment, nonfarm employment and other non-employment sources to derive their family income. This third group is the largest and the distinguishing characteristic of growers in this group is that they all depend on nonfarm jobs.

The first group of growers is the smallest. Twenty percent of the 94 growers who responded to the income questions derive all of their family income from the farm. For this group, the broiler operation itself contributes almost 85 percent of the grower's family income while other commodities produced on the farm contribute around 11 percent to total family income. Of the three groups, growers in this group were most likely to have had parents who produced broilers. Forty-four percent of the growers in this group had parents who produced broilers compared to 18 and 37 percent in the second and third group respectively. These growers responded to the question, "what is the most positive aspect of contract broiler production" in two general ways. Some saw advantages in the fact that they did not have to worry about marketing the chickens and made statements like, "as long as you have a contract you have a guaranteed market for our birds." Others saw it as a way to retain a "sense of independence" and "to work for themselves."

The second category was composed of growers who did not have nonfarm jobs but derived a substantial portion of their total family income from non-employment income ranging from social security to business investments. Twenty-three percent of all the growers fell into this group. These other sources of non-employment income were not trivial but contributed, on average, 33 percent to the total family income for this group. Broilers contributed 54 percent and other farm commodities contributed 12 percent.

A possible explanation for this group might be that increasingly broiler production is an occupation that people turn to later in life. After paying their dues in the "real" world, people look for a location where they can invest what savings they have accumulated and live out their days in a rural setting. When asked what was the most positive aspect of contract production, growers in this category tended to respond in two general ways. These growers viewed contract production as less risky than independent production. They made statements like, "It takes a huge financial risk out of it because independently you would have to invest close to $100,000 per batch" or "It is less of a risk than independent production. When prices are down they sort of take some of the risk out." They also viewed broiler production as providing them more freedom than a nonfarm job and made statements like, "It gives you freedom. I hear some say that they lord it over you, but I don't experience it that way. I do what I want and you don't have to worry about a time card" or "I like staying home and being somewhat of our own boss. We don't having to dress up to go to work and we set our own hours."

Table 1. Average Percent of Net Family Income by Selected Sources of Family Income

	Group 1. Farm OnlyGroup 1. Farm Only	**Group 2.Group 2. Farm & Non-Employment Farm & Non-Employment**	**Group 3. Farm, Nonfarm Employment and other Non-employment Sources**
Average broiler contribution to income	85%	54%	44%
Average non-employment contribution to income		33%	4%
Average husband job contribution to income			27%
Average wife job contribution to income			18%

The third group used a variety of strategies to secure an income. It is the largest group comprising 56 percent of the growers in the parish. For a typical grower in this group, the broiler operation contributes 44 percent to total family income and a variety of other strategies must be employed to make up the difference. Farm commodities other than broilers and non-employment sources of income contribute a small amount to these efforts, seven percent and four percent respectively. Nonfarm employment is the major alternative supplement to the broiler operation. A husband's nonfarm income provides, on average 27 percent of the net family income and a wife's nonfarm income provides 18 percent.

Growers in the third group used three basic nonfarm employment strategies to secure their family incomes (Table 2.). The number of cases per strategy is small but the purpose here is simply to more clearly portray how broiler producers provide for themselves. The arrangements that growers develop are not unusual. The most common arrangement is for the husband to seek nonfarm work, followed closely by the wife alone seeking work and in a number of cases both husband and wife are employed in nonfarm jobs. A variety of other strategies are then used that combine one or both spouses working with some non-employment/nonfarm source of income. Regardless of which strategy is used, almost 40 percent of any given family's income in this group is derived from a source other than broilers.

Table 2. Nonfarm Income Contributions to Total Net Family Income

	Strategy 1. Husband Working	**Strategy 2. Wife Working**	**Strategy 3. Both Husband & Wife Working**
Number of growers	22	18	14
Average nonfarm work contribution	45%	38%	53%
Average broiler contribution to income	44%	51%	36%

A majority of the growers derive some of their income from some form of off farm employment. Twenty-two families have husbands that work, 18 families have wives that work, and 14 families have both husbands and wives that work. Those families with only the husband working derive 45 percent of their family income from his nonfarm employment and 44 percent from broilers. Families with only the wife working derive 38 percent of their family income from her nonfarm employment and 51 percent from the broiler operation, and in those cases where both are working, 53 percent of the family income comes from nonfarm employment and 36 percent from the broilers.

Farm Debt

Farm Debt

Seventy-nine percent of the growers in Union Parish are in debt and 21 percent are not. This is considerably less than in 1981 when 95 percent (54 of the 57) of the growers were still in debt. Although a number of growers are debt-free, debt and the vulnerability associated with it are still a major source of concern for most growers. When asked why they continue to produce broilers, a majority of growers who are still in debt referred to their financial obligations as a major reason they continue to produce. Typical responses to this question included such statements as, "I don't have a choice, because I owe money to the bank," or "If we quit growing we would lose everything we have, because when we financed the broiler houses we had to mortgage everything."

At the same time, some growers were less concerned with their debt and cited an enjoyment of the work as their main reason for continuing to produce. "I love it," stated one grower, "you have to love it to do it for so little, it gives you freedom and flexibility." Of those growers still in debt, 49 percent would not have become contract broiler producers if they had it to do over again and almost three-fourths (72%) would not encourage a young family to go into broiler production.

The 21 percent of the growers that are out of debt have been raising broilers for a longer period of time than those who are in debt. They have been growing an average of 10 years longer, and began producing broilers with considerably less debt. On average, those out of debt began production with an initial debt of $92,000 (median $50,000) as compared to an average of $249,000 (median $240,000) for those still in debt. Since 1990, 36 percent of those growers who are in debt have retrofitted at least two of their chicken houses. During this same period, only 10 percent of those growers who are debt-free have retrofitted even one of their houses. In general, those who have fulfilled their obligation to the bank and the integrator have been more cautious about making major changes to their facilities, have been growing about a decade longer, and had an initial debt of about $150,000 less than the growers still in debt.

Eleven out of the 20 growers who are out of debt, or 55 percent of this group, said that if they had it to do over again they would not have become a contract broiler producer. When asked if they would do it over again, one grower replied, "Never, we have done well but it killed us. People made money off of us and now when the buildings are paid off they may not allow us to operate anymore." After spending an average of 24 years in the industry, a considerable portion of their lives, fully half of those growers who are out of debt would not go back and do it again

When asked why, having cleared their debt, they continue to produce broilers, grower responses were varied. Growers made statements such as, "I have got the chicken houses up there, they are in pretty good shape, they are paid for, and they help my son-in-law pay off his chicken houses." For a number of growers, broiler production is a family tradition and has been a part of their life for so long that the prospect of making a change at this point in their life is unreasonable. This group responded to the question with statements like, "I continue out of habit. Poultry production is the only thing I really know." or "I've got no choice. I'm too old to get a job." Another group of growers claimed that they continue to grow both because they enjoy farming and because they have invested so much in the broiler operation that it is difficult to quit.

When asked whether they would encourage a young family to sign a broiler contract, 90 percent of those who had no debt said that no, they would not. One grower said, "You wouldn't want to encourage anyone to go into the business unless you had something against them. No, I wouldn't encourage it, not unless they had a source of income that could cover the houses."

For most of these 20 respondents, this series of questions appeared to be very difficult to answer. The questions essentially ask growers to evaluate the quality of their experience in the broiler industry, an experience that had comprised a significant portion of their lives. A concern with debt and the resulting economic power of the integrator vis-à-vis the grower characterized most responses to these questions, but growers often concluded by acknowledging that they like to farm. One grower, reflecting on this complicated dynamic, put it this way:

> I was talking with a friend and we sort of concluded that basically we have reverted to the old sharecrop system and that is basically all we are any more. I like to farm when I am treated like a partner who has as much invested as they [the integrator] do. We are content with what we're getting but not content with the fact that we're being treated like less than employees. I think what is going to happen is that the farmer will end up on the bottom of the totem pole.

Such statements draw our attention to the structure of the relationship between the integrator and the grower and its consequences for the grower's quality of life. Debt, which was a growing concern in 1981, continues to be a major source of concern for growers.

Quality of Life

Despite the grower concerns with debt and tensions associated with the grower-integrator relationship, a number of conclusions regarding quality of life can be drawn that are similar to those that were drawn after the 1981 study.

First, a majority of growers appear comfortable interacting with others in their community (Table 3.). They feel at home in the community, know the people quite well and feel free to visit with most people in the community. Fewer respondents, but still more than two thirds, feel comfortable asking favors or feel obligated to attend the funeral of someone who dies in the community. A majority of respondents have a relatively active involvement in the lives of friends and family. Most of the respondents meet frequently with friends on an informal basis and borrow or lend things to family regularly.

Table 3. Various measures of community attachment.

Feel free to visit	Yes	91%
Feel at home in community	Yes	91%
Attend community funerals	Yes	67%
Meet informally with friends	Frequently	79%
Visit with friends	Frequently	65%
Borrow/lend from relatives	Frequently	63%
Visit relatives	Frequently	61%

Growers were asked to compare themselves with other members of their community in regards to income and a majority (83%) felt that their income was "slightly" or "fairly well above average" for the community. The result was similar when growers were asked to compare their standard of living to others in the community. Ninety-two percent of the growers felt that their standard of living was "slightly" or "fairly well above average" for the community. While these comparisons need to be placed in the context of a parish that is characterized as "poverty persistent," they do suggest that in one sense growers in Union Parish are fortunate because there are few other opportunities within the parish itself that would provide them with the standard of living that they enjoy.

In 1981, Heffernan concluded, "Whether one examines secondary sources of information, simply drives through the rural areas of the parish, or stops and interviews the farmer, one must conclude that the quality of life for most farm families has improved during the last 10 years" (Heffernan and Jenkins 1982:11). Today we would revise this slightly to say that the standard of living for most growers has not deteriorated during the past 18 years. Growers remain relatively well off when compared to others in their community and some are doing very well by most standards. At the same time, the improvements that occurred between 1969 and 1981 are not similarly reflected in the time period between 1981 and 1999. In 1969, only 7 percent of the growers had net family incomes of $20,000 or more. By 1981, 86 percent of the families had net family incomes of $20,000 or more (not adjusted for inflation). Even without adjusting for inflation, over the next eighteen years this figure changed little. In 1999, of the 86 respondents who reported their net family income, 82 percent had a net family income of over $20,000. Most of the improvements to net family income are probably the consequence of going off the farm for employment. This proposition is supported by the growing sense of dissatisfaction that growers have expressed with their success in their work.

Many long-term residents of Union Parish argue that the poultry industry made it possible for farmers to keep farming. As one grower commented, "In a lot of rural towns there is no other opportunity and producing broilers is better than nothing.. That is a central point. You might not have extra money but it will probably help your standard of living."

Relationships Between Integrator And Growers

Grower Satisfaction with Broiler Production

A number of researchers and grower organizations have drawn attention to a growing sense of dissatisfaction among contract broiler producers. Data from Union Parish would tend to support these general observations. Over the course of the past 15 to 20 years, the level of satisfaction Union Parish growers experience in their working relationship with the integrator has decreased. When asked to rate their integrator as a company to do business with, only four growers in the current study, two of whom had recently switched from ConAgra to Randall Foods, rated their integrator as "very good."

Forty three percent rated the integrator as good and the other 53 percent of the growers rated the integrator as "not so good" or "poor"

A comparison of the grower ratings of their integrator in 1969, 1981, and 1999 suggests that tensions between growers and integrators have increased over time (Table 4.). In 1969 when there were four processors in the parish, there were no "poor" ratings and only ten percent of the growers rated their processor as "not so good." In 1981, shortly before ConAgra bought out Country Pride and became the only integrator in the parish, there had been little change. Only one grower gave a "poor" rating and seven or eight percent felt their integrator was a "not so good" company to do business with. In 1999, 53 percent of the growers rated their integrator as "poor" or "not so good" which represents a major change.

Table 4. Grower ratings of their integrator as a company to do business with.

	1969	1981	1999
Poor	----	1%	18%
Not so good	10%	8%	35%
Good	63%	72%	43%
Very good	24%	19%	4%

This trend toward growing disenchantment in the broiler sector is reflected in several other measures (Table 5.). Whereas farming in the United States has traditionally been associated with families who pass their land, occupation, and way of life from one generation to the next, today in Union Parish slightly less than half (47%) of the broiler growers want a child or relative to take over the farming operation. In 1981, eighty-seven percent of the poultry producers in Union Parish wanted a child or relative to take over the farm. In 1999, 40 percent of the growers think that they could find a better job than growing chickens if forced to do so. Only 14 percent in 1981 and 11 percent in 1969 felt the same way. In 1969, 34 percent of the growers would have taken a nonfarm job of equal or better pay if it were offered to them. In 1981 broiler production was looking good and only 18 percent would have taken a nonfarm job. Today, 46 percent of the growers would take a nonfarm job of equal or better pay if it were offered to them.

Table 5. Various measures of grower disenchantment with occupation.

	1969	1981	1999
Want children to take over.		87%	47%
Could find a better job.	11%	14%	40%
Would take a nonfarm job.	34%	18%?	46%
Satisfied with people met during work.	93%	76%	62%
Satisfied with success in work		91%	69%

Levels of satisfaction with people met during the course of their work and success in their work reflect similar trends. In 1969, 93 percent of the poultry growers reported that they "liked"[18] the people they worked with. When asked if they were satisfied with the persons they met during the course of their work, 76 percent of the growers in 1981 compared to 62 percent of the growers in 1999 reported that they were satisfied. Similarly, when asked if they were satisfied with their success in their work, 91 percent of the growers in 1981 reported that they were satisfied and today only 69 percent report being satisfied with their success in their work.[19]

Trust Between Growers and Integrators

Grower dissatisfaction is often seen to be the consequence of a lack of trust in the grower-integrator relationship (Jenner 1997). Issues of trust are closely linked to a grower's level of control and discretionary power in regards to farm-level production decisions that affect the viability of their broiler operation. In 1981 the growers felt they were doing quite well economically and the data supported this feeling. With only two integrators remaining in the area they were becoming increasingly concerned about the growing unequal distribution of power between the growers and the integrators. While they clearly understood the changing power relationships, they were often cautious about answering questions related to this issue. Frequently they suggested we talk with those three growers who were out of debt and would feel freer to discuss the topic (Heffernan 1984). Underlying these concerns is the growers' sense of powerlessness in the economic relationship, a situation that was even evident in 1969 when we compared the growers' sense of powerlessness to that of individuals on family farms.

In a sector governed by production contracts, the grower must rely on the integrator to make good and fair decisions regarding a majority of important farm-level operations. As part of the current study a number of questions were asked that focused on the growers' trust in various integrator practices that directly affect farm-level production. Growers were asked if they "often," "occasionally," "rarely," or "never" question integrator settlement reports on the number and quality of birds they receive, the weight and quality of feed delivered, the weight of birds at grow-out, and the condemnation rate (Table 6.). The responses suggest that growers question the accuracy of integrator settlement reports and the quality of inputs the integrator provides. Over half of the respondents "often" or "occasionally" questioned the number of birds and the condemnation rate that was reported on their settlement sheets, 63 percent and 62 percent respectively. More than two thirds of the growers regularly questioned the integrator's figures reporting the weight of their feed and the weight of their birds, 68 percent and 67 percent respectively. The quality of the inputs provided by the integrator was of particular concern to Union growers. Seventy-two percent of the growers "often" or

[18] The 1969 question is worded differently from those in 1981 and 1999. In 1969, growers were asked if they "like," "dislike," or "have no feeling" toward the people with whom they work. In 1981 and 1999 growers were asked if they were "satisfied" or "dissatisfied" with the people they met during the course of their work.
[19] There were no sufficiently comparable questions asked in 1969 about wanting children to take over and satisfaction with success in work.

"occasionally" question the quality of their feed and 86 percent of the growers "often" or "occasionally" questioned the quality of their birds.

Table 6. Percent of growers who occasionally or often question integrator reports of various factors relevant to production and settlement wages.

Quality of birds	86%
Quality of feed	72%
Weight of feed	68%
Weight of birds	67%
Number of birds	63%
Condemnation rate	62%

The case of chick quality is a particularly important example of integrator practices that are out of the growers control and can breed grower dissatisfaction. Over half (54%) of the growers "often" question the quality of the chickens provided by the integrator. Thirty-three percent question chick quality "occasionally" and only 13 growers (14%) "rarely" or "never" question chick quality. Concerns over chick quality have important implications both at the production level itself and further down the chicken food chain. At the farm level, some growers go so far as to cite the quality of the chicken as the single most important issue for the quality of their lives both economically and socially. The main problem, explained one grower, "is the quality of the chickens. Almost everything else goes back to that one single factor." For many growers it also comes to symbolize both their lack of control over their operation and the difficulties they have placing their trust in the integrator. "You have basically put all your trust in what the company hands you, if they don't have good laying houses we will have sorry chicks and no matter what you do there isn't much you can do about it."

As growers repeatedly explained, a good quality chicken requires care and attention, but it will grow if the grower does his or her job. Poor quality chicks require constant attention and care. The workload and stress levels increase, but the return on labor decreases. Even sick birds eat before they die.

Concerns with the quality of their inputs and the accuracy of integrator measurements are compounded by the fact that growers feel powerless to negotiate disputes. As one grower explained:

> You can't prove anything. You have to take their word for it. You have to show them where the feed went to. You can't put scales on the farm. Grin and bear it, [because] it doesn't do you any good to raise questions. You couldn't do anything with the company if you tried.

Although the growers' economic well-being is determined by their settlement sheets, they feel that their settlement wages are determined by factors over which they have little control, that their settlement may reflect errors made by the company, and/or their settlement may be manipulated by the company.

Time Period Covered by the Contract

The time period covered by the contract has decreased which can increase the grower's sense of risk and uncertainty and can contribute to feelings of distrust in the contractual relationship. Whereas in 1969 growers reported signing contracts extending forward anywhere from seven to ten years, by 1981 growers were beginning to sign agreements with the integrating firm on a batch-by-batch basis (Heffernan 1984), and today batch-by-batch contracts are the rule in Union Parish. This means that the contract is open to negotiation approximately five times a year. However, growers feel that they have little say in the terms of the contract, and for many of them signing the contract becomes little more than a symbolic act of submission. "They change the contract every year. I've even had the serviceman rush me the contract to sign as the chicks were pulling up to the houses. Half the time I don't even read them," explained one grower, and this is not an uncommon attitude. As another grower put it, "I have been signing them without reading them because they have to be signed."

From the growers perspective there is a great deal of uncertainty in this type of relationship, because technically each batch of chickens is a new contract and the contract can potentially be changed several times a year. Growers feel they have but two options. They can either accept what the integrator offers along with any technical or procedural stipulations attached to the agreement, or they can reject the contract and receive no birds. The latter is not realistic if the grower's farm and house were mortgaged to secure the loan and the only way to raise chickens was to sign a contract with that specific integrator.

From the position of the integrating firm these short term agreements provide a great degree of flexibility when, for example, it seems appropriate to change the specifications on watering systems or the structure of the chicken houses. This flexibility accorded by short-term production contracts allows integrating firms to respond quickly to changes in the industry without having to assume any cost for the changes in the production sector. The grower assumes most of the risk associated with the production risk. Although he or she expects a long-term relationship with the integrator, there is no guarantee that one will be maintained, and that relationship often becomes conditional upon further "capital exposure" through investments in capital-intensive assets like new houses and equipment.

Growers are aware that they are in a vulnerable economic position as are other local businesspersons who might directly or indirectly become linked to the integrating firm through a production contract. A number of growers claim that the local bank is no longer making loans to broiler growers. "If you think you will borrow money for land, machinery, and chicken houses without any outside startup capital you won't make it," said one grower. "The financial institutions are saying you won't ever get out of debt. Marion State Bank has stopped lending to chicken farmers."

Technology Change

A final element that influences the level of trust in the grower-integrator relationship involves technology. Growers in Union Parish describe a cycle of technological changes in which every two or three years the company revises its specifications on houses and equipment and pushes growers to readjust to the new requirements. Most recently, growers are being encouraged to retrofit their houses (upgrade them to a Class A facility) and many are doing it. Since 1995, 30 percent of the growers have retrofitted some 101 houses at an average cost of $24,000 per house. The average grower who is retrofitting upgrades about four houses and consequently most growers find themselves deeper in debt.

But as many growers argue, "You either listen to them on the retrofitting or you can't compete. You really don't have a choice. If you don't retrofit you can't keep up because they pay a base pay of 3.5 for non-retrofitted houses and for retrofitted houses the bottom limit is 4.1". Both types of houses "compete" for a fixed sum of money each week, but the inability of non-retrofitted houses to compete is not necessarily the result of differences in the efficiency, the quality, or the quantity of their production. Growers whose utility bill alone is already running around $1,500 per house per year view the climatically controlled Class A houses with some skepticism. It is not uncommon to hear growers make the argument "I can grow a better chicken than a grower with a house that's been retrofitted, but retrofitted houses automatically get higher pay." Consequently, many growers question the motivation behind the integrator's insistence on the retrofit.

As growers discuss their experiences with changing equipment specifications, it becomes apparent that they view an insufficient return on their investments to be a real problem relating to technological innovation. As one grower explained,

> The cost of repairs and equipment has run up but income hasn't. That is what puts so much strain on people. The company is continually changing requirements. It is a revolving door. You can't keep up. Two years ago I put a new water system in all five of my houses because the company said to do it. About a year later, the requirements changed. That watering system is buried in the ground and I'm still paying for it.

The growers are not averse to new technologies. They recognize the advantages provided by innovations in the industry, but they are uncomfortable with a sense of being treated like "guinea pigs" in a relationship that encourages but does not compensate their innovation. Some growers conclude that while these experiments in new technology not only help to identify the most efficient systems of production, they also serve to keep the grower locked into the contract relationship.

Among growers a second concern associated with technological changes is the fear that the company will exact some form of economic retribution if they do not make further investments in their operation. Integrator control over major inputs in the production process and the difficulties growers face in monitoring integrator measurement practices makes this concern particularly stressful. Growers were asked their level of agreement with the statement "unless I follow my company's recommendations about new houses or major improvements to my old house, my contract will not be renewed." While 50 percent of the growers disagreed with this statement, 36 percent agreed and 14 percent said that while this was not the official policy of the integrator there was a strong suggestion that there would be some sort of repercussion if they did not follow the recommendations.

Eighty percent of the respondents said they knew of a grower who had been cut-off. In almost every case the respondent noted that the person in question was not doing a very good job of caring for the chickens. It seems probable that a majority of these growers were referring to one or two cases. At the same time, for at least 50 percent of the growers, the threat of being cut-off or facing some other repercussion is a serious consideration when deciding whether or not new houses should be built or major changes made to existing houses.

Observation and Conclusions Drawn from Thirty Years

The major purpose of the research study in 1969 was to examine the relationship between agricultural structure and involvement in community activities (Heffernan 1972). The larger research concern was to determine the social consequences the changing structure of agriculture would have on farming dependent rural communities. It was becoming evident to some rural sociologists in the 1960's that political/economic forces were evolving which would threaten the decentralized agricultural structure even though data from the agriculture census suggested that the decentralized family farm structure was not being threatened. In the 1960's, the two major structures that were most evident in the U.S. were the family farm and corporate farm. Production contract farming or corporate-integratee structures were just emerging in the broiler industry, and we wanted to include them in the study. We selected Union Parish because it had the largest number of contract grower operations in the state (N=53). It remains the largest broiler-producing parish in the state, which makes it an ideal site for a longitudinal study.

In 1969 respondents were asked questions about worker satisfaction, economic well-being, feelings about being able to control important events in their life, and other questions related to their quality of life. In 1981 the family farmers and contract broiler growers were again interviewed. In the second study, more emphasis was placed on the grower's reactions to contract production, as it was becoming increasingly apparent that growers had concerns about this relationship. In 1999, we again returned to the parish to interview all the broiler growers and to better understand changes that had occurred in the 30 years since the first study. We focused on the relationships between growers and the integrating firm and some of the economic realities of production contract arrangements in the broiler industry.

With production contracts having now emerged in the egg, turkey, and hog sectors and increasingly in the crop sectors, the issues addressed in our three studies are receiving far more attention than they did in the past. In this section we attempt to summarize and draw some conclusions from this 30-year research effort.

Structural Change In The Broiler Industry

Broiler production and processing in Union Parish has reflected the restructuring that was taking place in the rest of the country. In the United States, where there were 286 firms in 1960, today there are fewer than fifty integrating firms offering contracts for broiler production, and the largest four have more than 50 percent of the market share. Combined, these firms operate about 240 processing facilities. Because transportation costs are high, most firms will not develop a relationship with potential growers located more than about 25 miles from their processing facilities. In the United States there are few areas where the 25-mile circles overlap to create the conditions in which a grower would have access to more than one integrating firm.

The history of broiler production in Union Parish is representative of the larger trends in the structure of agriculture. In 1969 there were four processors available to broiler producers in Union Parish, two of these processors were locally owned and operated and had facilities in the parish. The local processors were no longer operating in 1981 and the two remaining processing facilities were located outside the parish and were owned by large integrating firms. In 1982 the two integrating firms merged and ConAgra remained the only integrating firm available to growers in Union Parish throughout the eighties and most of the nineties.

In the early 1990's, ConAgra built a processing operation in Union Parish, and in 1997 Randall Foods bought a processing facility formerly owned by ConAgra in Arcadia, Louisiana. Today a few growers in Union Parish are within 25 miles of both ConAgra and Randall. However in places like this, firms seldom "raid their competitor's growers," particularly when one of the firms is new to this food sector and holds a considerably weaker position in the larger market. As a consequence, broiler growers operate in a monopolistic market. The integrating firm can attract and develop new growers within the 25-mile radius, but since there are no other processors available to independent broiler producers the grower faces bankruptcy if he/she severs the relationship.

This analysis of the process of restructuring in the broiler industry suggests that as a commodity sector is being restructured, there can be major competition for growers even among as few as two firms. During such times, growers enter contract negotiations with integrating firms or processors from a position in which bargaining power is more equally distributed. In the sociology of family literature the point is made that the party "having the least to lose in severing the relationship" has the most power. When competition exists so that each party to the relationship has a viable option if they choose to sever the relationship, they enter the negotiation "on a more level playing field". However, as the commodity sector in a given geographic region becomes "mature," the pattern has been for integrating firms to create local monopolies. This study has traced the movement toward a broiler monopoly in Union Parish and the deteriorating trust and economic conditions of the growers as it has occurred.

A growing literature in the pork sector also suggests an increasingly uneven power distribution between growers and their integrating firm similar to that in the broiler sector. Kliebenstein and Lawrence (1995) have found that contract terms for swine growers declined as the bargaining position of the pork packers improved. Once ConAgra had secured a geographic monopoly in Union Parish, the company was able to offer contracts that were less attractive, knowing that growers would be forced to sign them.

Economic Impact in the Parish

The structural changes in the broiler industry did increase the economic activity in the parish, but it did not have the economic impact on the families one might have assumed. The 53 growers in the parish in 1969 had increased to 57 in 1981. Since 1981, the number of growers in Union Parish has doubled, the number of birds raised per grower has increased significantly, and a major processing facility has been constructed in the parish. In the 1960's before contract broiler production began, Union Parish contributed little to the state's agricultural economy. In the 1990's it has consistently had the highest gross farm income of any parish in the state. All of this should suggest improved economic conditions in the parish, but our findings in this regard are less clear than might be expected.

Census data from the past four decades and estimates from 1995 describe Union Parish as a persistent poverty parish. The estimated median family income in the parish for 1995 was $24,857 compared with a national median of $35,076, and just as eighteen years ago, the majority of broiler producers must seek nonfarm resources to secure a viable family income.

The failure of measures of family economic well-being to reflect the noted increase in the economic activity of the parish raises some interesting questions. One possible explanation is that the changing structure of agriculture requires a different measure of community economic activity than gross farm income. Gross farm income was an appropriate measure when family businesses, including family farms, were the major economic structures in rural areas. Such businesses are usually described as operations in which the family provides most of the labor, management and capital (the factors of production). In this structural arrangement, if there is a profit or a return to the factors of production in a given year, it goes to families in the community who tend to spend much of it in the community where it creates a multiplier effect. In a corporate structure like contract production, the return to labor, which the integrating firm tries to buy as cheaply as possible, goes to the family (or people they hire) and some to the return on investment in buildings, land, and equipment. However, our data, and that of others, suggest that their rate of return to capital is less than what growers pay for interest on their outstanding debt or what is paid for certificates of deposits. This income does add to the economic activity of the community, but most of the return to capital and the return to management goes to the integrating firm located outside the state and adds little to the economic life of the local community. We also need to remember that "gross farm income" is an estimated measure in a vertically integrated system like the broiler sector. Broilers always remain the property of the integrating firm; there is no open market to determine the price.

A number of demographic changes in the local community have accompanied the structural changes in the organization of agricultural production. A growing body of literature has documented the correlation between the locating of meat processing facilities in rural areas and a rise in immigrants arriving from Mexico, and Central and South America (Wells and Bryne 1999). These findings are reflected in Union Parish. This dynamic was already apparent in 1981 but was increasingly evident during the most recent study period. Limitations of both the current study and the availability of external sources of information in this area, as well as more general issues of access to this population make it difficult to draw any firm conclusions regarding the consequences of these changes in the parish. Nonetheless, we feel it is important to recognize this dynamic in Union Parish for it will have impacts on the resources of the larger community.

Growers' Perspectives Of Production Contracts

From the grower's perspective, changes that have occurred in the relations between growers and integrating firms have been dramatic. In 1969 when there were four integrating firms who were attempting to enlarge their operations and compete for growers, producers felt that they were being treated quite fairly. In this early period, most families began with only one or two buildings that were much smaller and less sophisticated than even a decade later. The boiler operation was seen as a supplementary income source for the family. In many, if not most operations, the wife/mother was the family member primarily responsible for the broilers. The families were grateful for the additional income, and because there were few alternative agricultural options, families appreciated the firms that made it possible for them to remain in the community.

However, even at the outset, a norm was evolving between integrating firms that they should not "raid their competitors growers." Growers said it was easier for a beginning grower to get a contract with a given integrating firm than it was for a current grower to switch from one firm to another. But some switching was done and the managers of the firms knew there was a chance they could lose many of their growers to another firm.

By 1981 when only two integrating firms where operating in the parish, growers were becoming concerned about the unequal power relationship between themselves and integrating firms. They knew that their economic future was highly tied to their integrating firm, and although we could only obtain the name of two or three growers who had been "cut off" by an integrator, growers worried that the integrating firm had the power to force them into bankruptcy. Yet, despite the perceived change in the power relationships between growers and integrating firms, the growers were reasonably satisfied with their economic well-being in 1981. Data suggested that growers were doing very well economically when compared to family farmers and others living in the community. Most of the growers still trusted their integrating firms and several measures of economic well-being indicated that the growers had a higher standard of living than most others in the community. The growers themselves indicated that they ranked above average in the community on measures of income and net worth.[20]

Today, the relationship between growers and integrating firms has deteriorated. Grower work satisfaction has declined and distrust has increased between the grower and the integrator. There are a higher proportion of growers out of debt now than ever before, but this may be for reasons other than more prosperous economic conditions. Our longitudinal analysis suggests at least three reasons for this improvement in the debt to non-debt ratio. First those growers who are out of debt have been in the business an average of ten years longer than those with debt, giving them more time to pay off the debt. On average, those out of debt have been growing chickens for 24 years, and in 1981 few, if any, growers had been producing that long. Secondly, some of the more recent growers had accumulated capital in other ways before entering broiler production. Many of these growers entered broiler production as part of a semi-retirement plan. They borrowed little money at the outset and are unhappy because they lost significant savings or did not earn a reasonable return on their savings. The third reason is that those who are out of debt did not incur nearly as large of a debt at the beginning ($92,000 as compared to $240,000).

It would be a mistake to assume that because more growers are out of debt today than in 1981 the economic conditions have improved. Other responses suggest that the economic conditions have become worse. Some of the older growers wonder if the younger growers will ever be able to pay off the large debts they incur when beginning production. Fifty-five percent of those who are out of debt indicated if they had it to do over again, they would not have become a broiler grower. Forty-nine percent of those in debt say they would not do it again. About three-fourths of those still in debt say they would not encourage a young family to go into broiler production. Ninety percent of those with no debt would not recommend it for a young family.

Declining satisfaction with the broiler industry is compounded by the way production contracts are structured and the feelings of powerlessness growers express as a result of current contractual arrangements. At the farm level, growers make none of the major managerial decisions regarding the genetic composition of the chicks, the nutrient value of the feed or the equipment used in production. To maximize their income growers do everything they can to be the most efficient producer, but when they treat two or more sets of birds exactly the same way and the performance is quite different, a growers' sense of control over farm-level decisions is undermined. They try hard to account for these differences, and many conclude that they do not control the major decisions influencing chick performance. A recent study by the USDA Fund For Rural America suggests that this is not a local problem. Out of 2000 randomly selected broiler growers in the United States, 76 percent said that they have been given poor quality

[20] Perhaps the best indicator of the grower's economic outlook during the time period between the first two studies was the transfer of ownership of the buildings operating in 1969. With the exception of a few buildings that were technologically out of date, all of the buildings in use in 1969 were being operated by the original grower or by some family member.

chicks and 78 percent said that they believe their pay depends more on the quality of the chicks and feed than on the quality of the growers' work (Clouse 2000).[21]

Growers also question integrator procedures for the weighing of feed or birds. All of the weighing is done on company scales without the presence of the grower. Court cases in the past decade have found integrating firms responsible for the falsifying of weights reported in grower settlements (Hamilton 1995).

The problems growers face given their large debt, the relatively low rate of return on their investment, and their lack of control over farm-level decisions raises major economic concerns. While only eight growers in the current study felt comfortable reporting their profit, their responses tend to support the claims made by some poultry grower organizations suggesting that past academic and company studies do not include all the costs and overstate the income growers receive from broiler production. Our eight respondents, averaging four houses apiece, report an average profit of $11,500, less than $3,000 per house before taxes and depreciation. A recent broiler contract proposal drawn up by Marva Farm Credit on the Delmarva Peninsula sites an annual net return before taxes and depreciation of $8,830 for two chicken houses. Clouse (1995) has argued that the regularly cited $4,000 profit per house ignores many of the costs growers have in production. Other studies have also found that the asset turnover ratio (a measure of the income generated per dollar of assets used in production) in broiler production is lower than the average for comparable non-poultry farms (Perry et. al. 1999). Perry et. al. draw two conclusions from this: either a majority of broiler producers are making less efficient use of their assets or required investments are high for contract broiler growers compared with their expected income.

Conclusions based on a purely economic perspective and the profitability of broiler operations raise questions concerning the rationale by which growers make decisions regarding continued operation. To fully understand the growers' rationale, contract broiler production must be viewed not only as an economic activity, but also as a significant determinant of one's lifestyle. Although a dichotomy is often posed as to whether farming is a business or a way of life, in Union Parish growers cannot separate the economic factors related to their relationship with the integrating firm from the network of social, cultural, and environmental relationships that are important to their lived experience and quality of life. Our data showed that growers continue to report meeting frequently with friends, feeling free to visit with neighbors, and feel at home in the community. An early morning visit to the local country store continues to turn up a gathering of growers sitting on overturned buckets to sip their coffee. Driving up county road 549 around noon one is likely to witness a gathering of pickups with growers sitting

[21] Many questions concerning the sustainability of current integrator practices regarding the genetic stock of breeder flocks need to be addressed, particularly the lack of diversity and the extremely narrow genetic base being used. (Most broilers come from genetic stock provided by three firms on the female side and three firms on the male side. There is not a great deal of diversity within these gene pools.) Dr. John Tierce, Vice-president of Research and Development at Peterson Farms, which supplies one-third of the world's breeder males, is reported saying, "We have metabolic disorders. We've got heart failure. We've got leg disorders" (quoted in Clouse 2000). The push to develop tailor-made birds that grow fast with plenty of breast meat has resulted in a plethora of problems that could take years to rectify.

on their tailgates to grab a bite to eat. Hunting, fishing, a son or daughter's achievement at the weekend's rodeo, general community gossip, as well as current concerns with the latest request from the integrator are the topics of conversation at these gatherings. In fact, it is many of these social and cultural factors, as well as the environment or natural characteristics of rural America that attract many newcomers to the industry.

Like thirty years ago, growers appreciate the integrator's role in allowing them to remain connected to these social and cultural features of the community. They feel a sense of indebtedness to the company on these grounds. The question that becomes important to answer relates to the sustainability of the current relationship between social and economic tradeoffs faced by growers. As growers increasingly find it difficult, based on economic reasons, to encourage their children and other young families to go into broiler production the human foundation of rural communities is threatened. Theoretically the contract provides a forum in which a discussion of such issues of sustainability could take place. Even a small increase in the rate paid per pound of chicken meat could tip the balance, improving grower-integrator relations, decreasing the level of economic stress experienced by growers, and encouraging people to remain in these areas. But these issues can only be addressed if the grower has a voice in the negotiation of the contract.

This longitudinal analysis highlights some of the larger structural changes that have occurred in the broiler industry over the thirty year period of the study. One of the major changes that has occurred is in the relationship between broiler growers and integrating firms, especially with regard to contract negotiations. A contract is not necessarily good or bad. It simply states the rights and responsibilities of each party. The key to understanding disparities in each party's power to fairly negotiate the contractual relationship is to recognize the whole of the economic, social, political and cultural context in which the negotiation takes place. The same contract has quite different implications for an indebted grower in a situation where he/she has the option of switching from one integrating firm to another than it has for a grower whose only opportunity to utilize their buildings is to continue raising birds for the same integrating firm. The critical issue is how can the playing field be leveled so that growers are not so powerless.

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