Appendix A:
Agricultural Trends Profile for Davidson County, NC

Developed by
Agriculture and Community Development Services Inc.

Agricultural Trends Profile

•**A**griculture in Davidson County is being shaped by a number of trends that offer opportunities for growth in the county. Farm receipts have been on a continuous upward trend led largely by sustained growth in livestock production.

•The trends in the livestock sector is a result of shifts in poultry production. Growth in poultry operations and inventories was seen not just in the county but also throughout the state. Unlike other counties in the state, poultry production growth remained despite more active international trade arrangements and recent factors that cause shifts in the international market (e.g., avian flu concerns).

•The increases in farm receipts are threatened by increases in production expenses, particularly feed expenses. Expenses might cut into margins and further affect the already volatile farm income trends.

Agricultural Trends Profile, continued

•While poultry production is growing in Davidson County and the surrounding regions, cattle operations and inventories have been declining.

•This report provides a barometer on the general health of the area's agricultural industry. As a means of comparison, data and trends from neighboring counties and states are used. These trends can be used to identify strengths and weaknesses, opportunities and threats in the farming community, as well as serve as a guide for development efforts in the future.

[1] Values are not adjusted for inflation.

Methods

•**T**he methods used to prepare this report are commonly accepted statistical and econometric practices. Data were gathered from several federal government sources, including the Census of Agriculture, the Regional Economics Information System (REIS), and County Business Patterns. The data were downloaded from CD-ROM disks or from Internet sources, and imported into Microsoft Excel spreadsheets.

•This trend profile includes an analysis of (1) the financial health of agriculture in the Counties of Davie, Forsyth, Guilford, Montgomery, Randolph, Rowan, and Stanly (for example, sales, expenses and income trends), (2) trends in the structure of agriculture in the four counties (for example, change in number of farms, types of farms), and (3) an examination of the linkages between agriculture and the balance of the four counties' economies .

•**Interpretation Note:** Analytical tools chosen from one analyst to another may be different and the resulting data vary. Furthermore, charts and graphs are subject to different interpretations. Care should be taken not to accept this information as absolute truth. Instead, we recommend that this information be used to supplement local stakeholders' observations, provide some new insights, and raise issues for further study.

Summary

Agriculture in Davidson County, North Carolina is a thriving industry consisting of 1,074 farm enterprises. Farm receipts amounted to over $32.62 million in 2007 and is led by $23.12 million in receipts from livestock production.

Farm receipts in Davidson County have been continuously growing each year. The increase is mainly due to the continuous growth in the livestock receipts, which accounted for an average of 62 percent of total receipts between 1970 and 2007. On the other hand, crop receipts have been on a steady downward trend since 1996.

But farm income has been very volatile despite growth in total receipts. The volatility can be traced to trends in production expenses. Feed expenses have risen sharply along with the rise in receipts and is due to a combination of inflation in major feed prices as well as increased demand.

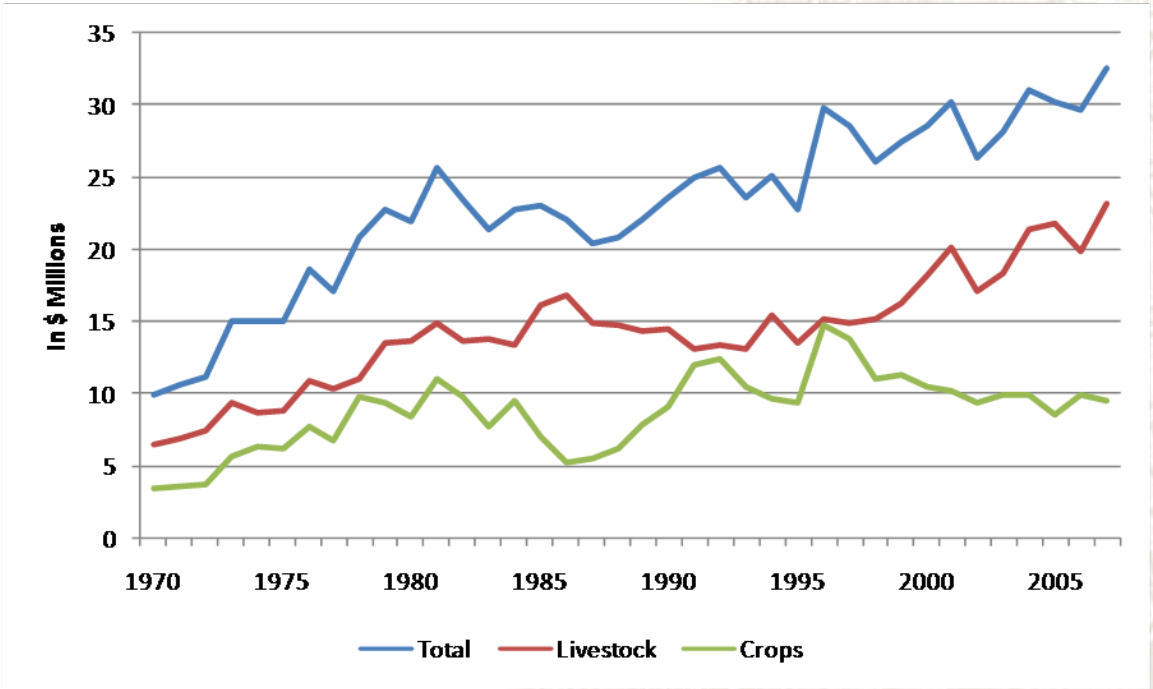
The growth in the livestock sector is generally due to the growth in poultry production. Operations and inventory levels have gone up since 1997, which shows that poultry production in Davidson County has withstood the volatile effects of the domestic and international poultry markets. But Davidson County's cattle sector has been shrinking. Operations and inventory levels have both declined between 1997 and 2007.

The total number of operations and cropland acreage have also been declining, which can be a major indicator of a possible shift from agricultural operations in some parts of the county.

SECTION 1

FINANCIAL HEALTH

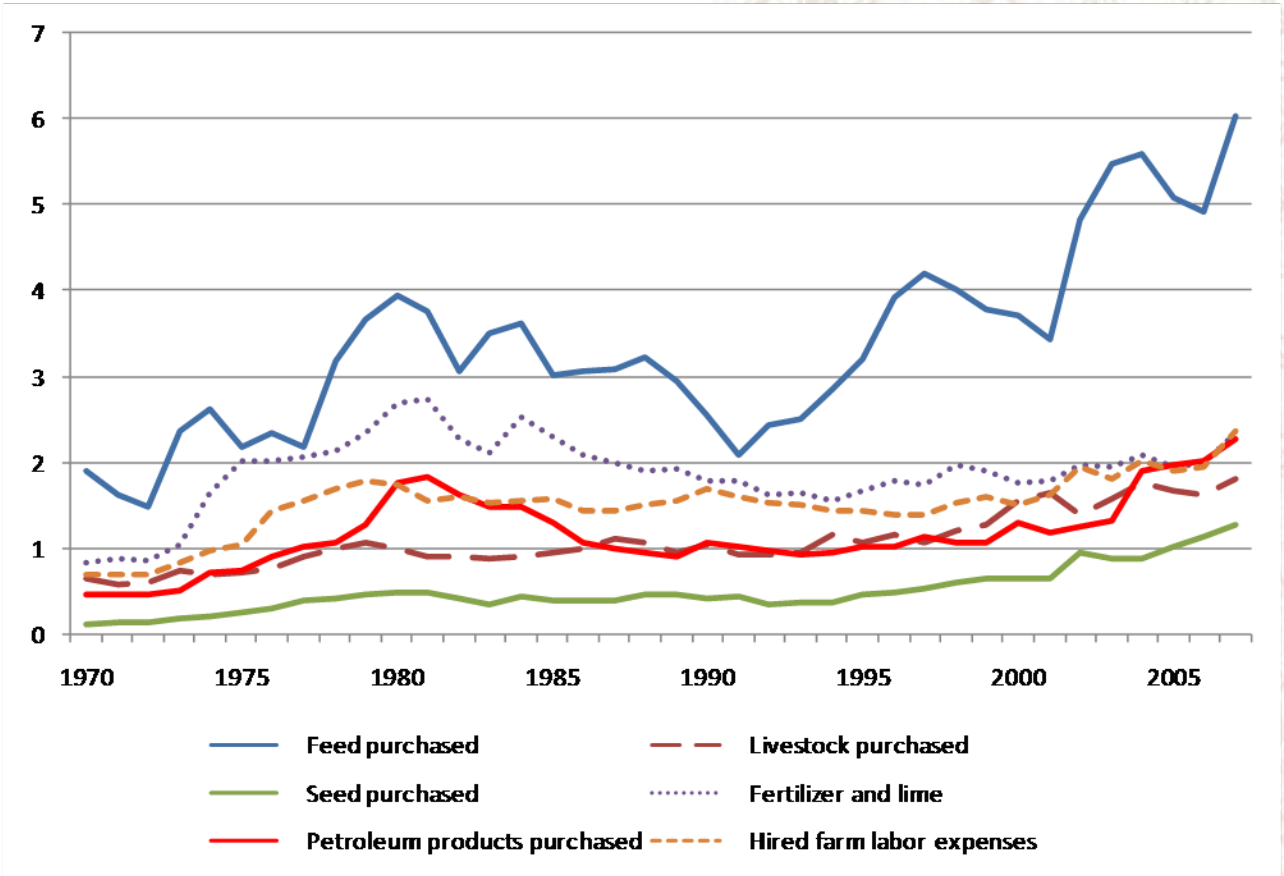
Davidson County Farm Cash Receipts, 1970-2007



Livestock sales continue to take the largest share of farm receipts, accounting for an average of 62 percent from 1970 to 2007. Livestock sales reached record highs in 2007 at over $23 million and a continuous upward trend can be seen since 1970. But crop sales of $9.5 million in 2007 are equal to their levels in 1995.

Source: Regional Economic Information System (REIS).

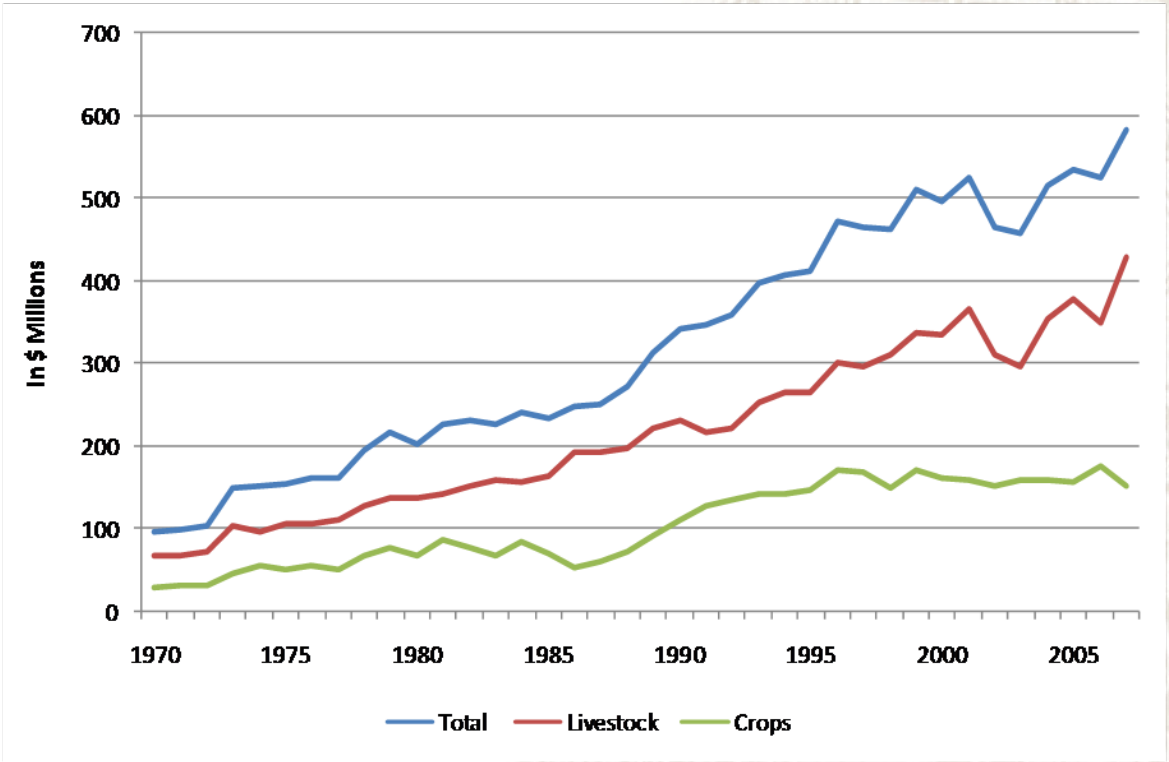
Davidson County Farm Expenses 1970-2007



Feed expenses continue to account for the largest share of major spending due to the dominance of livestock production. But the sharply rising trend of feed expenses since 1991 along with the flat trends of other expenses suggest the effect of inflation on feed products aside from a rise in demand.

Source: Regional Economic Information System (REIS).

Davidson County Regional* Receipts 1970-2007

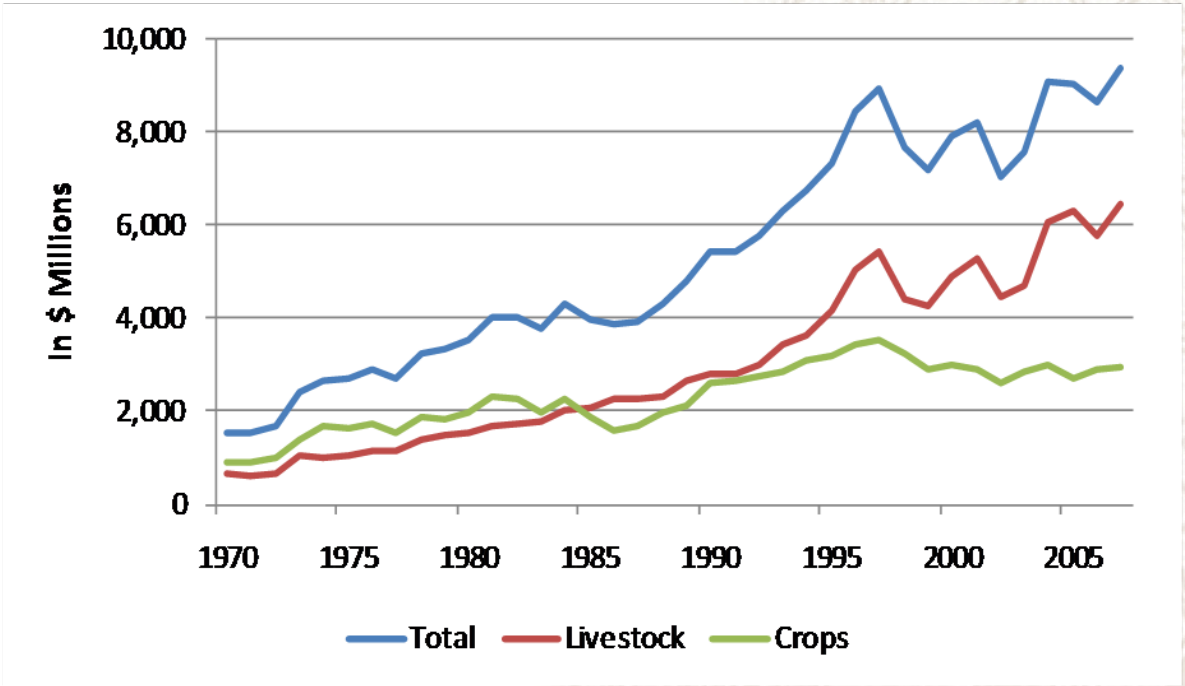


Farm receipts from counties neighboring Davidson have also followed the county's pattern of rising sales receipts due to growing livestock sales. Total sales of $583 million and livestock sales of $430 million in 2007 are record highs while crop sales of $153 million are a continuation of flat growth in crop receipts since 1996.

*Regional counties include Davie, Forsyth, Guilford, Montgomery, Randolph, Rowan, and Stanly counties.

Source: Regional Economic Information System (REIS).

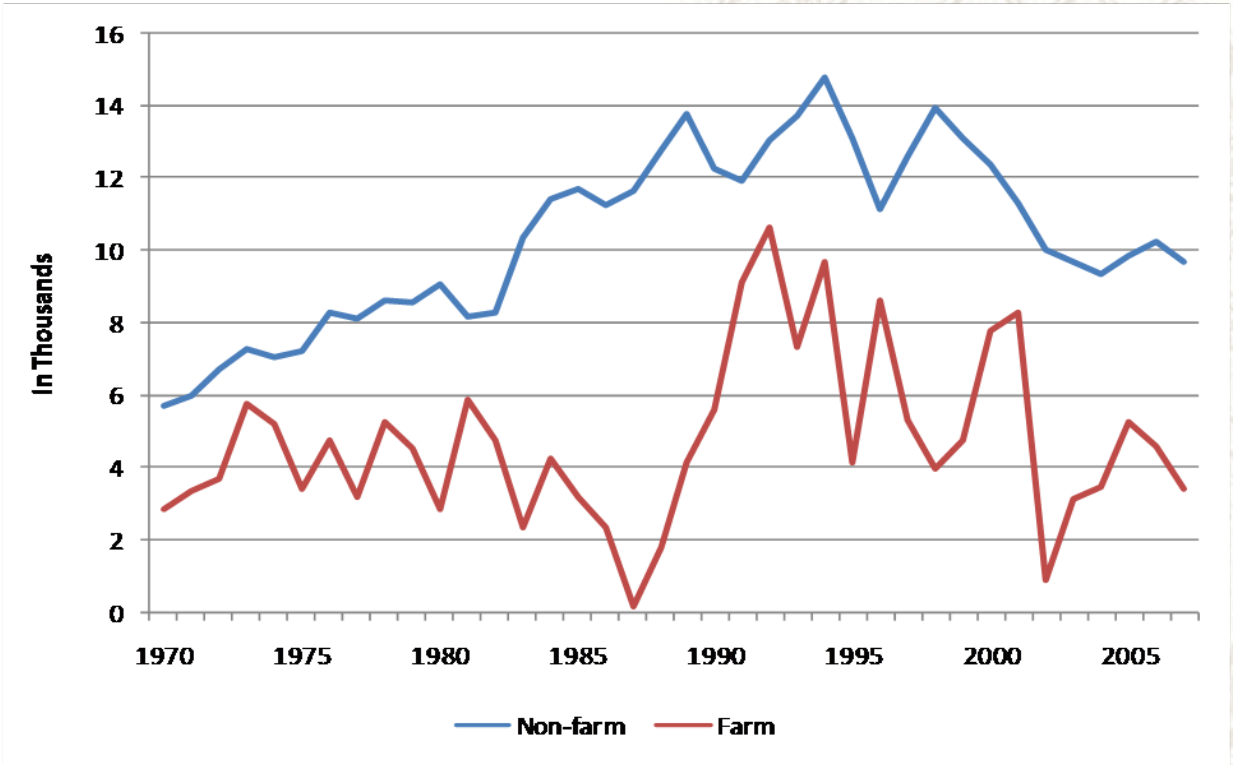
North Carolina Farm Receipts, 1970-2007



North Carolina also has the trend of rising farm receipts due to rising livestock receipts but some volatility has been seen since 1997. Livestock receipts are mainly determines by poultry operations while the volatility is due to trend shifts in the domestic and international markets for poultry products.

Source: Regional Economic Information System (REIS).

Davidson County Farm and Non-Farm Proprietors Income, 1970-2007

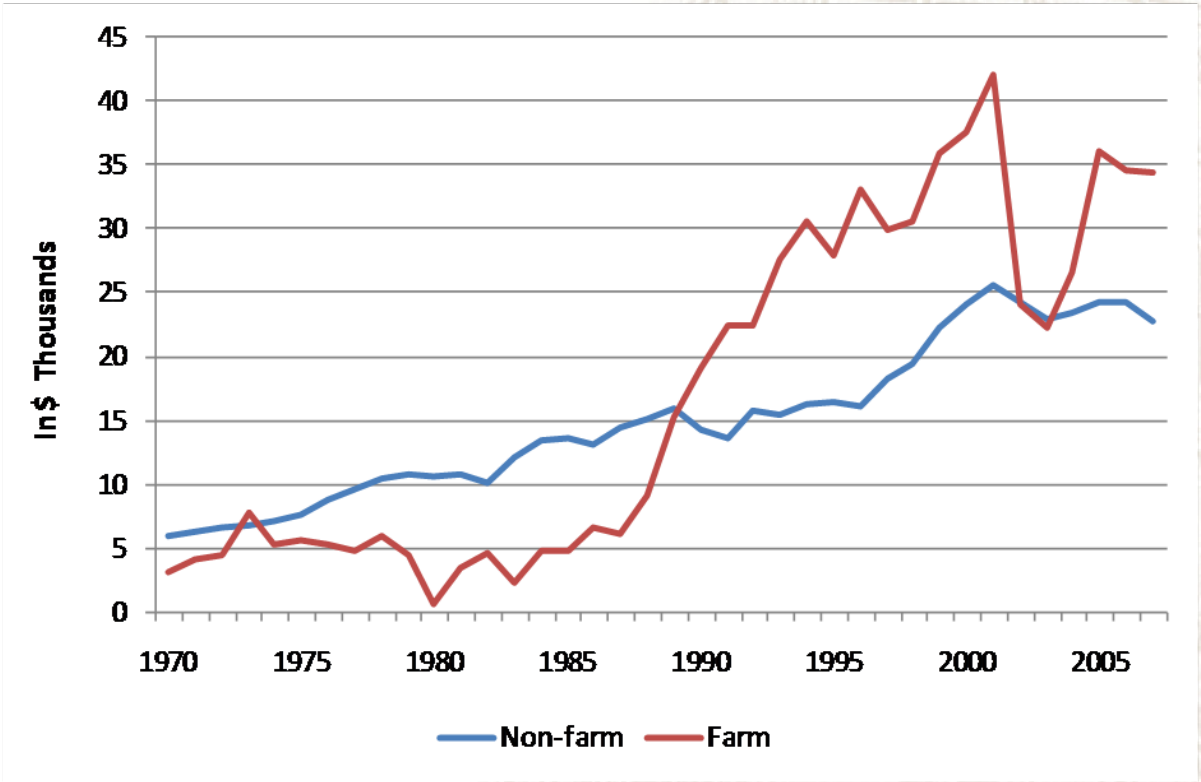


Farm income had more volatility than non-farm income between 1970-2007 despite growing receipts. The volatility is largely due to sharp increases in production expenses particularly in the livestock sector. There was also the effect of a steady decline in the number of non-farm operators.

Source: Regional Economic Information System (REIS).

Proprietors income is total income divided by the number of proprietors for both farm and non-farm sectors in the county.

Davidson Region* Farm and Non-Farm Proprietors' Income, 1970-2007



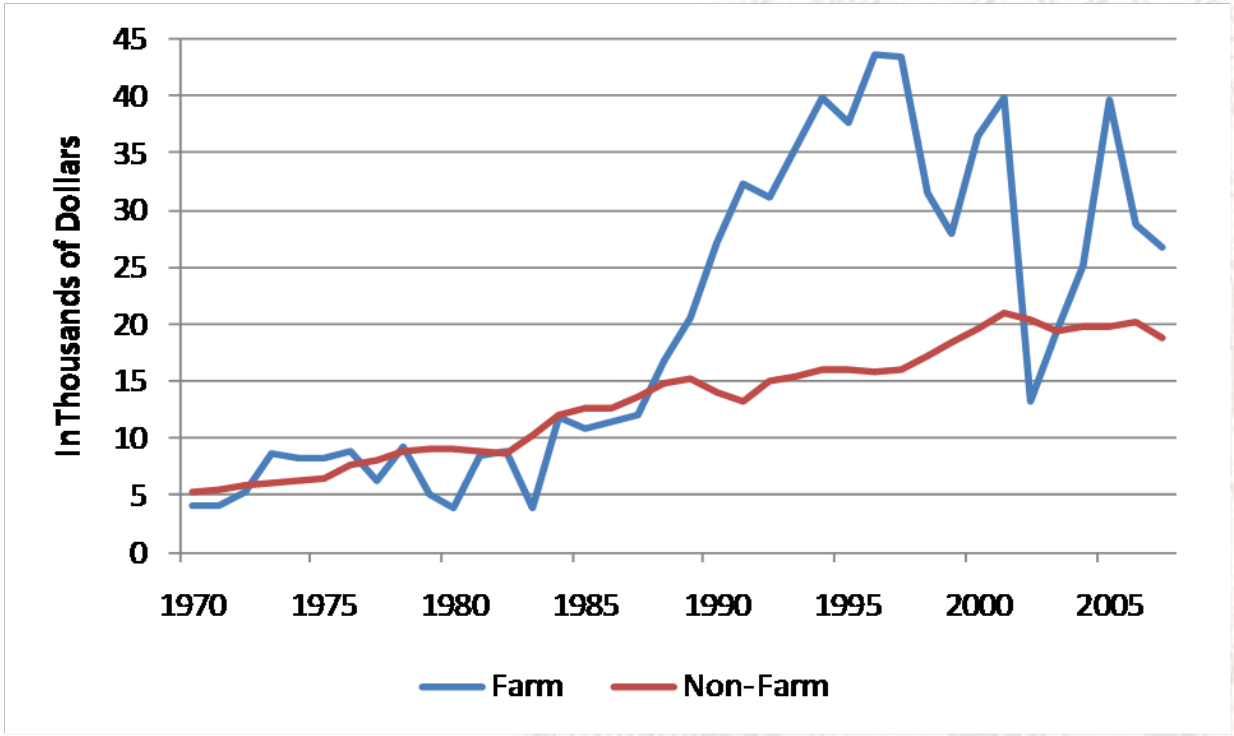
Farm income exceeded non-farm income beginning in 1989 and sustained an upward trend until a high of $42,000 in 1989. But a sharp decline was seen after due to a fall in farm income levels at Davie and Stanly counties.

*Regional counties include Davie, Forsyth, Guilford, Montgomery, Randolph, Rowan, and Stanly counties.

Source: Regional Economic Information System (REIS).

Proprietors income is total income divided by the number of proprietors for both farm and non-farm sectors in the county.

North Carolina Farm and Non-Farm Income per Capita, 1970-2007

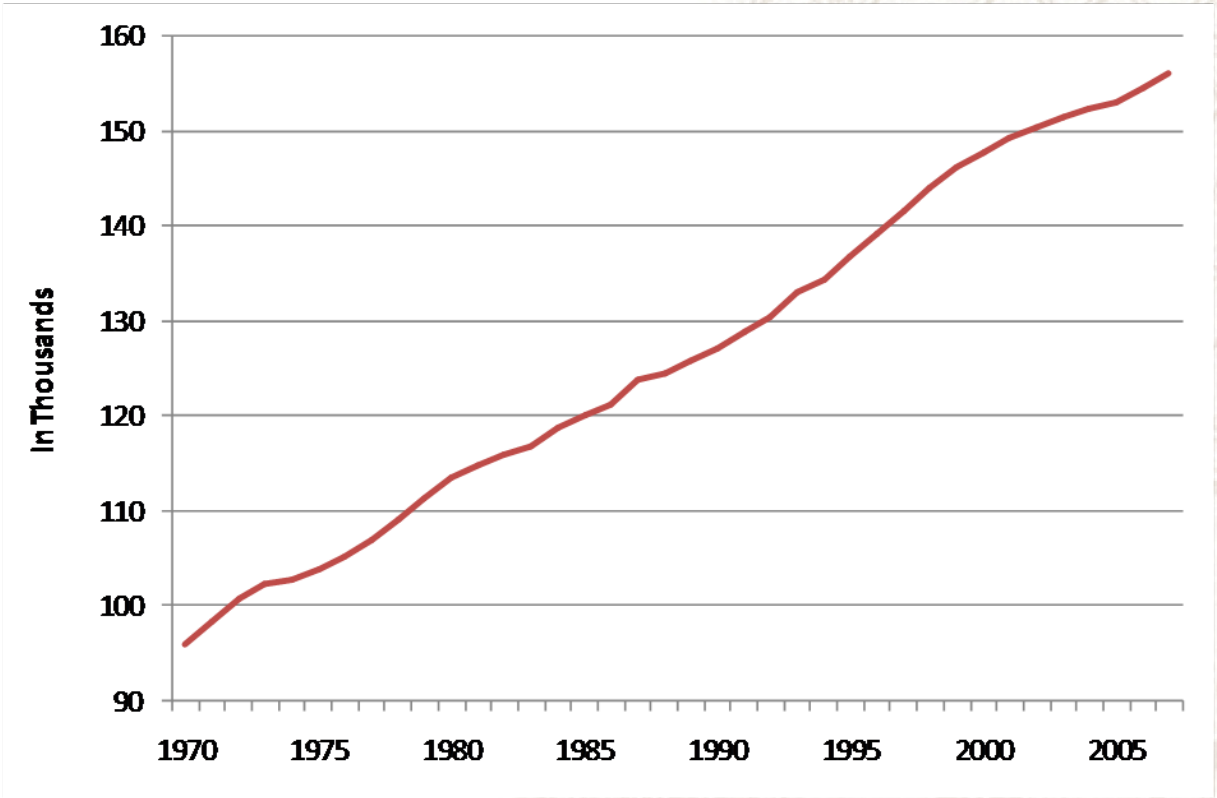


After following the same trend as non-farm income, the state's per capita farm income surged after 1988 and reached a high of $44,000 in 1996. The volatility since 1998 has been significant. Per capita farm income trends varied by $8,000 from the average between 1998 and 2007 compared to only $1,000 for non-farm per capita income.

Source: Regional Economic Information System (REIS).

Proprietors income is total income divided by the number of proprietors for both farm and non-farm sectors in the county.

Davidson County Population, 1970-2007



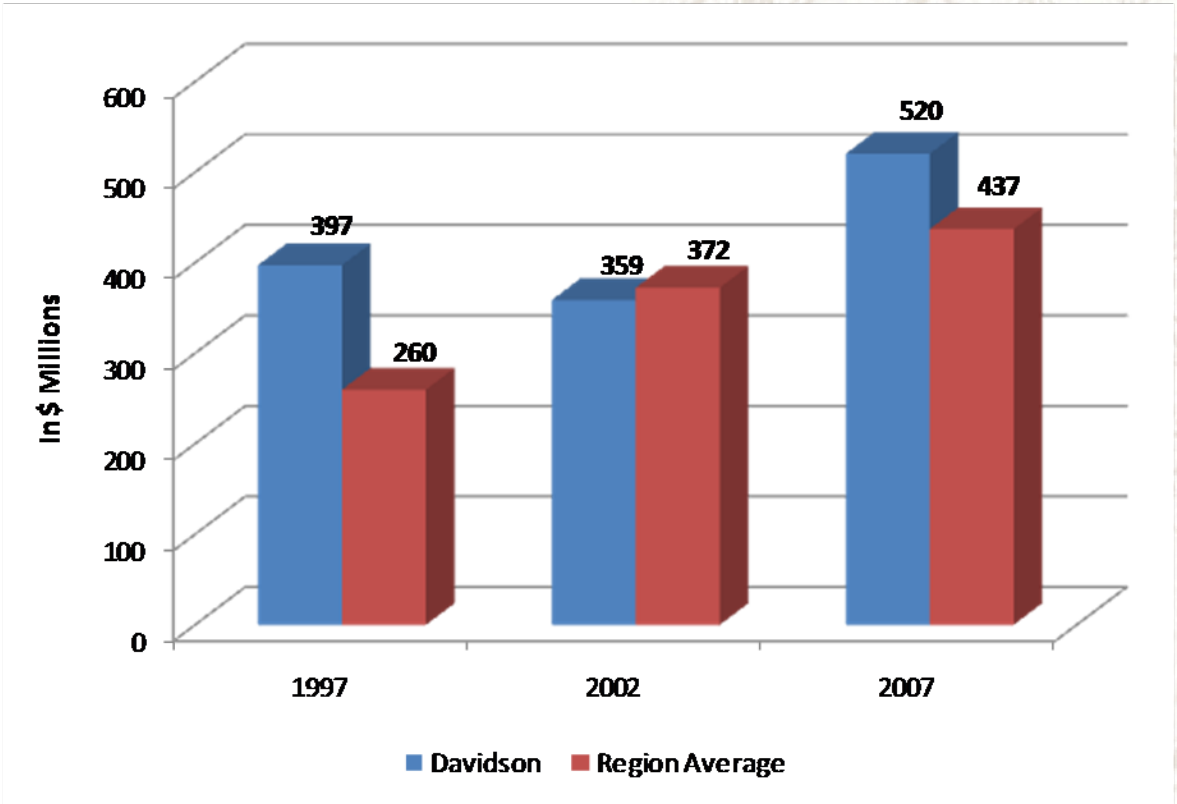
Davidson County kept a one percent average population growth rare between 1970-2007. There were also no years where growth rates declined. The increase reflects a perception among people that there are farm and non-farm opportunities within the county

Source: Regional Economic Information System (REIS).

SECTION 2

CHARACTERISTICS AND STRUCTURE

Davidson County
Market Value of Land and Buildings

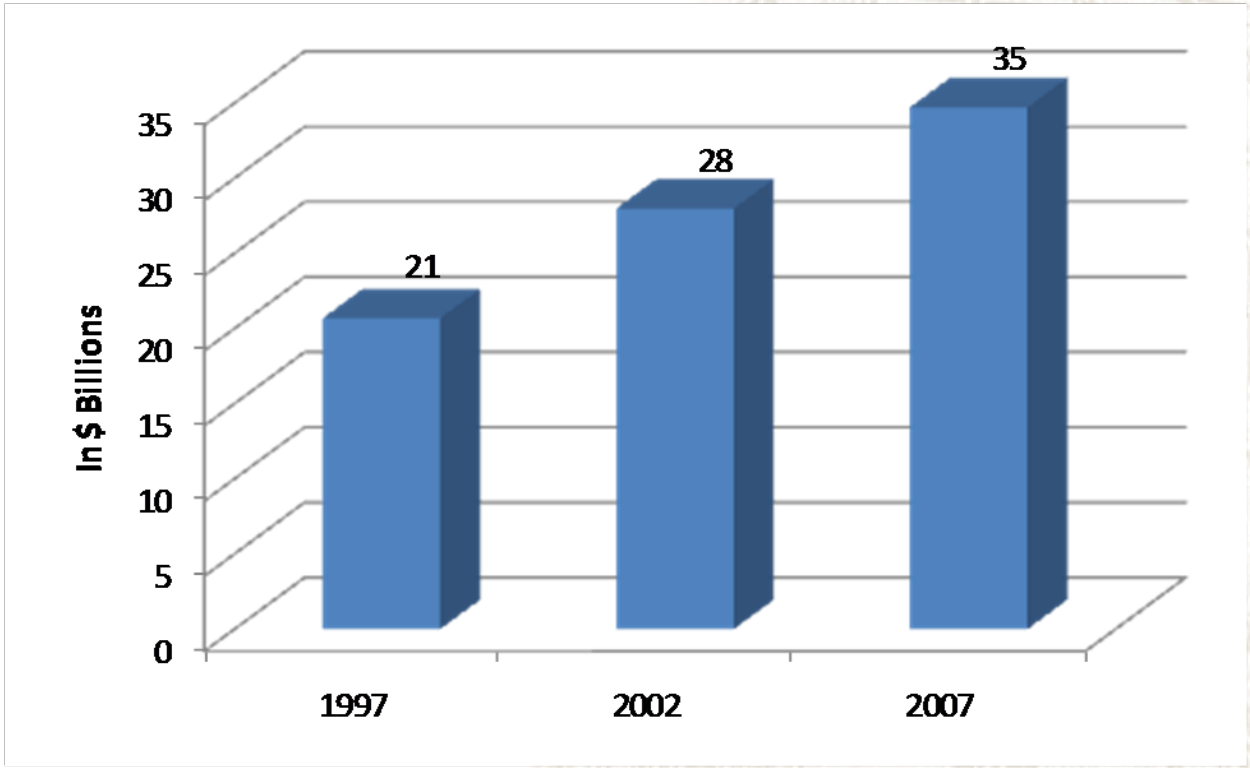


In 2007, farm property values in Davidson exceeded the regional average by $83 million. The gap is a $50 million increase compared to 2002, which suggest farming has increased in value in Davidson compared to its neighboring counties.

Source: U.S. Census of Agriculture.

Farm real estate values include land and buildings.

North Carolina
Market Value of Land and Buildings

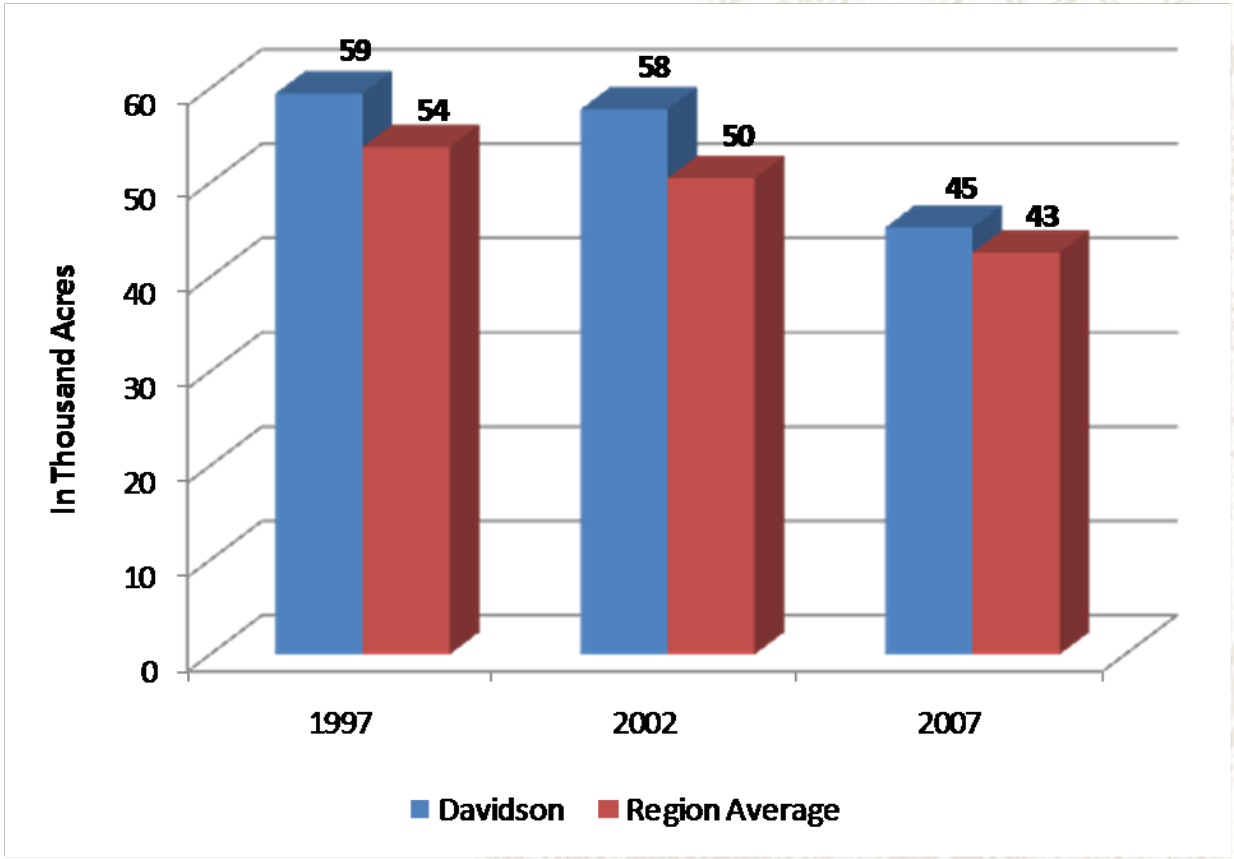


Farm property values increased 35 percent from $20 billion in 1997 to $28 billion in 2002. The growth slowed to 24 percent between 2002 and 2007, with values reaching $25 billion. The rise in farm property values throughout the state is a result of growing demand for land for non-farm purposes as well as increasing profitability in farming operations.

Source: U.S. Census of Agriculture.

Farm real estate values include land and buildings.

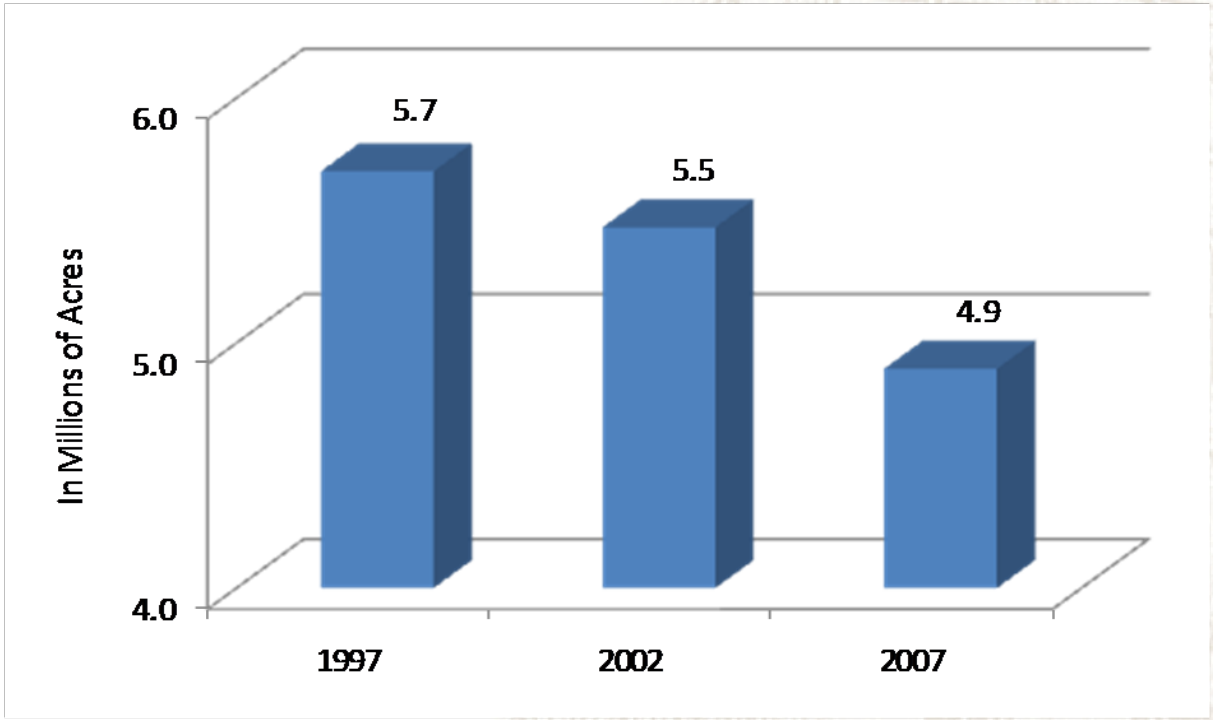
Davidson County
Total Farm Cropland



Cropland in Davidson County is still larger compared to the average acreage in the regional counties. But the continuing decline in acreage for both areas shows the effects of other (non-agricultural) factors such as the result of the conversion of farmland for non-farm purposes (e.g. residential development).

Source: U.S. Census of Agriculture.

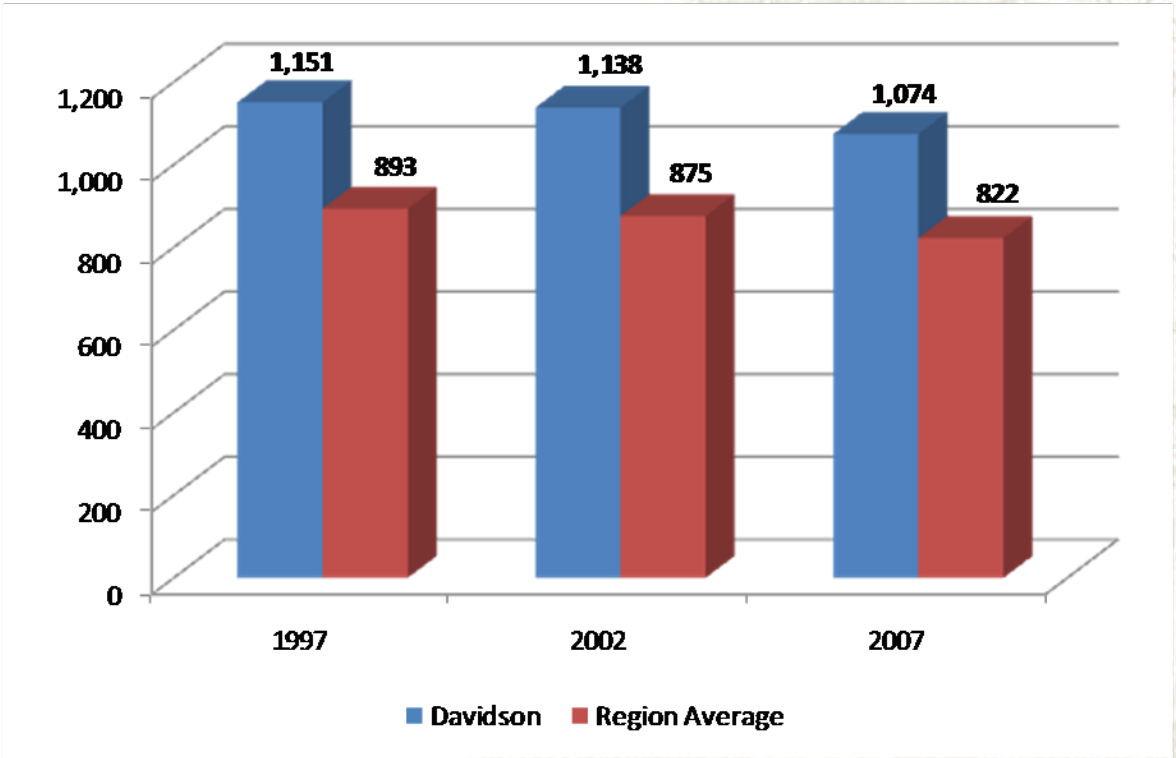
North Carolina
Total Farm Cropland



The state lost nearly 600,000 acres of farmland between 2002 and 2007. Prior to that, it lost 200,000 acres between 1997 and 2002. The decline suggests many trends occurring in the state such as the consolidation of operations and the conversion of farmland .

Source: U.S. Census of Agriculture.

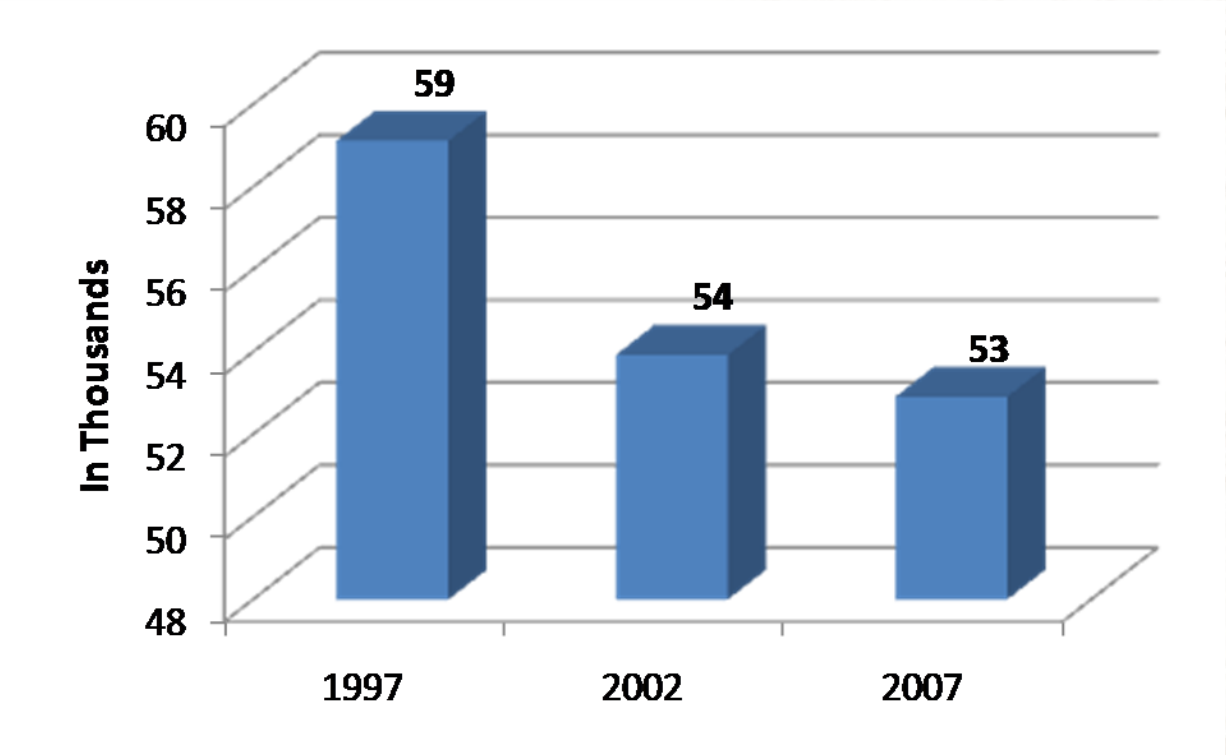
Davidson County Number of Farms



Davidson and the counties surrounding it saw declines in the number of farms from 1997 to 2002. Along with the declines in cropland, there appears to be evidence of consolidation in the agriculture sector.

Source: U.S. Census of Agriculture.

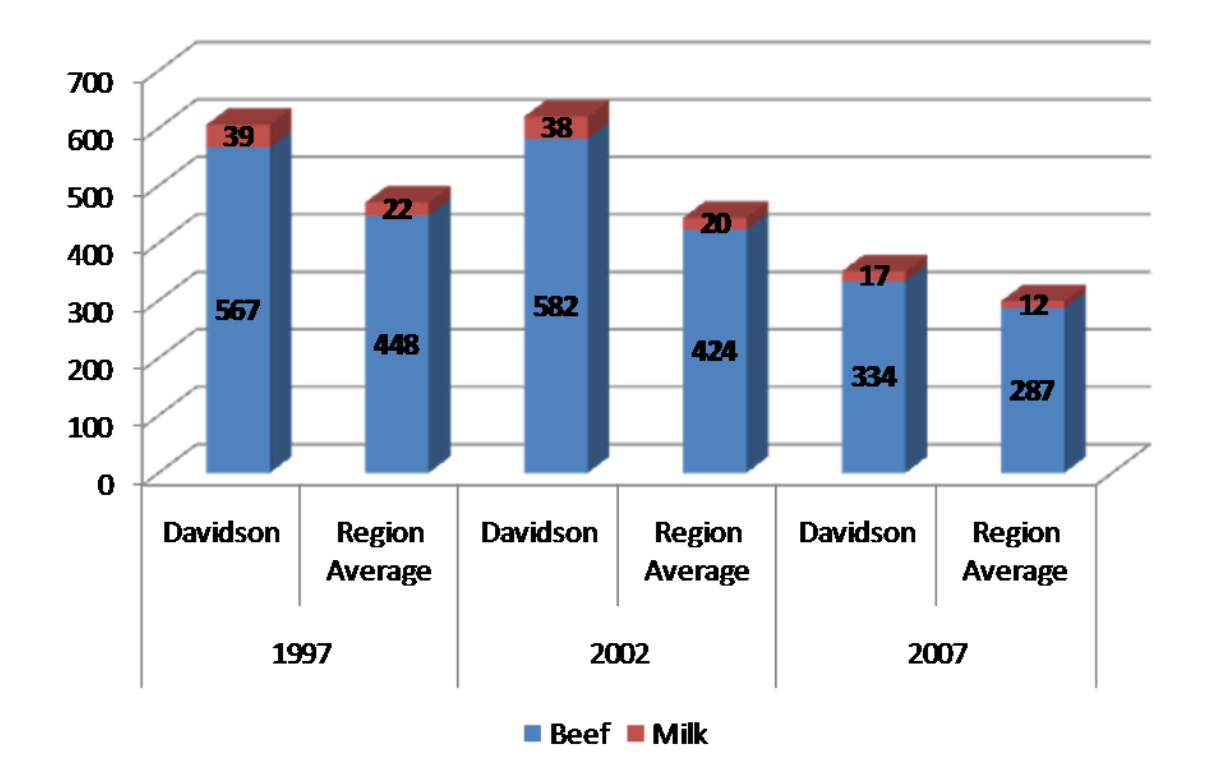
North Carolina Number of Farms



North Carolina experienced a loss of 5,000 farming operations between 1997 and 2002. The losses went down to just 1,000 farms in the next five years, with 53,000 operations recorded in 2007. The decline highlights some ability in the state to withstand some farming trends such as consolidation and loss of farmland to development use.

Source: U.S. Census of Agriculture.

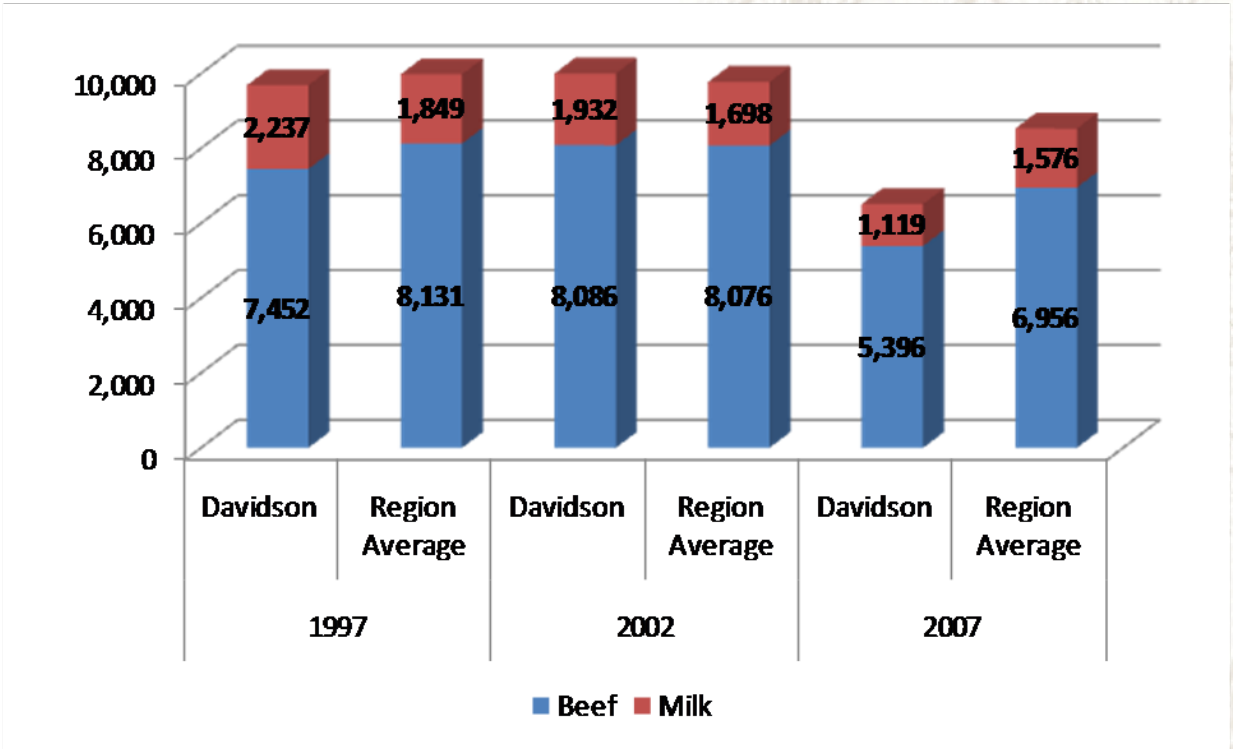
Davidson County
Number of Cattle Farms



Davidson County had more cattle operations than the average held by the regional counties in 1997, 2002, and 2007. But both areas saw a substantial drop in cattle farms in 2007 compared to 2002. Davidson County lost 269 farms while the regional area lost 145.

Source: U.S. Census of Agriculture.

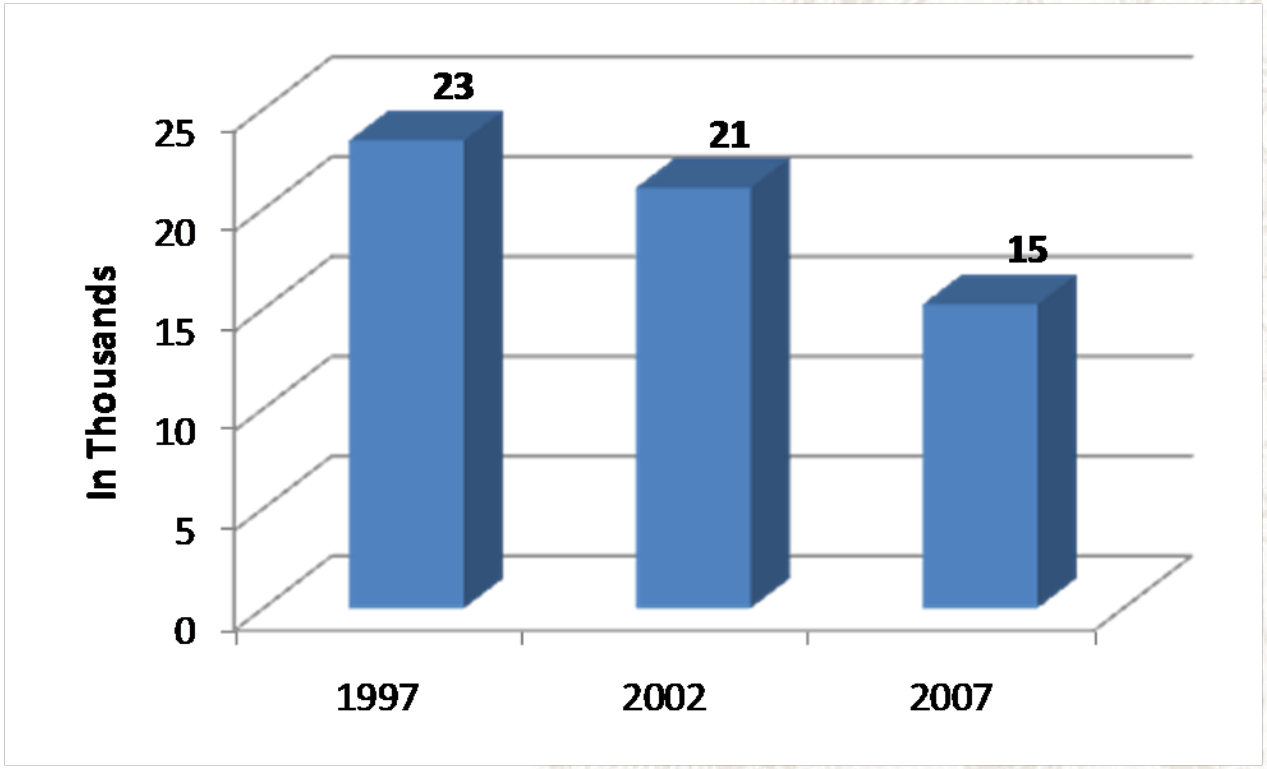
Davidson County Cattle Inventory



Following a three-percent increase between 1997-2002, cattle inventory in the county dropped 35 percent between 2002-2007. Along with a two-percent reduction between 1997-2002 and a 13 percent drop between 2002-2007 in regional averages, the cattle sector appears to be undergoing an overall drop in production.

Source: U.S. Census of Agriculture.

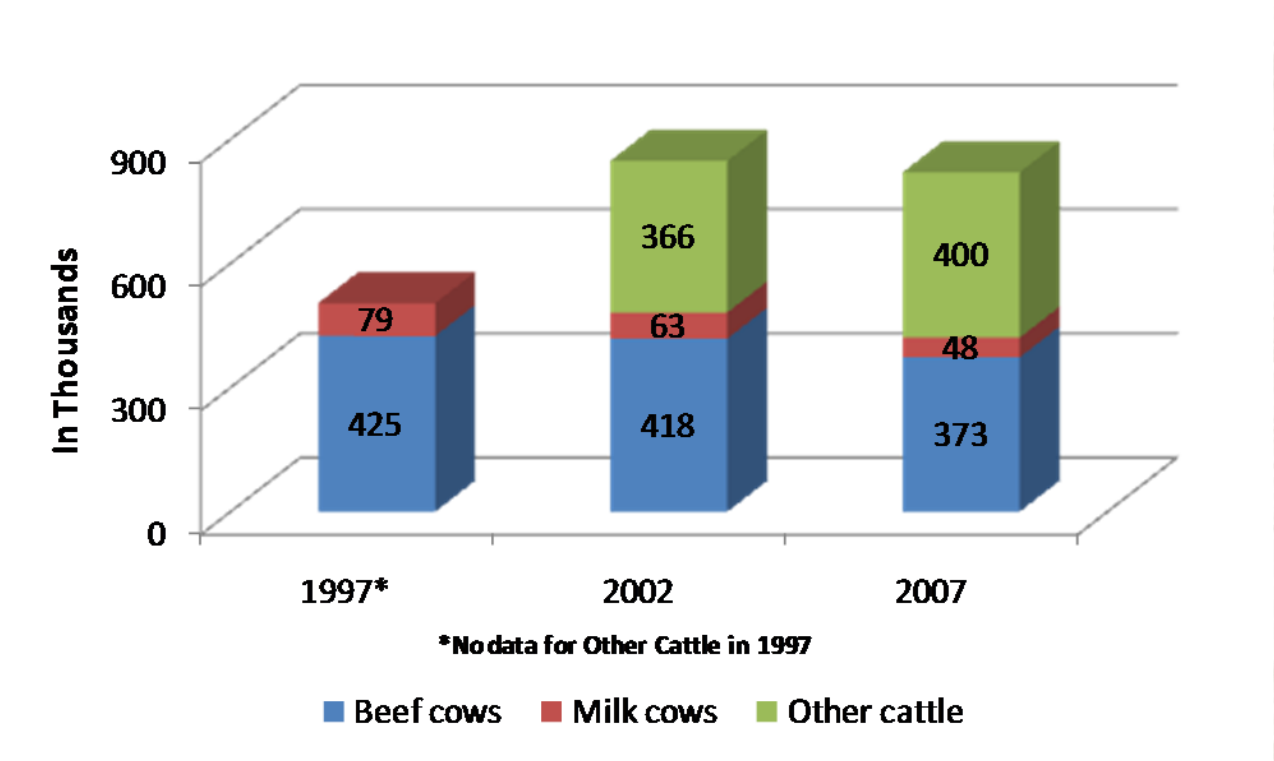
North Carolina
Number of Cattle Farms



In 2002, North Carolina lost 10 percent of its cattle farms from 1997. In 2007, it lost 20 percent of its farms from 2002. Along with rising farm receipts in livestock operations, this trend further supports the argument of consolidation in this segment of the farming sector.

Source: U.S. Census of Agriculture.

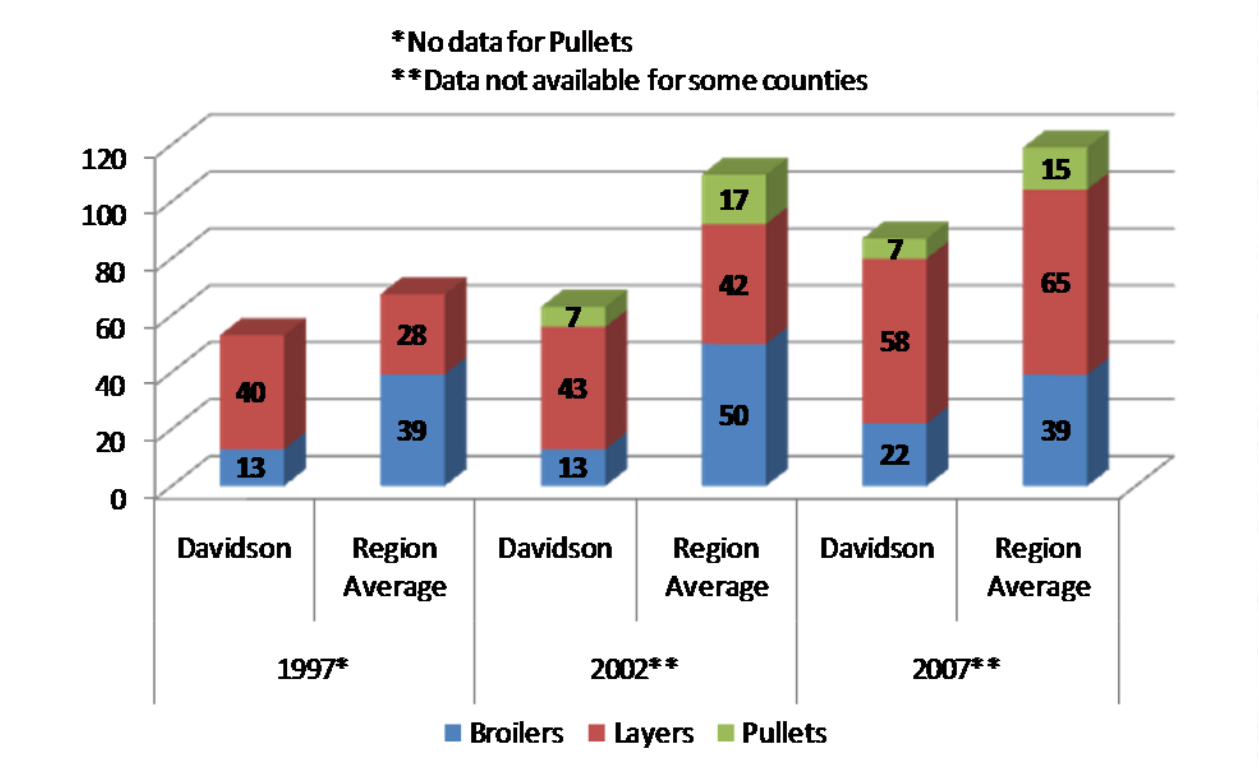
North Carolina Cattle Inventory



Between 1997-2002 and 2002-2007, 16,000 milk cows were lost in each period. But the larger losses were from beef cows, with seven thousand heads lost between 1997 and 2002 and 45,000 heads lost between 2002 and 2007.

Source: U.S. Census of Agriculture.

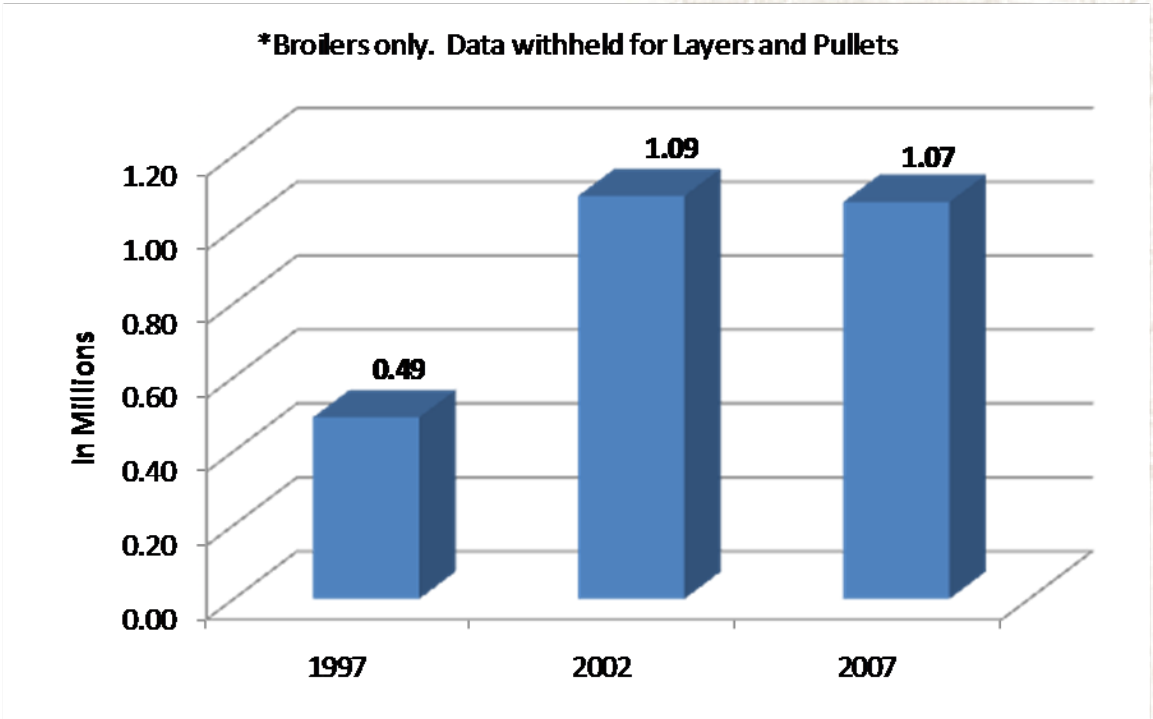
Davidson County
Number of Poultry Operations



While cattle production appeared to be slowing down, poultry operations grew stronger in Davidson and the region. Thirty four more operations were added in Davidson between 1997-2002 while the region had 52 more. Unlike other North Carolina counties, the volatility in the domestic and international poultry markets did not appear to have a major effect on establishing operations.

Source: U.S. Census of Agriculture.

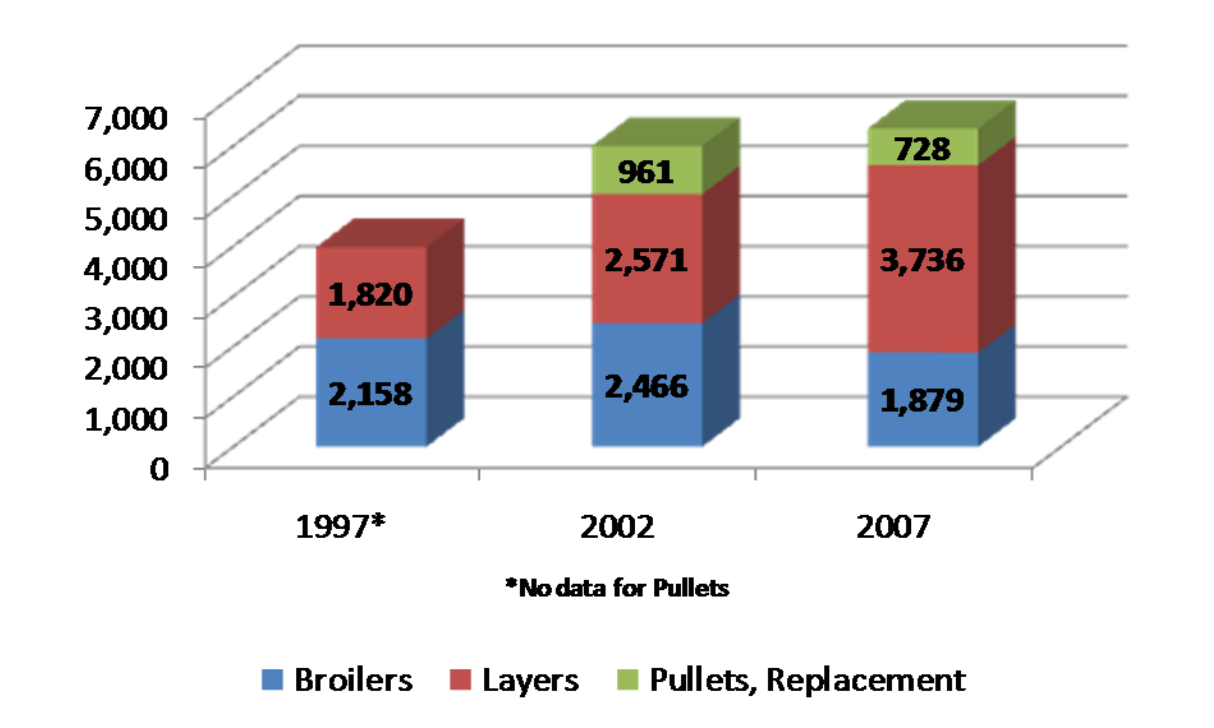
Davidson County Poultry Inventory*



Broiler production in Davidson County surged 122 percent between 1997-2002 but growth rates remained flat between 2002-2007. These production levels support the idea that Davidson County poultry production has held steady under a very volatile domestic and international poultry market.

Source: U.S. Census of Agriculture.

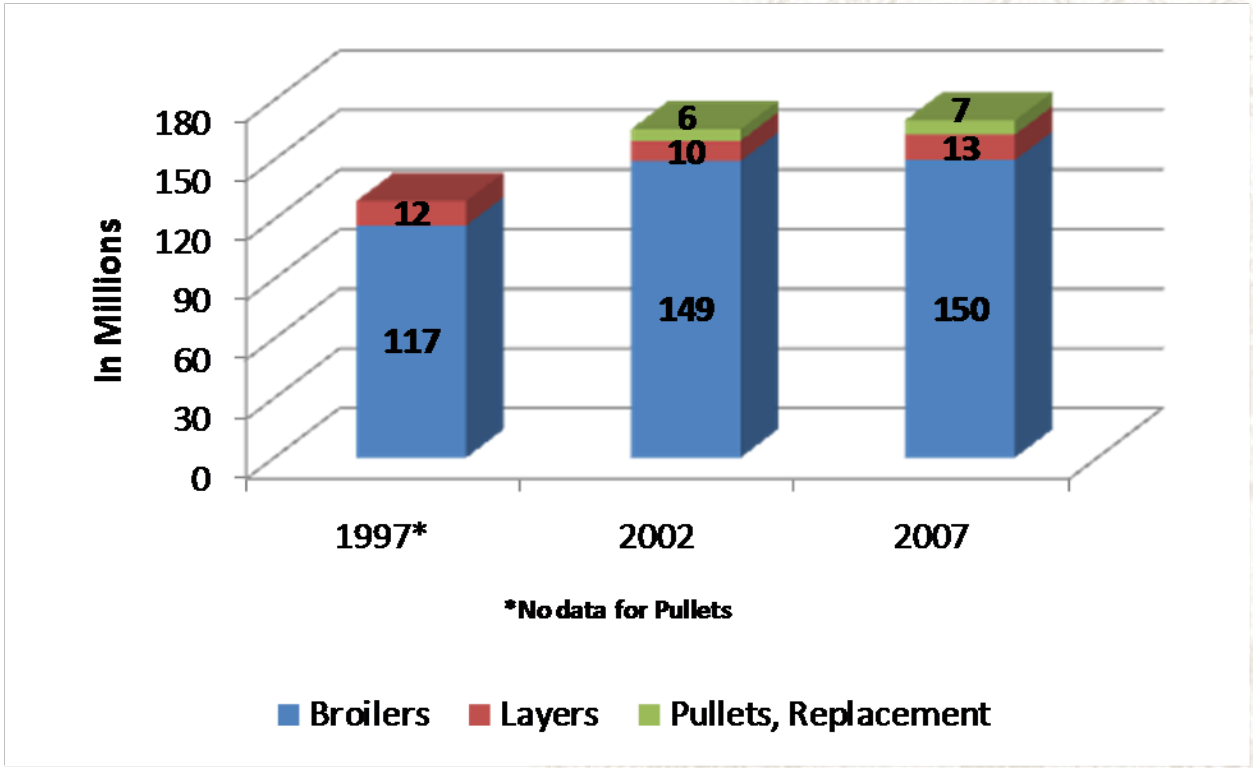
North Carolina
Number of Poultry Farms



The number of poultry operations grew by 2,000 farms in North Carolina between 1997 and 2002. An additional 345 farms were also recorded between 2002 and 2007. The growth represents the aggregated effect of increases in poultry operations throughout the different counties. It is also a continuation of a long-running trend of growing poultry (and livestock) operations.

Source: U.S. Census of Agriculture.

North Carolina Poultry Inventory



Poultry production grew 28 percent from 1997 to 2002 led by the continued increase in broiler production. But growth was flat from 2002 to 2007, as returns may have diminished slightly following the widespread expansion of poultry operations across the state.

Source: U.S. Census of Agriculture.

SECTION 3

SECONDARY INDUSTRY IMPACT

Davidson County Agriculture Support and Food Services Firms, 2000-2007

	2000	2001	2002	2003	2004	2005	2006	2007
Support Establishments for Forestry and Logging	5	3	5	6	7	4	4	3
Support Establishments for Fishing and Hunting						1	1	1
Support Establishments for Agriculture and Forestry		1	2	1			1	1

The presence of establishments related to agriculture and food in Davidson County is modest. But with rising trends in major indicators such as farm receipts and poultry production, there should be an increasing role for these support establishments.

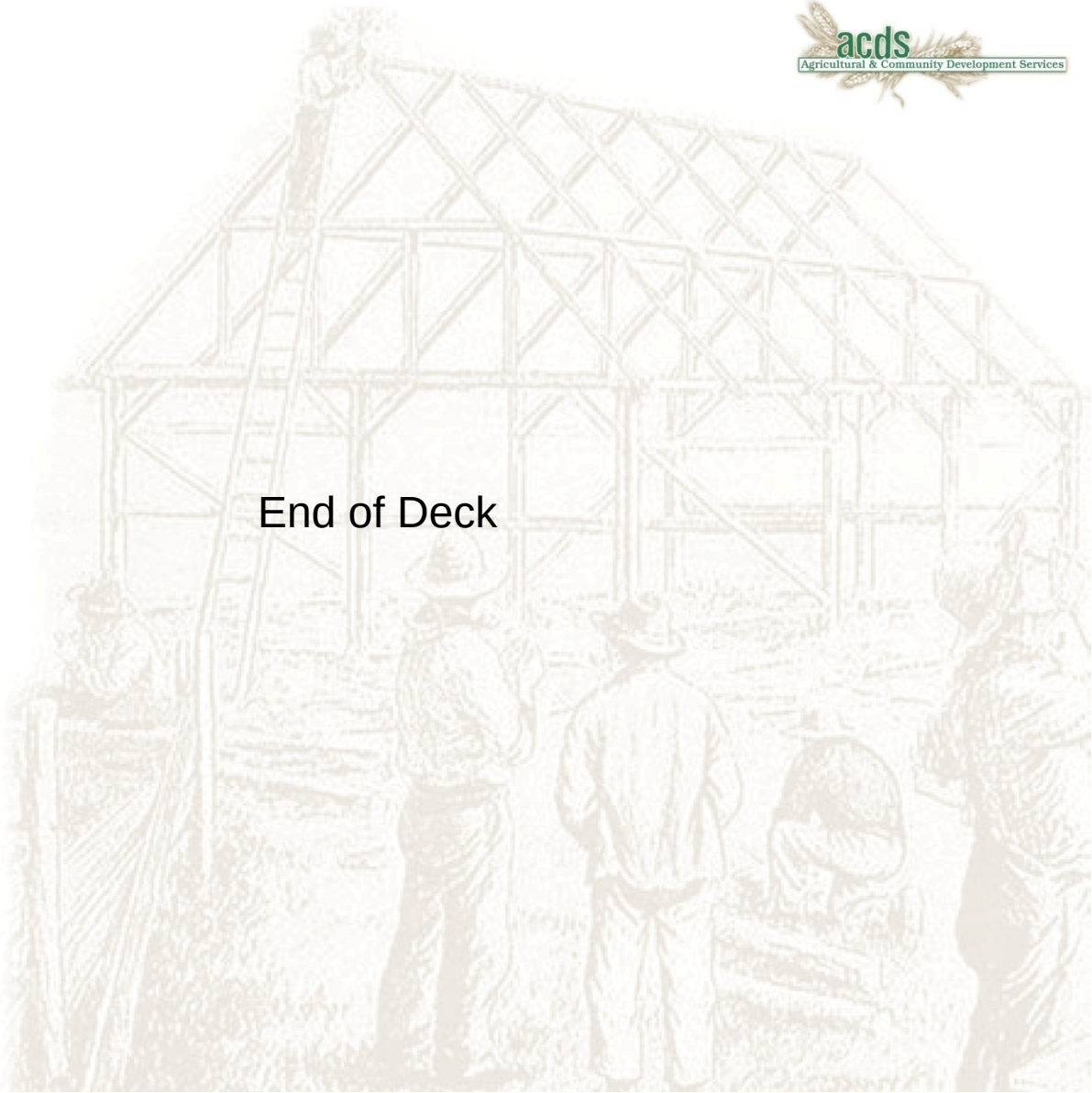
Source: U.S. Census Bureau.

North Carolina Agriculture Support and Food Services Firms, 2000-2007

	2000	2001	2002	2003	2004	2005	2006	2007
Support Establishments for Forestry and Logging	722	705	3,923	664	647	611	595	3,284
Support Establishments for Fishing and Hunting	37	41	105	31	31	26	26	74
Support Establishments for Agriculture and Forestry	252	290	1,842	290	288	280	263	1,470

The state experienced significant losses in agricultural support and food manufacturing establishments between 2003 to 2006. Additional firms were added the following year, which indicates a recovery in the presence of these support establishments.

Source: U.S. Census Bureau.



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