# THE ECONOMIC IMPACT OF WAL-MART SUPERCENTERS ON EXISTING BUSINESSES IN MISSISSIPPI

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# **INTRODUCTION**

While there is much anecdotal evidence to suggest that existing businesses are harmed by the growth of supercenters, there has been little academic research in the field, owing to a general lack of reliable data. A recent paper by Andrew W. Franklin examined the impact of Wal-Mart supercenter entry on the concentration of grocery stores in metropolitan areas. While he found little evidence that supercenters affect the concentration in larger metropolitan areas, he did report that Wal-Mart's market shares were highest in lower income and smaller metropolitan areas (Franklin, 2000).

This study examined the impact of Wal-Mart supercenters on the sales of existing businesses in local trade areas. Data from sales tax reports in Mississippi were used to analyze changes in the sales of food stores, general merchandise stores, furniture stores, building materials stores, miscellaneous retail stores and the total county. The Mississippi data have two main advantages. First, unlike most states, all food items are subject to the sales tax in Mississippi; therefore this data set allows us to account fully for food store sales. Also, since food items sold in supercenters are reported in general merchandise store sales and not in food stores sales, we have a unique opportunity to identify changes in market structure that have occurred with the addition of a supercenter. Second, supercenters have been open in Mississippi for several years, sufficiently long to observe market changes.

1

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#### **BACKGROUND**

# **Supercenters**

Supercenters, sometimes called super-combo stores, are huge one-stop stores combining general merchandise, groceries and services. They are the fastest growing type of store in the United States today. At the end of 2001, Wal-Mart, the largest chain, was operating 1,060 supercenters and planned to open 150 or more per year for the next few years. K Mart was operating 125 Super K Marts at the end of 2001, but its expansion has been put on hold until its bankruptcy situation is resolved. Target was operating 62 Super Target stores at the end of 2001 and planned to open approximately 30 new ones per year for the next several years.

The super-combo concept originated in Europe, and the stores were usually called hypermarts. Carrefour of France is currently the sales leader with 2001 sales of \$55.3 billion (US Dollars). The Meijer Company, of Grand Rapids, Michigan pioneered supercenters in the upper Midwest in the U.S. At the end of 2001, it operated 152 stores transacting an estimated \$10.6 billion in sales that year. Fred Meyers of Portland, Oregon was the dominant operator of super-combo stores in the Northwestern part of the U.S., but was bought out by Kroger in 1998.

The strategy behind super-combo stores is one-stop shopping. The theory is that many shoppers prefer to do most of their regular shopping at one place, thereby saving time by avoiding the hassle of traffic jams, parking problems, etc. In addition most people in the U.S. spend more money in grocery stores than in any other type of store. They spend the next highest amount of money in general merchandise stores. It is believed that synergism is created by combining general merchandise, groceries and services under one roof. Specifically, Wal-Mart apparently believes that by adding groceries to its stores it will gain additional sales in general merchandise, because of the spillover of customers from the grocery department.

# The Grocery Industry

The grocery industry in the U.S. has undergone a rapid consolidation in recent years. *Supermarket News* estimated that the top five retail grocers now account for nearly 40% of the sales in the U.S. market. At the top of this list is Wal-Mart. With 1,060 supercenters and estimated sales of \$65.3 billion, the discount mass merchandiser accounted for approximately 11% of the nation's retail grocery market in 2000<sup>5</sup>.

Much of the growth in Wal-Mart supercenters comes from the conversion of existing Wal-Mart discount department stores. In 2001, 104 of 167, or 62%, of new supercenters resulted from conversions of existing stores.<sup>6</sup> Many of these stores are located in rural trade centers with little population or income growth. In such areas, the notion of a "zero-sum game" frequently prevails. In other words, a new entrant captures its sales from existing businesses, not from a growing market, and the existing retailers are likely to be adversely impacted.

### STUDY DESIGN

Mississippi was chosen for this study since it is one of the few states that have a sales tax on food. In addition, Mississippi has relatively good sales tax data that lists sales by merchandise category for each county. A Wal-Mart store directory was used to identify supercenters that had been open for at least one year. There were 30 stores that fit this description. However, it was decided to drop out stores that were in counties of over 100,000 population since it would be difficult to isolate the effects of a supercenter opening in these larger markets. Also, four counties had two stores each; these stores were dropped in the interest of maintaining consistency. The resultant sample consisted of 18 stores in counties with an average population of 45,450.

3

<sup>&</sup>lt;sup>5</sup> www.supermarketnews.com, January 7, 2002.

<sup>&</sup>lt;sup>6</sup> Wal-Mart SEC form 10K, January 31, 2001.

Sales tax data from fiscal years 1990 through 2001 was procured from the Mississippi State Tax Commission. The study was set up to determine the change in sales for various types of businesses in the supercenter trade area for each succeeding year after the opening of the supercenter.

Pull factors were calculated for various merchandise categories for the counties in the study for each year since opening. Pull factors are derived from sales figures, and provide a better method of comparison than sales alone. A pull factor is a county's per capita sales divided by the state's per capita sales. For example, if a state's per capita sales were \$9,000 and a county's were \$9,000, the pull factor would be one. The interpretation would be that such a county's sales would be equal to selling to 100 percent of the county population, in full-time customer equivalents. A pull factor of 1.5 would mean that a county is selling to 150 percent of the county's population, in full-time customer equivalents.

The advantage of using pull factor analysis is that this simple measure makes adjustments for population differences among towns, it adjusts for price inflation, and it takes into consideration the condition of the state's economy. In effect, the pull factor is a proxy measure for the size of a town's trade area. Pull factors can be computed for various merchandise categories as well as for total sales.

#### **DATA**

As of this writing there are 30 Wal-Mart supercenters in 26 counties in Mississippi. The first supercenters opened in the state in September 1992. Four stores opened that year in the northeast part of the state. Four more supercenters opened in 1993. In the next four years, Wal-Mart opened three or fewer stores per year in Mississippi. The pace of openings accelerated somewhat with the addition of five stores in 1998, seven in 1999 and four in 2000. The most recent opening included in this study is the supercenter in Magee, which opened in October 1999.

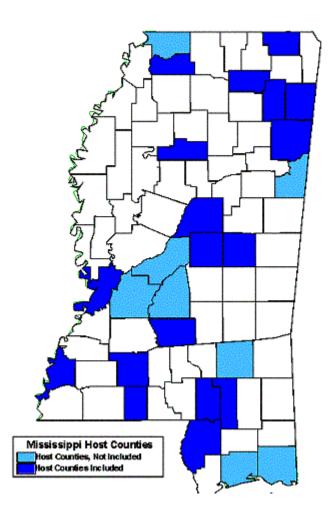
The Mississippi State Tax Commission reports county sales by merchandise category annually for a fiscal year spanning July 1 to June 30. For this analysis, data were collected for the following categories: apparel and general merchandise, food and beverage, furniture and fixtures, lumber and building materials, miscellaneous retail and total retail sales. Data were collected for all eighty-two counties for fiscal years 1990 to 2001. The primary focus of the analysis was to determine the impact of a new supercenter on existing store sales in each market area. Unfortunately, the food and beverage category reported by the state includes not only grocery stores, but also restaurants and drinking establishments. Since previous studies have found that following the addition of a Wal-Mart store, restaurant sales in the host town may increase, the effect on this category could comprise two offsetting effects (an increase in restaurant sales and a decrease in grocery sales) (Stone, 1995; Artz, 1999). To correct this problem, restaurant and bar sales were estimated using data from the *Economic* Censuses of 1992 and 1997 and subtracted from the Mississippi State Tax Commission data to obtain adjusted food stores sales that are more representative of grocery store sales.

Table 1 lists the host towns and counties involved in the study. Figure 1 is a map showing the location of the host counties of the Wal-Mart supercenters both included and not included in this study.

Table 1. List of Towns and Counties Included in the Study

| Host County        | Host City     | Included | Date Opened     | County Population |
|--------------------|---------------|----------|-----------------|-------------------|
|                    |               |          |                 | (2000 census)     |
| Adams County       | Natchez       | Yes      | Sep-95          | 49,644            |
| Alcorn County      | Corinth       | Yes      | Sep-92          | 64,958            |
| Attala County      | Kosicucko     | Yes      | Feb-98          | 38,940            |
| De Soto County     | Olive Branch  | No       | Apr-00          | 107,199           |
| De Soto County     | Southhaven    | No       | Oct-98          | 107,199           |
| Forrest County     | Hattiesburg   | Yes      | Aug-99          | 38,014            |
| Grenada County     | Grenada       | Yes      | Oct-96          | 72,604            |
| Harrison County    | D'iberville   | No       | May-99          | 189,601           |
| Harrison County    | Gulfport      | No       | Jan-95          | 189,601           |
| Hinds County       | Jackson       | No       | Jun-98          | 250,800           |
| Itawamba County    | Fulton        | Yes      | Mar-99          | 23,263            |
| Jackson County     | Ocean Springs | No       | May-00          | 131,420           |
| Jones County       | Laurel        | No       | Sep-00          | 20,940            |
| Lamar County       | Hattiesburg   | No       | 1994            | 39,070            |
| Leake County       | Carthage      | Yes      | Feb-99          | 25,370            |
| Lee County         | Tupelo (2)    | Yes      | Mar-93 & Mar-99 | 75,755            |
| Lincoln County     | Brookhaven    | Yes      | Aug-93          | 48,621            |
| Lowndes County     | Columbus      | No       | Aug-00          | 19,661            |
| Madison County     | Richland      | No       | Jan-01          | 22,770            |
| Monroe County      | Amory         | Yes      | Mar-93          | 33,166            |
| Neshoba County     | Philadelphia  | Yes      | Mar-95          | 61,586            |
| Pearl River County | Picayune      | Yes      | Jun-96          | 27,639            |
| Pike County        | McComb        | Yes      | Jun-98          | 74,674            |
| Rankin County      | Brandon       | No       | Mar-99          | 115,327           |
| Rankin County      | Pearl         | No       | Sep-97          | 115,327           |
| Simpson County     | Magee         | Yes      | Oct-99          | 34,558            |
| Tate County        | Senatobia     | Yes      | 1993            | 25,362            |
| Union County       | New Albany    | Yes      | Sep-92          | 28,684            |
| Warren County      | Vicksburg     | Yes      | Aug-98          | 34,340            |

Figure 1. Location of Wal-Mart supercenter Host Counties in Mississippi



# **FINDINGS**

Pull factors were analyzed for five types of businesses to determine the relative change in sales in the succeeding years after the opening of a supercenter. Changes were analyzed for the host counties and for the non-host counties. For host counties, the base year was defined as the year prior to the opening of the Wal-Mart supercenter. It is important to note that this type of analysis does not prove that supercenters alone caused the changes indicated. However, in most cases, the opening of the supercenter was the

<sup>&</sup>lt;sup>7</sup> Since the month the supercenter opened varies by store, the first year after opening does not consistently represent a full year of operation of the supercenter. Therefore, in the presentation of the results that

dominant economic event that occurred during the time frames analyzed. Therefore, it is probably safe to say that the supercenters played a major role in the changes in sales of other stores.

Many economists believe that analyzing a retail trade area is much like analyzing a zero-sum game. Unless the population or incomes are growing substantially, there is a fixed amount of money to be spent in the retail sector. If a large store is opened in the trade area, it is going to capture a considerable amount of trade. That can only mean that, in total, other merchants in the trade area will lose a comparable amount of trade (Blair and Kumar, 1997). The results of this study are presented below and show strong evidence that the gains for Wal-Mart supercenters were matched by corresponding losses for existing businesses in the trade area.

#### **Host Counties**

Host counties are those in which towns with Wal-Mart supercenters are located. In most cases, the host towns are the county seats. The findings for the various types of stores are discussed below. **NOTE:** Percentage change in pull factors as shown in the second chart cannot be computed directly from the pull factors in the first chart because of varying base years.

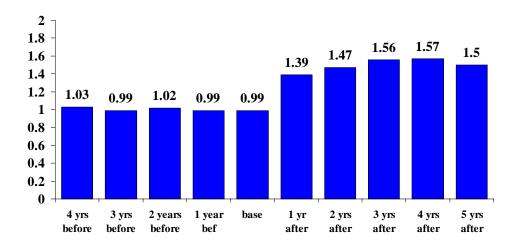
General Merchandise Stores. Wal-Mart supercenters are classified as general merchandise stores. This category includes department stores and variety stores. Figure 2 shows the change in pull factors for general merchandise stores in host counties in Mississippi for the years preceding and succeeding the opening of a supercenter.

follow, year one is defined as the change from the fiscal year defined as the base year to the fiscal year two years following. This measure accounts for at least one full year of the supercenter's operation.

8

Average General Merchandise Stores Pull Factor for Host Counties (Under 100,000 Population),
Before and After Wal-Mart Supercenter

Figure 2

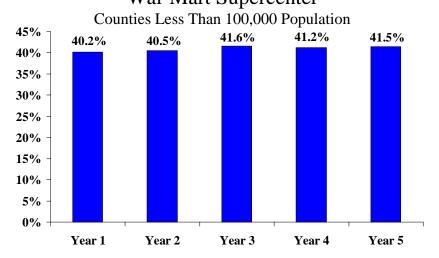


The average pull factor for general merchandise stores in the host counties remained relatively steady and ranged from 0.99 to 1.03 for the four years preceding the opening of a Wal-Mart supercenter. That means that sales of general merchandise stores amounted to selling to slightly more than the county population. The average county pull factor rose quickly after the supercenter opening, rising to 1.57 in the fourth year. This means that, on average, the host counties general merchandise stores were selling to the equivalent of 1.57 times the county population, in full-time customer equivalents. It should be noted that the general merchandise pull factor declined to 1.50 in the fifth year. This is consistent with previous studies by the authors and is believed to be caused by saturation of the market by Wal-Mart supercenters and perhaps by other stores. Figure 3 shows the average percent change in host county general merchandise pull factors in the first five years after the opening of a Wal-Mart supercenter. General merchandise sales (pull factor) increased by 40.2 percent in the first year. The percent change in the pull factor then increased to 41.6 percent in year three before declining slightly in years four and five. It is important to note that these figures include both the general merchandise and food sold through the supercenter. This is one of the key points of this study compared to previous studies in states where food sales were exempt from the

sales tax. Consequently, the percent change in general merchandise sales is larger than in states where food sales are exempt from sales tax. For example, in a study of Texas supercenters, the average increase in host town general merchandise sales was approximately 31 percent for the first few years.

Figure 3

Percent Change in Average General Merchandise Pull
Factor for Mississippi Host Counties After Entry of
Wal-Mart Supercenter



**Food Stores**. Wal-Mart supercenters capture a significant share of sales from existing food stores. Figure 4 shows the average pull factor for food stores before and after the opening of a Wal-Mart supercenter. For the four years prior to the opening of the store, food store pull factors remained relatively steady, increasing from 1.18 four years before to 1.19 in the base year. However, after the opening of the supercenter, the average pull factor decreased rapidly and five years later was 0.99. Figure 5 shows the average percent change in food store pull factors for the five years after the opening of the Wal-Mart supercenter. Sales (pull factors) dropped over 10 percent the first year after the opening. On a cumulative basis, the decline continued and five years after the opening, average food store sales were 19.2 percent lower, compared to the base year.

Figure 4

Average Grocery Stores Pull Factor for Host Counties
(Under 100,000 Population),
Before and After Wal-Mart Supercenter

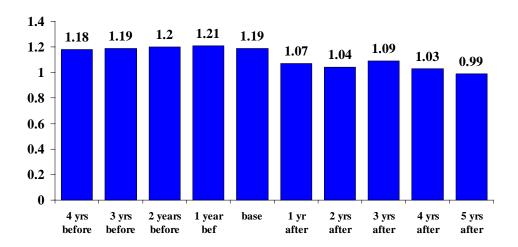
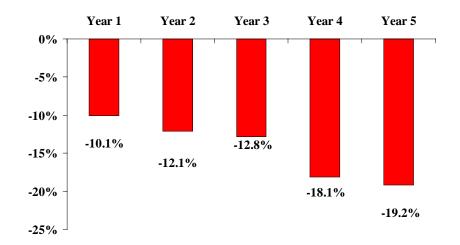


Figure 5

Percent Change in Average Food Store Pull Factor for Host Counties After Entry of Wal-Mart Supercenter Counties Less Than 100,000 Population



**Furniture Stores**. Past studies have shown that non-competing stores in the host town tend to show an increase in sales after the opening of a discount general merchandise store. They apparently benefit from the additional traffic a "big box" store generates. Figure 6 shows the average pull factors for host county furniture stores before and after the opening of Wal-Mart supercenters. The average pull factor for furniture stores for the base year was 0.79, having risen from 0.74 four years previous. In the five years succeeding the opening of the supercenters, the average pull factor vacillated to a slight increase of 0.81. Figure 7 shows the percent changes in the average pull factor for the five years after the supercenter's opening. Sales (pull factors) increased by 2.6 percent the first year and held fairly steady until years four and five when sales declined slightly.

Figure 6

Average Furniture Stores Pull Factor for Host Counties (Under 100,000 Population),
Before and After Wal-Mart Supercenter

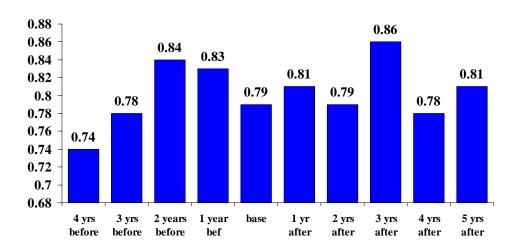
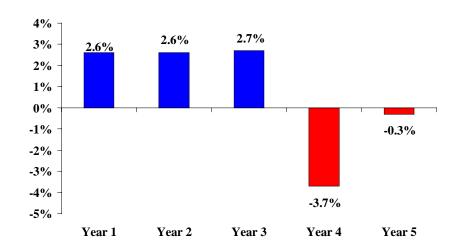


Figure 7

Percent Change in Average Furniture Sales Pull Factor for Host Counties After Entry of Wal-Mart Supercenter Counties Less Than 100,000 Population



Building Materials Stores. This category consists of hardware stores, lumberyards and the newer home improvement stores such as Home Depot, Lowe's and Menard's. Previous studies have shown that discount general merchandise stores such as Wal-Mart, capture modest amounts of trade from existing hardware stores and lumber yards. That effect can be seen in figure 8, where the pull factor declined from 0.95 in the base year, to 0.84 two years after opening of the supercenters. However, in years three, four and five, there was a sharp increase in average building materials stores pull factor, ending at 0.94 at the end of year five. This was undoubtedly caused by the opening of a few "big box" home improvement stores in some of the host counties. There tends to be some synergism between a Wal-Mart supercenter and the "big box" home improvement stores. Thus, it is common to see a major home improvement store locate near an existing Wal-Mart supercenter.

Figure 8

Average Building Materials Stores Pull Factor for Host Counties (Under 100,000 Population),
Before and After Wal-Mart Supercenter

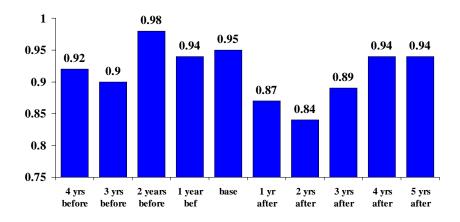
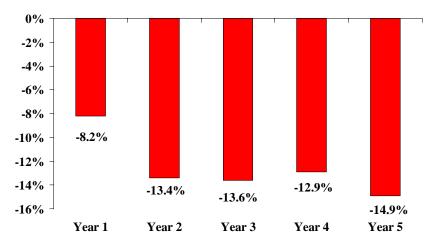


Figure 9 shows the average percent change in the host county pull factors for building materials stores. The host county pull factor decreased fairly steadily from -8.2 percent after year one to -14.9 percent after year five.

**Miscellaneous Stores**. The category of miscellaneous stores includes all retail stores not Figure 9

# Percent Change in Average Building Materials Sales Pull Factor for Host Counties After Entry of Wal-Mart Supercenter

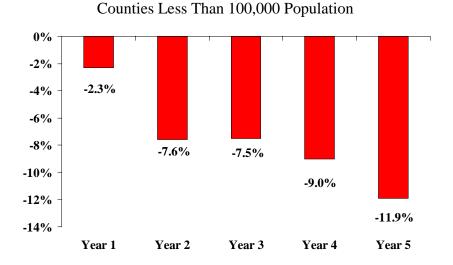
Counties Less Than 100,000 Population



included in the above categories. Many of these stores would be gift shops, sporting goods stores, etc. that would compete directly with a Wal-Mart supercenter. Therefore, one could assume that these types of stores would be hurt by the opening of a nearby supercenter. Figure 10 shows the average pull factor for host counties for four years before and five years after the opening of a supercenter. Sales for miscellaneous retail stores were growing for the three of the four years before the opening of a supercenter and started to decline after the opening. The average pull factor for this category was 0.76 at the time of the supercenter opening, and declined to 0.69 five years after the opening

Figure 11 shows the percent change in the average pull factor of miscellaneous stores in host counties for the five years following the opening of a Wal-Mart supercenter in the county. This category declined gradually from -2.3 percent the first year after the supercenter to a cumulative -11.9 percent five years after the opening. These findings are

Figure 11
Percent Change in Average Miscellaneous Retail Sales
Pull Factor for Host Counties After Entry of Wal-Mart
Supercenter

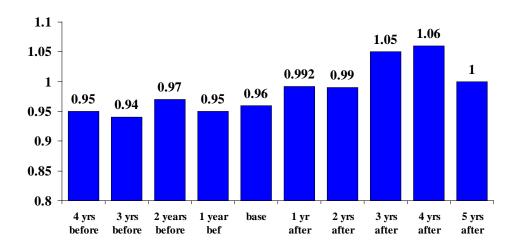


consistent with earlier studies of Wal-Mart stores conducted by the authors.

**Total County Retail Sales**. The total county retail sales category includes the previously discussed categories. Figure 12 shows the average pull factors for the host counties for four years prior to the opening of the supercenter to five years after the opening. As can

Figure 12

Average Total Retail Sales Pull Factor for Host Counties (Under 100,000 Population),
Before and After Wal-Mart Supercenter



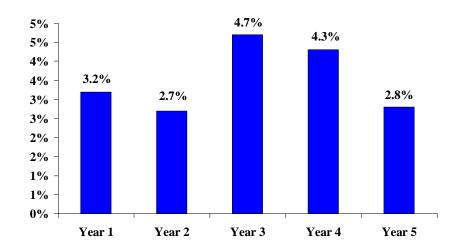
be seen the average host county had pull factors of less than one (0.95 average) before the opening of the supercenter. This usually means that the county was experiencing some slight retail leakage. However, in the five years succeeding the opening of the Wal-Mart supercenter, the pull factor grew to 1.06, before declining to 1.0 in the fifth year. This drop-off after a few years was a common phenomenon in the earlier studies conducted by the authors and is believed to be brought about by market saturation both by Wal-Mart stores and other competitors. This growth in the average county pull factor after the opening of a Wal-Mart supercenter, suggests that the new store is capturing sales from adjacent counties. This premise will be addressed further in the section on non-host counties.

Figure 13 shows the percent change in average total county retail sales pull factors in the five years following the opening of a supercenter. The pull factor increased by 3.2

percent the first year and rose to a cumulative increase of 4.7 percent in year three before declining to a cumulative 2.8 percent increase in year five. The decline in the later years is attributed to store saturation.

Figure 13

Percent Change in Average Total Sales Pull Factor for Host Counties After Entry of Wal-Mart Supercenter Counties Less Than 100,000 Population



#### **Non-Host Counties**

"Non-host counties" are counties that did not have a Wal-Mart supercenter by the time of this study. These counties tend to be more rural than host counties with an average population of 21,262. It is extremely difficult to calculate average changes in sales for non-host counties caused by Wal-Mart supercenters. This is because of the varying locations and time periods of supercenters entering into the market. In addition, there has been an increasing concentration of many types of retailing in a relatively small number of trade centers. For example, in 1990 the top twenty counties in Mississippi accounted for 72.7% of all general merchandise and apparel sales. By 2001, the market share of these top counties had increased to 75.6%. While the opening of Wal-Mart

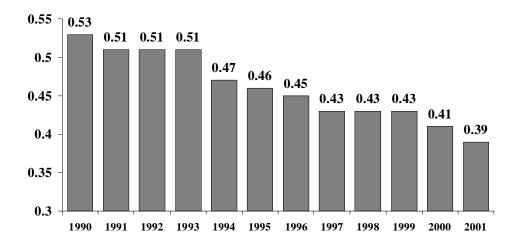
supercenters is a significant part of this trend, other factors such as new shopping malls, play a role in the declining retail sectors of many of the more rural, non-host counties.

Nevertheless, examining the pattern of pull factors for the various merchandise categories may reveal additional insights into the range of impacts of Wal-Mart supercenters on existing retailers. To analyze changes in non-host counties, pull factors were calculated for the 1990-2001 time period, during which all the supercenters opened in Mississippi.

General Merchandise. Figure 14 shows the average change in general merchandise pull factors for the non-host counties in Mississippi. Most of these counties were not general merchandise powerhouses. In 1990 the average pull factor was 0.53. For the next three years, the pull factor average held steady at 0.51. This was when the first Wal-Mart supercenters were opening in Mississippi. From 1994 to 2001 there was a fairly steady decline in pull factors from 0.47 to 0.39. The average percent decline across the 52 non-host counties was 23.5 percent from 1993 to 2001. This indicates a severe leakage of sales, most likely caused by the capture of sales by general merchandise stores such as Wal-Mart supercenters.

Figure 14

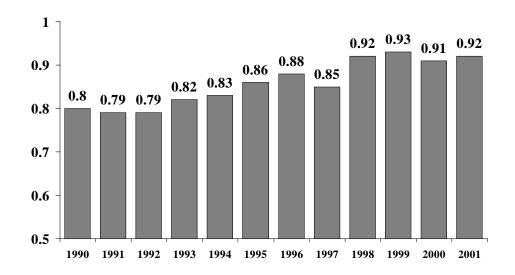
Average General Merchandise Pull Factor for Non- Host Counties, 1990-2001



**Grocery Stores**. The average pull factors for grocery store sales in the non-host counties from 1990 to 2001 are shown in figure 15. In 1993 the average pull factor was 0.82 and continued to rise slowly until around 1998 when the pull factors stabilized at around 0.92,

Figure 15

Average Grocery Stores Pull Factor for Non- Host Counties, 1990-2001

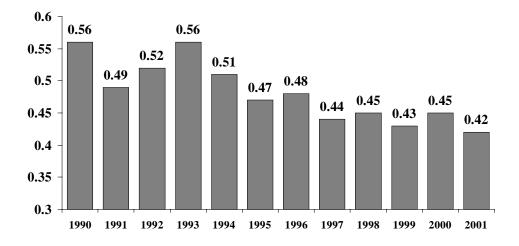


an increase of 12.2 percent. This is consistent with previous studies conducted by the authors in Iowa and Maine. Basically, people do not want to travel any further than necessary for grocery shopping. The gain in sales (pull factor) in non-host counties is most likely caused by consolidation among the food stores, resulting in fewer but larger stores. Larger stores tend to attract more customers and also tend to sell a larger selection of non-food items, thus resulting in increased sales. Therefore, it appears that the Wal-Mart supercenters tend to capture their grocery sales primarily from the host county.

**Furniture Stores**. Figure 16 shows the average change in pull factors for furniture store sales in the non-host counties in Mississippi from 1990 to 2001. As the first Wal-Mart supercenters opened, the non-host counties had an average pull factor of 0.56, but the average declined fairly steadily to 0.42 in 2001, a decline of 25 percent. This trade was most likely captured by furniture stores in the host counties rather than by the Wal-Mart supercenter itself. Therefore, it can be concluded that host town furniture stores are a beneficiary of the increased traffic flow generated by Wal-Mart supercenters.

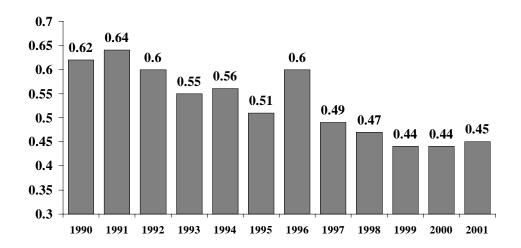
Figure 16

Average Furniture Stores Pull Factor for Non- Host Counties, 1990-2001



**Building Materials Stores**. The building materials category consists of hardware stores, lumberyards and home improvement stores. Earlier studies by the authors showed that in

Average Building Materials Stores Pull Factor for Non- Host Counties, 1990-2001

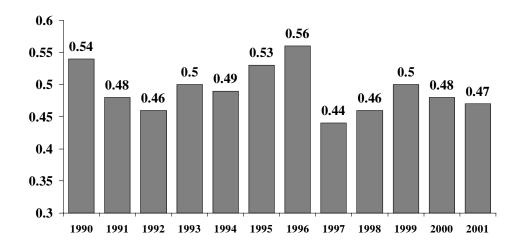


non-metropolitan areas, Wal-Mart stores tended to capture some sales from hardware stores and to a lesser degree, from lumberyards. However, the "big box" home improvement stores such as Home Depot and Lowe's, tended to capture considerably more sales from a large trade area after their introduction. Figure 17 illustrates this principle. From 1993 to 1995, (the increase in 1996 may be a data reporting error) non-host county sales (pull factors) experienced a slight decline. As "big box" home improvement stores began opening in host counties, they captured more trade from the non-host counties. The decline from 1993 to 2001 was 25 percent.

**Miscellaneous Retail Stores**. As was earlier described, miscellaneous retail stores include all the stores not covered in the above categories. This would include several types of stores, including gift shops, jewelry stores, book stores, and sporting goods stores that may compete directly with a Wal-Mart supercenter. Figure 18 shows that these types of stores in non-host counties experienced some growth after the introduction

Figure 18

Average Miscellaneous Retail Stores Pull Factor for Non- Host Counties, 1990-2001

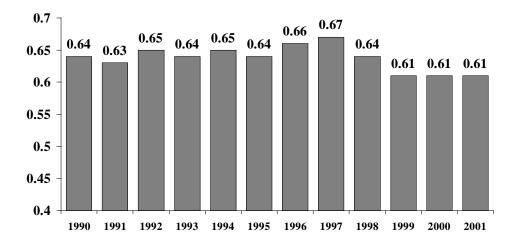


of Wal-Mart supercenters in host counties. This is probably a compensation for the loss of general merchandise stores in the county and reinforces the idea that residents do not want to travel any further than necessary for convenience items. The pull factors increased from 0.46 in 1992 to 0.56 in 1996, then declined to 0.47 in 2001.

**Total Retail Sales**. Figure 19 shows that the average pull factors for non-host counties remained fairly steady from 1993 to 1997, averaging around 0.65. However, as the "double whammy" of Wal-Mart supercenters and "big box" building materials stores began occurring, non-host county total sales decreased by nine percent from 1997 to 2001. Even though the host counties captured general merchandise trade and furniture sales from non-host counties, total sales losses were moderated because of sales increases by other categories such as food stores and miscellaneous stores.

Figure 19

# Average Total Retail Sales Pull Factor for Non- Host Counties, 1990-2001



## **CONCLUSIONS**

The introduction of a Wal-Mart supercenter into a county in a relatively rural state such as Mississippi has major repercussions. There are both positive and negative impacts on existing stores in the area where the new supercenter locates. In turn, changes in local sales may have impacts on local jurisdictions that are dependent on sales and property taxes generated. Major conclusions are listed below.

- 1. Annual sales (pull factors) for the general merchandise category in host counties increased substantially, from 40.2 percent the first year to a peak of 41.6 percent three years after the opening of a Wal-Mart supercenter. Since food sales are taxed in Mississippi, this increase includes the sales of both general merchandise and food by the supercenter. Conversely, average general merchandise sales in the 52 non-host counties decreased nearly annually from the time of the opening of the first supercenters in Mississippi.
- 2. Wal-Mart supercenters in Mississippi captured most of their food sales from existing food stores in the host county. Consequently, host county food stores experienced

- average annual declines in sales from 10.1 percent after the first year to over 19 percent after five years. Counties without a supercenter managed to maintain grocery store sales at a fairly steady level after the opening of a supercenter in an adjacent county.
- 3. Furniture stores in host counties experienced an increase in sales for the first three years following the opening of a supercenter, but declined in years four and five. Furniture stores sell little merchandise that competes directly with supercenters, but they benefit from the additional traffic drawn to the supercenter. Non-host counties experienced losses in furniture store sales in most of the years following the opening of the first supercenters. It can be concluded that supercenters benefit nearby furniture stores by generating extra traffic for them. Some of that traffic comes from non-host counties.
- 4. Building materials stores in host counties experienced average losses of 8.2 percent to 14.9 percent for the first five years after the opening of a Wal-Mart supercenter. Meanwhile, non-host counties experienced a nearly continual reduction of building materials sales. Apparently the non-host counties are losing sales not only to supercenters, but to the "big box" home improvement stores as well. It can be concluded that supercenters capture moderate amounts of building materials sales from both host and non-host counties, but home improvement stores in the host counties and larger cities end up benefiting from the synergism created by locating near a supercenter.
- 5. Wal-Mart supercenters capture substantial amounts of miscellaneous retail trade from host counties, ranging from 2.3 percent the first year to nearly 12 percent by year five. Most of this trade is captured from stores in the host county as stores in non-host counties experienced relatively little change in sales. This is probably because of filling merchandise gaps in the existing general merchandise stores in the non-host counties.
- 6. Total sales in host counties increased from over three percent the first year to 4.7 percent in year three, before declining to 2.8 percent in year five. This is consistent with previous findings by the authors in other states. It appears that the decline after approximately four years is caused by a saturation of Wal-Mart supercenters as well

as other large stores. The non-host counties experienced a slow decline of total sales after the opening of supercenters, their losses being offset by some stability in food stores and miscellaneous stores. The increases by the host counties may have been fueled somewhat by drawing from adjacent states, since several supercenter counties were on state lines.

7. Although it cannot be proven conclusively, there is a strong sense that the zero-sumgame theory applies in the case of supercenters in Mississippi. For every gain in sales by supercenter-related goods, there were corresponding losses in sales for businesses of these types in the host counties and, in some cases from non-host counties.

# **Implications and Recommendations**

This study has documented the changes in sales for supercenter host counties and non-host counties in Mississippi. This concluding section will discuss the implications of the findings as well as recommendations for both local officials and business people.

### **Local Officials**

The findings of this study suggest that local officials considering the addition of a supercenter type store need to carefully weigh the costs and benefits of this type of development. Quite often city councils and city staff are so anxious to attract new businesses that they will offer very attractive financial incentives and perhaps change zoning status in order to attract supercenter type stores. Their primary motivation seems to be the belief that these new businesses will increase the property tax base, increase sales taxes (where local sales taxes are in play) and increase employment. These are worthy goals, but many times, the net increases are minimal as the new big box stores merely capture sales from existing businesses in the area. A reduction of sales for existing businesses usually translates into fewer employees, less sales tax and lower property tax collections from the local stores.

In contrast to the growth-oriented local governments described above, some local officials have very anti-growth attitudes and may restrict commercial development to the point of breaking down the free enterprise or capitalistic economic system in their communities. The restrictions can be brought about through failure to approve building permits, refusal to provide infrastructure or in some cases by passing anti-big business ordinances. For example, several U.S. towns and cities have recently passed ordinances prohibiting any new retail business from being over a certain size (for example, 100,000 square feet). This effectively eliminates supercenter type stores from entering the marketplace.

A local government that aggressively promotes commercial development, especially one that offers tax or other financial incentives to new comers, may unwittingly help put smaller local merchants out of business because of massive competition. Conversely, a local government that is strictly anti-growth may also do harm to its local merchants as residents leave the community to shop in other towns with big new stores. It is therefore recommended that local officials educate the public on the economic impacts of commercial development and strive to create an economic development policy that is consistent with the values and concerns of the local citizens.

#### **Local Merchants**

The entry of a new supercenter in a community can have dramatic implications for existing merchants. Two general rules-of-thumb summarize the economic impacts of a new supercenter on local merchants. Rule-of-thumb 1 is: Local merchants that sell merchandise different from the supercenter or other big box stores tend to fare well and may gain sales as the additional traffic generated by the big stores spills over into their stores. Rule-of-thumb 2 is not so pleasant; it is: Local merchants that sell the same merchandise as the big stores will probably face a reduction in sales because of the difficulty in competing with major chains.

Recommendations for Adversely Affected Merchants. Two major actions are recommended for local merchants facing direct competition from the supercenters. The first major action is to develop a new strategy. For example, a grocery store may choose to become a full-service store, including a full-service meat counter. At the supercenter type stores, minimal service is offered, in spite of the fact that a considerable market segment desires a higher level of service. Some of the services that could be offered are bagging (plastic or paper), carry-out or drive-by. Also catering services can be profitable. A full service meat department has been successful for some local stores. Wal-Mart sells primarily "case ready" meat that is cut and packaged at the processing plant. Many people are attracted to meat counters where butchers stand ready to cut your meat in the size and style that you prefer. As another example, drug stores could gain an advantage over the supercenters by offering personalized services, including delivery of prescription drugs.

The second major action that competing local merchants can take involves "getting back to the basics of running a good business." Here is a list of some of these actions.

#### a. Merchandising

- 1. Try to handle different merchandise, especially ethnic and private label
- 2. Look for the voids in the supercenter's inventory
- 3. Consider niche markets
- 4. Get rid of slow moving merchandise
- 5. Buy well

# b. Marketing

- 1. Know your customers
- 2. Extended operating hours are a necessity!
- 3. Adopt a "no hassle" returns policy
- 4. Sharpen your pricing skills
- 5. Focus your advertising

# c. Service

- 1. Emphasize expert technical advice
- 2. Offer deliveries where appropriate
- 3. Offer carry-out
- 4. Offer other services such as banking, flowers, catering, etc.

#### d. Customer relations

- 1. Greet customers
- 2. Offer a smile in every aisle
- 3. Make employees associates
- 4. Solicit complaints
- 5. Learn how to handle irate customers
- 6. Train employees (initially and periodically)

# e. Continually improve the efficiency of your business

- 1. Adopt modern technology
- 2. Relentlessly find ways to reduce operating costs
- 3. Become intimately familiar with your financial statements

#### References

- Artz, Georgeanne, *The Impact of Wal-Mart on Retail Market Structure in Maine*, unpublished thesis, University of Maine, Orono, Maine, 1999.
- Artz, Georgeanne and Kenneth E. Stone, "Comparing the Economic Impact of Wal-Mart Stores Across Geographical Areas", Paper presented at the annual meetings of American Agricultural Economics Association, Chicago, Illinois, July 30 August 2, 2000.
- Blair, John P. and Rishi Kumar, "Is Local Economic Development a Zero-Sum Game?" in <u>Dilemmas of Urban Economic Development</u>, Richard D. Bingham and Robert Mier, ed., SAGE Publications, Inc., 1997.
- Franklin, Andrew W., "The Impact of Wal-Mart Supercenter Food Store Sales on Supermarket Concentration in U.S. Metropolitan Areas," Paper presented at the USDA conference "The American Consumer and the Changing Structure of the Food System," Arlington, Virgina, May 3-5, 2000.
- Mississippi State Tax Commission, Annual Report, 1990-2001.
- Stone, Kenneth E., "Impact of the Wal-Mart Phenomenon on Rural Communities," Department of Economics, Iowa State University, 1997.
- Stone, Kenneth E., "Impact of Wal-Mart Stores on Iowa Communities: 1983-93," Economic Development Review, Spring 1995, p. 60-69.
- Stone, Kenneth E., "The Impact of Wal-Mart Stores on Other Businesses in Iowa," Department of Economics, Iowa State University, 1989.