

# Memphis Retail Potential Study

## Frayser

---

**Prepared for:**

The City of Memphis Division of  
Housing and Community Development  
Debra Brown, Director

**Prepared by:**

Regional Economic Development Center  
The University of Memphis  
Luchy Burrell, Project Director

Steve Redding, Principal Investigator



U.S. Department of Commerce  
Economic Development Administration

Sonya Schenk  
Lisa Milligan  
Shannon Dixon  
Jim Atkinson  
LaChanda Finch

December 1998

## Table of Contents

Introduction.....	1
Description of Total Study Area.....	2
Overview of Retail & Service Expenditure Analysis.....	5
Methodology.....	6
Economic & Social Characteristics of Frayser.....	8
Retail Profile of Frayser.....	10
Retail Trade Analysis.....	13
Service Industry Analysis.....	19
Summary.....	22
Appendix - Study Methodology.....	A1

## **Introduction**

The purpose of this study is to identify areas within the City of Memphis where business development efforts are warranted for developing (or re-developing) retail trade and service industries. The emphasis is on retail and service industries that draw their market primarily from the expenditures of households.

There is a general belief by many city residents and civic leaders that several areas of Memphis are now underserved with respect to retail trade. Over the past several years business creation has been brisk in suburban areas of Shelby County and in portions of east Memphis as developers and retailers have responded to population growth in newer and rapidly growing markets. Similar studies in other cities, including Boston and Washington, have revealed significant retail opportunities, especially in older neighborhoods. Several organizations, including Price Waterhouse and the Boston Consulting Group are likewise conducting research and finding significant business opportunities in inner city markets across the country.

This report provides information on business development potential for all major industry groups in retail trade and consumer services. Sixty-nine industries in nine separate geographic markets are included in the study. The geographic markets generally cover the western two-fifths of the City of Memphis' land area and approximately 60% of its citizens. Retail expenditures from households in the study area comprise approximately 35% of all retail expenditures by Shelby County residents.

Intended users of this study include owners and managers of consumer oriented businesses, real estate developers, economic development professionals, bankers, community development initiatives, and others with an interest in commercial development in Memphis.

This study was conducted by the Regional Economic Development Center (REDC) at The University of Memphis under a contract with the City of Memphis, Department of Housing and Community Development (HCD).

This report focuses on the Frayser retail market but includes background information on the total study area. Reports for eight other Memphis retail markets are available.

## **Description Of Total Study Area**

### *Market Geography*

The nine retail markets studied correspond to the westernmost planning districts of the Memphis & Shelby County Office of Planning and Development and are shown on Map 1. These planning districts are: Downtown/Medical Center, Midtown, North Memphis, South Memphis, Depot, University, Jackson, Frayser, and Whitehaven-Levi.

Planning districts provide a good market definition based on their general conformity to the demographic and physical characteristics that typically define retail markets. Additionally, planning districts are the geographic boundaries used by Memphis and Shelby County for community and economic development planning. Each retail and service industry, as well as each particular business, has its own market area that may be larger or smaller than the planning district markets. It would not be possible to fully incorporate individual markets into this study, however, they are discussed where appropriate.

### *Study Area Characteristics*

The total study area (nine markets) has an estimated population of 365,000 and 140,000 households, each approximately 41% of Shelby County. Although households in the study area declined by almost 8% since 1980 versus an increase of over 13% for Shelby County as a whole, significant differences in household change are found in the nine markets, and among neighborhoods within these markets. There is evidence of stabilization or growth in several areas.

Median household income is currently estimated at \$25,000 for the study area versus \$37,000 for Shelby County. However, households in the study area spend a higher percentage of their income on retail goods and services than do Shelby Countians in areas with higher incomes. Retail spending by households in the study area totals over \$2.5 billion per year. An estimated \$1 billion of this spending is conducted outside the markets included in the study area. Automotive items account for much of this leakage, but over \$500 million is in a variety of other retail and service industries.

### *Income Dynamics And Retail Spending*

Total retail spending by households is highly correlated with income, however, the relationship is not linear. Retail spending as a percent of income declines with increasing household incomes. Consequently, the distribution of incomes in a market is an important component of



total retail expenditures, in addition to mean income. Overall, the average U.S. household spends roughly 42% of total gross income on retail purchases. However, ratios of expenditure to income vary widely over income ranges. Lower income households may spend all of their gross income on living expenses, whereas upper income households generally spend smaller proportions due to higher rates of savings and income taxes. Data show many low income households have expenditure ratios significantly higher than gross income due to a wide variety of reasons, including: income underreporting (failing to account for all income from all sources), temporary unemployment, self-employment income losses, retirees spending savings or investment principal, college students being supported by loans and parents, and other factors. This is particularly the case with household incomes below \$15,000.

Chart 1 shows aggregate retail expenditures for each income group in the total study area. Households with incomes less than \$15,000 earn only 8.4% of aggregate income but account for 17.7% of total retail spending. At the opposite end of the spectrum, households with incomes of \$100,000 and above control 23.7% of aggregate income, but their retail expenditures are only 13.4% of total retail spending.

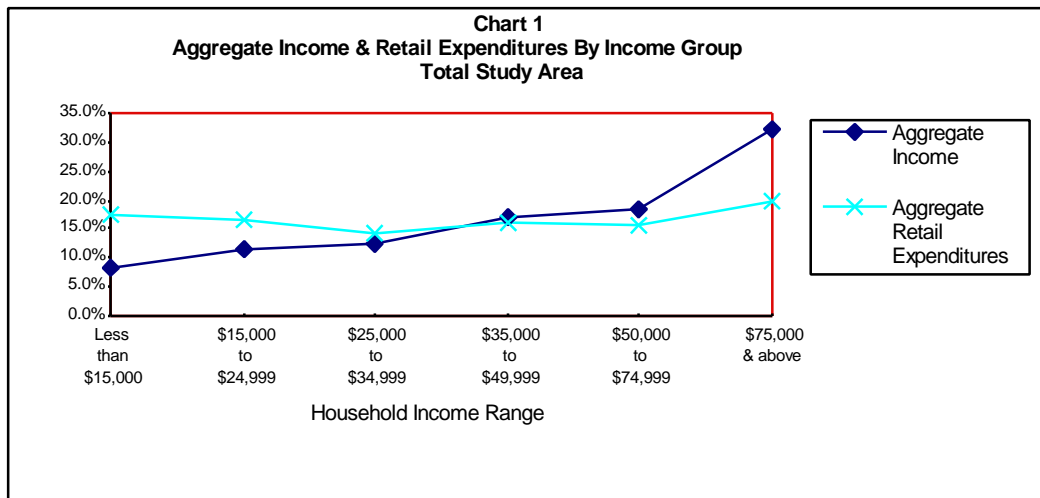
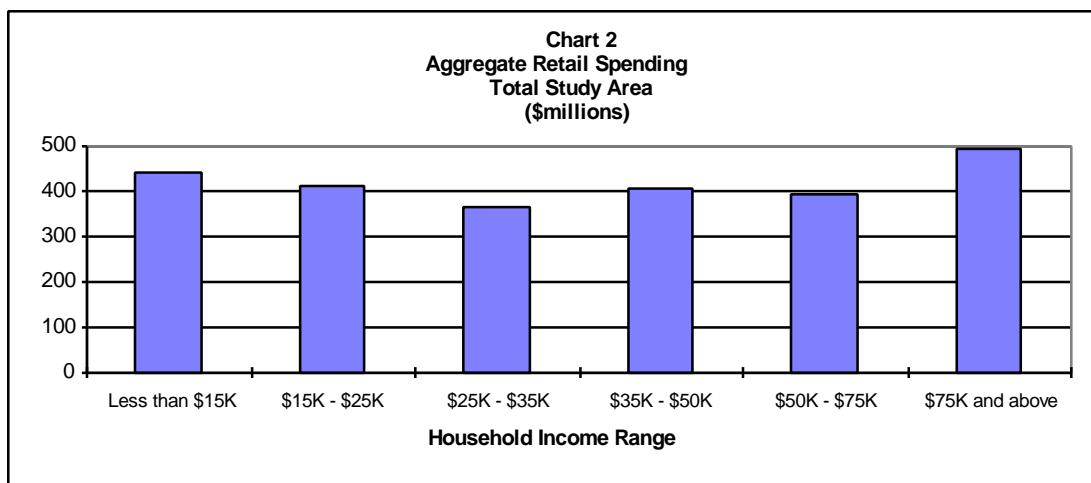


Chart 2 shows aggregate retail spending by income group for the study area. Each income group produces over \$350 million in retail spending, with households earning less than \$35,000 per year contributing \$1.2 billion in retail expenditures, and those over \$35,000 contributing \$1.3 billion. Almost one half billion in retail expenditures are from households with incomes over \$75,000.



### **Overview Of Retail And Service Expenditure Analysis**

Estimated trade area household expenditures are compared with actual sales to determine if gaps exist between the supply and demand for goods and services. If trade area businesses are not capturing all expenditures, i.e., there is leakage of expenditures from the neighborhood, there may be potential for additional businesses. Generally, capture rates less than 100% indicate gaps while capture rates over 100% usually indicate a retail or service industry has a customer base larger than the trade area and is exporting goods or services to other markets. Above or below average consumption by trade area households can also be reflected in capture rates. When gaps are present, the difference between expenditures and actual sales is the dollar amount of leakage and represents sales potential if all of the gap were captured by new or expanded businesses. Industry specific market analysis is then necessary to determine the percentage of total sales potential that can actually be captured. It is unlikely that any business, or group of businesses, can capture the entire sales potential in a market.

Capture analysis provides a general picture of the relationships between consumer demand and the existing supply of retail stores and service providers. Even in cases where a gap is found, there may be insufficient sales potential to warrant viable new businesses. On the other hand, there may be new business potential even when capture rates exceed 100% if there are unmet needs for a particular store format, product line or price range. Likewise, market analysis must consider consumer preferences of the particular market. Indeed there may be compelling reason to add stores to an area with a high capture rate if the agglomeration of retail creates a synergy drawing customers from outside the trade area.

Tables showing capture rates and potential sales were developed for both retail trade and consumer services. All major industry groups of retail trade and consumer services were studied

as well as all individual industries for which there are sales data. Forty-two retail industries and 27 service industries were included.<sup>1</sup> The methodology for developing estimated household expenditures is discussed in the methodology section and appendices.

## **Methodology**

The study's methodology was designed to match household purchasing power in each of nine markets to the existing level of sales for each retail or service industry. Industries in markets where purchasing power exceeds sales are generally losing business to other trade areas, and may be able to capture this lost spending through new or expanded business opportunities.

Reliable estimates for both consumer expenditures and current retail sales at the market or trade area level are critical for determining retail potential. REDC used a combination of government and proprietary data in developing expenditure and sales estimates for the nine markets studied. Major components of our methodology are discussed below. Additional detail is included in the appendix.

### *Consumer Expenditures - Retail*

Household expenditures for the various retail and service industries were based on estimated current households in each planning district from Infomark Express of National Decision Systems, Inc. (NDS), and household income estimates developed by REDC. Reliable current income and consumer expenditure data at the sub-county level were believed to be unavailable for a period (1998) that is nine years past the 1990 census income measurement. REDC utilized national data by income level to estimate household incomes at the planning district level. Then spending levels for these income groups from the Bureau of Labor Statistic's Consumer Expenditure Survey were used to estimate consumption for each planning district.

### *Consumer Expenditures - Household Services*

The methodology used for retail trade was not suitable for household services due to data limitations and the classification system used by the Consumer Expenditure Survey (CES). Rather than using the CES approach, average 1998 expenditures per household were calculated

---

<sup>1</sup> SIC codes 52 through 59 for Retail Trade, and 72, 7342, 753, 76, 78, and 79 for Consumer Services.

by adjusting Memphis MSA sales from the 1992 Census of Service Industries by the change in the Consumer Price Index, and dividing by estimated 1992 MSA households.

*Retail and Service Industry Sales*

Sales estimates are from the Business Facts Database compiled by National Decision Systems, Inc. (NDS) and are based on a combination of credit reporting data, S.E.C. filings and sales estimates based on the number of employees at a specific location. National Decision Systems provided business data to REDC for each of the nine market areas based on the census tracts contained within each planning district. REDC then sorted the database by Standard Industrial Classification (SIC) codes to match the 69 industry groups included in the study. REDC reviewed each business in the NDS database to eliminate observable errors in sales estimates or industry classification.

## **Economic and Social Characteristics of Frayser**

The Frayser Planning District lies in the northwest section of Memphis, bounded by the Mississippi, Wolf and Loosahatchie rivers, with the IC Railroad as its eastern boundary. Frayser is a suburban area and was incorporated into the City of Memphis in 1958 following petition by its residents. Eighty-five percent of the planning district's 16,000 housing units were built between 1950 and 1980 as large manufacturing and chemical industries located in the area. Populated areas of Frayser lie within the boundaries of Zip Code 38127, which also includes the Northaven and Benjes communities of Shelby County.

Frayser has experienced slight population declines from 1980 to the present, however, the number of households is essentially the same as it was in 1980. Population density (1,947 persons/square mile) is the lowest of the planning districts in our study area. Since 1990 the number of households in Frayser is believed to have increased. National Decision Systems' estimates show a 1% increase, and REDC's analysis of housing permit data for the Frayser Planning District support an increase of up to 2%.

Frayser is a racially diverse community having a higher proportion of African Americans (estimated at 59.6%) than Shelby County (43.5%). The African American population increased from 46% in 1990.

Compared with the county, Frayser has a lower median household income, \$28,000 versus \$37,000. However, home and vehicle ownership rates are above those for the county as a whole. Additional demographic and economic characteristics of the Frayser Planning District are shown in Tables 1, 2 and 3 along with comparisons to Shelby County.

### *Characteristics of Areas Within Frayser*

Population change has not been uniform throughout Frayser. The area south of Frayser Blvd. and west of Range Line Road (Census Tracts 101.1 and 101.2) has suffered population and household losses in recent years. This area lost an estimated 1,732 persons and 408 households (7.6%) since 1980. However, neighborhoods east of Range Line are more stable.

North of Frayser Blvd. population decline has been less dramatic (6.0%) but the number of households has increased 1% since 1980. Areas of north Frayser have experienced moderate gains in the number of households since 1980. Census Tracts 100 and 102.1 grew by 110 households (4.7%) and 183 households (9.3%) respectively. Currently, there are an

**Table 1**  
**Population and Household Trends of Frayser**  
**1980, 1990, and 1997 Estimate**

	1980	1990	1997 Estimate	% Change	
				1980-90	1990-97
<b>Total Population</b>	47,299	44,934	43,896	(5.0%)	(2.3%)
<b>Households</b>	16,096	15,769	15,909	(2.0%)	0.9%

Source: National Decision Systems, 1997

**Table 2**  
**Income Characteristics of Frayser and Shelby County**  
**1998 Estimates**

	Frayser	Shelby County	Frayser Over/(Under) Shelby County
<b>Median Household Income</b>	\$28,365	\$37,362	(24.1%)
<b>Mean Household Income</b>	\$37,234	\$51,704	(28.0%)
<b>Households by Income:</b>			
<b>Under \$15,000</b>	28.6%	22.9%	5.7
<b>\$15,000 to \$34,999</b>	39.4%	28.6%	10.8
<b>\$35,000 to \$74,999</b>	29.2%	32.3%	(3.1)
<b>\$75,000 or More</b>	2.8%	16.1%	(13.4)

Source: National Decision Systems, 1997, and REDC Estimate, 1998

**Table 3**  
**Demographic Characteristics of Frayser and Shelby County**  
**1997 Estimates**

	Frayser	Shelby County	Frayser Over/(Under) Shelby County
<b>Persons by Age:</b>			
<b>0-9</b>	19.9%	16.8%	3.1
<b>10-17</b>	12.7%	10.9%	1.8
<b>18-34</b>	23.6%	25.5%	(1.9)
<b>35-64</b>	33.7%	36.2%	(2.5)
<b>65 and Over</b>	10.2%	10.6%	(0.4)
<b>Median Age</b>	31.2	33.0	(1.8)
<b>Persons by Race:</b>			
<b>White</b>	39.5%	54.9%	(15.4)
<b>Black</b>	59.6%	43.5%	16.0
<b>Other</b>	1.0%	1.6%	(0.6)
<b>Female Headed Households w/ Children (1990)</b>	38.6%	33.2%	5.4
<b>% Owner Occupied Housing Units (1990)</b>	64.7%	59.6%	5.1
<b>% Households w/ No Vehicle (1990)</b>	11.4%	13.9%	(2.5)

Source: National Decision Systems, 1997

estimated 7,200 households north of Frayser Boulevard, comprising 45% of households in the Frayser Planning District.

A smaller population lives west of Highway 51 (2,245 households) but modest growth, estimated at 6.6% in the number of households, has occurred since 1980. Most households are in several subdivisions adjacent to Highway 51 but a large part of this area is rural.

Incomes are similar in all three of the above areas of Frayser. Owner occupied housing units are slightly lower south of Frayser Blvd. (60.0%) versus 67% in the balance of Frayser. Racial composition is similar both north and south of Frayser Blvd. (approximately 65% African American) while only 35% is African American west of Highway 51.

A growing population lives northwest of Frayser between the Loosahatchie River and Shelby Forest. This area, in the Northwest Shelby Planning District and south of Locke-Cuba Road, has over 2,000 households, an increase of 27% since 1980. This area has higher median incomes than Frayser and includes numerous upper income households. Watkins Street into Frayser is the primary route to work and shopping for these residents. The proposed route for I-69 crosses this area essentially along the path of the Loosahatchie and connects with I-240 at the 101 Interchange (Highway 51).<sup>2</sup>

### **Retail Profile of Frayser**

Frayser has over 200 retail establishments with total annual sales of \$215 million. Over 80% of retail sales in Frayser are from businesses located on Frayser Blvd., North Watkins and North Thomas (Hwy. 51). Map 2 illustrates concentrations of retail locations in shopping centers along these three major thoroughfares, with few stores outside the major commercial centers.

Frayser has a mix of large chains and smaller independent stores. General Merchandise, Grocery, and Drug are dominated by national chains and franchises that capture over 90% of sales in these categories. Most other categories of retail represent a mix of chain and independent retailers.

Food Stores are by far the largest retail category in Frayser with sales of over \$90 million representing 42% of all retail sales included in our sales estimates. Food and Drug combined

---

<sup>2</sup> Memphis Empowerment Zones Map. Memphis & Shelby County Division of Planning & Development, October 14, 1998.



account for one half of all retail sales in Frayser. A moderately high adjusted capture rate for grocery suggests food shoppers are coming from outside Frayser.<sup>3</sup> Similarly, drug stores are capturing outside customers at the same or even higher level as food stores. This is most likely due to the pairing of these two complementary retail categories. Three of five chain drug stores in Frayser are located in close proximity to the three largest supermarkets. However, analysis of capture rates in other classes of retail and store location patterns are inconclusive in demonstrating that these food/drug pairings result in significantly higher sales for most other retailers.

As noted above, stores in Frayser are highly concentrated along three major thoroughfares. Virtually all retail sales stem from several nodes, which in most cases are formed around four neighborhood shopping centers. Three have both supermarkets and a chain drug store.

The major retail corridor of Frayser is along Frayser Blvd. from just west of Watkins to Range Line. Including businesses within one quarter mile of intersections, this ten block stretch produces one half (\$106 million) of Frayser's estimated retail sales. Supermarket and drug chains at the North Watkins and Range Line intersections with Frayser Blvd. anchor a total of \$31 million and \$43 million in retail sales respectively. A variety of other retailers are located between these two anchors. A fast food concentration is found near the Overton Crossing intersection. Altogether, the sales distribution pattern along the Frayser Blvd. corridor resembles the configuration of a regional shopping mall.

It may be useful to know if these two retail clusters at either end of the Frayser Blvd. retail corridor are functioning as independent neighborhood shopping centers primarily serving different geographies, or if there is a high degree of cross shopping between them. Cross shopping would tend to develop a stronger market for stores in between these clusters.

Another large retail node is on North Thomas from Stage Road to Frayser Boulevard which includes Northgate Shopping Center at Thomas and Whitney. This six block commercial area supports over \$47 million in retail sales. Again, neighborhood shopping is prevalent with supermarkets and drug stores garnering 40% to 50% of sales. Further out Thomas (Hwy. 51) around the North Watkins intersection another retail area focuses on two categories of shoppers goods, automotive and to a lesser extent building materials (doors and glass). A large RV dealer and four car lots generate about \$10 million in sales.

---

<sup>3</sup> Logically, these customers are coming from North Memphis, the western part of Raleigh and the area northwest of Frayser discussed in the previous section. However, store intercept surveys or other primary data would be necessary to determine the magnitude and origin of these customers.

Several stores selling used merchandise are found throughout Frayser. The largest is the Memphis Flea Market, located near the I-40 loop on North Hollywood Street, that evidently draws customers from well beyond Frayser.

### **Retail Trade Analysis**

Retail trade capture rates and potential retail sales for Frayser are shown in Table 4. Capture analysis demonstrates that Frayser likely serves a larger market for a few retail categories, most notably building materials and food stores. However, very significant gaps exist in many other major retail categories. Following is a discussion of retail potential by major retail categories.

#### *Building Materials & Garden Supply*

The general hardware needs of Frayser are likely being adequately served by two hardware stores and three businesses specializing in specific lines of building materials. No nurseries or garden supply stores were found in Frayser and a gap of \$450,000 might be sufficient to support an entry into this category.

#### *General Merchandise Stores*

A very large gap of over \$31 million exists in the General Merchandise category. General Merchandise includes department stores, variety stores, and miscellaneous general merchandisers. Typically, large department stores and discount merchandisers such as Kmart, Target or Service Merchandise are located near regional malls or other shopping centers with interstate access. These large stores account for the majority of sales in the General Merchandise category. Austin Peay Highway is relatively close to much of Frayser and it provides a wide array of general merchandise stores including department stores in Raleigh Springs Mall as well as major discounters and several power center merchandisers.

Smaller general merchandise or variety stores often locate in neighborhood or community shopping centers. Frayser has eight stores in this classification including Fred's, Dollar General and Family Dollar. Sales of these stores are fairly evenly split between shopping centers in the east and west sections of Frayser. While capture rates indicate retail potential for small general merchandise stores, the presence of multiple locations of the major chains in this category suggests that there is little untapped potential in Frayser.

**Table 4**  
**Retail Trade Capture Analysis**  
**Frayser Planning District**

SIC Code	Retail Category	Plng. District Household Expenditures	Retail Sales in Plng. District	Capture Rate	Retail Sales Potential *
52	<b>Building Materials &amp; Garden Supply</b>				
521	Lumber & Other Building Materials Dealers	\$ 2,833,114	\$ 2,600,000	91.8%	\$ 233,114
523	Paint, Glass & Wallpaper Stores	331,806	700,000	211.0%	0
525	Hardware Stores	2,118,455	2,500,000	118.0%	0
526	Retail Nurseries & Garden Supply Stores	459,424	0	0.0%	459,424
	Total Bldg. Matls. & Garden Supply	5,742,799	5,800,000	101.0%	692,538
53	<b>General Merchandise Stores</b>				
531	Department Stores (Excl. Leased Depts.)	29,301,037	3,300,000	11.3%	26,001,037
533,9	Variety & Discount General Mdse. Stores	8,626,960	3,100,000	35.9%	5,526,960
	Total General Merchandise	37,927,998	6,400,000	16.9%	31,527,998
54	<b>Food Stores</b>				
541	Grocery, Supermarket & Convenience Stores	45,125,639	85,020,200	188.4%	0
542	Meat & Seafood Markets	433,900	0	0.0%	433,900
543	Fruit & Vegetable Markets	561,518	5,000,000	890.4%	0
546	Retail Bakeries	382,853	100,000	26.1%	282,853
544,5,9	Other Food Stores	280,759	200,000	71.2%	80,759
	Total Food Stores	46,784,670	90,320,200	193.1%	797,513
55 ex. 554	<b>Automotive Dealers</b>				
551,2	New & Used Car Dealers	51,812,810	8,700,000	16.8%	43,112,810
553	Auto & Home Supply Stores	3,930,627	14,700,000	374.0%	0
555,6,7,9	Miscellaneous Automotive Dealers	1,837,696	8,200,000	446.2%	0
	Total Automotive	57,581,133	31,600,000	54.9%	43,112,810
554	<b>Gasoline Service Stations</b>	22,945,673	16,379,800	71.4%	6,565,873

**Table 4**  
**Retail Trade Capture Analysis**  
**Frayser Planning District**

SIC Code	Retail Category	Plng. District Household Expenditures	Retail Sales in Plng. District	Capture Rate	Retail Sales Potential *
56	<b>Apparel &amp; Accessory Stores</b>				
561	Men's & Boy's	2,399,214	1,800,000	75.0%	599,214
562,3	Women's Clothing & Specialty	6,329,841	3,000,000	47.4%	3,329,841
565	Family Clothing Stores	3,011,779	0	0.0%	3,011,779
566	Shoe Stores	3,088,350	600,000	19.4%	2,488,350
564	Children & Infants	331,806	0	0.0%	331,806
569	Other Apparel & Accessory	331,806	900,000	271.2%	0
	Total Apparel	15,492,796	6,300,000	40.7%	9,760,990
57	<b>Furniture &amp; Home Furnishings</b>				
5712	Furniture Stores	5,104,710	700,000	13.7%	4,404,710
5713,4,9	Homefurnishing Stores	3,190,444	600,000	18.8%	2,590,444
572	Household Appliances	714,659	400,000	56.0%	314,659
5731	Electronics (Radio & TV)	2,756,544	900,000	32.6%	1,856,544
5734	Computer & Software Stores	816,754	500,000	61.2%	316,754
5735	Records & Tapes	918,848	1,500,000	163.2%	0
5736	Musical Instruments	255,236	200,000	78.4%	55,236
	Total Furniture & Home Furnishings	13,757,194	4,800,000	34.9%	9,538,347
58	<b>Eating &amp; Drinking Places</b>				
5812	Eating Places	23,558,238	25,900,000	109.9%	0
5813	Drinking Places	663,612	1,000,000	150.7%	0
	Total Eating & Drinking Establishments	24,221,851	26,900,000	111.1%	0
591	<b>Drug &amp; Proprietary Stores</b>	12,429,970	17,300,000	139.2%	0

**Table 4**  
**Retail Trade Capture Analysis**  
**Frayser Planning District**

SIC Code	Retail Category	Plng. District Household Expenditures	Retail Sales in Plng. District	Capture Rate	Retail Sales Potential *
59 ex. 591	<b>Miscellaneous Retail</b>				
592	Liquor Stores	2,654,449	1,700,000	64.0%	954,449
593	Used Merchandise & Antiques	1,123,036	2,800,000	249.3%	0
5941	Sporting Goods	1,225,130	300,000	24.5%	925,130
5942	Book Stores	1,556,937	400,000	25.7%	1,156,937
5944	Jewelry Stores	1,914,266	100,000	5.2%	1,814,266
5945	Hobby, Toy & Game Shops	1,276,178	300,000	23.5%	976,178
5947	Gift, Novelty & Souvenir Shops	867,801	400,000	46.1%	467,801
5949	Sewing, Needlework & Piece Goods	484,947	0	0.0%	484,947
5992	Florists	765,707	700,000	91.4%	65,707
5995	Optical Goods	510,471	0	0.0%	510,471
5943,46,93,94, 99	Other Miscellaneous Retail	2,475,785	2,600,000	105.0%	0
	Total Miscellaneous Retail	14,854,707	9,300,000	62.6%	7,355,886
	<b>Total Retail</b>	\$ 251,738,790	\$ 215,100,000	85.4%	\$ 109,351,954

\* Retail sales potential for major categories (2 digit bold headings) represents the sum of the 3 or 4 digit sub-category sales potential.

Note:

The following retail industries are not included in our analysis: Manufactured Homes (SIC 527), Mail Order Houses (SIC 5961),

### *Apparel & Accessory Stores*

A retail capture rate of 41% indicates that Frayser has notable leakage in apparel expenditures. Frayser has over 15 clothing stores, however, Men's Clothing and Other Apparel are the only categories not demonstrating serious sales leakage. The largest gaps are in Women's Clothing (\$3.3 million), Family Clothing (\$3.0 million), and Shoe Stores (\$2.5 million). Payless is the only shoe store in Frayser, and the only major national chain in the apparel category. Consequently, significant apparel expenditures are leaving the area and opportunities for new stores may well exist. Apparel expenditures by Frayser residents may be greater than the above gaps due to higher levels of spending on clothing by African-American households. On a percentage of income basis, African-Americans spend 1.5 times as much on apparel as the average U.S. household when adjustments are made for income levels and household size.<sup>5</sup>

### *Furniture & Home Furnishings*

Frayser has a few small stores serving the Furniture & Home Furnishings markets, however, large gaps are present in the major merchandise lines. Two small furniture stores are satisfying only 14% of the furniture market, leaving a \$4.4 million gap. Similarly, consumer electronics has a \$1.8 million gap. The home furnishings market is represented only with carpet stores and leaves a \$2.6 million untapped market for items such as window treatments and housewares.

When Furniture and Electronics (primarily TV and sound equipment) are combined a \$6.2 million market potential exists. A store(s) could easily carry these two lines and also stock selected merchandise lines from Home Furnishings, thereby creating a larger market for new stores in Frayser.

### *Eating & Drinking Places*

Frayser has 41 eating places with representation by 20 national franchise units and five local chain restaurants. There is a reasonably wide menu selection, but the great majority of eating establishments offer a fast food format. A significant portion of fast food sales may come from workers in Frayser rather than residents. Even though capture analysis shows no overall gap, it is possible that room exists for additional traditional sit down restaurants. Eight Drinking Establishments leave no gap in this category.

### *Drug & Proprietary Stores*

As discussed in the retail profile section above, Frayser's chain drug stores are capturing trade from other areas and there is no unmet demand in this category.

---

<sup>5</sup> Based on data from the BLS Consumer Expenditure Survey (1995).

### *Miscellaneous Retail*

Capture analysis reveals significant gaps in six categories of Miscellaneous Retail, and business opportunity may exist in most of these. Liquor Stores show a gap approaching \$1 million, however, seven liquor stores should be able to capture all sales in a market the size of Frayser. Income levels coupled with a high capture for Drinking Places may account for a decreased demand for liquor sold in stores.

Frayser does not have a full line sporting goods store and consequently there is a gap of over \$900,000. Tennis, guns and bait/fishing equipment are represented among Frayser stores in the sporting goods category.

Book Stores show a gap of over \$1.1 million. Frayser has two small book stores, however, the larger apparently specializes in adult books. Adjusting for this store's sales and the relationship between income levels and book purchasing, Frayser has a retail sales potential of \$700,000 to \$800,000 for book stores.

The largest Miscellaneous Retail gap is in Jewelry Stores where capture analysis indicates a \$1.8 million gap. Only one jewelry store is found in Frayser. After adjusting for lower income levels, a \$1.4 million retail potential remains. Smaller retail potential may also exist for Hobby Stores, sewing materials and an optician.

### **Service Industry Analysis**

Analysis of household services in Frayser shows several areas with low capture rates (Table 5), however, further analysis reveals that actual retail potential may not be sufficiently large enough to support many additional businesses.

### *Personal Services*

Dry Cleaners, after adjusting for income level spending patterns in Frayser, have retail sales potential of about \$1 million. However, nine dry cleaners or dry cleaner pick up locations are located in Frayser, suggesting that this market may in fact be adequately covered.<sup>6</sup>

---

<sup>6</sup> A probable explanation for this gap is that store sales estimates are understated due to the estimation technique. Sales/employee estimates for dry cleaners include both customer service and plant personnel. It could be that several Frayser dry cleaners are drop-off locations with cleaning plants elsewhere, and this would lower the estimated sales for Frayser dry cleaners as all employees are not included in the sales/ employee calculation.

**Table 5**  
**Service Industry Capture Analysis**  
**Frayser Planning District**

SIC Code	Service Industry Category	Plng. District Household Expenditures	Service Industry Sales in Plng. District	Capture Rate	Indu S
<b>72</b>	<b>Personal Services</b>				
7211,2,6	Dry Cleaners	\$ 2,120,465	\$ 817,000	38.5%	\$ 1,30
7215	Coin-Op Laundries	173,277	181,000	104.5%	
722	Photographic Studios	154,635	49,000	31.7%	10
7231,41	Beauty & Barber Shops	2,487,243	3,785,000	152.2%	
7251	Shoe Repair Shops	85,578	0	0.0%	8
7261	Funeral Homes	1,212,054	0	0.0%	1,21
7291	Tax Return Preparation	220,136	323,000	146.7%	
	Total Personal Services	6,453,388	5,155,000	79.9%	2,70
<b>753</b>	<b>Automotive Repair &amp; Services</b>				
7532	Auto Body Repair	3,160,178	1,797,000	56.9%	1,36
7533	Exhaust Systems Repair	356,025	356,000	100.0%	
7534	Tire Retreading & Repair	465,230	274,000	58.9%	19
7536	Auto Glass Replacement	533,791	0	0.0%	53
7537	Transmission Repair	541,633	1,202,000	221.9%	
7538	General Auto Repair	3,076,672	1,825,000	59.3%	1,25
7539	Auto Repair n.e.c.	563,435	473,000	83.9%	9
7542	Car Washes	566,542	112,000	19.8%	45
	Total Automotive Repair	9,263,506	6,039,000	65.2%	3,88
<b>76</b>	<b>Miscellaneous Repair Services</b>				
7622	Radio & TV Repair	661,295	773,000	116.9%	
7623	Refrigeration & Air Conditioning Repair	350,205	281,000	80.2%	6
763	Watch, Clock & Jewelry Repair	39,361	0	0.0%	3
764	Reupholstery & Furniture Repair	216,634	132,000	60.9%	8
7342	Pest Control Services	1,176,441	800,000	68.0%	37
	Total Miscellaneous Repair Services	2,443,936	1,986,000	81.3%	56
<b>78 &amp; 79</b>	<b>Amusement &amp; Recreation</b>				
783	Movie Theaters & Drive-Ins	555,296	0	0.0%	55
7841	Video Tape Rental	843,056	1,100,000	130.5%	
7911	Dance Studios	88,883	106,000	119.3%	
7933	Bowling Centers	293,629	0	0.0%	29
7991	Physical Fitness Centers	443,576	0	0.0%	44
7993	Coin-Op Amusements	268,227	836,000	311.7%	
7999	Amusements, n.e.c.	1,550,026	0	0.0%	1,55
	Total Amusement & Recreation	4,042,694	2,042,000	50.5%	2,84
	Total Household Services	\$ 22,203,524	\$ 15,222,000	68.6%	\$ 10,00

**Table 5**  
**Service Industry Capture Analysis**  
**Frayser Planning District**

SIC Code	Service Industry Category	Plng. District Household Expenditures	Service Industry Sales in Plng. District	Capture Rate	H'hld. Service Industry Sales Potential *
<b>72</b>	<b>Personal Services</b>				
7211,2,6	Dry Cleaners	\$ 2,120,465	\$ 817,000	38.5%	\$ 1,303,465
7215	Coin-Op Laundries	173,277	181,000	104.5%	0
722	Photographic Studios	154,635	49,000	31.7%	105,635
7231,41	Beauty & Barber Shops	2,487,243	3,785,000	152.2%	0
7251	Shoe Repair Shops	85,578	0	0.0%	85,578
7261	Funeral Homes	1,212,054	0	0.0%	1,212,054
7291	Tax Return Preparation	220,136	323,000	146.7%	0
	Total Personal Services	6,453,388	5,155,000	79.9%	2,706,732
<b>753</b>	<b>Automotive Repair &amp; Services</b>				
7532	Auto Body Repair	3,160,178	1,797,000	56.9%	1,363,178
7533	Exhaust Systems Repair	356,025	356,000	100.0%	25
7534	Tire Retreading & Repair	465,230	274,000	58.9%	191,230
7536	Auto Glass Replacement	533,791	0	0.0%	533,791
7537	Transmission Repair	541,633	1,202,000	221.9%	0
7538	General Auto Repair	3,076,672	1,825,000	59.3%	1,251,672
7539	Auto Repair n.e.c.	563,435	473,000	83.9%	90,435
7542	Car Washes	566,542	112,000	19.8%	454,542
	Total Automotive Repair	9,263,506	6,039,000	65.2%	3,884,873
<b>76</b>	<b>Miscellaneous Repair Services</b>				
7622	Radio & TV Repair	661,295	773,000	116.9%	0
7623	Refrigeration & Air Conditioning Repair	350,205	281,000	80.2%	69,205
763	Watch, Clock & Jewelry Repair	39,361	0	0.0%	39,361
764	Reupholstery & Furniture Repair	216,634	132,000	60.9%	84,634
7342	Pest Control Services	1,176,441	800,000	68.0%	376,441
	Total Miscellaneous Repair Services	2,443,936	1,986,000	81.3%	569,641

**Table 5**  
**Service Industry Capture Analysis**  
**Frayser Planning District**

SIC Code	Service Industry Category	Plng. District Household Expenditures	Service Industry Sales in Plng. District	Capture Rate	H'hld. Service Industry Sales Potential *
<b>78 &amp; 79</b>	<b>Amusement &amp; Recreation</b>				
783	Movie Theaters & Drive-Ins	555,296	0	0.0%	555,296
7841	Video Tape Rental	843,056	1,100,000	130.5%	0
7911	Dance Studios	88,883	106,000	119.3%	0
7933	Bowling Centers	293,629	0	0.0%	293,629
7991	Physical Fitness Centers	443,576	0	0.0%	443,576
7993	Coin-Op Amusements	268,227	836,000	311.7%	0
7999	Amusements, n.e.c.	1,550,026	0	0.0%	1,550,026
	Total Amusement & Recreation	4,042,694	2,042,000	50.5%	2,842,528
	Total Household Services	\$ 22,203,524	\$ 15,222,000	68.6%	\$ 10,003,773

\* Sales potential for major categories (2 digit bold headings) represents the sum of the 3 or 4 digit sub-category sales potential.

Note:

The following service industries are not included in the above analysis: Lodging, Business Services, Healthcare, Legal Services, Education, Social Services and Engineering, Accounting & Management Services.

Retail potential of \$10 million or more exists for apparel stores. A moderate capture could support several stores. Significant retail potential is also found in the Furniture & Home Furnishings category, with possibility for more than one store. Garden Supply, jewelry, books, and especially recreation offer retail development potential.

As discussed in the retail profile section, two large shopping clusters are located along Frayser Boulevard. Grocery and drug stores in these clusters are drawing customers from outside Frayser, and it may be possible to add a complement of stores to Frayser Boulevard that would likewise benefit from the grocery/drug pull. Apparel, furniture, electronics and others identified above could benefit from and add to retail agglomeration synergy. Market research is needed to determine the viability of this strategy. Furthermore, attention should be paid to Frayser's changing demographics and its impact on retail trade.

Two major road developments could play a role in Frayser's long term retail development. I-69 may parallel the Loosahatchie River cutting through the southwestern corner of Frayser, while widening of North Second Street would create a better link between Frayser with downtown Memphis and north Memphis.

## Appendix

### Study Methodology

#### *Consumer Expenditures - Retail*

Household expenditures for the various retail and service industries were based on estimated current households in each planning district from Infomark Express of National Decision Systems, Inc. (NDS), and household income estimates developed by REDC. Reliable current income and consumer expenditure data at the sub-county level were believed to be unavailable for a period (1998) that is nine years past the 1990 census income measurement. Estimates at the county level are considerably more likely to be reliable due to the availability of considerably more predictive data and the lessened influence of individual variables. However, a variety of different economic and demographic factors affect smaller markets, making the econometric components of step down models less accurate at the trade area or neighborhood level. Review of proprietary data at the planning district level showed income and expenditure estimates that REDC believed were possibly overestimated in some markets and underestimated in others.<sup>1</sup>

Rather than using proprietary estimates for income and consumer expenditures, REDC utilized national data by income level to estimate household incomes at the planning district level. Then spending levels for these income groups from the Bureau of Labor Statistic's Consumer Expenditure Survey were used to estimate consumption for each planning district.

Our estimate of household expenditures started with the number of households in each planning district for eight income groups: Less than \$5,000, \$5,000 to \$14,999, \$15,000 to \$24,999, \$25,000 to \$34,999, \$35,000 to \$49,999, \$50,000 to \$74,999, \$75,000 to \$99,999, and \$100,000 and above. Households per income group were 1990 census data from NDS' Infomark Express database. A three step process was then used to estimate the number of households in each income group for 1998. First, the number of households in each group was multiplied by a ratio of 1990 to 1996 change in number of households developed from national data.<sup>2,3</sup> The national data used was for areas inside central cities with a population of less than one million persons, the geography most closely resembling the Memphis study area. The second step extended the 1990 - 1996 compound annual rate of change to a 1998 estimate of households. The final

---

<sup>1</sup> The number of households per planning district was determined to be reasonable, however. 1997 NDS demographic data was used rather than 1998 due to reported problems with 1998 estimates attributable to a change in demographic modeling techniques.

<sup>2</sup> Money Income in the United States: 1996. Current Population Reports: Consumer Income, P60-197. Table 2: Selected Characteristics - Households by Total Money Income in 1996. Bureau of the Census, 1997.

<sup>3</sup> Money Income of Households, Families, and Persons in the United States: 1988 and 1989. Consumer Income, P60-172. Table 2: Selected Characteristics of Households - Households, by Total Money Income in 1989. Bureau of the Census, 1991.

step re-allocated to each income group the difference between Step 2 households and total households per planning district from NDS.

Next, aggregate income was estimated for each income group by multiplying 1998 households from the above calculation by the midpoint income for each income group. Midpoint incomes were used as a proxy for mean incomes which were not available for 1996 or 1998. Even though midpoints will distort aggregate income calculations depending on the particular income distribution curve for a planning district, sensitivity analysis revealed this distortion had only a minimal impact on the final calculation of consumer expenditures at the planning district level.

Consumer expenditure patterns were then applied to aggregate income to arrive at retail expenditures for each planning district. Consumer expenditures were based on spending as a percentage of total income for each income group from the Bureau of Labor Statistics' 1995 Consumer Expenditure Survey (CES). Household retail spending as a percent of total income was used for each of the eight income groups. Retail expenditures, as well as total spending, vary considerably over income ranges. Lower income households spend much higher proportions ( but usually not higher absolute spending) of their income on food, clothing and other retail items than do upper income households where larger proportions of income go to savings, taxes, insurance, pensions, education, and other non retail expenditures. Based on data from the Consumer Expenditure Survey, REDC estimated retail spending levels for the eight income groups. Households with incomes less than \$15,000 were estimated to spend \$8,000 on retail, representing a minimum spending level to provide for a household. Households in the \$15,000 to \$24,999 income group were estimated to spend 69.7% on retail, with the percentage of spending allocated to retail purchases declining through the income ranges to 28% for households with incomes exceeding \$100,000. REDC estimates were based on percentages from the 1995 Consumer Expenditure Survey which were converted to 1998 dollars based on the CPI-U, with interpolation estimates to adjust for differences in income groupings used by CES and NDS.

Calculating household retail expenditures by individual income groups produced significantly different results for some planning districts. For the total study area, income group calculations resulted in an eight percent increase in estimated retail expenditures versus simple calculation based on mean incomes and mean retail spending as a percent of total income. Individual planning districts had variances of from +35.2% (Downtown/Medical Center) to -5.0% (University). Positive variances, i.e., retail expenditures greater than those found with the simple calculation, were associated with planning districts having lower incomes.

Numerous demographic variables in addition to income are determinants of household spending, including household composition, age distribution, home ownership, education, and ethnicity. However,

household income was determined to be the best indicator for estimating expenditures in this study. These non-income variables are presented in tables at the beginning of each planning district section, and are discussed in cases where they may have a strong impact on household spending.

Total household retail expenditures were allocated to each of the 42 retail categories<sup>4</sup> based on local historical sales data. Retail expenditures in each planning district were allocated to SIC categories<sup>5</sup> based on the 1992 Census of Retail Trade's geographic area series for Shelby County. Industry allocations for each SIC level were then adjusted for the proportion of sales made by households, based on national data.<sup>6</sup> This step removed business to business sales from the allocation process.

#### *Consumer Expenditures - Household Services*

The methodology used for retail trade was not suitable for household services due to data limitations. The Consumer Expenditure Survey includes spending for services, however the CES classification system differs significantly from the SIC system, preventing an accurate allocation of expenditures to service industries. Also, less detailed data is provided for services under the CES classification. Rather than using the CES approach, average 1998 expenditures per household were calculated by adjusting Memphis MSA sales from the 1992 Census of Service Industries by the CPI-U change, and dividing by estimated 1992 MSA households.

The above simplified approach affords somewhat less accurate spending estimates for specific service industries (3 and 4 digit SIC level used in our study). Analysis of total household service industry spending for each of the nine income groups, using CES data, reveals minimal variance from composite data (less than  $\pm 5\%$  in most cases), however, greater variance is found in the major industry groupings, i.e., Personal Services, Automobile Maintenance & Repair, and Amusement & Recreation. The greatest variances were found in Personal Services and Amusement & Recreation where spending as a percentage of income is much lower than average in households with incomes less than \$20,000. However, in most planning districts, higher spending percentages by higher income households should counterbalance most of these variances without compromising the validity of the sales potential analysis. As with retail trade, numerous non-income variables are critical factors in household spending for services. Family life

---

<sup>4</sup> Three retail industries were not included in our study. Manufactured Homes (SIC 527) and Fuel Dealers (SIC 598) have very few businesses in Shelby County, while sales of Non-Store Retailers (SIC 596) frequently reflect national rather than local markets. New & Used Car Dealers and Miscellaneous Auto Dealers were included even though these industries tend to be highly clustered in Shelby County, and also represent infrequent purchases. They were included primarily for descriptive purposes as they constitute over 19% of household retail spending in Shelby County.

<sup>5</sup> The SIC system has been replaced with NAICS (North American Industrial Classification System), however, published economic census data is not yet available under NAICS. For the most part, retail categories will remain intact, however, the 1997 NAICS Manual should be consulted for cross references.

<sup>6</sup> 1992 Census of Retail Trade. Subject Series: Miscellaneous Subjects. Table 33. Class of Customer by Kind of Business for the United States: 1992. Bureau of the Census, 1994.

cycle, the presence and age of children, and employment status of the wife (including part-time vs. full time work) have been shown to be strong determinants of service industry spending, along with home ownership, ethnicity and other factors.<sup>7</sup>

#### *Retail and Service Industry Sales*

Sales estimates are from the Business Facts Database compiled by National Decision Systems, Inc. (NDS) and are based on a combination of credit reporting data, S.E.C. filings and sales estimates based on the number of employees at a specific location. Estimates based on employment data is one of the few methods available to determine sales of smaller private businesses. NDS uses the American Business Information (ABI) database for business locations and employment. ABI employs a variety of data collection techniques and is believed to be 95% accurate.<sup>8</sup> NDS sales estimates will not be accurate for all individual businesses, however, when sales are aggregated at the industry and market levels individual differences are minimized yielding sufficiently reliable data.

National Decision Systems provided business data to REDC for each of the nine market areas based on the census tracts contained within each planning district. REDC then sorted the database by Standard Industrial Classification (SIC) codes to match the 69 industry groups included in the study.

REDC reviewed each business in the NDS database to eliminate observable errors in sales estimates or industry classification. Questionable SIC classifications or sales estimates were verified with local business directories or other sources where possible. Average store sales from public company sources were substituted for NDS estimates for a few locations of national chains. Data from non-selling locations (corporate headquarters, distribution facilities, etc.) were eliminated from the analysis. Adjustments were made in a few cases where the reviewers knew that a particular business no longer existed or that a new business had entered the market. The NDS database used in this study was from June, 1998.

An alternate approach was used for selected service industries where the NDS estimation techniques appeared to give erroneous sales data in selected industries. This was the case in industries characterized by a small number of employees (generally less than five) per location such as beauty shops, photography studios and repair shops. Aggregate industry employment by market was used to estimate sales in these industries using the Bureau of Labor Statistics' 1992 Survey of Service Industries. Sales per employee, at the appropriate industry level, from the 1992 Survey were adjusted to 1998 levels by use of the Consumer Price Index (CPI-U), then applied to industry level employment data abstracted from the NDS database to estimate industry sales.

---

<sup>7</sup> Soberon-Ferrer, Horacio, and Dardis, R. Determinants of Household Expenditures. Journal of Consumer Research, 17, March 1991.

<sup>8</sup> According to ABI sales literature. Independent assessment is not available.