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Economic Characteristics of South Carolina Manufacturing Sector Exporters

**John D. Mittelstaedt
Clemson University**

**George N. Harben
South Carolina Department of Commerce**

&

**William A. Ward
Clemson University Center for International Trade**

CUCIT Working Paper #000626

September, 2000

This paper reports on the initial stages of a project designed to assess the international trade activities and potential of small and rural firms in South Carolina. Funded by Clemson University Public Service Activities (SC-1100572), the project is designed to analyze the trade logistics transaction costs impeding trade and production integration by small and/or rural firms in South Carolina, and to identify implementable public/private interventions for ameliorating these costs. This research is conducted through Clemson University's Center for International Trade, in conjunction with the South Carolina Department of Commerce and the South Carolina State Ports Authority.

Economic Characteristics of South Carolina Manufacturing Sector Exporters

John D. Mittelstaedt (Department of Marketing, Clemson University), George N. Harben (South Carolina Department of Commerce) & William A. Ward (Clemson University Center for International Trade)

This paper reports on preliminary analysis of small and rural South Carolina manufacturing firms, by county and industry. It addresses a number of questions related to the geographic and industrial characteristics of manufacturing firms in South Carolina, particularly small and medium-sized enterprises (SMEs). First, where are exporting manufacturers in South Carolina located? Second, do manufacturing profiles vary among South Carolina counties? Third, which counties in South Carolina rely on small manufacturers for exporting, and which rely on large manufacturers for engagement in the global economy? Fourth, where do manufacturing jobs depend on exporting? Fifth, which South Carolina industries rely most heavily on exporting? Combined, the answers to these questions give us an understanding of the geographic and industrial impact of exporting on South Carolina's economy, and set the agenda for future research.

Manufacturing in South Carolina

Manufacturing plays an important role in the economy of South Carolina. Manufacturing jobs accounted for 25% of employment in the state, and 32% of private sector payroll in 1997 (U.S. Bureau of the Census 2000b). Small firms dominate the manufacturing landscape of South Carolina. In South Carolina, 83.79% of all manufacturing firms employ fewer than 100 workers, and 60.78% employ fewer than 20 (see Table 1). South Carolina is not unique in this respect. Small and medium-sized (SME) manufacturing enterprises are the backbone of industrial production in the United

States. Small manufacturing firms account for the overwhelming majority of all manufacturing employers in the United States. According to the most recent Census of Economics (U.S. Bureau of the Census 2000a), 90.21% of all manufacturing firms in the United States employ 100 or fewer employees, and 66.79% fewer than 20. Fewer than 2% (1.39%) of all manufacturers in the U.S. employ more than 500 people, considered by the Small Business Administration as a minimum employment requirement for firms to be considered “large.”

Export manufacturers are found in every county in South Carolina. Nearly 59% of all manufacturing employment in South Carolina is with firms actively exporting. Exporting plays an important role in the employment and new firm development in counties across the state. Additionally, exporting firms reflect the breadth of the industrial base in South Carolina. Firms of every industry, size and age export. The majority of exporting manufacturers in South Carolina employ fewer than 100 employees, making the study of small, export-oriented manufacturing of interest and importance to the future economy of South Carolina.

The Data

The 1999-2000 Directory of Exports from South Carolina (South Carolina Department of Commerce 2000) was used to identify exporting firms in South Carolina. Firms were classified by location, by Standard Industrial Classification (SIC) code, by number of employees, and by years of operation. While voluntary in nature, there are commercial advantages for firms to be listed in the Directory (similar to listing in the Yellow Pages). Discussion with a variety of government agencies and research programs lead us to conclude that this is the most complete listing of exporting firms in South

Carolina. Over 1199 manufacturing firms are listed in the directory, plus 200 more firms engaged in the export process. Additionally, firms included in the directory are *self-described* exporters. This suggests that exporting is important to their business operations, since it is an internally imposed distinction.

Those firms whose operations began after 1997 were excluded from the analysis; consequently, firms with three or more years of operation, and self-described as “exporters,” were considered “advanced” exporters (Leonidou and Katsikeas 1996). These firms are most likely to think of themselves in export terms, and to think strategically about export decisions. To this extent, self-identified exporters may be the best mechanism for classifying firms as exporters – externally imposed definitions are at best descriptive.

Listings were sorted by SIC code, and those classifications 3-digit classifications with 10 or more firms were included for analysis. Table 1 lists the 39 classifications used in the analysis, including 761 exporting firms. Firms were classified according to size, as very small, or “mirco” (fewer than 20 employees), “small” (20-99 employees), “medium” (100-499) and “large” firms (500 or more). While no universal standards for SMEs exists, 100 and 500 employees are frequently used as points of distinction. Additionally, recent work by Wolff and Pett (2000) suggests that very small firms should be considered as a separate category. Further, these classifications are tracked by the U.S. Census Bureau, which offered the point of comparison for this study. For comparison purposes, the 1997 Census of Economics (U.S. Bureau of the Census 2000a) and the 1997 County Business Patterns (U.S. Bureau of the Census 2000b) were used to assess the activities of manufacturing firms in South Carolina. Though collected in a different year, and using a

different methodology, these data represent the most complete accounting of firms in South Carolina. These data were used to assess proportional representation of exporting firms among counties and across industries.

Geographic Analysis - Findings

Where are Exporting Manufacturers Located?

Figure 1 summarizes the location of exporting firms in South Carolina, by county. Exporting manufacturers are located in every county in South Carolina. The greatest concentration of exporters is in the Upstate, lead by Greenville and Spartanburg Counties. The Greenville-Spartanburg Metropolitan Statistical Area (MSA) accounts for 45.8% of all exporting firms in South Carolina (Greenville, Spartanburg, Anderson, Pickens and Cherokee counties)

Table 2 lists the number of exporting firms for all counties in South Carolina, as well as the percentage of firms exporting, and the impact of exporting on each county. Table 2.2 ranks counties in terms of the percentage of manufacturing firms exporting. Sixteen counties exceed the state average of 26.8%. These counties are both urban and rural, including Greenville and Spartanburg, as well as non-MSA counties such as Jasper, Barnwell and Marlboro. The counties shaded in Figure 2 are those with the highest export impact (Table 2.3) on manufacturing, taking into account the importance of manufacturing activity. County Export Impact (CEI) ratings adjust export manufacturing proportions by the number of exporting manufacturers in a county. Those counties with CEI scores above the state average of 8.869 are those with the largest number of exporters and the largest proportion of exporting firms. These counties are found in the Greenville-Spartanburg area, the I-20 corridor between Columbia and Florence, and in

the Charleston area. This indicates that the impact of exporting on the manufacturing economy in South Carolina is urban-centered. Figure 3 highlights those counties in South Carolina designated as Metropolitan Statistical Area counties. The pattern of export impact mirrors closely the pattern of MSAs, with the exceptions of Aiken, Edgefield, Cherokee and Horry counties. As a general rule, then, exporting appears to be concentrated in the urban counties of South Carolina.

Does the manufacturing profile of counties vary?

The relative proportions of micro, small, medium and large manufacturers in each county were calculated. Figure 4 depicts the largest size category of manufacturers for each county in South Carolina. Counties along the I-85 and I-26 corridors tend to have a plurality of small exporting manufacturers, while those along the Georgia border and in the Pee Dee are dominated by firms with 100 employees or more. Figures 4.1 and 4.2 make the contrast even starker; Counties down the central corridor of South Carolina rely on small exporters, while counties to the North Carolina and Georgia borders rely on larger manufacturers. Combined with information from Table 2 these data suggest that exporting by smaller manufacturing firms is more likely in those counties with the greatest access to interstate infrastructure, and the lack of such access tends to drive up the necessary economies of scale required to export. The one exception to this appears to be the Interstate 95 corridor. I-95 is populated by larger manufacturing exporters than the other interstate corridors.

Which counties rely on Micro, Small, Medium and Large Manufacturers for exports?

Comparisons, by county, of Micro, Small, Medium and Large exporting and total manufacturers are summarized in Figure 5.1-5.4. The average percentage of exporting

manufacturers with fewer than 20 employees is 8.75%, by county. Greenville-Spartanburg, the Charlotte area and the Florence area, along with Bamberg and Berkeley counties have the highest proportion of exporting Micro firms (Figure 5.1). No county exceeds 25% exporting among firms of this category. Among Small manufacturers (Figure 5.2), exporting firms constituting 25-50% of manufacturers are found along Interstate 20, 26 and 85. Those counties with the highest proportion of Small exporters (Edgefield, Calhoun and Jasper) tend to have few total manufactures of this size, resulting in high export percentages but low County Export Impact. Exporters with 100-499 employees (Medium, Figure 5.3) are highest from Columbia to Interstate 95, and in Laurens and Oconee counties, with a similar pattern found for Large manufacturers with 500 or more employees (Figure 5.4). This suggests that Large and Medium export-driven manufacturing is found below I-20, generally speaking. Given this, high proportions of Micro export manufacturers in the Upstate appear to either “spin off” or gravitate toward networks of small and medium-sized firms, while Micro exporters in the Pee Dee tend to be parts of networks of medium or large manufacturers. For counties in the lower Coastal Plain, with high proportions of Large manufacturers exporting but few or no Micro exporting manufacturers (e.g., Orangeburg, Hampton, Dorchester), manufacturing networks appear to lie beyond the local area. This may reflect the economies of scale of industries attracted to these counties, but it does not appear that larger manufacturers generate smaller exporting manufacturers in these areas, as appears to be the case in the Upstate.

Where does the greatest proportion of manufacturing job depend on exports?

Figure 6 summarizes the proportion of manufacturing jobs attributed to firms engaged in export. The proportion of employment from exporting firms is highest in Bamberg, Barnwell, Berkeley, Clarendon, Dorchester, Fairfield and Oconee counties. For these counties, 75-100% of manufacturing jobs are in firms that export. This is not to say that all these jobs are export-driven, but for many firms the returns from exporting make manufacturing possible. For example, only 5% of a firm's business may be export-driven, but that 5% may be the difference between breaking even or closing production. High export employment may reflect size differences between large manufacturers exporting and large numbers of exporting manufacturers. Figure 7 adjusts the proportion of export employment by the number of exporting *employees* (Export Employment Impact). Along with Figure 6, this paints a picture of export employment concentrated in three areas: the Upstate, the Columbia-Florence corridor, and the greater Charleston area. In the Upstate, and in the Charleston area, export employment is dominated by Micro and Small firms. In the counties of Sumter and Florence, exporting activities are dominated by medium-sized employers with 100-499 employees. These differences reflect different types of employment opportunities in these areas, but suggest that Upstate and Coastal exporting firms are of a different nature than those in the mid-state.

Limitations

These figures do not reflect export intensity (the proportion of production—and by extension, jobs—directly attributed to export), but for many firms the ability to export makes them a viable, going concern. Given the rules of the new global economy, take away exports and you take away all the jobs. Further, because these firms are self-

identified exporters, we can conclude that exporting is an important component to their production and marketing strategies.

Industrial Analysis - Findings

Table 3 shows the industries in South Carolina with the highest numbers of exporting firms. These industries vary in the distribution of sizes, some dominated by smaller firms while others reflect medium and large exporters. Figure 8 shows the size distribution of all industries with 10 or more exporting firms. In most cases, exporting in these industries is proportionally highest among medium and large firms. In some cases (e.g., cotton and manmade broadwoven fabrics, meat products, commercial printing) few if any micro firms export. In other industries, particularly industrial organic chemicals, drugs, electric lighting and wiring equipment, and carpets and rugs, the vast majority of micro firms are engaged in export. These findings suggest that the distribution of export manufacturers by size varies with the labor and capital intensity of industries, the economies of scale of production, and the technology produced. Industries such as paperboard and boxes, millwork, veneer and plywood, sawmills and planing mills, and commercial printing, are largely absent from exporting, regardless of firm size. This is not surprising, since their products are often incorporated into the goods and services of others engaged in trade. Printers make labels, instruction manuals, and warranty cards. Box manufacturers sell to others who use the boxes for shipping. Thus, differences among industries may reflect different points in the production process.

Summary and Conclusions

Exporting manufacturers in South Carolina can be found in every county in the state, and in 123 different industries. Exporting manufacturers in South Carolina account for 26.8% of all manufacturing firms, including 8.8% of all micro manufacturers, 37.2% of all small manufacturers, 52.2% of all medium manufacturers and 76.6% of all large manufacturers. There is variance among industries, but this distribution is reflected in a variety of industries within the state. In addition, manufacturing firms that export account for almost 59% of manufacturing employment in the state. In sum, manufacturing in South Carolina is inseparable from the global economy.

Patterns in exporting emerge from this analysis, worthy of further investigation. First, micro and small manufacturers appear to be found in higher proportions in the urban areas of the state. This may reflect the availability of legal and logistic resources necessary for these firms to engage in trade, the presence of multinational firms that tend to broaden the horizons of smaller firms, and the necessary information and technological know-how infrastructures present for small firms to learn the export process. It reflects, as well, the increasing move from hierarchical to networked structures of manufacturing in South Carolina, and the global economy. What we may conclude is that the export environment for Micro and Small manufacturers is more favorable in urban areas than in rural areas in South Carolina.

Rural communities, however, appear to be inviting locations for large manufacturers. Non-MSA counties appear as successful and their metropolitan counterparts in generating export manufacturing, and in the absence of urban trade infrastructures. Firms in rural counties proportionally larger than their exporting

counterparts in MSAs; these counties may have more export employment, proportionately, but fewer export employers than do urban counties. This indicates that the nature of export employment is different in urban and rural counties. Large export manufacturers exist in urban counties, but are surrounded by a variety of smaller manufacturers with export intentions. Export manufacturing in rural counties, on the other hand, must rely on networks and infrastructure from greater distances, increasing the needs for economies of scale

Finally, the size distribution of firms raises the issue of whether small and large firms pursue exporting for different reasons. Small firms may be involved in exporting as their main international involvement. Large firms may be involved in exporting as part of a larger international strategy. Micro firms don't appear to be involved to a very large extent, suggesting that they face barriers to export unique to their size. The latter issue is one of particular importance, since Micro manufacturers represent three-fifths of all manufacturing employers in South Carolina. Both market explanations of this condition, and public policy initiatives aimed at Micro manufacturers, should be carefully examined in future research.

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Table 1
Exporting Manufacturing Firms in South Carolina

	<u>Census of South Carolina*</u>	<u>Exporters**</u>
“Micro”	3,165	277
“Small”	1,198	446
“Medium”	703	367
“Large”	141	108
Total	5,207	1,199

* from the 1997 Census of Economics, U.S. Census Bureau (2000)

** from the 1999-2000 Directory of Exports from South Carolina (S.C. Department of Commerce, 2000)

**Table 2
Exporting by County**

County	# Exporting Firms	% Firms Exporting	County Export Impact
Abbeville	11	28.9	3.179
Aiken	29	24.2	7.018
Allendale	3	16.7	0.501
Anderson	66	25.8	17.028
Bamberg	15	51.7	7.755
Barnwell	9	31.0	2.790
Beaufort	10	8.8	0.880
Berkeley	28	33.7	9.436
Calhoun	10	50.0	5.000
Charleston	61	20.1	16.261
Cherokee	20	23.0	4.600
Chester	19	28.8	5.472
Chesterfield	18	26.5	4.770
Clarendon	10	30.0	3.000
Colleton	15	26.3	3.945
Darlington	17	21.8	3.706
Dillon	9	31.0	2.790
Dorchester	22	23.2	5.104
Edgefield	11	24.4	2.684
Fairfield	8	22.9	1.832
Florence	39	24.2	9.438
Georgetown	13	11.5	1.495
Greenville	246	34.9	85.854
Greenwood	21	21.2	4.452
Hampton	6	17.6	1.056
Horry	22	12.1	2.662
Jasper	6	40.0	2.400
Kershaw	16	18.6	2.976
Lancaster	24	32.4	7.776
Laurens	34	38.6	13.124
Lee	2	11.8	.236
Lexington	63	24.3	15.309
McCormick	1	6.7	0.067
Marion	14	32.6	4.564
Marlboro	7	28.0	1.960
Newberry	17	21.3	3.621
Oconee	28	25.7	7.196
Orangeburg	29	25.4	7.366
Pickens	37	24.2	8.954
Richland	69	26.3	18.147
Saluda	2	9.1	0.182
Spartanburg	180	35.5	63.900
Sumter	35	40.7	14.245
Union	10	15.9	1.590
Williamsburg	11	22.9	2.519
York	74	30.3	22.422

Table 2.1
Exporting by County
Sorted by # of Firms Exporting

County	# Exporting Firms	% Firms Exporting	County Export Impact
Greenville	246	34.9	85.854
Spartanburg	180	35.5	63.900
York	74	30.3	22.422
Richland	69	26.3	18.147
Anderson	66	25.8	17.028
Lexington	63	24.3	15.309
Charleston	61	20.1	16.261
Florence	39	24.2	9.438
Pickens	37	24.2	8.954
Sumter	35	40.7	14.245
Laurens	34	38.6	13.124
Aiken	29	24.2	7.018
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Oconee	28	25.7	7.196
Lancaster	24	32.4	7.776
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Chesterfield	18	26.5	4.770
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Newberry	17	21.3	3.621
Kershaw	16	18.6	2.976
Bamberg	15	51.7	7.755
Colleton	15	26.3	3.945
Marion	14	32.6	4.564
Georgetown	13	11.5	1.495
Abbeville	11	28.9	3.179
Edgefield	11	24.4	2.684
Williamsburg	11	22.9	2.519
Beaufort	10	8.8	0.880
Calhoun	10	50.0	5.000
Clarendon	10	30.0	3.000
Union	10	15.9	1.590
Barnwell	9	31.0	2.790
Dillon	9	31.0	2.790
Fairfield	8	22.9	1.832
Marlboro	7	28.0	1.960
Hampton	6	17.6	1.056
Jasper	6	40.0	2.400
Allendale	3	16.7	0.501
Lee	2	11.8	.236
Saluda	2	9.1	0.182
McCormick	1	6.7	0.067

Table 2.2
Exporting by County
Sorted by % Firms Exporting

County	# Exporting Firms	% Firms Exporting	County Export Impact
Bamberg	15	51.7	7.755
Calhoun	10	50.0	5.000
Sumter	35	40.7	14.245
Jasper	6	40.0	2.400
Laurens	34	38.6	13.124
Spartanburg	180	35.5	63.900
Greenville	246	34.9	85.854
Berkeley	28	33.7	9.436
Marion	14	32.6	4.564
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Barnwell	9	31.0	2.790
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Clarendon	10	30.0	3.000
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Marlboro	7	28.0	1.960
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Colleton	15	26.3	3.945
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Horry	22	12.1	2.662
Lee	2	11.8	.236
Georgetown	13	11.5	1.495
Saluda	2	9.1	0.182
Beaufort	10	8.8	0.880
McCormick	1	6.7	0.067

Table 2.3
Exporting by County
Sorted by County Export Impact

County	# Exporting Firms	% Firms Exporting	County Export Impact
Greenville	246	34.9	85.854
Spartanburg	180	35.5	63.900
York	74	30.3	22.422
Richland	69	26.3	18.147
Anderson	66	25.8	17.028
Charleston	61	20.1	16.261
Lexington	63	24.3	15.309
Sumter	35	40.7	14.245
Laurens	34	38.6	13.124
Florence	39	24.2	9.438
Berkeley	28	33.7	9.436
Pickens	37	24.2	8.954
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Beaufort	10	8.8	0.880
Allendale	3	16.7	0.501
Lee	2	11.8	.236
Saluda	2	9.1	0.182
McCormick	1	6.7	0.067

Table 3
Exporting Industries in South Carolina

Industry	Exporting Firms*	< 20	20 – 99	100 – 499	> 499	Industry Size**	< 20	20 – 99	100 – 499	>499
308 Plastic Products, Misc.	76	13	40	18	5	193	87	72	31	3
355 Special Industry Machinery	66	31	25	9	1	96	60	28	6	2
354 Metalworking Machinery & Equipment	43	15	21	6	1	115	70	31	12	2
371 Motor Vehicle & Motor Vehicle Parts	39	4	14	16	5	66	19	24	17	6
356 General Industrial Machinery	36	9	12	13	2	61	26	17	13	5
286 Industrial Organic Chemicals	33	6	12	11	4	33	7	14	12	0
344 Fabricated Structural Metal Products	31	7	13	9	2	161	95	55	11	0
222 Broadwoven Fabrics, Manmade	26	2	5	12	7	77	10	8	48	11
282 Plastic Materials & Synthetic Fibers	25	1	7	8	9	39	6	10	13	10
331 Steel Works, Blast Furnaces &	20	2	12	3	3	31	16	7	7	1
367 Electronic Components & Accessories	20	2	5	7	6	39	17	6	11	5
221 Broadwoven Fabrics, Cotton	19	0	4	13	2	44	10	6	22	6
201 Meat Products	18	0	5	9	4	46	27	9	6	4
284 Soap, Detergents & Cleaning Supplies	17	8	7	2	0	43	24	16	3	0
267 Converted Paper & Paperboard	16	2	6	5	3	48	19	19	6	4
226 Dyeing & Finishing Textiles	15	2	4	4	5	75	29	14	26	6
281 Industrial Inorganic Chemicals	15	7	5	3	0	27	17	4	1	2
224 Nonwoven Fabrics	14	1	8	4	1	18	5	7	6	0
242 Sawmills & Planing Mills	14	3	6	5	0	97	47	38	12	0

Industry	Advanced Firms	< 20	20 – 99	100 – 499	> 499	Industry Size	< 20	20 – 99	100 – 499	>499
306 Fabricated Rubber Products	14	4	5	5	0	29	12	10	6	1
353 Construction, Mining & Materials Handling Equipment	14	4	6	4	0	33	17	8	7	1
228 Yarn & Thread Mills	13	1	4	8	0	50	5	8	34	3
251 Household Furnishings	13	3	3	5	2	42	30	5	6	1
305 Gaskets, Packing & Sealing Devices	13	3	2	6	2	21	13	1	5	2
384 Surgical, Medical & Dental Instruments	13	2	3	7	1	30	18	6	5	1
238 Misc. Apparel & Accessories	12	3	6	2	1	19	5	9	5	0
362 Electrical Industrial Apparatus	12	3	1	5	3	23	8	6	7	2
225 Knitting Mills	11	0	3	8	0	55	12	20	19	4
243 Millwork, Veneer, Plywood	11	1	7	3	0	134	92	32	10	0
283 Drugs	11	2	4	4	1	13	3	3	6	1
347 Coating, Engraving & Allied Services	11	4	5	2	0	43	30	13	0	0
364 Electric Lighting and Wiring Equipment	11	5	1	5	0	22	6	4	11	1
382 Laboratory Apparatus & Analytical Equipment	11	4	3	3	1	19	14	3	1	1
227 Carpets & Rugs	10	4	1	4	1	16	5	3	8	0
232 Mens & Boys Furnishings & Accessories	8	3	3	1	1	53	10	20	20	3
275 Commercial Printing	8	1	4	3	0	373	319	45	8	1
373 Ship & Boat Building	8	2	1	4	1	72	58	5	9	0
265 Paperboard Containers & Boxes	7	0	3	3	1	51	12	25	13	1

* from the 1999-2000 Directory of Exports from South Carolina (South Carolina Department of Commerce)

** from the 1997 Census of Economics (United States Bureau of the Census, 2000)

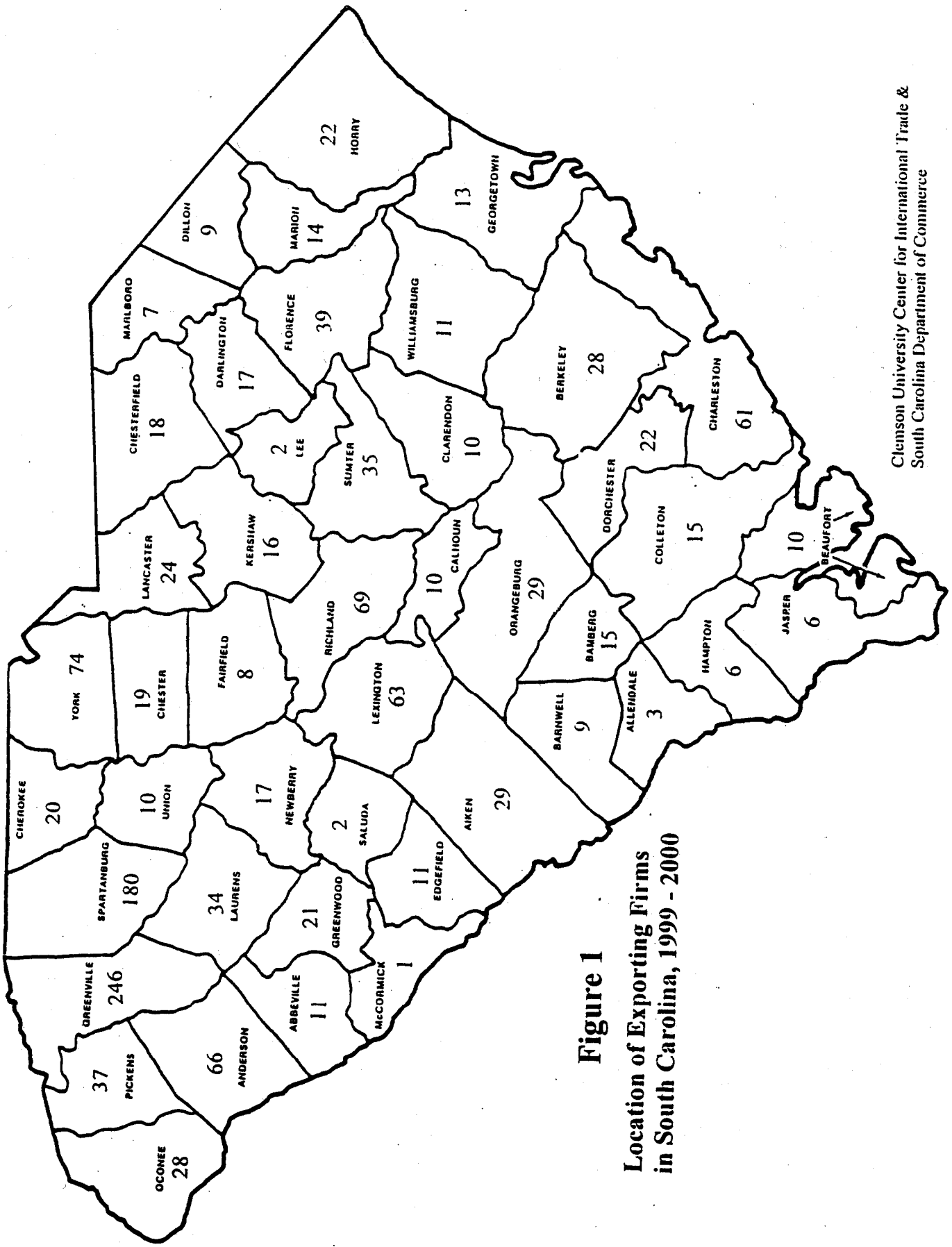


Figure 1
Location of Exporting Firms
in South Carolina, 1999 - 2000

Export Impact on South Carolina, 1999-2000

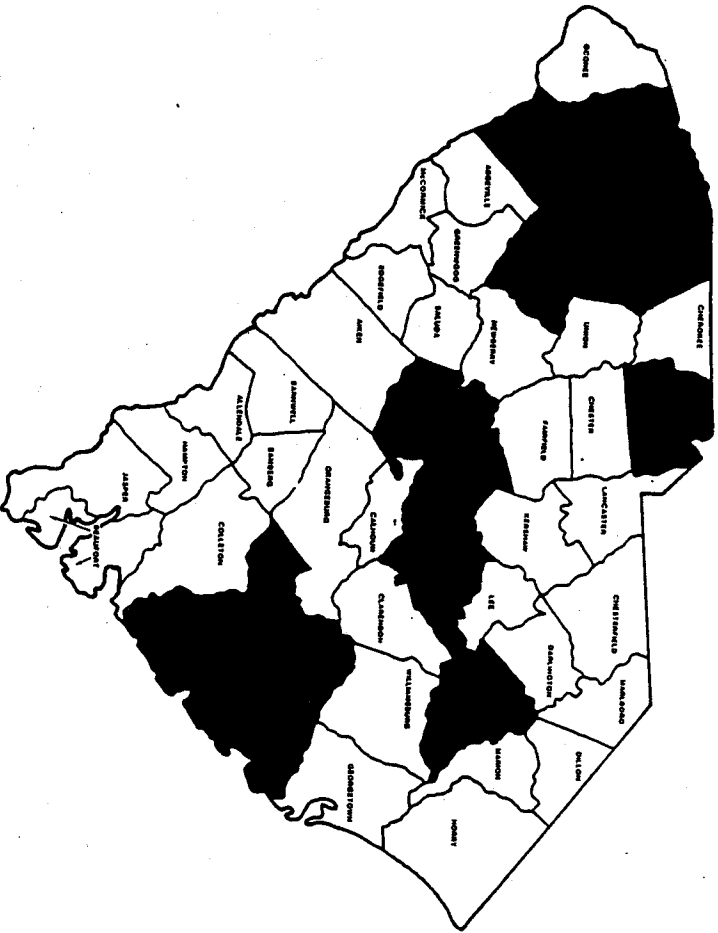


Figure 2
County Export Impact
Counties with Highest Export Impact

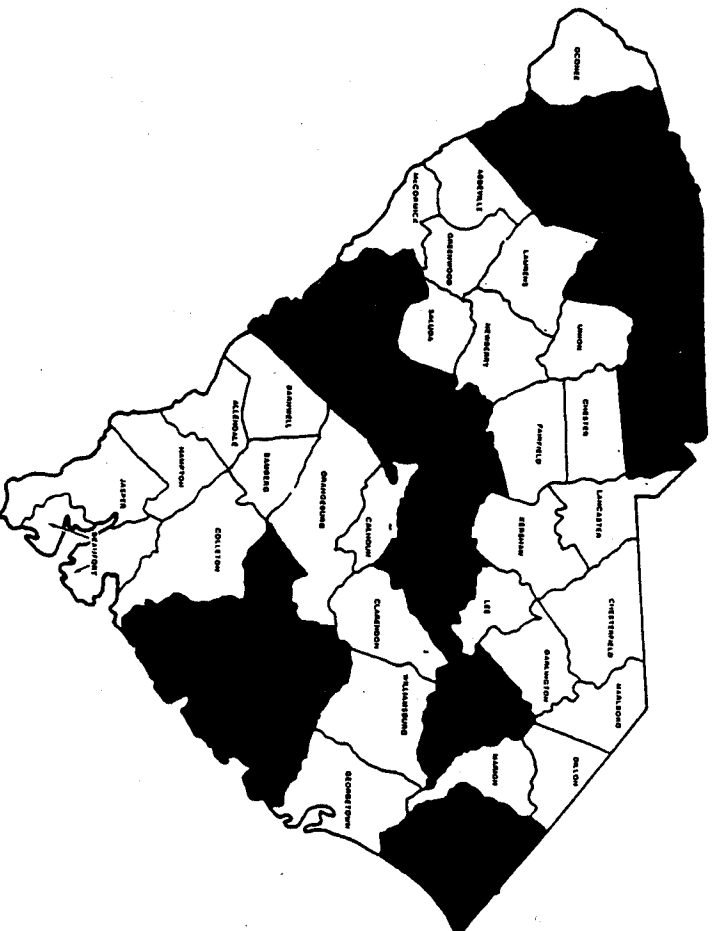


Figure 3
Metropolitan Statistical Areas
South Carolina

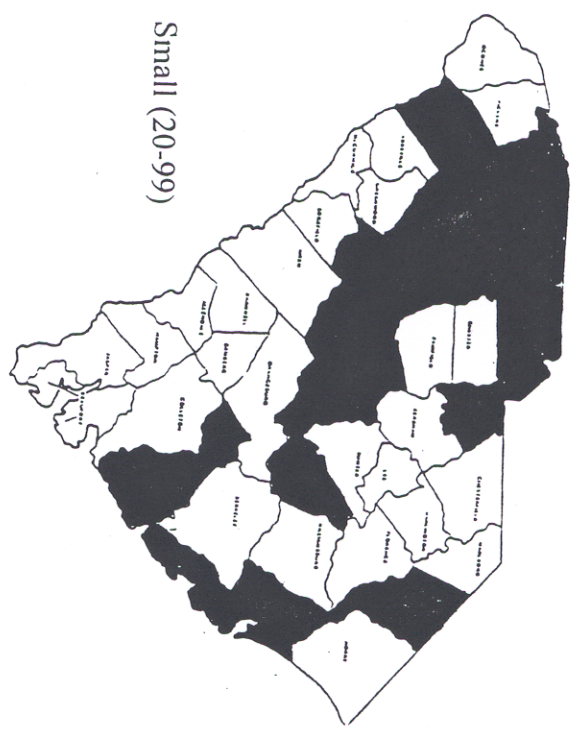
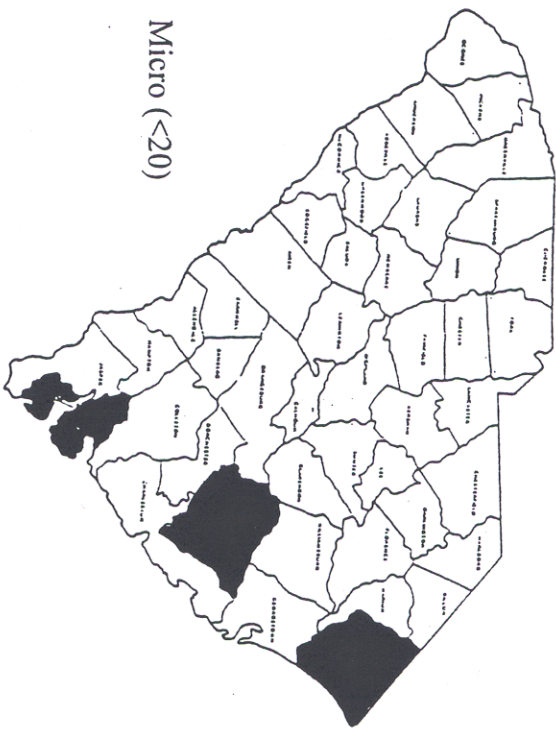
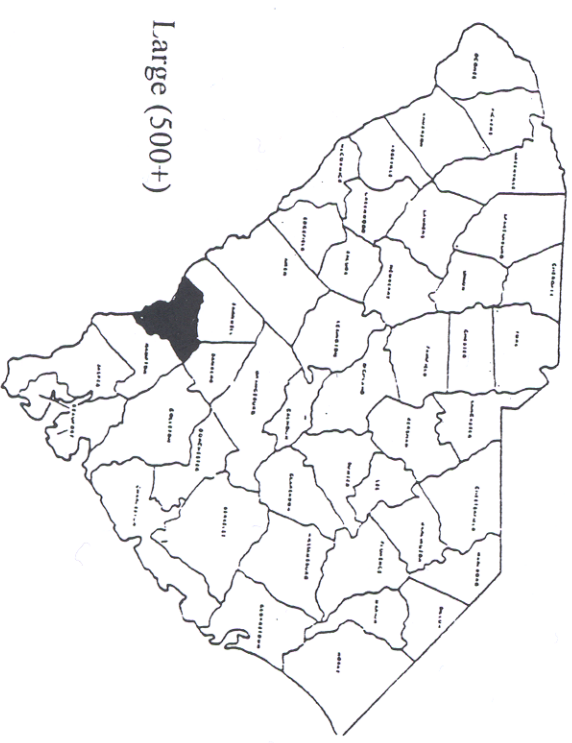
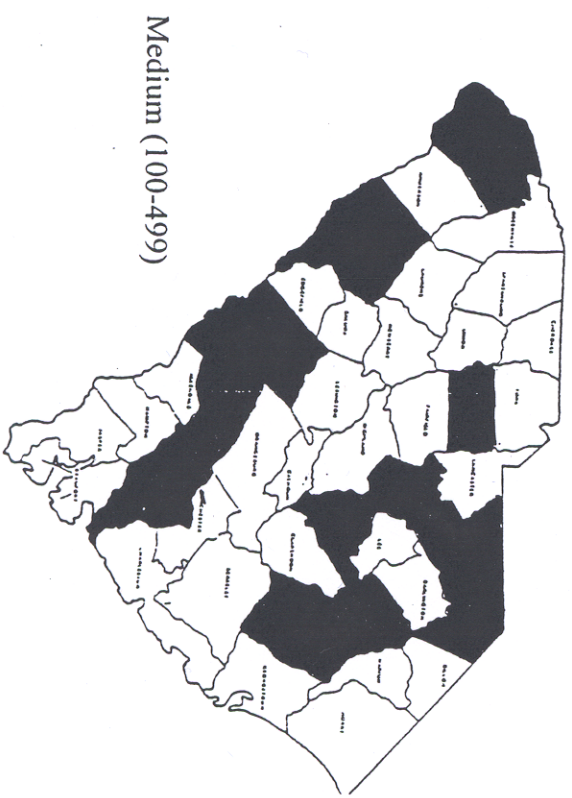


Figure 4
Largest % of Exporting
Manufacturers, by Size & by County



Small versus Rural: Different Export Patterns

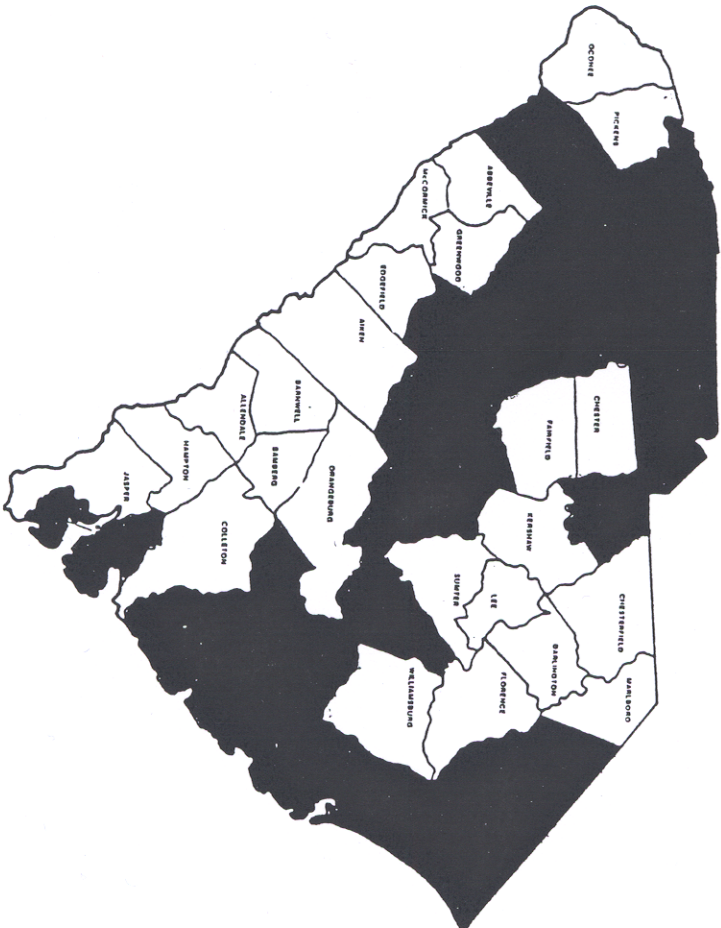


Figure 4.1

Small Firm Export Impact

Counties where the largest proportion of export manufacturers employ fewer than 100 workers

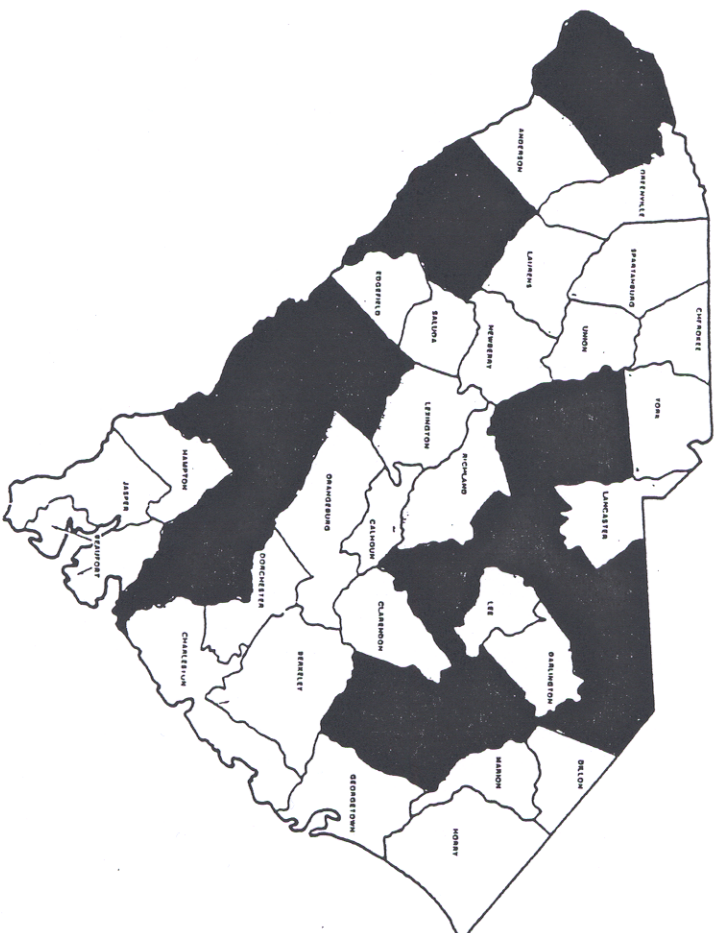


Figure 4.2

Large Firm Export Impact

Counties where the largest proportion of export manufacturers employ more than 100 workers

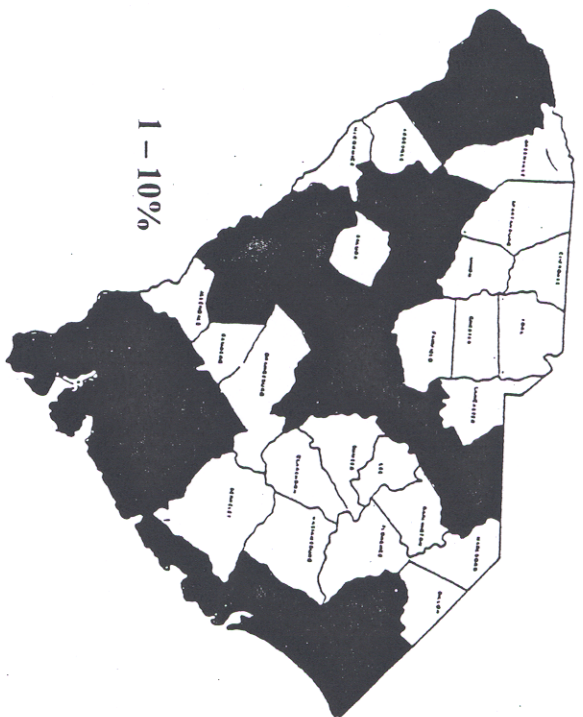
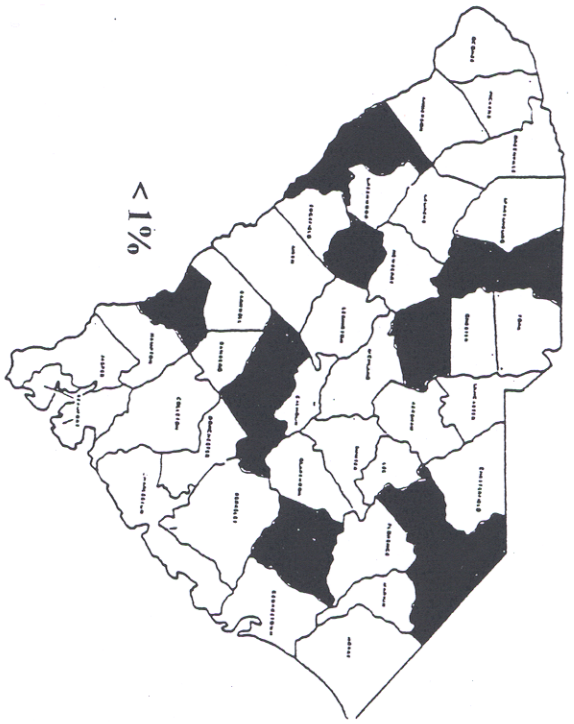
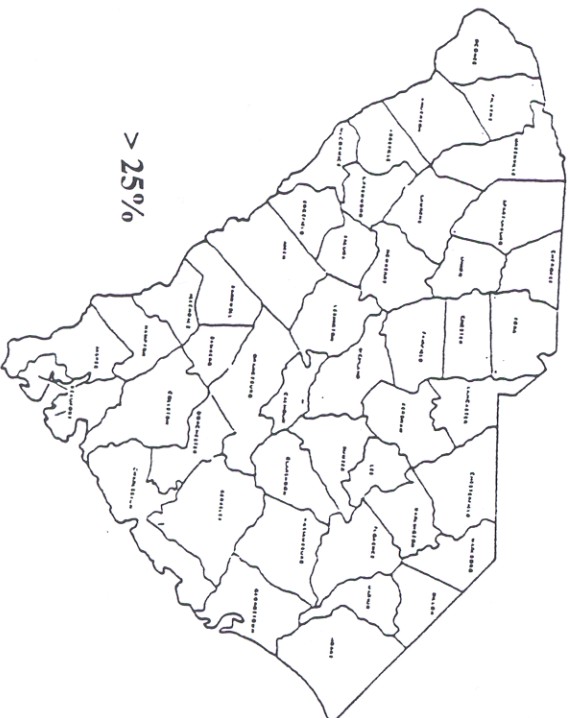
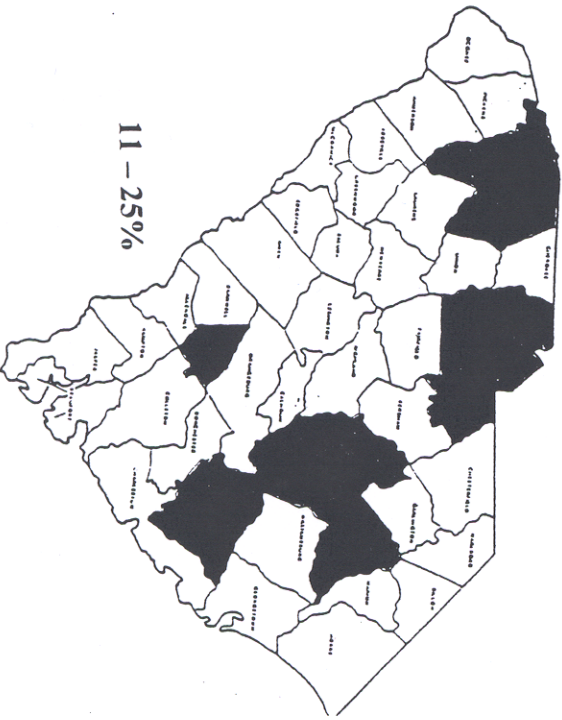


Figure 5.1
Percent of Exporting Micro Manufacturers,
by County



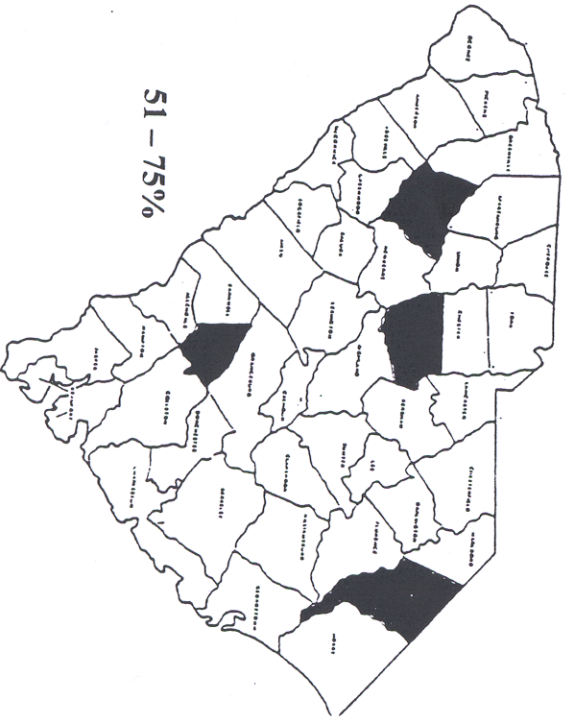
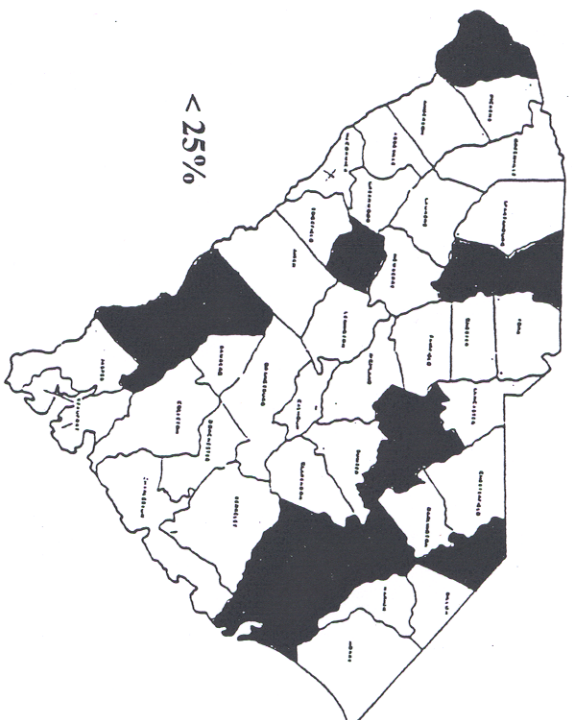
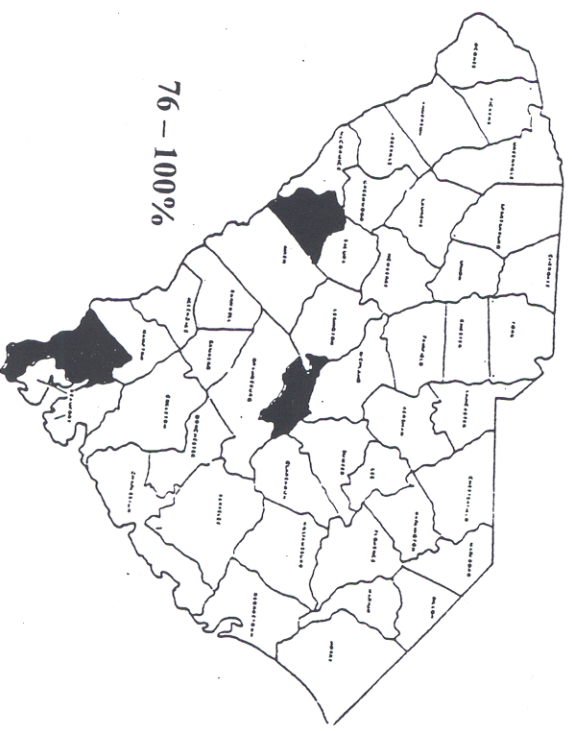
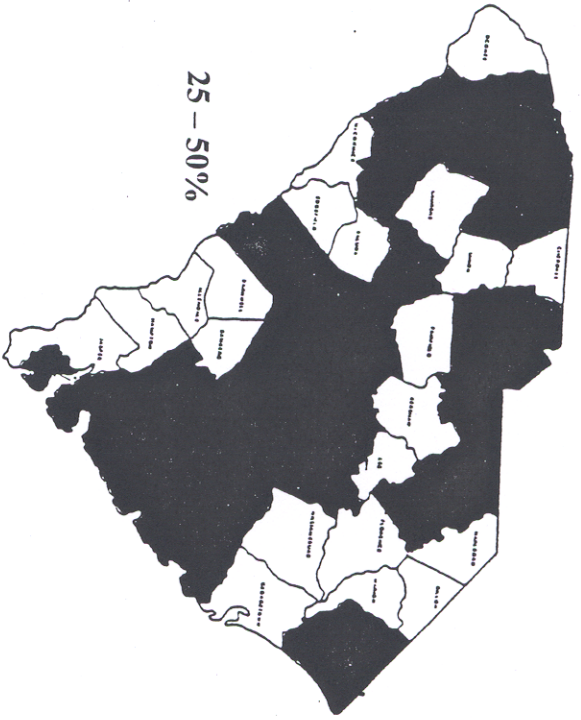


Figure 5.2
Percent of Exporting Small Manufacturers,
by County



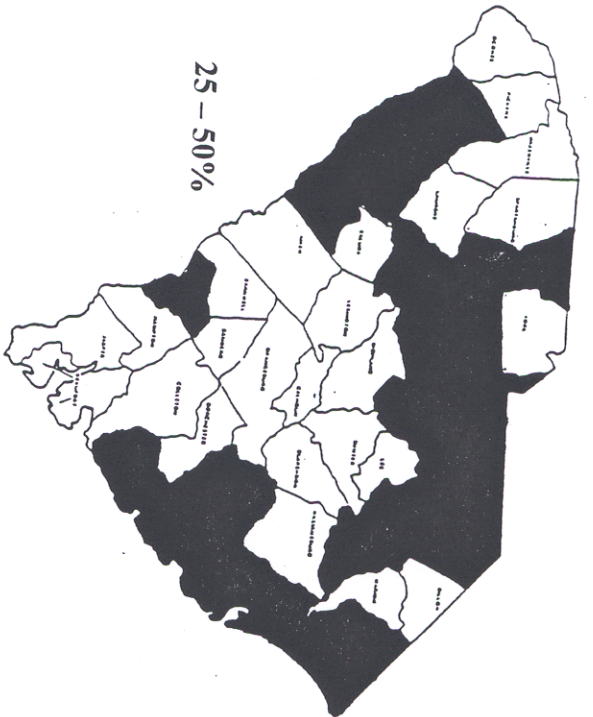
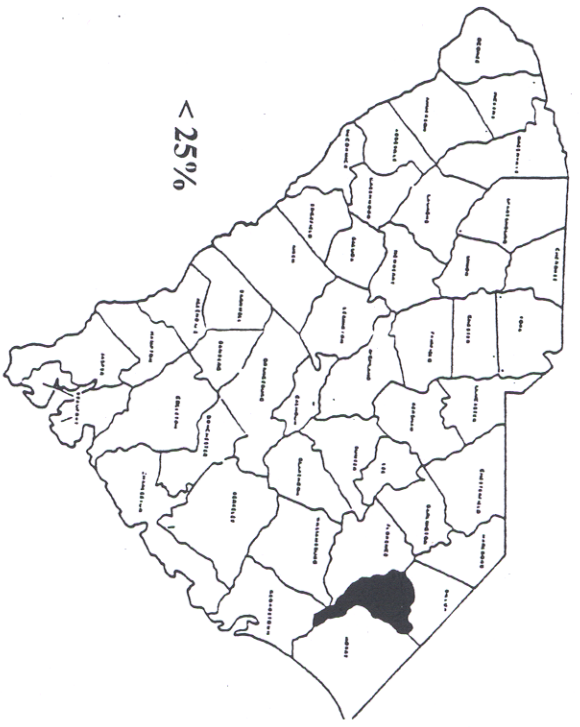
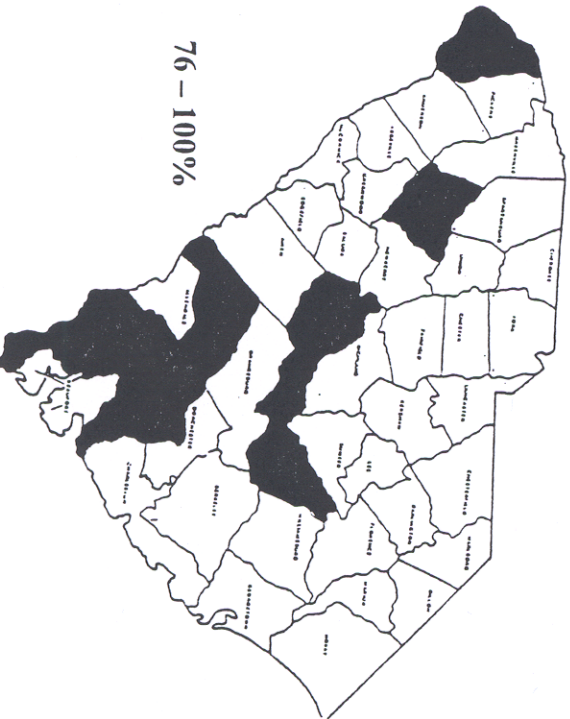
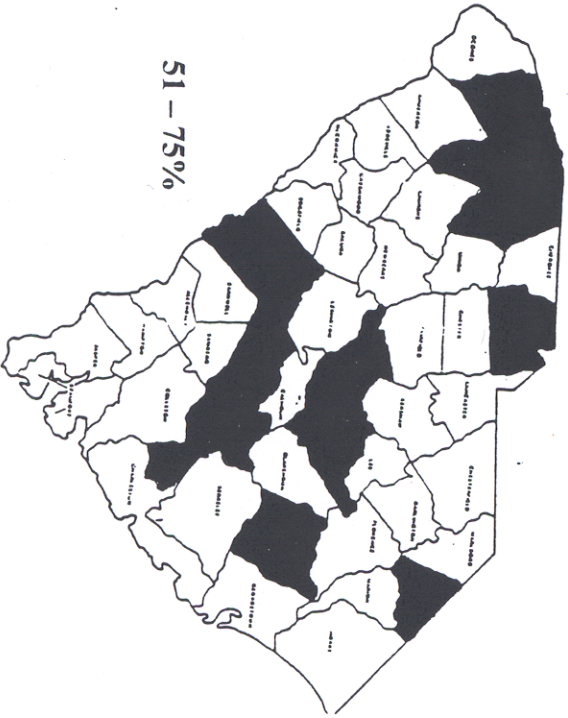


Figure 5.3
Percent of Exporting Medium Manufacturers,
by County



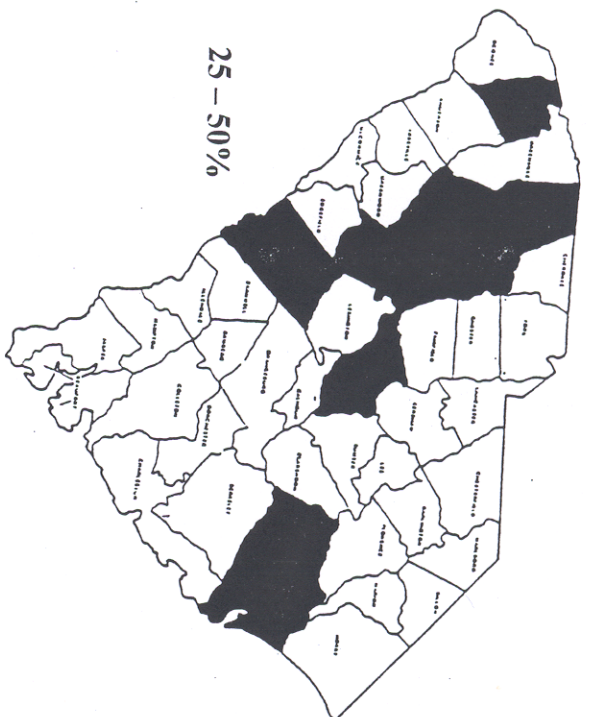
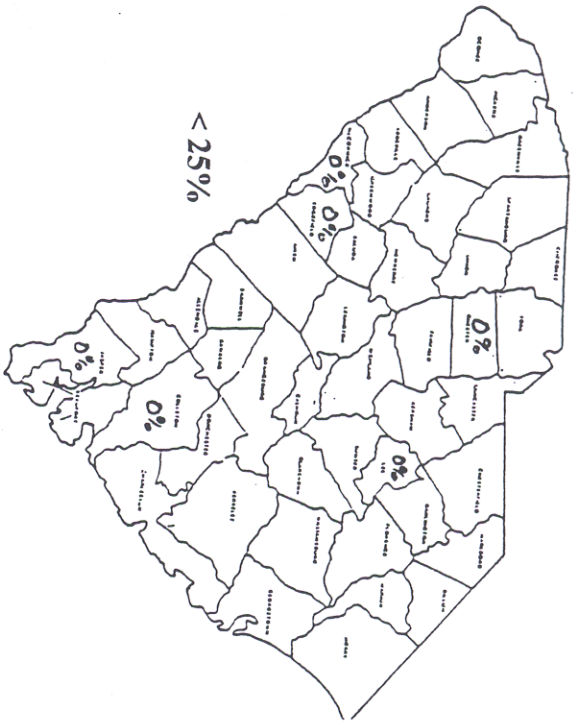
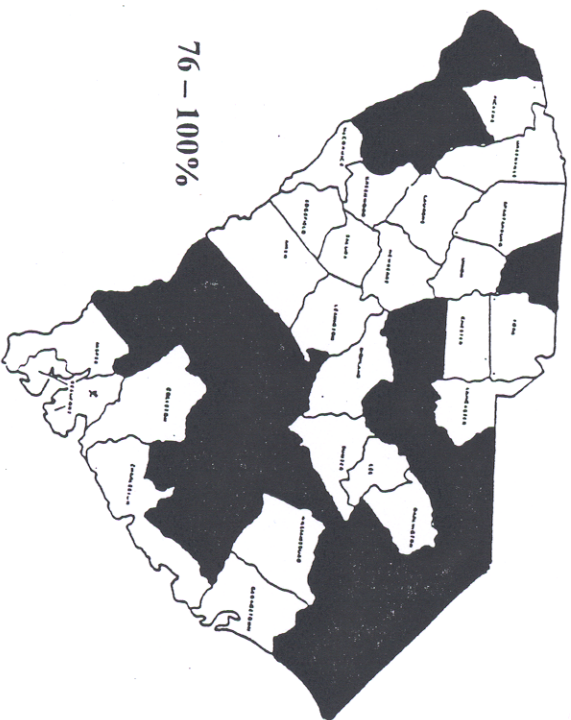
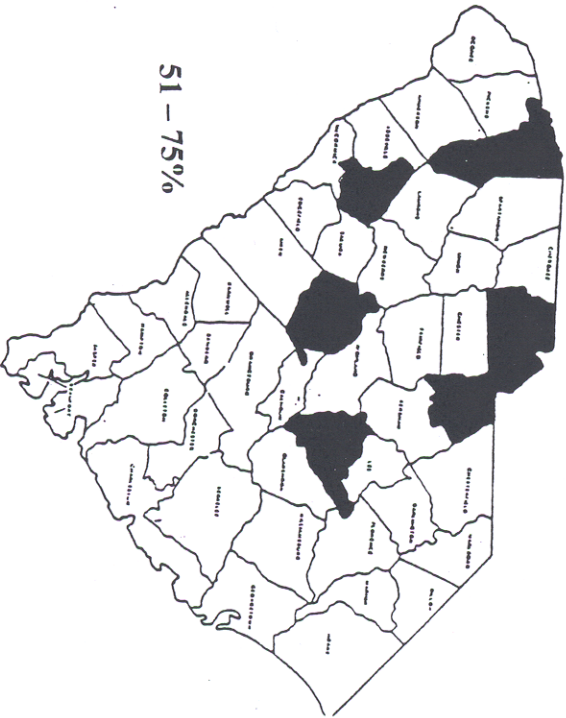
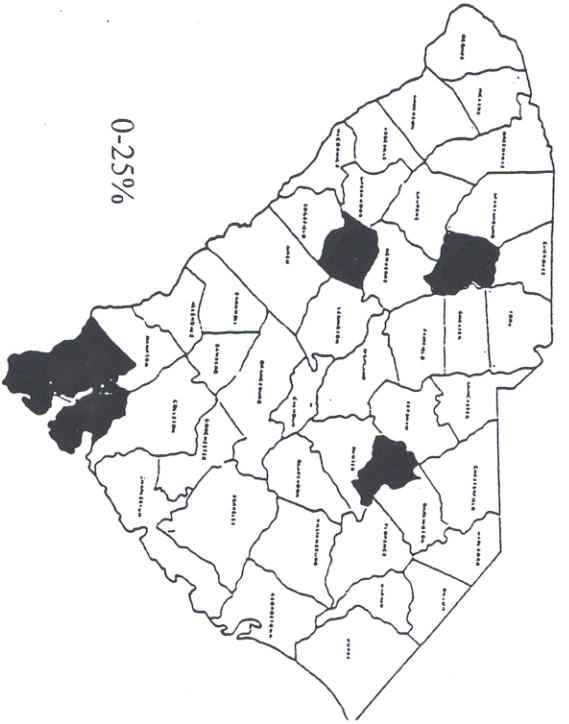
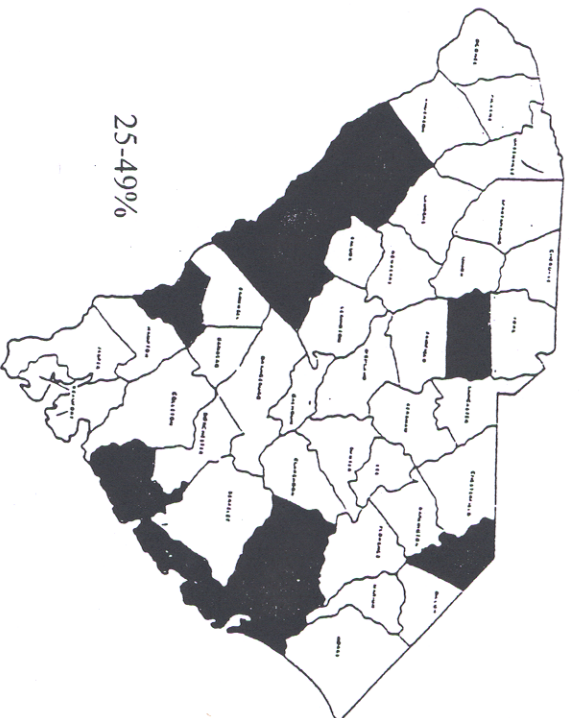


Figure 5.4
Percent of Exporting Large Manufacturers,
by County



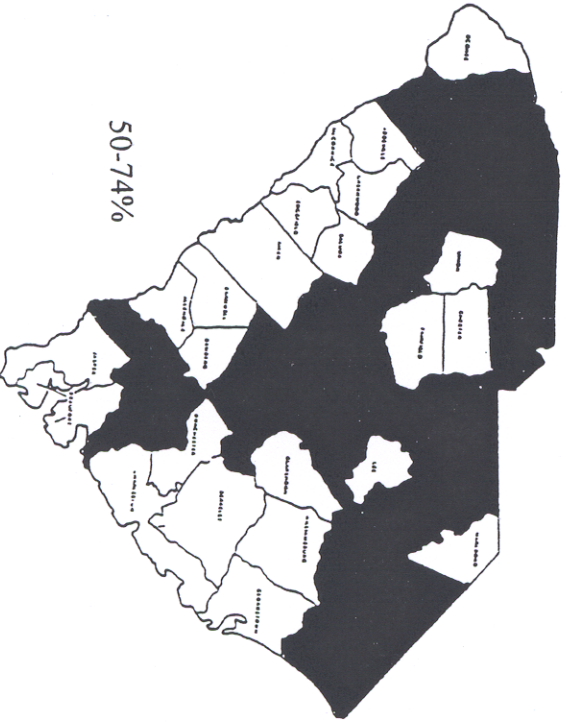


0-25%

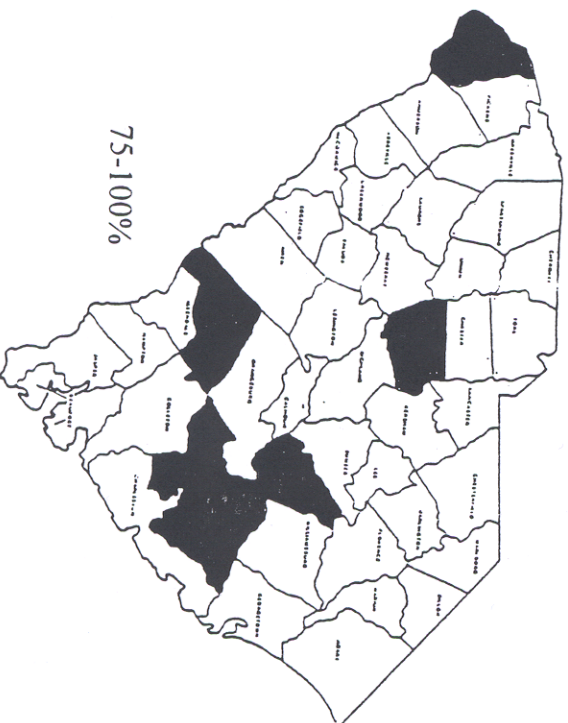


25-49%

Figure 6
 % of Total Manufacturing Employment
 Attributed to Exporting Firms



50-74%



75-100%

Figure 7
Export Employment Impact
Counties with Highest Employment Impact from Exporting

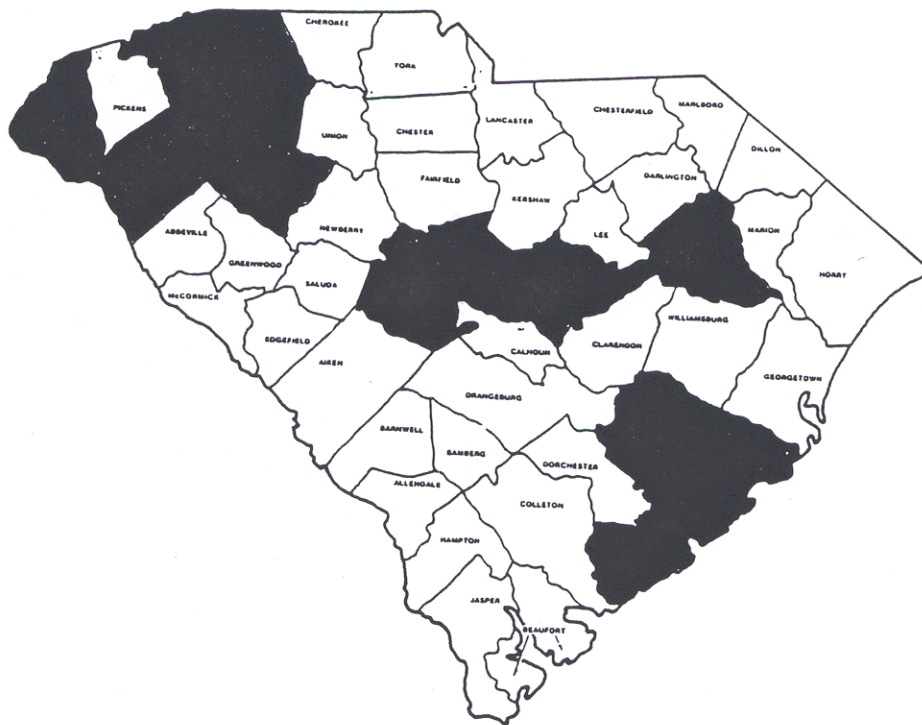


Figure 8
Size Distribution of Exporting Firms

