



# RESEARCH REPORT

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*A publication providing statistical information on Howard County demographics, socioeconomic and employment trends and patterns. Available from the Department of Planning and Zoning by calling (410) 313-4370.*

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## **Howard County Employment – Year 2000**

### **Introduction**

Earlier this year, the Research Division completed updating the Howard County employment database for the year 2000. This update, typically conducted once every five years, results in a comprehensive list of current at place employment in Howard County. It is primarily used as a basis for employment projections as part of the Baltimore Metropolitan Council (BMC) cooperative forecasting effort, which in turn is used for regional transportation modeling. *This report summarizes 2000 employment in Howard County by job location and type.* A future report will discuss job growth from 1990 to 2000 with special consideration given to the geographic concentration and types of new jobs that came to the County over the decade.

### **Background and Methodology**

The base 2000 employment was estimated using Dunn and Bradstreet data as a starting point. The initial file was geocoded and amended based on further research. In particular, businesses that were mistakenly placed in Howard County in the original file but were actually not in the County were extracted, and businesses that showed up in an adjacent county but were actually in Howard County were added. Duplicate records were also checked and deleted. In addition, State and local government jobs were researched and appropriate amendments were made. A significant number of businesses were also added based on the Howard County Economic Development Authority's major employers and new and expanding business lists which are generated and continuously updated. Overall, the original Dunn and Bradstreet database was more than 20 percent off and the final amended database reflects a much higher degree of confidence. All final businesses and job totals were geocoded by address and then grouped in DPZ's statistical analysis zones.<sup>1</sup>

The State Department of Licensing, Labor and Regulation (DLLR) and the U.S. Bureau of Economic Analysis (BEA) track jobs on a regular basis, although jobs by location within counties are not readily available through these sources. Rather, only total countywide job estimates are provided. DLLR provides total job updates on a quarterly basis in a relatively

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<sup>1</sup> The Research Division has broken the County into 127 statistical areas for demographic, land use, and employment reporting purposes. These areas have evolved over time and roughly correspond to Census boundaries.

timely fashion, but only includes wage and salary jobs covered by unemployment insurance, leaving out the relatively large group of self-proprietors, as well as some household, agricultural and federal military jobs. In fact, in recent years about 30 percent of Howard County's employment is not reported by DLLR. While BEA purports to include all jobs, there is usually a two year time lag.

For purposes of the recent 2000 employment database update effort, the General Plan 2000 employment estimate of 160,000 jobs was used as a control total. This value was based on 1998 BEA employment figures (the latest available at the time) and extrapolated based on annual employment increases as reported by DLLR. The extra research effort applied to the original Dunn and Bradstreet data discussed above yielded about five percent less than the 160,000 job control total. To match the control total the number of jobs in each statistical analysis zone were proportionately adjusted slightly upwards, the results of which are further discussed below.

## 2000 Employment

The table and charts below summarize the total job estimates in each of four non-residential tabulation areas by major job category in 2000. The tabulation areas are the same as those reported in the Department of Planning and Zoning's annual Development Monitoring System Report which estimates new job growth based on building permits and recently approved site development plans. (The Appendix at the end of this report shows the detailed groupings by Standard Industrial Classification (SIC) for each of the six job categories listed in the table.)

### Jobs in Howard County -- 2000

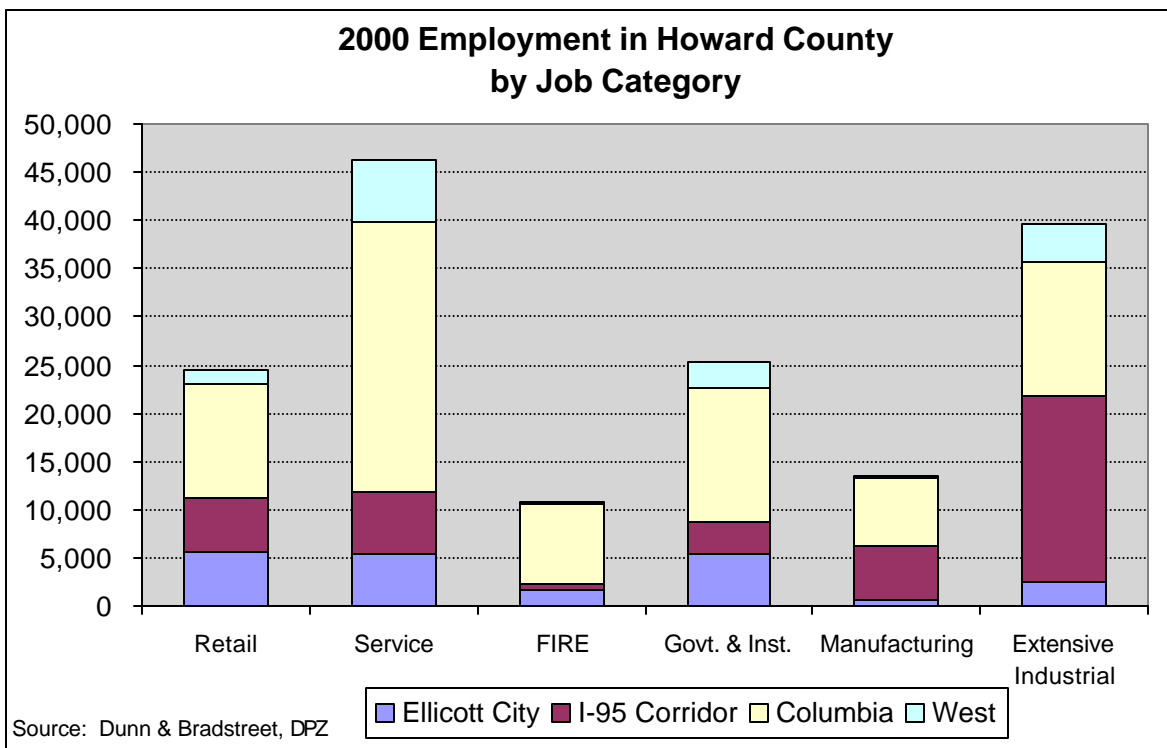
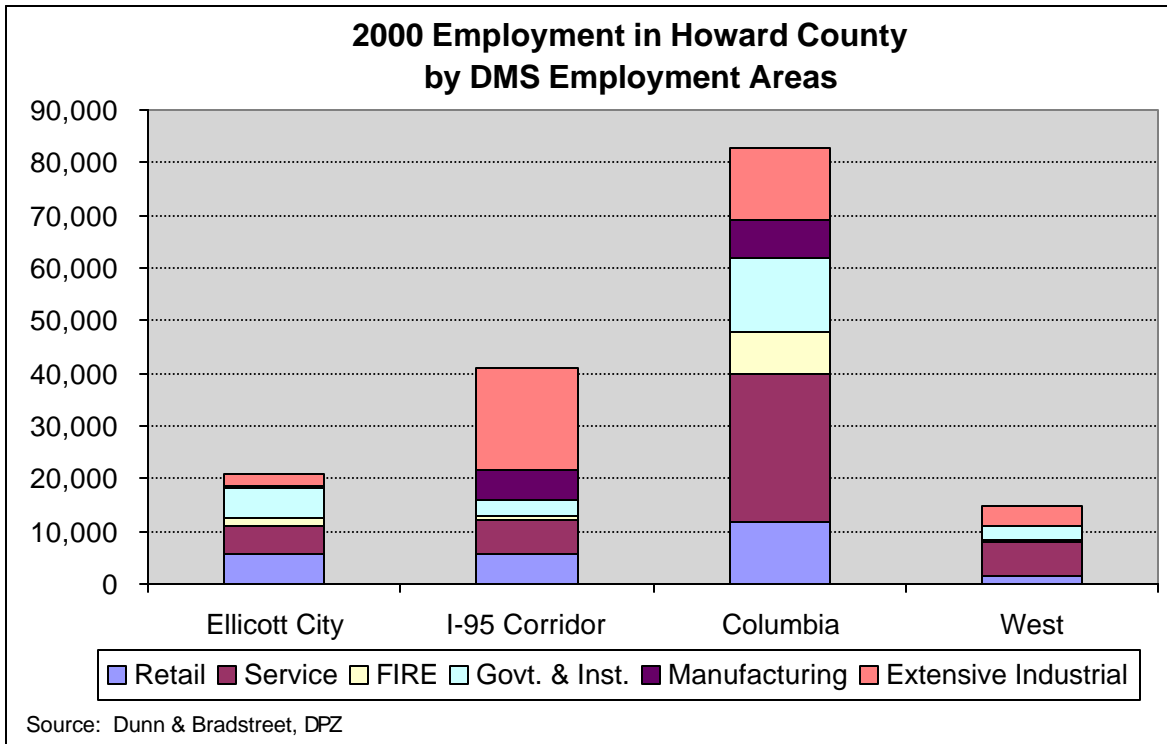
<b>DMS Area</b>	<b>Retail</b>	<b>Service</b>	<b>FIRE (1)</b>	<b>Govt. &amp; Inst.</b>	<b>Manufac- turing</b>	<b>Extensive Industrial</b>	<b>TOTAL</b>	
Ellicott City	5,690	5,369	1,587	5,424	603	2,390	<b>21,063</b>	<b>13%</b>
I-95 Corridor	5,550	6,550	704	3,256	5,640	19,455	<b>41,155</b>	<b>26%</b>
Columbia	11,750	28,002	8,218	13,974	7,013	13,888	<b>82,845</b>	<b>52%</b>
West	1,510	6,392	357	2,646	217	3,815	<b>14,937</b>	<b>9%</b>
<b>Total</b>	<b>24,500</b>	<b>46,313</b>	<b>10,866</b>	<b>25,300</b>	<b>13,473</b>	<b>39,548</b>	<b>160,000</b>	<b>100%</b>
<b>Percent</b>	<b>15%</b>	<b>29%</b>	<b>7%</b>	<b>16%</b>	<b>8%</b>	<b>25%</b>	<b>100%</b>	

(1) Finance, Insurance, and Real Estate

Source: Dunn & Bradstreet, DPZ

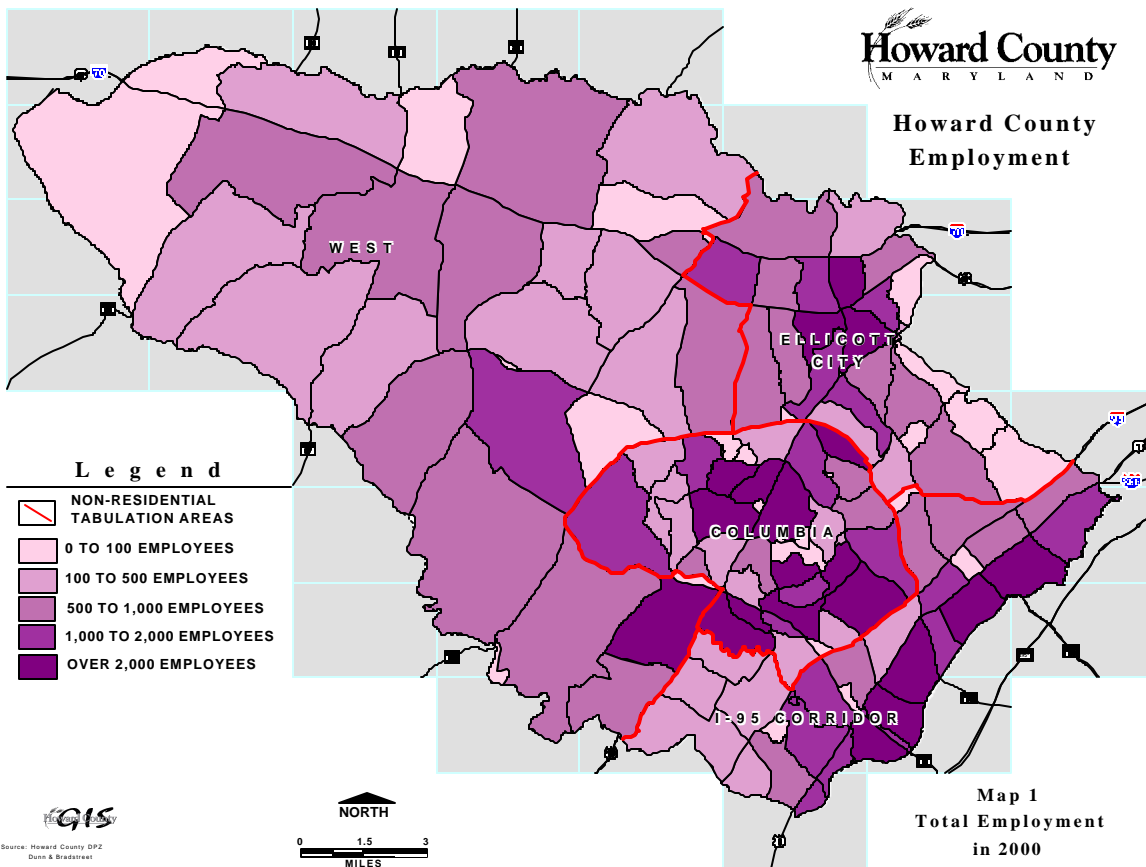
Consistent with statewide and national trends, the greatest number of jobs in Howard County are service jobs. In 2000, there were an estimated 46,300 service jobs in the County with a significant majority of them located in Columbia. The service category includes hotels, personal and business services, auto and other repair services, legal and engineering services, among other jobs. The extensive industrial category includes the next greatest number with about 39,500 jobs. Most of these are located in the I-95 Corridor. This category includes construction, transportation and public utilities, warehousing, agricultural, forestry, and mining jobs.

There were about 25,300 government and institutional jobs and 24,500 retail jobs. The government and institutional category includes federal, state and local government jobs including public education, as well as institutional type jobs such as health and social services and museums, memberships and organizations. Most of the retail and government and institutional jobs are located in Columbia.

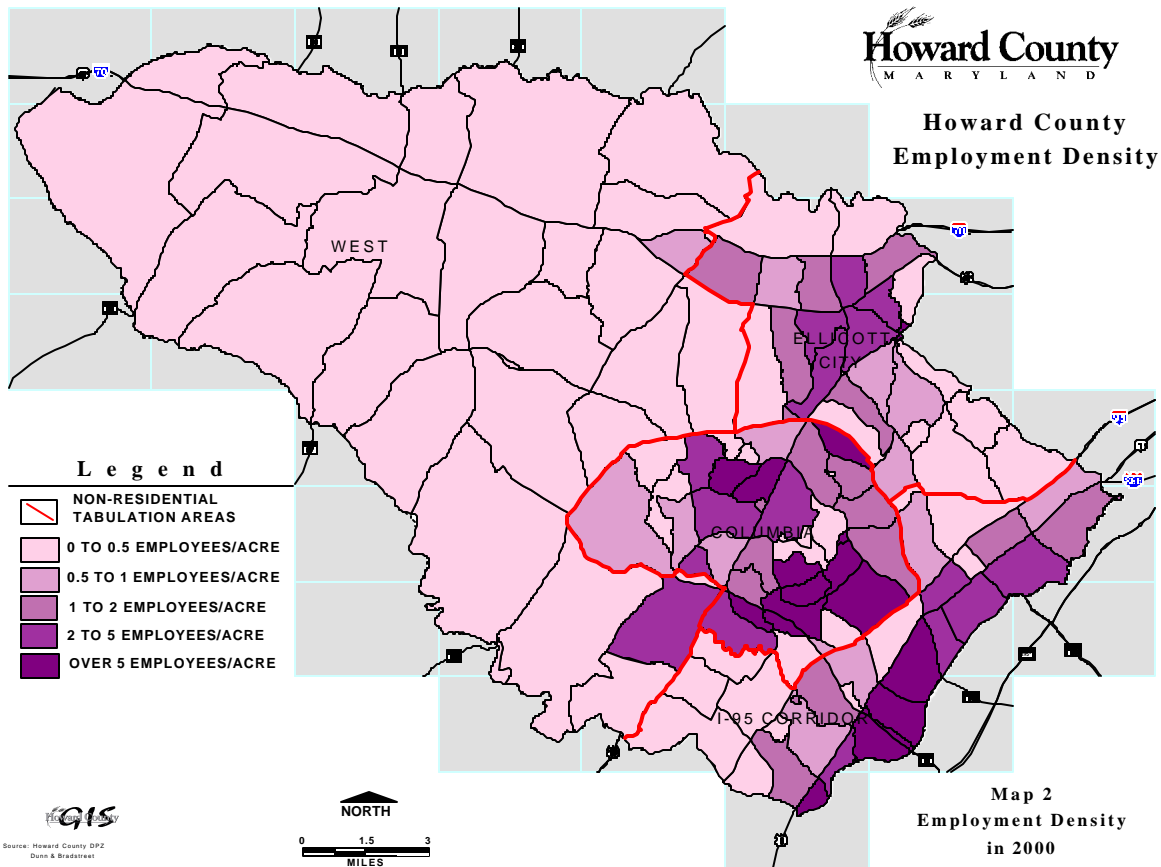


The last two categories, manufacturing and finance, insurance and real estate, make up the remaining jobs in the County. In 2000, there were an estimated 13,500 manufacturing jobs and 10,900 finance, insurance, and real estate jobs. Most of the manufacturing jobs are in located in Columbia and the I-95 Corridor. A significant majority of the finance, insurance, and real estate jobs are located in Columbia.

More than half of the estimated 160,000 jobs in the County are located in Columbia (almost 83,000). Slightly more than 25 percent of the total are located in the I-95 corridor (41,000 jobs). About 21,000 jobs are located in the Ellicott City area (13 percent) and the remaining 15,000 jobs are located in the West (9 percent). The map below outlines these four job reporting areas and also shows total jobs by statistical area based on job total ranges – the darker the color, the greater the number of jobs.

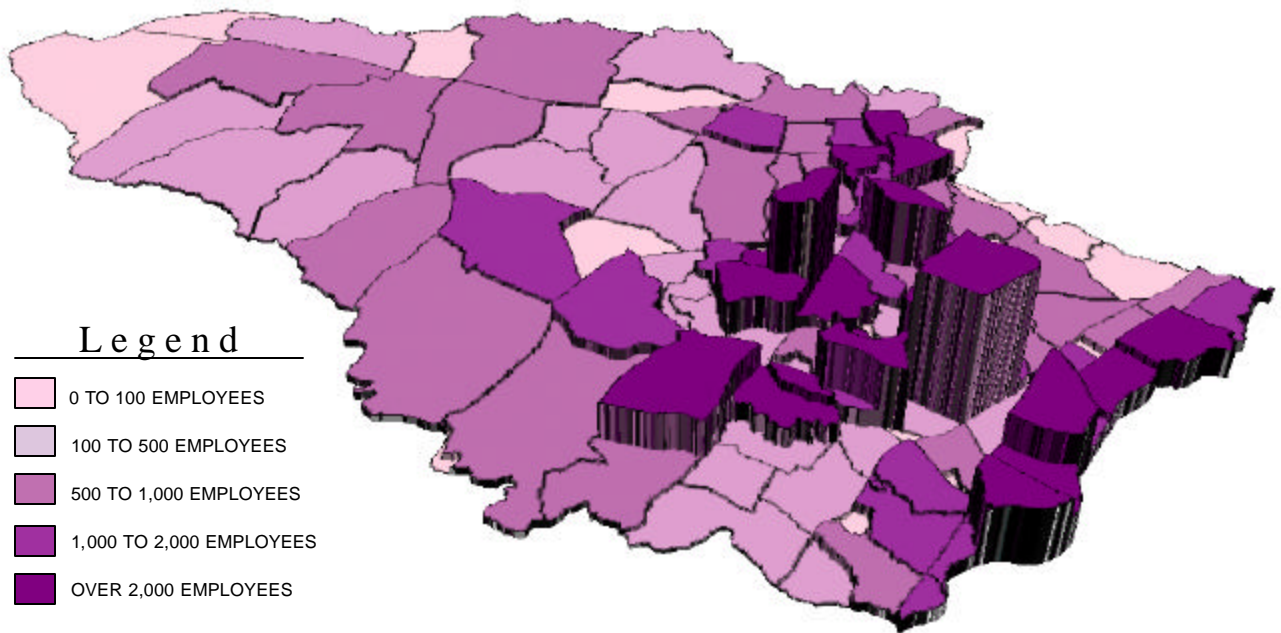


The map below shows *employment density*. This is a better gauge showing the relative concentration of jobs normalizing the results given that the statistical areas range in size. The map clearly shows concentrations of employment in Columbia, particularly in Town Center and Columbia Gateway and vicinity, as well as Ellicott City, the Route 40 Corridor and the Route 1 Corridor. The statistical area south of Columbia and east of Route 29 also has a relatively high concentration of jobs primarily due to Johns Hopkins Applied Physics Lab, the County's largest employer, as well as other employers.



The prism map below displays another telling view of jobs in Howard County. Like Map 1, this map depicts total jobs by statistical area, but a 3<sup>rd</sup> dimension is added better showing the extent of jobs by location. It is clear from this map that Columbia Gateway has the greatest number of jobs, far more than most other areas of the County. Significant numbers of jobs are also located in Town Center, the Oakland Ridge Industrial Park (in north Columbia), the Guilford Industrial Park and surrounding areas (in South Columbia) and areas east of Route 1.

**Map 3 – Howard County Employment in 2000**



Source: Dunn & Bradstreet, DPZ

## 2000 Employers

The table and charts below summarize the estimated number of *employers* in each of four non-residential tabulation areas by major job category in 2000. (As indicated previously, the Appendix at the end of this report shows the detailed groupings by Standard Industrial Classification (SIC) for each of the six job categories listed in the table.)

**Employers in Howard County -- 2000**

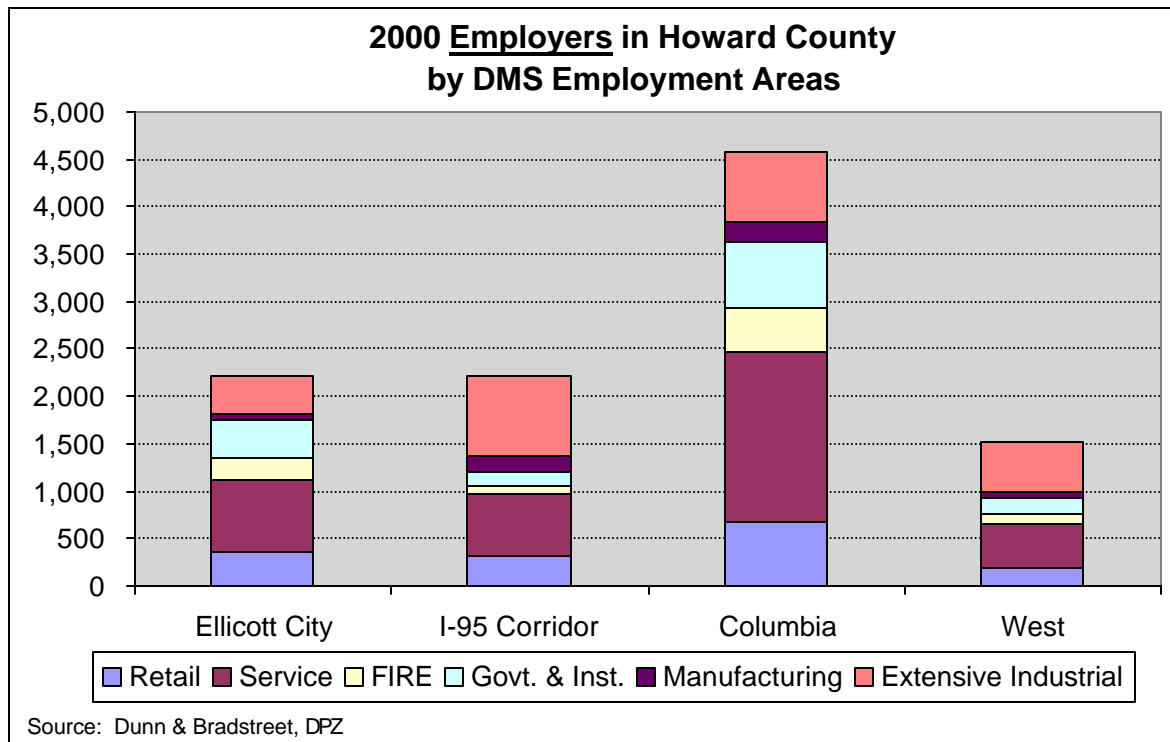
<b>DMS Area</b>	<b>Retail</b>	<b>Service</b>	<b>FIRE (1)</b>	<b>Govt. &amp; Inst.</b>	<b>Manufac-turing</b>	<b>Extensive Industrial</b>	<b>TOTAL</b>	
Ellicott City	366	757	229	398	64	393	<b>2,207</b>	<b>21%</b>
I-95 Corridor	327	643	79	146	174	844	<b>2,213</b>	<b>21%</b>
Columbia	671	1,793	474	695	211	744	<b>4,588</b>	<b>44%</b>
West	186	464	99	187	60	530	<b>1,526</b>	<b>14%</b>
<b>Total</b>	<b>1,550</b>	<b>3,657</b>	<b>881</b>	<b>1,426</b>	<b>509</b>	<b>2,511</b>	<b>10,534</b>	<b>100%</b>
<b>Percent</b>	<b>15%</b>	<b>35%</b>	<b>8%</b>	<b>14%</b>	<b>5%</b>	<b>24%</b>		

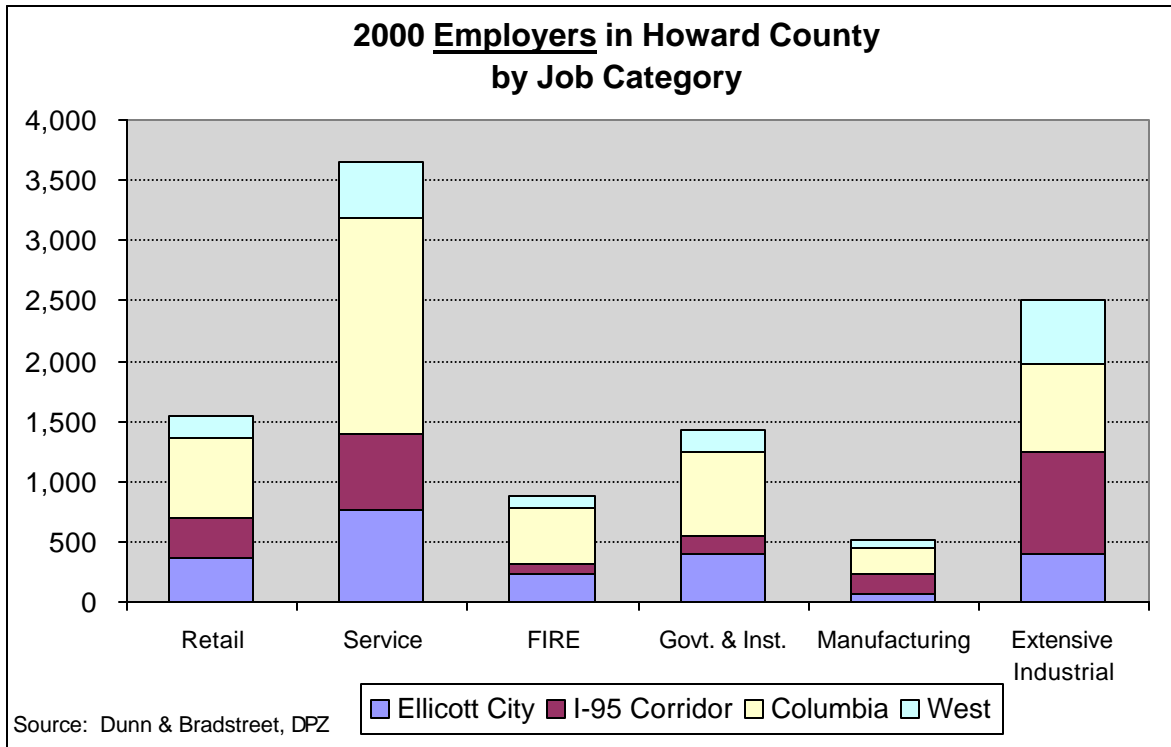
(1) Finance, Insurance, and Real Estate

Source: Dunn & Bradstreet, DPZ

There were an estimated 10,534 employers in Howard County in 2000. (Note that this value actually represents employer sites, so that if an employer has more than one location it would be counted as such; e.g. each Howard County public school is a separate site.) The relative distribution by type is generally the same as the employee distribution discussed earlier with the greatest percentage being service employers followed by employers in the extensive industrial category. Retail and government & institutional employers make up the next greatest percentages followed by the manufacturing and FIRE categories.

The greatest differential between *percent employees* and *percent employers* is the service category, which has 35 percent of total employers yet only 29 percent of total employees. This 6 percentage point difference indicates that service companies tend to be smaller on average compared to the other categories. The retail category shows 15 percent of the total for both employers and employees. The FIRE sector represents 8 percent of total employers with 7 percent of total employees. The extensive industrial category is also close with 24 percent of total employers with 25 percent of total employees. The manufacturing sector has 5 percent of total employers with 8 percent of total employees and the government & institutional sector represents 14 percent of employers with 16 percent of employees. The fact that the last three sectors have a small percentage of employees compared to employers is an indication that they tend to consist of larger establishments on average.





An estimated 44 percent of all employers in the County are located in the Columbia region. This compares to 52 percent of all jobs being located in Columbia and is an indication that larger employers tend to be concentrated there. This relationship is similar in the I-95 Corridor where 26 percent of total jobs are located yet only 21 percent of total employers.

Ellicott City and the West have the opposite relationship. Ellicott City has 13 percent of total Countywide jobs with 21 percent of total employers. The West has 9 percent of total Countywide jobs and 14 percent of total employers. This indicates that these regions tend to have smaller employers on average. This may also be an indication of the greater extent of the relative numbers of self-employed residents in the north and west areas of the County.

The table below shows that close to 80 percent of employer establishments in Howard County have between 1 and 10 employees each and about 90 percent have no more than 25 employees.

**Employers in Howard County by Size -- 2000 Total Employment**

DMS Area	Number of Jobs per Employer					Total	
	1 to 10	11 to 25	26 to 50	51 to 100	> 100		
Ellicott City	1,907	171	57	50	22	<b>2,207</b>	<b>21%</b>
I-95 Corridor	1,592	293	152	105	71	<b>2,213</b>	<b>21%</b>
Columbia	3,486	537	253	161	151	<b>4,588</b>	<b>44%</b>
West	1,364	94	29	25	14	<b>1,526</b>	<b>14%</b>
<b>Total</b>	<b>8,349</b>	<b>1,095</b>	<b>491</b>	<b>341</b>	<b>258</b>	<b>10,534</b>	<b>100%</b>
	<b>79%</b>	<b>10%</b>	<b>5%</b>	<b>3%</b>	<b>2%</b>		

Source: Dunn & Bradstreet, DPZ



The remaining 10 percent of establishments have more than 25 jobs. As discussed above there is a greater propensity for the larger establishments to be located in Columbia or the I-95 Corridor. The following table summarizes the same results for each of the six employee categories.

**Employers in Howard County by Size by Employment Type -- 2000 Employment**

DMS Area	RETAIL ==> Number of Jobs per Employer					Total	
	1 to 10	11 to 25	26 to 50	51 to 100	> 100		
Ellicott City	282	41	22	13	8	366	24%
I-95 Corridor	253	40	15	10	9	327	21%
Columbia	470	111	49	25	16	671	43%
West	161	14	8	2	1	186	12%
<b>Total</b>	<b>1,166</b>	<b>206</b>	<b>94</b>	<b>50</b>	<b>34</b>	<b>1,550</b>	<b>100%</b>
	75%	13%	6%	3%	2%	100%	

DMS Area	SERVICE ==> Number of Jobs per Employer					Total	
	1 to 10	11 to 25	26 to 50	51 to 100	> 100		
Ellicott City	687	53	7	7	3	757	21%
I-95 Corridor	521	71	27	14	10	643	18%
Columbia	1,448	165	73	46	61	1,793	49%
West	429	21	4	4	6	464	13%
<b>Total</b>	<b>3,085</b>	<b>310</b>	<b>111</b>	<b>71</b>	<b>80</b>	<b>3,657</b>	<b>100%</b>
	84%	8%	3%	2%	2%	100%	

DMS Area	FIRE ==> Number of Jobs per Employer					Total	
	1 to 10	11 to 25	26 to 50	51 to 100	> 100		
Ellicott City	207	13	6	2	1	229	26%
I-95 Corridor	66	8	3	2	0	79	9%
Columbia	358	64	21	17	14	474	54%
West	94	4	1	0	0	99	11%
<b>Total</b>	<b>725</b>	<b>89</b>	<b>31</b>	<b>21</b>	<b>15</b>	<b>881</b>	<b>100%</b>
	82%	10%	4%	2%	2%	100%	

DMS Area	GOVT & INST ==> Number of Jobs per Employer					Total	
	1 to 10	11 to 25	26 to 50	51 to 100	> 100		
Ellicott City	320	34	16	19	9	398	28%
I-95 Corridor	109	12	3	17	5	146	10%
Columbia	528	61	50	37	19	695	49%
West	150	13	7	12	5	187	13%
<b>Total</b>	<b>1,107</b>	<b>120</b>	<b>76</b>	<b>85</b>	<b>38</b>	<b>1,426</b>	<b>100%</b>
	78%	8%	5%	6%	3%	100%	

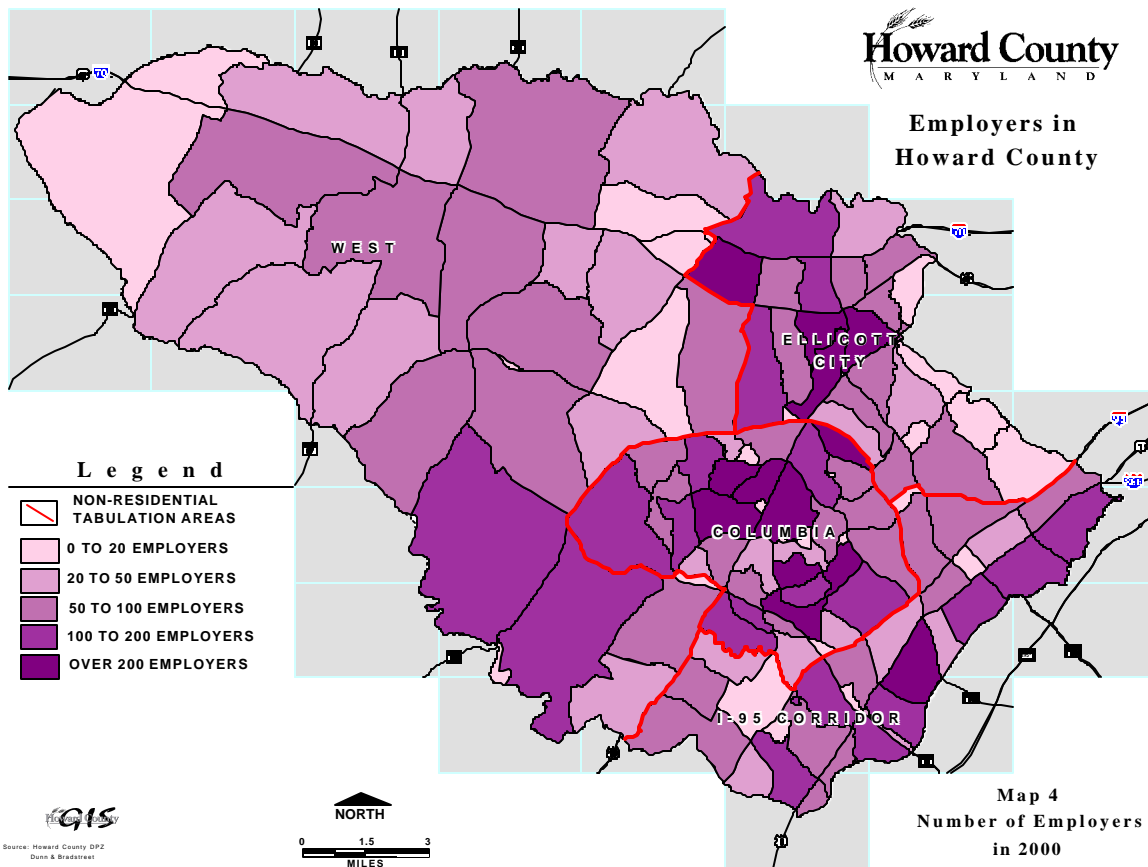
DMS Area	MANUFACTURING ==> Number of Jobs per Employer					Total	
	1 to 10	11 to 25	26 to 50	51 to 100	> 100		
Ellicott City	59	2	1	1	1	64	13%
I-95 Corridor	103	29	18	9	15	174	34%
Columbia	140	34	17	8	12	211	41%
West	56	3	1	0	0	60	12%
<b>Total</b>	<b>358</b>	<b>68</b>	<b>37</b>	<b>18</b>	<b>28</b>	<b>509</b>	<b>100%</b>
	70%	13%	7%	4%	6%	100%	

DMS Area	EXTENSIVE INDUSTRIAL ==> Number of Jobs per Employer					Total	
	1 to 10	11 to 25	26 to 50	51 to 100	> 100		
Ellicott City	352	28	5	8	0	393	16%
I-95 Corridor	540	133	86	53	32	844	34%
Columbia	542	102	43	28	29	744	30%
West	474	39	8	7	2	530	21%
<b>Total</b>	<b>1,908</b>	<b>302</b>	<b>142</b>	<b>96</b>	<b>63</b>	<b>2,511</b>	<b>100%</b>
	76%	12%	6%	4%	3%	100%	

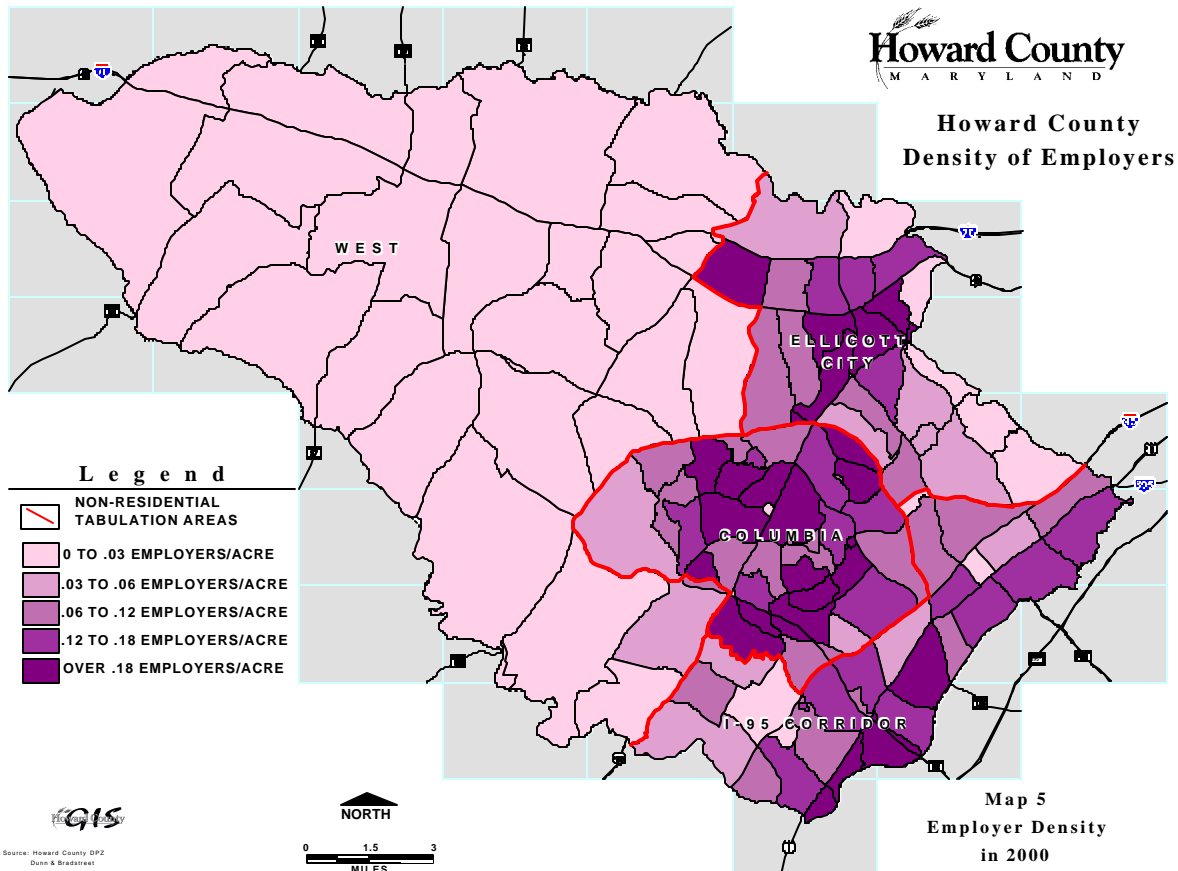
Source: Dunn & Bradstreet, DPZ

The data in the table above reiterate that fact that establishments in the service sector, and to a lesser extent in the finance, insurance, and real estate sector tend to be smaller. For example, 84 percent of all service companies located in Howard County have no more than 10 employees. This compares to 79 percent for all job categories combined. On the other hand, the manufacturing, extensive industrial, and government & institutional sectors tend to consist of larger establishments. Manufacturing, in particular, leans this way with 70 percent of companies having no more than 10 employees and as much as 6 percent having 100 or more employees – 4 percentage points higher than the 2 percent average for all county employers combined.

Map 4 below shows the number of employers by statistical area by range – the darker the color, the greater the number of employers. Similar to Map 1 depicting total jobs by statistical area, Map 4 reflects high numbers of employers in areas of Columbia, Ellicott City, and the I95 Corridor. It is interesting to note that Columbia Gateway is not depicted by the darkest color (over 200 employers) as it was in Map 1 showing total jobs. This reflects the fact that this area primarily consists of larger companies.

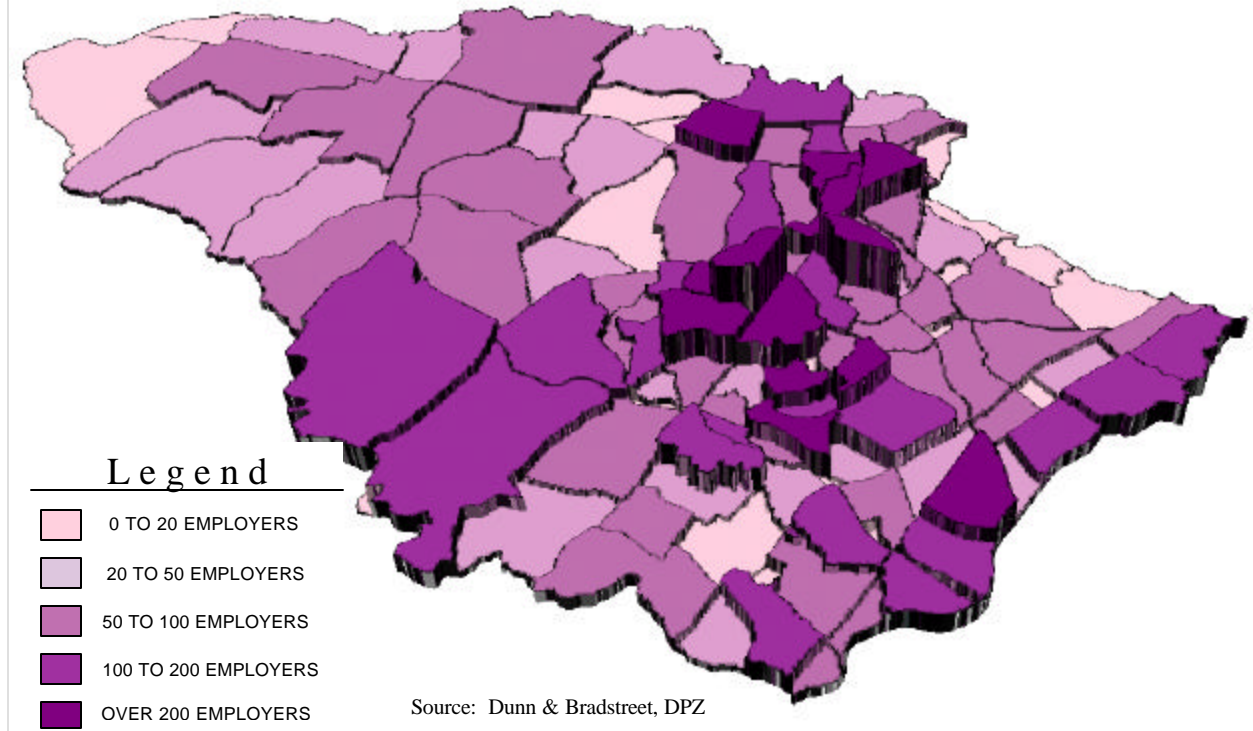


Map 5 below shows the shows the employer *density* by statistical area. As described earlier, the density map is a better gauge showing the relative concentration of employers normalizing the results given that the statistical areas range in size. It is clear from this map that employers are concentrated in the eastern part of the County with relatively larger concentrations in central Columbia, Ellicott City and areas in the I-95 Corridor.



The prism map below again depicts total employers by statistical area. The 3-D view better shows the relative extent of employers by location. It is clear that large numbers of employers are concentrated in central Columbia as well as areas of Ellicott City such as the Route 40 Corridor. Parts of the I-95 Corridor also have relatively large numbers. However, given the relatively large concentration of extensive industrial and manufacturing jobs there, the number of establishments is not as pronounced as the number of jobs (see Map 3). This is because, as discussed earlier, these job sectors tend to consist of larger companies.

**Map 6 – Howard County Employers in 2000**



## Conclusion

The job base in Howard County is strong. As indicated in the recently adopted General Plan 2000, Howard County is in the fortunate position to be located between Washington and Baltimore, two large metropolitan areas. This fact, combined with Howard County's diverse, forward looking, and energetic citizenry and government, clearly have enabled the strong and varied job base that exists today.

Although the County is not immune from any economic downturn that is already here or on the horizon, and will continue to feel the bumps of the economic cycle into the future, the job base is diverse and covers a broad spectrum of manufacturing, service, retail, government, institutional and other industries. This diversity can help smooth out the bumps, so to speak, and provides rich opportunities for a variety of professions.

It is also clear that planning for the jobs that are here has also been a strong factor in Howard County's success. Planned job centers such as Columbia Gateway, Columbia Town Center, the Oakland Ridge and Guilford Industrial Parks, and other smaller employment centers have been an engine for job growth providing economies of scale and productive interdependencies. Properly planned highways, interchanges and other infrastructure have also helped. This type of planning continues with the Howard County Economic Development Authority's 2001 Strategic Plan which outlines the County's strengths and challenges in the years ahead and provides an agenda for action. With continued foresight the County is in a strong position to maintain and build upon its existing and diverse job base.

## Appendix – Detailed Employment Groupings

The table below summarizes the employment categories discussed in this report. The detailed industries are listed below each of the six major categories.

<b>SIC Code</b>	<b>RETAIL</b>	<b>SIC Code</b>	<b>MANUFACTURING</b>
52	Building Materials and Garden Supplies	20	Food and Kindred Products
53	General Merchandise Stores	21	Tobacco Products
54	Food Stores	22	Textile Mill Products
55	Automotive Dealers & Service Stations	23	Apparel and Other Textile Products
56	Apparel and Accessory Stores	24	Lumber and Wood Products
57	Furniture and Homefurnishings Stores	25	Furniture and Fixtures
58	Eating and Drinking Places	26	Paper and Allied Products
59	Miscellaneous Retail	27	Printing and Publishing
<b>SIC Code</b>	<b>SERVICE</b>	28	Chemicals and Allied Products
70	Hotels and Other Lodging Places	29	Petroleum and Coal Products
72	Personal Services	30	Runner and Misc. Plastics Products
73	Business Services	31	Leather and Leather Products
75	Auto Repair, Services, and Parking	32	Stone, Clay, and Glass Products
76	Miscellaneous Repair Services	33	Primary Metal Industries
78	Motion Pictures	34	Fabricated Metal Products
79	Amusement and Recreation Services	35	Industrial Machinery and Equipment
81	Legal Services	36	Electronic and Other Electric Equipment
82	Educational Services	37	Transportation Equipment
87	Engineering and Management Services	38	Instruments and Related Products
88	Private Households	39	Miscellaneous Manufacturing Products
89	Services, NEC	<b>SIC Code</b>	<b>EXTENSIVE INDUSTRIAL</b>
<b>SIC Code</b>	<b>FINANCE, INSUR., &amp; REAL ESTATE</b>	01	Agricultural Production - Crops
60	Depository Institutions	02	Agricultural Production - Livestock
61	Nondepository Institutions	07	Agricultural Services
62	Security and Commodity Brokers	08	Forestry
63	Insurance Carriers	09	Fishing, Hunting, and Trapping
64	Insurance Agents, Brokers & Service	10	Metal Mining
65	Real Estate	12	Coal Mining
67	Holding and Other Investment Offices	13	Oil and Gas Extraction
<b>SIC Code</b>	<b>GOVERNMENT &amp; INSTITUTIONAL</b>	14	Nonmetallic Minerals, Except Fuels
43	U.S. Postal Service	15	General Building Contractors
80	Health Services	16	Heavy Construction, Ex Building
83	Social Services	17	Special Trade Contractors
84	Museums, Botanical, Zoological Gardens	40	Railroad Transportation
86	Memberships and Organizations	41	Local and Interurban Passenger Transit
91	Executive, Legislative, and General	42	Trucking and Warehousing
92	Justice, Public Order, and Safety	44	Water Transportation
93	Finance, Taxation, and Monetary Policy	45	Transportation By Air
94	Administration of Human Resources	46	Pipelines, Except Natural Gas
95	Environmental Quality and Housing	47	Transportation Services
96	Administration of Economic Programs	48	Communications
97	National Security and International Affairs	49	Electric, Gas, and Sanitary Services
		50	Durable Goods
		51	Nondurable Goods

Notes: SIC stands for Standard Industrial Classification, the traditional coding system used by federal, state, and private groups to analyze economic data. Conversion to the new North American Industry Classification System (NAICS) is currently underway by agencies and private data gathering vendors. The new NAICS codes will better classify contemporary industries and businesses.