



# HOW MANY BUSINESSES CAN A COUNTY SUPPORT?

County Population

**An Analysis of the Average Number  
of Retail Businesses  
in Various County Population Ranges**

## FOREWORD

Sincere appreciation is extended to the many cooperators who assisted in the development of this publication, namely those who assisted in identifying businesses closely related to possible value-added products or enterprises that were used in the research. These collaborators include Kelly Amonett, Alan Barefield, Richard Daniel, Kim Jensen, Tom Mayberry, Jack McDaniel, George Smith and Stanley Trout. In addition, appreciation is expressed to Anne Dalton and Shasta Hubbs for their contributions in implementing the entire project and to Kim Martinez and Megan Bruch for their assistance in the development of the text and graphics. Appreciation is also extended to Kim Stallings for publication layout and design; Joe Gaines, Dan McLemore and Dan Wheeler for their assistance and leadership in the project's administration; and Megan Bruch, Ken Jensen, Wanda Russell and Stanley Trout for their participation in the peer review.

Additional information regarding this project may be obtained by contacting the *Center for Profitable Agriculture* at 931-486-2777 or <<http://cpa.utk.edu>>.

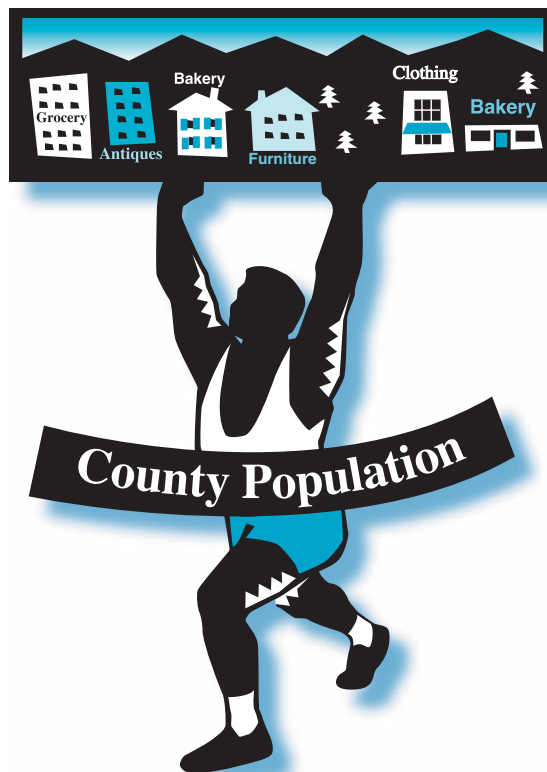
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## Project Overview

In March 2001, the Tennessee Department of Agriculture Division of Market Development and the University of Tennessee *Agricultural Development Center*, renamed the *Center for Profitable Agriculture (CPA)* in 2002, submitted a proposal to the United States Department of Agriculture's Federal-State Marketing Improvement Program (FSMIP) to create five market development resource tools that would allow users to evaluate market opportunities for value-added products and enterprises. One of these five goals was to compare Tennessee's retail business statistics with county populations as a guide for assessing the number of certain types of businesses that specified population ranges can support.

This publication is the result of that goal and presents information for value-added agri-entrepreneurs who are in the process of evaluating value-added markets or specific small-business start-up opportunities. The information contained here should be used as one of several business planning tools in the overall assessment of a new business idea. The publication has been assembled with a description and discussion of the data used in the study, followed by a description of the findings and application of the findings. The publication is arranged in a sequence that ultimately leads to the presentation of a single table containing a summary of the data, our findings and numerous possible applications.

## Identification of Primary Businesses and Number of Establishments

The data for this study were obtained from the U.S. Census Bureau's collection of county business patterns. This is an annual series that provides sub-national economic data by industry. The series is useful for studying the economic activity of small areas, analyzing economic changes and providing a benchmark for statistical surveys. The series may also be used for analyzing market potential, measuring the effectiveness of sales and advertising programs, setting sales quotas and developing budgets.

The collection of county business patterns covers most of the country's economic activity. The series excludes data on self-employed individuals, employees of private households, railroad

employees, agricultural production employees and most government employees. Prior to 1998, the data in the series were tabulated by industry, as defined by the Standard Industrial Classification (SIC) System. Since 1998, the industries have been reported as defined in the *North American Industry Classification System (NAICS)*.

There are 21 industry segments identified in the county business patterns. Each industry segment contains various industry subclassifications. For example, the mining segment contains 34 subclassifications including oil and gas extraction, coal mining, metal ore mining, silver ore mining, industrial sand mining and others. Each industry segment and the number of subclassifications contained in each segment are listed in Table 1.

Because the purpose of this publication is directed toward providing information to assist in the analysis of market opportunities, primarily retail opportunities, it was decided to focus only on the business statistics in the "retail" segment. The retail sector comprises establishments engaged in retailing merchandise and rendering services incidental to the sale of merchandise. The retailing process is the final step in the distribution of merchandise. This sector comprises two main types of retailers: store and non-store retailers. Excluded from the retail sector are governmental organizations classified in the covered industries.

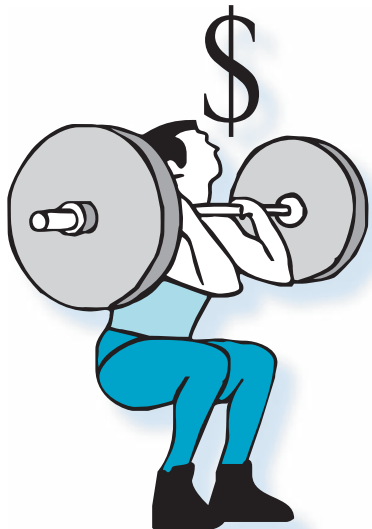
Store retailers operate fixed, point-of-sale locations, located and designed to attract a high volume of walk-in customers. In general, retail stores have extensive displays of merchandise and use mass-media advertising to attract customers. They typically sell merchandise to the general public for personal or household consumption, but some also serve business and institutional clients. In addition to retailing merchandise, some types of store retailers are also engaged in the provision of after-sales services, such as repair and installation.

Non-store retailers market merchandise to customers using methods such as the broadcasting of "infomercials," the broadcasting and publishing of direct-response advertising, the publishing of paper and electronic catalogs, door-to-door solicitation, in-home demonstration, selling from portable stalls (street vendors, except food) and distribution through vending machines. Establishments engaged in the direct sale (non-store) of products, such as home heating oil dealers and home delivery newspaper routes, are classified here.



**Table 1: Industry Segments and Number of Subclassifications in Each Segment as Recorded in the U.S. Census Bureau’s County Business Patterns**

Industry Segments	Number of Subclassifications
Accommodation and food service	33
Administration, support, waste management, remediation	85
Arts, entertainment and recreation	60
Auxiliaries	0
Construction	73
Educational services	37
Finance and insurance	74
Forestry, fishing, hunting and agriculture	30
Health care and social assistance	91
Information	75
Management of companies and enterprises	6
Manufacturing	721
Mining	34
Other services (except public administration)	93
Professional, scientific & technical services	90
Real estate and rental and leasing	54
Retail trade	172
Transportation and warehousing	123
Unclassified establishments	0
Utilities	18
Wholesale trade	158



Because the CPA is primarily involved in value-added enterprises, both food and non-food, it was not deemed necessary to use all of the subclassification industries listed in the retail trade segment. Therefore, 83 business classifications that were deemed “most likely” to represent a market outlet for value-added agricultural products or to represent a business venture for a value-added entrepreneur were selected from the entire list of 172 subclassification industries in the retail segment. The 83 selected businesses and their corresponding NAICS codes are presented in Table 2.

**Table 2: Eighty-three Businesses Selected from Retail Trade Subclassifications**

**NAICS**

<b>Code</b>	<b>Industry</b>		
441	Motor vehicle and parts dealers	448	Clothing and clothing accessories stores
4411	Automobile dealers	4481	Clothing stores
44111	New car dealers	44812	Women's clothing stores
44112	Used car dealers	44814	Family clothing stores
44121	Recreational vehicle dealers	44815	Clothing accessories stores
4413	Automotive parts, accessories and tire stores	44819	Other clothing stores
44132	Tire dealers	4482	Shoe stores
442	Furniture and home furnishing stores	4483	Jewelry, luggage and leather good stores
4421	Furniture stores	44831	Jewelry stores
4422	Home furnishing stores	451	Sporting goods, hobby, book and music stores
44221	Floor covering stores	4511	Sporting goods, hobby, musical instrument stores
443	Electronics and appliance stores	45111	Sporting goods stores
443111	Household appliance stores	45112	Hobby, toy and game stores
44312	Computer and software stores	45113	Sewing, needlework and piece goods stores
44313	Camera and photographic supplies stores	4512	Book, periodical and music stores
444	Building materials, garden equipment and supply dealers	45121	Book stores and news dealers
4441	Building materials and supplies dealers	451211	Book stores
44411	Home centers	45122	Prerecorded tape, CD and record stores
44412	Paint and wallpaper stores	452	General merchandise stores
44413	Hardware stores	4521	Department stores
44419	Other building material dealers	4529	Other general merchandise stores
4442	Lawn, garden equipment and supplies stores	45299	All other general merchandise stores
44422	Nursery and garden centers	453	Miscellaneous store retailers
445	Food and beverage stores	4531	Florists
4451	Grocery stores	4532	Office supplies, stationery, gift stores
44511	Grocery (except convenience) stores	45321	Office supplies and stationary stores
44512	Convenience stores	45322	Gift, novelty and souvenir stores
4452	Specialty food stores	4533	Used merchandise stores
44523	Fruit and vegetable markets	4539	Other miscellaneous store retailers
44529	Other specialty food stores	45391	Pet and pet supplies stores
445291	Baked goods stores	45393	Manufactured (mobile) home dealers
445299	All other specialty food stores	45399	All other miscellaneous store retailers
4453	Beer, wine and liquor stores	453991	Tobacco stores
446	Health and personal care stores	453998	All other miscellaneous store retailers (except tobacco)
44611	Pharmacies and drug stores	454	Non-store retailers
44612	Cosmetics, beauty supplies and perfume stores	4541	Electronic shopping and mail-order houses
44613	Optical goods stores	4542	Vending machine operators
44619	Other health and personal care stores	4543	Direct selling establishments
446191	Food (health) supplement stores	45431	Fuel dealers
447	Gasoline stations	454312	Liquified petroleum gas (bottled gas) dealers
44711	Gasoline stations with convenience stores	45439	Other direct selling establishments
44719	Other gasoline stations		



To maximize the application of this study in the value-added agriculture industry, the list of 83 subclassifications of the retail sector was streamlined. The list of the 83 business subclassifications was sent to an assembled team of cooperators comprised of nine professionals working at different levels in marketing and rural development. Team members were Kelly Amonett, Alan Barefield, Richard Daniel, Shasta Hubbs, Kim Jensen, Tom Mayberry, Jack McDaniel, George Smith and Stanley Trout.

These team members were asked to study the list and select the businesses they believed were “most related” to possible value-added products or enterprises and would be useful to the CPA and the project entrepreneurs with whom the center works. Using the input from the team, 27 businesses were selected to be used in the study. These 27 business classifications and their number of establishments reported by the county business patterns in 2000 are presented in Table 3. The total number of establishments is further segmented according to various employee-size classifications.

**Table 3: Twenty-seven Businesses Selected for Study, Their Total Number of Establishments in Tennessee and Their Employment-Size Classification as Reported in the County Business Patterns**

Business Classification	Number of Establishments	Number of Establishments by Employment-Size Classification							
		1 to 4	5 to 9	10 to 19	20 to 49	50 to 99	100 to 249	250 to 499	500 to 999
Fruit and vegetable markets	68	46	12	7	3	0	0	0	0
Baked goods stores	69	38	13	13	5	0	0	0	0
Home centers	108	21	13	12	10	12	39	1	0
Caterers	115	60	23	22	8	2	0	0	0
Food supplement stores	136	75	48	11	1	0	1	0	0
Tobacco stores	158	113	33	9	3	0	0	0	0
Vending machine operators	218	161	19	15	12	9	2	0	0
Hobby, toy and game stores	223	104	53	23	41	0	2	0	0
Department stores	232	3	0	0	3	66	120	38	2
Hardware stores	268	126	63	54	25	0	0	0	0
Specialty food stores	367	231	80	43	13	0	0	0	0
Nursery and garden centers	399	149	79	103	61	6	1	0	0
Lawn and garden supply stores	476	185	105	117	62	6	1	0	0
Beer, wine & liquor stores	478	311	138	25	4	0	0	0	0
Florists	554	385	114	44	11	0	0	0	0
Convenience stores	509	343	112	43	9	2	0	0	0



**Table 3 (Continued): Twenty-seven Businesses Selected for Study, Their Total Number of Establishments in Tennessee and Their Employment-Size Classification as Reported in the County Business Partners**

Business Classification	Number of Establishments	Number of Establishments by Employment-Size Classification							
		1 to 4	5 to 9	10 to 19	20 to 49	50 to 99	100 to 249	250 to 499	500 to 999
Gift, novelty and souvenir stores	722	437	175	83	24	1	2	0	0
Pharmacies and drug stores	965	197	227	339	157	40	4	1	0
General merchandise stores	1,166	242	416	153	74	75	138	61	7
Furniture and home furnishings stores	1,347	668	316	225	121	15	2	0	0
Health and personal care stores	1,751	652	428	441	182	41	6	1	0
Clothing stores	1,885	740	569	342	187	37	10	0	0
Grocery stores	2,097	882	293	215	351	224	131	1	0
Food and beverage stores	2,942	1,424	511	283	368	224	131	1	0
Gas stations with convenience stores	2,631	862	1177	452	120	20	0	0	0
Full-service restaurants	3,371	1,108	496	577	682	376	128	4	0
Limited-service eating places	4,046	809	502	927	1,568	217	20	1	2

The information in Table 3 can be used to assess the total number of establishments in each of the listed businesses, as well as the number of businesses in different employment-size classifications. The businesses in Table 3 are listed beginning with the business with the fewest number of establishments and ending with the business with the largest number of establishments. Fruit and vegetable markets and baked goods stores have fewer establishments than any other business classification. In addition, it is obvious that a majority of the fruit and vegetable markets and baked goods stores each employ fewer than four people, and none of these businesses employ 50 or more people. Another observation that can be made from the table is that only three business classifications have establishments that employ more than 500 people: general merchandise stores, department stores and limited-service eating places.



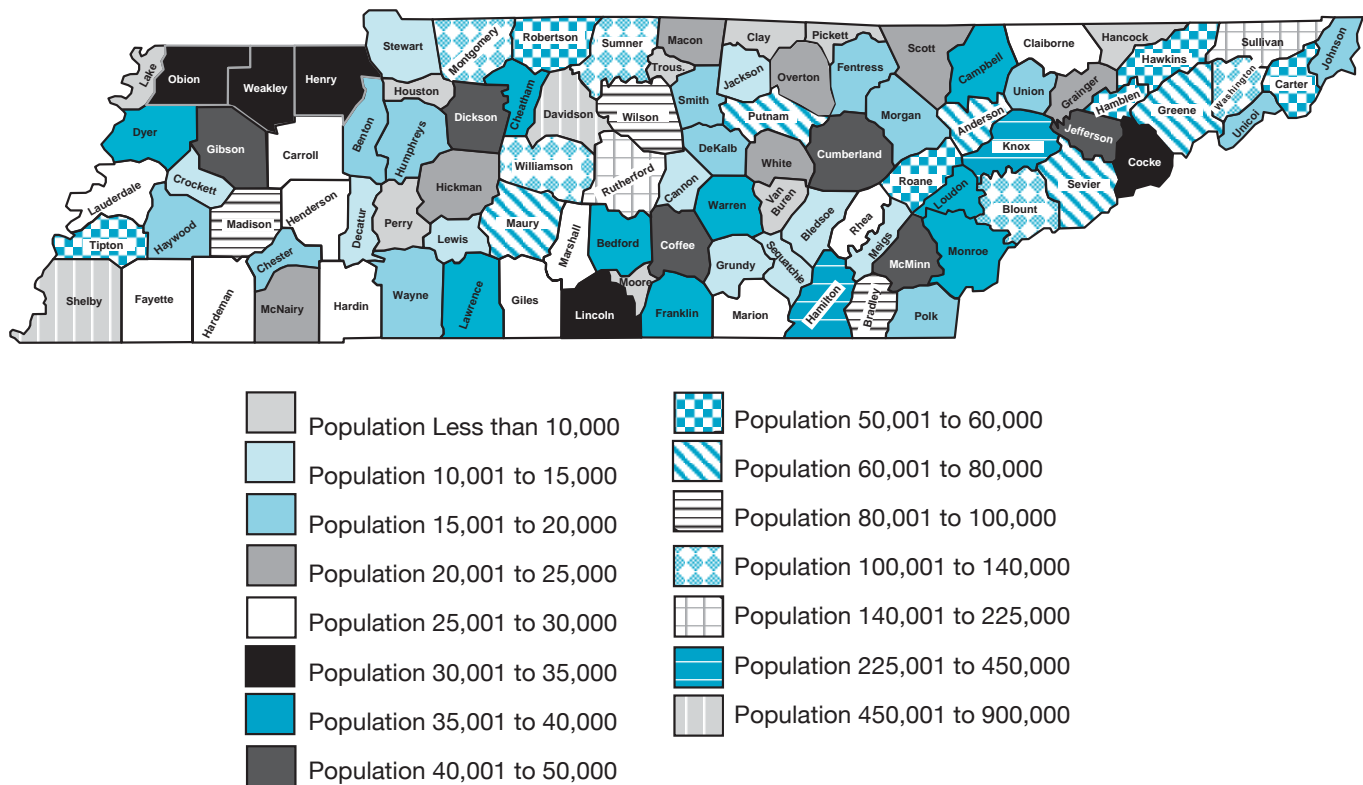


## Identification of Population Ranges

After an assessment of the establishments in the 27 subclassifications, the number of these business establishments for each county was recorded and summarized according to county populations.

Population information was obtained from the U. S. Census Bureau's population data for 2000. After a review of the county populations, Tennessee's 95 counties were divided into 15 groups based on their respective populations. Population ranges were established by using random breaks in populations as dividing points. The resulting population ranges were not selected on the basis of a bell-shaped curve. The counties included in each population range are shown in the color-coded map of Figure 1.

Figure 1: Population Map



## Findings and Applications

The ultimate combination of county population ranges and the number of business establishments is given in Table 4. The table is not intended to be overwhelming, but to provide a single summary of a massive amount of information. The information

given in the table represents a summary of the total number and the average number of establishments in 27 different business classifications, in 15 different county population ranges, for the state of Tennessee.

Table 4. Totals and Averages of Establishments of Selected Business Types by Population Range in Tennessee

POPULATION RANGE		less than 10,000		10,000 to 15,000		15,001 to 20,000		20,001 to 25,000		25,001 to 30,000		30,001 to 35,000		35,001 to 40,000		40,001 to 50,000	
Number of Counties in Population Range		9		10		13		7		11		5		9		6	
Total # Business Types in Tennessee	Business Type	Total # Businesses Per Population Range	Average # Businesses Per Population Range	Total # Businesses Per Population Range	Average # Businesses Per Population Range	Total # Businesses Per Population Range	Average # Businesses Per Population Range	Total # Businesses Per Population Range	Average # Businesses Per Population Range	Total # Businesses Per Population Range	Average # Businesses Per Population Range	Total # Businesses Per Population Range	Average # Businesses Per Population Range	Total # Businesses Per Population Range	Average # Businesses Per Population Range	Total # Businesses Per Population Range	Average # Businesses Per Population Range
69	Baked goods stores	0	0.00	0	0.00	1	0.08	0	0.00	1	0.09	2	0.40	5	0.56	1	0.17
478	Beer, wine and liquor stores	7	0.78	2	0.20	10	0.77	2	0.29	22	2.00	12	2.40	16	1.78	22	3.67
115	Caterers	1	0.11	0	0.00	0	0.00	0	0.00	2	0.18	4	0.80	6	0.67	3	0.50
1185	Clothing stores	3	0.33	9	0.90	27	2.08	15	2.14	51	4.64	50	10.00	62	6.89	57	9.50
509	Convenience stores	8	0.89	16	1.60	34	2.62	18	2.57	36	3.27	18	3.60	57	6.33	22	3.67
232	Department stores	0	0.00	1	0.10	5	0.38	4	0.57	9	0.82	2	0.40	8	0.89	10	1.67
554	Florists	7	0.78	12	1.20	27	2.08	15	2.14	39	3.55	22	4.40	34	3.78	35	5.83
136	Food (health) supplement stores	0	0.00	0	0.00	0	0.00	1	0.14	5	0.45	4	0.80	5	0.56	11	1.83
2942	Food and beverage stores	39	4.33	74	7.40	136	10.46	90	12.86	192	17.45	91	18.20	217	24.11	133	22.17
68	Fruit and vegetable markets	0	0.00	0	0.00	2	0.15	1	0.14	4	0.36	1	0.20	2	0.22	4	0.67
3371	Full-service restaurants	32	3.56	56	5.60	123	9.46	60	8.57	144	13.09	113	22.60	174	19.33	157	26.17
1347	Furniture and home furnishing stores	6	0.67	13	1.30	33	2.54	24	3.43	49	4.45	37	7.40	66	7.33	69	11.50
2631	Gasoline stations with convenience stores	29	3.22	64	6.40	113	8.69	72	10.29	171	15.55	76	15.20	182	20.22	186	31.00
1166	General merchandise stores	18	2.00	36	3.60	61	4.69	39	5.57	87	7.91	44	8.80	89	9.89	70	11.67
722	Gift, novelty & souvenir stores	4	0.44	3	0.30	10	0.77	12	1.71	16	1.45	19	3.80	35	3.89	27	4.50
2097	Grocery stores	32	3.56	70	7.00	118	9.08	74	10.57	160	14.55	73	14.60	182	20.22	109	18.17
268	Hardware stores	5	0.56	6	0.60	20	1.54	16	2.29	24	2.18	10	2.00	17	1.89	18	3.00
1751	Health and personal care stores	10	1.11	31	3.10	59	4.54	28	4.00	77	7.00	38	7.60	85	9.44	107	17.83
223	Hobby, toy and game stores	0	0.00	0	0.00	0	0.00	2	0.29	1	0.09	3	0.60	5	0.56	3	0.50
108	Home centers	0	0.00	5	0.50	6	0.46	5	0.71	4	0.36	2	0.40	6	0.67	10	1.67
476	Lawn and garden equipment and supplies stores	9	1.00	14	1.40	22	1.69	14	2.00	43	3.91	22	4.40	36	4.00	36	6.00
4046	Limited-service eating places	15	1.67	51	5.10	98	7.54	70	10.00	153	13.91	101	20.20	198	22.00	177	29.50
399	Nursery and garden centers	9	1.00	13	1.30	20	1.54	13	1.86	39	3.55	21	4.20	32	3.56	32	5.33
965	Pharmacies and drug stores	10	1.11	26	2.60	50	3.85	26	3.71	61	5.55	27	5.40	61	6.78	58	9.67
367	Speciality food stores	0	0.00	3	0.30	8	0.62	5	0.71	10	0.91	6	1.20	19	2.11	12	2.00
158	Tobacco stores	1	0.11	6	0.60	9	0.69	5	0.71	10	0.91	4	0.80	13	1.44	6	1.00
218	Vending machine operators	1	0.11	1	0.10	3	0.23	2	0.29	5	0.45	3	0.60	10	1.11	6	1.00



POPULATION RANGE		50,001 to 60,000		60,001 to 80,000		80,001 to 100,000		100,001 to 140,000		140,001 to 225,000		225,001 to 450,000		450,001 to 900,000	
Number of Counties in Population Range		6		5		3		5		2		2		2	
Total of Business Types in Tennessee	Business Type	Total # Businesses Per Population Range	Average # Businesses Per Population Range	Total # Businesses Per Population Range	Average # Businesses Per Population Range	Total # Businesses Per Population Range	Average # Businesses Per Population Range	Total # Businesses Per Population Range	Average # Businesses Per Population Range	Total # Businesses Per Population Range	Average # Businesses Per Population Range	Total # Businesses Per Population Range	Average # Businesses Per Population Range	Total # Businesses Per Population Range	Average # Businesses Per Population Range
69	Baked goods stores	3	0.50	9	1.80	3	1.00	6	1.20	5	2.50	15	7.50	17	8.50
478	Beer, wine and liquor stores	16	2.67	32	6.40	17	5.67	43	8.60	26	13.00	76	38.00	175	87.50
115	Caterers	4	0.67	7	1.40	2	0.67	10	2.00	2	1.00	25	12.50	50	25.00
1185	Clothing stores	43	7.17	205	41.00	110	36.67	152	30.40	84	42.00	297	148.50	720	360.00
509	Convenience stores	29	4.83	37	7.40	16	5.33	41	8.20	17	8.50	53	26.50	103	51.50
232	Department stores	13	2.17	13	2.60	10	3.33	26	5.20	16	8.00	46	23.00	69	34.50
554	Florists	32	5.33	43	8.60	30	10.00	50	10.00	29	14.50	51	25.50	124	62.00
136	Food (health) supplement stores	3	0.50	10	2.00	13	4.33	18	3.60	9	4.50	24	12.00	33	16.50
2942	Food and beverage stores	159	26.50	210	42.00	104	34.67	263	52.60	130	65.00	366	183.00	728	364.00
68	Fruit and vegetable markets	5	0.83	10	2.00	0	0.00	8	1.60	1	0.50	11	5.50	18	9.00
3371	Full-service restaurants	127	21.17	256	51.20	155	51.67	355	71.00	188	94.00	513	256.50	918	459.00
1347	Furniture and home furnishing stores	46	7.67	106	21.20	65	21.67	141	28.20	77	38.50	195	97.50	419	209.50
2631	Gasoline stations with convenience stores	153	25.50	184	36.80	144	48.00	279	55.80	139	69.50	318	159.00	520	260.00
1166	General merchandise stores	64	10.67	62	12.40	52	17.33	107	21.40	64	32.00	142	71.00	231	115.50
722	Gift, novelty & souvenir stores	24	4.00	137	27.40	33	11.00	70	14.00	27	13.50	100	50.00	209	104.50
2097	Grocery stores	122	20.33	125	25.00	73	24.33	180	36.00	84	42.00	219	109.50	452	226.00
268	Hardware stores	9	1.50	27	5.40	9	3.00	23	4.60	12	6.00	25	12.50	47	23.50
1751	Health and personal care stores	79	13.17	132	26.40	99	33.00	182	36.40	106	53.00	263	131.50	465	232.50
223	Hobby, toy and game stores	4	0.67	28	5.60	8	2.67	34	6.80	13	6.50	41	20.50	81	40.50
108	Home centers	5	0.83	9	1.80	5	1.67	11	2.20	5	2.50	13	6.50	22	11.00
476	Lawn and garden equipment and supplies stores	27	4.50	38	7.60	26	8.67	53	10.60	26	13.00	51	25.50	58	29.00
4046	Limited-service eating places	180	30.00	291	58.20	204	68.00	409	81.80	241	120.50	623	311.50	1242	621.00
399	Nursery and garden centers	23	3.83	30	6.00	18	6.00	45	9.00	19	9.50	42	21.00	42	21.00
965	Pharmacies and drug stores	57	9.50	68	13.60	52	17.33	81	16.20	54	27.00	130	65.00	204	102.00
367	Speciality food stores	21	3.50	38	7.60	14	4.67	40	8.00	20	10.00	71	35.50	101	50.50
158	Tobacco stores	7	1.17	15	3.00	12	4.00	9	1.80	3	1.50	25	12.50	33	16.50
218	Vending machine operators	13	2.17	12	2.40	10	3.33	20	4.00	15	7.50	42	21.00	75	37.50

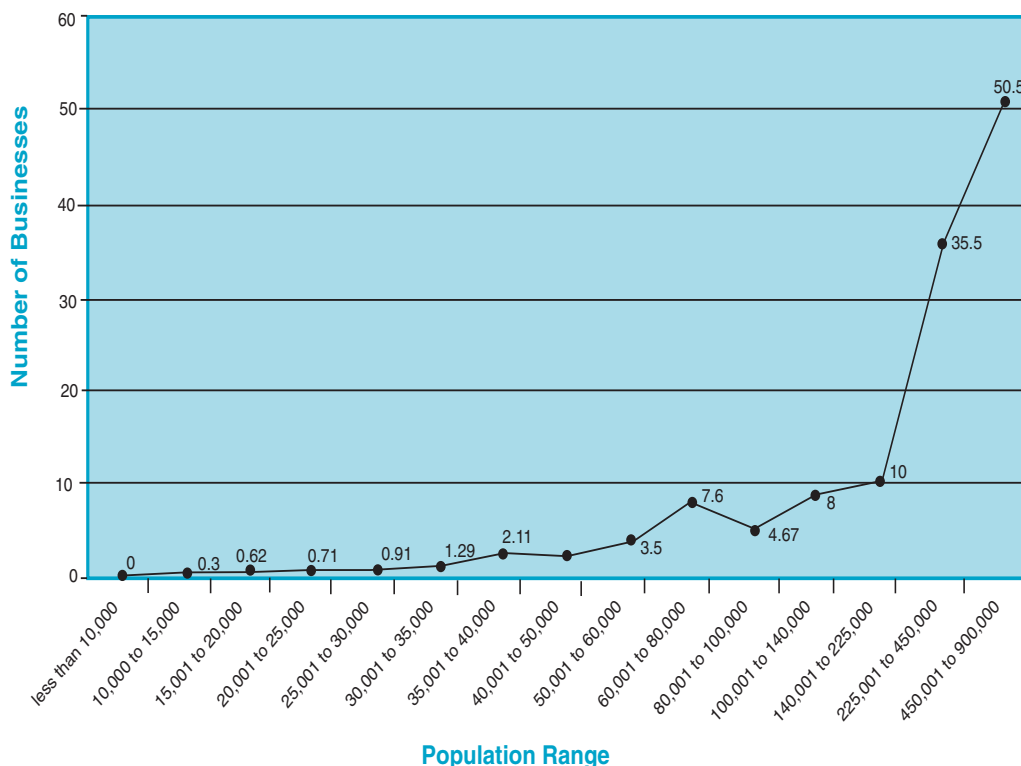
The first column in the table presents the 27 business classifications identified for study. Each of the next 15 columns identifies a population range. Within each of these 15 columns are two sub-columns. The first sub-column gives the total number of establishments of each identified type of business per population range. This number was determined by adding together the number of establishments of each type of business in each of the counties within the population range. The second sub-column gives the average number of business establishments per county in the population range. This number was determined by dividing the total number of business establishments in the population range by the total number of counties in the population range.

The data presented in this table are based on actual business establishments in each Tennessee county and give an idea of how many establishments of each business type a county of a given population size may support. The information in this table can be used for two primary purposes:

- 1) to evaluate the level of existing competition for a particular business start-up
- 2) to evaluate the potential for marketing outlets for a particular product

The "average number of businesses per county in the population range" can be used to assist in evaluating the competition of establishing a specific business in a county-population range. For example, consider that an entrepreneur is considering opening a specialty food store in his/her home county of 48,000 people. The table shows that there are currently 12 specialty food stores in the six counties within the 40,001 to 50,000 population range and an average of two specialty food stores in each county. According to the table, a county with 48,000 people supports an average of two specialty food stores. If the entrepreneur in the example finds that his/her home county of 48,000 does not have specialty food stores, then the data would support establishing a specialty food store. Conversely, if the entrepreneur in the example finds that his/her home county of 48,000 has three specialty food stores, then the data would not support establishing a fourth specialty food store. To further explore the example of opening a specialty food store, the average number of specialty food stores in each of the 15 county population ranges is presented in Graph 1. A general trend of more specialty food stores is observed as population increases. While specific

**Graph 1:**  
**Number of Specialty Food Stores Per Population Range**

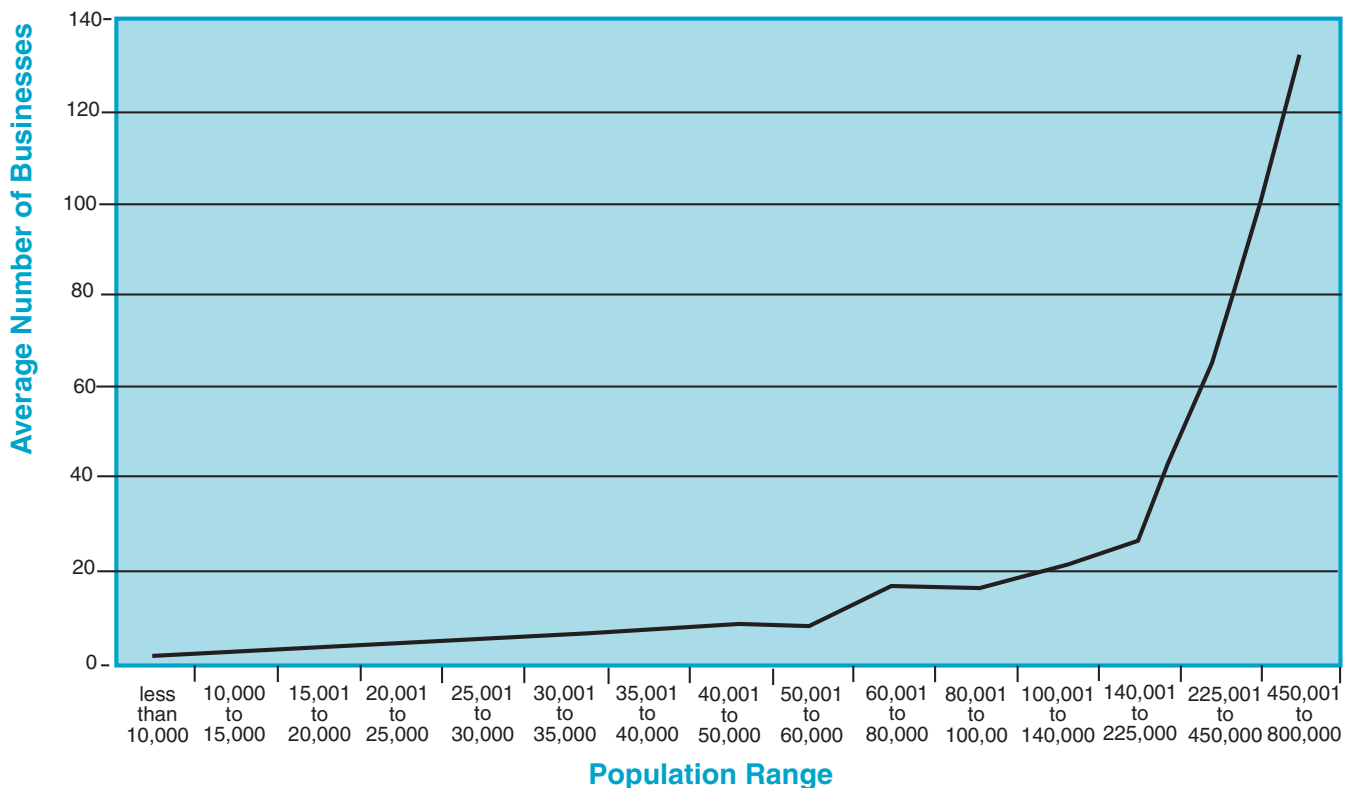


range-to-range exceptions exist, the overall trend is for more stores in higher-populated counties. Specifically, counties with a population in the 50,001 to 60,000 range each have an average of 3.5 specialty food stores. If an entrepreneur was considering opening a specialty food store in a county with a population of 55,000 that does not have specialty food stores, Table 4 provides a good indication that the county population could support the store. Conversely, if an entrepreneur was considering a new specialty food store in a county with a population of 55,000 that already has six specialty food stores, the table indicates that an additional business might have difficulty competing.

Table 4 shows that in the population range 50,001 to 60,000, both the total number and the average number of business establishments per population fell below the corresponding numbers for the immediately preceding population range. In fact, the total number of businesses per population in five of the population ranges drops below the corresponding figure for the preceding population range. However, when graphed, all of the businesses show that the number of establishments tends to increase as population increases. This trend can be observed in Graph 2, which shows the average number of per-county businesses for all business types.

**Graph 2:**

**Average Number of Per-County Businesses for All Business Types**

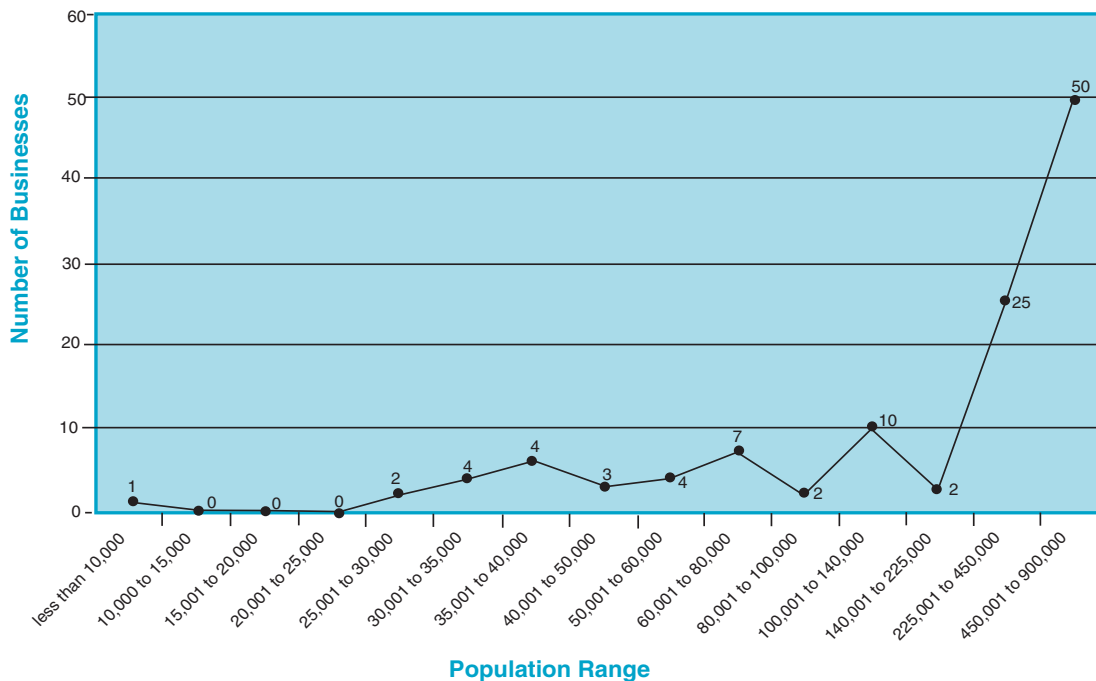


The second primary use of the information presented in Table 4 is to identify the level of business concentrations in certain county-population ranges. This type of analysis may be better suited for value-added entrepreneurs who have a product, or who are developing a product, and are looking for retail outlets for it. For example, assume that a farmer is adding value to a tomato crop by manufacturing and packaging a salsa product. Assume also that the farmer's market research has revealed that caterers represent a sizable market opportunity for a salsa product. The entrepreneur would be wise to determine the location of caterers. The number of caterers in each of the 15 county-population ranges is presented in Graph 3.

Graph 3 shows that virtually no caterers are licensed in counties with populations of less than 25,000. The number of caterers steadily increases for populations from 25,000 to 40,000, then stabilizes up to 225,000. As with most of the businesses included in the study, the number of caterers dramatically increases in counties with populations above 225,000. The farmer-entrepreneur who knows that there are no caterers in the counties with less than 25,000 population will be able to prevent wasted efforts in these areas and can concentrate on marketing efforts in other counties.

**Graph 3:**

**Number of Caterers Per Population Range**



In addition to the data's two primary purposes, assisting in the evaluation of specific situations, five general observations of the data are worth noting.

**Observation #1:**

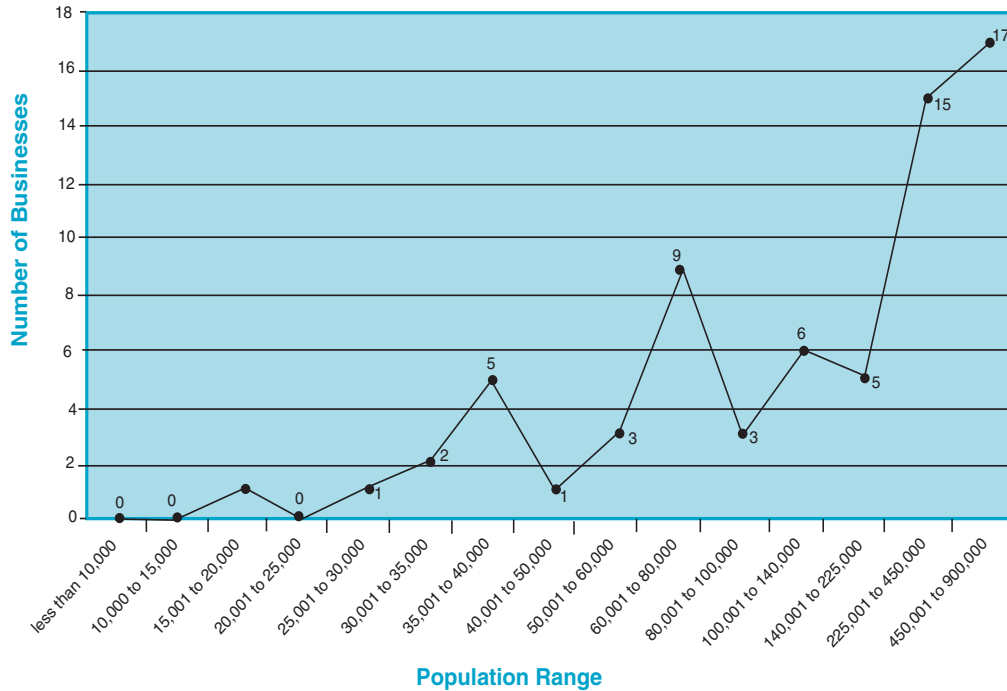
According to Graph 4, which shows the number of baked-goods stores in each of the 15 county population ranges, there is a very sporadic number of baked goods stores in counties with 40,000

to 140,000 population ranges. As with most of the other business classifications, the general trend is an increasing number of baked goods stores as county population increases, but from population range to population range, the number of baked-goods stores takes a sporadic jump at the 60,001 to 80,000 range. Therefore, there might be opportunities for additional baked good stores in counties with populations between 80,000 to 140,000.



**Graph 4:**

**Number of Baked Goods Stores Per Population Range**



**Observation #2:**

As depicted in Graph 3, there is a sharp decline in the number of caterers in the 140,001 to 225,000 population range. This would support additional consideration by an entrepreneur specifically

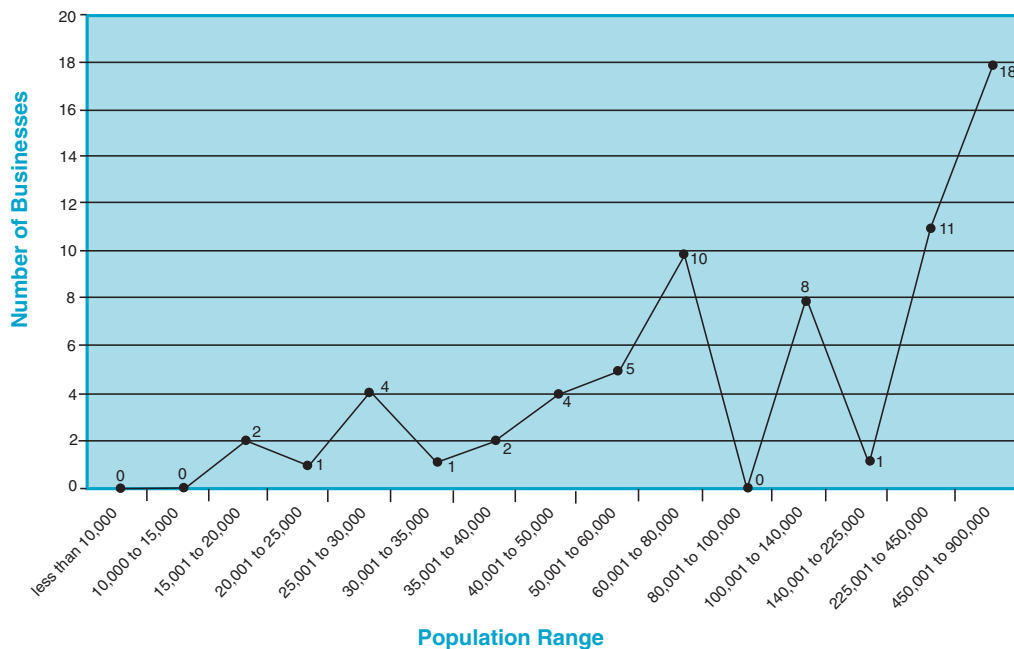
interested in a possible catering business in a county in this population range.

**Observation #3:**

According to Graph 5, which shows the number

**Graph 5:**

**Number of Fruit and Vegetable Markets Per Population Range**





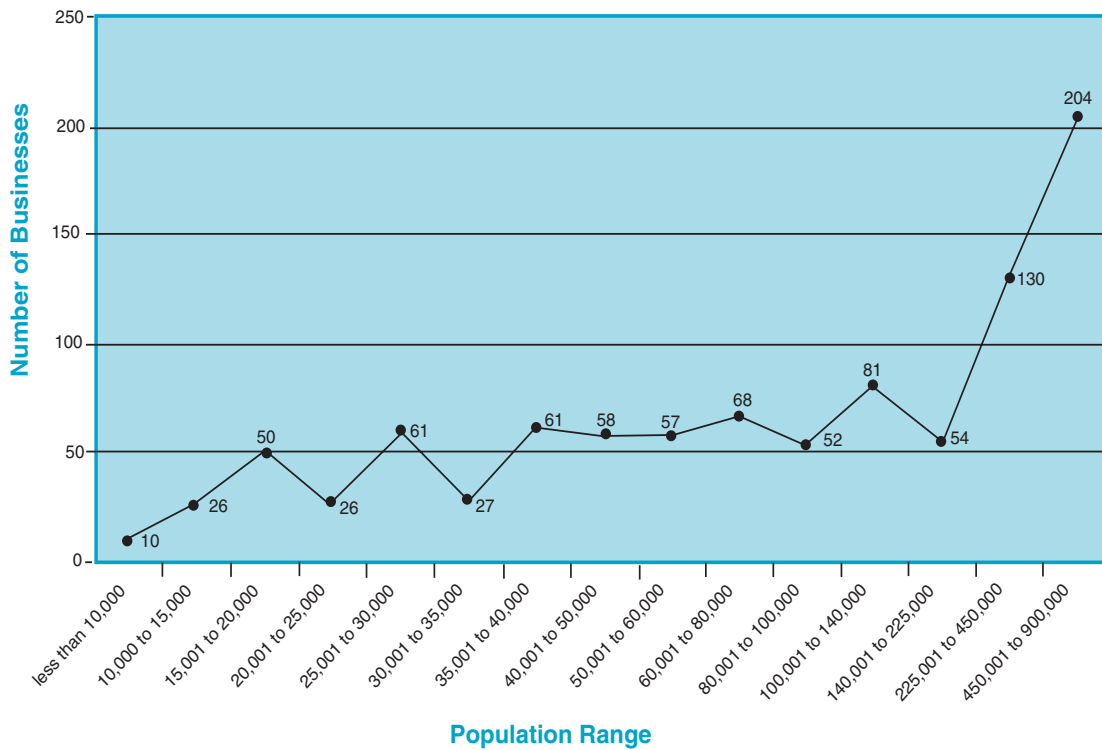
of fruit-and-vegetable markets in each of the 15 county-population ranges, there is a noticeable dip in the number of fruit-and-vegetable markets in two specific population ranges. Therefore, there may be a possible opportunity for additional fruit-and-vegetable markets, specifically in counties with populations of 80,001 to 100,000 and 140,001 to 225,000.

**Observation #4**

As seen in Graph 6, the number of pharmacies and drug stores is very steady in the population ranges from 35,001 to 225,000. Therefore, if pharmacies and drug stores represent a potential retail market for a value-added product, it would be just as wise to target the counties in the lower end of this population range (35,001) as it would be to target counties in the higher end of the population range (225,000).

**Graph 6:**

**Number of Pharmacies and Drug Stores Per Population Range**



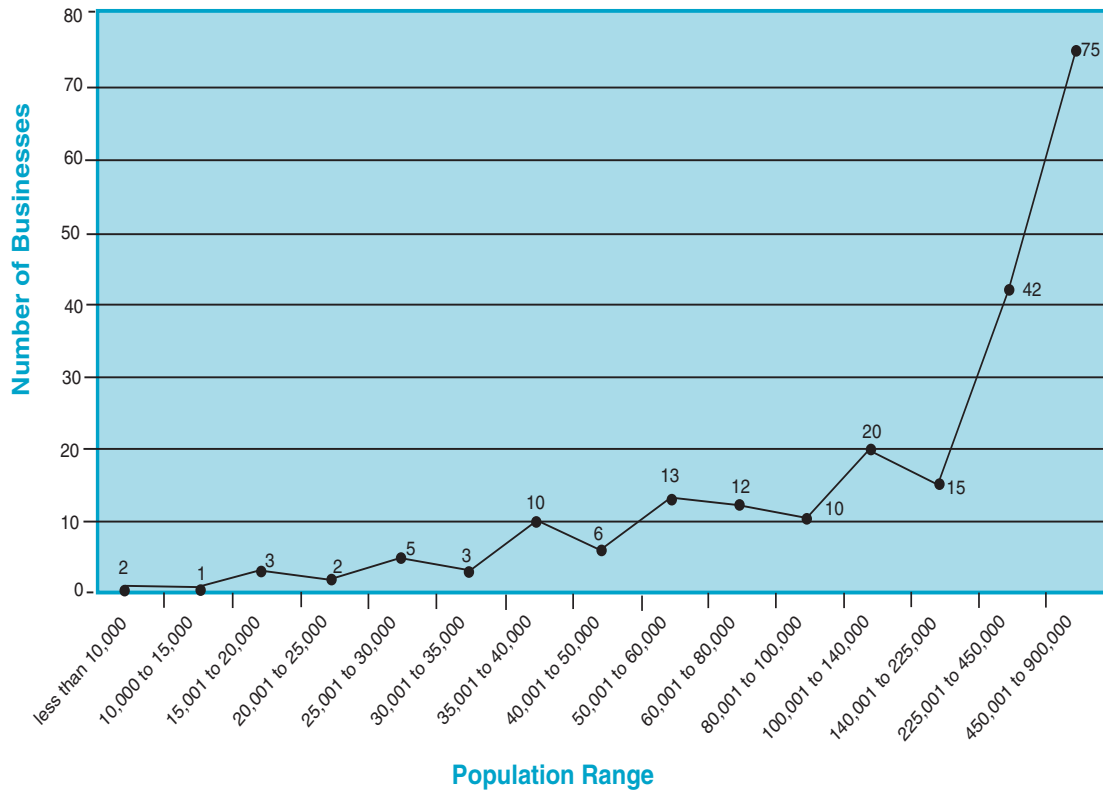
**Observation #5**

As shown in Graph 7, there are very few vending machine operators in counties with populations less than 40,000. Additionally, there is a steady increase in the number of vending machine operators in the population ranges of 40,001 to 225,000. Therefore, this finding indicates that vending machines probably would not be the best investment in counties with populations of fewer than 40,000.



## Graph 7:

### Number of Vending Machine Operators Per Population Range



## Summary and Implications

An important factor in achieving success in marketing is the location of the business. A product must be accessible and available to the target consumer. The results presented in this publication provide information that will assist in the evaluation of possible new businesses according to county populations. According to the data, different county populations will support a different number of specific types of businesses. It is important to note, however, that the information from this study should only be used as a tool in coordination with other business planning and evaluation tools. The information from this study should complement other market evaluation information, such as average daily traffic count patterns, per-capita consumption data, a detailed competitor analysis, demographic information of target audiences and break-even sales estimates. This publication presents a significant amount of information on the number of businesses in various county-population ranges, which can be very useful in value-added business planning and evaluation.

The results of the study indicate that future studies could provide additional information that would be helpful for agri-entrepreneurs when selecting marketing locations. Some specific opportunities for future studies include:

- Investigating and evaluating the impact large cities have on the number and types of business establishments of surrounding populations.
- Investigating the impact of interstate roadways on the types and numbers of business establishments in various population ranges.
- Investigate the impact of business size on the number of businesses in a particular county.
- Investigate the impact of the proximity of counties to large-population centers on the number of business establishment in the counties.
- Investigate a critical mass point or threshold level for each industry where there is a large enough population to support large numbers of businesses.



Additional information on agriculture can be obtained from your local Agricultural Extension Service office.

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Additional information on feasibility studies and marketing of value-added enterprises and products can be obtained by contacting the

*Center for Profitable Agriculture*  
The University of Tennessee Agricultural Extension Service  
Web site: <http://cpa.utk.edu>  
Phone: 931-486-2777

and

the Tennessee Department of Agriculture Market Development Division  
Web site: <http://www.picktnproducts.org/>

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The University of Tennessee Institute of Agriculture, U.S. Department of Agriculture,  
and county governments cooperating in furtherance of Acts of May 8 and June 30, 1914.  
Agricultural Extension Service, Charles L. Norman, Dean