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PB1736-The Importance of Basis in Marketing Soybeans - A 10-Year Soybean Basis Study for Six Tennessee

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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>>.

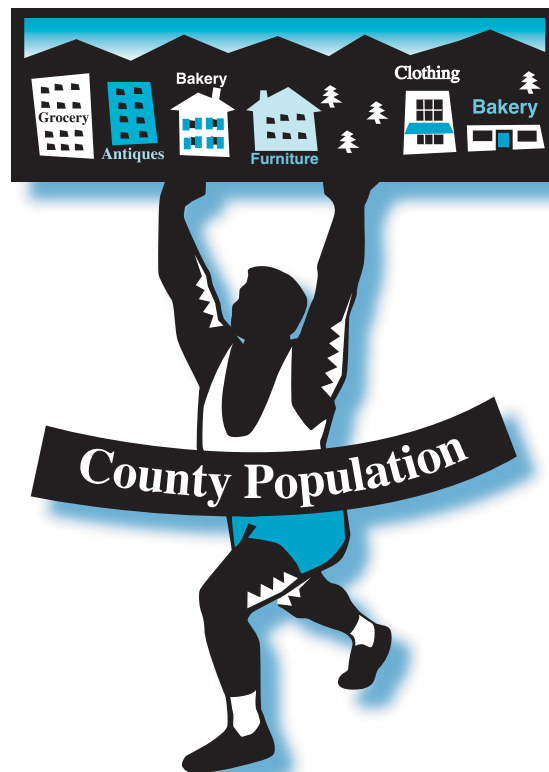
Rob Holland

Project Principal Investigator
and Lead Author

Center for Profitable Agriculture



HOW MANY BUSINESSES CAN A COUNTY SUPPORT?



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

November 2003

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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.

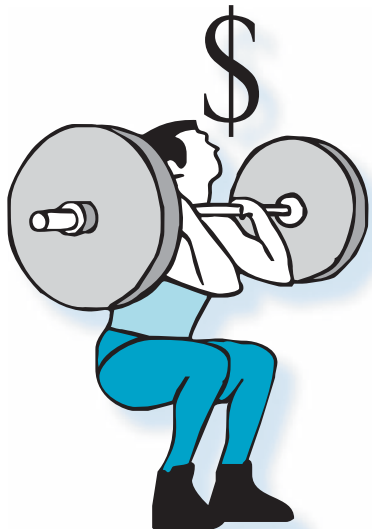
Store retailers operate fixed, point-of-sale locations, located and designed to attract a high volume of walk-in customers. In general, retail stores have extensive displays of merchandise and use mass-media advertising to attract customers. They typically sell merchandise to the general public for personal 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

| Code | Industry | | |
|-------------|---|--------|--|
| 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.

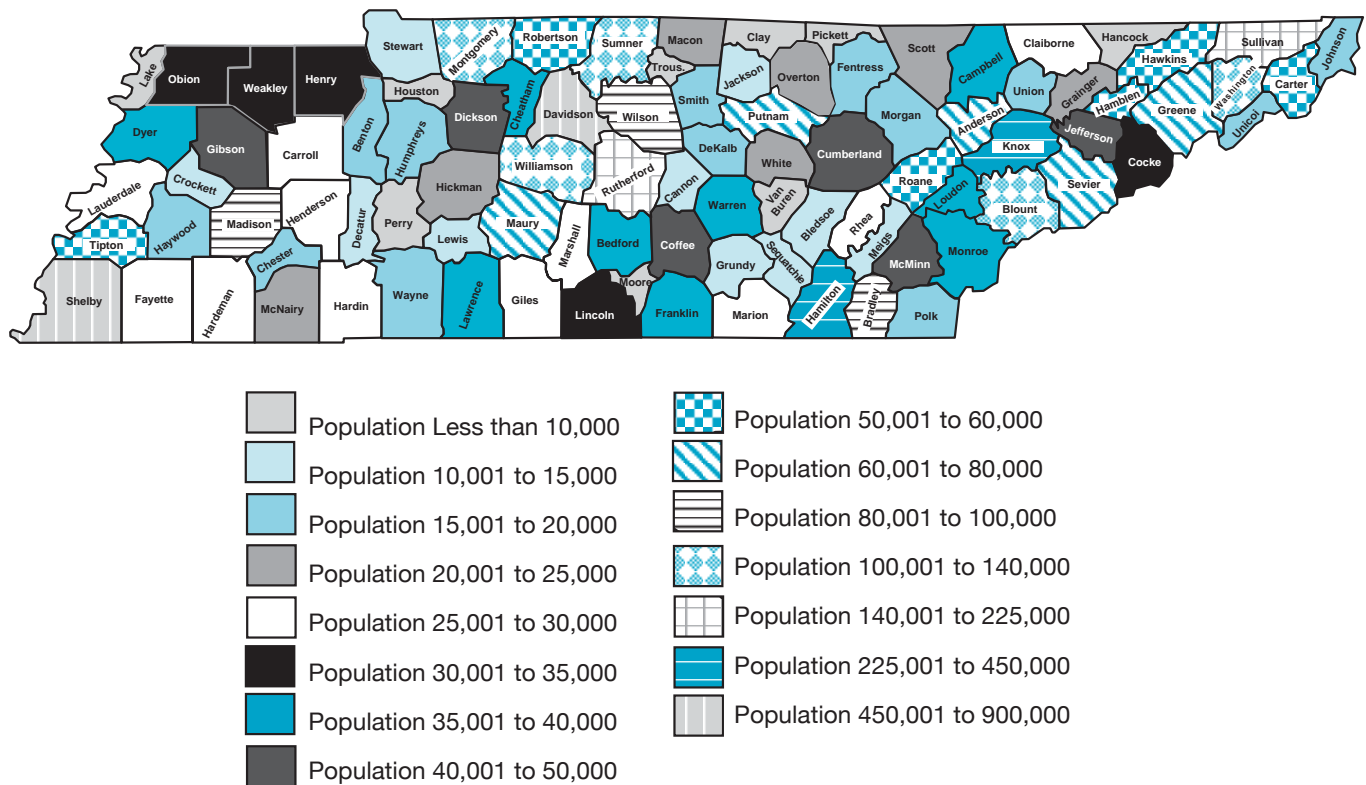


Identification of Population Ranges

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 |

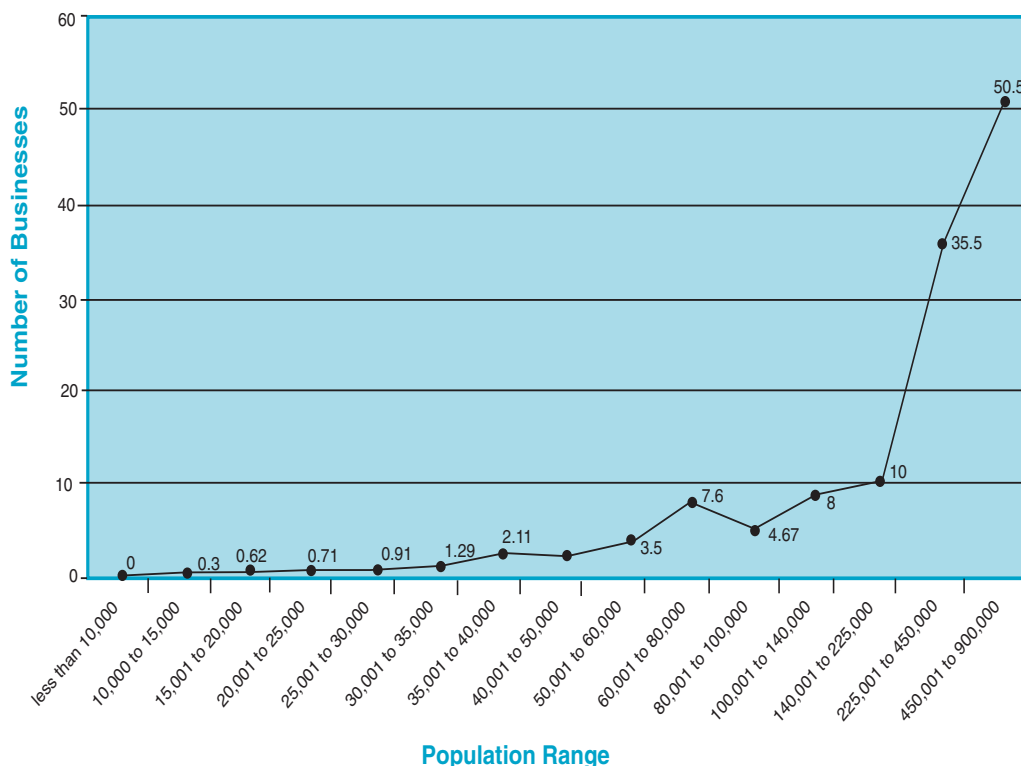
The first column in the table presents the 27 business classifications identified for study. Each of the next 15 columns identifies a population range. Within each of these 15 columns are two sub-columns. The first sub-column gives the total number of establishments of each identified type of business 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

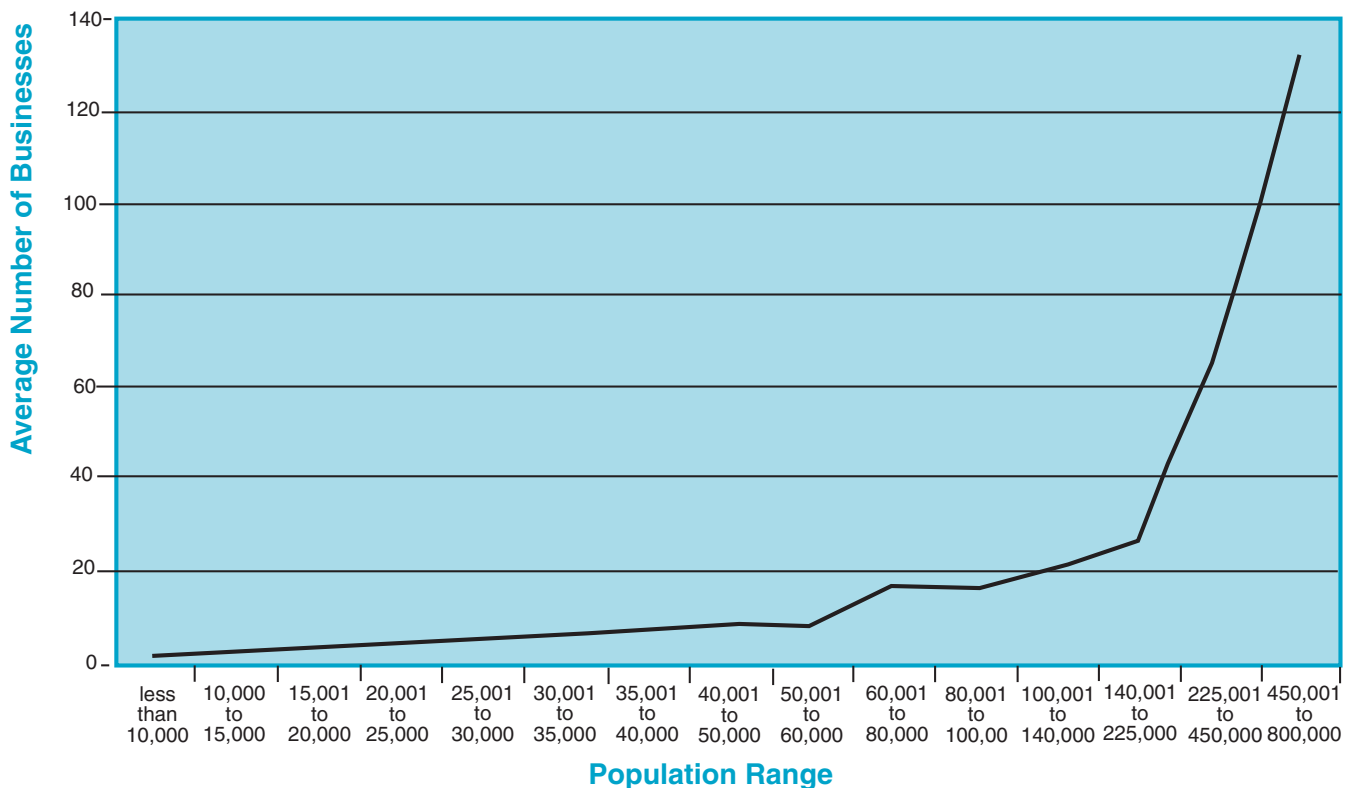


range-to-range exceptions exist, the overall trend is for more stores in higher-populated counties. Specifically, counties with a population in the 50,001 to 60,000 range each have an average of 3.5 specialty food stores. If an entrepreneur was considering opening a specialty food store in a county with 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

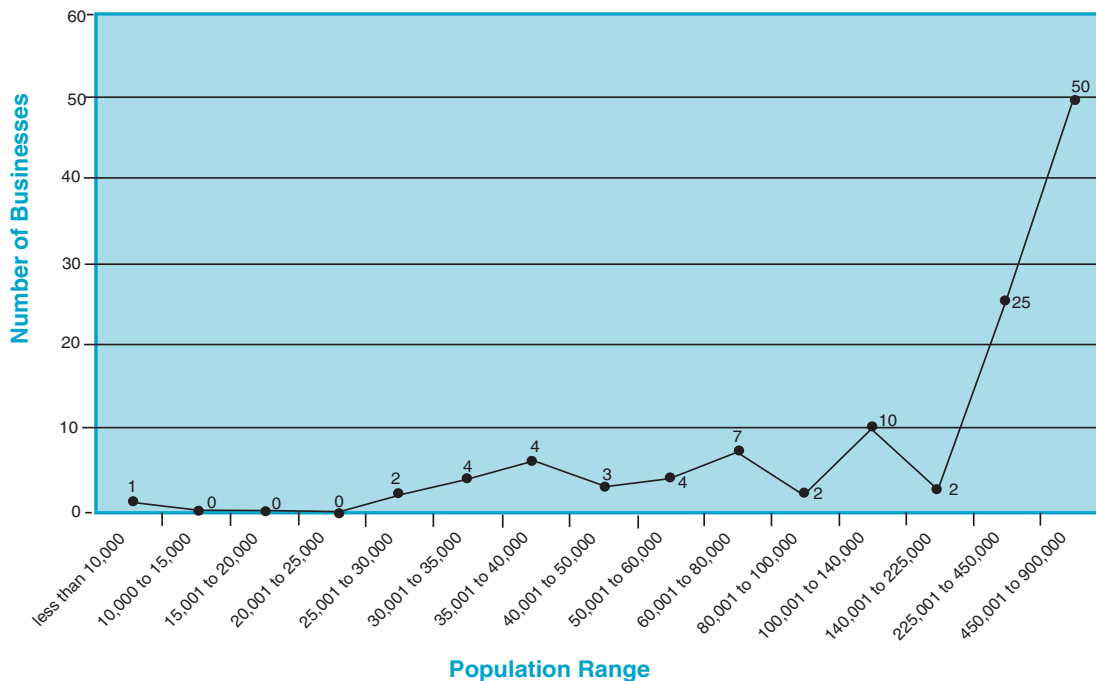


The second primary use of the information presented in Table 4 is to identify the level of business concentrations in certain county-population ranges. This type of analysis may be better suited for value-added entrepreneurs who have a product, or who are developing a product, and are looking for retail 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:

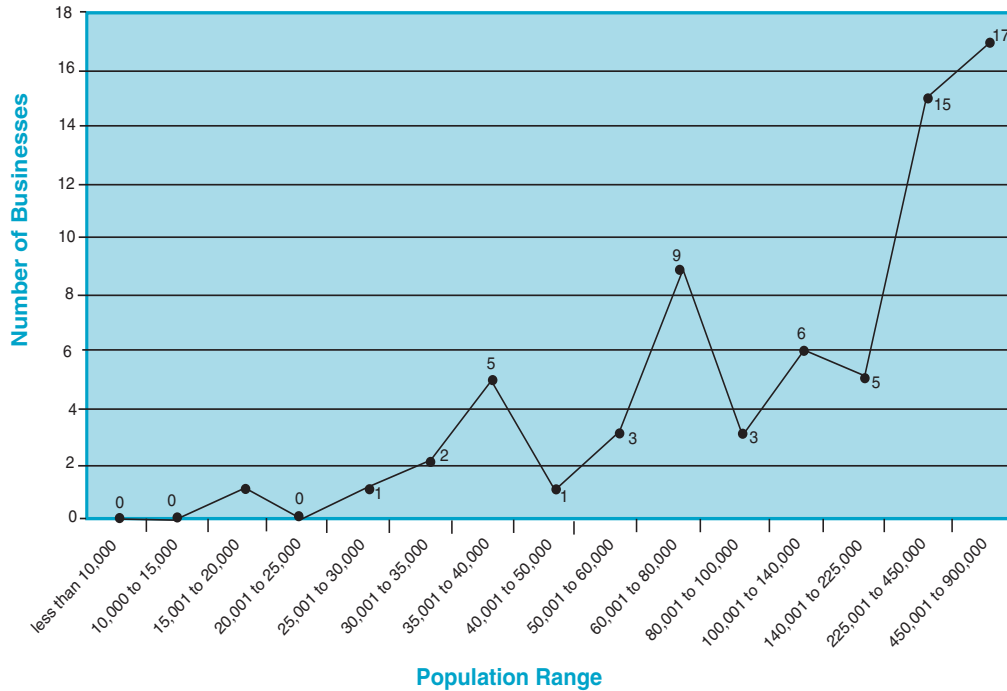
According to Graph 4, which shows the number of baked-goods stores in each of the 15 county population ranges, there is a very sporadic number of baked goods stores in counties with 40,000

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

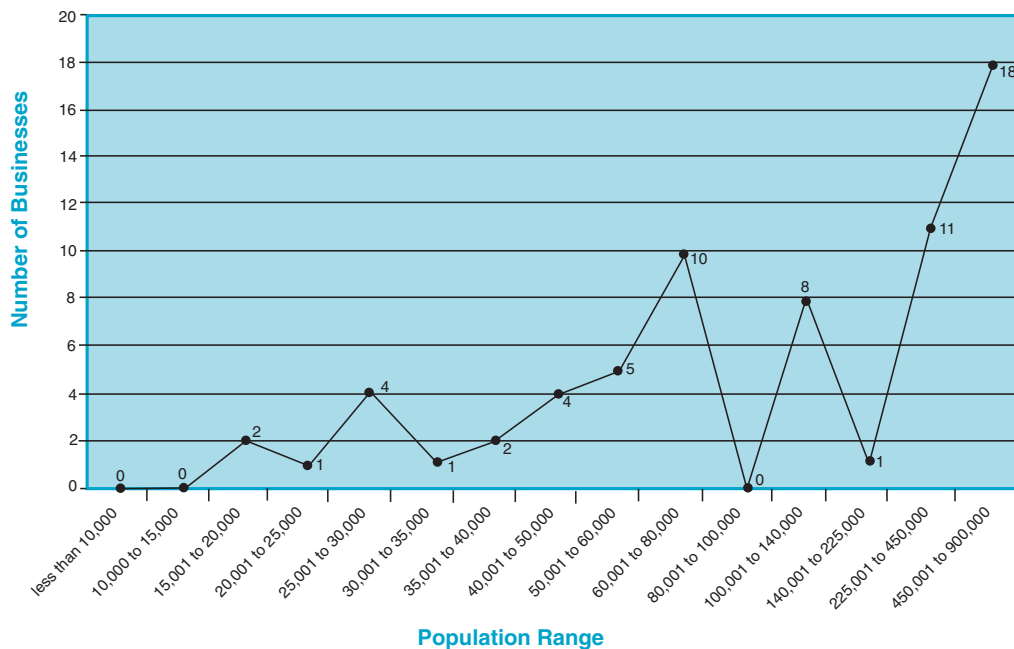
interested in a possible catering business in a county in this population range.

Observation #3:

According to Graph 5, which shows the number

Graph 5:

Number of Fruit and Vegetable Markets Per Population Range



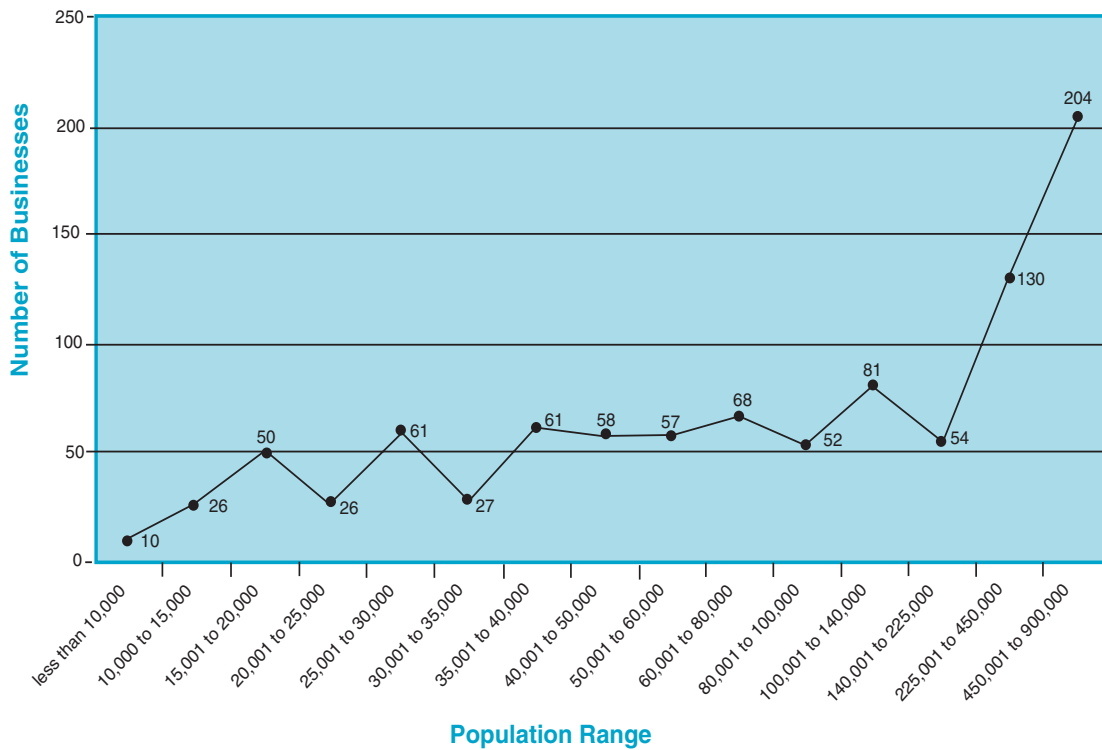
of fruit-and-vegetable markets in each of the 15 county-population ranges, there is a noticeable dip in the number of fruit-and-vegetable markets in two specific population ranges. Therefore, there may be a possible opportunity for additional fruit-and-vegetable markets, specifically in counties with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



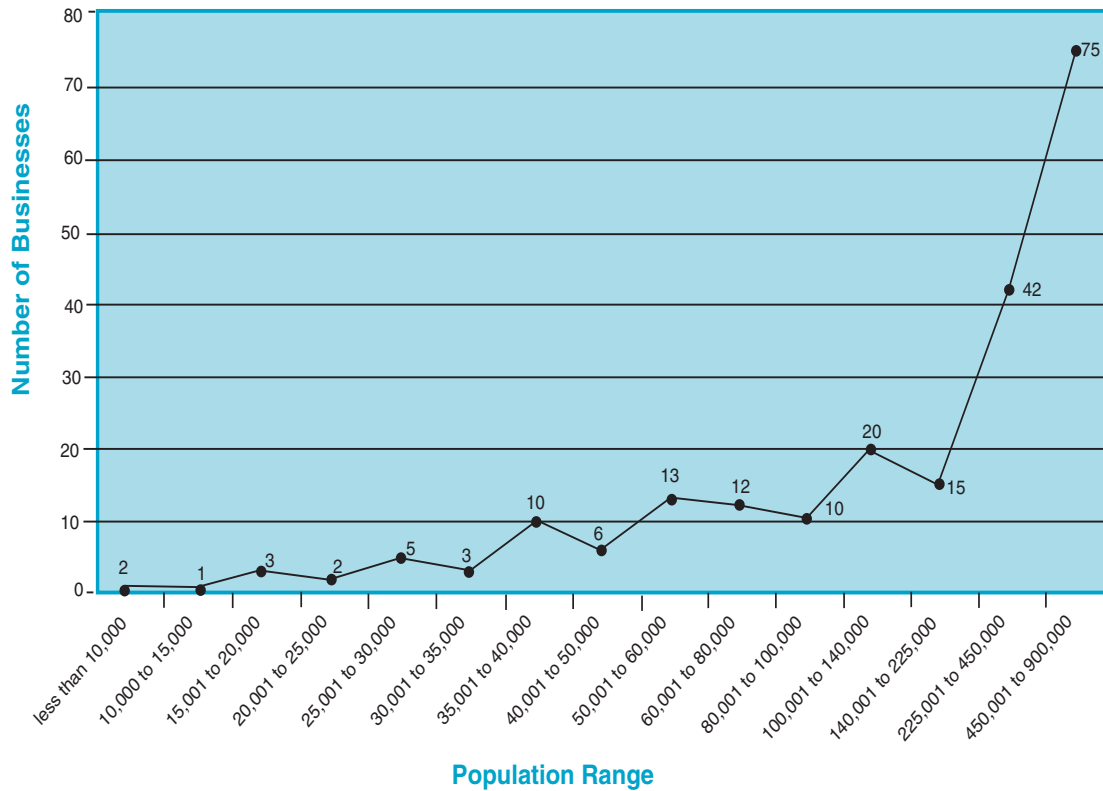
Observation #5

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.

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