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The Availability and Prices of Consumer Goods and Services in Small Towns of Northern California

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THE AVAILABILITY AND PRICES OF CONSUMER GOODS AND SERVICES IN SMALL TOWNS OF NORTHERN CALIFORNIA

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TABLE OF CONTENTS

ABSTRACT

This paper examines the in-town prices and availability of over 300 consumer goods and services. It compares prices between small towns in northern California with less than 2,500 people and the closest larger city used by small town residents for major shopping. The price comparisons help to determine which items are less expensive, the same, or more expensive in small rural communities. The survey designed for this study also identified several items not likely to be found in small towns. Product "availability" differed between towns and was found to be positively correlated with distance (in miles) to the nearest central city. Small towns located relatively far from larger cities tended to carry most consumer items whereas small towns located relatively near larger cities carried fewer consumer goods and services. This finding and others are then compared to some of the tenets of "central place theory." This theory sheds insights on our findings because it has propositions about the minimum market required to support a particular good or service and the maximum distance people will travel to purchase that good or service at a particular location. Overall, convenience items are more available in small towns than items purchased less frequently by consumers. Most items tend to be priced higher in small communities than in larger communities but housing is cheaper in small towns. Our analysis also reveals some of the probable challenges facing retail and service proprietors in small towns. The study suggests that small town businesses are limited in the quantity and variety of goods and services they can sell within their market areas. Nonetheless, it is evident that small town businesses can provide a sizeable range of goods and services within their market confines.

INTRODUCTION

Background

The decline of many small community businesses in nonmetropolitan areas during the eighties brought forth renewed interest in the economic viability of rural communities (Zuiches 1981; Swanson 1984). Often questioned was the price differential between rural and metropolitan communities (Leistritz, *et al.*, 1989; and Public Voice, 1990). It was generally presumed that many vital consumer goods and services were not priced competitively in small rural towns. Thus, the focus of research and extension shifted quickly to ways of "revitalizing" the commercial and trade sectors of rural communities. Although it was evident that many small towns were losing their traditional downtown businesses, it was not so evident that they were necessarily being priced out of effective competition by businesses in larger nearby communities. Moreover, the amount of actual data on the costs of living in rural areas was relatively sparse. The consumer price index (CPI) does not report any price data from small rural communities (Ostrosky, 1983). Nor were studies conducted to compare consumer items between small and large places. In short, there was no systematic information on the prices one paid for rural, small community goods and services versus urban, large city goods and services, the availability of basic amenities in small towns, and the items not likely to be found.

Literature Review

Although small rural communities have their own charm and special features which satisfy many residents, a study by Barkley and Rogers (1986) of 113 families showed that residents who moved into eight small Washington towns between 1978 and 1983 made 70.3% of their food purchases away from their community. Comparable figures were 94.3% for clothing purchases, 74.9% for medical care and 96.4% for automobile credit. The study that yielded these conclusions was conducted in small towns with 1980 populations ranging from 198 to 854 in the Washington state Palouse region. According to the authors, "New people use small towns as places to reside, but not as places to shop, socialize or contribute to society" (1986, p. 6).

Why is it that only 30 percent of the food expenditures were made locally in the Palouse region and that nearly 90 percent of the sampled households made special trips to other towns just to buy food and other grocery items? According to Barkley and Rogers:

> "This result is especially mystifying since a 53-item market basket of common grocery store products costs, on the average, only 4 percent more in the small towns than in eight nearby towns whose populations range from 2,500 to nearly 200,000 (1986, p. 8)."

In 1989, Public Voice, a non-profit organization which is concerned with national food and health policy issues, conducted a study on the availability and prices of food items which were part of the Thrifty Food Plan. The Thrifty Food Plan is the government's measure of the minimum amounts of foods needed to maintain an adequate diet. The cost of the Thrifty Food Plan is used to determine the amount of benefit allotments to food stamp recipients. The focus of this study was the effect of any price differences on the rural poor.

The main finding of that study was that "...food stamp benefit allotments were not sufficient to purchase foods necessary for the

minimally adequate diet, the Thrifty Food Plan, for persons living in persistently poor rural America." The average price of these food items was 36% over the costs calculated by the government based on its survey of urban centers. The government estimates were $75.00/week for a family of four. Public Voice found average prices in rural communities of $102.00/week for the same basket of goods. For urban centers the Public Voice survey found prices to be 8% higher than the government figures. They also found that the availability of fresh fruits, vegetables and meat was extremely limited. Fifty-eight percent of stores in rural areas stocked 5 or fewer vegetables, 76% stocked 4 or fewer fresh fruits and 65% carried 4 or fewer fresh meats. The vegetables and fruits available were found in only small quantities and the quality was very poor. The quality of meat was generally good.

From a survey of the store owners, Public Voice discovered that even in rural areas, the more likely it was for a resident to shop locally, the lower were the over-all prices. Among the store owners questioned, 35% felt that their customers did the majority of their shopping locally. The average price of the Total Food Plan at these stores was $91.00. This is compared to $108.00 at the stores where the owners felt that their customers did not do the majority of their shopping there. Overall the study found that the rural poor were more dependent on smaller more expensive stores, that these stores often had unstocked shelves and few, if any, fresh fruit, vegetables and meat. In addition, the cost of the Thrifty Food Plan far exceeded food stamp allotments "no matter where the rural poor shopped."

In another study by Davidson (1987), on the offering of retail goods and services in 30 rural settlements, towns, and urban places located within a six-county area in northwestern Colorado, 409 area residents were asked to identify the place where the family or members of the family normally purchased each of 15 broad categories of different goods and services. The 15 categories of establishments selling goods and services included appliance stores, attorneys, auto dealers (new), banks, beauty shops, clothing stores, food stores, furniture stores, gasoline stations, hospitals and clinics, jewelry stores, optometrists, physicians, public accountants, and restaurants. They were also asked the travel time to that place. An inventory of the number of functions and establishments in each town was also performed by Davidson, yielding 344 specific types of retail functions identified in these towns, which ranged in population from eight to 28,134. Davidson's inventory of functions showed that small towns (with 2,500 or fewer people) could support a wide range of businesses. Less apt to be found, however, were attorneys, auto dealers, optometrists and physicians. Even towns with fewer than 1,000 residents had on average two gas stations, an appliance store, an auto repair shop, a food store or two, a motel, real estate agency, restaurant and tavern.

Despite the availability of numerous goods and services in small rural towns, Davidson also found that most families do much of their shopping in distant market centers. According to Davidson, local retail establishments in small towns provide only convenience goods. He noted also that relatively more agricultural based communities have more establishments locally, reflecting the hinterland population of these smaller "places as well as the probability of sharing functions among communities" (p. 258)

Perhaps more disconcerting for small town business owners is the recent report that higher incomes and increased consumer spending will not necessarily help small rural communities hang onto their retail stores. In a study which analyzed how changes in Minnesota's rural counties affected retail sales

between 1979 and 1986, it was found that increases in income generally led to increased total spending in the larger towns of the area but lower total spending in its smaller towns. The reason given was that improved income seemed to give consumers an incentive to increase shopping in places where the availability of goods was greater (Henderson and Hines, 1990). Nonetheless, despite the careful nature of this study, there was no information on product prices in addition to availability. Can we fault consumers for shopping outside their locale if prices are much higher?

Objectives of Study

Of central concern are the prices and availability of goods and services faced by small town residents of northern California. In addressing this concern, this study investigates the question of whether small remote community businesses are relatively more expensive than those in large cities. Furthermore, it addresses the issue of "availability" of goods and services in small rural places. Do they have the retail and service items that people prefer at competitive prices? A related question concerns product "availability" and its correlation with small town population and distance to larger cities. What items are or are not sold in small towns located near larger communities? What is usually available to rural residents? To what degree does distance and local population size affect the availability of consumer goods and services? Also, what are some of the possible explanations for differences in prices and product availability between small and large towns? What are some plausible explanations for the facts presented below?

Using a set of prices of over 300 common goods and services that would appear in most family budgets over a year, this study focuses on three operational objectives:

(1)   To determine if the prices of basic goods and services differ greatly with respect to community size, i.e., do smaller rural cities have higher priced items than larger central cities or vice-versa?

(2)   To determine the likelihood that a particular item will or will not be found within rural communities of small size.

(3)   To relate the findings of (1) and (2) to some of the general propositions of "central place theory."

It should be noted that this is a study of the availability of goods and the prices consumers pay for small city goods and services, not a study of the cost-of-living by size of town. Prices are determined by contacting the providers of goods and services. A cost of living study would be much more complex because it would require knowledge of the quantities of each good and service actually purchased by each of several "typical" families during a particular point in time. Nonetheless, a consumer price study like this one is a reasonable forerunner to a cost-of-living study.

Selecting the Towns

Fifteen small towns in northern California were selected for this study based on the following criteria: (1) population between 500 to 2,500 (as of 1985); (2) at least 10 miles away from a larger city that serves as an alternative market; (3) dependent upon rural-resource economic base; and (4) not part of a metropolitan statistical area. Towns were excluded if the sum of the population of towns within a 10 mile radius exceeded 10,000 and if the towns were known for tourism, major retirement, or other atypical traits. Appendix-A gives a synopsis of each small city's special features. Table 1 contains a list of all the small communities surveyed in this study. Information from the California Board of Equalization is also provided to indicate the number of business permits and taxable sales of each city at the time of the survey. The largest city is Angels, with 89 permits for retail stores and 170 permits for total outlets. The smallest city is Biggs with 8 permits for retail stores and 25 permits for total outlets.

Seven larger cities were also selected for this study according to the following criteria: (1) each large city is closest to one or more towns selected for this study, (2) they were identified by small city residents as "the" place to shop, and (3) they contained all of the goods and services priced in this study. Table 1 also has the approximate population of the larger cities at the time of the study.

Selecting the Goods and Services

A detailed survey instrument was designed in a collaborative project to collect information on the price, quantity and quality of each of 304 items.[1] The main list was derived from the official survey instrument of the U.S.

Table 1. Taxable Sales (Taxable Transactions in Thousands of Dollars During 1987)

| Town | Popula-tion | Retail Stores* | | Total Outlets* | | Nearest Large City | Population June 30, 1985 Estimate* |
		Permits	Taxable Transactions ($1,000.00)	Permits	Taxable Transactions ($1,000.00)		
1. Angels	2,302	89	30,239	170	32,669	Stockton	176,934
2. Biggs	1,459	8	849	25	950	Yuba City	21,097
3. Dorris	873	14	1,628	27	1,794	Klamath Falls, OR	16,661
4. Dunsmuir	2,253	43	8,436	89	8,696	Redding	48,495
5. Etna	815	17	2,809	51	3,158	Yreka	6,745
6. Fort Jones	602	26	3,499	51	4,009	Yreka	6,745
7. Isleton	923	20	6,154	51	6,921	Sacramento	309,352
8. Loyalton	1,124	10	1,832	28	2,693	Reno	100,756
9. Montague	1,446	22	2,013	44	2,989	Yreka	6,745
10. Plymouth	748	20	2,500	41	3,589	Sacramento	309,352
11. Portola	2,064	48	7,829	101	9,173	Reno	100,756
12. Sutter Creek	1,816	80	14,626	175	16,620	Sacramento	309,352
13. Tulelake	914	18	2,098	37	4,350	Klamath Falls, OR	16,661
14. Wheatland	1,674	17	3,100	36	3,321	Yuba City	21,097
15. Williams	1,776	40	15,458	74	17,340	Yuba City	21,097

Source: California Board of Equalization, "Taxable Sales in California" (Sales and Use Tax) 1987, 27th Annual Report.

(Note: This table indicates the diversity of retail outlets found in small cities. Even the smallest city of Biggs shows nearly $1,000,000 in taxable transactions in 1987).

*Reno and Klamath Falls figures are from 1980 Census of Population from U.S. Department of Commerce Bureau of the Census.

[1] The collaborators included professors Paul W. Barkley of Washington State University and Edward B. Bradley of the University of Wyoming. Citation of the completed report by Bradley (1989) is given in the References.

Department of Labor (DOL), Bureau of Labor Statistics (BLS), which makes up the Consumer Price Index (CPI). The U.S. DOL lists broad food and consumer items for its CPI survey. The list used in this study was more detailed than the BLS design to make sure that both quality and quantity were the same, item by item, in all communities. For example, instead of pricing items under broad categories for "flour and prepared flour mixes" as done by the BLS, our survey instrument listed items as follows:

01-1-1 Flour: Gold Medal or Pillsbury or similar, 5 lb. bag, all-purpose, lower price.

01-1-2 Cake mix: Betty Crocker or Pillsbury or similar, 18-19 oz. box, lower price.

This attention to detail was not without problems. Some meat items were difficult to compare. Similar looking beef had different names. Some butchers suggested that some cuts of meat were the same, for instance, "pork chops: center cut" or "pork loin sirloin chops." The same problems were faced for identifying "rock cod" or "red snapper" fish, which were also part of our items. Grocery items were the easiest to obtain in most instances. However, housing items were difficult to collect; in particular, the costs of home repairs (plumbers and electricians), fuel oil, electricity and natural gas, water, telephone service, cable T.V., and trash collection. It was also difficult to determine a comparable price for auto service, gardening supplies and household plants (some large, some small). Nonetheless, an earnest attempt was made to collect price information for similar items, sometimes requiring telephone calls to businessmen and government employees in particular communities. Despite the difficulty in pricing some items, the survey enumerators are convinced that the prices reported are comparable.

Gathering Facts

Graduate students from the Department of Agricultural Economics, University of California, Davis were hired to conduct the surveys in each town. They were instructed to make a search for every item and to find the lowest price of each. All data was collected during February, March and April, 1987. This was considered to be an ideal time, after Christmas and before summer, when prices and availability would be rather stable.

Statistical Analysis

In order to analyze the data, we calculated the average price paid for each item found in both "small" and "large" central cities. The price averages are set up to compare the prices found in the 15 small towns and seven large cities. Also provided is the standard error for each of the average values, the mean difference between large city and small town prices and a t-statistic for the value of each price difference.

Having the mean values and standard deviations of each item we priced, allowed us to compare the average prices of each item sold in small towns $(\bar{x}_1)$ versus the average price of the same item in larger communities $(\bar{x}_2)$. To test for statistically significant differences in prices, we calculated the "t-statistic" for each comparison using a formula based on Hamburg (1983):

$$t = \sqrt{\frac{(\bar{x}_1 - \bar{x}_2)^2 (n_1 n_2)(n_1 + n_2 - 2)}{(n_1 + n_2)\left[(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2\right]}}$$

where $\bar{x}_1$ = mean price of small towns
$\bar{x}_2$ = mean price of large cities
n_1 = number of items priced in small towns ($n_1 \le 15$)
n_2 = number of items priced in large cities ($n_2 \le 7$)

S_1 = standard error of small town prices
S_2 = standard error of large city prices

Since some items were not available in every town, the number of degrees of freedom and the relevant t-statistic to test the null hypothesis varies from observation to observation. Consequently, the following notations denote the degrees by which prices are significantly different between small and large towns.[2]

a = significantly different at the 10% level
b = significantly different at the 5% level
c = significantly different at the 2% level
d = significantly different at the 1% level
e = significantly different at the 0.2% level

Categories of Goods and Services

As indicated the list of goods and services developed for this study contained 304 items. Commenting on each item one by one is obviously time consuming and too detailed for generalizations about small town prices. An attempt was therefore made to discuss these items by the following categories:

A. Household food items.
B. Housing and home repairs.
C. Clothing for men, women, and children.
D. Auto supplies and repairs.
E. Doctor fees and medical care.
F. TV, entertainment items and services.
G. Beverages and tobacco.
H. Personal care and related services.

[2] The difference between means may appear to be off by 0.01 in some cases. This is due to rounding.

Findings

In this section of the report we list all 304 goods and services itemized in the survey. Table 2 provides the items which correspond to the coding used by the Bureau of Labor Statistics for its Consumer Price Index at the time of the survey. The next columns show how many towns had the particular item and the prices found in both small and large communities. The mean difference column is straightforward. The parentheses in the mean difference column shows which items are cheaper in the small communities on average. Finally, the t-value indicates if the prices are significantly different between places as indicated above.

Analysis of Consumer Prices of Goods and Services

A. Household Food Items

Household food was the most detailed category of items in this study. Of the 145 different food items, 105 were priced higher in the rural towns. Thirty-seven of these food items had significantly higher prices. But only 12 were significantly different at the 2% level or better, i.e., items indicated by c, d, or e. The twelve most expensive items included: cookies, bread crumbs, avocadoes, tomatoes, dates, canned kidney beans, canned tomato juice, canned mixed vegetables, frozen beef pie, salt, vinegar, and ground coffee. On the other hand, only 11 food items had significantly higher prices in the larger communities. These eleven included the following: spaghetti (dry), beef chuck, beef cube steak, bacon, pork chops, turkey, apples, lemons, cabbage and frozen pizza.

The higher prices for canned and processed food items can be explained by the fact that most of these items have a relatively longer shelf life. A merchant can afford to stock-up on these items and sell them over time at cost with normal profits. But given the higher number of more expensive food items in rural towns, can people save money by shopping in the larger cities? To save money, the basket of food must be cheaper than the travel cost. On average, the small towns were 33.5 miles away from the larger cities, making the round-trip at least 67 miles. For the 1987 tax year, the U.S. Internal Revenue Service's standard mileage rate for business use of a car was 22.5 cents per mile. At this rate, an estimate of the total roundtrip cost would be $15.08 for a small town shopper (i.e. 67 x 22.5 cents). At this cost, it would take a fairly large order of groceries for the small town resident to save money by shopping in the nearest large city. Interestingly, "food away from home," based on the cost of a typical breakfast, lunch, and dinner, is more expensive in the small towns.

B. Housing and Home Repairs

Three types of housing were compared. Houses built between 1920 and 1950; houses built after 1950 but before 1980; and houses built since 1980. The cheapest houses priced in the survey were built after 1950 and before 1980. The most expensive homes were oldest, especially in the larger communities. Regardless of the houses' age, all houses are relatively cheaper in smaller cities. But only the houses built between 1950 to 1980 are significantly cheaper in small cities at $48,500 on average, compared to $64,000 on average in larger communities.

Rents are also lower in smaller cities and significantly lower in all types of houses and apartments. A one-bedroom apartment is

Table 2. Prices and Availability of Goods and Services

Item #	Item	Item Availability (Number of Small Towns)	Small Town Mean Price $(\bar{x}_1)$	Standard Error	Large City Mean Price $(\bar{x}_2)$	Standard Error	Mean Difference $(\bar{x}_1 - \bar{x}_2)$	t-Value
CEREAL PRODUCTS								
01-1-1	Flour	15	1.21	0.27	0.96	0.15	0.25	2.2469[b]
01-1-1	Corn Flakes	15	1.42	0.38	1.41	0.18	0.01	0.0782
01-2-2	Oatmeal	15	1.46	0.07	1.39	0.05	0.07	2.4870[b]
01-3-1	Rice	15	1.05	0.43	1.08	0.40	(0.04)	0.1881
01-3-2	Spaghetti	15	0.83	0.20	1.01	0.26	(0.18)	1.8243[a]
01-3-3	Corn Meal	15	1.74	0.35	1.76	0.05	(0.03)	0.1866
BAKERY PRODUCTS								
01-1-2	Cake Mix	15	1.23	0.27	1.17	0.21	0.06	0.5314
02-1-1	White Bread	15	0.72	0.11	0.76	0.34	(0.04)	0.4179
02-2-1	Whole Wheat Bread	15	1.01	0.22	0.72	0.26	0.28	2.6489[b]
02-2-2	Rolls	14	1.27	0.31	1.30	0.25	(0.03)	0.1938
02-2-3	Cookies	15	1.73	0.17	1.50	0.15	0.23	3.0783[d]
02-3-1	Crackers	15	1.14	0.25	1.01	0.20	0.13	1.1794
02-3-2	Bread Crumbs	15	1.06	0.18	0.83	0.18	0.23	2.8815[d]
02-3-3	Doughnuts	15	2.51	0.77	2.14	0.48	0.38	1.1775
02-3-4	Frozen Pies -Apple	15	3.82	1.10	3.68	0.38	0.14	0.3256
15-1-5	Fudge Mix	15	1.59	0.38	1.38	0.33	0.22	1.3048
15-1-6	Cake Decorator	14	1.26	0.88	1.09	0.09	0.17	0.4919
BEEF AND VEAL								
03-1-1	Ground Beef	15	1.40	0.27	1.35	0.19	0.06	0.4886
03-2-1	Chuck Roast	13	2.20	0.41	1.82	0.45	0.38	1.9300[a]
03-3-1	Round Roast	14	2.35	0.49	2.46	0.50	(0.11)	0.4680
03-4-1	Beef Rib Eye Steak	15	3.79	0.71	4.17	0.59	(0.39)	1.2420
03-4-2	Beef Chuck Short Ribs	13	1.78	0.45	2.23	0.44	(0.45)	2.1414[b]
03-5-1	Beef Cube Steak	12	2.90	0.34	3.26	0.42	(0.34)	2.0810[a]
03-6-1	Sirloin Steak	15	3.25	0.72	3.69	0.54	(0.44)	1.4379
05-1-4	Liver	12	1.12	0.27	1.04	0.05	0.08	0.6624
PORK, LAMB AND PROCESSED MEATS								
04-1-1	Bacon	15	1.81	0.30	2.36	0.49	(0.55)	3.2886[d]
04-2-1	Pork Chops	14	2.55	0.53	3.30	0.32	(0.75)	3.4254[d]
04-3-1	Ham	15	14.61	3.64	12.04	1.33	2.56	1.7888[a]
04-4-1	Pork Loin - Sirloin Chops	9	2.39	0.79	2.90	0.72	(0.51)	1.3255
04-4-2	Pork Sausage	15	2.35	0.46	2.16	0.27	0.19	1.0360
05-1-1	Wieners	15	2.20	0.44	2.18	0.31	0.02	0.0972
05-1-2	Bologna	15	1.43	0.31	1.52	0.41	(0.09)	0.5458
05-1-3	Lamb	6	3.56	1.54	3.21	0.83	0.35	0.4894
POULTRY, FISH AND EGGS								
06-1-1	Chicken - Fresh, Whole	14	0.97	0.16	0.80	0.20	0.18	2.1647[b]
06-2-1	Chicken Parts	14	1.23	0.50	1.36	0.39	(0.13)	0.5946
06-3-1	Turkey	3	0.66	0.09	0.87	0.11	(0.22)	3.1026[c]
06-3-2	Cornish Game Hen	14	1.28	0.34	1.13	0.16	0.14	0.9839
07-1-1	Tuna	15	0.83	0.15	0.72	0.20	0.11	1.4902
07-2-1	Fillet of Sole	7	4.04	1.64	4.47	1.21	(0.43)	0.5582
07-2-2	Rock Cod	7	3.31	0.64	3.99	0.78	(0.68)	1.7231
07-2-3	Red Snapper*	10	2.98	0.58	3.33	0.61	(0.35)	1.0773
08-1-1	Eggs	15	0.96	0.14	0.85	0.14	0.11	1.7896[a]
FRESH FRUITS AND VEGETABLES								
11-1-1	Apples	15	0.66	0.13	0.78	0.09	(0.12)	2.1468[b]
11-2-1	Bananas	15	0.39	0.08	0.40	0.06	(0.01)	0.2982
11-3-1	Oranges	15	0.38	0.12	0.38	0.09	0.00	0.0822
11-4-1	Avocado	15	1.06	0.35	0.69	0.20	0.37	2.5780[c]
11-4-2	Strawberries	11	1.03	0.35	0.92	0.48	0.11	0.5525
11-4-3	Grapefruit	15	0.51	0.21	0.47	0.16	0.04	0.4105
11-4-4	Grapes	14	1.36	0.31	1.55	0.39	(0.19)	1.2248
11-4-5	Lemons	14	0.23	0.09	0.31	0.07	(0.09)	2.1566[b]

Table 2. Prices and Availability of Goods and Services

Item #	Item	Item Availability (Number of Small Towns)	Small Town Mean Price ($\bar{x}_1$)	Small Town Standard Error	Large City Mean Price ($\bar{x}_2$)	Large City Standard Error	Mean Difference ($\bar{x}_1 - \bar{x}_2$)	t-Value
11-4-6	Melons	9	0.67	0.36	0.63	0.26	0.04	0.2497
12-1-1	White Potatoes	15	0.40	0.11	0.48	0.11	(0.07)	1.5025
12-1-2	Sweet Potatoes	14	0.68	0.08	0.59	0.10	0.09	2.2752[b]
12-2-1	Lettuce	15	0.67	0.14	0.53	0.21	0.13	1.7770[a]
12-3-1	Tomatoes	15	0.81	0.14	0.58	0.16	0.24	3.5481[d]
12-4-1	Broccoli	15	0.76	0.16	0.84	0.28	(0.08)	0.8528
12-4-2	Cabbage	15	0.26	0.06	0.30	0.04	(0.04)	1.7786[a]
12-4-3	Carrots	15	0.35	0.05	0.32	0.07	0.03	1.0624
12-4-4	Celery	15	0.75	0.20	0.69	0.18	0.06	0.6672
12-4-5	Mushrooms	15	2.25	0.38	1.93	0.15	0.32	2.1509[b]
12-4-6	Onions	15	0.42	0.11	0.53	0.09	0.11	2.1708[b]
PROCESSED FRUITS AND VEGETABLES								
13-1-1	Frozen Orange Juice	15	1.13	0.19	1.12	0.24	0.02	0.1812
13-1-2	Frozen Strawberries	15	1.62	0.25	1.44	0.39	0.18	1.3380
13-1-3	Lemonade	14	0.86	0.19	0.68	0.20	0.18	1.9688[a]
13-2-1	Fruit Juice	15	1.83	0.25	1.90	0.29	(0.08)	0.6459
13-2-3	Canned Apricots	12	1.20	0.09	1.19	0.00	0.02	0.3506
13-2-4	Canned Fruit Cocktail	15	0.92	0.11	0.87	0.03	0.04	0.9905
13-2-5	Canned Pineapple	15	0.93	0.12	0.86	0.08	0.07	1.3502
13-2-6	Dates	13	2.30	0.42	1.73	0.38	0.57	2.6648[c]
13-2-7	Figs	7	1.65	0.31	1.57	0.25	0.08	0.5183
13-2-8	Raisins	15	1.35	0.16	1.39	0.10	(0.04)	0.6912
14-1-1	Frozen French Fried Potatoes	15	1.65	0.26	1.59	0.50	0.06	0.3691
14-1-2	Frozen Cut Corn	14	1.02	0.22	1.04	0.37	(0.03)	0.2250
14-1-3	Frozen Peas	15	0.67	0.14	0.52	0.13	0.15	2.3376[b]
14-1-4	Frozen Mixed Vegetables	15	0.67	0.30	0.62	0.18	0.06	0.4605
14-1-5	Frozen Spinach	14	0.53	0.09	0.57	0.36	(0.04)	0.4338
14-2-1	Canned Green Beans	15	0.52	0.08	0.52	0.07	0.00	0.0382
14-2-2	Canned Kidney Beans	15	0.59	0.04	0.52	0.04	0.06	3.4594[d]
14-2-3	Canned Cut Corn	15	0.57	0.08	0.55	0.04	0.02	0.6212
14-2-5	Instant Mashed Potatoes	15	0.63	0.06	0.64	0.06	(0.01)	0.3042
14-2-6	Canned Whole Tomatoes	15	0.69	0.11	0.63	0.10	0.05	1.1083
14-1-7	Canned Tomato Juice	15	1.07	0.08	0.96	0.05	0.10	3.0939[d]
14-2-8	Dried Pinto Beans	15	0.58	0.09	0.48	0.10	0.09	2.2034[b]
14-2-9	Canned Beets	15	0.66	0.14	0.63	0.05	0.03	0.5046
14-2-10	Canned Peas	15	0.54	0.14	0.52	0.03	0.03	0.5244
14-2-11	Canned Mixed Vegetables	15	0.75	0.06	0.68	0.04	0.07	2.7795[c]
14-2-12	Canned Sauerkraut	15	0.66	0.12	0.57	0.12	0.09	1.5944
OTHER PREPARED FOODS								
15-1-7	Marshmallows	15	0.99	0.17	0.93	0.10	0.06	0.8586
16-1-3	Non-dairy Cream Substitute	13	0.64	0.15	0.56	0.02	0.08	1.3532
16-1-4	Peanut Butter	15	2.68	0.32	2.56	0.19	0.12	0.8989
18-1-1	Soup - Tomato	15	0.39	0.06	0.37	0.07	0.02	0.7018
18-2-1	Frozen Prepared Meals	15	1.71	0.43	1.57	0.29	0.14	0.7989
18-2-2	Frozen Beef Pie	15	0.75	0.17	0.51	0.18	0.25	3.0702[d]
18-2-3	Frozen Burrito	14	0.49	0.16	0.36	0.03	0.13	2.0908[a]
18-1-4	Frozen Pizza	15	2.83	0.61	3.65	0.20	(0.82)	3.4512[d]
18-3-1	Potato Chips	14	1.43	0.10	1.36	0.22	0.07	1.0666
18-3-2	Peanuts	15	2.34	0.30	2.38	0.12	(0.04)	0.3540
18-4-1	Salt	15	0.41	0.04	0.31	0.10	0.10	3.4258[d]
18-4-2	Vinegar	15	1.25	0.15	1.06	0.19	0.19	2.5755[c]
18-4-3	Cinnamon	15	1.14	0.27	1.14	0.03	0.01	0.0726
18-4-4	Olives	15	1.38	0.10	1.30	0.12	0.08	1.7429[a]
18-4-5	Pickles	15	1.45	0.24	1.43	0.27	0.02	0.1775
18-4-6	Catsup	15	0.82	0.10	0.80	0.07	0.02	0.5318
18-4-7	Baking Soda	15	0.59	0.05	0.55	0.02	0.03	1.6252

Table 2. Prices and Availability of Goods and Services

Item #	Item	Item Availability (Number of Small Towns)	Small Town Mean Price ($\bar{x}_1$)	Small Town Standard Error	Large City Mean Price ($\bar{x}_2$)	Large City Standard Error	Mean Difference ($\bar{x}_1 - \bar{x}_2$)	t-Value
18-4-8	Vanilla Extract	14	2.22	0.24	2.16	0.98	0.06	0.2220
18-4-9	Gelatin	15	4.65	1.23	3.80	0.09	0.85	1.7962[a]
18-4-10	Bean Dip	15	1.39	0.18	1.47	0.21	(0.07)	0.8304
18-4-11	Mustard	15	1.08	0.18	0.87	0.24	0.21	2.2770[b]
18-5-1	Potato Salad	11	1.13	0.31	0.99	0.10	0.14	0.9664
18-5-2	Baby Food	15	0.43	0.08	0.35	0.09	0.08	2.1074[b]
18-5-3	Baked Beans	15	0.93	0.22	0.98	0.08	(0.05)	0.5944
18-5-4	Macaroni and Cheese	15	0.71	0.11	0.86	0.32	(0.15)	1.6252
18-5-5	Beef Stew	15	1.40	0.12	1.36	0.02	0.04	0.8921
DAIRY PRODUCTS								
09-1-1	Milk	15	1.11	0.10	1.03	0.10	0.08	1.7509[a]
09-2-1	Cream - Half and Half	15	0.62	0.07	0.61	0.17	0.01	0.2691
10-1-2	Non-fat Dry Milk	14	3.60	0.43	3.30	1.09	0.30	0.9242
10-2-1	Cheese - Cheddar, Mild	15	2.66	0.31	2.59	0.34	0.07	0.4484
10-2-2	Cottage Cheese	15	1.01	0.18	1.02	0.16	(0.01)	0.1243
10-2-3	Cream Cheese	15	1.27	0.21	1.17	0.10	0.10	1.1324
10-2-4	American Cheese	15	2.55	0.70	2.20	0.31	0.35	1.2408
10-3-1	Ice Cream	15	2.33	0.26	2.06	0.20	0.28	2.4322[b]
SUGAR, SWEETS, FATS AND OILS								
10-1-1	Margarine	15	0.60	0.17	0.52	0.21	0.08	0.0985
15-1-1	Chocolate Candy-Snickers	15	0.40	0.02	0.36	0.08	0.04	2.0632[a]
15-1-2	Hard Candy -Life Savers	15	0.40	0.03	0.39	0.01	0.01	1.0605
15-1-3	Chewing Gum -Wrigleys	15	0.36	0.04	0.34	0.08	0.02	0.7592
15-1-4	Jam	15	2.77	0.89	2.64	0.41	0.14	0.3901
15-1-8	Honey	15	1.86	0.29	1.69	0.19	0.17	1.3900
15-1-9	Syrup	15	1.90	0.62	1.89	0.59	0.01	0.0372
15-2-1	White Sugar	15	1.71	0.34	1.47	0.23	0.24	1.7395[a]
16-1-1	Vegetable Oil 100% Corn Oil	15	2.07	0.32	2.04	0.15	0.04	0.2837
16-1-2	Shortening	15	2.06	0.64	1.70	0.17	0.36	1.4239
PET FOOD								
18-6-1	Wet Cat Food	15	0.39	0.09	0.44	0.16	(0.05)	0.8766
18-6-2	Dry Cat Food	15	2.60	0.67	2.42	0.53	0.19	0.6402
NON-ALCOHOLIC BEVERAGES								
17-1-1	Cola	15	2.43	0.36	2.00	0.40	0.43	2.5423[c]
17-1-2	Carbonated Water	15	2.51	0.39	2.18	0.33	0.33	1.9440[a]
17-2-1	Ground Coffee	15	5.97	1.17	4.57	0.61	1.40	2.9532[d]
17-3-1	Fruit Flavored Drinks	13	1.21	0.08	1.10	0.15	0.11	2.0994[a]
17-3-2	Tea Bags	15	1.80	0.41	1.36	0.43	0.43	2.2720[b]
17-3-3	Powdered Instant Breakfast	15	2.41	0.20	2.30	0.03	0.11	1.5257
17-3-4	Chocolate Flavored Powders	15	1.98	0.13	1.91	0.15	0.07	1.1548
17-3-5	Cocktail Mix	14	2.32	0.59	1.95	0.30	0.37	1.5363
17-3-6	Spring (Mineral) Water	14	0.85	0.27	0.90	0.29	(0.05)	0.3540
FOOD AWAY FROM HOME								
19-1-1	Lunch	15	3.44	0.78	2.76	0.70	0.68	1.9609[a]
19-2-1	Dinner	15	6.59	1.59	6.17	0.66	0.41	0.6559
19-3-1	Breakfast	15	4.22	0.55	4.31	0.60	(0.09)	0.3497
HOUSING AND HOME REPAIR								
PURCHASE PRICE 3-BDRM HOUSE Built between 1920—1950								
21-1-4 Price		13	60,192.31	36,557.34	86,642.86	63,380.28	(26,450.55)	1.1948
Built 1950—1980								
21-1-1 Price		15	48,500.00	18,362.42	63,928.57	16,969.16	(15,428.57)	1.8772[a]
Built after 1980								
21-1-2 Price		14	63,535.71	13,056.78	73,400.00	19,233.30	(9,864.29)	1.3946

Table 2. Prices and Availability of Goods and Services

Item #	Item	Item Availability (Number of Small Towns)	Small Town Mean Price ($\bar{x}_1$)	Small Town Standard Error	Large City Mean Price ($\bar{x}_2$)	Large City Standard Error	Mean Difference ($\bar{x}_1 - \bar{x}_2$)	t-Value
MONTHLY RENT FOR 3-BDRM HOUSE								
Built between 1920—1950								
21-1-4	Rent	13	332.33	104.49	471.43	149.78	(139.10)	2.3894[b]
Built 1950-1980								
21-1-1	Rent	15	363.83	108.39	500.71	149.32	(136.88)	2.4488[b]
Built after 1980								
21-1-2	Rent	14	412.14	92.15	541.07	160.52	(128.93)	2.3584[b]
MONTHLY RENT FOR 1-BDRM APT.								
21-1-3	Rent	15	218.33	80.62	288.21	69.46	(69.88)	1.9714[a]
HOME REPAIR								
23-1-1	Plumber	15	38.37	6.95	32.36	6.56	6.02	1.9237[a]
23-1-2	Electrician	15	28.20	7.76	42.50	13.29	(14.30)	3.2024[d]
HOUSEHOLD SUPPLIES								
33-1-1	Laundry Detergent	15	1.63	0.56	1.38	0.50	0.25	0.9922
33-1-2	All Purpose Cleaner	15	1.83	0.34	1.73	0.16	0.10	0.7287
33-1-3	Dishwasher Detergent	15	2.55	0.81	1.65	0.23	0.90	2.8575[d]
33-1-4	Furniture Polish	15	2.49	0.40	2.21	0.42	0.28	1.5068
33-1-5	Bleach	15	1.09	0.25	0.88	0.11	0.21	2.1123[b]
33-2-1	Paper Towels	15	0.82	0.19	0.69	0.09	0.13	1.6701
33-2-2	Toilet Tissue	15	1.41	0.24	1.12	0.27	0.30	2.5994[c]
33-2-3	Envelopes	15	1.41	0.62	0.82	0.23	0.60	2.4646[b]
33-2-4	Transparent Tape	15	1.28	0.49	1.49	0.52	(0.21)	0.9015
33-2-5	Fixed Ballpoint Pen	15	0.45	0.19	0.36	0.01	0.09	1.1748
33-2-6	Eraser	13	0.46	0.05	0.45	0.03	0.01	0.5102
33-2-7	Spiral Notebook	14	1.86	0.55	1.59	0.50	0.27	1.0804
33-2-8	Glue	15	1.22	0.11	1.12	0.29	0.10	1.1513
33-3-1	Ice	15	0.90	0.14	0.81	0.11	0.09	1.5644
33-3-2	Aluminum Foil	15	4.56	1.10	4.44	0.38	0.12	0.2769
33-3-3	Sandwich Bags	15	1.21	0.78	0.98	0.31	0.23	0.7502
33-3-4	Paper Plates	15	2.33	2.04	1.87	0.69	0.46	0.5764
33-3-5	Air Freshener	15	1.49	0.17	1.17	0.18	0.32	3.9807[e]
33-3-6	Light Bulbs	15	3.71	0.94	2.26	0.59	1.45	3.7280[e]
33-3-7	Paper Matches	15	0.60	0.38	0.57	0.12	0.03	0.1677
33-3-8	Batteries	15	1.69	0.92	1.72	0.56	(0.03)	0.0696
33-3-9	Fertilizer	12	4.81	3.22	10.56	12.51	(5.75)	1.5368
33-3-10	Insecticide	14	6.67	2.41	6.55	1.59	0.12	0.1195
33-3-11	Plants	8	2.59	1.73	2.96	3.16	(0.37)	0.2870
33-3-12	Potting Soil	12	0.93	0.32	0.97	0.50	(0.04)	0.2378
MENS AND BOYS APPAREL								
36-1-1	Men's Suit	3	116.00	22.65	85.92	16.71	30.08	2.3718[b]
36-1-2	Sweater	3	18.00	5.30	16.97	3.48	1.02	0.3547
36-1-3	Lightweight Jacket	4	29.49	21.75	31.28	8.05	(1.79)	0.2018
36-1-4	Work Suit	3	33.99	7.80	21.61	1.99	12.38	3.8956[d]
36-1-5	Heavy Jacket	3	71.33	10.03	47.50	17.32	23.83	2.1359[a]
36-2-1	Ties	3	10.33	6.79	10.56	2.95	(0.23)	0.0783
36-2-2	Men's Underwear	6	7.29	0.80	6.92	1.84	(0.37)	0.4532
36-2-3	Gloves	13	8.54	3.23	9.14	3.72	(0.60)	0.3748
36-2-4	Bathrobe	3	29.65	2.09	25.16	6.28	4.48	1.1699
36-3-1	Men's Dress Shirt	4	17.62	6.75	15.00	3.06	2.63	0.9055
36-3-2	Sport Shirt	3	18.49	8.85	11.56	2.94	6.93	1.9662[a]
36-3-3	Men's Flannel Shirt	4	17.48	7.32	10.85	7.22	6.63	1.4588
36-4-1	Men's Dress Slacks	3	25.33	4.16	17.99	4.94	7.34	2.2364[a]
36-4-2	Men's Casual Slacks	3	21.66	2.09	16.14	6.82	5.53	1.3355
36-4-3	Men's Jeans	3	19.98	0.03	20.85	4.98	(0.87)	0.2918
37-1-1	Jeans	3	23.31	5.79	13.42	4.58	9.89	2.9182[c]
37-1-2	Sport Shirt	3	21.66	4.52	11.26	3.61	10.40	3.9070[d]

Table 2. Prices and Availability of Goods and Services

Item # Item	Item Availability (Number of Small Towns)	Small Town		Large City		Mean Difference $(\bar{x}_1 - \bar{x}_2)$	t-Value
		Mean Price $(\bar{x}_1)$	Standard Error	Mean Price $(\bar{x}_2)$	Standard Error		
WOMENS AND GIRLS APPAREL							
38-1-1 Women's Cloth Coat (Overcoat)	2	72.50	17.67	38.85	21.31	33.64	2.0147[a]
38-2-2 Women's Dress	4	54.74	22.33	34.65	15.94	20.09	1.7500
38-3-1 Women's Skirt	4	36.25	7.85	22.99	3.79	13.26	3.8542[d]
38-3-2 Women's Blouse	4	23.93	10.04	17.00	3.42	6.94	1.7202
38-3-3 Women's Jeans	3	28.90	9.43	23.28	4.15	5.62	1.3737
38-3-4 Women's Pullover Top	5	12.77	5.27	15.00	8.77	(2.23)	0.5030
38-3-5 Women's Sweater	5	30.77	17.69	15.00	7.51	15.77	2.1362[a]
38-4-1 Women's Bra	4	10.44	5.80	8.21	2.67	2.23	0.8893
38-4-2 Women's Slip	4	6.75	1.44	7.31	3.16	(0.56)	0.3284
38-4-3 Women's Briefs	5	2.26	0.86	4.52	4.44	(2.27)	1.1118
38-4-4 Regular Pantyhose	14	2.72	1.19	1.78	0.94	0.94	1.8191[a]
38-4-5 Women's Flannel Nightgown	4	16.38	7.99	13.71	8.66	2.66	0.5036
38-4-6 Women's Handbag	5	18.39	7.82	20.28	10.97	(1.89)	0.3278
38-4-7 Gloves	5	13.69	9.28	19.00	4.62	(5.31)	1.0371
38-5-1 Women's Coordinated Outfit	3	51.99	21.28	45.36	16.24	6.63	0.5450
39-1-1 Jeans	4	28.69	7.39	20.85	4.46	(7.83)	2.2296[a]
39-1-2 Top	4	22.24	11.73	15.00	3.79	7.24	1.5528
FOOT WEAR							
40-1-1 Men's Socks	10	2.10	0.70	2.51	0.56	(0.41)	1.2663
40-1-2 Men's Sport Socks	11	7.34	3.71	9.21	1.32	(1.86)	1.2608
40-2-1 Boy's Socks	10	8.50	3.68	6.82	0.79	1.67	1.1752
40-1-3 Western or Cowboy Boots	3	59.98	33.59	53.98	24.75	6.00	0.3078
40-1-4 Tennis Shoes for Men	8	21.72	14.43	30.97	5.64	(9.25)	1.5872
40-1-5 Men's Dress Shoes	3	43.15	15.74	41.56	13.03	1.59	0.1673
40-2-2 Tennis Shoes (Girls and Boys)	6	14.27	8.61	17.25	8.56	(2.98)	0.6246
40-3-1 Women's Dress Shoes	4	24.98	10.85	25.85	7.02	(0.87)	0.1635
40-3-2 Women's Tennis Shoes	4	15.29	5.16	31.41	12.30	(16.12)	3.3959[d]
INFANT AND TODDLER ITEMS							
41-1-1 Training Pants	6	2.48	1.42	2.50	1.44	(0.02)	0.0294
41-1-2 Toddlers	7	7.85	1.90	7.62	1.76	0.23	0.2392
41-1-3 Disposable Diapers	15	10.95	1.83	9.35	0.40	1.60	2.2664[b]
APPAREL SERVICES							
41-2-1 Dry Cleaning - Men's 2-Piece Suit*	5	5.90	0.42	6.22	0.33	(0.32)	1.4862
44-2-2 Dry Cleaning - Women's Wool Sweater*	5	3.10	0.55	3.33	0.41	(0.23)	0.8352
44-2-3 Automatic Laundry - Coin Operated	11	1.00	0.33	0.99	0.16	0.01	0.0874
GAS, OIL AND AUTO							
47-1-1 Gas - Regular, Unleaded	15	1.11	0.12	1.26	0.16	(0.16)	2.5904[c]
47-1-2 Gas - Regular, Leaded	14	0.97	0.09	0.88	0.04	0.09	2.5163[b]
47-2-1 Motor Oil	14	1.73	0.18	2.10	0.21	(0.37)	4.2685[e]
48-1-1 Tire	11	55.49	9.69	62.39	11.82	(6.90)	1.3548
48-2-1 Battery	14	53.85	10.11	64.16	7.39	(10.32)	2.3873[b]
48-2-2 Transmission	13	9.81	2.83	11.46	3.00	(1.66)	1.2238
48-2-3 Autolite Plugs	15	1.76	0.48	1.32	0.32	0.44	2.1830[b]
48-2-4 Oil Filter	15	5.14	1.30	4.38	1.52	0.76	1.2104
48-2-5 Air Filter	15	6.92	1.58	6.57	2.11	0.35	0.4354
48-2-6 Crankcase Air Filter	12	1.54	0.36	2.03	0.35	(0.50)	2.7606[d]
48-2-7 Fuel Filter	15	3.76	1.01	4.06	1.45	(0.30)	0.5695
AUTO REPAIR AND SERVICES							
49-3-1 Lubrication - Service Station	14	8.24	2.70	9.83	3.79	(1.59)	1.1122
49-3-2 Anti-Freeze - Service Station	14	5.71	1.09	6.98	1.29	(1.28)	2.3859[b]

Table 2. Prices and Availability of Goods and Services

Item #	Item	Item Availability (Number of Small Towns)	Small Town Mean Price ($\bar{x}_1$)	Small Town Standard Error	Large City Mean Price ($\bar{x}_2$)	Large City Standard Error	Mean Difference ($\bar{x}_1 - \bar{x}_2$)	t-Value
49-3-3	Major Tune-up - Service Station	13	76.61	21.60	92.29	29.44	(15.67)	1.3650
49-3-4	Service Station - Change Oil and Oil Filter	14	14.52	6.57	15.08	3.79	(0.56)	0.2060
49-3-5	Service Station - Tire Rotation	14	8.77	3.31	8.43	2.68	0.34	0.2368
HEALTH SERVICES								
DOCTORS OFFICE VISITS								
56-1-1	Medical Service First Office Visit	11	30.59	4.36	32.43	8.92	(1.84)	0.5882
56-1-2	Medical Service Routine Office Call	11	23.36	6.23	22.50	3.99	0.86	0.3248
56-2-1	Medical Service Routine Dental Check	11	48.18	7.57	51.25	10.39	(3.07)	0.7264
HOSPITAL ROOM CHARGE								
57-1-1	Medical Service Daily Fee for Hospital	3	268.83	10.77	281.00	48.31	(12.17)	0.4180
TV AND TV REPAIR								
61-5-1	Television	7	313.70	46.69	288.97	73.46	24.73	0.7518
61-5-2	TV Repair	3	26.65	2.86	37.03	4.50	(10.38)	3.6232[d]
OTHER ENTERTAINMENT AND SERVICES								
59-1-1	Newspaper	15	0.29	0.06	0.26	0.04	0.03	0.9887
60-1-1	Bicycle	9	95.36	21.67	106.47	27.01	(11.12)	0.9152
61-1-1	Game - Trivial Pursuit	9	17.73	9.71	18.55	7.09	(0.82)	0.1865
61-1-1	Pre-recorded Audio Cassette Tape	7	8.34	1.54	7.42	1.82	0.92	1.0229
61-1-3	Record Album*	2	8.47	0.74	8.16	0.21	0.31	1.1463
61-2-1	Film	15	3.68	0.46	3.02	0.55	0.66	2.9429[d]
61-2-2	Developing Film	12	7.25	1.03	5.63	0.74	1.63	3.6402[d]
61-4-1	VCR Rental	14	6.00	2.51	6.84	1.37	(0.84)	0.8176
61-4-2	Movie Rental	15	2.86	1.18	2.55	0.62	0.32	0.6636
62-2-1	Bowling	5	1.33	0.30	1.46	0.16	(0.13)	1.0240
62-2-2	Pool, Table	11	0.31	0.10	0.34	0.12	0.02	0.4684
62-3-1	Movie Theater	0	–	–	4.64	0.69	–	–
ALCOHOLIC BEVERAGES								
20-1-1	Beer-Budweiser, Regular	15	3.40	0.89	3.09	0.14	0.31	0.9195
20-2-1	Whiskey - Seagram's Seven	15	7.90	1.11	6.60	0.55	1.30	2.7014[c]
20-2-2	Vodka	15	8.53	1.45	6.49	0.55	2.04	3.2978[d]
20-3-1	Wine	14	2.91	1.24	2.20	0.42	0.71	1.4644
TOBACCO PRODUCTS								
63-1-1	Cigarettes	15	1.12	0.11	1.10	0.11	0.02	0.3927
63-1-2	Cigar	15	1.05	0.68	2.06	1.07	(1.01)	2.6597[c]
63-1-3	Chewing Tobacco	15	1.07	0.11	1.17	0.14	(0.10)	1.8739[a]
63-1-4	Pipe*	8	2.18	2.06	3.22	2.45	(1.04)	0.6219
63-1-5	Lighter Fuel	14	1.39	0.48	1.49	0.21	(0.10)	0.5255
PERSONAL CARE PRODUCTS AND SERVICES								
64-1-1	Shampoo	15	1.75	0.24	1.34	0.33	0.40	3.3181[d]
64-1-2	Conditioner	15	1.82	0.34	1.54	0.60	0.28	1.3939
64-1-3	Hair Spray	15	1.88	0.56	1.47	0.26	0.41	1.8041[a]
64-1-4	Bobbie Pins	15	1.00	0.21	0.67	0.14	0.33	3.7249[e]
64-1-5	Hair Brush	15	2.41	0.45	1.93	0.61	0.48	2.0910[b]
64-1-6	Comb	15	0.89	0.43	1.20	0.14	(0.32)	1.8859[a]
64-1-7	Toothpaste	15	2.17	0.59	1.07	0.07	1.10	4.8187[e]
64-1-8	Mouthwash	15	2.85	0.28	2.18	0.46	0.67	4.2171[e]
64-1-9	Tooth Brush	15	1.26	0.51	0.92	0.37	0.33	1.5383
64-1-10	Dental Floss	15	1.36	0.18	1.14	0.25	0.21	2.2892[b]

Table 2. Prices and Availability of Goods and Services

Item #	Item	Item Availability (Number of Small Towns)	Small Town		Large City		Mean Difference $(\bar{x}_1 - \bar{x}_2)$	t-Value
			Mean Price $(\bar{x}_1)$	Standard Error	Mean Price $(\bar{x}_2)$	Standard Error		
64-1-11	Shaving Cream	15	1.53	0.25	1.14	0.23	0.39	3.4808[d]
64-1-12	After-Shave Lotion	15	3.06	0.58	2.74	0.58	0.32	1.2040
64-1-13	Regular Safety Razor	14	3.86	1.40	2.74	1.03	1.12	1.8693[a]
64-1-14	Razor Blades	15	2.68	0.93	1.49	0.58	1.19	3.0971[d]
64-1-15	Antiperspirant	15	2.28	0.49	1.80	0.60	0.49	2.0355[a]
64-1-16	Suntan Lotion	13	4.46	1.25	2.64	1.14	1.82	3.1975[d]
64-1-17	Tampons	15	4.86	0.91	3.81	0.31	1.05	2.9357[d]
64-1-18	Insoles	14	1.96	1.24	1.34	0.28	0.62	1.2818
64-1-19	Athlete Foot Ointment	14	3.95	1.55	3.98	1.52	(0.04)	0.0500
64-1-20	Shoe Polish	15	1.02	0.05	0.98	0.02	0.05	2.3508[b]
64-1-21	Hair Dryer	10	15.91	5.20	10.70	1.86	5.21	2.5196[b]
64-2-1	Lipstick	11	3.07	0.69	2.88	0.74	0.19	0.4981
64-2-2	Facial Cleanser	13	1.76	0.53	1.67	0.37	0.09	0.4127
64-2-3	Body Powder	13	2.63	0.81	2.33	0.83	0.29	0.7643
64-2-4	Mascara	14	3.61	1.00	3.17	0.63	0.44	1.0470
64-2-5	Toilet Soap	15	1.39	0.45	1.06	0.19	0.32	1.8148[a]
64-2-6	Bubble Bath	14	1.34	0.20	1.10	0.30	0.24	2.1733[b]
64-2-7	Cologne	9	13.08	3.42	13.22	1.43	(0.14)	0.1030
64-2-8	Nail Polish Remover	13	1.31	0.20	1.22	0.23	0.10	0.9638
64-2-9	Tweezers	14	1.35	0.28	1.42	0.27	(0.07)	0.5276
65-1-1	Women's Shampoo and Set	15	7.93	2.31	9.86	2.46	(1.92)	1.7857[a]
65-2-1	Men's Haircut	14	7.21	3.04	9.43	6.00	(2.21)	1.1374

$70.00 cheaper per month on average in a small town, $218 versus $288 in the larger community, in 1987.

Housing supplies (laundry detergent, furniture polish, light bulbs, etc) are much more expensive in smaller cities compared to larger communities. These items represent a small share of the consumer's budget and a consumer would not normally travel long distances to purchase them on short notice.

Home repairs, utilities, and services are difficult to price in smaller cities. There are big differences in the qualifications and skills of plumbers and electricians. Also, fuels used in the homes in small versus large communities vary. Fuel oil is not standard in homes in small towns as many homes use propane and similar products. Water is not priced uniformly and telephone services range from direct lines to four-party lines within smaller towns. Nonetheless, plumbers charge more in small cities and electricians charge less. All of the other household service items turned out to be too difficult to compare in terms of prices per unit.

C. Clothing for Men, Women and Children

Table 2 shows that clothing is not readily available in small communities, especially for women. The available women's clothing though is significantly cheaper in small communities, at least for the 17 items of clothing compared in the study. The women's items tend to be the more practical and functional apparel, shirts and some underwear. Absent are women's dresses, dress shoes, pull-over tops, sweaters, briefs, handbags, dressy gloves, blouses, slips, bras, and women's tennis shoes. Men's items are more readily available than women's items but they are significantly more expensive in small rural communities. Men's clothing is found to be very functional (usually for work) and basic (shirts, pants, and undergarments). Absent for men are dress shirts, lightweight jackets, and dress socks. Footwear is cheaper in rural communities and usually limited to shoes for daily use. With regard to infant items, disposable

diapers are significantly more expensive in small towns. Besides the limited availability of clothing, small towns do not generally provide services for dry cleaning. There is also a shortage of coin-operated laundry facilities among the smaller communities.

D. Auto Supplies and Repairs

None of the small cities had an automobile dealership but all had a gas station or two and auto repair services. The absence of a car dealer reflects the fact that automobiles are infrequently purchased, expensive items. A town with a very small population would not have sufficient demand for this activity to be profitable. On the other hand, since consumers would be likely to buy gas locally and, therefore, offer a sufficient demand for local supplies of gasoline, regular, unleaded gasoline is available at a lower price. Several auto items are also cheaper in small communities: car batteries, motor oil, air and fuel filters, and transmission fluid. Nearly all car service items were significantly cheaper in smaller communities, especially the anti-freeze at service stations.

E. Doctor Fees and Medical Care

None of the small cities had local hospital care at the time of the survey and medical services were limited at best. Three small places had no medical doctors. One small town had one doctor who refused to give out prices. Four small cities had no dentists. But altogether, only one small city had neither a medical doctor or a dentist. Where doctors are available, their charges are generally lower than in larger cities. While daily fees were reportedly lower in small places, more specialized medical services usually required travel to another community.

F. TV, Entertainment Items and Services

None of the 15 small communities had a movie theater and only two had a place for

record albums. Only three small communities had a business that would repair a TV. Cable TV was not available, but many homes had satellite TV dishes of their own. Most towns rented VCRs. In general, small town TVs and their repair were more expensive than in larger communities. Only an item or two was less expensive in small towns. For example, one could find and purchase board games, like Monopoly and/or Trivia Pursuit, more cheaply in a small community.

G. Beverages and Tobacco

Alcoholic beverages are priced significantly higher in small towns than in larger communities. The prices may reflect transport costs, and other factors, but it is not evident by the prices if these beverages are in frequent demand locally. Small town businesses have an advantage over larger cities with regard to last minute buyers of alcoholic beverages. This advantage may give local merchants an opportunity to make above "normal profits" for alcoholic beverages.

Tobacco products are generally cheaper in small towns, especially cigars and chewing tobacco. Why is this so? One explanation is that the consumer is probably apt to make a large purchase of tobacco at a discount-type store in a larger city than to shop locally. If this occurs then the local merchant may use cigarettes as a "loss-leader" to keep customers in town.

H. Personal Care and Related Services.

Thirty-two personal care items were compared in this study. Of these, only five were cheaper in small towns, including a comb, athlete foot ointment, cologne (like Old Spice), tweezers and shampoo and set. Only the comb was significantly cheaper but not to a high degree. On the other hand, 17 items were significantly cheaper in the larger places, especially the following: shampoo, mouthwash, shaving cream, razor blades, suntan lotion, and tampons.

There are only two items on the personal care list priced over $10 in small towns: hair dryer ($15.91 vs. $10.70 in the larger town) and cologne ($13.08 vs. $13.22). Most of the other items are less than $3.00 each and frequently used or needed. They would hardly constitute a major portion of a consumers' budget. Hence, they would more than likely be purchased locally by consumers because they are not major purchases nor are they the types of items a shopper would normally devote time to buying in a larger community.

The next question addressed here pertains to the "availability" and number of items found in small towns and their relationship to the geographic size of the market: i.e., is "availability" correlated with population and the distance between market areas? Indirectly, we are also interested in the profitability and market area of particular goods and services of small towns. That is, we suspect that any item not found in a small town is unprofitable. Hence, we devote some comments to the measure of "availability" in order to determine what goods and services might be profitable for local businesses.

The Index of Availability

Table 3 shows availability indexes for most services and commodities. The "availability index" is calculated separately for each group based upon a two step procedure. Step one involves a count of the "actual availability" of goods or services within a group of items. Step two takes the count of step one and divides it by the total "possible available" and multiplies the quotient by 100.

The indexes are quite high for most food items. Outside of food and household supplies, however, the availability indexes drop off rather sharply. Clothing, for example, is not available in very small towns as indicated in the previous section. Entertainment is also very low, although all small towns had a daily newspaper available. Also, medical care has a low index of availability. As a rough approximation, we surmise that items of a group with an "availability index" of less than 50 will be unprofitable items for small towns. That is, when half of the towns do not have certain goods and services, the likelihood is that they do not have an effective local demand. But

there are certainly exceptions to this broad generalization as community distance proves to be correlated with availability (discussed below).

Difficult Items to Find

In addition to the "availability index" calculated for several items, we note that items least likely to be available to small town shoppers include the following:

05-1-3, Lamb	38-4-6, Women's handbag
07-2-1, Filet of sole	38-4-7, Women's dress gloves
07-2-2, Rock cod	38-5-1, Women's outfit
36-1-1, Men's suit	40-1-3, Cowboy boots
36-1-2, Men's sweater	40-1-5, Men's dress shoes
36-2-1, Men's ties	40-2-2, Kids tennis shoes
36-2-2, Men's underwear	40-3-1, Women's shoes
36-2-4, Men's bathrobe	41-1-2, Toddler's blanket
36-3-2, Sport shirt	57-1-1, Hospital
36-4-1, Dress slacks	61-1-2, Cassette tape
36-4-3, Men's jeans	61-1-3, Record album
37-1-2, Sport shirts	61-5-1, Television
38-1-1, Women's overcoat	61-5-2, TV repair
38-3-3, Women's jeans	62-2-1, Bowling
38-3-4, Women's sweater	62-3-1, Movie theater
38-4-3, Women's briefs	

After several inquiries and time consuming searches, eight or more of our 15 small towns did not have the above items. Not to be found at all was a local movie theater. Twelve of the 15 towns had no "clothing store," although some clothing (without designer labels) was available in country style, merchandise stores. Twelve towns had no "hospital," of any size. Although a television could be bought in seven of the small towns, only one town had a store (for hardware) that would repair televisions. Nine towns did not have lamb at all in their stores.

The unavailability of these items may be due to their "perishability" and/or lack of effective demand. Lamb, for instance, apparently doesn't qualify as a substitute for beef, which is always available in small towns.

Table 3. Availability Indexes for Food Products in Small Towns

Commodity Group	Number of Items	Possible Availability	Actual Availability	Availability Index
FOOD				
Cereal Products	6	90	90	100.00
Bakery Products	11	165	163	98.79
Beef & Veal	8	120	109	90.83
Port, Lamb & Processed Meat	8	120	104	86.67
Poultry, Fish & Eggs	9	135	100	74.07
Dairy Products	8	120	119	99.17
Fresh Fruits & Vegetables	19	285	273	95.79
Processed Fruits & Vegetables	26	390	374	95.90
Sugar, Sweets, Fats & Oils	10	150	150	100.00
Non-Alcoholic Beverages	9	135	132	97.78
Other Prepared Foods	26	390	382	97.95
Pet Food	2	30	30	100.00
Food Away from Home	3	45	44	97.78
HOUSEHOLD SUPPLIES	25	375	358	95.47
PERSONAL CARE PRODUCTS	30	450	420	93.33
CLOTHING & APPAREL				
Men's & Boy's Apparel	20	300	96	32.00
Women's & Girl's Apparel	17	255	79	39.98
Footwear	6	90	32	35.56
Infants & Toddlers	3	45	28	62.22
Apparel Services	3	45	21	46.67
GAS, OIL & AUTO				
Fuel & Oil	3	45	43	95.56
Replacement Parts	8	120	110	91.67
Services-Service Station	5	75	69	92.00
MEDICAL CARE				
First Office Visit	1	15	11	73.33
Routine Office Call	1	15	11	73.33
Routine Dental Check	1	15	11	73.33
Daily for Hospital	1	15	3	20.00
ENTERTAINMENT				
Daily Newspaper	1	15	15	100.00
Purchase T.V.	1	15	7	46.67
Repair T.V.	1	15	3	20.00
Other Entertainment	11	165	99	60.00
ALCOHOLIC BEVERAGES	4	60	59	98.33

Beef and lamb are both perishable but there is apparently insufficient demand for lamb, which would make it a relatively costly item for grocers to handle.

The demand for and purchase of clothing items is apparently too infrequent to make these items profitable. We note, however, the relative unavailability of women's clothing and the high availability of men's clothing for functional usage. No doubt we are seeing different consumer preferences between men and women, with men's clothing items being prevalent in small towns whereas women's clothing is practically unavailable.

Population and Distance are Related to Availability

During the process of data collection by our enumerators, it was apparent that the relative isolation and size of a small town had some bearing on availability. That is, we found more items available in more isolated towns. To test for this relationship we measured the distance between each small town and the next largest community for shoppers and the population sizes of both places. The information is presented in Table 4.

The correlations for this analysis were based on standard correlation coefficients (Pearson Product Moment Correlations) and the findings were as follows:

Correlation between Unavailable Items and Distance: $r_1 = -0.7071$

Correlation between Unavailable Items and Population: $r_2 = -0.3056$

Even with these correlations, it is evident with $r_1 = -0.7071$ that the distance between cities has considerable bearing on the availability of goods and services. Population also has some relationship to availability, but the correlation coefficient $r_2 = -0.3056$ is not very high, suggesting that towns with populations between 600 to 2,300 people, will carry many of the same items found in larger cities, provided that the small towns are relatively distanced from the larger places.

Table 4. How Distance and Population Size Are Related to Availability

Town	No. of Unavailable Items (Out of 304)	Distance Between Cities (miles)	Population Size
Angles	13	53	2,302
Portola	16	49	748
Sutter Creek	27	42	2,064
Tulelake	43	28	1,816
Dunsmuir	48	50	2,253
Williams	50	34	1,674
Plymouth	55	38	1,446
Wheatland	55	40	914
Etna	57	32	815
Fort Jones	58	18	602
Loyalton	59	30	1,124
Dorris	64	21	873
Biggs	81	21	1,459
Montague	88	10	1,776
Isleton	92	37	923

The above findings are interesting in and of themselves because they identify particular goods and services that are available and/or cheaper in small communities. But we do not want to end our analysis without reference to an important theory which preceded our investigation. With a combination of facts and theory we can derive better insights into the competitive position of small rural towns vis-a-vis larger communities.

Central place theory, as developed by Walter Christaller in 1933, appears to offer relevant explanations about why specific goods and services are or are not present in a small community.[3] The essence of the theory lies in the notion that communities, ranging in size from small hamlets to large metropolitan places, specialize in providing goods and services to people living within surrounding areas. Although goods and services differ in several respects, whether they include wholesale and retail trade functions, banking, doctors and lawyers, education, etc., the supply of different items in a central area depends on its population base. Only those items which are supported by the population at a profitable level will be found in a service area. According to Christaller, firms which provide general services and goods (e.g., groceries, schools, doctors in general practice, etc.) are likely to be found in cities of quite small size because they respond to a sufficient local demand. Consumers who must shop frequently (for eggs and milk) want a nearby business that permits them to make their purchases with a minimum of effort. Thus, business located in small towns will attract consumers with frequent needs, but only over short distances. In small central places such as these, centrality

means superior access to a local market area for items frequently purchased. Other, large, central places will be able to provide a greater variety of goods to much wider areas. In larger centers, centrality means accessibility to a more widespread region of people who may travel less frequently over greater distances for their shopping and social needs.

The establishment of small, medium and large centers forms a hierarchy of communities within a given area. This hierarchy ranges from centers with a small population and trading area to medium size centers to a large center. The medium size centers encompass several small centers and the goods available represent those present in the small centers plus the additional goods and services which can be supported by the medium size center. The large center contains a number of medium size centers, has all the goods which are available in the medium size centers, plus additional more specialized items like telecommunications, stock markets, etc.

Central place theory attempts to rationalize the geographical size of a trading area as a function of the costs of overcoming distance between suppliers and consumers. If transportation were free, then all activity would concentrate in one large central place. If transportation were very costly, then each central place would have to be completely self-sufficient and there would be a wide dispersion of activities and very small market areas. Thus, a hierarchy of central places for the supply of goods and services is not accidental but results from the working out of definite spatial and economic relationships among communities and the transportation costs between each. The size of a given type of local economy and the number of places of

[3] For more detail, the reader is referred to recent texts by: King, 1984, Berry and Parr, 1988, pp. 1-18; Shaffer, 1989, pp. 125-157; and/or Sullivan, 1990, pp. 102-120.

this type (small or large cities) within a region tend to be inversely related. Service areas of smaller communities appear to be contained within those of larger ones, while service areas of communities of equal population are non-overlapping.

Central place theory suggests that the variety, scale, and prices of offerings in a town will be a function of consumer demand, the normal profits of local sales and the spatial, hierarchical linkages between places. Given the facts from our study and this theory, we offer the following generalizations about the shopping patterns that appear to prevail between small rural communities and larger central places:

(1) Items in frequent demand (e.g., food and gasoline) should be readily available locally in small towns of 2,500 or fewer people, even if at higher prices.

(2) Items less frequently needed by consumers (e.g., clothing, car) will not be readily available at any price in small towns unless the items have a profitable larger market area, suggesting that the smaller town should be fairly isolated but with an active hinterland of consumers.

(3) The small town prices of less frequently needed goods and services which have a long shelf-life would probably be not much different from the prices found in the nearby larger community. For example, small towns may not price clothing items higher because consumers can wait to buy such things at another town. If the small town has similar clothing, it would probably be priced the same as or lower than in the larger community.

(4) Finally, items not found in small towns are simply unprofitable, either because of insufficient consumer demand or because of the higher costs of "importing" these items to the community. The lack of profitability will determine the number and size of local businesses in a small community.

In sum, central place theory allows us to infer that if an item with a given market-area is supplied from a particular community, then that place would also be the supply point for all items with similar or smaller market-area sizes. Moreover, the theory lets us infer that the number of local items available is a function of the size of the market areas' population base and distance from a competitive community. That is, only those items which are supported by the population at a profitable level would be found in the market area. On the other hand, those items that are not available in a market are more than likely unprofitable for local business.

CONCLUSIONS

As the literature review has shown, comparisons between small cities and large central places can be accomplished from a wide-variety of perspectives. For instance, one can begin by noting population dispersal, shopping patterns, and hierarchies of central places and types of functional activities provided by local businesses, to analyze the economic viability of small towns.

This study of consumer prices sheds light on two basic phenomenon of small rural places. One has to do with the availability of particular goods and services. The other has to do with the prices of goods and services which are available in smaller cities.

Measures of availability show that the distance of a smaller city from a larger one is more important in explaining the range of goods and services than is the size of the smaller cities' population. The more isolated the smaller community, the more goods and services it contains. To some degree, availability is positively correlated with population. But when a small city is relatively close to a larger community, the small city tends to have fewer items available.

The results of this study suggest that people in small towns shop locally for many frequently needed items. These items are generally more expensive in small towns than in large centers. Also, consumers are more likely to shop outside the small community for many less frequently needed items. These goods, when available, tend to be priced the same as, or lower, in small towns.

In the final analysis we now have a clearer picture of the items which were more expensive, which were approximately the same price, and which were cheaper in small rural towns of northern California. In general, we find the following:

More Expensive Items	Similarly Priced Items	Cheaper Items
Bakery Items	Pet Food	Beef & Veal Products
Dairy Goods	Frozen Foods	Poultry Products
Processed Fruits and Vegetables	Vegetable Oil	Other Tobacco Items like cigars
Sugars & Fats	Cereal Products	Men's Haircuts
Non-Alcoholic Beverages	Canned Foods	Some Women's Items
Alcoholic Beverages	Margarine	Footwear
	Spring (mineral) Water	Some Entertainment Items
Tobacco	Cologne	Gas & Auto Repair
Most Personal Care Items	TVs	Some Doctor Fees & Medical Care
	Paper Matches	All Types of Housing
	Flashlight Batteries	
	Insecticide	
	Plants	
	Potting Soil	

The lists suggest that small town businesses can still provide a large range of goods and services. Also several of their items can be priced higher than similar items found in larger towns. But as shown, small town businesses cannot afford to offer a qualitatively large variety of goods and services. As indicated, they would not do well with clothing for women and children and items less frequently demanded. What would alter these conclusions are basically: (1) the local population's size, (2) the distance and transportation costs between small and large communities, (3) the effective local demand for consumer goods and services and (4) the relative "shelf-life" and/or perishability of items.

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Angels in Calaveras County

(Population: 2,302 in 1980, 2,680 in 1990)

Angels Camp is also called Angels. Its official name though is City of Angels. It is located in the foothills of the Sierras, off of Highway 49, about 90 miles southeast of Sacramento. It is the largest town in Calaveras County. Primarily a gold mining town in the 1800's, it now has a diversified economy which includes mining, construction, and public service. Angel's population has grown and still is growing with a new shopping center completed in October of 1986. Angels and Altaville used to be two towns close to each other, but is now all Angels Camp. Angels Camp's large land area has many stores big and small.

Biggs in Butte County

(Population: 1,413 in 1980, 1,520 in 1990)

Biggs looks a lot smaller than it really is. Located north of Sacramento, one mile west of Highway 99, it has a very small business district, perhaps two or three blocks long. Residents from outside communities will travel to Biggs to buy meat at Grein's Market or to eat at McDonald's, which serves commuters along Highway 99. Residents of Biggs who do outside shopping go to several different cities, including Gridley, Oroville, Chico, and Yuba City. Biggs is a quiet town whose main industry is farming.

Dorris in Siskiyou County

(Population: 836 in 1980, 900 in 1990)

Dorris is a farm town located just three miles from the Oregon-California border. Highway 97 runs through the town with two right angle turns. There are plans to shift this part of the highway, thus preventing travelers from having to slow down to 15 miles per hour.

Dorris is subject to California's 6 percent sales tax, whereas Oregon has no sales tax. There is some resentment amongst the residents of Dorris towards paying this sales tax and a proclivity to shop in Klamath Falls, Oregon.

Except for the annual rodeo, which is held every summer, the main industry is growing potatoes, alfalfa, and oats. Due to a very high proportion of seasonal farming, there is a very high unemployment rate in Dorris. Some residents say that it gets over 60 percent at times.

Dunsmuir in Siskiyou County

(Population: 2,253 in 1980, 2,220 in 1990)

Dunsmuir is located off Highway 5 in the mountains about 215 miles north of Sacramento and 50 miles north of Redding. It is a long and narrow town on the side of a hill situated near the interstate highway. Once a bustling railroad town, it now houses a large proportion of residents who are retirees. The town's name used to be Pusher, but it was later renamed after Alexander Dunsmuir, a wealthy coal baron, who donated a fountain which is claimed to have the best water on earth.

Workers of the railroad will go to Medford and Klamath Falls to shop. Other residents will go to Mt. Shasta or Redding. The stores in Dunsmuir that sell goods try to compete with stores in outlying cities, but the stores that sell services don't compete as much.

Etna in Siskiyou County

(Population: 754 in 1980, 820 in 1990)

Many in Etna are employed as government-city workers, i.e., with the forestry department,

schools and city offices. Otherwise, Etna's main industry is ranching and lumber, the latter being in a state of decline. There is not much growth in Etna. Fort Jones (see below) and Etna are like a separated city in Scott Valley in which goods or services not found in one town will likely be found in the other. If something is not found in Scott Valley, people will commute to Yreka or Medford, Oregon. They go to Yreka for most items.

People in Etna seem to be proud of their town and tend to see themselves as self-sufficient. If they did commute to another town though, it would be to Yreka more often than Fort Jones. According to some locals: "they enjoy the ride." The commercial district of Etna is compact—only about two or three blocks long.

Fort Jones in Siskiyou County

(Population: 544 in 1980, 630 in 1990)

Fort Jones is located in the north end of Scott Valley, 18 miles southwest of Yreka, and 14 miles northeast of Etna. Unlike compact Etna, Fort Jones is spread out and appears larger than Etna even though it is actually smaller. Otherwise Etna and Fort Jones are similar in appearance and surrounding terrain—forests and mountains. The main industry of Scott Valley is ranching, including a lot of alfalfa growing, with the next biggest industry being timber.

Fort Jones used to be an army post in the early 1800's, with Ulysses S. Grant assigned to it before he went east for the Civil War. The name Jones was just a common name and doesn't actually belong to one particular Jones.

Isleton in Sacramento County

(Population: 914 in 1980, 910 in 1990)

Isleton is situated on a delta near where the San Joaquin and Sacramento rivers meet. It is about 37 miles southwest of Sacramento, and about 20 miles or so northeast of Stockton. Its main industries are farming and area activities such as water skiing and fishing. Most residents commute to Sacramento, Stockton, and Rio Vista to work. Isleton seems to be two separate towns. One side of town is a little more modern with white, folkish people. The other side is mainly comprised of Orientals, Filipinos, and Hispanics who have historical traditions as farm workers. It's being refurbished, and has an old mining town feel to it.

Isleton looks like a place that can flood easily, but the Chinese built the levees strong. The town has only been flooded twice—the first time in 1906 and the second time in 1972.

Loyalton in Sierra County

(Population: 1,030 in 1980, 1,190 in 1990)

Loyalton is located in a huge valley surrounded by Sierra mountains, 20 miles southeast of Portola and about 30 miles northwest of Reno. It has a "used car" look to it in that there are very few new buildings and the older ones have aged well.

Loyalton's main industry is the lumber mill, ranching and county government. Although the water quality is very poor in Loyalton, residents have access to very good water in nearby streams and springs.

Montague in Siskiyou County

(Population: 1,285 in 1980, 1,570 in 1990)

Montague is a quiet town located within ten miles east of Yreka off of Highway 3, the same road that runs through Etna and Fort Jones, but Montague is outside Scott Valley. It has a beautiful view of Mt. Shasta, however. Montague has a very depressed economy. It used to be a bustling lumber town, but it died off when the mill burned down years ago. Its main industries are lumber (still), retail shops, and farming—mostly dairy and cattle ranches. Montague looks small by the appearance of the number of both houses and shops. Most people shop in Yreka.

Plymouth in Amador County

(Population: 699 in 1980, 950 in 1990)

Plymouth is located 38 miles southeast of Sacramento and eight miles north of Sutter Creek. Plymouth is a type of town that drivers just pass through as they travel down Highway 49. They would not see downtown Plymouth unless they were looking for it. It is basically a "bedroom" community with a quiet lifestyle.

Portola in Plumas County

(Population: 1,885 in 1980, 2,270 in 1990)

Portola is located 49 miles northwest of Reno at a point where a giant hidden valley 5,000 feet high meets the mountains. It is a pleasant, quiet town with little traffic in or around the town. When looking at the buildings in the area, it gives the appearance that all building activity stopped at the turn of the century, and good maintenance was kept up since then.

Portola was originally a railroad town with mining and forestry also being active. But now the railroad industry, still Portola's main industry, is being revived due to a recent railroad merger. There are plans now to make Portola a major railroad turnaround.

About 2,000 residents live inside the city limits, while another 2,000 live in adjacent areas which is supported by Portola.

Sutter Creek in Amador County

(Population: 1,705 in 1980, 2,200 in 1990)

Sutter Creek is located off of Highway 49 at a spot where the San Joaquin Valley meets the Sierra Nevada Mountains, 1200 feet above sea level. It is 42 miles southeast of Sacramento, 39 miles northeast of Stockton, and four miles north of Jackson. There are two parts to Sutter Creek—Sutter Creek and Sutter Hill. On Sutter Hill, just about any type of shopping the town offers is found. Down the hill are other shops and most of the houses. The town used to be a gold mining community and now tourists come there to shop.

Many consider Sutter Creek to be the most desirable place to live in Amador County and hence has higher priced real estate. Houses typically sell for $10,000 more than in nearby Jackson. Amador County has a lot of plans geared toward growth. The store owners of Sutter Creek try to remain competitive with stores in Sacramento, thus keeping its residents home to shop and also bringing in other Amador County residents.

Tulelake in Siskiyou County

(Population: 783 in 1980, 900 in 1990)

Tulelake, near Tule Lake is just three or four miles from the Oregon border off of Highway 49. It is about 28 miles south of Klamath Falls, Oregon, and 25 miles east of Dorris.

One of its two main industries is farming—potatoes, hay, onions, and 25 percent of the nation's horseradish crop. The other main industry is hunting. Once a year, thousands gather upon Tulelake for the annual birdshooting. And once a year thousands gather for country-western music at its September fair. But the rest of the year, the town is very quiet.

The area now known as Tulelake was once all underwater. The Army Corps of Engineers drained the lake bed and the town of Tulelake was established in 1937. Outside of Tulelake is a large marsh which is a national wildlife refuge. It is also the site of archaeological findings.

Wheatland in Yuba County

(Population: 1,474 in 1980, 1,920 in 1990)

Wheatland is a quiet town nestled in a farm belt off of Highway 65 near the Beale Air Force Base 40 miles north of Sacramento, and 13 miles south of Yuba City.

Its main industry is farming, especially rice, almonds, walnuts, and cattle. It has had a depressed economy and many residents commute to Marysville and Yuba City to work. It's basically a bedroom community. Wheatland has a very good school system, and due to its close proximity to the Air Force Base, many residents will commute to other cities to shop. Realizing this, Wheatland's merchants emphasize convenience for shoppers.

An interesting historical aspect of Wheatland is that the residents elected a black mayor as early as 1888.

Williams in Colusa County

(Population: 1,655 in 1980, 1,930 in 1990)

Williams is located in Colusa County off of Highway 5, 59 miles northeast of Sacramento. It looks like an expanded truck stop. Farming is just about the town's only industry. Businesses have a difficult time surviving in Williams. Retail store chains have come and gone; a clothing store that had been there for 50 years is now gone. Colusa county has one of the lowest per capita incomes in the state. Perhaps due to this and also because a lot of residents are on welfare or unemployment, housing is fairly inexpensive yet in short supply.