



## Threshold Levels for Selected South Dakota Retail and Service Businesses (2004)

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As rural populations decline, services are either lost or become spread over a larger geographic area. The population and service area equations that lead to school closures and consolidation affect all rural services. One of these equations predicts retail success by looking at an area's potential market size: more potential customers improve the chance for retail success. The flip side is that it is hard to stay in business when the market area population drops too low.

Market threshold is doubly relevant in South Dakota, which has counties that are some of the nation's fastest growing and others that continue to battle long-term population decline.

### HOW THRESHOLD LEVELS ARE CALCULATED

In 2004, South Dakota had 4,258 retail businesses serving 770,883 people (U.S. Census). The simplest method to calculate demand thresholds is to divide the population by the number of specific businesses (McConnon, 1989). This method is conservative, easy to use, and has been done in neighboring states (Stone, 1999).

It should be noted that a doubling of threshold population does not mean there is enough support for two competing businesses. For example, the threshold for supporting two barbershops in a community is eight times higher than the threshold for the first shop (Deller, Ryan 1996).

### THRESHOLD EXAMPLES AND USES

The term threshold may be misleading—it is a population/business ratio. The ratio provides an idea of which businesses a community can support. On average, it takes 181 people to support a business in South Dakota.

Thresholds vary with products, and consumers are shared. While restaurants get repeat customers day after day, car dealers do not. The threshold level for a restau-

rant/tavern is 335 people per restaurant. The threshold (i.e., ratio) for a new car dealership is 5,796.

Threshold levels can help pick the businesses most likely to succeed in small towns. For example, a computer and software store with a threshold level of 22,025 might not be a great idea in a county with a population of 2,000. However, a restaurant/bar blend, with a threshold of 345, may succeed in a small town. The calculated averages do not consider factors such as differences in operation size, distance from nearest competitor, and area served.

**Table 1:** Business Thresholds Levels in South Dakota (based on a population of 770,833 in 2004)

Type of Business	Number of Businesses in South Dakota	Threshold Level (Population per firm)
Restaurant, tavern, or bar	2,235	345
Residential construction	819	941
Auto repair/maintenance	641	1,203
Convenience store, with fuel	487	1,583
Hotel/motel	406	1,899
Clothing store	361	2,135
Grocery store	289	2,667
Supermarket	235	3,280
Beauty salon/barbershop	212	3,636
Real estate agency	194	3,974
Auto parts store	179	4,307
Lawn/garden equipment store	172	4,482
Gas station	168	4,589
Gift, novelty, or souvenir store	156	4,942
Car dealer (new)	133	5,796
Beer, wine, or liquor store	128	6,023
Veterinary services	127	6,070
Certified public accountant	126	6,118
Pharmacy or drug store	124	6,217
Car dealer (used)	107	7,205
Hardware store	101	7,633
Florist	101	7,633
Used merchandise store	93	8,289
Sporting goods store	88	8,760

Home furnishings store	81	9,517
Women's clothing store	80	9,636
Radio, TV, and electronics store	77	10,011
Shoe store	73	10,560
Tire dealer	67	11,506
Waste collection service	67	11,506
Jewelry store	66	11,680
Courier or messenger service	59	13,066
Household appliance store	55	14,016
Convenience store, without fuel	54	14,276
Car wash	52	14,825
Employment service	51	15,115
Tax preparation service	46	16,758
Carpet/upholstery cleaner	40	19,272
Department store	39	19,766
Laundry or dry cleaner	38	20,286
Computer or software store	35	22,025
Meat locker/meat market	35	22,025
Motorcycle dealer	31	24,867
Hobby, toy, or game store	28	27,532
Discount department store	28	27,532
Optical goods store	27	28,551
Travel agency	25	30,835
Men's clothing store	24	32,120
RV dealer	23	33,517
Book store	23	33,517
Coin-operated laundry	23	33,517
Home center	22	35,040
Pet/pet supply store	22	35,040
Mobile home dealer	22	35,040
Cosmetics/perfume store	21	36,709
Sewing/needlework store	21	36,709
Office supplies/stationery store	21	36,709
Art dealer	21	36,709
Vending machine operator	21	36,709
Movie theater	21	36,709
Paint and wallpaper store	19	40,573
Internet service provider	19	40,573
Reupholstery and furniture repair	19	40,573
Electronic shopping service	28	42,827
Musical instrument store	17	45,356
Baked goods store	13	59,299
Tobacco store	12	64,240
Appliance repair	12	64,240
Warehouse club or center	8	96,360
Children's clothing store	7	110,126
News dealer, newsstand	5	154,177
Camera/photo supply store	3	256,961

### Limitations to threshold measure

The threshold methodology has several limits, and these affect its usefulness. Data on the self-employed is not included in the U.S. Census, so businesses like shoe repair and locksmiths are not considered. Also, retailers without a direct local customer base, such as Internet and mail order sales, cannot be analyzed. In addition, for businesses that depend on location and traffic, threshold data isn't relevant; for example, RV parks usually do better near parks or along heavily traveled highways than in down-

town areas, while Internet marketing expands market areas beyond state boundaries.

### Personal income variability by area

Another caution in using retail threshold data is that per capita income varies greatly in South Dakota. This is addressed in Table 2. The 2002 Index of Income for South Dakota Counties converts income into a percentage of the state average.

As a general rule, we can expect the threshold population to increase as the income index goes down. An index above 100 indicates that the county income average is above the state mean, while an index of less than 100 indicates the county mean is below the state average. For example, Union County has a mean per capita income of \$37,416, indexing at 138.7, or 38.7% above the state average. Ziebach County, with a mean per capita income of \$10,303, indexes at 38.2, or 61.8% below than the state average. All consumers are not equal, and that also affects retail success.

**Table 2:** Per Capita Income and Indexes for South Dakota Counties

County	Per Capita (\$)	County Index (% of SD income per cap)
SD	\$26,967	100
Aurora	\$22,115	82
Beadle	\$27,501	102
Bennett	\$16,208	60.1
Bon Homme	\$21,955	81.4
Brookings	\$24,094	89.3
Brown	\$30,925	114.7
Brule	\$22,179	82.2
Buffalo	\$12,159	45.1
Butte	\$21,344	79.1
Campbell	\$21,467	79.6
Charles Mix	\$22,674	84.1
Clark	\$25,753	95.5
Clay	\$27,901	103.5
Codington	\$27,091	100.5
Corson	\$24,279	90
Custer	\$29,101	107.9
Davison	\$25,528	94.7
Day	\$26,196	97.1
Deuel	\$26,196	97.1
Dewey	\$16,928	62.8
Douglas	\$21,343	79.1
Edmunds	\$28,035	104
Fall River	\$22,200	82.3
Faulk	\$25,302	93.8
Grant	\$27,341	101.4
Gregory	\$22,913	85
Haakon	\$20,843	77.3
Hamlin	\$22,801	84.6

Hand	\$22,447	83.2	Perkins	20,686	76.7
Hanson	\$20,070	74.4	Potter	26,145	97
Harding	\$18,107	67.1	Roberts	22,487	83.4
Hughes	\$28,646	106.2	Sanborn	29,647	109.9
Hutchinson	\$24,596	91.2	Shannon	13,874	51.4
Hutchinson	\$24,596	91.2	Spink	26,939	99.9
Hyde	\$16,783	62.2	Stanley	26,459	98.1
Jackson	\$14,128	52.4	Sully	16,955	62.9
Jerauld	24,926	92.4	Todd	13,243	49.1
Jones	23,009	85.3	Tripp	22,404	83.1
Kingsbury	26,102	96.8	Turner	28,109	104.2
Lake	25,825	95.8	Union	37,416	138.7
Lawrence	26,252	97.3	Walworth	22,257	82.5
Lincoln	29,428	109.1	Yankton	25,147	93.3
Lyman	18,628	69.1			
McCook	27,916	103.5			
McPherson	19,908	73.8			
Marshall	26,599	98.6			
Meade	26,210	97.2			
Mellette	16,357	60.7			
Miner	20,638	76.5			
Minnehaha	32,776	121.5			
Moody	27,639	102.5			
Pennington	27,759	102.9			

### ADDITIONAL INFORMATION

For more information or for information about threshold levels for business enterprises not included in this document, contact the Rural Life and Census Data Center's Mike McCurry or Trevor Brooks at (605) 688-4899. You can also email them at [sdsudata@sdstate.edu](mailto:sdsudata@sdstate.edu). The South Dakota Rural Life and Census Data Center can be found on the Web at <http://sdrurallife.sdstate.edu>.

### References

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