



Business Thresholds: Contrasting Counties with Indian Majorities with Rural and Micropolitan Counties in South Dakota

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South Dakota, the land of infinite variety—while the statement is a bit of an exaggeration, the differences that occur are extreme. The state has two metropolitan areas: Rapid City, classified as “government dependent,” and Sioux Falls, classified as “service dependent.” In addition, there are nine micropolitan counties (counties with cities with populations over 10,000), and analysis shows nine counties where over half the population is American Indian. While South Dakota is home to nine reservations, four reservations are in counties where the majority population is white.

This study compares business threshold levels in counties with Indian majorities, other rural counties, micropolitan counties, and the entire state. Four reservations are not included in this analysis because of a white majority in those counties. Demographic changes may allow a more inclusive grouping in the future.

Business threshold is a population-to-business ratio. This ratio provides an indication of which specific businesses a community can support. (The techniques of calculating threshold levels are described in ExEx9002 and ExEx9003; readers may refer to those publications for supporting data and a more detailed description of the process. See page 6 for information about accessing these publications.) Information used in this study is from U.S. Census Bureau reports on county business patterns (the reports are derived from IRS tax returns). The table included in this publication includes information developed in previous threshold publications.

Nine South Dakota counties—Bennett, Buffalo,

Corson, Dewey, Jackson, Mellette, Shannon, Todd, and Ziebach—are counties with American Indian majorities. Data was extracted at the zip code level and combined for all nine counties to preserve confidentiality. The relatively small sample of businesses in counties with American Indian majorities limits the potential to use this study in community development planning. An additional complication is that this group of counties includes the lowest income levels (per capita) in South Dakota.

From a statistical perspective, generalizing from a small sample is not advisable. Another risk with the small number of businesses is misreporting. If an individual mischaracterized their business on a tax return (e.g., reporting “auto repair” instead of “auto body repair”), we may see inflated numbers. The low totals in small rural counties increase this concern. The threshold level shown in the Indian Majority Threshold (table 1, column 1) for a “general automotive repair” business is 23,590 residents, while the rural South Dakota threshold is 2,382 residents. The ratio cannot be explained by a difference in the quality of vehicles between the two areas (i.e., cars in “counties with American Indian majorities” are no less likely to need repairs than cars in the rest of rural South Dakota). However, the lower median ages and lower incomes found in most counties with American Indian majorities suggest that there will be fewer cars per person, and data that is based solely on tax returns ignores both an underground economy and work done by individuals as a sideline occupation.

Table 1. Thresholds for various business types in counties with American Indian majorities and other rural and micropolitan South Dakota counties

Business type	Indian majority threshold	Rural county threshold	Micropolitan county threshold	South Dakota threshold
Art dealer	47,180	—	34,771	36,554
Auto body	—	—	3,947	4,493
Automotive parts & accessories store	11,796	5,314	3,280	4,569
Baked goods store	—	—	57,951	57,442
Bar/tavern	4,718	1,749	2,120	2,179
Beauty salon	—	5,314	3,477	3,923
Beer, wine, & liquor stores	9,437	3,947	5,268	6,283
Boat dealer	—	23,027	43,463	42,326
Bookstore	47,180	—	24,836	30,930
Building supply	—	2,878	3,622	2,324
Child day care service	7,864	3,140	3,050	3,069
Church	2,483	759	950	995
Clothing accessories store	—	—	28,976	42,326
Commercial lithographic printing	—	—	24,836	—
Computer & software store	—	—	11,590	22,977
Convenience store	—	15,351	19,317	14,622
Cosmetics, beauty supplies, & perfume	—	—	57,951	42,326
Department stores except discount stores	—	—	43,463	80,419
Discount department store	—	—	19,317	28,721
Electrical contractor	9,437	2,820	2,850	2,783
Family clothing store	47,180	—	17,385	15,173
Fast-food restaurant	7,864	2,607	1,348	1,241
Floor-covering store	—	27,632	14,488	17,870
Florist	23,590	5,314	10,227	8,555
Full-service restaurant	2,949	953	1,122	1,152
Furniture store	—	15,351	8,279	9,461
Gasoline station	6,740	2,126	4,829	4,816
Gasoline station with convenience store	1,887	1,454	1,348	1,704
General automotive repair	23,590	2,382	2,760	2,726
General merchandise store	11,800	8,127	7,902	8,291

Table 1. (continued)

Business type	Indian majority threshold	Rural county threshold	Micropolitan county threshold	South Dakota threshold
Gift, novelty & souvenir store	15,730	19,737	4,699	4,933
Hardware store	9,437	3,636	8,279	7,808
Health food supplement store	—	—	24,836	44,677
Heating oil dealer	—	17,270	43,463	36,554
Hobby, toy, and game store	47,180	—	19,317	28,721
Home center	23,590	27,632	34,771	36,554
Home furnishing store	—	—	21,732	20,105
Hotel, motel, and B&B	3,932	1,771	1,811	1,764
Household appliance store	—	23,027	7,902	25,465
Insurance agencies & brokerages	11,796	1,088	971	1,167
Jewelry store	—	—	8,693	11,169
Lawyer	5,243	2,342	1,953	1,635
Liquefied petroleum gas	7,864	8,635	14,488	19,147
Manufactured home dealer	—	—	57,951	42,326
Meat market	—	12,560	24,836	21,735
Men's clothing store	—	—	57,951	36,554
Motorcycle dealers	47,180	34,540	15,805	22,977
Musical instrument and supplies store	—	—	28,976	44,677
New car dealer	47,180	5,314	5,433	6,382
News dealer & newsstand	—	—	57,951	160,839
Newspaper publishers	9,437	4,457	10,227	—
Nursery, center, & farm supply stores	11,796	2,709	4,458	5,058
Office supplies & stationery stores	—	—	11,590	32,167
Optical goods store	—	—	57,951	28,721
Other clothing stores	47,180	—	24,836	21,734
Other direct-selling establishments	—	—	6,439	8,290
Outdoor power-equipment store	—	12,560	43,463	61,861
Paint & wallpaper stores	—	—	34,771	47,306
Pet and pet supplies stores	—	46,054	28,976	34,965

Table 1. (continued)

Business type	Indian majority threshold	Rural county threshold	Micropolitan county threshold	South Dakota threshold
Pharmacies and drug stores	15,728	4,318	7,902	6,538
Plumbing and HVAC contractors	6,740	2,820	2,382	2,246
Prerecorded tape, compact disc and record	—	—	24,836	44,677
Radio, television, & other electronics stores	15,730	17,270	5,995	7,884
Ready-mix concrete manufacturing	—	19,737	28,976	—
Residential remodeler	23,590	3,070	2,716	2,338
Sewing, needle, and piece-goods stores	—	—	19,317	33,508
Shoe store	47,180	—	7,244	11,488
Sporting goods store	—	23,027	6,439	8,837
Supermarkets & other grocery stores	2,621	1,552	4,346	3,451
Tax preparation service	15,728	13,810	13,373	14,360
Tire dealer	47,180	13,816	8,279	12,185
Tobacco store	—	—	57,951	100,524
Used car dealer	—	19,737	7,244	6,815
Used-merchandise store	—	34,540	6,209	32,168
Vending machines operator	—	—	24,836	34,965
Wired telecommunications carrier	9,437	7,272	7,902	—
Women's clothing store	—	—	7,902	9,807

Discussion of unanticipated discoveries: Despite lower incomes in counties with American Indian majorities (see table 2), the threshold for “tax preparation services” is about the same as the rest of South Dakota. Another business that requires explanation is “liquefied petroleum gas,” where the threshold was

lowest in counties with American Indian majorities and only slightly higher in other rural counties. Our explanation is that liquefied petroleum gas is more common in rural areas, regardless of the racial composition of the rural area.

Table 2. Income and retail sales in different classes of South Dakota counties

Location	Per capita income (1999)	Retail sales per capita (2002)
South Dakota (overall)	\$17,562	\$12,626
Sioux Falls (metro)	\$21,374	\$18,133
Rapid City (metro)	\$19,445	\$24,230

Table 2. (continued)

Micropolitan Counties		
Location	Per capita income (1999)	Retail sales per capita (2002)
Beadle	\$17,832	\$10,346
Brookings	\$17,586	\$ 8,617
Brown	\$18,464	\$15,460
Clay	\$14,452	NA
Codington	\$18,761	\$15,796
Davison	\$17,879	\$20,071
Hughes	\$20,689	\$13,909
Lawrence	\$17,195	\$11,452
Yankton	\$17,312	\$10,536
Class 8 & 9 Rural Counties (excludes counties with American Indian majorities)		
Location	Per capita income (1999)	Retail sales per capita (2002)
Aurora	\$13,887	\$ 8,881
Bon Homme	\$13,892	\$ 5,854
Brule ^R	\$14,874	\$11,986
Campbell	\$14,117	NA
Charles Mix ^R	\$11,502	\$ 6,907
Custer	\$17,945	\$ 4,900
Clark	\$15,597	\$ 3,691
Day	\$15,856	\$ 7,113
Deuel	\$15,977	\$ 5,061
Douglas	\$13,827	\$ 3,671
Edmunds	\$16,149	\$ 9,141
Faulk	\$14,660	\$ 5,071
Gregory	\$13,656	\$ 7,340
Haakon	\$16,780	\$11,436
Hamlin	\$16,982	\$ 6,315
Hand	\$18,735	\$ 8,732
Hanson	\$14,778	\$ 1,743
Harding	\$12,794	NA
Hutchinson	\$15,922	\$ 7,256
Hyde	\$16,356	\$21,635
Jerauld	\$16,856	\$15,556
Jones	\$15,896	\$19,693
Kingsbury	\$16,522	\$ 5,562
Lyman ^R	\$13,862	\$ 9,699
McPherson	\$12,748	\$ 3,904
Marshall	\$15,462	\$ 5,676
Miner	\$15,155	\$ 3,477

^R Denotes a county with a reservation where the Native American population is less than 50 percent.

Table 2. (continued)

Moody ^R	\$16,541	\$ 4,685
Perkins	\$15,734	\$ 5,378
Potter	\$17,417	\$ 8,040
Roberts ^R	\$13,428	\$ 6,573
Sanborn	\$18,301	NA
Stanley	\$20,300	\$ 8,445
Sully	\$17,407	\$20,416
Indian Majority Counties		
Location	Per capita income (1999)	Retail sales per capita (2002)
Bennett	\$10,106	\$ 5,108
Buffalo	\$ 5,213	NA
Corson	\$ 8,615	NA
Dewey	\$ 9,251	\$ 2,787
Jackson	\$ 9,981	\$ 7,531
Mellette	\$10,362	NA
Shannon	\$ 6,286	\$ 2,347
Todd	\$ 7,714	\$ 2,722
Ziebach	\$ 7,463	NA
^R Denotes a county with a reservation where the Native American population is less than 50 percent.		
Source: U.S. Census Quick Facts, extracted 2/18/2010		

“Art dealer” represented another business type with somewhat unexpected results. One possible explanation may be that such establishments are more common in counties with American Indian majorities than other rural areas—probably as part of the cultural heritage. Whether the customers are there or not, the artists are. Shoe stores are also more common.

Lastly, the higher threshold for supermarkets and grocery stores in counties with American Indian majorities carries with it health implications: namely, restricted access to healthy foods combined with low household income may explain part of the higher rate of health problems among American Indians.

Conclusions: There are considerably fewer retail amenities in counties with American Indian majorities than in the remainder of rural South Dakota. That can be expected to reduce the quality of life and raise the cost of living due to decreased business competi-

tion. Evidence suggests that this is largely due to the combination of lower incomes and younger families, but other social forces should not be ignored.

RELEVANT PUBLICATIONS

ExEx9002 – “Threshold Levels for Selected South Dakota Retail and Service Businesses (2004).” 2008. <http://agbiopubs.sdstate.edu/articles/ExEx9002.pdf>.

ExEx9003 – “Threshold Levels for Selected Rural South Dakota Retail and Service Businesses.” 2008. <http://agbiopubs.sdstate.edu/articles/ExEx9003.pdf>.



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EXEX9005 Access at <http://agbiopubs.sdstate.edu/articles/ExEx9005.pdf>.