



South Dakota State University

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# Data Center Findings

South Dakota State University

Demography Conference

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# Data Center projects

- Economic Momentum Index
- Economic Skills Mismatch
- Business Thresholds

# Economic Momentum Index

- **The Index measures momentum in a county (or Reservation) relative to the overall economic momentum of the state.**
- **Percentage changes in employment, population, and income in each county are normed to the state's average percentage change over the time period.**

# South Dakota

| South Dakota  | Population                     | Employment   | Median Household Income |
|---------------|--------------------------------|--------------|-------------------------|
| 2000          | 754,844                        | 377,900      | 35,282                  |
| 2009          | 796,513                        | 403,700      | 44,828                  |
| <b>Growth</b> | <b>5.52%</b>                   | <b>6.83%</b> | <b>27.06%</b>           |
|               |                                |              |                         |
|               | <b>Average Growth Measures</b> |              | <b>13.13%</b>           |

# Cheyenne River Reservation (Dewey/Ziebach Counties)

2000

Total Population- 8,475

Employment – 2070

Median Household

Income- 22,094

2005-2009

Total Population- 8,572

Employment – 2490

Median Household

Income- 33,415

## Growth

**Total Population 1.14%**

**Employment 20.29%**

**Median Household Income 51.24%**

# Crow Creek Reservation (Buffalo County)

2000

Total Population- 2,199

Employment – 515

Median Household  
Income- 12,070

2005-2009

Total Population- 2,238

Employment – 485

Median Household  
Income- 23,558

## Growth

**Total Population 1.77%**

**Employment -5.83%**

**Median Household Income 95.18%**

# Lower Brule Reservation (Lyman County)

2000

Total Population- 1,355

Employment – 1,435

Median Household

Income- 21,146

2005-2009

Total Population- 1,612

Employment – 1,555

Median Household

Income- 27,981

## Growth

**Total Population 18.97%**

**Employment 8.36%**

**Median Household Income 32.32%**

# Pine Ridge Reservation (Shannon/Jackson Counties)

2000

Total Pop. - 15,542  
Employment – 3,715  
Median Household  
Income- 20,569

2005-2009

Total Pop.- 18,623  
Employment – 4,895  
Median Household  
Income- 30,791

## Growth

**Total Population 19.82%**

**Employment 31.76%**

**Median Household Income 49.70%**



# Rosebud Reservation (Todd Counties)

2000

Total Pop. – 10,369  
Employment – 2,600  
Median Household  
Income- 19,046

2005-2009

Total Pop.- 10,944  
Employment – 3,100  
Median Household  
Income- 24,715

## Growth

**Total Population 5.55%**

**Employment 19.23%**

**Median Household Income 29.76%**

# Yankton Reservation

## (Charles Mix County)

2000

Total Pop. – 6,500

Employment – 3,375

Median Household

Income- 23,734

2005-2009

Total Pop.- 6,378

Employment – 3,585

Median Household

Income- 29,555

### Growth

**Total Population -1.88%**

**Employment 6.22%**

**Median Household Income 24.53%**

# The Economic Skills Mismatch

- **The gap between the qualifications an individuals possess and skills needed by the labor market**
- ✓ **Poor skills does not indicate poor education**

### Skill-Mismatch Index (SMI)

$$SMI_{\text{sector}} = \sum_{j=1}^3 (S_j - M_{ij})^2$$

Where:

$j$  = Skill Level (1=High, 2=Semi, 3=Low).

$S_j$  = Percent of County Population with Skill Level  $j$ .

$M_{ij}$  = Percent of Workers in Industry  $i$  with Skill Level  $j$ .

(Source: Peters, David J. 2000. "Manufacturing in Missouri: Skills-Mismatch Index" Missouri Department of Economic Development: Research and Planning.)

Industry Skill "demand"  
minus  
County Skill "supply"

### Skills Mismatch Index (SMI) Key

|              |                       |
|--------------|-----------------------|
| SMI < 25     | Best Skill Match      |
| SMI; 25-50   | Very Good Skill Match |
| SMI; 50-100  | Fair Skill Match      |
| SMI; 100-200 | Poor Skill Match      |
| SMI; 200-300 | Very Poor Skill Match |
| SMI > 300    | Worst Skill March     |

- Assumption: Any economic development in the Reservations is a result of federal funding.
  - While this may improve living standards, it does not provide maintainable economic development (Addressing the symptom not the problem)

# Rosebud

| Industry                              | High Skilled | Semi Skilled | Low Skilled  | SMI      |
|---------------------------------------|--------------|--------------|--------------|----------|
| Food & Kindred Products               | 8.75         | 20.62        | 70.63        | 141      |
| Tobacco Products                      | 18.53        | 28.1         | 53.37        | 185      |
| Lumber & wood products                | 8.12         | 23.69        | 68.19        | 63       |
| <b>Furniture &amp; fixtures</b>       | <b>7.51</b>  | <b>30.14</b> | <b>62.35</b> | <b>2</b> |
| Paper & allied products               | 12.33        | 2.94         | 84.73        | 1201     |
| Petroleum refining & related industry | 25.29        | 2.01         | 72.7         | 1100     |
| Rubber & plastic products             | 10.61        | 17.86        | 71.53        | 216      |
| Leather & related products            | 6.77         | 22.02        | 71.21        | 131      |
| Stone, clay, glass and concrete       | 10.61        | 22.24        | 67.15        | 75       |
| Primary metal industries              | 12.29        | 27.78        | 59.93        | 23       |
| Fabricated metal products             | 13.54        | 22.88        | 63.58        | 67       |
| Industrial & commercial machinery*    | 26.53        | 24.41        | 49.06        | 528      |
| Electronic and electrical equipment   | 26.93        | 16.08        | 56.99        | 543      |
| Miscellaneous manufacturing ind       | 12.99        | 21.3         | 65.71        | 93       |

# Cheyenne River

| <b>Industry</b>                                  | <b>High Skilled</b> | <b>Semi Skilled</b> | <b>Low Skilled</b> | <b>SMI</b> |
|--|---------------------|---------------------|--------------------|------------|
| <b>Food &amp; Kindred Products</b>               | 8.75                | 20.62               | 70.63              | 193        |
| <b>Tobacco Products</b>                          | 18.53               | 28.1                | 53.37              | 203        |
| <b>Textile Mill Products</b>                     | 6.36                | 17.65               | 75.99              | 389        |
| <b>Lumber &amp; wood products</b>                | 8.12                | 23.69               | 68.19              | 99         |
| <b>Furniture &amp; fixtures</b>                  | 7.51                | 30.14               | 62.35              | 2          |
| <b>Paper &amp; allied products</b>               | 12.33               | 2.94                | 84.73              | 1353       |
| <b>Petroleum refining &amp; related industry</b> | 25.29               | 2.01                | 72.7               | 1100       |
| <b>Rubber &amp; plastic products</b>             | 10.61               | 17.86               | 71.53              | 285        |
| <b>Leather &amp; related products</b>            | 6.77                | 22.02               | 71.21              | 175        |
| <b>Stone, clay, glass and concrete</b>           | 10.61               | 22.24               | 67.15              | 120        |
| <b>Primary metal industries</b>                  | 12.29               | 27.78               | 59.93              | 39         |
| <b>Fabricated metal products</b>                 | 13.54               | 22.88               | 63.58              | 111        |
| <b>Industrial &amp; commercial machinery</b>     | 26.53               | 24.41               | 49.06              | 572        |

# Lower Brule

| Industry                              | High Skilled | Semi Skilled | Low Skilled  | SMI      |
|---------------------------------------|--------------|--------------|--------------|----------|
| Food & Kindred Products               | 8.75         | 20.62        | 70.63        | 47       |
| Tobacco Products                      | 18.53        | 28.1         | 53.37        | 256      |
| <b>Lumber &amp; wood products</b>     | <b>8.12</b>  | <b>23.69</b> | <b>68.19</b> | <b>9</b> |
| Furniture & fixtures                  | 7.51         | 30.14        | 62.35        | 35       |
| Paper & allied products               | 12.33        | 2.94         | 84.73        | 880      |
| Petroleum refining & related industry | 25.29        | 2.01         | 72.7         | 1100     |
| Rubber & plastic products             | 10.61        | 17.86        | 71.53        | 94       |
| Leather & related products            | 6.77         | 22.02        | 71.21        | 45       |
| Stone, clay, glass and concrete       | 10.61        | 22.24        | 67.15        | 16       |
| Primary metal industries              | 12.29        | 27.78        | 59.93        | 52       |
| Fabricated metal products             | 13.54        | 22.88        | 63.58        | 34       |
| Industrial & commercial machinery*    | 26.53        | 24.41        | 49.06        | 596      |
| Electronic and electrical equipment   | 26.93        | 16.08        | 56.99        | 495      |
| Miscellaneous manufacturing ind       | 12.99        | 21.3         | 65.71        | 35       |



# Business Thresholds

- **Distinguishing counties with Indian Majority with Rural and Micropolitan counties in South Dakota**
- **Approximation of the population needed to support a business**

| <b>Business Type</b>                  | <b>Indian majority threshold</b> | <b>Rural county threshold</b> | <b>Micropolitan county threshold</b> | <b>South Dakota threshold</b> |
|---------------------------------------|----------------------------------|-------------------------------|--------------------------------------|-------------------------------|
| Art dealer                            | 47,180                           | -                             | 34,771                               | 36,554                        |
| Auto body                             | -                                | -                             | 3,947                                | 4,493                         |
| Automotive parts & accessories stores | 11,796                           | 5,314                         | 3,280                                | 4,569                         |
| 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                        |
| Child day care service                | 7,864                            | 3,140                         | 3,050                                | 3,069                         |
| Church                                | 2,483                            | 759                           | 950                                  | 995                           |

| <b>Business Type</b>                           | <b>Indian majority threshold</b> | <b>Rural county threshold</b> | <b>Micropolitan county threshold</b> | <b>South Dakota threshold</b> |
|--|----------------------------------|-------------------------------|--------------------------------------|-------------------------------|
| <b>Electric contractor</b>                     | 9,437                            | 2,820                         | 2,850                                | 2,783                         |
| <b>Family clothing store</b>                   | 47,180                           | -                             | 17,385                               | 15,173                        |
| <b>Fast-food restaurant</b>                    | 7,864                            | 2,607                         | 1,348                                | 1,241                         |
| <b>Floor-covering store</b>                    | -                                | 27,632                        | 14,488                               | 17,870                        |
| <b>Florist</b>                                 | 23,590                           | 5,314                         | 10,227                               | 8,555                         |
| <b>Full-service restaurant</b>                 | 2,949                            | 953                           | 1,122                                | 1,1152                        |
| <b>Furniture store</b>                         | -                                | 15,351                        | 8,279                                | 9,461                         |
| <b>Gasoline station</b>                        | 6,740                            | 2,126                         | 4,829                                | 4,816                         |
| <b>Gasoline station with convenience store</b> | 1,887                            | 1,454                         | 1,348                                | 1,704                         |
| <b>General automotive repair</b>               | 23,590                           | 2,382                         | 2,760                                | 2,726                         |
| <b>General merchandise</b>                     | 11,800                           | 8,127                         | 7,902                                | 8,291                         |

| <b>Business Type</b>                       | <b>Indian majority threshold</b> | <b>Rural county threshold</b> | <b>Micropolitan county threshold</b> | <b>South Dakota threshold</b> |
|--|----------------------------------|-------------------------------|--------------------------------------|-------------------------------|
| <b>Gift , novelty &amp; souvenir store</b> | 15,730                           | 19,737                        | 4,699                                | 4,933                         |
| <b>Hardware store</b>                      | 9,437                            | 3,636                         | 8,279                                | 7,808                         |
| <b>Heating oil dealer</b>                  | -                                | 17,270                        | 43,463                               | 36,554                        |
| <b>Hobby, toy, and game store</b>          | 47,180                           | -                             | 19,317                               | 28,721                        |
| <b>Home furnishing store</b>               | -                                | -                             | 21,732                               | 20,105                        |
| <b>Hotel, motel, and B&amp;B</b>           | 3,932                            | 1,771                         | 1,811                                | 1,764                         |
| <b>Insurance agencies &amp; brokerages</b> | 11,796                           | 1,088                         | 971                                  | 1,167                         |
| <b>Jewelry store</b>                       | -                                | -                             | 8,693                                | 11,169                        |
| <b>Lawyer</b>                              | 5,243                            | 2,342                         | 1,953                                | 1,635                         |
| <b>Liquefied petroleum gas</b>             | 7,864                            | 8,635                         | 14,488                               | 19,147                        |
| <b>Meat market</b>                         | -                                | 12,560                        | 24,836                               | 21,735                        |

**Thank you!**

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