

## **The Agribusiness Friendliness Index Executive Summary**

Government fundamentally influences the economic climate of agriculture and its allied businesses. State governments play a particular role in fostering agribusiness opportunities and influencing cost structures with policies that include regulation, taxes and subsidies. Businesses are acutely aware of the role of state government plays in their success; a business friendly environment will encourage business to locate or expand operations. Unfriendly policies shrink business and may even force relocation.”

Identifying what constitutes a “business friendly” environment is not an easy task because so many factors influence that environment. Some factors, like state tax policy, are established by the legislature and implemented by state government. Other factors, like the percent of high school graduates, is influenced in part by state policies but also determined by demographics and educational culture of the citizenry. Geography and climate play a key role in the business environment but are generally beyond control of government policymakers.

The importance of business environment has prompted a number of organizations to create indices of business friendliness. Some are produced by organizations that seek to promote particular political goals, and the methods reinforce their philosophy. For example, the Tax Foundation is a nonprofit, pro-business think tank in Washington DC that collects data and conducts research on tax policies at the federal and state levels. Their State Business Tax Climate Index focuses exclusively on the tax component of each state’s business climate. Other indices focus on the broader business climate. Forbes Magazine, for example, evaluates each state’s business climate annually based on six major categories: Business costs, labor, regulatory environment, economic climate, growth perspectives and quality of life. What all business friendliness indices have in common is a methodology that is subjective, relying on the judgment of experts to determine what variables should be included in each index and the importance one variable is given relative to others. Each index is also limited by the availability of data created to evaluate a particular issue in the business economy. Some issues can be directly measured with data while others cannot.

State government policies do not impact all business sectors equally. In reality, a particular government policy may have a major impact for some business sectors while hardly being noticed by other business sectors. The agribusiness sector, for example, is unique in several ways from other business sectors. The agribusiness sector tends to be more developed and mature, causing it to operate on smaller profit margins. Thus agribusinesses are more sensitive to state policies that increase operating expenses. Agribusinesses (particularly those engaged in commodity production) tend to revolve

around both private and publicly held lands. Policies that tax or regulate land impact agribusinesses more than the overall business sector. Agriculture as an industry relies heavily on immigration labor for its workforce (similar to the construction sector), so much so that immigration policy and its enforcement directly impact those sectors relative to others.

These differential impacts mean an Agribusiness Friendliness Index is useful for describing the economic climate for the agricultural sector, which may be distinctly different from the general business climate. Such a measure can be useful for states seeking to attract more agribusinesses to their state or to retain existing businesses. This type of exercise helps highlight strengths and weaknesses in policies that affect the agribusiness sector. Policymakers in each state can “drill down” into the overall results to identify key variables that shaped their overall ranking. They can then use these particular variables to motivate a need to change policies that are hurting the competitive position of agribusinesses.

## **Procedure**

This study is the first known attempt to create a business friendliness index that is focused on the agriculture sector. The following procedure was used to create the index.

1. The authors reviewed previous business competitiveness studies to identify particular variables or data sets that might be applicable to the agribusiness sector. From this effort an initial list of 50 or so variables was identified for further consideration.
2. Agribusiness specific data, primarily from the US Department of Agriculture were added reflecting detailed information.
3. These indices were presented and reviewed by a panel of agribusiness leaders to obtain feedback about the importance of each in creating a favorable or unfavorable business climate for agribusinesses. The membership on the panel was selected (a) to be representative of the broad set of enterprises in the agribusiness sector and (b) because they are well informed on federal and state policies that influence the competitive position. Thus the panel included professional lobbyists, state commodity organization leaders and other agribusiness leaders involved in providing inputs or processing commodities.
4. Using the feedback from this meeting with the agribusiness panel, additional variables were added to the study and all variables were organized into categories. A preliminary agribusiness competitiveness index was then generated and presented to several groups. Feedback from these meetings caused the authors to further refine the index.

5. Ultimately, 38 different variables were identified for inclusion into the index. These variables were organized into four major components: Government regulation (including pollution and immigrant labor), government taxation and efficiency, government services beneficial to the agribusiness sector, and the overall state business climate. Results within each subcategory were averaged to obtain an overall score for each component, then the scores from the four components were averaged to obtain the overall index score.

It is important to note that this review process produced several major changes. First, it became apparent that a single index to represent the breadth of agribusiness activity was an insufficient characterization of the diversity of industry stakeholders. Based on feedback from the review panel, four separate indices were created reflecting

- Agricultural inputs (e.g., fertilizer, chemical, equipment, seed dealers)
- Crop, Fruit and Vegetable Production
- Meat and Livestock Products
- First Level Agricultural Processing

The results from these four indices were then averaged to produce an overall Agribusiness Friendliness Index.

A second point was raised by the review panel. By simply averaging scores across the four components to create the overall Meat and Livestock Products Index (for example), the implicit assumption being made is that each component is equally important in influencing the overall index value. In other words, the importance of government regulation was assumed to have equal influence on the friendliness index as government services. The panel members were not convinced that this is the case. They felt that government regulation and business climate should have greater weight on the overall index than government efficiency and government services. To address this issue, one of the groups was asked to identify how the four components should be weighted to produce the overall index. They generated overall weights of 0.30 for government regulation and business climate and 0.20 for government efficiency and government services. The weighted index results were also reported and were found to shift results to some extent.

### **Data Description**

A challenge in creating an index like this is choosing, finding, and organizing data series representing important ingredients for the agribusiness sector. For example, variables in the business climate subcategory include diesel prices, funding for state departments of agriculture, labor availability, percent of privately owned land, average farm operator age, mean welder wage and so forth. How does one bring together prices,

percentages, expenditures, average ages and so forth into a single index value? The answer is to normalize each variable on a scale of 0 to 10 based on how each state compared to other states for that particular variable. Once all variables are normalized, they can be easily added together and averaged.

Although 38 variables were identified to be included in the indices, not all 38 were used in all four sub-indices. For example, 27 variables were used to create the Crop, Fruits and Vegetables Index, while 23 variables were used in the Agricultural Processing Index. Electricity prices, for example, were included in the Agricultural Processing Index but not in the Crops, Fruit and Vegetables Index because electricity was thought to be an important input in first level processing but of minor importance to crop production. The Agricultural Input Index consisted of 22 variables and the Meats and Livestock Products Index contained 27 variables. Unless otherwise noted, the data is for a single year and is the most recent available information.

### Results – The Agricultural Inputs Index

Using the procedure outlined above, the 10 ten states that are most friendly to agricultural input providers are shown in the following table

State	Score	Ranking	Weighted Score	Weighted Ranking
South Dakota	7.38	1	7.48	1
New Hampshire	7.10	2	7.28	2
Wyoming	6.80	3	6.77	12
Colorado	6.78	4	6.97	3
Kansas	6.66	5	6.91	4
Utah	6.65	6	6.89	5
Vermont	6.62	7	6.89	6
Massachusetts	6.61	8	6.87	8
Alaska	6.59	9	6.79	11
Washington	6.57	10	6.72	14

The first column lists the states by name and the second column is the simple average of all four components. The third column represents the state rankings by this simple average. The next column is a score in which components are weighted with 30% for government regulation (less regulation is deemed better), 30% for business environment, 20% for government services and 20% for government efficiency.

South Dakota and New Hampshire earn high marks in less government regulation, higher efficiency and greater services, which are enough to offset relatively weak performance in the business climate area. Wyoming also scores very well in most areas, but is hurt by relatively strict air quality standards imposed at the state level on Hydrogen Sulfide, Suspended Sulfates, Fluorides and Odors. This variable hurts the overall score in the government regulation area. Most of the other top 10 states perform

well in the government regulation and government services areas, but are weaker in government efficiency and business climate areas. When the scores are weighted, rankings for Wyoming and Washington drop several positions. In both cases, this change is largely driven by tougher government regulation playing a larger role in the overall score.

The bottom five states (California, Hawaii, New York, Alabama and Mississippi) all scored in the bottom third in government services important to agriculture, such as infrastructure and education. They also tended to have high levels of government regulation and a less vibrant business climate. The business climate of these five states is most negatively impacted by relatively high electricity prices and relatively low job churning numbers.

### **Crops, Fruits and Vegetables Index**

The top 10 states that are most friendly to Crops, Fruits and Vegetable producers are given in the following table.

State	Score	Ranking	Weighted Score	Weighted Ranking
South Dakota	6.92	1	6.80	1
North Dakota	6.55	2	6.40	3
Montana	6.51	3	6.33	4
Kansas	6.38	4	6.32	5
Wyoming	6.37	5	6.23	6
Maryland	6.32	6	6.41	2
Colorado	6.28	7	6.09	9
Ohio	6.19	8	6.19	7
Massachusetts	6.13	9	6.11	8
Vermont	6.04	10	6.01	10

Six of the top 10 states are in the upper Great Plains, including the top five states. All six of these states score very high in the government regulation area. In particular, tort liability laws and E-Verify laws are favorable to crop farming. Five of these six states also scored very high in the government services area. What separated South Dakota, North Dakota and Montana from the other Great Plains states was high scores in the other two components (government efficiency and business climate). For Maryland, government regulation was also favorable overall and government services and business climate were above average. The two New England states (Massachusetts and Vermont) scored very high in government services and were above average in business climate. Ohio scored very high in the government regulation area and above average in the other three components.. Weighting the scores was most favorable to

Maryland and Ohio, again because regulation was a strong point in those states and that subcategory received the greatest weight.

California, New York, and New Mexico scored the lowest for the Crops, Fruits and Vegetable Producers Index. California scored above average in government regulation but was in the bottom 20% in the other three categories. New York ranked 50<sup>th</sup> in government efficiency and was below average in the other three categories. New Mexico was about average in government efficiency, a bit below average in government regulation and in the bottom 10% in government services and business climate.

### **Meat and Livestock Products Index**

The top 10 states that are most friendly to the meat and livestock products sectors of agriculture are provided in the following table.

State	Score	Ranking	Weighted Score	Weighted Ranking
South Dakota	6.81	1	6.67	1
Colorado	6.57	2	6.44	2
Montana	6.40	3	6.20	5
Wyoming	6.39	4	6.25	3
North Dakota	6.37	5	6.18	6
Kansas	6.28	6	6.20	4
Ohio	6.15	7	6.14	7
Massachusetts	6.03	8	5.99	8
Virginia	6.02	9	5.89	11
New Hampshire	5.96	10	5.69	15

This top 10 list was dominated by states in the upper Great Plains. What all these states had in common were generally high scores for both government services and government regulation. Government efficiency tended to separate the top five states from the next group below it. In particular, these states provided more favorable estate and sales tax treatment to the livestock sector relative to other states. Business climate tended to be average or below average for nine of these 10 states.

The bottom five states were California, New York, Alabama, Georgia, and Mississippi. Government services were the most influential subcategory contributing to the low ranking for all these states. All scored in the lowest 20% in education, most were below average in infrastructure. California's business climate was ranked last, contributing to its low overall ranking. New York was in the bottom third in all four subcategories.

## Agricultural Processing Index

The top 10 states that are most friendly to the agricultural processing sector are provided in the following table.

State	Score	Ranking	Weighted Score	Weighted Ranking
New Hampshire	6.92	1	7.06	1
South Dakota	6.82	2	6.80	2
Wyoming	6.54	3	6.46	4
Colorado	6.38	4	6.49	3
Vermont	6.21	5	6.39	6
Massachusetts	6.20	6	6.37	7
Virginia	6.19	7	6.40	5
Utah	6.19	7	6.33	8
Kansas	6.12	9	6.27	9
Alaska	6.08	10	6.18	11

The upper Great Plains had four states in the top 10, New England had three in the top 10. The top 10 states all scored in the upper 20% in government services. The New England states also scored well in the government regulation area, whereas government regulation impacts were mixed for the upper Great Plains states. The situation was reversed for government efficiency with most Great Plains states doing very well in this category and most New England states ranking poorly under this criteria. The Great Plains states also did well in the business climate subcategory. Changing the weights caused only a slight shift in results.

The bottom five states were California, New York, Alabama, West Virginia, and Hawaii. Four of these five states were in the bottom 20% for business climate, three of the five were in the bottom six states in both government services and government regulation. In short, these five states have numerous issues to resolve to become friendlier to agricultural processing.

## Overall Results

The overall results were calculated by averaging the scores across the previous four indices. These results are given in the following table.

State	Score	Ranking	Weighted Score	Weighted Ranking
South Dakota	6.98	1	8.41	1
Wyoming	6.52	2	7.79	4
Colorado	6.50	3	7.88	2
New Hampshire	6.50	4	7.81	3

North Dakota	6.38	5	7.68	6
Kansas	6.36	6	7.79	5
Massachusetts	6.24	7	7.68	6
Montana	6.23	8	7.35	14
Vermont	6.21	9	7.63	8
Virginia	6.19	10	7.58	9

South Dakota finished first for three of the indices and was second on the fourth. New Hampshire was no worse than 13<sup>th</sup> on any particular index. South Dakota, Vermont, Wyoming and Colorado were in the top 10 for all four indices. Weighting the results by subcategory did not have a big influence on any particular state's ranking, at least among those in the top 10.

The bottom five states in the overall results were California, New York, Alabama, Mississippi, and New Mexico. California, New York and Alabama were the only three states to be in the bottom five in all four indices.