

# National Animal Identification System Benefit-Cost Analysis: Three Key Points

During 2007–2008, Kansas State University completed a benefit-cost analysis of the U.S. Department of Agriculture's (USDA) National Animal Identification System (NAIS). At the request of USDA, researchers developed the independent study to provide a comprehensive assessment of the economic benefits and costs of NAIS. The study's findings were published in a **(MONTH)** 2009 report, which contains more than 400 pages of detailed analysis.

## About the NAIS Benefit-Cost Analysis

Researchers from four universities worked for more than a year to analyze the benefits and costs of NAIS adoption across multiple species and at varying participation rates. They also examined the benefits and costs for producers with various herd sizes and also for markets, processors, consumers, and State and Federal governments.

University researchers completed the benefit-cost analysis using the best data available and the most accurate modeling practices. As a result, the findings provide USDA, its stakeholders, and the public with the researchers' best estimates of what they anticipate would result from the adoption of NAIS.

To provide as accurate an estimate as possible of producer costs, researchers analyzed and reported numbers broken down by producer size and operation type. Some species groups were broken down even further for analysis. In certain cases, available data was insufficient for researchers to produce more precise estimates.

In the report, the costs estimates provided within producer subgroups are average costs. For an idea of the potential range of NAIS-related costs, producers should review the cost estimates in the report that correspond with their type and size of operation. However, because these costs are averages, there are many operation-specific variables that can result in costs that are higher or lower than those listed in the report.

## Three Key Points from the Benefit-Cost Analysis

1. A traceability system like NAIS is essential to timely recovery of export markets after a disease outbreak.
2. Traceability is becoming increasingly important, even necessary, for successful participation in the global marketplace.
3. For the major livestock industries, the costs of NAIS vary depending on the industry's production practices, which in turn determine the type of traceability methods used.

## Traceability and Export Market Recovery

When disease outbreaks occur, export markets are often closed. The costs of market closures are high, so anything that can help reduce the length of closures is beneficial. A traceability system allows animal health officials to quickly and efficiently locate affected animals, contain the disease, and end the outbreak. The sooner this is completed, the sooner normal trade can resume and economic recovery can begin.

NAIS would also allow for regionalization/compartimentalization during outbreaks. By easily identifying and proving what areas of the country are and are not affected, trade from unaffected areas could resume quickly. This would decrease the economic impact of an outbreak.

For a full discussion on this topic, please reference pages 7-10 of the benefit-cost analysis overview document, or pages 251–252 and 346-348 of the full report. They can be found at [http://www.usda.gov/nais/naislibrary/documents/plans\\_reports/Benefit\\_Cost\\_Analysis\\_NAIS.pdf](http://www.usda.gov/nais/naislibrary/documents/plans_reports/Benefit_Cost_Analysis_NAIS.pdf).

## Traceability in the Global Marketplace

Research indicates a growing desire for traceability throughout the world. Researchers anticipate that a strong traceability system will be necessary in the future for any country wishing to conduct international trade. Currently, the United States is far behind its major competitors concerning animal traceability; most U.S. competitors have mandatory programs.

Economic models concluded that NAIS adoption at a high level of participation would provide the United States with the needed traceability to compete in the global market. Without an adequate traceability system, export markets will likely be lost, costing producers and society alike.

For a full discussion on this topic, please reference pages 8-11 of the benefit-cost analysis overview document, or pages 234–250 and 351–353 of the full

report. They can be found at [http://www.usda.gov/nais/naislibrary/documents/plans\\_reports/Benefit\\_Cost\\_Analysis\\_NAIS.pdf](http://www.usda.gov/nais/naislibrary/documents/plans_reports/Benefit_Cost_Analysis_NAIS.pdf).

#### Costs Vary with Production Practices

There is no one set cost for NAIS participation. Differences in industry production practices must be taken into account in order to achieve adequate NAIS traceability. High levels of integration and the use of group identification help keep the costs per animal lower. Conversely, individual animal identification and frequent movements during production lead to higher costs per animal.

Researchers concluded that the average costs per animal were highest in the cattle industry, where tagging is required for each animal. In poultry, where no tags are used, the average costs per animal are the lowest.

Within each industry, the different sectors of the production chain should also be considered. At operations where animals are born and must be tagged, the cost per animal is higher due to the cost of the tag and tagging process. Other operations only encounter costs for retagging animals that have lost their original tag, making their costs per animal lower.

For a full discussion on this topic, please reference pages 14-30 of the benefit-cost analysis overview document, or pages 9-142 and 256-336 of the full report. They can be found at [http://www.usda.gov/nais/naislibrary/documents/plans\\_reports/Benefit\\_Cost\\_Analysis\\_NAIS.pdf](http://www.usda.gov/nais/naislibrary/documents/plans_reports/Benefit_Cost_Analysis_NAIS.pdf).

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