

August 2012

Economic Impact Analysis of Proposed Regulations for Living Conditions for Organic Poultry

Revised Phase 1 Report

Prepared for

U.S. Department of Agriculture
Agriculture Marketing Service
National Organic Program
1400 Independence Avenue SW
Room 2646 South Building
Washington, DC 20250

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Introduction

In September 2011, the U.S. Department of Agriculture's (USDA's) Agricultural Marketing Service (AMS) contracted with Vukina et al. Consulting to conduct a regulatory impact analysis on proposed changes to living standards for organic poultry. Vukina et al. Consulting completed three major steps (or phases) to conduct work under this contract:

- **Phase 1:** Evaluate and Document a Baseline Scope of the Industry
- **Phase 2:** Conduct Economic Impact Analysis of the Proposed Rule
- **Phase 3:** Prepare the Economic Analysis for Inclusion in Proposed Regulations

This document contains the Phase 1 report, which is a summary and evaluation of the baseline scope of the organic poultry and eggs industries. Relevant data summarized in this report are included in the baseline industry characterization section of the economic impact analysis document delivered under Phase 3.

1.1 Background

USDA-AMS oversees the USDA National Organic Program (NOP). As part of the rulemaking process, AMS may conduct economic impact analyses of amendments to the national standards for production and handling of organic agricultural products. With potential changes in the requirements for living conditions for organic poultry, the NOP must consider the economic effects of these changes on the regulated industry.

The USDA NOP regulations at 7 CFR Part 205 set forth the national standards for production and handling of organic agricultural products. The NOP regulations were first published in 2000. In February 2010, AMS amended these regulations to include a substantial practice standard amendment regarding access to pasture for livestock. Livestock living conditions as they apply to poultry are regulated by § 205.238 (Livestock Health Care Practice Standard) and § 205.239 (Livestock Living Conditions).

The NOP regulations do not set specific stocking rates for either inside housing or the outside access areas, and further elaboration may be needed to ensure consistent regulatory implementation and enforcement. The NOP issued a general policy memo in October 2002 (NOP Policy Memo 11-5, reissued January 31, 2012) affirming that outside access areas are required, but it did not specify size or other details. In October 2002, an appeal decision found that outdoor access could be provided by a fenced, roofed, and floored outside area (a "porch" attached to a poultry house) for the operation involved in the appeal.

The NOP subsequently provided a memo regarding exemption to outside access for purposes of biosecurity (NOP Policy Memo 11-12, issued November 2005, reissued January 2011). To obtain organic

certification, poultry producers must submit to NOP an Organic System Plan (OSP) to a USDA-accredited certification agency describing their provision of outside access. The OSP is subsequently reviewed by the certification agents for consistency with the regulations, review the OSP for sufficiency, and conduct on-site inspections to verify compliance by organic operations. The National Organic Standards Board (NOSB), the NOP's federal advisory committee, made recommendations in April 2002, November 2009, and December 2011 on animal welfare issues. The NOSB also completed additional changes concerning appropriate living conditions for poultry at their December 2011 public meeting. On December 2, 2011, NOP submitted three options for regulations regarding outdoor access for poultry based on NOSB recommendations and independent animal welfare standards. These options are described in detail and included as Appendix A in this report. The NOP may pursue a regulatory amendment to §205.239 in accordance with NOSB final recommendations, which would clarify requirements for outside access and other living conditions for poultry.

1.2 Objectives

The objective of this project was to provide an independent economic impact analysis of possible regulatory changes for the living conditions for organic poultry, including a justification of the methodology. The complete analysis estimates the costs and benefits of implementing the proposed rule, compared with alternatives (as per Executive Order 12866). Alternatives include (1) no change to existing rule, (2) regulatory Option 2 developed by NOP and summarized in Table A-1, and (3) regulatory Option 3 summarized in Table A-2. All work was conducted in a manner to comply with the USDA Information Quality Activities Regulatory Guidelines. The objective of this Phase 1 report was to provide a summary and evaluation of the baseline scope of the organic poultry and eggs industries for use in conducting the economic impact analysis.

Overview of Organic Poultry and Egg Industry

To evaluate and document a baseline scope of the industry, the project team gathered data relevant to conducting a regulatory impact analysis on proposed changes to standards for living conditions for organic poultry. Data necessary to perform this task include the following:

- volume and dollar value of current production of organic poultry products and trends over time
- number of organic poultry operations, range of scale of production, and the geographic areas of production/distribution
- types of marketing methods
- limitations and qualifications of the data

Poultry species and commodities that are part of this analysis include broilers, turkeys, pullets, and layers (eggs). Data presented in this report were gathered from multiple sources, including various agencies within USDA, interviews with organic certifiers, existing literature, private databases associated with various organic certifying agencies, and various industry organizations. These data are necessary to conduct the economic impact analyses of the proposed rules, which will be conducted during Phase 2 of this project.

2.1 Volume and Dollar Value of Organic Poultry and Eggs

Steady-state inventory¹ of organic poultry and production of eggs has steadily increased over the last decade. In this section, we describe the trends in the number of laying hens, broilers, and turkeys; wholesale prices and trends in sales of organic poultry and eggs; and the value of production of organic eggs, broilers, and turkeys between 2008 and 2011 and their relative value to total poultry and eggs.

2.1.1 Trends in Organic Layer and Poultry Inventories

The number of organic layers, broilers, and turkeys grew substantially over the 2000 to 2011 period. In this subsection, we describe the trends in the number of laying hens, broilers, and turkeys over this period.

Laying Hen Counts and Estimated Egg Production

Production numbers for organic eggs over the past decade were not available; therefore, to estimate trends in total organic egg production, we calculated estimates of egg production based on laying hen counts. According to data obtained by AMS, on average, each organic laying hen produced approximately 19.4 dozen eggs in 2011. According to Ibarburu and Bell (2012), on average, each

¹ Steady-state inventory refers to a situation where the animal population does not change over time or in which change in one direction (slaughter or harvest) is continually balanced by change in another (repopulation).

conventional laying hen produced 24.25 dozen eggs per year. Assuming that the average number of eggs per laying hen has not changed over time, using laying hen counts as a proxy for egg production is feasible, and the trends in egg production are identical to trends in layer counts.

The total laying hen count in 2000 was approximately 277 million head, and only 0.3% of that count, or 1.1 million, was certified organic, as shown in Table 2-1. In 2008, although the total laying hen count was 285 million—an overall increase of just 2.8% over the 2000 count—the number of organic layer hens more than quadrupled over the same time frame. The growth in the size of the conventional layer flock came to a virtual hold in the 2008 to 2011 period with the number of layers remaining constant during that time period. At the same time, the certified organic flock grew further, reaching almost 7.7 million birds (or 2.15% of the total) with the egg production of 149 million dozens of eggs. The trend in certified organic layer hen counts is depicted in Figure 2-1.

Table 2-1. U.S. Laying Hen Counts and Estimated Egg Production, Total and Organic, 2000–2011

| Year | Total Layer Hens (birds) | Estimated Total Eggs (dozens) ^a | Total Certified Organic Layer Hens (birds) ^b | Estimated Certified Organic Eggs (dozens) ^c | Percentage Certified Organic of Total |
|------|--------------------------|--|---|--|---------------------------------------|
| 2000 | 273,600,000 ^d | 6,634,800,000 | 1,113,746 | 21,606,672 | 0.33% |
| 2001 | 279,900,000 ^e | 6,787,575,000 | 1,611,662 | 31,266,243 | 0.46% |
| 2002 | 279,200,000 ^e | 6,770,600,000 | 1,052,272 | 20,414,077 | 0.30% |
| 2003 | 279,500,000 ^e | 6,777,875,000 | 1,591,181 | 30,868,911 | 0.46% |
| 2004 | 284,800,000 ^e | 6,906,400,000 | 1,787,901 | 34,685,279 | 0.50% |
| 2005 | 290,800,000 ^e | 7,051,900,000 | 2,415,056 | 46,852,086 | 0.66% |
| 2006 | 289,500,000 ^e | 7,020,375,000 | 3,071,994 | 59,596,684 | 0.85% |
| 2007 | 285,100,000 ^e | 6,913,675,000 | 3,872,271 | 75,122,057 | 1.09% |
| 2008 | 285,100,000 ^e | 6,913,675,000 | 5,538,011 | 107,437,413 | 1.55% |
| 2009 | 283,700,000 ^e | 6,879,725,000 | 6,173,895 ^f | 119,773,556 ^f | 1.74% |
| 2010 | 285,400,000 ^e | 6,920,950,000 | 6,882,791 ^f | 133,526,154 ^f | 1.93% |
| 2011 | 285,100,000 ^e | 6,913,675,000 | 7,673,085 ^g | 148,857,849 ^g | 2.15% |

^a Estimated egg production assumes 24.25 dozen eggs per layer per year.

^b Source: USDA-Economic Research Service (ERS) (2010).

^c Estimated organic egg production assumes 19.4 dozen eggs per organic layer per year.

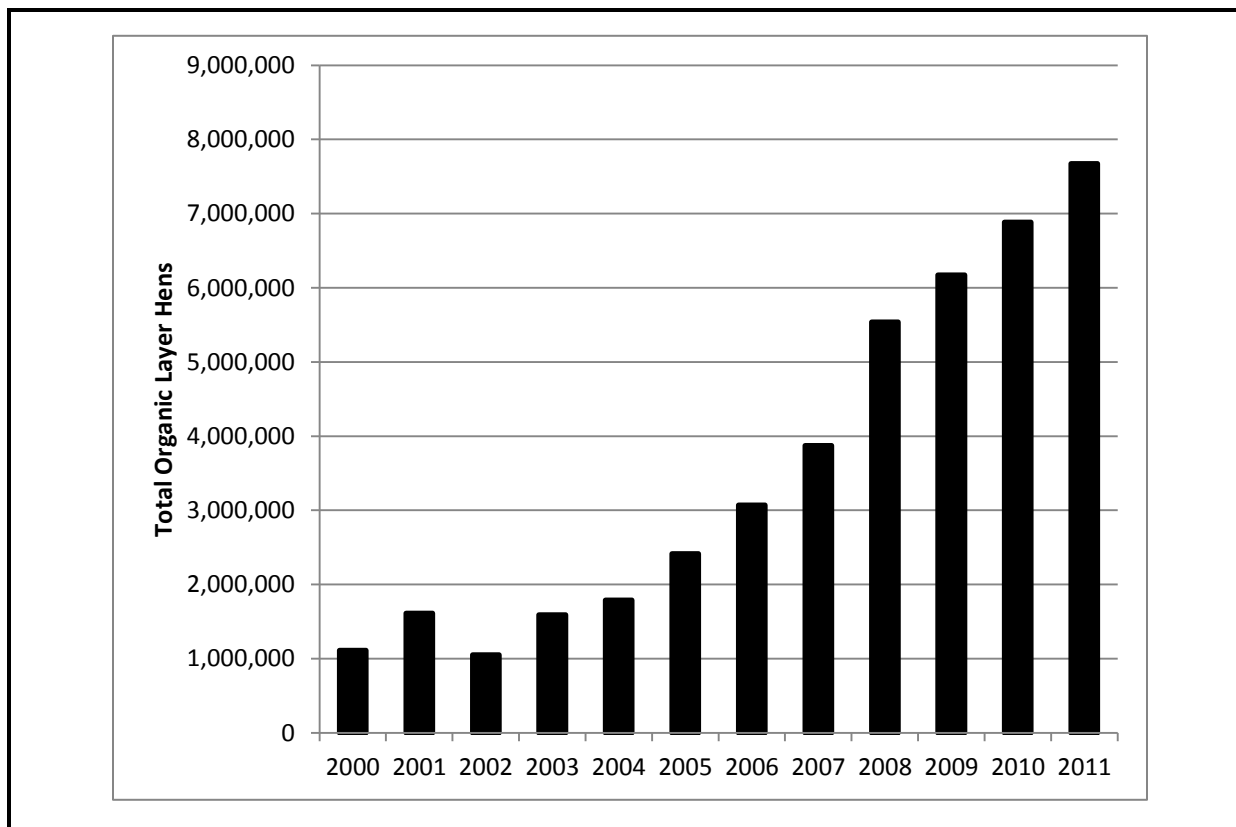
^d Source: Ibarburu and Bell (2010).

^e Source: Ibarburu and Bell (2012).

^f Source: 2009–2010 organic laying hen counts based on an average annual rate of growth between 2008 and 2011.

^g Source: 2011 organic laying hen counts and egg production based on data obtained by USDA-AMS from 36 organic certifying agencies.

Figure 2-1. Trends in Certified Organic Layer Hen Counts, 2000–2011



Sources: USDA-ERS (2010) (2000–2008 counts); estimates of average rate of annual growth between 2008 and 2011 (2009 and 2010 counts); and data obtained by AMS from 36 organic certifying agencies (2011 counts).

Steady-State Broiler Inventory

Annual organic broiler production data were available only for years 2008 and 2011; however, the steady-state broiler inventory from 2000 through 2008 was available. The inventory of broilers in 2011 was estimated based on total broiler production data obtained from AMS assuming five flocks per year. Inventories of broilers in 2009 and 2010 were estimated based on an average annual rate of growth between 2008 and 2011. Table 2-2 shows that although the steady-state inventory of broilers is increasing over time, the growth is not monotonic². This variation over time is depicted in Figure 2-2.

A more careful examination of the data shows that the reason for the sharp increase in inventory in 2005 is increases in organic broiler inventories in two states: California and Pennsylvania. Steady-state inventory data collected in 2004 showed 328,820 organic broilers in California and 660,563 in Pennsylvania. In 2005, these inventory figures jumped to 3,567,425 in California and 2,880,800 in Pennsylvania. One possible explanation could be that a few large producers enter the organic market only to exit once they determined such a permanent change was not economically feasible (Greene, 2012). The 25% increase in organic broiler inventory from 2007 to 2008 was primarily due to an increase in steady-

² Monotonic growth refers to a situation where the variable under consideration always moves in one direction (i.e., it is always increasing or always decreasing).

Table 2-2. U.S. Organic Broiler Steady-State Inventory, 2000–2011

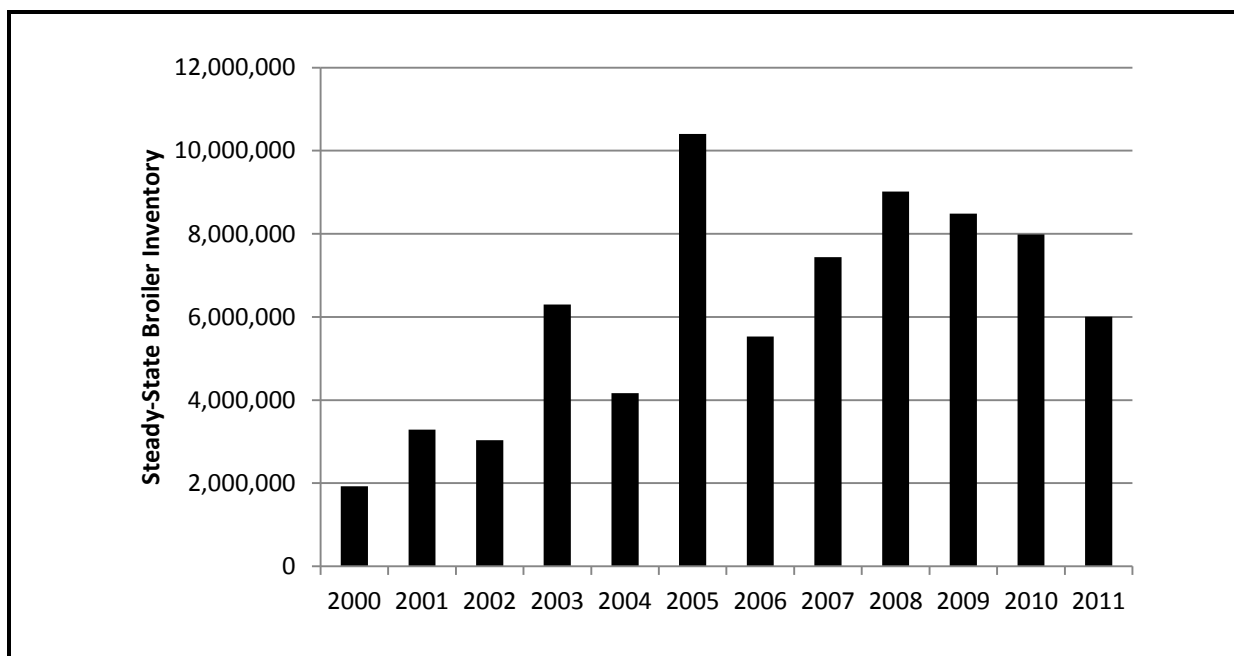
| Year | Total Certified Organic Broilers (birds) ^a |
|------|---|
| 2000 | 1,924,807 |
| 2001 | 3,286,456 |
| 2002 | 3,032,189 |
| 2003 | 6,301,014 |
| 2004 | 4,169,104 |
| 2005 | 10,405,879 |
| 2006 | 5,529,933 |
| 2007 | 7,436,321 |
| 2008 | 9,015,984 |
| 2009 | 8,483,998 ^b |
| 2010 | 7,983,402 ^b |
| 2011 | 6,009,874 ^c |

^a Source: USDA-ERS (2010).

^b Secondary data were not available. Estimates are based on an average annual rate of growth between 2008 and 2011.

^c Based on information collected by AMS from 36 USDA-accredited state and private organic certifiers, assuming five flocks per year.

Figure 2-2. Trends in Certified Organic Broiler Steady-State Inventory, 2000–2011



Sources: USDA-ERS (2010), USDA-AMS from 36 USDA-accredited state and private organic certifiers (2011), and average annual rate of growth between 2008 and 2011 (2009 and 2010).

state organic broiler inventory in Nebraska. The period after 2008 is characterized by a rather substantial decrease in the steady-state number of broiler chickens. The data for 2011 indicate that the certified organic inventory of broiler chickens dropped by about 3 million birds relative to 2008. This trend is generally in line with the economic decline post-2008 that engulfed the conventional broiler industry as well.

Steady-State Turkey Inventory

Similar to organic broiler production, annual organic turkey production data were available only for years 2008 and 2011; however, the steady-state turkey inventory from 2000 through 2008 was available. The inventory of turkeys in 2011 was estimated based on total organic turkey production data obtained from AMS assuming three and a half flocks per year. The inventories of organic turkeys in 2009 and 2010 were estimated based on an average annual rate of growth between 2008 and 2011. Table 2-3 shows that although the steady-state inventory of turkeys is increasing over time, it is not monotonically increasing. This variation over time is depicted in Figure 2-3.

Table 2-3. U.S. Organic Turkey Steady-State Inventory, 2000–2011

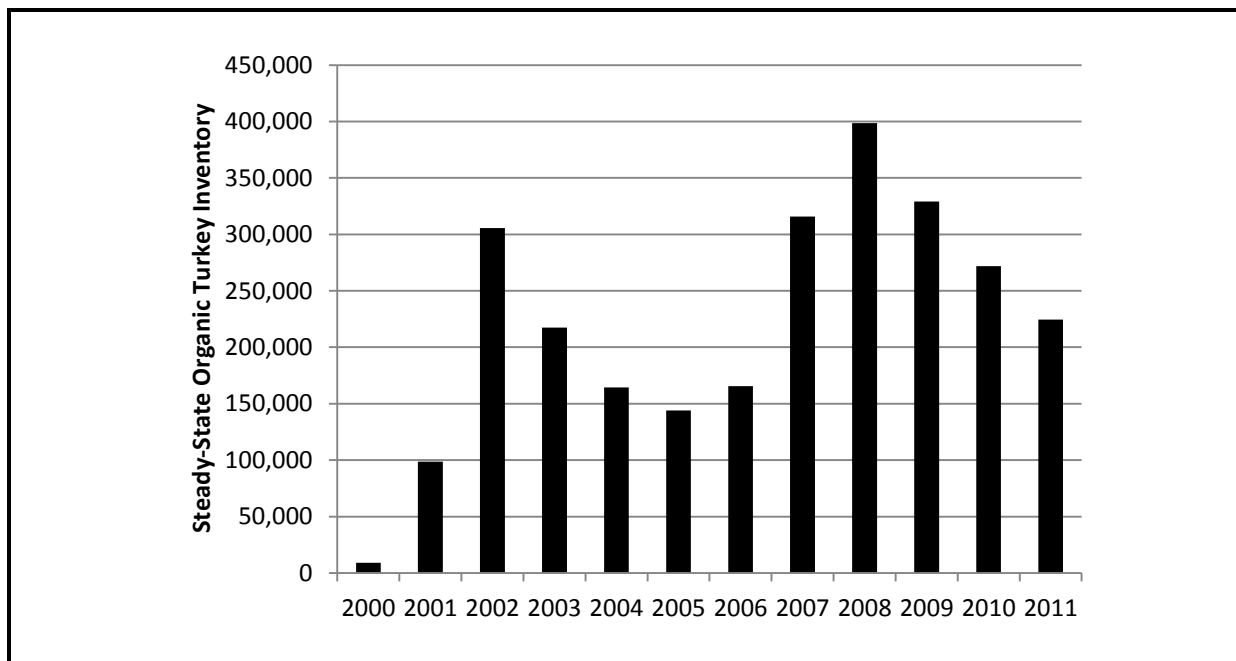
| Year | Total Certified Organic Turkeys (birds)^b |
|-------------|--|
| 2000 | 9,138 |
| 2001 | 98,653 |
| 2002 | 305,605 |
| 2003 | 217,353 |
| 2004 | 164,292 |
| 2005 | 144,086 |
| 2006 | 165,610 |
| 2007 | 315,754 |
| 2008 | 398,531 |
| 2009 | 329,113 ^b |
| 2010 | 271,787 ^b |
| 2011 | 224,446 ^c |

^a Source: USDA-ERS (2010).

^b Secondary data were not available. Estimates are based on an average annual rate of growth between 2008 and 2011.

^c Based on information collected by USDA-AMS from 36 USDA-accredited state and private organic certifiers, assuming 3.5 flocks per year.

Figure 2-3. Trends in Certified Organic Turkey Steady-State Inventory, 2000–2011



Sources: USDA-ERS (2010) (2000–2008), USDA-AMS from 36 USDA-accredited state and private organic certifiers (2011), and average annual rate of growth between 2008 and 2011 (2009 and 2010).

2.1.2 Dollar Value

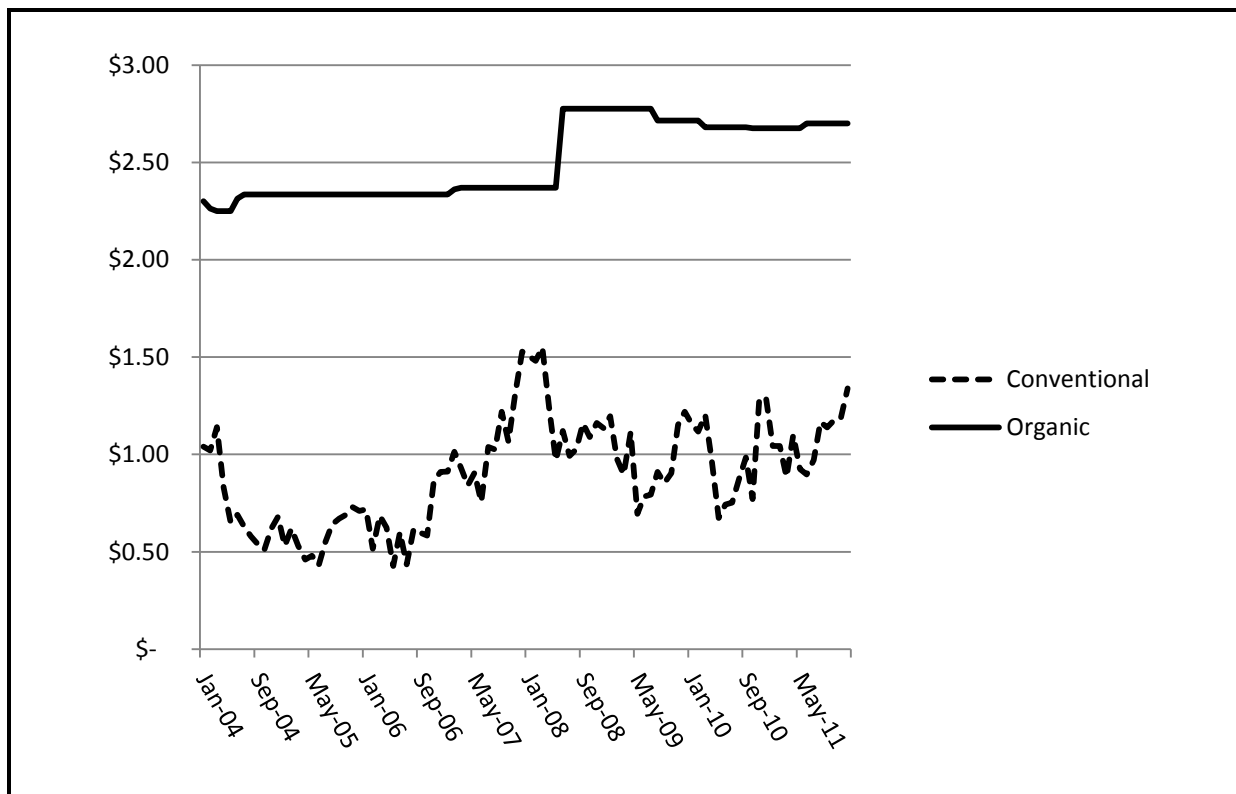
We obtained first-receiver price information for conventional and organic poultry and eggs from USDA-AMS’s Poultry Programs division. According to the report’s documentation, these prices are simple averages of the weekly prices reported in AMS’s Poultry Market News and Analysis.

Generally, prices for organic poultry products are substantially higher than prices for conventional poultry and can be as much as five times the price for conventional products. In this subsection, we describe the prices for first-receiver organic poultry relative to conventional poultry and how these price differences have changed over time. We show the estimated the total dollar value of organic poultry and egg production for years 2008 and 2011 relative to total poultry and egg production.

Eggs

Since 2004, first-receiver prices for organic eggs have remained fairly consistent, ranging from a minimum of \$2.25 to a maximum of \$2.78 per dozen, with a discrete jump of about 50 cents per dozen in June 2008, as shown in Figure 2-4. The origins of this price jump are most likely tied to the organic feed prices for critical crops, notably corn and soybeans. As seen from Figure 2-5, the spike in the organic eggs prices coincides fairly well with the spike in the organic corn and especially organic soybean prices. The prices of organic eggs have varied from being one-and-a-half times the first-receiver price of conventional eggs to roughly five times the price. This variation, however, has more to do with variation in the prices for conventional eggs than variation in the prices for organic eggs. Refer to Appendix B for a list of monthly first-receiver prices for organic and conventional eggs from 2004 through 2011.

Figure 2-4. Prices for Conventional and Organic Eggs at First Receiver, per Dozen, January 2004–December 2011



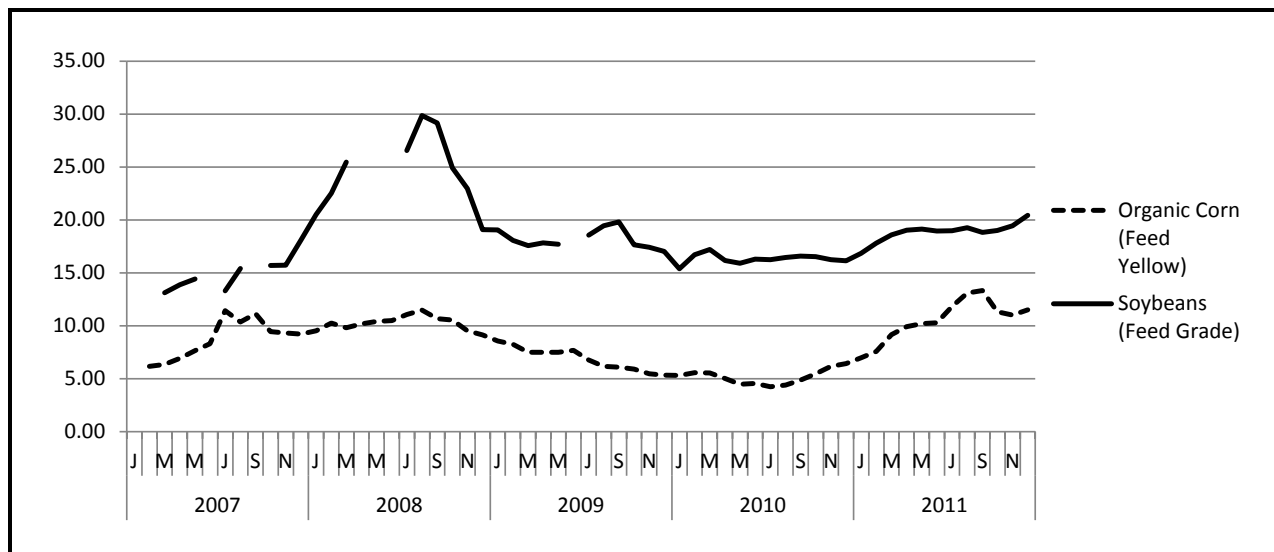
Sources: USDA-AMS (2012a) (for conventional prices) and provided by Lawrence Haller, Chief Economist, USDA-AMS Poultry Programs (for organic prices).

Using egg production data collected by USDA-NASS (2010) and data obtained by USDA-AMS (2011) and a simple average of the monthly prices per year for eggs, Table 2-4 summarizes the annual value of organic egg production for 2008 and 2011. For comparison, we also summarize the annual value of total egg production for those years. In 2011, the value of organic eggs was an estimated 5.40% of the total value of eggs in the United States, which represents an increase of 2.9 percentage points over 2008. Refer to Appendix B, Table B-1 for a complete list of organic and conventional egg prices from 2004 to 2011.

Whole Chickens, Ready to Cook

According to market price data obtained by USDA-AMS, since 2004, the first-receiver prices for organic broilers have ranged from a minimum of \$2.17 per pound to \$2.48 per pound with very little month-to-month variation except for the discrete jump of approximately 25 cents in June 2008, most likely caused by the spike in organic feed prices. Prices for organic broilers have remained substantially higher than prices for conventionally produced broilers, as shown in Figure 2-6. The first-receiver price premium for organic broilers is roughly one-and-a-half times the price of conventional broilers. As with eggs, much of the variation in the difference in prices between organic and conventional broilers has more

Figure 2-5. Upper Midwest Organic Corn and Soybean Prices, \$ per Bushel, January 2007–December 2011



Source: USDA-AMS, Upper Midwest Organic Grain & Feedstuffs Report.

Note: Gaps in the series indicate data were unavailable in the USDA-AMS report.

Table 2-4. U.S. Egg Production Value, Total and Organic, 2008 and 2011^a

| Year | Eggs (000s, dozen) ^a | Price, ^b \$/doz | Total Value, 000s | Organic Eggs (000s, dozen) ^c | Organic Price, ^d \$/doz | Total Organic Value, 000s | Percentage Organic to Total Value |
|------|---------------------------------|----------------------------|-------------------|---|------------------------------------|---------------------------|-----------------------------------|
| 2008 | 6,913,675 | \$1.203 | \$8,317,232 | 79,035 | \$2.606 | \$205,985 | 2.48% |
| 2011 | 6,913,675 | \$1.072 | \$7,412,560 | 148,858 | \$2.690 | \$400,366 | 5.40% |

^a Total estimated dozens of eggs are based on total layer counts from USDA-NASS (2010). Laying hen production assumes 24.25 dozen eggs per layer per year.

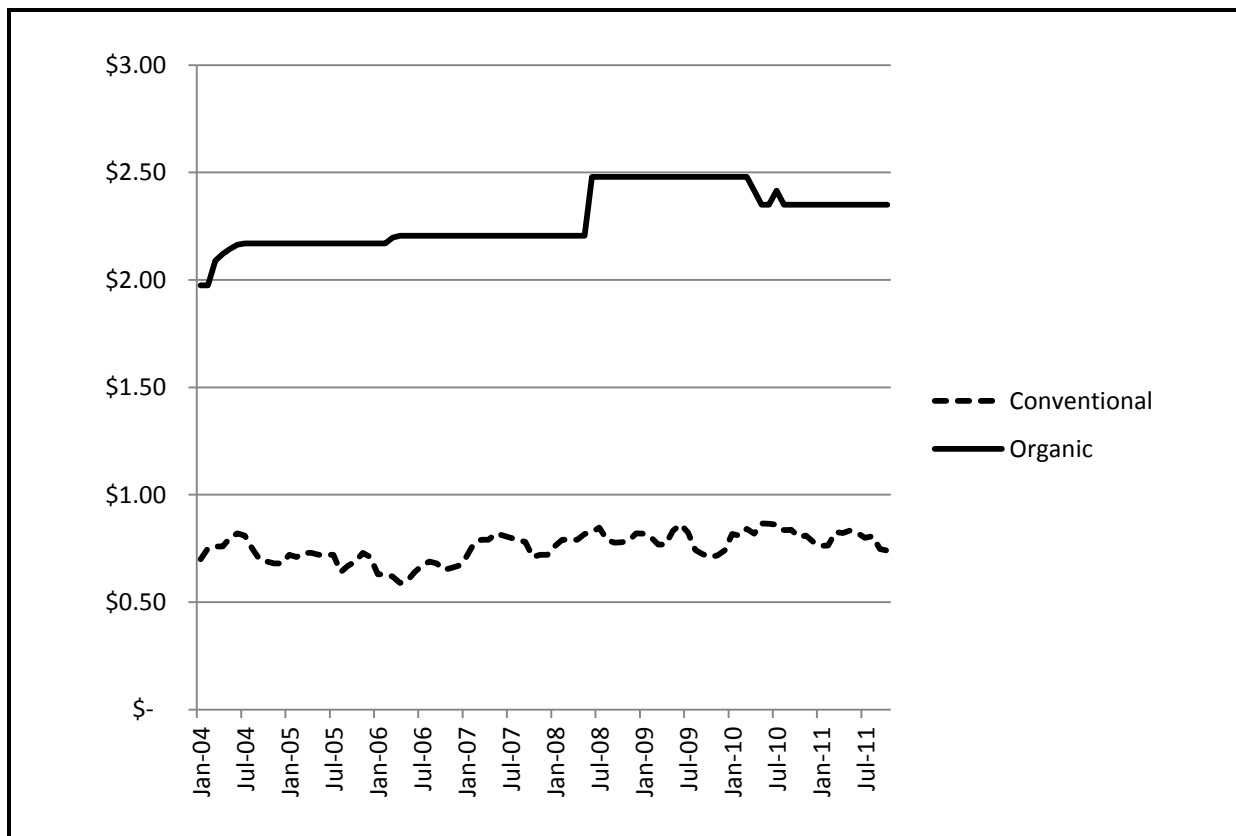
^b Source: USDA-AMS, Poultry Market News and Analysis. Prices are simple averages of monthly prices.

^c Total estimated dozens of organic eggs are based on laying hen counts published by USDA-NASS (2012a and 2012b) assuming 19.4 dozens of eggs per laying hen and egg handlers data obtained by USDA-AMS from 36 USDA-accredited state and private organic certifiers (2011).

^d Source: Prices based on simple averages of monthly prices provided by Lawrence Haller, Chief Economist, USDA-AMS, Poultry Programs.

to do with month-to-month fluctuations in prices for conventional broilers than with organic broilers. Refer to Appendix B, Table B-2 for a list of monthly first-receiver prices for organic and conventional broilers from 2004 to 2011.

Figure 2-6. Prices per Pound for Conventional and Organic Broilers at First Receiver, Whole Ready-to-Cook, 2004–2011



Source: USDA-AMS (2012b) (for conventional prices) and provided by Lawrence Haller, Chief Economist, USDA-AMS Poultry Programs (for organic prices).

Using organic broiler production data collected by USDA-NASS (2010) and data obtained by USDA-AMS (2011) and a simple average of the monthly prices for chicken, Table 2-5 summarizes the annual value of organic broiler production for 2008 and 2011. For comparison, we also summarize the annual value of total broiler production for those years. We estimate that in 2011 the total value of organic broiler production represented 0.75% of the total value of broilers. In line with the reduction in steady-state organic broiler inventory after 2008, the aggregate production declined as well, and the organic segment lost its share as the percentage of the total value of the U.S. broiler market by an estimated 0.06 percentage points.

Whole Turkeys, Ready to Cook

Data available on the first-receiver prices of organic turkey were limited to weekly prices per pound for whole, fresh, and frozen certified organic turkey for an 11-week period from October 2011 through December 2011. As shown in Table 2-6, prices for frozen whole young organic turkeys ranged from a low of \$2.40 per pound to a high of \$2.53. Prices for fresh whole young organic turkeys ranged from a low of \$2.89 to a high of \$3.16. By comparison, the average price for an 8- to 16-pound (turkey) hen ranged from \$1.11 to \$1.35 per pound over the same time period.

Table 2-5. Value of U.S. Broiler Production, Total and Organic, 2008 and 2011^a

| Year | Total lbs (000) ^a | Price, \$/lb ^b | Total Value (000) | Organic lbs (000) ^c | Organic Price, \$/lb ^d | Organic Value (000) | % Organic to Total Value |
|------|------------------------------|---------------------------|-------------------|--------------------------------|-----------------------------------|---------------------|--------------------------|
| 2008 | 34,699,985 | \$0.798 | \$27,693,234 | 95,278 | \$2.365 | \$225,371 | 0.81% |
| 2011 | 37,176,000 | \$0.792 | \$29,431,728 | 93,574 | \$2.350 | \$219,898 | 0.75% |

^a Sources: USDA Office of the Chief Economist (OCE) (2012), an average weight of 5.27/lbs per bird and dressing percentage of 73.1 and estimated total broiler production in 2011.

^b Source: USDA-AMS, Poultry Market News and Analysis. Prices are simple averages of monthly prices.

^c Total estimated ready-to-eat organic chicken based on organic broiler numbers from USDA-NASS (2010) and data obtained by USDA-AMS (2011), an average weight of 4.5 pounds per bird and a dressing percentage of 69%.

^d Source: Prices based on simple averages of monthly prices provided by Lawrence Haller, Chief Economist, USDA-AMS, Poultry Programs.

Using organic turkey production and value data collected by USDA-NASS (2010) and production data obtained by USDA-AMS (2011), we summarize in Table 2-7 the annual value of organic turkey production for 2008 and 2011. Prices for organic turkey were not available prior to October 2011. For the value of organic turkeys produced in 2008, we relied on data published by USDA-NASS from the Organic Production Survey. For comparison, we also summarize the annual value of total turkey production for those years using production and price data published in USDA’s World Agricultural Supply and Demand Estimates. In 2011, we estimate that the value of organic turkey production represents 0.75% of the total value of turkeys in the United States.

Table 2-6. Fresh and Frozen Turkey Average Prices per Pound, Organic and All, October 2011–December 2011

| Month | Week | Fresh Certified Organic \$/lb ^a | Fresh Overall \$/lb ^b | Frozen Certified Organic \$/lb ^a | Frozen Overall \$/lb ^b |
|---------------|------|--|----------------------------------|---|-----------------------------------|
| October 2011 | 3 | \$3.16 | \$1.24 | \$2.40 | \$1.13 |
| October 2011 | 4 | \$3.16 | \$1.27 | \$2.40 | \$1.18 |
| October 2011 | 5 | \$3.02 | \$1.29 | \$2.40 | \$1.15 |
| November 2011 | 1 | \$3.02 | \$1.29 | \$2.40 | \$1.14 |
| November 2011 | 2 | \$2.89 | \$1.31 | \$2.46 | \$1.11 |
| November 2011 | 3 | \$2.89 | \$1.35 | \$2.46 | \$1.13 |
| November 2011 | 4 | \$2.89 | \$1.29 | \$2.46 | \$1.12 |
| December 2011 | 1 | \$2.89 | \$1.33 | \$2.53 | \$1.12 |
| December 2011 | 2 | \$2.89 | \$1.33 | \$2.53 | \$1.08 |
| December 2011 | 3 | \$2.89 | \$1.12 | \$2.53 | \$1.02 |
| December 2011 | 4 | \$2.89 | \$1.11 | \$2.53 | \$1.00 |

^a Source: USDA-AMS. Poultry Market News and Analysis Reports, October 2011 through December 2011.

^b Source: USDA-AMS (2012c) based on average weekly sale prices for 8- to 16-pound hens beginning October 21, 2011, and ending December 30, 2011. The overall price represents a composite of organic, natural, and conventional turkeys.

Table 2-7. Value of U.S. Turkey Production, Total and Organic, 2008 and 2011^a

| Year | Total lbs (thous) ^a | \$/lb ^a | Total Value (thous) | Organic lbs (thous) ^b | Organic \$/lb ^c | Organic Value (thous) | % Organic to Total Value |
|------|--------------------------------|--------------------|---------------------|----------------------------------|----------------------------|-----------------------|--------------------------|
| 2008 | 6,246,000 | \$0.875 | \$5,465,250 | 6,672 | n/a | \$8,675 ^d | 0.16% |
| 2011 | 5,790,000 | \$1.020 | \$5,905,800 | 16,415 | \$2.713 | \$44,538 | 0.75% |

^a Source: USDA-OCE (2012), assuming an average weight of 27.41/lbs per bird and dressing percentage of 76.2 and estimated total turkey production in 2011.

^b Sources: Total estimated ready-to-eat organic turkey from USDA-NASS Organic Production Survey (2010) and data obtained by USDA-AMS (2011), assuming an average weight of 27.41 pounds per bird and a dressing percentage of 76.2%.

^c Source: USDA-AMS, Poultry Market News and Analysis Report. Prices based on simple averages of monthly prices available from October 2011 through December 2011. Prices were not available for 2008.

^d Source: USDA-NASS (2010). Organic Production Survey.

2.2 Number of Operations, Geographic Areas, and Range of Scale of Production

Production of organic poultry and eggs is quite small and localized relative to total poultry and eggs production. We obtained data from USDA on the number of operations producing certified organic poultry and the scale of production of those operations. We also examined data from NASS on the distribution of organic poultry and egg production by state in 2008. In this section, we discuss the number of organic poultry and egg operations, where they are located, and the size distribution of these operations.

2.2.1 Number of Organic Poultry and Egg Operations

To get an estimate of the number of certified organic poultry and egg operations in the United States, we used information obtained by USDA-AMS on the number of operations certified by organic certifying agencies and the total organic production those certifications represent. In Table 2-8, we show the distribution of the average size of operations for egg producers (expressed as number of layer hens), pullets, broilers, and turkeys. Producers are contract operators of firms that produce organic products. In contrast, operations are the certified entities through which producers contract for the sale of their products. The nature of this relationship means that each operation can have multiple producers.

Table 2-8. Number of Certified Organic Poultry and Egg Producers and Operations, 2011

| Stock or Species | Number of Birds | Number of Producers | Number of Operations |
|------------------------|-----------------|---------------------|----------------------|
| Layer hens (inventory) | 7,673,085 | 580 | 499 |
| Pullets | 4,785,493 | 138 | 112 |
| Broilers | 30,049,372 | 288 | 192 |
| Turkeys | 785,561 | 111 | 103 |

Source: Based on information collected by USDA-AMS from 36 USDA-accredited state and private organic certifiers.

2.2.2 Geographic Areas of Production

Table 2-9 shows that, in 2008, producers in three states—California, Pennsylvania, and Iowa—produced 82% of all organic broilers. These same states were also the top three organic egg-producing states, but they accounted for only 39% of organic egg production. The majority of organic turkey production (65%) was in California, Pennsylvania, and Wisconsin. The regional distribution of organic producers for the period after 2008 was not available and could not be reliably estimated.

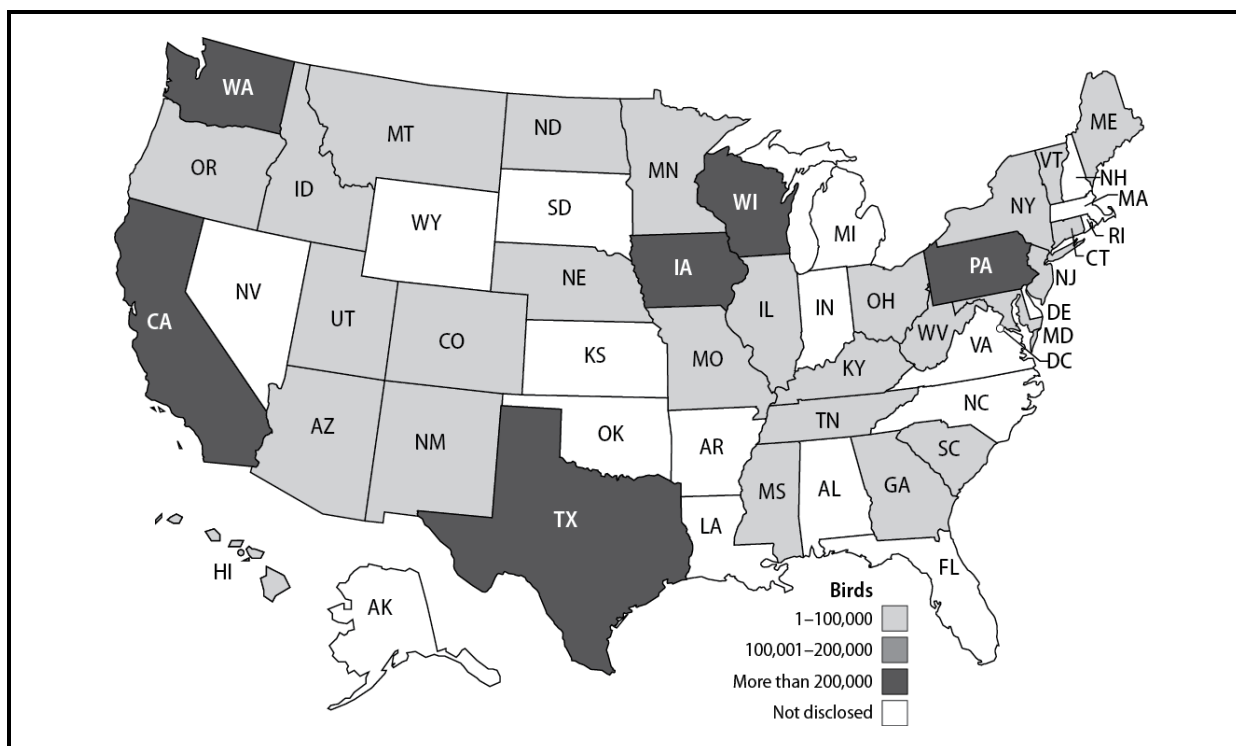
Table 2-9. Top 3 States in Organic Poultry and Egg Production, 2008

| Rank | Eggs | Broilers | Turkeys |
|-------------------------------------|--------------------|-------------------|--------------------|
| 1 | California (18%) | California (67%) | California (49%) |
| 2 | Pennsylvania (15%) | Pennsylvania (8%) | Pennsylvania (14%) |
| 3 | Iowa (6%) | Iowa (7%) | Wisconsin (2%) |
| Total Production Represented | 39% | 82% | 65% |

Source: USDA, National Agricultural Statistics Service, 2008 Organic Production Survey.

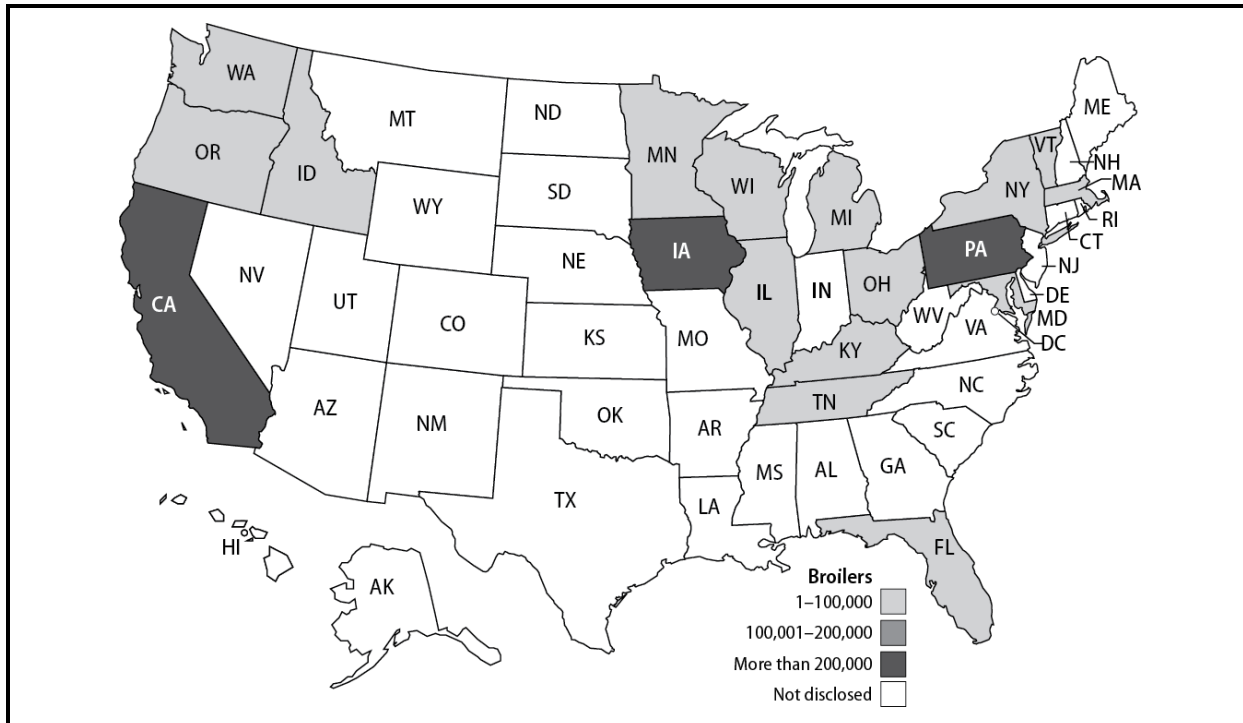
The geographic areas in which organic eggs, broilers, and turkeys are produced, by level of production, are shown in Figure 2-7, Figure 2-8, and Figure 2-9, respectively.

Figure 2-7. U.S. Organic Egg Production, Laying Hen Counts, 2008



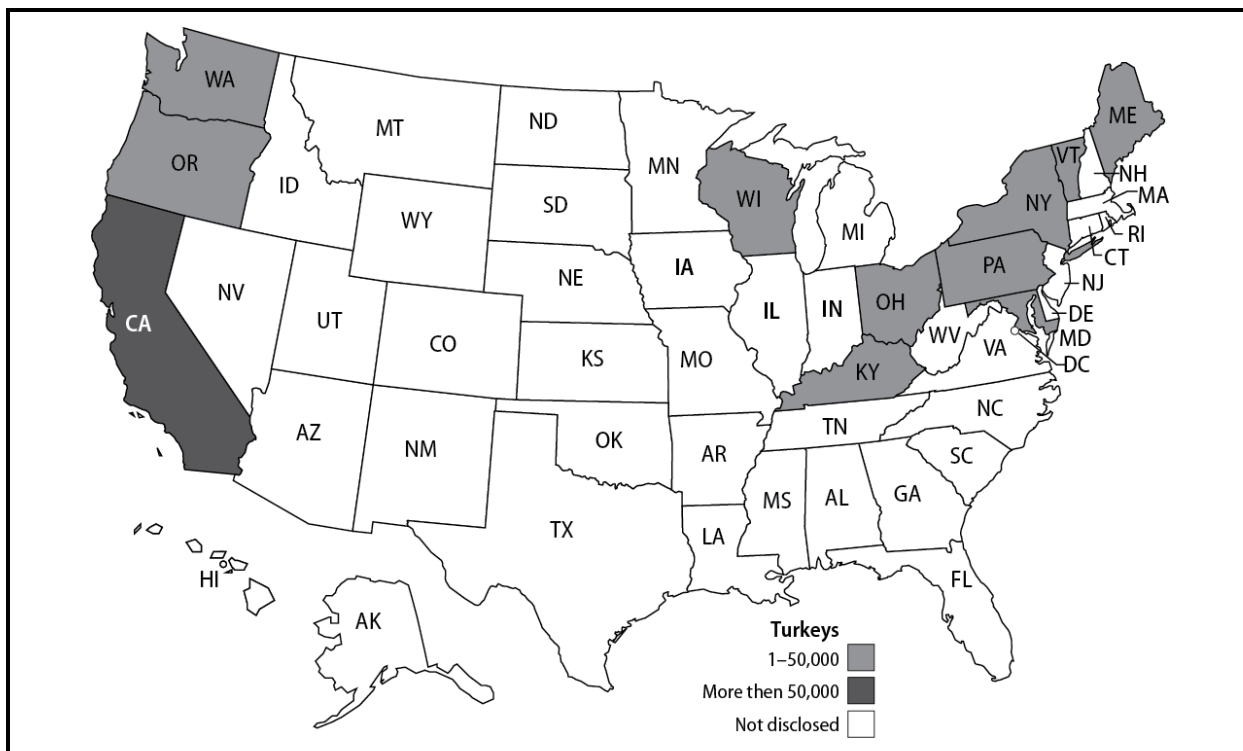
Source: USDA, National Agricultural Statistics Service, 2008 Organic Production Survey.

Figure 2-8. U.S. Organic Broiler Production, 2008



Source: USDA, National Agricultural Statistics Service, 2008 Organic Production Survey.

Figure 2-9. U.S. Organic Turkey Production, 2008



Source: USDA, National Agricultural Statistics Service, 2008 Organic Production Survey.

2.2.3 Range of Scale of Organic Poultry and Eggs Production

Specific data on the size distribution of operations producing organic poultry were not readily available through secondary sources. To get an idea of the size distribution of producers, we averaged the number of birds across the number of producers for each certifying agency. The results are shown in Table 2-10 and indicate a substantial size difference, in terms of number of birds, between the smallest producers and largest producers for all stock and species types.

Table 2-10. Average Sizes of Certified Organic Poultry and Egg Producers by Certifier, 2011

| Stock or Species | Smallest Average Producer, No. of Birds | Largest Average Producer, No. of Birds | Overall Average Producer, No. of Birds |
|-------------------------|--|---|---|
| Layer hens | 20 | 237,779 | 17,023 |
| Pullets | 38 | 380,000 | 50,174 |
| Broilers | 70 | 673,535 | 61,408 |
| Turkeys | 10 | 47,981 | 5,522 |

Source: Based on information collected from 36 USDA-accredited state and private organic certifiers.

Of the 36 agencies involved with certifying organic poultry producers that also provided data to USDA, five organic certifying agencies certified 99% (or 29,856,555 birds) of all organic broiler production. The distribution of egg producers by certifying agency was more evenly spread, with the top five certifying agencies certifying approximately 60% of all certified organic layer hens. Two certifying agencies certified approximately 76% of all organic turkeys.

2.3 Types of Marketing Methods

Marketing methods used to bring organic products to the marketplace are different than those used in the conventional poultry market. Whereas the conventional poultry industry became a symbol of corporate agriculture where large, frequently publicly traded corporations contract the production of live animals with small independent farmers or produce poultry and eggs on company-owned farms, the organic poultry sector, with some exceptions, is typically much smaller in scale and independent, with traces of vertical integration via marketing or production contracts. Organic food products primarily enter the supply chain by way of handlers. These handlers negotiate production or marketing contracts with producers (if contracts are present) or acquire organic goods through the spot market. In some cases, producers enter into vertical contracting arrangements with other larger operations.

To get their product to the market, organic poultry producers rely predominantly on the services of organic handlers. Handlers procure products from farmers and suppliers, such as grower cooperatives, and then process and/or package the products for retail sale or further processing (e.g., ingredients for value-added food products). According to a report by USDA-ERS (Dimitri and Oberholtzer, 2008), organic handlers procure nearly all organic products from the farm and then process and repackage the products that then are sold to retailers, other handlers, institutions, or directly to the end consumer.

In 2007, ERS conducted Nationwide Surveys of Organic Manufacturers, Processors, and Distributors to determine, among many things, the contracting and procurement processes by which organic products are purchased. The survey results represent 44% of eligible organic handling facilities, which were identified by contacting domestic certifying agents. For context, the percentages reported in the results of this survey reflect the proportion of organic handling facilities responding to the characteristic. Data were reported separately for eggs and poultry, although the percentages presented may not be mutually exclusive. In other words, organic handlers responding to the survey may handle both eggs and poultry along with other organic products. Although 1,408 handlers responded to this survey, ERS reported that between 4 and 35 handlers of those responding were involved with organic poultry and egg procurement.

Handlers of poultry and egg products were asked about the entities from which they procure organic products. Organic egg handlers indicated they primarily procure products from growers (80%), marketing or growers’ cooperatives (40%), and manufacturers/wholesalers (36%) (Table 2-11).³ Only 9% of organic egg handlers responded having procured eggs from agents or brokers. Organic poultry handlers indicated they primarily procure products from manufacturers/wholesalers (69%), growers (46%), and marketing or growers’ cooperatives (23%). Only 15% of organic poultry handlers responded having procured poultry from agents or brokers.

Table 2-11. Types of Suppliers of Organic Poultry and Eggs, 2007

| Types of Suppliers | Poultry Handlers | Egg Handlers |
|-----------------------------------|------------------|--------------|
| Growers | 46% | 80% |
| Marketing or growers’ cooperative | 23% | 40% |
| Manufacturer/wholesaler | 69% | 36% |
| Agents/brokers | 15% | 9% |

Source: USDA, ERS, 2007 Nationwide Surveys of Organic Manufacturers, Processors, and Distributors, Poultry and Eggs.

In this subsection, we summarize relevant sections of the results from this survey, including procurement methods used by handlers, methods of price determination for organic poultry and egg products, and methods of valuation or other contract clauses used in procuring organic poultry and egg products.

Procurement Methods Used by Handlers

According to the ERS organic handlers survey, 43% of handlers of poultry products and 55% of handlers of egg products indicated that they procured products via written contracts. As shown in Table 2-12, among egg handlers, 64% report procuring eggs via the spot market, which is substantially more than the percentage of poultry handlers who indicated they use the spot market to procure poultry (43%).

³ Note that in all questions, respondents could indicate multiple response items; therefore, percentages do not sum to 100%.

Table 2-12. Methods Used to Procure Organic Poultry and Eggs, 2007

| Types of Sales Arrangements | Poultry Handlers | Egg Handlers |
|---|------------------|--------------|
| Formal contract (written) | 43% | 55% |
| Informal contract (e.g., handshake or verbal) | 46% | 36% |
| Spot market | 43% | 64% |

Source: USDA, ERS, 2007 Nationwide Surveys of Organic Manufacturers, Processors, and Distributors, Poultry and Eggs.

Methods of Price Determination for Organic Products

As shown in Table 2-13, most organic poultry handlers negotiate flat prices (43%) or determine the price paid to producers using the market price (29%). Organic egg handlers primarily negotiate prices using a cost-plus mechanism (40%), although contracts with a flat price (20%), fixed price plus a quality premium (20%), and other mechanisms (20%) were also used.

Table 2-13. Compensation Terms Used Most Often in Handlers’ Contracts for Organic Poultry and Eggs, 2007

| Compensation Term Used Most Often | Poultry Handlers | Eggs Handlers |
|---|------------------|---------------|
| Flat price | 43% | 20% |
| Market price for organic products | 29% | 0% |
| Fixed price plus a quality premium | 7% | 20% |
| Production costs plus a markup | 0% | 40% |
| Negotiated price at time of transaction | 14% | 0% |
| Other method | 0% | 20% |

Source: USDA, ERS, 2007 Nationwide Surveys of Organic Manufacturers, Processors, and Distributors, Poultry and Eggs.

Methods of Valuation and Other Contract Clauses

As summarized in Table 2-14, handlers of organic poultry and egg products indicated several measurements of quality used to determine product worthiness. Quality measurements primarily used include observing samples (57% and 60% of poultry and egg handlers, respectively), USDA grading standards (36% and 80% of poultry and egg handlers, respectively), and testing samples (43% and 60% of poultry and egg handlers, respectively). Twenty-nine percent of poultry handlers indicated they used third-party certifications as a measurement of quality.

Table 2-14. Method of Quality Measurement for Pricing Organic Poultry and Eggs, 2007

| Method of Quality Measurement | Poultry Handlers | Eggs Handlers |
|----------------------------------|------------------|---------------|
| Observing samples | 57% | 60% |
| Testing samples | 43% | 60% |
| Third-party certification | 29% | 0% |
| USDA grading standards | 36% | 80% |
| Price does not depend on quality | 7% | 0% |

Source: USDA, ERS, 2007 Nationwide Surveys of Organic Manufacturers, Processors, and Distributors, Poultry and Eggs.

Handlers of organic poultry products reported they use several standard contract clauses when procuring products, as reported in Table 2-15. For example, 14% of poultry handlers but 60% of egg handlers use automatic renewal clauses in their contracts. Eighty-six percent of poultry handlers and 60% of eggs handlers require verification of organic certification. The fact that 40% of layer contracts for organic eggs did not require an organic certificate is somewhat surprising but could be explained by the fact that egg handlers do not need to request organic certificates from producers because they themselves hold the certification on behalf of the producers. Large percentage of both poultry and egg handlers require minimum quality standards to be met, 64% and 60%, respectively. Interestingly, 64% of poultry handlers but only 20% of egg handlers reject deliveries that do not meet specifications.⁴

Table 2-15. Standard Contract Clauses for Organic Poultry and Eggs, 2007

| Standard Contract Clauses | Poultry Handlers | Egg Handlers |
|---|------------------|--------------|
| Automatic renewal | 14% | 60% |
| Verification of organic certification | 86% | 60% |
| Minimum quality standards | 64% | 60% |
| Best management practices | 21% | 20% |
| Reject deliveries that do not meet specs | 64% | 20% |
| Other actions if contract specs not met | 50% | 60% |
| Place of delivery | 57% | 40% |
| Date of delivery | 36% | 40% |
| Exclusive supply | 0% | 20% |
| Payment upon delivery of product | 50% | 20% |
| Payment a specified number of days after harvest, delivery date, or invoice | 36% | 60% |

Source: USDA, ERS, 2007 Nationwide Surveys of Organic Manufacturers, Processors, and Distributors, Poultry and Eggs.

⁴ The reliability of these results may be questionable because the number of responses is sometimes very low (five responses total in these categories).

Table 2-15 also shows that handlers of organic poultry products typically stipulate payment for products to take place upon product delivery (50%), although suppliers of organic eggs are typically paid a specified number of days after harvest, delivery date, or invoice (60%). Table 2-16 shows the contract lengths used by handlers of organic poultry and egg products. Handlers of organic egg products indicated that they typically negotiate multiyear contracts with suppliers (80%), although the majority (57%) of handlers for organic poultry products negotiate yearly contracts.

Table 2-16. Contract Length for Organic Poultry and Eggs, 2007

| Contract Length | Poultry Handlers | Egg Handlers |
|--------------------|------------------|--------------|
| Seasonal | 14% | 0% |
| Yearly | 57% | 20% |
| Multiyear | 7% | 80% |
| Other | 14% | 0% |
| Time not specified | 7% | 0% |

Source: USDA, ERS, 2007 Nationwide Surveys of Organic Manufacturers, Processors, and Distributors, Poultry and Eggs.

2.4 Limitations and Qualifications of the Data

Some data on organic poultry and egg production counts, scale, value, and regional distribution were not available. Also, after closely examining available information, we found that some of the data contained irregularities that may make it difficult to accurately estimate the costs to comply with a regulatory change.

We encountered the following information gaps:

- 2009 and 2010 organic inventory or production: We were unable to find inventory of poultry or production statistics for these 2 years. Also, we were not able to obtain production estimates for years prior to 2008 although inventory numbers were available. The weakness with relying on inventory numbers as a proxy for production is that their reliability is entirely dependent on the timing of data collection. Should a producer be in between flocks, for instance, their production will not be included if it is estimated based on inventory at one point in time.
- Total table egg production: We were unable to find a government publication with yearly table egg production. We relied on estimates from an extension publication; however, these estimates are rounded to the nearest 100,000 eggs.
- Turkey prices: Organic turkey prices were available for only 11 weeks.
- Size distribution of producers: We were unable to find the size distribution of organic poultry and egg producers to determine the range of scale of production and, therefore, relied on extrapolations from the data from 36 USDA-accredited organic certifiers collected by USDA-AMS.
- Regional distribution of organic production is not available for the period after 2008.

Additionally, some of information we evaluated and summarized in this report contained irregularities that may be problematic in determining a reliable economic model from which to estimate regulatory impacts. The following is a list of data irregularities:

- Both organic eggs and broiler prices exhibit a discrete jump in prices in June 2008, which might not be entirely the result of market conditions (in particular, the increase in organic feed prices) but also caused by a change in data collection methodology.
- Procurement metrics: Between 4 and 35 handlers of organic poultry and eggs responded to ERS's Nationwide Surveys of Organic Manufacturers, Processors, and Distributors. It is unclear the percentage of total organic handlers of organic poultry and eggs this range represents.

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***Appendix A: Regulatory Options 2 and 3, 5-Year
Implementation Period***

Table A-1. Regulatory Option 2, 5-Year Implementation Period

| | Layers | Pullets | Broilers | Turkeys |
|------------------------------|----------------------------------|----------------------------|----------------------------------|---------------------------------|
| <i>Indoor housing</i> | | | | |
| Stocking rates ^a | | | | |
| Single-level house | 1.5 square feet per bird | N/A | Maximum 7.0 lbs per square foot | Maximum 7.5 lbs per square foot |
| Raised roost type house | 1.2 square feet per bird | N/A | N/A | N/A |
| Multitier houses | 1.0 square feet per bird | N/A | N/A | N/A |
| Ventilation | Ammonia < 25 ppm | Ammonia < 25 ppm | Ammonia < 25 ppm | Ammonia < 25 ppm |
| Perches | 6" per bird | N/A | N/A | N/A |
| Scratch areas, dust baths | Yes | Yes | Yes | Yes |
| Houses with slats | Minimum 15% of floor space | Minimum 15% of floor space | N/A | N/A |
| Exit doors | 16" W x 14" H | N/A | 24" W x 18" H | 60" x 40" H |
| Natural light | Yes | Yes | Yes | Yes |
| Artificial light | Maximum 16 hours | Maximum 16 hours | Maximum 16 hours | Maximum 16 hours |
| <i>Outdoor access</i> | | | | |
| Age ^b | N/A | 16 weeks | 4 weeks | 12 weeks |
| Direct sun | Yes | Yes | Yes | Yes |
| Solid roofs | Allowed | Allowed | Allowed | Allowed |
| Stocking rates | | | | |
| Percentage of flock | 5%, minimum | N/A | 5%, minimum | N/A |
| Minimum space | 2.0 square feet per bird | N/A | 2.0 square feet per bird | 7.5 lbs per square foot |
| Scratch areas, dust baths | Soil/suitable substrate | Soil/suitable substrate | Soil/suitable substrate | Soil/suitable substrate |
| Mobile pen units | Minimum 2.0 square feet per bird | N/A | Minimum 2.0 square feet per bird | N/A |

^a In Option 3 stocking rates, particularly for layers, are the same regardless of housing type.

^b Age of outdoor access when temperatures exceed 50° Fahrenheit.

Table A-2. Regulatory Option 3, 5-Year Implementation Period

| | Layers | Pullets | Broilers | Turkeys |
|------------------------------|---|----------------------------|----------------------------------|---------------------------------|
| <i>Indoor housing</i> | | | | |
| Stocking rates ^a | 2.0 square feet per bird (based on floor perimeter of building) | 3.0 lbs per square foot | Maximum 5.0 lbs per square foot | Maximum 5.3 lbs per square foot |
| Ventilation | Ammonia < 25 ppm | Ammonia < 25 ppm | Ammonia < 25 ppm | Ammonia < 25 ppm |
| Perches | 6" per bird, min. 35 cm elevation | at 4 weeks of age | N/A | N/A |
| Scratch areas, dust baths | Minimum 30% of floor space | Minimum 30% of floor space | Minimum 30% of floor space | Minimum 30% of floor space |
| Houses with slats | Allowed | Allowed | Allowed | Allowed |
| Exit doors | Min 6'/1000 birds x 14" H | Min 6'/1000 birds x 14" H | Min 6'/1000 birds x 14" H | Min 6'/1000 birds x 2.5' H |
| Natural light | Yes | Yes | Yes | Yes |
| Artificial light | Max 16 hours | Max 16 hours | Max 16 hours | Max 16 hours |
| <i>Outdoor access</i> | | | | |
| Age ^b | N/A | 16 weeks | 4 weeks | 12 weeks |
| Direct sun | Yes | Yes | Yes | Yes |
| Solid roofs | No | No | No | No |
| Shades in warm weather | Yes | Yes | Yes | Yes |
| Stocking rates | Minimum 2.0 square feet per bird | N/A | Maximum 5.0 lbs per square foot | Maximum 3.5 lbs per square foot |
| Scratch areas, dust baths | In soil | In soil | In soil | In soil |
| Vegetation cover | 50%, year round | 50%, year round | 50%, year round | 50%, year round |
| Mobile pen units | Minimum 2.0 square feet per bird | N/A | Minimum 2.0 square feet per bird | N/A |

^a In Option 3 stocking rates, particularly for layers, are the same regardless of housing type.

^b Age of outdoor access when temperatures exceed 50° Fahrenheit.

Appendix B: Price Tables for Eggs and Broilers

Table B-1. Monthly Average Prices at First Receiver for Eggs, per Dozen, Conventional and Organic, January 2004–December 2011

| Date | Conventional Price per Dozen^a | Organic Price per Dozen^b | % Price Premium for Organic |
|--------------|---|--|------------------------------------|
| January-04 | 1.04 | 2.30 | 221% |
| February-04 | 1.02 | 2.26 | 222% |
| March-04 | 1.14 | 2.25 | 197% |
| April-04 | 0.83 | 2.25 | 271% |
| May-04 | 0.65 | 2.25 | 346% |
| June-04 | 0.69 | 2.30 | 333% |
| July-04 | 0.63 | 2.34 | 371% |
| August-04 | 0.58 | 2.34 | 403% |
| September-04 | 0.54 | 2.34 | 433% |
| October-04 | 0.51 | 2.34 | 459% |
| November-04 | 0.62 | 2.34 | 377% |
| December-04 | 0.68 | 2.34 | 344% |
| January-05 | 0.53 | 2.34 | 442% |
| February-05 | 0.62 | 2.34 | 377% |
| March-05 | 0.53 | 2.34 | 442% |
| April-05 | 0.46 | 2.34 | 509% |
| May-05 | 0.48 | 2.34 | 488% |
| June-05 | 0.43 | 2.34 | 544% |
| July-05 | 0.55 | 2.34 | 425% |
| August-05 | 0.64 | 2.34 | 366% |
| September-05 | 0.67 | 2.34 | 349% |
| October-05 | 0.69 | 2.34 | 339% |
| November-05 | 0.73 | 2.34 | 321% |
| December-05 | 0.71 | 2.34 | 330% |
| January-06 | 0.72 | 2.34 | 326% |
| February-06 | 0.52 | 2.34 | 454% |

(continued)

**Table B-1. Monthly Average Prices at First Receiver for Eggs, per Dozen,
Conventional and Organic, January 2004–December 2011 (cont'd)**

| Date | Conventional Price per Dozen^a | Organic Price per Dozen^b | % Price Premium for Organic |
|--------------|---|--|------------------------------------|
| March-06 | 0.69 | 2.34 | 341% |
| April-06 | 0.62 | 2.34 | 375% |
| May-06 | 0.43 | 2.34 | 547% |
| June-06 | 0.60 | 2.34 | 391% |
| July-06 | 0.44 | 2.34 | 538% |
| August-06 | 0.62 | 2.34 | 379% |
| September-06 | 0.60 | 2.34 | 391% |
| October-06 | 0.58 | 2.34 | 402% |
| November-06 | 0.87 | 2.34 | 270% |
| December-06 | 0.91 | 2.34 | 257% |
| January-07 | 0.91 | 2.34 | 256% |
| February-07 | 1.01 | 2.37 | 234% |
| March-07 | 0.93 | 2.37 | 255% |
| April-07 | 0.84 | 2.37 | 282% |
| May-07 | 0.91 | 2.37 | 262% |
| June-07 | 0.76 | 2.37 | 314% |
| July-07 | 1.04 | 2.37 | 228% |
| August-07 | 1.03 | 2.37 | 231% |
| September-07 | 1.22 | 2.37 | 194% |
| October-07 | 1.07 | 2.37 | 222% |
| November-07 | 1.31 | 2.37 | 181% |
| December-07 | 1.53 | 2.37 | 155% |
| January-08 | 1.51 | 2.37 | 157% |
| February-08 | 1.48 | 2.37 | 160% |
| March-08 | 1.55 | 2.37 | 153% |
| April-08 | 1.24 | 2.37 | 191% |
| May-08 | 0.97 | 2.37 | 244% |

(continued)

Table B-1. Monthly Average Prices at First Receiver for Eggs, per Dozen, Conventional and Organic, January 2004–December 2011 (cont'd)

| Date | Conventional Price per Dozen ^a | Organic Price per Dozen ^b | % Price Premium for Organic |
|--------------|---|--------------------------------------|-----------------------------|
| June-08 | 1.12 | 2.78 | 248% |
| July-08 | 0.99 | 2.78 | 280% |
| August-08 | 1.03 | 2.78 | 270% |
| September-08 | 1.16 | 2.78 | 239% |
| October-08 | 1.09 | 2.78 | 255% |
| November-08 | 1.16 | 2.78 | 239% |
| December-08 | 1.13 | 2.78 | 245% |
| January-09 | 1.20 | 2.78 | 232% |
| February-09 | 0.98 | 2.78 | 284% |
| March-09 | 0.90 | 2.78 | 309% |
| April-09 | 1.11 | 2.78 | 249% |
| May-09 | 0.70 | 2.78 | 399% |
| June-09 | 0.78 | 2.78 | 354% |
| July-09 | 0.79 | 2.78 | 350% |
| August-09 | 0.91 | 2.72 | 298% |
| September-09 | 0.85 | 2.72 | 318% |
| October-09 | 0.90 | 2.72 | 300% |
| November-09 | 1.15 | 2.72 | 236% |
| December-09 | 1.22 | 2.72 | 223% |
| January-10 | 1.16 | 2.72 | 234% |
| February-10 | 1.12 | 2.72 | 243% |
| March-10 | 1.20 | 2.68 | 223% |
| April-10 | 0.96 | 2.68 | 279% |
| May-10 | 0.67 | 2.68 | 397% |
| June-10 | 0.74 | 2.68 | 361% |
| July-10 | 0.75 | 2.68 | 356% |
| August-10 | 0.88 | 2.68 | 306% |

(continued)

**Table B-1. Monthly Average Prices at First Receiver for Eggs, per Dozen,
Conventional and Organic, January 2004–December 2011 (cont'd)**

| Date | Conventional Price per Dozen^a | Organic Price per Dozen^b | % Price Premium for Organic |
|--------------|---|--|------------------------------------|
| September-10 | 0.98 | 2.68 | 272% |
| October-10 | 0.77 | 2.68 | 347% |
| November-10 | 1.29 | 2.68 | 208% |
| December-10 | 1.29 | 2.68 | 207% |
| January-11 | 1.04 | 2.68 | 256% |
| February-11 | 1.04 | 2.68 | 256% |
| March-11 | 0.88 | 2.68 | 302% |
| April-11 | 1.10 | 2.68 | 243% |
| May-11 | 0.93 | 2.68 | 289% |
| June-11 | 0.90 | 2.70 | 301% |
| July-11 | 0.97 | 2.70 | 278% |
| August-11 | 1.17 | 2.70 | 231% |
| September-11 | 1.14 | 2.70 | 237% |
| October-11 | 1.17 | 2.70 | 230% |
| November-11 | 1.18 | 2.70 | 229% |
| December-11 | 1.34 | 2.70 | 202% |

^a Prices for large, white eggs

^b Prices for large, brown eggs

Source: USDA Agricultural Marketing Service.

Table B-2. Monthly Average Prices at First Receiver for Whole, Young Chickens, per Pound, Conventional and Organic, January 2004–December 2011

| Date | Conventional Price per pound | Organic Price per pound | % Price Premium for Organic |
|--------------|------------------------------|-------------------------|-----------------------------|
| January-04 | 0.70 | 1.98 | 282% |
| February-04 | 0.75 | 1.98 | 263% |
| March-04 | 0.76 | 2.09 | 275% |
| April-04 | 0.76 | 2.12 | 279% |
| May-04 | 0.80 | 2.15 | 268% |
| June-04 | 0.82 | 2.16 | 264% |
| July-04 | 0.81 | 2.17 | 268% |
| August-04 | 0.75 | 2.17 | 289% |
| September-04 | 0.70 | 2.17 | 310% |
| October-04 | 0.69 | 2.17 | 314% |
| November-04 | 0.68 | 2.17 | 319% |
| December-04 | 0.68 | 2.17 | 319% |
| January-05 | 0.72 | 2.17 | 301% |
| February-05 | 0.71 | 2.17 | 306% |
| March-05 | 0.73 | 2.17 | 297% |
| April-05 | 0.73 | 2.17 | 297% |
| May-05 | 0.72 | 2.17 | 301% |
| June-05 | 0.72 | 2.17 | 301% |
| July-05 | 0.72 | 2.17 | 301% |
| August-05 | 0.64 | 2.17 | 339% |
| September-05 | 0.67 | 2.17 | 324% |
| October-05 | 0.69 | 2.17 | 314% |
| November-05 | 0.73 | 2.17 | 297% |
| December-05 | 0.71 | 2.17 | 306% |
| January-06 | 0.63 | 2.17 | 344% |
| February-06 | 0.63 | 2.17 | 344% |
| March-06 | 0.62 | 2.20 | 354% |

(continued)

Table B-2. Monthly Average Prices at First Receiver for Whole, Young Chickens, per Pound, Conventional and Organic, January 2004–December 2011 (cont'd)

| Date | Conventional Price per pound | Organic Price per pound | % Price Premium for Organic |
|--------------|-------------------------------------|--------------------------------|------------------------------------|
| April-06 | 0.59 | 2.21 | 374% |
| May-06 | 0.60 | 2.21 | 368% |
| June-06 | 0.64 | 2.21 | 345% |
| July-06 | 0.67 | 2.21 | 329% |
| August-06 | 0.69 | 2.21 | 320% |
| September-06 | 0.68 | 2.21 | 324% |
| October-06 | 0.65 | 2.21 | 339% |
| November-06 | 0.66 | 2.21 | 334% |
| December-06 | 0.67 | 2.21 | 329% |
| January-07 | 0.71 | 2.21 | 311% |
| February-07 | 0.77 | 2.21 | 286% |
| March-07 | 0.79 | 2.21 | 279% |
| April-07 | 0.79 | 2.21 | 279% |
| May-07 | 0.82 | 2.21 | 269% |
| June-07 | 0.81 | 2.21 | 272% |
| July-07 | 0.80 | 2.21 | 276% |
| August-07 | 0.79 | 2.21 | 279% |
| September-07 | 0.78 | 2.21 | 283% |
| October-07 | 0.71 | 2.21 | 311% |
| November-07 | 0.72 | 2.21 | 306% |
| December-07 | 0.72 | 2.21 | 306% |
| January-08 | 0.76 | 2.21 | 290% |
| February-08 | 0.79 | 2.21 | 279% |
| March-08 | 0.79 | 2.21 | 279% |
| April-08 | 0.79 | 2.21 | 279% |
| May-08 | 0.82 | 2.21 | 270% |

(continued)

Table B-2. Monthly Average Prices at First Receiver for Whole, Young Chickens, per Pound, Conventional and Organic, January 2004–December 2011 (cont'd)

| Date | Conventional Price per pound | Organic Price per pound | % Price Premium for Organic |
|--------------|------------------------------|-------------------------|-----------------------------|
| June-08 | 0.83 | 2.48 | 300% |
| July-08 | 0.85 | 2.48 | 293% |
| August-08 | 0.79 | 2.48 | 313% |
| September-08 | 0.78 | 2.48 | 319% |
| October-08 | 0.78 | 2.48 | 319% |
| November-08 | 0.79 | 2.48 | 315% |
| December-08 | 0.82 | 2.48 | 302% |
| January-09 | 0.82 | 2.48 | 303% |
| February-09 | 0.80 | 2.48 | 309% |
| March-09 | 0.77 | 2.48 | 323% |
| April-09 | 0.77 | 2.48 | 323% |
| May-09 | 0.83 | 2.48 | 298% |
| June-09 | 0.86 | 2.48 | 288% |
| July-09 | 0.82 | 2.48 | 301% |
| August-09 | 0.74 | 2.48 | 334% |
| September-09 | 0.72 | 2.48 | 342% |
| October-09 | 0.71 | 2.48 | 349% |
| November-09 | 0.72 | 2.48 | 345% |
| December-09 | 0.74 | 2.48 | 335% |
| January-10 | 0.82 | 2.48 | 304% |
| February-10 | 0.81 | 2.48 | 306% |
| March-10 | 0.84 | 2.48 | 295% |
| April-10 | 0.82 | 2.42 | 295% |
| May-10 | 0.87 | 2.35 | 271% |
| June-10 | 0.86 | 2.35 | 272% |
| July-10 | 0.86 | 2.42 | 281% |

(continued)

Table B-2. Monthly Average Prices at First Receiver for Whole, Young Chickens, per Pound, Conventional and Organic, January 2004–December 2011 (cont'd)

| Date | Conventional Price per pound | Organic Price per pound | % Price Premium for Organic |
|--------------|-------------------------------------|--------------------------------|------------------------------------|
| August-10 | 0.83 | 2.35 | 282% |
| September-10 | 0.84 | 2.35 | 281% |
| October-10 | 0.80 | 2.35 | 292% |
| November-10 | 0.81 | 2.35 | 290% |
| December-10 | 0.78 | 2.35 | 301% |
| January-11 | 0.76 | 2.35 | 309% |
| February-11 | 0.76 | 2.35 | 308% |
| March-11 | 0.83 | 2.35 | 284% |
| April-11 | 0.82 | 2.35 | 286% |
| May-11 | 0.83 | 2.35 | 282% |
| June-11 | 0.82 | 2.35 | 286% |
| July-11 | 0.80 | 2.35 | 294% |
| August-11 | 0.81 | 2.35 | 291% |
| September-11 | 0.75 | 2.35 | 314% |
| October-11 | 0.74 | 2.35 | 318% |
| November-11 | 0.77 | 2.35 | 304% |
| December-11 | 0.80 | 2.35 | 293% |

Source: USDA Agricultural Marketing Service.