



Table Egg Production and Hen Welfare: Agreement and Legislative Proposals

Joel L. Greene

Analyst in Agricultural Policy

Tadlock Cowan

Analyst in Natural Resources and Rural Development

January 11, 2013

Congressional Research Service

7-5700

www.crs.gov

R42534

CRS Report for Congress

Prepared for Members and Committees of Congress

Summary

The United Egg Producers (UEP), the largest group representing egg producers, and the Humane Society of the United States (HSUS), the largest animal protection group, have been adversaries for many years over the use of conventional cages in table egg production. In July 2011, the animal agriculture community was stunned when the UEP and HSUS announced that they had agreed to work together to push for federal legislation to regulate how U.S. table eggs are produced. The agreement between UEP and HSUS called for federal legislation that would set cage sizes, establish labeling requirements, and regulate other production practices. As part of the agreement, HSUS agreed to immediately suspend state-level ballot initiative efforts in Oregon and Washington.

During the 112th Congress, the Egg Products Inspection Act Amendments of 2012 (H.R. 3798) was introduced in the House in January 2012. In May 2012, a companion bill, S. 3239, was introduced in the Senate. The provisions in the bills were the same, and reflected the agreement between UEP and HSUS to establish uniform, national cage size requirements for table egg-laying hens. The bills would have codified national standards for laying-hen housing over an 18-year phase-in period, included labeling requirements to disclose how eggs were produced, and set air quality, molting, and euthanasia standards for laying hens.

The agreement and legislation were a marked shift in direction for both UEP and HSUS. UEP viewed H.R. 3798 as being in the long-term interest and survival of American egg farmers. Egg producers would benefit from national egg standards that halted costly state-by-state battles over caged eggs that result in a variety of laws across the country. For HSUS, which has actively campaigned for cage-free egg production, accepting enriched cages was a compromise, but one that could result in significant federal farm animal welfare legislation. H.R. 3798 and S. 3239 were endorsed by a wide range of agricultural, veterinary, consumer, and animal protection groups.

Farm group opponents criticized H.R. 3798 and S. 3239 for several reasons. First, they were concerned that the bills federally mandated management practices for farm animals, something that had not been done in the past. These groups argued that the bills could set a precedent, paving the way for future legislation on animal welfare for the livestock and poultry industries. Opponents held the view that the cage requirements were not science-based, and undermined long-standing views that animal husbandry practices should be based on the best available science. They also argued that codifying cage standards today ignores innovations that could appear in the future. Additionally, opponents were concerned that the capital cost of transitioning to enriched cages would be high, and could be prohibitive for small producers.

S. 3239 was initially offered as an amendment to the Senate's proposed 2012 farm bill (S. 3240), but was withdrawn. The Senate Agriculture Committee held a hearing on S. 3239 on July 26, 2012. H.R. 3798 was not offered as an amendment during the House Agriculture Committee's markup of the 2012 farm bill (H.R. 6083). However, an amendment to H.R. 6083 was adopted that would have prohibited states from enforcing their production or manufacturing standards for agricultural products on agricultural products from other states.

The provisions that were in H.R. 3798 and S. 3239 are expected to be reintroduced in the 113th Congress, and both UEP and HSUS will advocate for passage. Egg legislation could again become part of the omnibus farm bill debate during the year.

Contents

Introduction.....	1
Legislative Activity in the 112 th Congress	1
Egg Industry Overview	3
Table Egg Production	3
Production Systems	5
UEP-HSUS Agreement.....	6
United Egg Producers (UEP).....	6
The Humane Society of the United States (HSUS).....	6
The Agreement	7
Bills Introduced in the 112 th Congress.....	8
Housing Requirements	9
Environmental Enrichments.....	9
Minimum Floor Space.....	10
Other Requirements.....	10
Phase-In Conversion Requirements.....	11
Labeling.....	11
Exemptions.....	12
Support and Opposition	12
Issues Raised by H.R. 3798 and S. 3239	13
Mandating Farm Animal Husbandry Practices	14
Effect on Other Animal Agriculture Sectors	14
Basis in Science.....	15
High Transition Costs Expected.....	15
Animal Welfare Issues	17
Egg Production Systems and Hen Welfare	17
U.S. Animal Welfare Legislation.....	19
Other Legislation Covering Hen Welfare	20
California Proposition 2	20
Michigan Animal Welfare Law	21
Europe’s Ban on Battery Cages.....	21

Figures

Figure 1. U.S. Egg-Laying Hen Inventory.....	4
--	---

Tables

Table 1. Top 10 Egg-Producing States in 2011	4
Table 2. Floor Space Requirements for New Cage Systems.....	10

Contacts

Author Contact Information..... 24

Introduction

The relationship between the livestock and poultry industries and animal protection groups is an antagonistic one, at best. The table egg industry, led in the United States by the United Egg Producers (UEP), has been widely criticized for decades for raising laying hens in cages. Many have argued that conventional cage systems widely used in the United States and elsewhere provide little or no welfare for laying hens because hens are not able to express natural behaviors. The Humane Society of the United States (HSUS) is one of many animal protection organizations that have led campaigns advocating cage-free egg production and the elimination of all cages.

Given the history between the egg industry and animal protection groups, UEP stunned the animal agriculture community in July 2011 with an announcement that it would work jointly with HSUS to push for federal legislation to regulate how U.S. table eggs are produced. The agreement between UEP and HSUS was signed July 7, 2011, and called for legislation that would set cage sizes, establish labeling requirements, and regulate other production practices. The goal of the agreement is to have federal legislation in place by June 30, 2012. As part of the agreement, HSUS agreed to immediately suspend state-level ballot initiative efforts in Oregon and Washington to end the use of conventional cages.

During the 112th Congress, the Egg Products Inspection Act Amendments of 2012 (H.R. 3798) was introduced in the House in January 2012 by Representative Schrader of Oregon. In May 2012, a companion bill, S. 3239, was introduced by Senator Feinstein of California. The bills reflected the agreement between UEP and HSUS and would have established uniform, national cage size requirements for table egg-laying hen housing over an 18-year phase-in period. The bills also included labeling requirements to disclose how eggs are produced, and air quality, molting, and euthanasia standards for laying hens.

UEP viewed the bills as being in the long-term interest and survival of American egg farmers, and a wide range of groups expressed support for the legislation. However, some agricultural and livestock producers, including some egg farmers, strongly opposed the bills, viewing them as an intrusion into their farming practices. Some animal protection groups also opposed the bills.

This report provides an overview of the U.S. egg industry, the UEP-HSUS agreement, and the provisions of H.R. 3798 and S. 3239 introduced in the 112th Congress. The report also discusses supporting and opposing views of the bills, and some animal welfare issues for laying hens.

Legislative Activity in the 112th Congress

On January 23, 2012, H.R. 3798—Egg Products Inspection Act Amendments of 2012—was introduced in the House by Representative Schrader of Oregon. The bill was referred to the House Committee on Agriculture and then to the Subcommittee on Livestock, Dairy, and Poultry. There was no further action on H.R. 3798. On May 24, 2012, a companion bill, S. 3239, was introduced by Senator Feinstein of California. The bill was referred to the Senate Committee on Agriculture, Nutrition, and Forestry. During the 112th Congress, 153 cosponsors signed on to H.R. 3798, and 19 Senate cosponsors signed on to S. 3239.

Prior to the Senate floor debate on the omnibus 2012 farm bill (S. 3240), Senator Feinstein offered S.Amdt. 2252, which would have inserted the language from S. 3239 into the Senate farm

bill. However, the amendment was not one of the 77 amendments considered during the Senate farm bill floor debate of June 19-21. Reportedly, the amendment was withdrawn on the understanding that the Senate Agriculture Committee would address S. 3239 and the issues confronting egg producers.¹ On July 26, 2012, the Senate Agriculture Committee held a hearing on S. 3239 with testimony from Senator Feinstein and four egg producers. Three producers testified in favor of S. 3239 and one opposed the legislation.²

During the House Agriculture Committee markup of the 2012 farm bill on July 11, 2012, no amendment was offered to include the language of H.R. 3798 in the House farm bill (H.R. 6083). However, Representative King (IA) offered the Protect Interstate Commerce Act (PICA),³ an amendment designed to protect the U.S. Constitution's commerce clause. PICA generated congressional debate addressing interstate movement of agricultural goods in light of state laws that may interfere with interstate trade.

PICA would have prohibited states from setting a standard or condition on the production or manufacture of agricultural products sold in interstate commerce that are produced in other states, if the standard or condition exceeded federal and state laws that apply where the agricultural product is produced or manufactured. The amendment would have curtailed state laws that interfere with interstate commerce, such as California's ban on the sale of eggs that are produced in cages, no matter where produced, after January 1, 2015. PICA covered agricultural products as defined in Section 207 of the Agricultural Marketing Act of 1946 (7 U.S.C. 1626).⁴ The House Agriculture Committee adopted the amendment by voice vote.

Supporters of the King amendment contended that it was necessary because state laws, such as California's egg law, violate the Constitution's commerce clause, which gives jurisdiction over interstate trade to the federal government.⁵ Opponents of the amendment argued that it undercuts state voters' rights to determine their state laws.⁶ In addition, opponents contended that the definitions of agricultural products and production and manufacturing are broad and would preempt hundreds of state laws and regulations.⁷

The provisions that were in H.R. 3798 and S. 3239 are expected to be reintroduced in the 113th Congress, and UEP and HSUS are expected to push for passage of egg legislation during 2013. Since the 112th Congress extended the 2008 farm bill for another year, egg legislation will likely

¹ "Senate pushes toward final farm bill vote this week," *Agri-Pulse*, June 20, 2012, p. 1.

² U.S. Congress, Senate Committee on Agriculture, Nutrition, and Forestry, "*Egg Products Inspection Act Amendments of 2012*" - *Impact on Egg Producers*, hearing on S. 3239, 112th Cong., 2nd sess., July 26, 2012. Testimonies available at <http://www.ag.senate.gov/hearings/hearing-on-s-3239-the-egg-products-inspection-act-amendments-of-2012>.

³ Section 12308 of H.R. 6083.

⁴ The definition is comprehensive in 7 U.S.C. 1626: "the term 'agricultural products' includes agricultural, horticultural, viticultural, and dairy products, livestock and poultry, bees, forest products, fish and shellfish, and any products thereof, including processed and manufactured products, and any and all products raised or produced on farms and any processed or manufactured product."

⁵ Dan Murphy, "Commentary: Who's in charge of animal welfare?," *Drovers*, July 19, 2012, <http://www.cattlenetwork.com/cattle-news/Commentary-Whos-in-charge-of-animal-welfare-162927026.html>.

⁶ Kim Geiger, "House agriculture panel threatens California animal safety laws," *L.A. Times*, July 13, 2012, <http://www.latimes.com/news/nationworld/nation/la-na-farm-bill-animal-safety-20120713,0,4895609.story>.

⁷ Letter from Karen Steuer, Director, Government Affairs, Pew Environment Group, to Members of Congress, July 17, 2012, http://www.pewenvironment.org/uploadedFiles/PEG/Publications/Other_Resource/Pew-FarmBillHouseLetter-17July2012.pdf.

become part of the debate when the 113th Congress addresses the omnibus farm bill this year. HSUS noted it would advocate for including the egg cage proposals in a 2013 farm bill.⁸ If legislation is not enacted at some point, it is likely that HSUS and other animal protection groups will again support ballot initiatives in states where available, and in the future, egg producers would confront a variety of egg laws across states.

Egg Industry Overview

Table Egg Production

In 2011, U.S. egg farmers produced 79 billion table eggs from a laying flock of 282 million birds. The vast majority of U.S. table egg production is concentrated in a few flocks. In 2011, more than 98% of the laying hens (277 million birds) were in flocks of 30,000 birds or larger.⁹

From 2001 to 2010, table egg production averaged 76 billion eggs, and the laying flock averaged nearly 283 million birds. Table egg productivity has improved over the past 10 years, as egg output has increased an average of about 1% each year while the laying flock has remained relatively flat. In 2011, each hen averaged nearly 281 eggs, compared to 264 eggs 10 years earlier.

In 2011, total egg production (including 13 billion hatching eggs) was valued at \$7.4 billion.¹⁰ Geographically, U.S. table egg production is concentrated in the Midwest, with pockets of production in Pennsylvania, California, and Texas (see **Figure 1**).

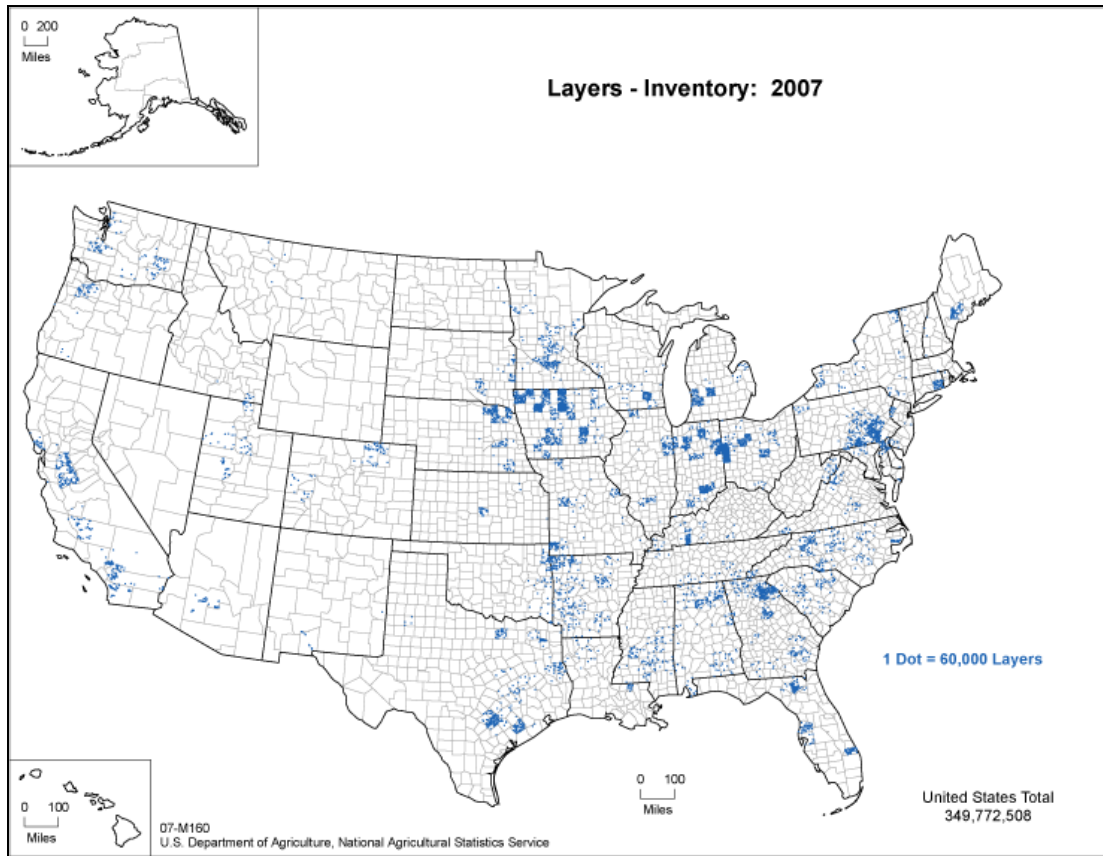
Iowa produces nearly twice as many table eggs as any other state. In 2011, Iowa's table-egg-laying flock totaled 52.2 million hens and produced more than 14.3 billion eggs (**Table 1**). Ohio follows, with a flock of 27.2 million birds, and Pennsylvania and Indiana have flocks of over 20 million birds. The midsize producing states of California, Texas, and Michigan have flocks ranging from 10 million to 19 million, and the bottom of the top 10, Minnesota, Florida, and Nebraska, have flocks from 9 million to nearly 10 million birds. The top 10 egg-producing states account for 70% of the total table-egg-laying flock. A complete breakdown of table egg production is not available because table egg production for 4 of the top 10 states is not disclosed by USDA due to reporting confidentiality rules. But the proportion of table-egg-laying hens to total hens indicates that the large majority of the four-state egg production is table eggs.

⁸ Wayne Pacelle, "Congress Comes Up Lame on Animal Issues," *A Humane Nation: Wayne Pacelle's Blog*, January 2, 2013, pp. <http://hsus.typepad.com/wayne/2013/01/congress-comes-up-lame-on-animal-issues.html>.

⁹ National Agricultural Statistics Service, USDA, *Chickens and Eggs 2011 Summary*, February 2012, <http://usda01.library.cornell.edu/usda/current/ChickEgg/ChickEgg-02-28-2012.pdf>. Egg production is reported for the period December of the previous year through November of the following year; i.e., 2011 production is the sum of December 2010 through November 2011. Average bird numbers are for the same period.

¹⁰ National Agricultural Statistical Service, USDA, *Poultry Production and Value*, April 26, 2012, <http://usda01.library.cornell.edu/usda/current/PoulProdVa/PoulProdVa-04-26-2012.pdf>.

Figure I. U.S. Egg-Laying Hen Inventory



Source: National Agricultural Statistics Service, USDA.

Notes: Includes laying hens for table and hatching egg production.

Table I. Top 10 Egg-Producing States in 2011

	Laying Hens (millions)		Egg Production (billions)	
	Table	Total	Table	Total
Iowa	52.2	53.0	14.3	14.5
Ohio	27.2	27.7	*	7.6
Pennsylvania	23.9	25.1	7.1	7.3
Indiana	22.5	23.2	6.3	6.5
California	18.9	19.2	*	5.3
Texas	13.9	18.2	*	4.9
Michigan	10.2	10.3	*	3.0
Minnesota	9.8	10.2	2.7	2.8
Florida	9.2	9.6	2.6	2.7
Nebraska	9.1	9.2	2.7	2.7
Other States	84.6	132.7	*	34.6

	Laying Hens (millions)		Egg Production (billions)	
	Table	Total	Table	Total
United States	281.5	338.4	79.0	91.9

Source: National Agricultural Statistics Service, USDA.

Notes: Total includes table and hatching eggs. * Data not disclosed for confidentiality reasons. Georgia (16.7 million), North Carolina (13.1 million), and Arkansas (12.2 million) have laying hen flock numbers that rank in the top 10 of total laying hens. However, the majority of hens in these three states provide eggs for the broiler sector.

Production Systems

An estimated 95% of all eggs in the United States are produced in conventional cage systems, sometimes called battery cages. Generally, conventional cages are wire cages that may hold 6-10 laying hens, and usually have automated feeding, watering, and egg collecting systems. According to UEP, conventional cage systems typically provide each laying hen an average of 67 square inches of floor space. In some egg operations, hens have less space.

Egg producers started adopting conventional cage systems in the 1950s because they reduced disease and provided cleaner eggs compared with traditional barnyard production. Egg farmers also found that cage systems proved to be more economically efficient as systems were automated and more laying hens could be managed in less space.¹¹ Over time, conventional cage systems have been heavily criticized for providing poor welfare for laying hens, especially in Europe (see “Europe’s Ban on Battery Cages,” below).

The other 5% of eggs are produced in either cage-free or free-range systems. There are two principal types of cage-free systems—floor and aviary. In both of these cage-free systems, laying hens have access to the barn or housing floor, usually covered with litter, and nesting boxes for egg laying. Aviaries provide several levels of perches that allow laying hens to be off the floor. In cage-free systems, laying hens are kept indoors. The free-range system is similar to the cage-free system, but laying hens have access to the outdoors.

The relatively new enriched cage systems—also called furnished, modified, or enriched colony cages—were developed in the 1980s in Europe in response to criticisms of conventional cages and legislation on cages.¹² Enriched cages are larger and include perches, scratching pads, and nesting boxes designed to allow laying hens to express natural behaviors (see “Egg Production Systems and Hen Welfare,” below).

¹¹ J. A. Mench, D. A. Sumner, and J. T. Rosen-Molina, “Sustainability of egg production the United States—The policy and market context,” *Poultry Science*, vol. 90, no. 1 (January 2011), p. 230.

¹² Mench, pp. 231-232.

UEP-HSUS Agreement

United Egg Producers (UEP)

United Egg Producers (UEP) is the largest U.S. egg producer group in the United States. UEP is a Capper-Volstead cooperative¹³ of egg farmers that raise about 90% to 95% of all egg-laying hens in the United States. UEP members produce eggs in conventional cage, enriched cage, cage-free, free-range, and organic systems and also produce processed egg products. According to UEP, it provides leadership in legislative and regulatory affairs for its membership.¹⁴

UEP has taken the lead in setting laying-hen welfare standards for the egg industry through its UEP Certified program, established in April 2002. UEP Certified was the result of the work of an independent Scientific Advisory Committee for Animal Welfare, formed in 1999, that presented recommendations to UEP on animal husbandry for laying hens raised in conventional cages.¹⁵ Egg producers who want to market eggs as UEP Certified have to provide laying hens with 67-86 square inches of floor space for optimal welfare. In addition, producers have to follow guidelines on such flock management practices as beak trimming, molting, handling, catching, and transporting laying hens. Guidelines also cover euthanasia, bio-security, and keeping public trust. UEP Certified egg producers are to be annually audited to assure that UEP Certified guidelines are being followed.¹⁶

The Humane Society of the United States (HSUS)

The Humane Society of the United States (HSUS), established in 1954, is the largest animal protection organization, with a reported membership of 11 million in the United States. The HSUS states its mission as “Celebrating Animals, Confronting Cruelty,” and part of that mission is to fight animal cruelty, exploitation, and neglect.¹⁷ Besides conducting well-known animal advocacy campaigns against cruelty in dog fighting or cockfighting, puppy mills, and wildlife protection, HSUS has conducted campaigns covering farm animals, particularly against animal confinement such as egg-laying hen cages and sow and veal crates.

In January 2005, HSUS launched its “No Battery Eggs” campaign to persuade food companies, retailers, restaurants, and other food providers to switch to eggs from cage-free production systems. HSUS has characterized laying hens as the “most abused animals in agribusiness”

¹³ The Cooperative Marketing Associations Act (7 U.S.C. §§291, 292), also called the Capper-Volstead Act (P.L. 67-146), was enacted February 18, 1922, in response to challenges made against cooperatives using the Sherman Act (15 U.S.C. §1 et seq.), the Clayton Antitrust Act (15 U.S.C. §12 et seq.), and the Federal Trade Commission Act (15 U.S.C. §41 et seq.). The act gave “associations” of persons producing agricultural products certain exemptions from antitrust laws. The law carries the names of its sponsors, Senator Arthur Capper of Kansas and Representative Andrew Volstead of Minnesota.

¹⁴ For information on UEP, see “About Us,” at <http://www.unitedegg.org/>.

¹⁵ UEP, *Animal Husbandry Guidelines for U.S. Egg Laying Flocks*, 2010 edition, pp. 3-4, http://www.unitedegg.com/information/pdf/UEP_2010_Animal_Welfare_Guidelines.pdf. The Scientific Advisory Committee (SAC) continues to meet regularly and advise the UEP Producer Committee on welfare issues. The SAC developed guidelines for cage-free hens in 2006.

¹⁶ *Ibid.*, pp. 8-15, 18-21.

¹⁷ For information on the HSUS, see “About Us: Overview,” at <http://www.humanesociety.org/about/overview/>.

because of their cage conditions.¹⁸ HSUS has worked with state legislatures, local governments, corporations, and universities to change laws and egg buying practices. Most recently, HSUS trumpeted Burger King's announcement on April 25, 2012, that it would switch to cage-free eggs in its restaurants by 2017.¹⁹ Burger King began working with HSUS in 2007 to start phasing out the use of eggs from conventional cages.

HSUS has pursued ballot initiatives in states with that option²⁰ to add farm animal welfare provisions on laying hens, sows, and calves to state laws.²¹ HSUS was most successful in the 2008 California ballot initiative, where voters chose to ban the use of cages after January 1, 2015 (see "California Proposition 2," below). HSUS also has waged campaigns in other states that have resulted in laws on laying-hen cages. In October 2009, Michigan enacted a law to phase out cages by 2019, and in June 2010, Ohio agreed to place a moratorium on the construction of new conventional cages as part of an agreement to stop a ballot initiative.

The Agreement

On July 7, 2011, UEP and HSUS announced that they had reached an "unprecedented agreement" to jointly work together to enact federal legislation that would greatly alter production conditions for egg-laying hens in the United States. The agreement included seven key provisions pertaining to the production of shell eggs and egg products that would:²²

- require, over a phase-in period, that conventional cage systems be replaced with enriched cage systems that double the amount of floor space per laying hen;
- require that the new enriched cage systems provide perches, nesting boxes, and scratching areas so that laying hens can express natural behaviors;
- mandate labeling on all egg cartons nationwide to inform consumers of the housing method used to produce the eggs;
- prohibit withholding of feed or water to force molting to extend the laying cycle;
- require standards approved by the American Veterinary Medical Association for euthanasia for egg-laying hens;
- prohibit excessive ammonia levels in henhouses; and
- prohibit the buying and selling of eggs and egg products that do not meet the standards.

¹⁸ HSUS, *Progress for Egg-Laying Hens*, July 7, 2011, http://www.humanesociety.org/issues/confinement_farm/timelines/eggs_timeline.html.

¹⁹ HSUS, "Burger King Announces Industry-Leading Animal Welfare Reforms," press release, April 25, 2012, http://www.humanesociety.org/news/press_releases/2012/04/burger_king_042512.html. Burger King also announced it would not buy pork produced from sows that were farrowed in sow gestation crates.

²⁰ Twenty-four states and the District of Columbia have ballot initiative options: AK, AR, AZ, CA, CO, FL, ID, IL, MA, ME, MI, MO, MS, MT, ND, NE, NV, OH, OK, OR, SD, UT, WA, and WY.

²¹ See the National Agricultural Law Center, at <http://www.nationalaglawcenter.org/assets/farmanimal/index.html>, for information on animal welfare provisions by state.

²² UEP and HSUS, "Historic Agreement Hatched to Set National Standard for Nation's Egg Industry," press release, July 7, 2011, http://www.unitedegg.org/homeNews/UEP_Press_Release_7-7-11.pdf.

UEP and HSUS have been adversaries for many years over the use of conventional cages in table egg production, and the agreement is a marked shift in direction for both organizations. UEP approached its position on conventional cage production based on what the available science indicated provided welfare for laying hens. That was the basis for more than a decade of work through its Scientific Advisory Committee and the UEP Certified program. Prior to this agreement, the HSUS position was firmly held that only cage-free systems provided adequate welfare for laying hens (see “Egg Production Systems and Hen Welfare,” below).

Under the agreement, all U.S. egg producers would have to end the use of conventional cages by the end of the phase-in period and meet production standards defined in law. For its part, in addition to reversing its cage-free stance, the HSUS agreed (1) to suspend its ballot initiatives in Oregon and Washington; (2) to not initiate, fund, or support other state ballot initiatives or legislation; (3) to not initiate, fund, or support litigation or investigations of UEP or its members; and (4) to not fund or support other organizations’ efforts that would undermine the agreement.²³ For HSUS, the agreement to work with a major livestock group could result in significant federal farm animal welfare legislation.

The agreement was the result of negotiations that became possible when UEP learned that HSUS might be open to discussing enriched cages for the U.S. egg industry in lieu of cage-free standards. According to Wayne Pacelle, HSUS president and CEO, visits to EU egg farms that were implementing enriched cage systems led to consideration of such systems in the United States. Both UEP and HSUS have indicated that it was in the interest of both sides to halt costly state-by-state battles over caged eggs that result in a variety of laws across the country.

The decision by UEP to enter into the agreement with HSUS was made through several votes by UEP’s executive committee, which were not unanimous.²⁴ The agreement was not put to vote of UEP’s general membership, and reportedly the board members who voted for the agreement represented 45% of the egg industry.²⁵

Bills Introduced in the 112th Congress

The Egg Products Inspection Act Amendments of 2012 (H.R. 3798), introduced in the House on January 23, 2012, would have amended the Egg Products Inspection Act (see box below) with added requirements for shell eggs and egg products. H.R. 3798 was the result of the negotiations between UEP and HSUS and reflected their agreement of July 7, 2011, to establish uniform national cage size requirements for table-egg-laying hens.²⁶ The bill also included labeling requirements, and air quality and treatment standards for egg-laying hens.

On May 24, 2012, a companion bill, the Egg Products Inspection Act Amendments of 2012 (S. 3239), was introduced in the Senate. Senator Feinstein noted that the bill addressed interstate

²³ Terrence O’Keefe, “Egg producers hear case for laying hen welfare agreement,” *Egg Industry*, October 2011, p. 6.

²⁴ *Ibid.*, pp. 4-5.

²⁵ Sara Wyant, “Do you want new federal standards for animal care?,” *High Plains/Midwest Ag Journal*, March 12, 2012, <http://www.hpj.com/archives/2012/mar12/mar12/0305AgriPulseMRsr.cfm>.

²⁶ Representative Kurt Schrader, “Congressman Schrader Introduces Bill To Improve Housing For Egg-Laying Hens and Provide Stable Future For Egg Farmers,” press release, January 23, 2012, <http://schrader.house.gov/index.cfm?sectionid=24&parentid=23§iontree=23,24&itemid=498>.

commerce issues that might stem from varying state standards for egg production, and improved welfare conditions for hens.²⁷ The language of the Senate bill mirrored that of H.R. 3798.

Egg Products Inspection Act

The Egg Products Inspection Act of 1970 (EPIA; 21 U.S.C. §1031 et seq.) regulates the safety of shell eggs and egg products. The EPIA provides authority for the Secretary of Agriculture (USDA) and the Secretary of Health and Human Services (HHS) to inspect shell eggs and egg products. The responsibility for egg safety is shared by the Food Safety and Inspection Service (FSIS) and the Agricultural Marketing Service (AMS), both of USDA, and the Food and Drug Administration (FDA) of HHS.

The EPIA prohibits restricted eggs, such as cracked, leaky, or dirty eggs, from entering the shell egg supply for human consumption. The EPIA requires that shell eggs be refrigerated at a temperature of no more than 45 degrees Fahrenheit and use labels that indicate refrigeration is required for shell eggs. The EPIA also requires that egg products—defined as liquid, frozen, and dried—be pasteurized before entering commerce for human consumption and include a label with an inspection legend and the plant number where processed. An estimated 30% of eggs are consumed as egg products, most often in the food service and food manufacturing sectors.

FSIS continuously inspects the processing of egg products and ensures that they are produced under sanitary conditions and are pasteurized. FSIS also inspects egg product imports and verifies that imported shell eggs are refrigerated at the proper temperature. AMS conducts USDA's egg surveillance program to make sure proper temperatures are maintained at shell egg storage facilities and when eggs are transported. AMS also provides quality grading for shell eggs.

FDA is responsible for the safety of shell eggs at the farm level and for shell eggs that enter food manufacturing, food service, and retail. As part of its responsibility, FDA ensures that shell eggs are properly refrigerated and labeled. In July 2010, FDA issued the Egg Safety Rule (74 *Federal Register* 33030; 21 C.F.R. Parts 16 and 118) to prevent *Salmonella enteritidis* in eggs. After the rule was promulgated, FDA began a comprehensive inspection of all egg facilities that are covered under the egg rule. The inspections may include environment and egg sampling and testing, as well as inspection of bio-security, pest control, cleaning and disinfecting practices, refrigeration, and records.

Housing Requirements

H.R. 3798 and S. 3239 would have prohibited the commercial buying and selling of shell eggs and egg products from laying hens that were not raised according to the new housing requirements. For California, the bills contained different standards during the phase-in period in recognition that California state law, adopted through the ballot initiative process in 2008, has laying hen requirements that are scheduled to go into force on January 1, 2015 (see “California Proposition 2,” below).

Environmental Enrichments

The bills would have required that cages used to house egg-laying hens include environmental enrichments, such as perch spaces, dusting or scratching areas, and nesting areas. The Secretary of Agriculture would have defined these enrichments based on the best available science at the time the regulations are written. The regulations would have been issued by January 1, 2017, and would have gone into effect by December 31, 2018. Environmental enrichments for new cages would have needed to be in place within 9 years of the bills' enactment, and for existing cages

²⁷ Senator Feinstein, Statements on Introduced Bills and Joint Resolutions, *Congressional Record*, May 24, 2012, p. S3633.

(cages in use prior to December 31, 2011) would have needed to be in place within 15 years. For California, environmental enrichments would have needed to be in place by December 31, 2018.

Minimum Floor Space

H.R. 3798 and S. 3239 would have set minimum floor space requirements for existing and new cages. For existing conventional cages in use on or before December 31, 2011, egg farmers would have had three years to provide each white laying hen a minimum of 67 square inches of floor space, and each brown laying hen 76 square inches.²⁸ Fifteen years after enactment, laying hens would have needed to have 124 and 144 square inches.

For new cage systems, the floor requirements for laying hens would have been phased in during the 15 years following the enactment of the legislation. **Table 2** lists the floor space requirements that would have been phased in over 15 years, culminating in cages of 124 and 144 square inches.

Table 2. Floor Space Requirements for New Cage Systems
(in square inches)

Phase-in Period, from Enactment of Bill	White hens	Brown hens
Beginning 3 years after, until 6 years after	78	90
Beginning 6 years after, until 9 years after	90	102
Beginning 9 years after, until 12 years after	101	116
Beginning 12 years after, until 15 years after	113	130
Beginning 15 years after	124	144

Source: H.R. 3798 and S. 3239

For California, H.R. 3798 and S. 3239 would have required that cages have 116 square inches for white hens and 134 square inches for brown hens from January 1, 2015, through December 31, 2020. Beginning January 1, 2021, California cages would have needed to be 124 and 144 square inches, the standard for all laying hen cages, but California would have reached the national standard about six years earlier than other states.

Other Requirements

In addition to environmental enrichments and floor space measures, both bills would have required that egg producers (1) keep ammonia levels in the air in egg-laying houses to less than 25 parts per million; (2) not withhold feed or water to force laying hens to molt (lose their feathers to rejuvenate egg laying); and (3) follow the guidelines set out by the American Veterinary Medical Association (AVMA) for euthanasia.

Current law also gives USDA the authority to inspect egg imports.²⁹ Egg and egg product imports, like meat and poultry, are allowed into the United States under equivalency agreements.

²⁸ Brown hens are larger than white hens. H.R. 3798 and S. 3239 established minimum floor space requirements for each type of laying hen.

²⁹ EPIA §1046.

This means that imported products are produced and inspected in foreign countries in a manner that provides equivalent food safety as in U.S. domestic production. H.R. 3798 and S. 3239 would have amended import provisions to require that imported eggs and egg products be produced according to the standards of the EPIA.³⁰ This import aspect potentially could become a trade issue in the future if foreign egg and egg product imports were required to meet U.S. production standards. However, U.S. egg imports are relatively small and from few countries, and this likely would not arise as a trade issue until the U.S. egg industry has fully transitioned to enriched cages in the future.

Also, the bills would have prohibited the introduction of new conventional cages that have less than 67 and 76 square inches for white and brown laying hens, and to which environment enrichments could not be added.

Phase-In Conversion Requirements

H.R. 3798 and S. 3239 would have established several benchmarks for the egg-laying industry to meet as it transitioned to new enriched cage systems. The goal was to have at least 25% of the commercial egg-laying hens in cages that afford 90 and 102 square inches for white and brown laying-hens six years after enactment. At that time (2018), the Secretary of Agriculture would have used data from an independent national survey of the industry to determine if the 25% target had been met. If the target had not been achieved, then existing conventional cage systems that had been in operation prior to January 1, 1995, would have had to meet the 90 and 102 square inch requirement beginning January 1, 2020.

In the period 12 years after enactment, the target would have been that 55% of commercial egg-laying hens would have had 113 and 130 square inches of floor space. Then in the final phase, all egg-laying hens would have needed to have a minimum of 124 and 144 square inches and environmental enrichments as of December 31, 2029. The bills also would have required the Secretary of Agriculture to submit compliance reports to the House and Senate Agriculture Committees after the 12-year mark and after December 31, 2029.

Labeling

H.R. 3798 and S. 3239 would have amended the EPIA to require housing labels on shell eggs and egg products that are legible markings on the side or top of packages. The four label options would were:

- *Eggs from free-range hens*—eggs or egg products from laying hens not housed in cages and provided with outdoor access;
- *Eggs from cage-free hens*—eggs or egg products from laying hens not housed in cages;
- *Eggs from enriched cages*—eggs or egg products from laying hens housed in cages with adequate environmental enrichments and a minimum of 101 and 116 square inches of individual floor space per white and brown hens; and

³⁰ EPIA §1046(a)(2).

- *Eggs from caged hens*—eggs or egg products from laying hens housed in cages without adequate environmental enrichments and less than the minimum of 101 and 116 square inches of individual floor space per white and brown hens.

The responsibility for ensuring that shell eggs and egg products were properly labeled with the method of housing would have fallen to USDA. The housing label requirement would have gone into force one year after the enactment of the bill.

Exemptions

H.R. 3798 and S. 3239 would have provided three exemptions to the new requirements: (1) egg farmers who installed new cages between January 1, 2008, and December 31, 2011, would have had until 18 years, instead of 15 years, after enactment of the bill to meet the floor space requirements; (2) laying-hen flocks that were in production when the bill was enacted would have been exempt from the provisions until the flocks are removed from production; and (3) small egg producers—defined as those with less than 3,000 laying hens—would have been exempt from the requirements.

Support and Opposition

The provisions of H.R. 3798 and S. 3239 were endorsed by agricultural, veterinary, consumer, and animal protection groups. Egg farmers and other family farms in more than 30 states also endorsed the bills.³¹ In what some supporters of H.R. 3798 and S. 3239 considered significant backing for the bill, the executive board of the American Veterinary Medical Association (AVMA) voted to support H.R. 3798 in March 2012. AVMA explained, “The decision was not made lightly. There was extensive deliberation, and the board reasoned that the standards are consistent with AVMA policy, as well as industry long-term expectations about changes in egg-production practices.”³²

Supporters of H.R. 3798 and S. 3239 also pointed to consumer support for changes in egg cages. In a two-part survey commissioned by UEP, survey respondents indicated by a 4-to-1 margin that they would support legislation transitioning from conventional cages to enriched cages. In the second part of the survey, respondents indicated support for federal legislation by a 2-to-1 margin.³³ According to Dr. Jeffrey Armstrong, who has been a member of UEP’s Scientific

³¹ List of groups endorsing H.R. 3798 provided by UEP, updated March 10, 2012.

³² AVMA, “AVMA Board Supports Enriched Hen-Housing Legislation,” March 27, 2012, <http://atwork.avma.org/2012/03/27/avma-board-supports-enriched-hen-housing-legislation/>. AVMA’s policy on laying hen housing systems states, “Laying hen housing systems must provide feed, water, light, air quality, space and sanitation that promote good health and welfare for the hens. Housing systems should provide for expression of important natural behaviors, protect the hens from disease, injury and predation, and promote food safety. Participation in a nationally recognized, third-party audited welfare program is strongly advised.” Available at http://www.avma.org/issues/policy/animal_welfare/housing_chickens.asp.

³³ UEP Certified, “Consumers Overwhelmingly Support National Legislation Sought by Egg Farmers,” news release, January 30, 2012, <http://uepcertified.com/pdf/consumerresearchnewsrelease-final.pdf>. Michael Fielding, “Survey says: Consumers support ‘enriched cage bill,’” *Meatingplace*, January 31, 2012.

Advisory Committee from its beginnings, public perception is turning against conventional cages, and the UEP-HSUS agreement affords egg producers the chance to regain public trust.³⁴

Other groups representing agriculture and livestock producers, such as the American Farm Bureau Federation (AFBF), the National Cattlemen's Beef Association (NCBA), and the National Pork Producers Council (NPPC), said that they vigorously opposed H.R. 3798 and S. 3239. After the UEP-HSUS agreement was announced, NCBA stated, "Cattlemen are rightfully concerned with the recent UEP-HSUS agreement to seek unprecedented federal legislation to mandate on-farm production standards."³⁵ In its statement, the NPPC called such legislation on egg cages a "dangerous precedent," and was "gravely concerned that such a one-size-fits-all approach will take away producers' freedom to operate in a way that's best for their animals."³⁶ In a December 6, 2011, letter to the House Agriculture Committee, eight farm groups expressed their opposition to any proposed legislation resulting from the USP-HSUS agreement.³⁷

Although some animal welfare groups signed on with HSUS in endorsing the shift to enriched cages, other related groups remained strongly opposed to H.R. 3798 and S. 3239 because of their view that an enriched cage is still a cage that harms laying-hen welfare. The Humane Farming Association (HFA) is leading a campaign to "Stop the Rotten Egg Bill" emphasizing that H.R. 3798 and S. 3239 could nullify already enacted state law, take away citizens' right to vote on cages, and prevent state legislatures from passing laws to protect laying hens.³⁸

Issues Raised by H.R. 3798 and S. 3239

UEP and supporters of H.R. 3798 and S. 3239 argued that this legislation was the best path for the egg industry in order to avoid constant fights and growing costs to defend current production methods. According to Gene Gregory, president of UEP:

Egg farmers believe a single national standard is the only way to shape their own future as sustainable, family-owned businesses. It is the only way to have some control over their own destiny and avoid a bleak future of overlapping, inconsistent, unworkable, state-based animal welfare standards that will result from ballot initiatives our industry cannot win even if we raise millions of dollars to try to educate the public, as we did in California in 2008.³⁹

Opponents argued that pursuing legislation at the federal level had consequences that could impact all livestock and poultry producers. In addition, the costs were likely to be high and especially costly for small egg farmers. Several issues are highlighted below.

³⁴ Terrence O'Keefe, "Making the case for enriched colony housing for layers," *Egg Industry*, December 2011, pp. 6-7.

³⁵ NCBA, "NCBA Statement on United Egg Producers-Humane Society of the United States Agreement," press release, July 12, 2011, <http://www.beefusa.org/newsreleases1.aspx?NewsID=366>.

³⁶ NPPC, "Statement of National Pork Producers Council," press release, July 7, 2011, <http://www.nppc.org/2011/07/statement-of-national-pork-producers-council/>.

³⁷ Letter from Egg Farmers of America, NCBA, and NPPC, et al. to Frank Lucas, Chairman House Committee on Agriculture and Collin Peterson, Ranking Member, December 6, 2011, <http://www.beefusa.org/CMDocs/BeefUSA/Issues/Lucas-Peterson%20Letter%20-%20Final.pdf>. In addition to the three cited organizations, the other signees were the American Farm Bureau Federation, American Sheep Industry Association, the National Farmers Union, The National Turkey Federation, and the National Milk Producers Federation.

³⁸ HFA, "Egg Industry Bill Would Keep Hens in Cages Forever," *Stop the Rotten Egg Bill*, http://stoptherotteneggbill.org/site/c.8qKNJWMwFbLUG/b.7867921/k.C798/About_Us.htm.

³⁹ Gene Gregory, "UEP justifies deal with HSUS (commentary)," *Feedstuffs*, January 23, 2012.

Mandating Farm Animal Husbandry Practices

UEP recognizes that federally mandated production methods would be a significant change, but one that is necessary to keep the egg industry from confronting a variety of inconsistent state standards. UEP believes that the egg market would function more efficiently if there were a single national standard. California and Michigan—two large egg-producing states—have enacted legislation that will require egg producers to abandon cage production by 2015 and 2019, potentially putting them at a cost disadvantage to caged production. It also is costly for the egg industry to challenge state ballot initiatives or proposed legislation on a state-by-state basis.

Opponents argue mandatory standards are being driven “largely on the political goals of an animal rights group that seeks to eventually shut down animal agriculture by government mandate.”⁴⁰ Current animal welfare law, the Animal Welfare Act (7 U.S.C §§2131-2159), does not apply to farm animals. Other federal laws and regulations cover areas such as animal health and food safety, but do not prescribe how U.S. farmers raise their animals. Most livestock and poultry groups have developed voluntary guidelines on “best practices” for animal welfare that most producers follow. Opponents of H.R. 3798 and S. 3239 wanted producers to maintain control of production methods.

According to Gene Gregory, UEP president, UEP forwent negotiating voluntary guidelines, similar to the UEP Certified program, which would have encouraged egg farmers to transition to enriched cages because of unresolved antitrust lawsuits that have been brought against UEP and some egg producers.⁴¹ UEP has been accused of using the UEP Certified welfare standards that increase cage space per laying hen to reduce egg production and drive up prices, as well as encouraging egg producers to cull flocks when feed prices climbed in 2008.⁴²

Effect on Other Animal Agriculture Sectors

In order to avoid affecting the production practices of other livestock sectors in the legislation, UEP and HSUS pushed their proposed legislation through an amendment to the EPIA, which only addresses the egg industry and not the livestock or poultry sectors. Both UEP and HSUS pointed out that legislation such as H.R. 3798 and S. 3239 could succeed in Congress only if the industry was in agreement. Similar legislation for other livestock or poultry industries seemed unlikely. Reportedly, UEP and HSUS agreed that if any similar legislation or amendments were proposed that involved other livestock or poultry sectors, the two groups would abandon their support for the bills.

Although cage requirements would have been embedded in law that applied only to eggs and egg products, opposition groups believed that successful enactment of H.R. 3798 and S. 3239 would have encouraged future federal legislation mandating other animal husbandry practices. This view probably was held most strongly by many hog producers, whose use of sow gestation crates (small confined crates where sow birth their piglets) has been under attack for several years. The

⁴⁰ AFBF, “Egg Legislation Replaces Science with Politics,” press release, January 24, 2012, <http://www.fb.org/index.php?action=newsroom.news&year=2012&file=nr0124.html>.

⁴¹ Terrence O’Keefe, “United Egg Producers president explains welfare agreement,” *Egg Industry*, September 2011, p. 10.

⁴² Matthew Enis, “Egg Suits Could Set Precedents,” *Supermarket News*, January 10, 2011, <http://supermarketnews.com/meat/egg-suits-could-set-precedents>.

use of gestation crates are already being phased out by some state laws, and are banned in the EU in 2013.

Basis in Science

One of the main criticisms of H.R. 3798 and S. 3239 was that cage requirements are not based on specific scientific research that says the requirements are optimal for laying-hen welfare. But as the AVMA pointed out when evaluating its position on H.R. 3798, the available science suggests that the proposed standards of H.R. 3798 would likely still improve the lives of egg-laying hens.⁴³ The AVMA also recognized opposition to the agreement among egg producers, and stated that it would work to make sure the legislation results in welfare improvements with minimal impacts on producers, associated industries, and consumers.⁴⁴

Opponents were also concerned that H.R. 3798 and S. 3239 would be a move away from the long established position shared among animal agriculture groups that animal husbandry decisions affecting welfare should be based on the best available science. Opponents argued that U.S. producers already raise and manage their animals with practices that are science-based and overseen by veterinarians, and that animal welfare is a priority for livestock and poultry producers. Most livestock and poultry groups have established voluntary programs, such as the pork producers' Pork Quality Assurance (PQA) and the cattlemen's Beef Quality Assurance (BQA), that include animal welfare guidance.⁴⁵ Furthermore, opponents of H.R. 3798 and S. 3239 argued that if standards were codified into law, then future science-based innovations in animal management and/or welfare could be limited, and that Congress would end up regularly amending federal standards as the science changed.

High Transition Costs Expected

Transition and production costs were a major concern for egg producers, especially small producers, because of the substantial investment required to convert from conventional cages to enriched cages. Estimated egg industry costs of H.R. 3798 and S. 3239 varied greatly. The July 2011 UEP-HSUS agreement announcement included an estimate of \$4 billion over the transition period. Opponents of the bill said that the cost to the egg industry was much higher, at \$8 billion-\$10 billion.

Most likely the cost would vary across egg farms, because some operations would have to invest in more than just new enriched cages, as some new housing structures would have to be built to accommodate enriched cages. Houses with enriched cages could also require more heating as there would be less natural heating as birds are spaced further apart. This could be a comparative advantage for house expansion in the South as compared to the colder Midwest.⁴⁶

⁴³ R. Scott Nolen, "Congress considers US egg production standards," *JAVMANews*, March 15, 2012, <http://www.avma.org/onlnews/javma/mar12/120315h.asp>.

⁴⁴ Ibid.

⁴⁵ For information on PQA and BQA, see <http://www.pork.org/Certification/Default.aspx#.T6v0WtVGh8F> and <http://www.bqa.org/>.

⁴⁶ Terrence O'Keefe, "Social, economic forces will cause more changes in egg industry," *WATTAgNet.com*, January 6, 2012, http://www.wattagnet.com/Social_economic_forces_will_cause_more_changes_in_egg_industry.html.

The lead group on the December 2011 letter to the House Agriculture Committee opposing federal legislation was the Egg Farmers of America, a group composed of small egg producers. Egg Farmers of America was formed to oppose the UEP-HSUS agreement and H.R. 3798 and S. 3239. According to one of its members, the per-hen cost to convert to enriched cages is \$25-\$30, nearly four times the cost of conventional cages. The member estimated that converting his 300,000 laying-hen flock would cost about \$8 million-\$9 million.⁴⁷ In addition, conventional cages have a useful life of 25-30 years, which means that some farms could have to convert when their conventional cages were still useful. Obtaining bank loans when credit is tight could be difficult, especially if there was still a useful life for a farmer's conventional cages.

The shift to enriched cages could also lead to an acceleration of consolidation in the egg industry as the largest egg farms continue to expand, and capital costs squeeze small egg producers. An analyst at the Egg Industry Center at Iowa State University noted that medium egg farms (under 1 million laying hens) might try to expand or just exit the business, while the very small egg farms could produce eggs for niche markets such as cage-free or organic.⁴⁸

Besides the large capital investment required to transition to enriched cages, questions have arisen about what future egg production operating costs would be compared with the current model using conventional cages. One study indicated that eggs produced in cage-free systems would cost 25% more than those produced in conventional cages.⁴⁹ However, enriched cage production would not be exactly comparable to cage-free production. In a limited sample, JS West and Companies, a commercial egg producer in California, built an enriched cage house in 2010 and in January 2012 released results comparing production in its enriched cage (116 square inches) and conventional cage (67 square inches) systems.⁵⁰ According to JS West:

- the hen mortality rate in the enriched cages was less than in conventional cages, 4.22% vs. 7.61%;
- egg output per hen was higher in the enriched cages by 22 eggs, 421 vs. 399 eggs;
- the average weight of a case of eggs was higher from the enriched cages, 49.4 pounds compared to 47.93 pounds;
- feed use per 100 hens was 22.60 pounds in the enriched cages and 20.45 pounds in the conventional cages; and
- feed use per dozen eggs was 3.19 pounds for the enriched cages vs. 3.00 pounds for the conventional cages.

These limited data suggest that feed costs may be somewhat higher in an enriched cage system because of increased feed use, but there appear to be offsetting productivity gains that could make up for higher feed costs.

⁴⁷ Estimate by Minnesota egg producer Amon Baer, member of Egg Farmers of America and UEP. Email to CRS from representatives of Egg Farmers of America, April 30, 2012.

⁴⁸ Terrence O'Keefe, op. cit., January 6, 2012.

⁴⁹ Promar International, *Impacts of Banning Cage Egg Production in the United States*, Prepared for United Egg Producers, August 2009, p. 3, http://www.unitedegg.org/information/pdf/Promar_Study.pdf.

⁵⁰ "First egg colony data finds improved performance," *Feedstuffs*, January 19, 2012.

On June 1, 2012, UEP released a new study of the economic impacts of converting to enriched cages.⁵¹ The report estimated a baseline for capital investment, production costs, and consumer prices that will occur over the next 18 years under current table egg production methods. The study also estimated this for production under the provisions of the bills. In summary, the study found that production under enriched cages would require an additional \$2.6 billion in capital investment (\$3.1 billion v. \$5.7 billion). The production costs for eggs from enriched cages are estimated to be about \$0.06 (+8%) per dozen higher in 2030, the end of the phase-in period, than under current production methods. For retail eggs, the per-dozen price in 2030 is also estimated \$0.06 higher, but would be a 3% increase over expected prices from current production methods.

It should be noted that this study examines the table egg industry in aggregate. Egg farmers could face different costs depending on individual circumstances.

Animal Welfare Issues

Animal welfare has become an increasingly salient public issue over the past decade. More recently, social media publication of graphic videos of the treatment of laboratory animals (e.g., apes, cats, dogs), commercial pet breeding operations (e.g., “puppy mills”), and farm animals (e.g., slaughter houses, swine and poultry farms) has contributed to rising public awareness of how humans use animals, and how these animals are treated. Some of this awareness has been expressed in appeals for more vigorous enforcement of state and local animal abuse and cruelty laws. Other individuals and groups, citing animal welfare issues, environmental issues, and/or social justice issues, have called for significantly reducing or even ending the consumption of meat and animal products. As the UEP-HSUS agreement and H.R. 3798 and S. 3239 suggest, animal agricultural producers likely will face more animal welfare campaigns and growing public interest in farm animal welfare. The following sections discuss recent animal welfare issues as they pertain to hens.

Egg Production Systems and Hen Welfare

Approximately 95% of laying hens in the United States are confined in conventional battery cages. The use of conventional battery cages accompanied the increasing concentration of the egg production sector. Producers found that the cages reduced their production costs (e.g., feed costs). There is little controversy over the idea that conventional battery cages cause many hen welfare problems. Battery cages are cramped structures that prevent hens from engaging in their most basic natural behaviors, such as fully turning their heads, stretching their wings, roosting, nesting, and standing upright.⁵² Battery cages typically have slanted wire mesh flooring and may be

⁵¹ Agralytica Consulting, *Economic Impacts of Converting US Egg Production to Enriched Cage Systems*, A Report for United Egg Producers, June 1, 2012, <http://www.eggbill.com/images/Economic%20Impact%20of%20Egg%20Legislation%20June%202012.pdf>.

⁵² Battery cages compromise what the United Kingdom’s Farm Animal Welfare Council (FAWC), a government organization, has identified as the “five freedoms” the council believes should be considered in policy discussion of animal welfare: freedom from hunger and thirst; freedom from discomfort; freedom from pain, injury, and disease; freedom to express normal behavior; and freedom from fear and distress. FAWC considers these freedoms as ideal states rather than standards for policy prescriptions. The “five freedoms” were originally articulated in the Brambell Report, a 1965 report to the U.K. government (Command Paper 2836).

stacked several tiers high. Thousands of hens may be housed in a single laying house. Other housing systems, however, may create other types of hen welfare concerns.

Hen welfare is determined by, among other factors, genetics, disease, pest and parasite loads, stress, nutrition, and the birds' natural behaviors. Research on the influence of these factors on hen welfare is still in the early stages. Different housing systems have different effects on hen welfare. One housing system can improve hen welfare in some respects, while exacerbating other welfare issues. To better understand the relationship of housing and hen welfare, the Poultry Science Association convened an international symposium on the Social Sustainability of Egg Production in 2010. At this symposium, 11 animal scientists from U.S. and European universities and research laboratories presented a review of 202 research articles on hen behavior and housing systems published over the past three decades.⁵³ This review outlined the welfare impacts attendant on four different housing systems: (1) conventional cages, (2) enriched cages, (3) cage-free systems, and (4) free-range outdoor systems. Two central findings from the review of the research on housing and hen welfare are that “assessing hen health and welfare is difficult and multifactorial” and that “no single housing system is ideal from a hen welfare perspective.”⁵⁴ Characteristics of the various housing systems and their potential effects on hen behavior and welfare examined in the review are discussed briefly below.

Conventional cages inherently restrict hens from expressing “highly motivated behaviors” for their entire laying lives.⁵⁵ Behaviors associated with body maintenance (e.g., wing flapping, tail wagging, stretching), locomotion, and regulating body temperature are significantly curtailed in conventional cages. At high densities, hens suffer plumage damage from rubbing against the cages and lose capacity to regulate body temperature. High densities and little space limit access to food and water as other hens block the path to food and more aggressive breeds defend the feeder from other hens. Higher densities can increase the incidence of feather pecking, cannibalism, and smothering, although these risks can be reduced by beak trimming and group selection. Nesting behavior is a behavioral priority, and conventional cages lack materials for nest building. The absence of nest building material is thought to reduce hen welfare given that hens seem to prefer depositing eggs in molded nests rather than slanted wire floors.

Enriched cages (furnished cages or enriched colonies) were developed in response to the criticisms about conventional cages. Enriched cages typically have a nesting box, perches, and a dustbathing area. The review noted that these features permit hens more behavioral freedom than found with conventional cages. However, enriched cages have limited space per hen thus limiting their ability to run or flap their wings. Exercise is significantly restricted. Nesting and perching may also be restricted. Litter inside the cages may be quickly depleted and cause stress to the hens who are excluded from dustbathing by more dominant hens. While some regard enriched cages as an improvement over conventional battery cages, others see little improvement in this housing system.⁵⁶

⁵³ D.C. Lay, Jr. et al., Hen welfare in different housing systems. Poultry Science Association, Emerging Issues: Social Sustainability of Egg Production Symposium, Denver, Colorado, July 11-15, 2010, http://www.poultryscience.org/docs/PS_962.pdf.

⁵⁴ Ibid.

⁵⁵ Ibid.

⁵⁶ See Welfare Issues with Furnished Cages for Egg-Laying Hens. The Humane Society of the United States. 2010, http://www.humanesociety.org/assets/pdfs/farm/welfare_issues_furnished_cages.pdf.

Cage-free systems provide “sufficient space for performance of a full repertoire of locomotory and body-maintenance behaviors.”⁵⁷ With larger flock sizes (>1,000), the review noted that cannibalism and feather pecking can increase, although beak trimming can lessen these behaviors, as can reducing flock size. Stocking densities in cage-free systems can have a bearing on hen behavior, with low densities possibly triggering aggressive defense behavior around certain resources in the cage-free housing. Cage-free systems may have all slatted floors or all litter floors, or a combination of the two. The opportunity to forage in litter is important for hen welfare. Foraging in litter can reduce the incidence of cannibalism and feather pecking. Accessibility to litter, quality of the litter, and experience with litter during rearing appear to be critical variables affecting behavior in cage-free systems. The research review also noted that perches appear to reduce aggression in hens, although in the United States, cage-free systems generally do not provide adequate perch space for all hens to perch at night. Some cage-free systems do not provide perches.

Free-range (outdoor) systems permit hens to spread out when foraging and, in general, increase the hens’ behavioral options. Outdoor systems permit the hens to eat preferred foods such as grass seeds, earthworms, and flying insects. They also can sun themselves and dust bathe. Cannibalism, feather pecking, and piling, however, can increase in larger free-range flocks. While the greater environmental complexity of free-range systems increases behavioral opportunity for hens, according to the research review, this complexity can also introduce difficulties in managing disease and parasites. Indoor barn systems, while not permitting access to the outdoors, may offer some compromise between cage and non-cage systems.

As this research review of egg production systems shows, very little research on hen housing and welfare is available that compares all factors affecting welfare under different housing systems. Mortality is greater in conventional cages than in enriched cage systems. In non-cage systems, mortality can be significant. Free-range housing may increase behavioral options for hens, but disease and parasite management can be more difficult, and welfare problems from cannibalism and predation can increase. The authors of the survey also noted that the overall management of each housing system is a critical component of hen welfare. Housing systems that may be superior along certain dimensions of hen welfare can be compromised by poor management. The authors conclude that the “right combination of housing design, breed, rearing conditions, and management is essential to optimize hen welfare and productivity.”⁵⁸

U.S. Animal Welfare Legislation

The Animal Welfare Act (AWA, P.L. 91-579, 7 U.S.C §§2131-2159) is the primary United States statute governing the treatment of animals, including marine mammals, and animals used in research.⁵⁹ The AWA is administered by USDA’s Animal and Plant Health Inspection Service. Animal health standards (e.g., medical treatment, feeding, watering, sanitation, enclosures, handling), transportation standards (e.g., carriers, primary means of conveyance, care in transit), animal exhibitions (e.g., zoos, carnivals, circuses), and animal fighting are major areas regulated under the AWA.⁶⁰ However, the AWA explicitly excludes farm animals from its regulatory

⁵⁷ D.C. Lay, et al., op.cit.

⁵⁸ Ibid.

⁵⁹ Birds, rats, and mice bred for research are excluded from AWA coverage.

⁶⁰ AWA regulations are at 9 C.F.R. §1.1 et seq.

oversight.⁶¹ While most states have laws related to animal cruelty or animal welfare, most of these statutes also exclude farm animals from coverage. Farm animal welfare is, then, largely a matter of the actions of individual producers. Producer organizations (e.g., NCBA, NPPC, and UEP) may develop best-practice standards of animal care for their members, but these standards are voluntary and do not carry the force of law.

Legislation has been introduced in the past several congresses to address farm animal welfare. In the 110th Congress, the Farm Animal Stewardship Purchasing Act (H.R. 1726) would have required that government purchases of animal products be restricted to livestock products from animals raised under specific welfare conditions. The Farm Animals Anti-Cruelty Act (H.R. 6202) would have promoted farm animal well-being by imposing fines on producers who abuse animals in food production. In the 111th Congress, the Prevention of Farm Animal Cruelty Act (H.R. 4733) would, like H.R. 1726, have required that government purchases of animal products be restricted to livestock products from animals raised under specific welfare conditions. None of these bills were enacted. With the exception of H.R. 3798 and S. 3239, no other bills addressing farm animal welfare have been introduced in the 112th Congress.

Other Legislation Covering Hen Welfare

California Proposition 2

Proposition 2, or the Standards for Confining Farm Animals, was a 2008 ballot initiative in California. The proposition, sponsored by HSUS, was approved by nearly 64% of the voters.⁶² Proposition 2 requires that all farm animals, “for all or the majority of any day,” not be confined or tethered in a manner that prevents them from lying or sitting down, standing up, turning around or fully extending their limbs without touching another animal or an enclosure such as a cage or stall.⁶³ The law will go into effect on January 1, 2015. In 2010, a California bill—A.B. 1437—was enacted requiring that all shelled (whole) eggs sold in California come from cage-free hens. This law will also go into effect on January 1, 2015. While Proposition 2 applies only to hens in the state, the 2010 law will require that farms outside California abide by the state’s humane law regarding layers if they wish to sell eggs in California.

In December 2010, a commercial egg producer in California, JS West and Companies, filed suit against HSUS and the state of California to clarify what type of housing for hens was acceptable under Proposition 2, claiming that the statute did not define how much space is required for the specified animal behaviors. The egg company opened an “enriched colony” system in 2010 that provided 116 square inches of space per hen, significantly larger than the egg industry standard of 67-87 inches.⁶⁴ The HSUS, in response, stated that Proposition 2 requires “cage-free environments.” While Proposition 2 does not specifically state cage sizes, the living conditions required by Proposition 2 would effectively require cage-free environments. The Association of California Egg Farmers (ACEF), representing 70% of California’s egg farmers, joined the suit in

⁶¹ AWA, §2132(g).

⁶² California Secretary of State, *November 4, 2008 General Election-Statement of Vote*, http://www.sos.ca.gov/elections/sov/2008_general/7_votes_for_against.pdf.

⁶³ For background on Proposition 2 see <http://www.public.iastate.edu/~ethics/Prop2.pdf>.

⁶⁴ The variance in cage size is determined by the variety of hen: white breeds of layers require less space than brown breeds. The J.S. West and Companies “enriched colony” system has 60 hens housed in 4 foot by 12 foot off-ground enclosures. This enclosure meets the EU standards.

March 2011. In July 2011, the California Superior Court ruled that JS West could not challenge California at the time because the state had not yet established a position on what types of housing would meet Proposition 2 requirements.⁶⁵

In April 2012, William Cramer, a California egg farmer in Riverside County, filed suit in the U.S. District Court, Central District of California, claiming that Proposition 2 is unconstitutionally vague and violates the U.S. Constitution's commerce clause.⁶⁶ According to Cramer's complaint, California egg farmers cannot know if they are violating the law because of the vagueness of Proposition 2, and farmers will exit the egg business because it creates an uncertain investment environment. In addition, Cramer stated that California consumers will be harmed because egg prices will rise. The lawsuit also contended that the California law on egg production violates the commerce clause because it will interfere with the interstate sales of eggs. In September 2012, the District Court rejected Cramer's claims that Proposition 2 is vague and violated the commerce clause.⁶⁷

In November 2012, the ACEF filed another suit asking the Fresno County Superior Court to find that the language of Proposition 2 was unconstitutionally vague according to California's constitution. The ACEF claimed that the lack of size and density requirements in Proposition 2 make it impossible for California egg producers to alter cage sizes to comply with the January 1, 2015 deadline.⁶⁸ The case is pending.

Michigan Animal Welfare Law

In September 2009, Michigan became the second state to enact legislation (HB 1527) to restrict the use of conventional cages for laying hens. Similar to the California law, the Michigan law prohibits gestating sows, calves raised for veal, and egg-laying hens from being confined in a manner that prevents them from lying down, standing up, fully extending limbs, and turning around freely.⁶⁹ The provisions of the Michigan legislation were the result of negotiations between the Michigan Pork Producers Association, the Michigan Allied Poultry Industries, the Michigan Agri-Business Association, and the HSUS.⁷⁰ The legislation stopped the HSUS from pursuing a ballot initiative campaign in Michigan on animal confinement during 2010. The Michigan provisions for egg-laying hens go into force in 2019.

Europe's Ban on Battery Cages

Article 13 of the Treaty on the Functioning of the European Union recognizes animals as sentient beings and requires that full regard be given to the welfare of animals when formulating and implementing EU policy. A 1964 book—*Animal Machines*—significantly increased awareness of

⁶⁵ *JS West Milling Company, Inc. v. State of California, et al*, Tentative Rulings for July 7, 2011, http://www.fresno.courts.ca.gov/_pdfs/tentative_rulings/law_motion/07-07-11.pdf (California Superior Court 2011).

⁶⁶ *William Cramer v. Edmund G. Brown, Jr., et al.*, April 10, 2012 (United States District Court, Central District of California, Eastern Division 2012).

⁶⁷ Dani Friedland, "Court rejects challenge to Calif. confinement measure," *Meatingplace*, September 13, 2012, <http://www.meatingplace.com/Industry/News/Details/36030>.

⁶⁸ Terrence O'Keefe, "California egg farmers challenge Proposition 2 in state court," *Egg Industry*, January 2013, pp. 14-15.

⁶⁹ Michigan Compiled Laws, Section 287.746(2)(a)(b), <http://legislature.mi.gov/doc.aspx?mcl-287-746>.

⁷⁰ Shannon Linderoth, "Michigan House passes animal care legislation," *Drovers*, September 22, 2009.

animal welfare in the EU, particularly the welfare of farm animals.⁷¹ The book also helped create public pressure in the EU to end the use of battery cages, the production method most in use in OECD countries. Subsequent research on non-cage systems led to an EU Directive that first specified a minimum size for battery cages in 1986.⁷² The Farm Animal Welfare Council, established by the UK government in 1979, issued an analysis of hen welfare and egg production systems in 1986, followed by two additional reports in 1991 and 1997 on the welfare of laying hens.⁷³

On June 17, 1999, the European Union announced passage of a new directive that would, over 13 years, phase out the use of battery cages for laying hens.⁷⁴ The ban, effective January 1, 2012, and relying on advice from the EU's Scientific Veterinary Committee, prohibits the use of conventional battery cages for hens. Egg production in the EU now allows only enriched caging systems or non-cage systems.⁷⁵ Enriched cages (sometimes referred to as colony cages) have a small perch, a litter area for scratching, and a nesting box. The enriched cage is somewhat higher than the conventional battery cage and has slightly more space per hen.

The European Commission announced plans in January 2012 to take legal action against 13 member states who are in breach of the new rules—Belgium, Bulgaria, Cyprus, Greece, Hungary, Italy, Latvia, the Netherlands, Poland, Portugal, Romania, Slovakia, and Spain.⁷⁶ The EU Commission sent formal notices asking each of the 13 noncompliant member states for information about how it would correct deficiencies in implementing the ban on battery cages.⁷⁷ The EU Commission noted that noncompliance had animal welfare consequences, and also distorted the egg market. By November 2012, only Cyprus, Greece, and Italy were not in compliance with the EU hen cage rules.⁷⁸

Some EU countries transitioned to enriched cages ahead of the 2012 deadline for compliance. Sweden banned the use of conventional cages by the end of 2002; Austria banned their use by the end of 2008; and Germany followed by the end of 2009. Austria and Belgium also plan to ban enriched cages by 2020 and 2024, respectively.⁷⁹ Outside the EU, Switzerland banned battery

⁷¹ Ruth Harrison, *Animal Machines* (London: Stuart, 1964).

⁷² Council for the European Communities, *Laying down minimum standards for the protection of laying hens kept in battery cages*, Council Directive, March 25, 1986, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1986:095:0045:0048:EN:PDF>.

⁷³ Farm Animal Welfare Council (FAWC), *An Assessment of Egg Production Systems*, Tolworth, England, September 1986; FAWC, *Report on the Welfare of Laying Hens in Colony Systems*, December 1991; FAWC, *Report on the Welfare of Laying Hens*, 1997. Reports available at <http://www.fawc.org.uk/reports.htm>.

⁷⁴ Council Directive 1999/74/EC, Article 5(2). Ban on Barren Battery Cages. The ban is consistent with the Article 13 of the Treaty on the Functioning of the European Union, which recognized animals as sentient beings and requires that full regard be given to the welfare requirements of animals while formulating and enforcing various EU policies.

⁷⁵ Non-cage systems are either free-range or barn systems. Enriched cages are regarded by some as offering greater improvements in bird welfare than free-range systems. Virtually all non-cage systems create their own significant welfare problem: If the hens do not have their beaks trimmed, cannibalism is a likely result. Yet, beak trimming itself is painful, and it also removes the touch-sensitive beak tip, which is an important sense organ for birds.

⁷⁶ James Andrews, "European Union Bans Battery Cages for Egg-Laying Hens," *Food Safety News*, January 19, 2012, <http://www.foodsafetynews.com/2012/01/european-union-bans-battery-cages-for-egg-laying-hens/>.

⁷⁷ European Commission, "Animal Welfare: Commission urges 13 Member States to implement ban on laying hen cages," press release, January 26, 2012, <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/12/47>.

⁷⁸ "Despite Difficulties, the European egg market remains well supplied," *WattAgNet*, November 13, 2012, <http://www.wattagnet.com/155421.html>.

⁷⁹ "Upgrading Hen Housing: Latest Development in Europe," *The Poultry Site*, October 23, 2009, (continued...)

cages in 1992. Battery cages are still legal in non-EU countries, and there is no current ban on the import into the EU of eggs produced in non-EU countries in battery cages. Such eggs will require a country-of-origin label and must indicate that the farming method used to produce the eggs is “non-EC standard.”⁸⁰

Implementation of the ban has imposed increased costs for eggs in the EU. According to the EU Commission, egg supplies fell and egg prices “surged considerably” in the weeks following the implementation of the January 2012 ban. Data released by the Commission showed that table egg prices increased 44% by March 2012 from the end of 2011. Prices for eggs used by the food industry—normally as much as 50% less expensive than supermarket eggs—also increased 10%-20% in price.⁸¹ The EU wholesale prices for whole pasteurized liquid egg increased 102% year-over-year.⁸² Based on the experience of Germany, which banned conventional cages in 2007, the Commission noted that they expected egg prices to stabilize by early May, even as they expect total egg production to fall by 2.5% in 2012. Indeed, EU egg prices peaked in March, remained relatively high in April, but moved lower throughout the rest of the year. Although 2012 EU egg prices were higher than a year earlier because of high input costs, the November 2012 price was 16% lower than the March peak.⁸³

On February 15, 2012, the European Commission issued its general strategy for the protection and welfare of animals.⁸⁴ The EU already had directives on various aspects of animal welfare including transportation; slaughtering; and specific requirements for housing calves, pigs, laying hens, and broilers. EU rules on organic production also include high animal welfare standards for cattle, pig, and poultry production. The new EU strategy will consider introducing a simplified legislative framework with animal welfare principles for all animals. This framework would use science-based animal welfare indicators to simplify the legal framework, provide more information to consumers on animal welfare, create a common set of requirements for personnel handling animals, and establish a EU network of animal welfare centers.

(...continued)

<http://www.thepoultrysite.com/articles/1533/upgrading-hen-housing-latest-developments-in-europe>.

⁸⁰ See <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:163:0006:0023:EN:PDF>. The European Commission in 2007 issued marketing rules for eggs. Paragraph 33 notes that battery cages are prohibited for Member states beginning in 2012, and the Commission “.. should therefore evaluate the application of the voluntary labelling provisions foreseen with regard to enriched cages before that date in order to examine the need of rendering this labelling compulsory.” Commission Regulation No. 557/2007: Laying down detailed rules for implementing Council Regulation No. 1028/2006 on marketing standards for eggs, May 23, 2007, available at <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:132:0005:0020:EN:PDF>.

⁸¹ “Europe short on eggs as battery cage ban bites,” *Deutsche Welle*, March 22, 2012, <http://www.dw.de/dw/article/0,,15826347,00.html>.

⁸² Julia Glotz and Richard Ford, “Egg prices up after scramble to meet EU battery cage ban,” *The Grocer*, January 7, 2012, <http://www.thegrocer.co.uk/topics/prices-and-promotions/egg-prices-up-after-scramble-to-meet-eu-battery-cage-ban/224792.article>.

⁸³ European Commission, “Monthly Market Prices for Eggs in the E.U.,” December 20, 2012, http://ec.europa.eu/agriculture/markets/poultry/eggs_broilers.pdf.

⁸⁴ European Commission, Communication from the Commission to the European Parliament, the Council and the European Economic and Social Committee on the European Union Strategy for the Protection and Welfare of Animals 2012-2015, February 5, 2012, http://ec.europa.eu/food/animal/welfare/actionplan/docs/aw_strategy_19012012_en.pdf.

Author Contact Information

Joel L. Greene
Analyst in Agricultural Policy
jgreene@crs.loc.gov, 7-9877

Tadlock Cowan
Analyst in Natural Resources and Rural
Development
tcowan@crs.loc.gov, 7-7600