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This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF AGRICULTURE

Agricultural Marketing Service

7 CFR Part 205

[Document Number AMS–NOP–20–0037; NOP–20–03]

RIN 0581–AD75

National Organic Program (NOP); Request for Comment on Organic Livestock and Poultry Practices Economic Analysis Report

AGENCY: Agricultural Marketing Service, USDA.

ACTION: Request for comment.

SUMMARY: The USDA Agricultural Marketing Service (AMS) requests public comment on an Economic Analysis Report related to the Organic Livestock and Poultry Practices final rule (OLPP Rule), published on January 19, 2017, and the final rule withdrawing the OLPP Rule (Withdrawal Rule), published on March 13, 2018. The public comment process for the Economic Analysis Report is being conducted consistent with an Order of the United States District Court for the District of Columbia, which granted USDA's Motion to Remand a legal challenge to the Withdrawal Rule for purposes of clarifying and supplementing the record regarding the economic analysis underlying both the OLPP Rule and the Withdrawal Rule. (*See Organic Trade Association* v. *USDA;* Civil Action No. 17–1875 (RMC) (March 12, 2020), ECF No. 112).

DATES: Comments must be received by May 26, 2020.

ADDRESSES: You may submit comments on this document via the Federal eRulemaking Portal at *https://www.regulations.gov/.* Search for docket number AMS–NOP–20–0037; NOP–20–03. Comments may also be sent by mail to: Dr. Jennifer Tucker, National Organic Program, USDA–AMS–NOP, 1400 Independence Ave SW, Room 2642-So., Ag Stop 0268, Washington, DC 20250–0268. Instructions: All submissions received must include docket number AMS–NOP–20–0037; NOP–20–03 or Regulatory Information Number (RIN): 0581–AD75. You should clearly indicate the topic to which your comment refers, state your position(s), and include relevant information and data to support your position(s). All comments and relevant background documents posted to *https://www.regulations.gov* will include any personal information provided.

FOR FURTHER INFORMATION CONTACT: Jennifer Tucker, Ph.D., Deputy Administrator, National Organic Program, Telephone: (202) 720–3252. Fax: (202) 205–7808.

SUPPLEMENTARY INFORMATION: The Organic Foods Production Act of 1990 (OFPA), as amended (7 U.S.C. 6501–6524), authorizes the United States Department of Agriculture (USDA or Department) to establish national standards governing the marketing of certain agricultural products as organically produced to assure consumers that organically produced products meet a consistent standard and to facilitate interstate commerce in fresh and processed food that is organically produced. USDA's Agricultural Marketing Service (AMS) administers the National Organic Program (NOP) under 7 CFR part 205.

The Economic Analysis Report summarizes the agency's further review of the Regulatory Impact Analysis (RIA) for both the OLPP Rule (Final RIA) and Withdrawal Rule (Withdrawal RIA). The Economic Analysis Report includes findings that the Final RIA contained several material errors. The Withdrawal RIA corrected some of those errors, did not identify some of those errors and thus incorporated them in its analysis, and did not fully correct one of the errors. USDA seeks comment on the findings in the Economic Analysis Report and their impact on the Withdrawal Rule. The public comments will inform a final analysis, to be published in the **Federal Register** in the form of a second document later in 2020, explaining USDA's final conclusions pertaining to the Economic Analysis Report. The full Economic Analysis Report is included below.

On January 19, 2017 (82 FR 7042), AMS published the OLPP Rule. After delaying the effective date of the OLPP Rule (82 FR 9967, 82 FR 21677, and 82 FR 52643), AMS published the Withdrawal Rule on March 13, 2018 (83 FR 10775), which withdrew the OLPP Rule. AMS explained the withdrawal on the basis that, among other things, the Final RIA had incorrectly calculated the costs and benefits of the OLPP Rule and had wrongly concluded that the benefits of the rule exceeded the costs. AMS also published the Withdrawal RIA in support of the Withdrawal Rule that sought to correct for three identified errors in the Final RIA. In the Withdrawal RIA, AMS found that the projected costs of the OLPP Rule likely exceeded its benefits. As separate and independent bases for the Withdrawal Rule, AMS also concluded that it lacked the legal authority under the Organic Foods Production Act to promulgate the OLPP Rule and that there was no market failure in the organic industry sufficient to warrant the particular regulations established by the OLPP Rule.

In the fall of 2017, the Organic Trade Association (OTA) filed a lawsuit in the U.S. District Court for the District of Columbia, challenging AMS's delay of the OLPP Rule's effective date; OTA subsequently amended its complaint to challenge the Withdrawal Rule. On October 31, 2019, OTA filed a motion for summary judgment accompanied by several extra-record attachments, including a privately commissioned analysis of the Withdrawal RIA performed by Dr. Thomas Vukina, a consultant and professor of economics at North Carolina State University. In the course of reviewing Dr. Vukina's analysis, AMS independently discovered additional flaws in the Final RIA, which had inadvertently been carried through to the Withdrawal RIA.

In light of those flaws, on January 3, 2020, USDA filed a motion to suspend the summary judgment proceedings and requested voluntary remand. On March 12, 2020, the District Court granted that request. Subsequently, AMS completed its initial review of the flaws in the Final RIA and Withdrawal RIA and is now publishing the results of the review, *i.e.,* the Economic Analysis Report, in this document for public comment. AMS intends to publish its final analysis, as informed by public comment, in time to report back to the District Court by the court-ordered deadline of September 8, 2020.

AMS commissioned one of its economists, Dr. Peyton Ferrier, to conduct a thorough review of both RIAs

and to prepare the Economic Analysis Report cataloguing his findings. Dr. Ferrier was not involved in the administrative processes leading to the OLPP Rule or the Withdrawal Rule and therefore was able to provide an independent perspective on the integrity of the methodology and calculations underlying the prior rulemakings. The Economic Analysis Report describes his principle findings and appears below. AMS is seeking comment on this Report by May 26, 2020.

Economic Analysis Report: Peer Review of Regulatory Impact Analysis for the Organic Livestock and Poultry Practices Rule and the Withdrawal Rule

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Summary

On January 19, 2017, the Agricultural Marketing Service (AMS) promulgated the Organic Livestock and Poultry Practices Final Rule (OLPP Rule), (82 FR 7042), and published the associated regulatory impact analysis (Final RIA). AMS subsequently completed a rulemaking that withdrew the OLPP Rule, (83 FR 10775) (Mar. 13, 2018), and published the regulatory impact analysis in support of the withdrawal (Withdrawal RIA). This Economic Analysis Report (Report) describes a number of areas in which the Final RIA contained flaws in methodology and calculations that materially affected AMS's economic analysis of the costs and benefits of the OLPP Rule.

The Withdrawal RIA documented and sought to correct three of these errors: The incorrect application of the discounting formula; the use of an incorrect willingness to pay value for eggs produced under the new open access requirements; and the incorrect application of a depreciation treatment to the benefit calculations. This Report identifies four additional categories of errors in the Final RIA that were not detected or corrected during the rulemaking to withdraw the OLPP Rule and were carried forward into the Withdrawal RIA. Those errors are: Inconsistent or incorrect documentation of key calculation variables; an error in the volume specification affecting benefits calculations in two of three scenarios considered; the incorrect use of production values that do not account for increased mortality loss in the benefits calculations; and aspects of the cost calculations that resulted in certain costs being ignored, underreported, or inconsistently applied.

This Report also identifies additional issues related to the erroneous depreciation methodology applied in the Final RIA. First, the Final RIA contained errors in its treatment of depreciation of benefits. The Withdrawal RIA attempted to correct the error; however, it did not fully do so and therefore its final calculations were inaccurate. The Final RIA included another error related to depreciation of costs that was not previously identified and was carried forward into the Withdrawal RIA.

In addition to the material errors, there were minor errors in the Final RIA and the Withdrawal RIA. This Report describes three such minor errors that do not have a material effect on cost and benefit calculations.

Background

In April 2016 (81 FR 21956), AMS published the OLPP proposed rule pertaining to certain aspects of organic livestock production certified under the NOP. Among other provisions, the rule would have imposed stricter requirements for producers of organic eggs to provide layers with access to outdoor space and established stricter stocking density requirements for broiler producers. In the preliminary regulatory impact analysis (Preliminary RIA), AMS estimated that, despite the added costs of complying with these requirements, all existing broiler producers would become fully compliant with the new rule. On the other hand, AMS expected the rule to cause a large portion of organic egg producers to exit the industry. At the same time, because the organic egg industry had experienced high rates of production growth in the preceding years, AMS assumed that the organic egg industry would grow substantially throughout the five year period between the rule's date of publication and the date on which it required operations to become fully compliant. For these reasons, both the Preliminary and Final RIAs considered three alternative scenarios with different assumptions regarding both firm exit and entry (*i.e.,* industry growth). These scenarios and underlying assumptions about firm exit and entry were subsequently retained without change in the Withdrawal RIA.

As stated in the Final RIA (Passage 1, pages 6–7), these scenarios are:

- Scenario (A)—Full Compliance—''All producers remain in the organic market; Organic layer and broiler populations continue historical growth rates after the rule.''
- Scenario (B)—Entry and Exit—''50 percent of organic layer production in year 6 (2022) moves to the cage free market. Organic layer and broiler populations continue historical growth rates after the rule.''
- Scenario (C)—Entry and Exit, No Non-Compliant Entry—''50 percent of organic layer production in year 6 (2022) moves to the cage free market. There are no new entrants after publication of this rule who cannot comply.''

Following public comment on the Preliminary RIA, AMS published the OLPP Rule and Final RIA in the **Federal Register** in January 2017. Between the Preliminary RIA and the Final RIA, AMS changed two key assumptions. First, based on updated data, AMS

revised its expected growth rate of organic egg production upward from 2 percent to 12.7 percent, a change that would directly impact Scenarios A and B, which assume continued industry growth.

Second, in the Preliminary RIA, AMS had previously applied a depreciation treatment to both costs and benefits calculations whereby the expected annual costs and benefits for egg producers were reduced by one-thirteenth (1/13) each year until they reach zero in the thirteenth year. This depreciation treatment differs from the commonly understood accounting concept of depreciation that converts the loss in value of a durable asset that is only infrequently purchased (*i.e.,* tractor, barn, truck) to an annual cost. Instead, the depreciation treatment used by AMS in the Preliminary RIA was intended to adjust the costs of incumbent producers who were pre-committed to producing in the organic industry (due to already owning a layer house) for the period necessary to recover the value of their industry-specific assets. After that point, the costs and benefits realized by these producers under the OLPP Rule were no longer deemed to be attributable to the OLPP Rule and were not included in the costs or benefits calculations of the analysis. The justification for the application of this depreciation treatment was that, as the value of a producer's industry-specific assets become fully depreciated, that producer would no longer be treated as pre-committed to the industry so that that producer's costs and benefits were no longer, strictly speaking, due to the OLPP Rule rather than the producer's independent decision to stay in the organic market notwithstanding the OLPP Rule. In the Preliminary RIA, AMS based its expected share of production that becomes fully depreciated each year on Internal Revenue Service (IRS) schedules allowing for 13 years of depreciation for specialized farm production structures (see Non-Material Errors (3)). In the Final RIA, AMS removed the depreciation treatment from its cost calculations, but not from its benefit calculations. In the Withdrawal RIA, AMS acknowledged that it should also have removed the depreciation treatment from its benefit calculations as well.

In March 2018, AMS published the Withdrawal Rule, after notice-and-comment, and the Withdrawal RIA. The Withdrawal RIA described three errors in the Final RIA, which were: (1) The incorrect application of the discounting formula, (2) the use of an incorrect willingness to pay value for organic eggs produced under the OLPP Rule, and (3) the application of depreciation to the values of calculated benefits. These three errors pertained only to the calculation of benefits and did not affect the analysis of costs described in the Final RIA. With the Withdrawal RIA, AMS also published a spreadsheet that contained 10 pages that related Final RIA calculations to intermediary components of the benefits calculation as modified in the Withdrawal RIA. This document (Withdrawal Workbook) did not include detailed documentation to allow simple cross-referencing of some key figures with the cost and benefit values presented in the Final RIA or the Withdrawal RIA. Appendix A provides that cross-referencing. Moreover, the Withdrawal Workbook did not include new calculations for benefits that corrected all three errors identified within the Withdrawal RIA, despite the Withdrawal RIA presenting values intending to correct all identified errors. For this reason, the benefit values in Table C of the Withdrawal RIA do not correspond to the benefit values calculated in sheets 6, 7, and 8 in the Withdrawal Workbook.

The OLPP Rule's egg producer requirements did not become fully effective until the sixth year following the rule's publication to give producers time to come into compliance.[1] Both RIAs assumed that costs of the OLPP Rule (other than administrative costs, which are ignored in the analysis) would first be accrued in the third year following the Rule's publication by producers who would need to acquire land to meet the OLPP Rule's space requirements. The Final RIA assumed that benefits would not accrue until the sixth year after publication, when full compliance was required. These assumptions were retained in the Withdrawal RIA. Since annual growth was assumed to be 12.7 percent in both RIAs as well, firm entry and exit over the period between the rule's year 1 publication and year 6 full compliance date would potentially have a large effect on measured costs and benefits. In general, differences in the assumptions regarding firm entry and exit can dramatically affect the calculations of benefits and costs because these values are tied to the number of eggs being produced each year. Certain errors described by this Report pertain only to flaws in the analysis of one or two of the three scenarios.

Errors Detailed in This Report

Below are the descriptions and analyses of the errors found in the Final RIA and the Withdrawal RIA.

1. Discounting Error in the Final RIA

As explained in the Withdrawal RIA, the Final RIA incorrectly applied the discounting formula to the future benefits reported in the Summary Table (pages 6–7) and Table 1 (pages 8–11). The OLPP Rule considered costs and benefits over a period of 15 years. With discounting practices used by economists, benefits or costs occurring sooner are more valuable than those occurring later. To compare costs or benefits across time, economists apply a discounting formula that adjusts the value of future benefits and costs to their present value equivalent. Guidance to Federal agencies[2] describes the rationale for discounting and methods of its application in detail. Specifically, to convert future costs and benefits to their present value, they are to be multiplied by $1/(1 + r)^t$ where t is the number of years in the future that the benefits or costs occur and r is the discount rate, which the guidance recommends to be applied at the 3 and 7 percent rates. Benefits or costs that have been adjusted in this way are called (discounted) present values.

A total present value of benefits (TB) can then be calculated by simply summing the present values of benefits across years. Denoting the value of benefits in year t as B_t, the correct formula for TB over the 15 years considered in the rule is:

$$TB = B_1 \times \frac{1}{(1+r)^1} + B_2 \times \frac{1}{(1+r)^2} + B_3 \times \frac{1}{(1+r)^3} + \cdots + B_{15} \times \frac{1}{(1+r)^{15}}$$

[1] To avoid confusion, this Report uses year 1 to refer to the publication date and year 6 to the full compliance date. The Final RIA and Withdrawal RIA use 2017 as year 1 and 2022 as year 6 since the OLPP Rule was published in 2017, became effective one year later, and had a five-year regulatory phase-in period.

[2] Office of Management and Budget Circular A–4, dated September 17, 2003, provides guidance on best practices associated with cost-benefit analysis to Federal agencies undertaking rulemaking.

However, in the Final RIA, an incorrect formula was used to calculate total benefits. In the case where r is 3 percent, that formula, denoted $TB_{Incorrect,r=0.03}$, was:

$$TB_{Incorrect,r=3\%} = B_1 \times \frac{1}{(1+r)^1} + B_2 \times \frac{1}{(1+r)^2} + B_3 \times \frac{1}{(1+r)^2} + \cdots + B_{15} \times \frac{1}{(1+r)^2}$$

In this case, the exponent in the denominator for all periods after the second year was incorrectly set to 2.

A different error was present for the total benefits formula in the case where r is 7 percent, denoted $TB_{Incorrect,r=7\%}$ below as:

$$TB_{Incorrect,r=7\%} = B_1 \times \frac{1}{(1+r)^1} + B_2 \times \frac{1}{(1+r)^1} + B_3 \times \frac{1}{(1+r)^1} + \cdots + B_{15} \times \frac{1}{(1+r)^1}$$

In this case, the exponent in the denominator was incorrectly set to 1 for all periods.

This Report agrees with both the Withdrawal RIA's assessment and correction of the discount rate error in the benefits calculations of the Final RIA.

2. Willingness To Pay Value Was Too High in the Final RIA

The Final RIA contained an error that made the willingness to pay (WTP) value used in the benefits calculations too high. Specifically, the Final RIA drew upon an inappropriate estimate for the value of eggs produced with the new outdoor access requirements. This error was identified and corrected in the Withdrawal RIA.

The Final RIA drew primarily upon a 2013 article by Yan Heng, Hikaru Hanawa Peterson, and Xianghong Li involving a choice experiment conducted on 924 surveyed consumers.[3] In the experiment, consumers were asked to choose between eggs that differ in terms of the growing conditions of the laying hens. Price and growing conditions were adjusted across choices to optimize the ability to identify consumers' value for eggs produced under different growing conditions. The study applied a stated preference method of estimating the WTP for eggs that now meet the new outdoor access requirement in the OLPP Rule. In brief, the Final RIA focused on the article's text (Passage 2, page 419) stating:

> Our estimates suggest that the majority of consumers are willing to pay an average premium of $0.21 to $0.49 per dozen for eggs produced in a cage-free environment with outdoor access or without induced molting.

Based on this text, the Final RIA assigned a premium value per egg to the outdoor access characteristic of $0.49 on the high side and of $0.21 on the low side. However, the Withdrawal RIA notes that under existing rules, organic eggs are already required to be produced cage-free. The Withdrawal RIA notes that the actual benefit attributable to the OLPP Rule should be comprised of only the portion of the WTP described by Heng, Peterson, and Li (2013) that may be ascribed to the addition of new outdoor access requirements to existing organic egg production requirements.

Table 8 (''Statistics of Simulated WTP Distributions'') of the Heng, Petersen, and Li (2013) study provides estimates of the WTP for eggs produced by hens under the new outdoor access requirements (Passage 3, page 429), explaining that in a subsample of consumers that received additional information regarding the environmental benefits of cage-free systems and outdoor access:

> 89% (59%) of respondents were willing to pay a premium for eggs from hens given outdoor access (more space), with a mean premium of $0.25. In [a second] subsample that did not receive the additional information, the mean premium for outdoor access (more space) was lower, at $0.16, with 81% (43%) of those willing to pay a premium.

To correct for this error, the Withdrawal RIA therefore replaced the Final RIA's high WTP estimate of $0.49 and its low WTP estimate of $0.21 with new high and low WTP estimates of $0.25 and $0.16 (with all dollar values referring to price per dozen eggs).

This Report finds that the Withdrawal RIA corrected the WTP value error in an appropriate manner. We note in (2) of our Non-Material Errors section, however, that the correction contained a minor error that did not have a material effect on the calculations.

3. Depreciation Errors

A. Depreciation of Future Benefits Error in the Final RIA

The Preliminary RIA applied the depreciation treatment to both the benefit and costs calculations. The Final RIA applied the depreciation treatment only to the benefits calculations, not to costs. The Final RIA (Passage 4, pages 111–112) states that:

> For each cohort, AMS applied the full compliance costs for each year after the rule must be fully implemented. These recurrent costs are incurred through year 15, relative to the without-regulation baseline. Given the uncertainty in these cost estimates and forecasting impacts in the organic egg market, *AMS is presenting estimates without depreciation* to capture the full range of potential impacts. . . . . While AMS is presenting the costs associated with this methodology as the primary costs estimates, we discuss the rationale for *an alternative methodology* based on linearly reducing costs over the depreciation time period for poultry houses.
>
> The following description of applying the depreciation to the cost estimates would yield a lower cost estimate. This also *assumes that costs only accrue to legacy organic producers*. . . . . [italics added]

The ''alternative methodology'' text refers to the method of applying the depreciation treatment while computing cost calculations. The ''AMS is presenting estimates without depreciation'' text indicates that costs calculations in the Final RIA did not incorporate the depreciation treatment as they had in the Preliminary RIA. Finally, the ''assumes that costs only accrue to legacy organic producers'' text explains that the inclusion of the discussion regarding depreciation treatment as an alternative rationale was motivated by the specific assumption that costs and benefits only arise from the actions of legacy producers and only to those producers until their capital investments under the prior regulatory regime were fully depreciated.

[3] The article is titled ''Consumer Attitudes toward Farm-Animal Welfare: The Case of Laying Hens'' and published in the *Journal of Agricultural and Resource Economics*,38(3):418–434 (2013).

Notwithstanding this discussion, the Final RIA states in footnotes 92 and 94 that the depreciation treatment *was* being applied to benefits calculations because it had also been applied to costs. Specifically, Footnote 92 (Passage 5, page 97) states:

> The 13 year period accounts for the time needed to fully depreciate layer houses. We use a 13 year timeframe to align with the methodology used to calculate the costs, below [in footnote 94].

In short, despite concluding at pages 111–112 of the Final RIA that it would not apply the depreciation treatment to costs, footnote 92 explained AMS's application of the depreciation treatment to its benefits calculations in the Final RIA as a way to be consistent with an application of the depreciation treatment to costs.

The Preliminary RIA included cost and benefits calculations in which the 13-year depreciation treatment was both applied and not applied. For instance, Table 9 (pages 126–127) shows layer costs as falling in a range each year. The upper limit to the range is constant and reflected the estimated costs without the depreciation treatment. For layers, this is $28,160,000. The lower limit to the range is the depreciated value and it falls by one-thirteenth of the $28,160,000, or $2,166,000, each year.

The Final RIA's removal of the depreciation treatment from costs appears to have been intended to be associated with its same removal from the benefits calculations as well. The Withdrawal RIA (Passage 6, page 11) states that:

> In initial drafts of the OLPP final rule RIA, AMS applied a straight-line reduction in both costs and benefits over time to reflect the economic life of egg and broiler structures. Both benefits and costs declined every year as a fraction of the industry structures became fully depreciated and reached the end of their economic lifetimes.

Footnotes 92 and 94 of the Final RIA show that the depreciation treatment was not removed from the benefits calculations in that analysis. The Withdrawal RIA (Passage 7, page 11) states as much in the text:

> Costs were instead estimated to be constant over time, but benefits were still straight line reduced over time. The same reasoning should have been applied to the benefits to make the calculation of costs and benefits consistent.

The Withdrawal RIA calculated new values for benefits without the straight-line depreciation treatment applied. This Report concurs with the Withdrawal RIA's assessment that the Final RIA contained an error in its inconsistent application of the depreciation treatment to benefits but not costs. However, as we describe in Section 3.B to follow, the Withdrawal RIA does not fully address that error.

B. Depreciation Treatment Not Fully Removed From Benefits Calculations in the Withdrawal RIA

The Withdrawal RIA attempts to correct the depreciation error in the Final RIA by removing the treatment of depreciation from the calculation of benefits, but it failed to do so entirely.[4] This new benefit calculation has the following five steps: [5]

i. Estimate the number of eggs produced that would newly have outdoor access, as defined by the OLPP Rule, after the Rule takes effect in year 6 (E_{y6});

ii. Multiply E_{y6} by the WTP for the new outdoor access to obtain the benefit value by year;

iii. Apply time discounting to each year's benefits (at either the 3 or 7 percent rate);

iv. Sum the benefits over years 6 to 13; and

v. Convert the summed discounted benefits to an annual benefit over 15 yearly periods.[6]

The number of eggs projected to be produced after the Rule took effect depends on which of the three scenarios, described in the Introduction to this Report, is being considered. Several omissions in the Preliminary and Final RIAs stymie the independent review and replication of key figures provided in the Withdrawal RIA and the Withdrawal Workbook to this Report. Those concerns are described in Section 5 of this Report. To assess the Withdrawal RIA corrections, one can recover the values for E_{y6} in the Withdrawal Workbook by dividing the year one benefit values by $0.21 (in the low case) and $0.49 (in the high case). Table 1 provides the E_{y6} values and the location where they are stated for each scenario.

TABLE 1—PRODUCTION ESTIMATES IN THE WITHDRAWAL WORKBOOK

Scenario	E_{y6}	Withdrawal workbook location
Scenario A	355,289,326	Sheet 6—Production with newly acquired outdoor access.
Scenario B	97,708,552	Sheet 7—Production with newly acquired outdoor access.
Scenario C	89,361,091	Sheet 8—Inferred from Values of Undiscounted Benefits.[7]

The Withdrawal RIA generates benefit values (*i.e.,* those realized in year 6 of the analysis period when the requirement for full compliance takes effect) based on the WTP values of $0.16 and $0.25 per dozen eggs. The benefits used in the Withdrawal RIA should be constant across all years and continue into year 14 and 15 since they are no longer subject to the depreciation treatment. However, in the implementation of its corrections, the Withdrawal RIA used the year 6 benefit value from the Final RIA to determine the constant annual benefit value with the depreciation treatment removed. Since that year 6 value incorporated 5 periods of depreciation treatment pursuant to the erroneous depreciation treatment, the value is five-thirteenths (or 38.4 percent) less than the value the Withdrawal RIA should have used.

For this reason, while this Report agrees with the Withdrawal RIA's assessment of the Final RIA's error in depreciating benefits as described in Section 3(A), it finds that the Withdrawal RIA retained a benefits calculation affected by the flawed application of the depreciation treatment methodology and thus failed to fully correct for that error.

C. Depreciation Treatment Not Fully Removed From Scenario A Cost Calculations in the Withdrawal RIA

Although the Final RIA stated that it did not apply the depreciation treatment to the cost calculations, an artifact of the

[4] Other sections to this Report evaluate the treatment of depreciation, production growth, and firm exit from the industry in their totality.

[5] Note that these steps are similar to those described in Footnote 94 of the Final RIA with three key differences. First, straight-line depreciation treatment is not applied. Second, discounting is applied. Third, total discounted payments are converted to their annual benefit values.

[6] This conversion was done using the Microsoft Payment function. The formula for the annual benefit, AB, is a function based on *r;* the discount rate, *N;* the number of years (*i.e.,* 15); and *TB,* the summed discounted benefits. The value is given as: $AB = (TB \times r)/(1-(1+r)_{-N})$.

[7] Sheet 8 erroneously contains the same values as Sheet 7 for the benefits in its top half. From its bottom half, the production level of 89,361,091 can be inferred by dividing the first year undiscounted benefits value of $18,765,829.11 by 0.21.

depreciation treatment actually was retained in some of its cost calculations. Table 15 on page 116 of the Final RIA reported annual costs for Scenario A. Layer houses were assumed to be comprised of the same ratio composition as described (*i.e.,* 70 percent aviaries, 30 percent non-aviaries). Table 15 of the Final RIA shows that for layer houses greater than 4-years old, costs are $3.81 million in year 3 (representing one-time land-acquisition costs) and $24.29 million from years 6 to 15; for 2-years old layer houses, costs are $6.62 million from years 6 to 15; for 1-year old layer houses, costs are $13.23 million. Page 111 of the Final RIA assumed that 4-year old houses represent 64 percent of production facilities, 2-year old houses represent 24 percent of production facilities, and 1-year old houses represent 12 percent of production facilities. Underlying AMS calculations (described in Section 6 of this Report) show that the sum of total (physical) costs and lost revenue is $55.13 million under Scenario A. Table 2 shows the decomposition of producers' costs to the OLPP Rule by age of operation.

TABLE 2—DECOMPOSITION OF PRODUCERS' COSTS TO THE OLPP RULE BY AGE OF HOUSE

Age of house	Share of houses (%)	Year 3 costs (million)	Years 6 to 15 costs (million)
Older than 4-year-old houses	64	$3.81	$24.29
2-year-old houses	24	$0	$6.62
1-year-old houses	12	$0	$13.32
Total	100	$3.81	$44.13

AMS's removal of the depreciation treatment from its costs calculations in the Final RIA implied that the age of facilities should have no bearing on annualized calculations of costs. However, in Table 15 of the Final RIA, the depreciation treatment was applied for four years for the 64 percent of houses that were more than 4 years old. Rather than using $35.29 million (= 64% × $55.13 million) for this class of houses, the number is $24.43 million (= 64% × (9/13) × $55.13 million).[8] Table 15 applied no similar depreciation to 2- and 1-year old houses whose values correspond to their respective share of the market multiplied by $55.13 million. The calculation for the 4-year old houses in Table 15 reflects that the depreciation treatment was not fully removed from the cost analysis.

This Report finds that the Withdrawal RIA's downward adjustment of costs by 4/13th for houses that are four years old or greater was inappropriate because, first, it applies to all costs (*i.e.,* feed, labor, etc.), not just the industry-specific assets that depreciate over time and, second, it is inconsistent with the ordinary depreciation of assets applied elsewhere in the analysis (see Final RIA, page 103). In this case, the downward adjustment reduced layer costs by 18.2 percent for Scenario A.

4. Inconsistent or Incorrect Documentation of Underlying Assumptions in the Final RIA

This section notes instances where the Final RIA contained conflicting or omitted data on key figures used in calculations and inconsistent descriptions of certain scenarios regarding entry and exit. Many of these omissions or inconsistencies interact with errors previously discussed in this Report. This Report finds that, due to these inconsistencies and omissions, a knowledgeable external reviewer would have had substantial difficulty replicating the key findings of the Final RIA.[9]

A. Baseline Egg Production Values Used in Calculations Differ From Those Described in Text

In the Final RIA, AMS assumed the organic egg industry would continue at its historical growth of an average of 12.7 percent per year during the 6 years following the publication of the OLPP Rule until full implementation of the Rule in 2022. Table 3 of the Final RIA (page 46) states the baseline quantities of 325.83M doz. eggs in 2016, 367.21M doz. in 2017, and 667.63M doz. in 2022. The Withdrawal Workbook projected that 390.83M doz. eggs would be produced in 2017. Footnote 89 (page 96) and Footnote 94 (page 97) of the Final RIA alternatively list 710.58M doz. in 2022. Both Table 3 of the Final RIA and Footnotes 89 and 94 of the Final RIA reflect the assumption of 12.7 percent annual industry growth, but because the two sets of numbers have different starting values, the Final RIA baseline production figures in Table 3 on page 46 are 6.4 percent lower than the baseline production figures used in the calculations in footnotes 89 and 96 in every year, without any explanation for that difference. The 390.83M doz. eggs figure in the Withdrawal Workbook appears to be based on 14,087,500 organic laying hens reported in the AMS Weekly USDA Certified Organic Poultry and Eggs Report first reported for November 15th 2016.[10] In each period, organic laying hens produced 24.77 dozen eggs per year, a figure that is not documented explicitly in the Final RIA (See Section 4.B).[11]

This Report notes that reproduction of the Final RIA calculations would be very difficult without the actual baseline production estimate and this number would be very difficult to ascertain from the Final RIA in light of the inconsistent figures and omissions described above.

B. Baseline Egg Production Figures Used in Final RIA Differ From Those in Cited Market News Reports

Page 17 of the Final RIA (Passage 8) states:

In April 2016, AMS Market News reported 14 million organic layers currently in production.

[8] The $24.43 Million figure is stated in cell F29 of the ''Stay in Organic'' Worksheet of B-Layer, along with intermediary steps in the equations. The $24.29 Million figure in Table 2 is stated in the page 1 of the Withdrawal Workbook. This Report cannot explain the discrepancy in values.

[9] OMB Circular A–4 providing guidance on Federal rule-making states (page 17): A good analysis should be transparent and your results must be reproducible. You should clearly set out the basic assumptions, methods, and data underlying the analysis and discuss the uncertainties associated with the estimates. A qualified third party reading the analysis should be able to understand the basic elements of your analysis and the way in which you developed your estimates.

[10] The 14,087,500 figure is, itself, rounded to 14,000,000 in the analysis.

[11] One can only infer the 24.77 dozen eggs per year value from the Withdrawal Workbook.

This statement is incorrect. AMS Market News reported a count of 11,350,500 organic layers in each of the four reporting weeks in April of 2016 in its ''Weekly USDA Certified Organic Poultry and Eggs'' reports. It was not until November 14, 2016, that the AMS Market News report began reporting 14,087,500 organic layers.[12] The highest level of organic eggs recorded as being produced between April 2016 and January 2017 was 207,497 30-dozen cases, or 6,224,910 dozen per week. Based on 52.143 weeks per year, this corresponds to 324,584,3593 dozen egg produced per year for an average of 276.49 eggs, or 23.0406 dozen, per laying hen per year. Separately, the National Agricultural Statistics Service (NASS) Chickens and Eggs Summary for 2015, which includes organic and conventional eggs, lists the average number of eggs per layer as 276, or 23 dozen, in 2015 and 276.6, or 23.05 dozen, in 2016. In contrast, based on AMS's calculation in Tables 6, 7, and 8 of Withdrawal Workbook,[13] AMS assumed, without explanation, that the average annual dozen eggs laid per bird was 24.7708. This higher production value increased the estimated number of eggs produced by 7.51 percent over the estimate in the contemporaneous Market News Report.

This Report finds that the use of the 24.7708 dozen eggs-per-layer assumption was inappropriate for two reasons. First, the data source of egg-per-layer value used is poorly documented and significantly exceeds other readily available data collected by USDA at the national level. Second, it deviates from the AMS Weekly Report data relied upon in the Final RIA for the layer numbers. It is generally considered a best practice to use a single, consistent data set because doing so limits the possible ways that biases arising from methodological differences and data-collection error may influence the analysis.

C. Separate Descriptions of Scenario C in the Final RIA Do Not Match

The Final RIA calculates costs and benefits under three sets of assumptions regarding the entry of operations to the industry (*i.e.,* industry growth at a 12.7 percent rate in the five years preceding the full compliance date) and the exit of operations when firms must become compliant in year 6. This Report previously described Scenario C based on descriptions from pages 6 and 7 of the Final RIA. However, pages 98 and 118 of the Final RIA include an alternative description of Scenario C (labeled hereafter as Scenario C.2, to distinguish it from the description of Scenario C described in the Summary Table on pages 6–7 in the Final RIA) that has an important difference affecting the cost and benefit calculations applicable to that scenario. Specifically, Scenario C.2 is described on page 98 (Passage 9) as assuming that:

> . . . 50 percent of current production would exit the organic market in 2022 and *that there would be no new entrants until that time.* [italics added]

Page 118 seems to reflect the same description stating:

> We base costs on . . . the layer population in 2017, *and no new entrants to the organic egg market during the implementation period for this rule.* [italics added]

However, page 118 later states that:

> In addition, we expect that *any producers who cannot comply with this rule will not enter the organic egg market during the implementation period.*

The page 98 quote assuming ''no new entrants until [2022]'' and the page 118 quote assuming ''no new entrants . . . during the implementation period [through 2022]'' support the description in Scenario C.2. The second quote on page 118, suggests, however, that entry continues but only by compliant producers. Page 7 of the Final RIA describes Scenario C similarly to the description in the second quote on page 118, which suggests that entry (*i.e.,* growth) continues but that ''there are no new entrants after publication of this rule who cannot comply'' with the OLPP Rule. The he ''who cannot comply'' language is superfluous unless there are also entrants who can comply. If entry (*i.e.,* growth) continues as assumed by Scenario C, 711 million eggs are projected to be produced in year 6 and the share of production that is already compliant exceeds 50 percent. If no entry occurs as assumed by Scenario C.2 (*i.e.,* no growth), 390M eggs are produced in year 6 and the share of production that is already compliant is less than 50 percent. As we discuss in Section 5, cost and benefit calculations for Scenario C depend only on the number of non-compliant producers that become compliant as a result of the OLPP Rule in year 6. If a large number of compliant producers enter the industry after the rule is announced, then the share of industry that is non-compliant in year 6 becomes smaller. In Section 5, this Report describes how Scenario C implies that less than 50 percent of operations are non-compliant in year 6 so that the 50 percent share of producers that AMS assumes will remain in the industry after the OLPP Rule takes effect would all already be compliant. For this reason, the discrepancy between the Scenario C and Scenario C.2 descriptions has a direct impact on cost and benefit calculations.

This Report notes that confusion over the exact assumptions involving Scenario C is likely to have prevented external reviewers from replicating key cost and benefit calculations, especially when this problem occurs in conjunction with other documentation errors surrounding baseline production values.

D. Number of Eggs With New Outdoor Access Not Stated for Two of Three Scenarios

Neither pages 97 and 98 of the Final RIA nor any other section of the Final RIA states the number of eggs that are subject to the OLPP Rule (E_{y6}) in Scenario B and C. While the E_{y6} value of 97,708,552 for Scenario B was subsequently provided later in the Withdrawal Workbook, the Scenario C value of 89,361,091 is not explicitly stated and can only be inferred from calculations in the tables. See Sections 5.G and the footnote to Table 1 of this Report for discussion. While these omissions do not represent errors in the calculations unto themselves, they would have, especially in conjunction with other errors mentioned in this section, severely hampered the ability of external reviewers to replicate and examine key calculations regarding both the benefit and cost calculations of the Final RIA.

E. Benefits Values Reported in Summary Tables Do Not Match the Text

The Summary Table (pages 6–7) and Table 1 (pages 8–11) of the Final RIA present benefit calculations that do not match the descriptions of those calculation on pages 97 and 98 (Passage 10). Specifically, Scenario A benefits:

> ''. . . range between $13.77 million to $ 32.1 million annually with a mean value of $23 million over a 15-year period.''

Scenario B benefits:

> ''. . . range from $3.79 million to $8.84 million per year''

Scenario C benefits:

> ''. . . range from $6.93 million to $16.17 million per year.''

In contrast, the Summary Table and Table 1 list Scenario A benefits at $16.3 to $49.5 million, Scenario B benefits at

[12] The AMS Market News report adjusts organic egg production figures only every month or so.

[13] Specifically, 24.7708 Eggs Per Layer is the ratio of ''Eggs'' to ''Layers #'s'' for each year except for year 4. As explained in the section on Non-material Errors (1.B), the year 4 Eggs value likely reflects a transposition error.

$4.5 to $13.8 million, and Scenario C benefits at $4.1 to $12.4 million.

The Summary Table and Table 1 show the sum of benefits to which discounting (which had been done improperly) and the depreciation treatment have been applied and which was then converted to an annualized benefit using the Microsoft Excel Payment (PMT) function (see footnote 6). The page 97 text, however, presents the average annual benefits to which the depreciation treatment but not discounting had been applied. Also, the page 97 values do not annualize the total benefit using the Payment function, but instead sum the yearly benefits and then divide that sum by the total number of years considered, 15. The Final RIA does not present the benefit values stated in the Summary Table and Table 1 elsewhere in the document, nor does it describe the function used to convert total benefits to an annualized figure. These discrepancies would likely have prevented a knowledgeable reader from independently replicating the AMS calculations.

F. Costs Estimates for Scenario A in Final RIA Text Are Inconsistent

Page 110 of the Final RIA (Passage 11) states:

> For the organic egg sector, AMS estimates that the costs of this rule will average $15 million to $21.9 million annually, over 15 years, if all producers comply (the discounted annualized estimated costs are $24.7 million to $27.5).

These costs align with the cost figures in the Summary Table and Table 1 for Scenario A only. Note that across all the scenarios considered, the discounted annualized estimated costs of the broiler rule are unchanged at $3.541 million at the 3 percent discount rate and $4.092 million at the 7 percent discount rate, figures reflected in the last two columns of Sheet 1 in the Withdrawal Workbook. That same sheet shows that the sum of the layer and broiler cost components of the rule is $31.036 million at the 3 percent level and $28.699 million at the 7 percent level. These figures correspond to the Summary Table (pages 6–7), Table 1 (pages 8–11), and Table 15 (page 116) of the Final RIA.[14]

In contrast, pages 111–112 (Passage 12) of the Final RIA states:

> If all currently certified organic egg producers comply with this rule and the organic production continues to grow at 12.7 percent each year, we estimated that the annual cost of the rule is $32.3 million ($17 million at 7 percent discount; 24.2 million at 3 percent discount.)

The preface indicates that this passage also describes Scenario A but the figures do not match those previously stated, any of the figures found in Summary Table, Table 1, or Table 15 of the Final RIA, or the figures presented in the first three sheets of the Withdrawal Workbook.[15] [16]

G. Transposition Error Likely Affected Scenario C Benefit Calculation in Final RIA

The number of eggs used in Scenario C in the Final RIA should likely have been 88,822,332 rather than 89,361,091. The value 88,822,332 is one-eighth of the total number of eggs produced after 5 years of growth at the 12.7 percent rate, or $\frac{1}{4} \times (24.77083335 \times 14{,}343{,}051)$ where 24.77083335 is the number of dozen eggs produced per layer annually and 14,343,051 is half of 28,686,102, the number of layers after 5 years of growth. The incorrect value of 89,361,091 ($= \frac{1}{4} \times 357{,}444{,}364$) eggs used in Scenario C corresponds with the incorrect substitution of 14,*430,050* for 14,*343,051.* The italicized material suggests where a transposition error likely occurred, an error that carried through from the Final RIA to the Withdrawal RIA.[17]

H. Poor Justification for the General Specification of Scenario B in Final RIA

Scenario B in the Final RIA made the assumption that between the time the rule was published in 2017, and five years later, when full compliance was required, industry production would grow at a 12.7 percent annual growth rate. This rate predicted industry growth of 81.8 percent from year 1 to year 6.[18] Then, scenario B assumes that after 5 years of such growth, 50 percent of firms would exit the organic egg industry. Because the ratio of producer types stays constant, the scenario implies that half of the producers who entered the industry after the rule was published in year 1 would then leave the industry at the compliance date. Under a modest assumed level of industry growth, this specification might be inconsequential. However, given the high assumed rate of production growth (81.8 percent), this specification implies that a production volume equal to 40.6 percent of the baseline production level both enters and departs the organic egg industry over the span of five years with full knowledge of the regulatory requirements expected to cause the departure of half of the market upon the compliance date. Page 47 of the Final RIA seems to preclude this possibility (Passage 13), stating:

> After publication of the rule, AMS projects continued entry into the organic egg market (see Table 3). The implementation dates of the rule as drafted would give those operations—certified after the publication of the rule but prior to 3 years after publication—5 years to comply. This is intended to provide additional time to producers who had intended to enter organic production near the time this rule is published to prepare land to meet the organic requirements (the required preparation time lasts three years). Given that the proposal was published early in 2016, the majority of new entrants from publication (2017) until three years later (2020) would be aware of the new requirements and construct facilities that comply with the outdoor space requirements. *Because there is no economic rationale for a producer to incur the licensing and construction expenses associated with organic production, only to be out of compliance within a few years, late entrants into the market are assumed to comply.* However, in the cost estimates below, AMS considered that there may be new entrants up until full implementation for layers and that there may be costs to these entrants. *We believe this could significantly overestimate the costs,* but are providing this to capture a range of potential outcomes given uncertainties in the underlying assumption.

In Passage 13, AMS states that it assumes that all late entrants (*i.e.,* those entering the industry after the rule is published) would be compliant with the new rule because there is ''no economic rationale'' to believe that they would not be. However, by allowing for growth in non-compliant operations, particularly aviaries, within the underlying costs calculations, AMS assumed that such firms continue to enter. The implication of AMS's later statement that the inclusion of ''new [non-compliant] entrants . . . could significantly overestimate the costs'' would only have the effect of increasing costs in the final calculations is misleading because a higher number of non-compliant operations moving into compliance

[14] Similarly, page 114 also states that ''[i]n summary, the average annual costs for the organic poultry sector are estimated to range from $17.4 to $24.7 million annually over 15 years.''

[15] The Withdrawal RIA made no corrections to the cost calculations in the Final RIA. For this reason, an error in the Final RIA cost calculations extends into the Withdrawal RIA as well.

[16] Pages 121–23 of the Final RIA consider Scenarios B and C together, with Table 16 (page 122) corresponding to Scenario C and Table 17 (page 123) corresponding to Scenario B.

[17] The Excel File titled ''C–OLPP All Costs Benefits FINAL'' contained the sheet ''Benefits—cage-free no entry'' forming some of the calculations in Sheet 8 of the Withdrawal Workbook. In this Excel file, the value of 357,444,364 eggs did not have an underlying formula or source associated with it, but the 89,361,091 value for the number of eggs that entered the benefits equation was defined as ¼ of that value.

[18] This rate of growth is substantially larger than the 2 percent growth rate assumed in the preliminary RIA and is explained in footnote 131 on page 126 of the Final RIA as reflecting new data.

increases the size of the estimated benefits. Within the structure of AMS cost and benefit calculations, operations that are already compliant with the rule in year 6 do not create have new costs to become compliant, nor do they create any new benefits. As described in Section 5, if all entrants to the industry after year 1 are compliant with the new outdoor access requirement, then greater than 50 percent of operations are already compliant in year 6 when AMS assumes that the 50 percent of presumably non-compliant operations leave the industry. This suggests that there would be no new benefits and no new costs if only compliant firms enter the industry before year 6 but after the OLPP Rule's publication.

Given the costs and time for firms to enter the organic industry, this Report finds that AMS's assumption that non-compliant operations continue to enter the industry in the period after the OLPP Rule's publication date but before its compliance date is not well-justified.

5. Error in the Volume Specification Affecting Benefits Calculations in Two of Three Scenarios

In the Final RIA, AMS stated that the outdoor access requirement established by the OLPP Rule for organic egg production is a ''credence good'' because it is a characteristic that cannot be independently verified by the consumer at the time of consumption and therefore requires trust in a label to ascertain that the quality characteristic is present. AMS did not specify how consumers of compliant eggs know that the layers of these eggs have open access to the outdoors, whether operations advertise their eggs as having that characteristic, or whether consumers of such eggs pay a premium (above the ordinary organic premium) for eggs with this characteristic. The presence of such premiums would likely affect the content of the RIA. Regardless of these mechanisms, AMS assumed that only organic eggs that did not previously have the outdoor access production characteristic and now acquired it as a result of the OLPP Rule would generate new benefits for consumers.

On page 27 of the Final RIA (Passage 14), AMS wrote:

> In response to the descriptions in public comment, AMS is modifying the estimated proportion of organic operations that have adequate land to comply with this rule. In the proposed rule, we estimated this could be 50 percent of organic egg production. As discussed above, AMS is assuming that all aviary operations, which account for an estimated 70 percent of organic egg production, would need to acquire additional land. Based on public comments, we are also projecting that a portion, 17 percent, of single-story (non-aviary) operations, which account for an estimated 5 percent of all organic egg production, would also need to acquire additional land because they may not have two barn footprints of outdoor space due to various conditions specific to the operation.

Scenarios A, B, and C specify that growth occurs in the industry at a 12.7 percent rate from year 1 to year 6.[19] Scenario C (but not Scenario C.2) indicates that the proportion of facilities of each type in the industry changes as the industry grows. The construction of Scenarios A and B, however, strongly suggests that there is no change in the proportions of production facilities of each type through year 6. Page 27 (Passage 15) then states:

> In summary, AMS assumes that operations representing 75 percent of organic egg production could incur costs for purchasing and maintaining additional land to comply with the outdoor stocking density requirement.

This statement, in which the outdoor stocking density requirement refers to the new requirements for outdoor access under the OLPP Rule, implies that if the proportions of all operations of each type remain in production and no firms exit the industry (as Scenario A indicates), then 75 percent of current organic egg production will gain new outdoor access as a result of the rule.

Scenario A assumes that all producers become compliant. The Final RIA calculates benefits for Scenario A by multiplying the WTP values by one-half of year 6 production. In this case, multiplying production by 50 percent is likely a correction for the proportion of existing production that is already compliant. If so, this proportion likely reflects the Preliminary RIA's lower assumed proportion of production occurring under aviary systems. The Preliminary RIA states (Passage 16, page 115):

> For this analysis, we assumed that pasture housing, floor litter housing and slatted/mesh floor housing systems collectively account for 50 percent of organic egg production and either currently comply with the outdoor space requirements or have the land available to comply with the proposed outdoor stocking rate without significant changes to the number of birds or facilities.

In the Preliminary RIA, AMS assumed that 50 percent of production was from non-aviary type facilities (*i.e.,* pasture housing, floor litter housing, and pit litter housing systems) and already compliant with the OLPP Rule and that the other 50 percent was of the aviary type and not compliant. Under these assumptions for Scenario A (Full Compliance), the share of production that would acquire new outdoor access and provide new benefits to consumers was 50 percent of production.

In the Final RIA, AMS altered this assumption and instead assumed that 30 percent of production was from non-aviaries (with only 25 percent of total production being already compliant) and that the other 70 percent of production was from non-compliant aviary operations. Under these new assumptions, 75 percent of production would provide new benefits to consumers because that is the share of production not already in compliance with the OLPP Rule before it takes effect. For this reason, this Report finds that calculations in the Final RIA that assume that new benefits only arise from 50 percent of the organic egg produced in year 6 in Scenario A are inconsistent with assumptions stated elsewhere.

Scenario B assumes that the industry and production grow at the 12.7 percent rate annually between year 1 and year 6 and that 50 percent of current production exits the industry in year 6 when the rule becomes effective.[20] Page 27 of the Final RIA (Passage 15) indicates that 75 percent of production must incur costs to become compliant with the open access requirement. If the 50 percent of production that exit the organic market are noncompliant producers, then 25 percent of production will have been noncompliant, become compliant as a result of the rule, and now gained new outdoor access. Scenario B calculates benefits based on 25 percent of year 6 production gaining new outdoor access (which are subsequently multiplied by the WTP value). This Report assesses those calculations as being accurate given the description of assumptions made on the composition of production with regard to compliance.

As described previously, Scenario C assumes that 50 percent of current production exits the industry in year 6. Between year 1 and year 6, growth was assumed to occur at the 12.7 percent rate but no non-compliant producers were expected to enter the industry. To find the amount of production by incumbent firms that now provide new benefits to consumers, let Q_{ALL} be all producers in year one and $0.75 \times Q_{ALL}$

[19] Non-aviary systems account for 30 percent of production. One-sixth of these producers (16.67 percent) is 5 percent of all production.

[20] In the Withdrawal Workbook, AMS presented tables that projected future volumes based on a 12.7 growth rate for the entire 15-year period considered in the analysis. The higher egg volume projections after year six, however, had no bearing on the actual calculations of costs and benefits.

be all non-compliant producers in year one. If production grows by 12.7 percent for 5 years, production in year 6 is $1.818 \times Q_{ALL}$ (=1.127^5 × Q). Of these producers, there are still $0.75 \times Q_{ALL}$ non-compliant producers in the industry (*i.e.,* the same number of non-compliant producers from year one). Subsequentially, the remaining $1.068 \times Q_{ALL}$ are all compliant.

If half of production exits the industry under Scenario C, then $0.91 \times Q_{ALL}$ leave the industry. Presumably, only non-compliant producers leave the industry in year 6. This implies that all of the non-compliant production from year 1 leaves the industry ($0.75 \times Q_{ALL}$) along with an additional $0.16 \times Q_{ALL}$ of production that is already compliant. Since already compliant operations that remain in the industry do not generate any new benefits, no new benefits are created under the assumed conditions of Scenario C. In the Final RIA, however, AMS based its benefit calculations on a production volume getting newly acquired outdoor access of one-eighth (12.5 percent) of year 6 production or $0.225 \times Q_{ALL}$ (=.0125 × 1.818 × Q_{ALL}) to calculate its benefit value.[21] This Report finds that the benefit calculation AMS used in Scenario C is incorrect and overestimates the total value of benefits.

Alternatively, AMS might have intended to have described Scenario C.2 rather than Scenario C in its benefits calculation. Scenario C.2 assumes that 50 percent of current production exits the industry in year 6 and no growth occurs until that time (See Section 4.C). In this case, the benefits calculated for C.2 would be the same as the benefits calculated for Scenario B. In that Scenario, 25 percent of year 1 production ($0.25 \times Q_{ALL}$) gains new outdoor access and this volume would be multiplied by the WTP to find benefits. Since this also differs from the $0.225 \times Q_{ALL}$ value used in the Final and Withdrawal RIAs, this Report also finds that the calculated benefit for that Scenario in the Final RIA is inconsistent with the description of Scenario C.2.

6. Incorrect Use of the Production Levels That Do Not Account for Increased Mortality When Calculating Benefits

In the Final RIA, AMS stated that it expected layer mortality to increase from 5 to 8 percent as a result of the OLPP Rule's new outdoor access requirement, which exposed layers to increased risks of disease and predation. As a result, AMS developed estimates of after-the-rule production levels that were 1.4 percent lower than the before-the-rule levels that specifically reflected this mortality adjustment. While the cost estimates correctly utilized the relevant after-the-rule production level, the benefits calculations were calculated based on the quantity levels that did not take into account the expected increase in mortality. Details for specific values of the production before the rule (with the lower mortality rate) and after the rule are provided in the following section. Because the production level enters into the benefit calculation multiplicatively, the benefit calculation is over-estimated by 1.4 percent. This Report finds that AMS erred by using the before-the-rule production level when the after-the-rule production level was appropriate.

7. Errors in Cost Calculations in the Final RIA

The cost calculations were not fully documented in the Final RIA with regard to how the OLPP Rule affected average costs across operation types. This section describes the cost calculations and notes several concerns, including how production levels used to calculate costs and benefits differ, how AMS did not appropriately consider the costs to aviaries that could not obtain land, and how production shares were not updated for firm exit. By not appropriately considering the costs to aviaries that could not obtain land and not updating production shares for firm exit, AMS likely underestimated the costs to implementing the rule in specific instances.

The main documentation for the cost and transfer calculations of the Final RIA was included in workbooks titled ''A–OLPP layer costs—cage free'' (A–OLPP) and ''Barn and Layer projections FR 01 2017 OMB'' (B–Layer). For the four types of operations (pasture raised, floor litter, pit litter, and aviary), the A–OLPP file enumerates the costs of producing organic or cage-free eggs (*i.e.,* feed costs, machinery, labor, etc.). A–OLPP documents layer numbers, production levels, and adjustment factors including the death loss rate, which AMS expected to increase under the OLPP Rule. A–OLPP also reports calculations for production levels, fixed costs, variable costs, average total costs, revenue (based on price assumptions), and cost differentials before and after the OLPP Rule. The cost burden of the rule has two components for egg producers—increased physical costs and reduced revenue. In the Final RIA's Tables 16 and 17 on pages 122–123 (which correspond to Withdrawal Workbook sheets 2 and 3), the ''Cost: Layers'' column refers to the sum of increased physical costs and reduced revenue.

The A–OLPP file has six sheets. The A–OLPP sheets titled Industry Cost No Entry (No Entry Sheet) and Industry Cost Entry (Entry Sheet) calculate total aggregate costs of the rule, including increased physical costs and reduced revenue for all operation types, under the alternative assumptions that the industry production did not grow and that it grew at the 12.7 percent rate. In the Entry and No Entry Sheets, cell E67 reports total costs, cell E65 reports lost revenue, and cell E59 reports increased physical costs. These values are the sums of the values for each operation type, with only the pasture raised operations incurring no additional increased physical costs or lost revenue. Cells G36:G38 and D35:D38 show production levels for each operation type before and after the rule takes effect, the difference arising from the increase in death loss following the OLPP Rule's promulgation.[22] The difference between rates of death loss (reported in cells B18 and B19) drives the difference in the production levels before and after the rule takes effect. The A–OLPP file reports total costs in year 6 of $55,135,426 in the Entry Sheet and $30,325,723 in the No Entry Sheet. These computations do not consider whether operations exit in year 6, but are instead based on cells G36:G38, the production levels after the OLPP Rule takes effect if all operations are producing.

Note that production for each operation in the Entry Sheet is 1.818107555 times greater than its value in the No Entry Sheet. This indicates that growth does not change the proportions of operation types in the industry. Also, note that production levels after the rule takes effect (G39) are 1.4 percent lower than their levels before the rule takes effect (D39). The higher before-rule production levels form the baseline production levels in the benefits calculations.

The A–OLPP total cost values in the Entry and No Entry Sheets do not consider the effect of operation exit. Instead, the B-Layer file adjusts the total cost values for the shares of year 6 production that remains in the industry to compute costs under the different Scenarios. As described in Section 5, AMS expected different proportions of the producer types to exit the industry in Scenario B and C where exit occurs.

[21] The likely transposition error discussed in Section 5.G affected this calculation. Year 6 production is 710,578,652, or 1.127^5 (or 1.818) multiplied by Year 1 production of 390,834,208. One-eighth of year 6 production is 88,822,332. Section 5.G describes how that number was likely incorrectly transcribed to be 89,361,091.

[22] Death loss rates before and after are presented in B18 and B19.

Specifically, the 70 percent share of egg production from aviaries would fall to 25 percent and the 30 percent share of non-aviary production would fall to 25 percent. Since AMS had different cost calculations for each type of producer, it should have used these expected changes in shares to scale costs specifically by operation type. Instead, it applied a single scaling multiplier to total costs (across all operation types) based on the aggregate share of year 6 production that remains in the organic egg industry.

In B-Layer, the cell H8 value of $7,541,431 in the ''Transfer—No Entry'' sheet describes annual layer costs in Scenario C, which corresponds to Table 16 of the Final RIA.[23] This value reflects the $30,325,723 total cost from the Entry Sheet being scaled by ¼.[24] The cell H8 value of $13,784,001 in the ''Transfer to Cage Free'' Sheet describes annual layer costs in Scenario B, which corresponds to Table 17 of the Final RIA.[25] This value is ¼ of the total cost value of $55,135,426 recorded in the ''Industry Cost—Entry'' sheet.[26] The interpretation of the ¼ multiplier is discussed later in this section.

In B-Layer, the cell H9 value of $3,812,000 in the ''Stay in Organic'' sheet reflects the one-time fixed costs of aviaries acquiring land and is equal to Scenario A's year 3 costs in Table 15 of the Final RIA. Cell H10 of that same sheet calculates recurring annual costs of $55,135,426 after year 6. As previously discussed in Section 3.C, Table 15 of the Final RIA presents annual cost figures for layers for three groups of producers divided by the age of the producer.[27] The values for the one-and two-year old producer groups correspond to their share (12 and 24 percent) multiplied by $55,135,426. Section 3.C describes an error in the Withdrawal RIA whereby the depreciation error was not entirely removed from the cost calculations for houses older than four years.

The Final RIA's costs calculations for layers of a certain type (pasture, floor litter, pit litter, and aviaries) reflect two components—increased physical costs for the portion of production remaining in the industry and lost revenue for the portion of production exiting the industry. For each producer type, increased physical costs equals the number of eggs multiplied by the difference in the estimated average costs of production before and after the rule. Lost revenue for layers is the difference in the number of eggs produced before and after the rule multiplied by the break-even organic price before the rule. Table 3 provides values of average costs and break-even price[28] for each type of operation.

TABLE 3—AVERAGE COSTS AND BREAK-EVEN PRICES BY OPERATION TYPE

Operation type	Average costs before the rule	Average costs after the rule	Break-even egg price before the rule
Pasture	$3.0427	$3.043	$3.403
Floor Litter	1.8972	1.947	2.121
Pit Litter	1.8972	1.947	2.121
Aviary (Can Get Land)	1.8344	1.891	2.043
Aviary (Can't Get Land)	1.8344	2.399	2.043

Note: All values are in dollars per dozen.

Since pasture operations are already fully compliant with the OLPP Rule, their average costs are equal before and after the rule. A–OLPP sheet ''Layers-Aviary'' provides average cost and break-even price calculations for both aviaries that could not obtain land and aviaries that could. As Table 3 shows, aviaries that could not obtain land faced a much higher average cost (after the rule) than aviaries that could obtain land. The ''Aviary (Can't Get Land)'' average cost values reflect costs if the baseline aviary's post-rule production was one-third of its pre-rule production, a production level reduction that mirrors the level of firm exit AMS assumed for the aviaries after the rule in Scenarios B and C.[29] Based on comments, AMS increased the production share of aviaries from 50 percent in the Preliminary RIA to 70 percent in the Final RIA, but assumed that two-thirds of aviaries would not be able to acquire land. The Final RIA (Passage 17, pages 27–28) states:

AMS is estimating that about two-thirds of the aviaries, equivalent to 45 percent of organic egg production, and that a portion of non-aviary production, which accounts for 5 percent of organic egg production, will not be able to acquire additional land and will move to the cage-free market. In summary, AMS believes that 50 percent of organic production may transition to cage-free egg production, while the remainder would be incentivized to remain in the organic market and obtain needed land.

Despite calculating this figure within internal spreadsheets, AMS did not apply or publish the ''aviary (can't get land)'' average cost values in the Final RIA. In the Final RIA, AMS (Passage 18, page 24) writes:

AMS acknowledges that some producers may opt to remain in organic production by obtaining non-adjacent land and constructing new facilities. While AMS is not estimating aggregate costs based on assumptions about what proportion of organic producers may decide to remain in organic production by constructing new facilities, we are providing some parameters of such costs. Based on information from the

[23] The cell I8 value of $170,042,253 is the annual transfers value reported in sheet 4 of the Withdrawal Workbook.

[24] In the sheet, the $7,542,431 is the sum of four component values, but each has the same multiplier and sum to ¼ of total costs in the ''Industry Cost—No Entry'' sheet by construction.

[25] The cell I8 value of $93,527,000 is the value of annual transfers value reported in sheet 5 of the Withdrawal Workbook.

[26] In the sheet, the $13,784,001 is the sum of four component values, but each has the same multiplier and sum to ¼ of total costs in ''Industry Cost—No Entry'' sheet by construction.

[27] The distribution of the productive type for this group is assumed to be the same as it was previously—70 percent aviaries, 10 percent pasture, 10 percent pit litter, and 10 percent floor litter.

[28] The break-even price reflects the (before rule) average costs with an adjustment for the 20 percent of output that goes to the less-lucrative breaker egg market.

[29] In AMS cost calculations in A–OLPP, total cost is the sum of total fixed costs and total variable costs for a baseline enterprise budget AMS estimated for a large organic layer operation. Between firms able to purchase land and firms unable to purchase land, fixed costs are roughly equal at $420,626 and $418,234, respectively. On the other hand, total variable costs differ by approximately an order of three at $4,236,938 and $1,552,299. This reflects a production level differing by approximately an order of three at 2,464,000 dozen eggs for farms that can acquire land and 821,333 dozen eggs for farms that cannot acquire land. The average total cost for farms that can acquire land of $1.8902 per dozen reflects the sum of fixed and variable costs equaling $4,657,564 divided by 2,464,000 dozen eggs. The average total cost for farms that cannot acquire land of $2.3992 reflects the sum of fixed and variable costs $1,970,533 divided by 821,333.

organic egg producers, AMS estimates that the costs of aviary housing is [sic] $70/hen. Further, we believe that larger organic operations have a minimum of 100,000 hens; medium scale have between 30,000–100,000 birds and smaller scale less than 30,000 birds. Therefore, the corresponding estimates for housing costs for producers of each size category: $7 million minimum (large scale); $2.1–$7 million (medium); $2.1 million maximum (smaller scale). In addition, producers that construct new aviary facilities to house 100,000 birds would need approximately 6.12 acres of land for housing and outdoor space. This amounts to nearly $28,000 in land costs.

Since AMS deviated from those provisions, we are not utilizing the associated cost projections. [italics added]

In the first italicized passage, AMS states that some aviary operations that could not acquire additional (adjacent) land might be forced to buy land elsewhere and build new facilities to remain in operation. AMS then outlines ''parameters of such [building] costs'' before stating in the second italicized passage that it would not utilize these costs.

Table 4 lists the production levels before and after the OLPP Rule for each type of operation for Scenario A. The total level of eggs before accounting for the rule's impact on mortality—710,578,627 dozen—corresponds to the level of eggs in year 6 as listed on Table 6 of the Withdrawal Workbook. The numbers of eggs before and after the rule differ because AMS expected layer mortality to increase with outdoor access. As we note in Section 6, AMS used the higher before-the-rule production level rather than the lower after-the-rule production levels in the benefits calculations and this led to their over-estimation.

TABLE 4—PRODUCTION VALUES, COST INCREASES, AND LOST REVENUES FROM ENTRY SHEET

Type	Eggs after rule	Eggs before rule	Increased costs	Lost revenue
Pasture	64,495,917	64,495,917	$0	$0
Fl. Litter	70,682,553	71,786,968	3,506,265	2,343,009
Pit Litter	70,682,553	71,786,968	3,507,153	2,343,009
Aviary	494,777,870	502,508,774	27,641,969	15,794,020
Total	700,638,893	710,578,627	34,655,387	20,480,038

Increased costs and lost revenues equal $55,134,539. As we note in Section 3.C, this value would have been the total cost to egg producers in Scenario A if the depreciation treatment had not been applied for 4-year-old houses. This value is the sum of total increased costs—$34,655,387—and total lost revenue—$20,480,038. Importantly, the computation for increased costs for aviaries uses only the average costs for aviaries that can obtain land. Because AMS estimated that about 45 percent of production was comprised of aviaries that could not obtain land and because these aviaries have far higher costs than aviaries that can obtain land, using only the average cost for aviaries that can obtain land for all aviaries will lead AMS estimate of costs for Scenario A to be underestimated.

Under Scenario B, the organic egg industry grows at a 12.7 percent rate between year 1 and year 6, after which time half of the market participants leave the industry. To obtain the increased costs estimate, AMS used ¼ of the year 6 production levels for each type of operation and then multiplied these values by the difference in average costs before and after the OLPP Rule, as with Scenario A. Similarly, for decreased revenues, AMS used production values before and after the rule that were ¼ of the values used in Scenario A. This Report notes that production levels enter linearly into the formulas for increased costs and lost revenue. As a result, the total costs reported in Table 17 for layers are $13,784,000.

In Scenario C, the industry grows at the 12.7 percent rate with no entry from non-compliant producers and then, in year 6, 50 percent of producers exit and transition to cage-free production. Table 5 below shows the level of eggs produced before and after the OLPP Rule with no growth. Based on these levels, Table 5 shows that total increased costs are $19,061,241 and lost revenue is $11,264,482 so that total costs are $30,325,723. As with Scenario B, the numbers of eggs used in the calculations (both before and after the rule) are multiplied by ¼ and the estimated value calculated for Scenario B is ¼ of $30,325,723 (the sum of increased costs and lost revenue) in Table 5 below, or $7,541,431.

TABLE 5—PRODUCTION, INCREASED COSTS, AND LOST REVENUES FROM A–OLPP NO ENTRY SHEET

Type	Eggs after rule	Eggs before rule	Increased costs	Lost revenue
Pasture	35,474,203	35,474,203	$0	$0
Fl. Litter	38,876,992	39,484,445	1,928,524	1,288,707
Pit Litter	38,876,992	39,484,445	1,929,013	1,288,707
Aviary	272,138,944	276,391,115	15,203,704	8,687,067
Total	385,367,131	390,834,208	19,061,241	11,264,482

Based on these figures, this Report finds three errors with the cost calculations in the Final RIA, as described in the following sections.

A. Production Levels Used To Calculate Costs and Benefits Differ

The Final RIA (Passage 19, page 27) indicates that:

AMS assumes that operations representing 75 percent of organic egg production could incur costs for purchasing and maintaining additional land to comply with the outdoor stocking density requirement.

Seventy five percent of the year 6 production (711 million dozen eggs) is 532 million dozen eggs. In its calculation of benefits, AMS sought to include only benefits from production

of organic eggs that gained new outdoor access as defined under the OLPP Rule and used 50 percent of year 6 production, or 355,289,326 dozen eggs, to reflect that production. The share of houses that were projected to gain new outdoor access under this scenario is higher than 50 percent because, at a minimum, all aviary production remaining in the industry would gain outdoor access and aviaries comprise 70 percent of production. For this reason, this Report finds that the assumed 50 percent share of production that gains new outdoor access is inconsistent with the page 27 text.[30]

In Scenario B, AMS computes costs based on ¼ of total costs in the Entry Sheet (relating to year 1 production levels). In the benefits section, AMS computes benefits based on ⅛ (of year 6) production (after correcting for the error described in Section 3.C). In this case, AMS assumed that only 50 percent of production would gain new outdoor access as a result of the OLPP Rule and thereby create new consumer benefits. However, this Report finds the 50 percent share to be inconsistent with the page 27 text indicated that 75 percent of production would need to acquire land to gain new outdoor access and its costs calculations that approximately 90 percent of production volume pays a higher cost.

For Scenario C, AMS computes costs based on ¼ of total costs reported in the No Entry Sheet (relating to year 1 production levels) but computes benefits based on ⅛ of year 1 production. Following the same logic as with Scenarios A and B, this Report finds the 50 percent share to be inconsistent with the page 27 text.

B. AMS Did Not Appropriately Consider the Costs to Aviaries That Could Not Obtain Land

Aviaries comprised 70 percent of organic egg production and AMS estimated that approximately two-thirds of aviary producers would be unable to acquire the land required under the OLPP Rule. Scenario A calculates costs under the assumption that all current firms continue to operate under the new rule conditions, regardless of their ability to acquire additional land. Whether aviaries would become compliant by acquiring non-adjacent land and building new facilities (as suggested in Passage 17) or reducing production volumes is unclear. Despite acknowledging that the aviaries that comprised 45 percent of production that could not acquire land would face far higher average costs than the aviaries comprising 25 percent of production that could acquire land, AMS applied the lower average cost to all aviaries. This Report further notes that because AMS did not present any of these key underlying cost calculations in the Final RIA, outside reviewers may not have been aware of the modeling specification. Despite stating in Passage 18 that a cost estimate for aviaries that could not acquire land would not be used, this Report finds that AMS still did not fully explain why the lower cost estimate was used and concludes that costs for Scenario A were underestimated as a result.

C. Production Shares Not Updated for Firm Exit

In Scenarios B and C, AMS assumed that, following industry growth for five years, 50 percent of firms exit the industry as a result of the rule. In Passage 17, AMS indicated that ⅔ of aviaries would exit the industry after the OLPP Rule took effect. This implies that the ratio of aviaries to non-aviaries (pasture, floor litter, and pit litter) falls considerably after the rule. In Scenario B, however, AMS used cost calculations that assume the shares of operation types are unchanged. This is significant for two reasons. First, a larger share of remaining firms may be comprised of pastured raised operations. Within the context of the AMS analysis, an increased share of pasture raised operations causes both costs and benefits to fall. This occurs because operations that are already compliant with the rule do not produce any new benefit after the rule takes effect and do not incur any costs to become compliant.

Second, a change in the composition of operations after the rule takes effect is likely to cause the average price of eggs to increase to reflect its new higher break-even level across all producers. Following the rule, firms will exit the industry if the average price of eggs is less than the break-even price. Price, however, will rise as firms leave the industry. Eventually, the average price reaches the break-even price level and firms no longer exit the market. If the proportion of firm types is unchanged, the increase in the break-even will be close to the average cost of implementing the rule. Table 3 indicates that the maximum change in average costs across all operations is relatively small at 6 cents. Pasture raised operations, however, have far higher average costs (and related break-even costs) before the rule than other operation types. By assuming that the share of producer types is unchanged after the rule, AMS constrained the rule's effect on the break-even price to be the cost of compliance (*i.e.,* the change in average costs) within an operation type and precluded a separate industry composition effect due to the industry shift from aviaries to non-aviaries. This industry composition effect will increase production costs on average for the industry independent of the increased cost of compliance.

Non-Material Errors in the Final and Withdrawal RIAs

1. Other Transposition Errors

a. *Costs in Withdrawal RIA*—In the Withdrawal RIA's Table C, the cost savings are erroneously stated as ''$28.7 to $29.9'' under the assumed conditions of: ''All producers remain in organic market; Organic layer and broiler populations continue growth rates after rule.'' The correct values are reported in Table A as: ''$28.7 to $31.0.''

b. *Year 4 Egg Production*—The Withdrawal Workbook Sheets 6, 7, 8, and 9 list 5*9*9,453,90*3* eggs being produced in year 4. Based on the stated 12.7% growth rate this value should have been 5*5*9,453,90*4.* The italicized material suggests that a transposition error likely occurred.

2. Weighting of WTP Values

This Report notes that Passage 1 refers to the WTP of ''the majority of the consumers'' while Passage 2 refers to the ''mean premium'' for each of the two subsets of additional consumers' WTP. This Report assesses the mean premium as the more appropriate value to apply for rulemaking purposes. This rationale is not cited in the Withdrawal RIA but supports AMS's decision to correct the Final RIA numbers.

This Report also notes that Table 8 provides WTP estimates (identical to the ''mean premium'' cited in Passage 2) for two other subsets of all consumers—consumers differing by their perception of quality of an animal-friendly product and consumers differing by their perception of management practices on hen welfare. In the Final RIA and Withdrawal RIA, the high-end and low-end values for the WTP are then used to create separate high-end and low-end

[30] Despite the page 27 statement that 75 percent of production would need to purchase additional land, the Entry and No Entry Sheets describe three producer types (pit-litter, floor-litter, and aviary) that comprise 90 percent of production and would incur increased costs as a result of the OLPP Rule. A close reading of the cost figures in A–OLPP indicates that little or no cost for added land for pit-litter and floor-litter producers was included in the cost calculations. It is unclear whether AMS considered production that gained outdoor access under the rule as production by operations paying additional costs under the rule or firms needing to acquire land under the rule. If it is firms needing to acquire land, the 75 percent figure may be accurate.

estimates of the benefits under the rule. Also, despite the availability of the other subsets, only the ''receiving of additional information'' subset is used for the high and low values. Later those two estimates are averaged in the computation of the net benefits of the rule without regard for any weighing of what proportions of consumers actually belong to those subsets.

From a methodological standpoint, this Report notes that the use of the estimate of the ''receiving of additional information'' subset, rather than the other subsets, is inappropriate. The ''receiving of additional information'' is a treatment variable where subjects receive additional information (relative to the control treatment of no additional information) on the environmental consequences of their choices. The other two subsets—consumers organized by perception of quality and consumers organized by perception of management—represent true control variables because they reflect consumer perceptions formed outside of the choice experiment, as opposed to information provided by the experimental designers. A more appropriate method of developing and compiling the WTP from the two subsets would have been to use values of the WTP from one of the two control groups and weight their effect on the final benefit values by the share of consumers in each group. In the case of the information provided, there is no reason to assume that the proportion of the consumers to which the authors provided this information is equal to the share of actual consumers purchasing eggs who might have that information.

Despite the methodological concerns in the choice of subsets and the weighting of the subset groups, benefit calculations are unlikely to change materially when either change is applied. Because the ''received additional information'' and ''did not receive additional information'' treatment groups had nearly equal numbers of consumers—499 and 475—the weighted and unweighted averages—20.5 cents and 20.2 cents—are very similar. Moreover, the weighted averages of the other two subsets—20.9 cents for ''perceptions of quality'' and 20.3 cents for ''perception of management practices''—are very similar to the ''received additional information'' subset.

This Report concurs with the assessment of the Withdrawal RIA that the Final RIA used inappropriate values for the WTP in its calculation of the benefits. The Report cites two methodological concerns in the Withdrawal RIA's correction of this error. However, this Report also notes that using benefits values with a more appropriate specification in the benefits calculation would not change the findings substantially.

3. Different Depreciation Periods Are Used in Different Sections of the Analysis

In the proposed OLPP Rule published April 13, 2016 (81 FR 21956), AMS states that it applied a depreciation period for hen layer houses of either 12.5 or 13 years, the difference presumably reflecting the need for a round number. AMS applied the depreciation rate in three ways. First, a 12.5-year depreciation period is used to set the compliance phase period. Specifically, in the proposed OLPP Rule, AMS states that the difference between the depreciation rate (12.5 years) and average age of organic aviary layer houses (7.6 years) is roughly 5 years. Therefore, a 5-year implementation period would allow organic egg producers, on average, to recover the costs of a poultry house. 71 FR 21986.

Second, a 13-year period is used in the depreciation treatment of costs and benefits in the proposed OLPP Rule. Despite the errors already mentioned in this section, the depreciation treatment was intended to be removed from calculations in the Final RIA. Third, AMS followed the standard accounting practice of converting the single period cost of a durable asset to a recurring annual cost using the depreciation concept. In this method, AMS divided an asset's costs by its depreciable life to create an equivalent annual cost in using the asset. In using a longer depreciation period of 20 rather than 13 years, AMS decreased the annual costs of using the asset by approximately 35 percent (7/20).[31] However, since this asset depreciation cost (the term being used in the ordinary accounting sense) is a relatively small portion of annual costs, this Report assesses this discrepancy as being non-material.

Appendix A—Cross Referencing of Withdrawal Workbook Page Numbers and Final RIA Tables

- Withdrawal Workbook Sheet 1 corresponds to Final RIA, Table 15 titled ''Estimated costs for organic egg and poultry sector—full compliance.''
- Withdrawal Workbook Sheet 2 corresponds to Final RIA, Table 16 titled ''Estimated cost for organic egg and poultry production—some operations move to cage free in year 6 (2022).''
- Withdrawal Workbook Sheet 3 corresponds to Final RIA, Table 17 titled ''Estimated cost for organic egg and poultry production—some operations move to cage free in year 6 (2022); new entry continues after rule.''
- Withdrawal Workbook Sheet 4 corresponds to Final RIA, Table 18 titled ''Estimated transfers (foregone profit) for organic egg and poultry production—some operations move to cage free in year 6 (2022).''
- Withdrawal Workbook Sheet 5 corresponds to Final RIA, Table 19 titled ''Estimated cost for organic egg and poultry production—some operations move to cage free in year 6 (2022); new entry continues after rule.''
- Withdrawal Workbook Sheet 6 includes intermediate calculations to support the benefit figures associated with Scenario A.
- Withdrawal Workbook Sheet 7 includes intermediate calculations to support the benefit figures associated with Scenario B.
- Withdrawal Workbook Sheet 8 includes intermediate calculations to support the benefit figures associated with Scenario C.
- Withdrawal Workbook Sheet 9 corresponds to Figure 6 of the Final RIA.
- Withdrawal Workbook Sheet 10 includes calculations based on data from the National Animal Health Monitoring Survey that describes the age distribution of layer houses.

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[31] If a 20-year depreciation period is used, then annual costs are 5 percent of the asset's cost. If a 13-year depreciation period is used, then annual costs are 7.69 percent of the asset's cost.

DEPARTMENT OF ENERGY

10 CFR Part 431

[EERE–2020–BT–PET–0003]

Energy Efficiency Program for Industrial Equipment: Test Procedures for Fans, Notice of Petition for Rulemaking

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Notice of petition for rulemaking; request for comments.

SUMMARY: This document announces receipt of a petition received by DOE on January 10, 2020, from the Air Movement and Control Association (AMCA), International, Air Conditioning Contractors of America, and Sheet Metal & Air Conditioning Contractors of America requesting that DOE establish a Federal test procedure for commercial and industrial fans. The petition, which appears at the end of this document, requests that DOE resume a previous DOE rulemaking effort to establish a Federal test