

THE TRANSITION TO CAGE-FREE EGGS

Authors: Dr. Vincenzina Caputo, Dr. Jayson Lusk, Dr. Glynn Tonsor, and M.S. Aaron Staples

EXECUTIVE SUMMARY • February 2023

State regulations, retailer pledges, and final consumer demand have contributed to a rising share of egg-laying hens housed in cage-free systems over the past decade. Nonetheless, conversion from conventional to cage-free housing is costly for both egg producers and final consumers. As such, there remains uncertainty about the extent to which egg producers will be willing and able to continue the transition to cage-free housing at a rate commensurate with retailers' cage-free pledges. To explore this issue, this study investigates the challenges and opportunities associated with the transition to cage-free housing, including interviews with and a survey of egg producers, a survey of egg consumers, and economic modeling of the sector. Key insights and implications are as follows:

CONSUMER PERSPECTIVES

- While there is a high level of stated support for retailers to make cage-free pledges among the general public, **more than half of consumers (56%) are unaware of whether their grocery store has made such a pledge**, and only 19% believe their store has made a pledge. Consumers do not expect a full conversion to cage-free egg systems by 2026, and on average, expect a 10-percentage point increase in cage-free laying hens from now to January 2026.
- **Consumers prefer government policies to subsidize the transition to cage-free or mandatory labels** to policies that mandate producers adopt certain housing practices. Amongst the policies to restrict housing practices, consumers prefer minimum cage size requirements to the outright ban of conventional production.
- There are segments of consumers willing to pay significant premiums for cage-free eggs, but the **largest segment (representing 55% of consumers) is primarily motivated by price and does not discriminate between cage and cage-free eggs**.
- If prices remain unchanged and conventional eggs are removed from the market, the share of **consumers choosing not to buy eggs** will increase by 20 percentage points.

56%
of consumers are
unaware of grocery
cage-free pledges

55%
of consumers are
primarily motivated
by egg price

PRODUCER PERSPECTIVES

- Egg producer interviews reveal the prevalence of long-lasting contractual relationships with retailers, the importance of retailer demand driving the evolution of the market to cage-free, and opportunities to reset the conversation with animal advocacy organizations. However, these interviews also reveal several barriers and unintended consequences to further transition to cage-free, including:
 - Higher costs and labor requirements associated with cage-free production;
 - Challenges obtaining financing to convert or build cage-free facilities without longer-term commitments from retailers, particularly in an environment of rising interest rates and when existing facilities can no longer serve as collateral;
 - Divergent interests of grocery and food service/egg product sectors with respect to hen housing;
 - Concerns that transition to cage-free production could facilitate consolidation given that larger producers often have better resources and access to capital; and
 - Skepticism that retailer pledges can be met by January 2026 without significant financial incentives, particularly given the high costs of building materials and long construction lags associated with the permitting and supply chain disruptions.
- A **majority of egg producers view conventional housing as superior** in food affordability, production efficiency, and environmental impact relative to cage-free production.
- Producers anticipate revenue from cage-free systems to be 8% higher than conventional systems, on average. But **costs are estimated to be at least 8-19% higher**, on average, depending on the category of expense, with additional labor and capital costs anticipated to be the categories with the largest increases.
- Producers are more likely to be willing to transition to cage-free production when cost-plus contracts are available and at higher anticipated return on investment (ROI) levels.
- In aggregate, **egg producers believe cage-free production will grow to 51% of total production by January 2026.**



Economic modeling focused on the shell egg market indicates the following:

- For every 1% reduction in the equilibrium quantity of conventional eggs produced and sold, it takes a roughly 1.9% increase in the equilibrium quantity of cage-free eggs produced and sold and an increase of at least \$21.6 million year in total wholesale egg spending to leave egg producer profits unharmed;
- If the share of shell eggs sold cage-free increases by 20-percentage points, the cost of producing cage-free is 20% higher than for conventional, and consumer demand does not change, egg producer profits would fall \$72.5 million/year in aggregate, not counting any additional fixed costs producers would have to incur to facilitate the transition.