

ERS Peer Review Plan

Preliminary Title: Measurement of Output, Inputs, and Total Factor Productivity in U.S. Agricultural Productivity Accounts

Type of Report (ERR, EIB, EB) TB

Agency: Economic Research Service [X] Influential Scientific Information
USDA [] Highly Influential Scientific Assessment

Agency Contact: Kelly Maguire, kelly.b.maguire@usda.gov

Subject of Review: The U.S. Department of Agriculture (USDA) has been monitoring the farm sector's productivity performance for decades. Today, ERS bases its U.S. agricultural productivity statistics on a sophisticated system of production accounts drawing data from numerous sources. One notable feature of the U.S. productivity accounts is the input quality adjustment. Since some inputs have undergone significant changes in their quality over time, ERS researchers make every effort to properly measure inputs in their constant-efficient (quality-adjusted) units wherever feasible. According to ERS estimates, TFP was the primary driver in promoting output growth between 1948 and 2019. On average, TFP growth contributed 1.36 percentage points and intermediate input 0.54 percentage points to the annual output growth of 1.42 percent. Due to the decline in labor and land use, the annual growth rates of labor and capital inputs contributed negatively to annual output growth at -0.42 and -0.06 percentage points, respectively. However, the changing demographic characteristics embodied in the farm workers and the composition shift among various types of capital assets in total capital stocks have partially offset the negative impacts of the reduction of labor hours and land inputs to annual output growth.

Purpose of Review: The purpose of the review is to ensure the high-quality of the economic analysis, transparent explanation of methods, objective interpretation of results, and effective communication to the intended audience.

Type of Review: [] Panel Review [X] Individual Reviewers
[] Alternative Process (Briefly Explain):

Timing of Review (Est.): Start: 4/24/2023 Completed: 10/26/2023

Number of Reviewers: [] 3 or fewer [X] 4 to 10 [] More than 10

Primary Disciplines/Types of Expertise Needed for Review: Economists

Reviewers selected by: [X] Agency [] Designated Outside Organization

