

Project Proposal to Request ARMS Access

June 17, 2024

Data

Agricultural Resource Management Survey (ARMS) Phase II Agricultural Resource Management Survey (ARMS) Phase III (I think we just need phase 3) phase 3 is what we currently have. phase 2 is about farming practices.

Research Team

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full legal name, affiliation, title, email, phone, citizen ship, currently has active special sworn status. if the research must access. for scott, data access = Yes, special sworn status = yes

Research Description

Main Objective

The principal objective of the project is to measure the value of crop insurance and other conditional agricultural income support to agricultural producers in the US. A secondary (and supporting) objective involves the construction of a “quasi panel” dataset of farm-households, with longitudinal data on farm income and farm household expenditures.

Recent Federal Programs and Literature

A rapidly expanding set of federal programs transfers resources to US farmers. Crop insurance is supposed to compensate farmers for production shortfalls or drops in prices; the current administration’s Market Facilitation Program (MFP) is meant to compensate farmers for losses due to recently imposed restrictions on trade; the “Coronavirus Food Assistance Program” (CFAP) and other legislation currently proposed is supposed to support farmers in the face of losses caused by Covid-19 and its disruptions to the supply chain. The scale of recent support and proposed transfers is huge. “Baseline” federal support for agriculture in 2018 was roughly \$8.75 billion. MFP was introduced only in late 2018; expenditures under this program have been roughly \$14.5 billion to date. The just introduced CFAP program is a roughly \$19 billion program, of which about \$16 billion is to be given directly to producers. Additional legislation to deal with the fall-out of the Covid-19 crisis is likely to lead to further transfers. These programs will more than double federal support to US agriculture in 2019-20. Crop insurance and other federal supported payments in the US are supposed to reduce the risk faced by farmers, and so improve their welfare. There are compelling theoretical reasons to think that this should be so, but there have been no real attempts to actually measure the reduction in risk or changes in welfare. This means that one can’t directly evaluate how these programs are performing relative to their stated aims. And without some measurement of salient outcomes, one may not be able

Activity	Year 1	Year 2	Year 3
Data cleaning and descriptive analysis	X		

to identify the strongest-performing programs, detect poorly designed programs or insurance policies, or to devise improvements. This project seeks to measure risk and welfare impacts of crop insurance and other conditional agricultural income support in the US. A recent paper (Carter, Dong, and Steinbach 2020) finds that the MFP did not fully compensate many California farmers for losses attributable to the 2018 Trade War with China. Additional work by Carter seeks to understand which types of US farmers benefited most from trade aid cash transfers which were created in response to retaliatory tariffs imposed during the 2018 Trade War. Our project will contribute to this literature by measuring the value of crop insurance and other conditional agricultural income support programs to agricultural producers in the US. We will answer questions about which transfers a producer of a given type can receive, what proportion of transfers go to producers at different points in the income or expenditure distribution; etc. In classifying types of farmers, we will only use data from regions and years where enough farms are observed in the ARMS data to prevent the compromise of confidentiality. Furthermore, while the direct costs of providing subsidized crop insurance are well understood, and the impact of these programs on production have been estimated for California producers, no one has constructed estimates of the value of risk reduction from crop insurance, either for the US or for California. The rationale for providing crop insurance and other conditional support rests on the view that there's value in reducing the economic risk faced by farmers, and that this risk depends on variation in yields, prices, or revenue. And so measuring the value of the programs rests on measuring both the risk farmers bear as well as the reduction in risk delivered by crop insurance.

Project Title

Measuring the Value of Crop Insurance and Other Conditional Agricultural Income Support to US Farmers

Project Duration

36 months

Funding Sources

Timeline

table with column for each year. row for each item

Research Question(s)

What is the value of crop insurance and other agricultural income support programs to agricultural households in the U.S.?

Demonstrated Need

In order to assess the value of programs to agricultural households, one needs to construct a dataset of income, expenditures, and indemnity payments for individuals and households. ARMS is the best option for this objective.

Study Population

The population of interest for this study is all U.S. farm households. ARMS consists of annual survey responses from which we can construct a “quasi-panel” of farmers growing a given crop.

Project Abstract

Time, Geographic, and Other Units Required

We request the annual survey data from 2006 through the most recent year. In addition, in order to construct a representative farm household at the smallest possible geographic unit, we request zip code-level data.

Work locations

SDK: Home EL:

Data Linkages

N/A

User-Provided Data

Software Requirement

We require no special software aside from those already provided in the USDA Virtual Data Enclave, however, we do request a current version of Python.

Variables Requested

N/A (only for Census of Ag data)

Methodology

List of References

Project Products

Requested Output

Agency Benefits

Documentation