The Agricultural Resource Management Survey and the USDA Costs and Returns Estimation Program

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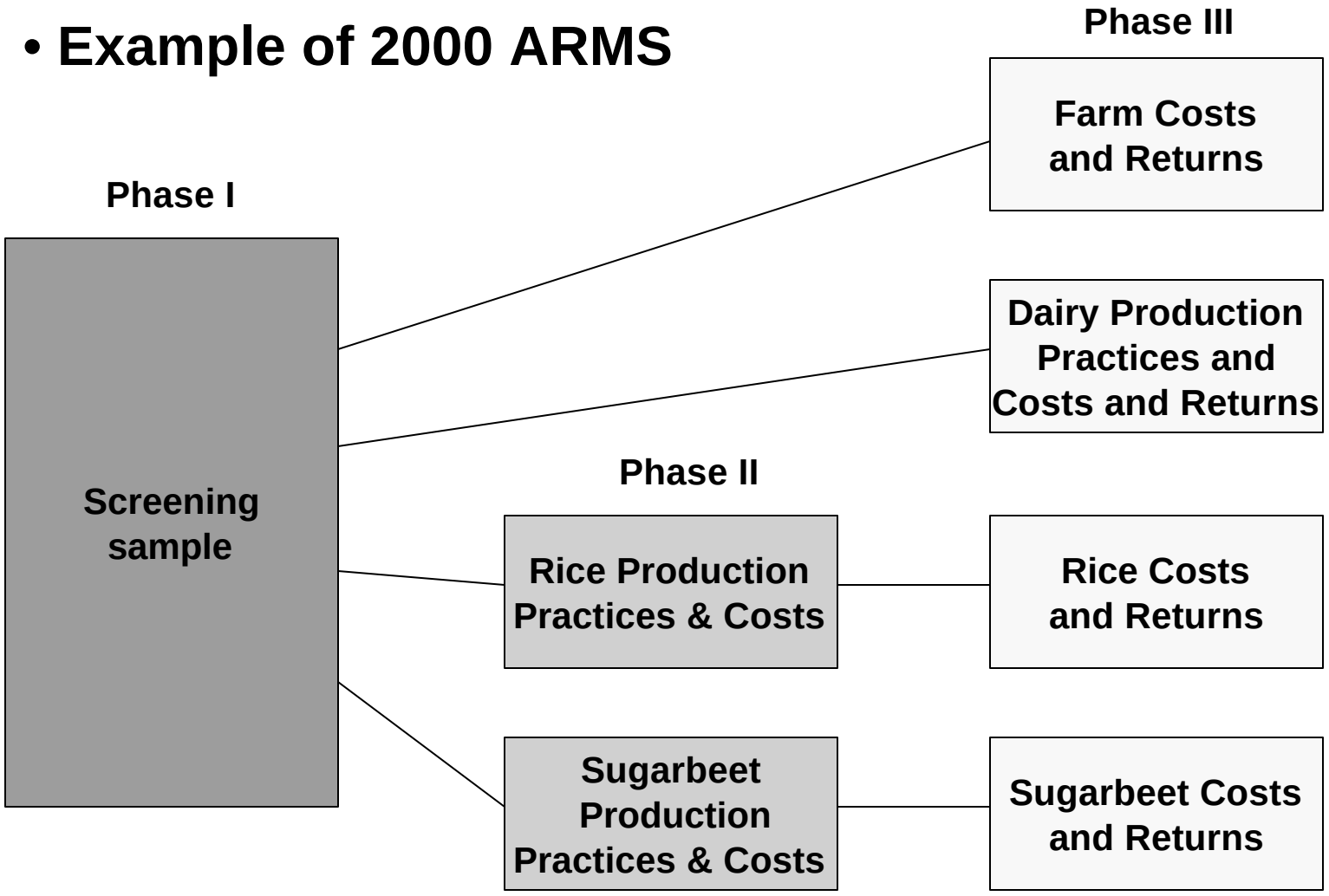
Overview of the CAR Estimation Program

- National and regional accounts for 15 commodities from 1975 to 2000
- Based on data from ARMS commodity surveys done every 5-8 years on a rotating basis
- Estimates between surveys are updates based on price, acreage, and production changes
- Methods for CAR estimation conform to recommendations of the AAEA Task Force
- Survey year estimates developed at the farm-level

CAR Data Collection in the ARMS

- **Example of 2000 ARMS**



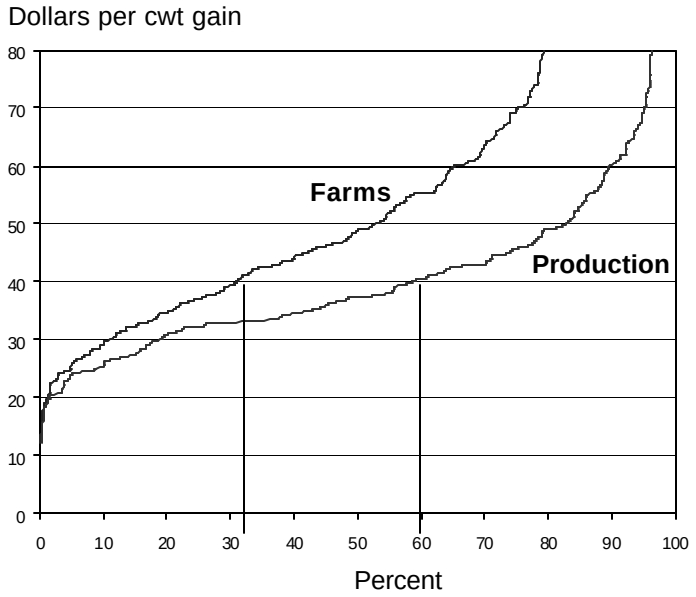
The Farm-Level Approach to CAR Estimation

- **CAR estimates for every farm in the ARMS data**
- **Variation in CAR estimates can be measured**
- **Facilitates analysis of the ARMS and CAR data**
- **Example:**

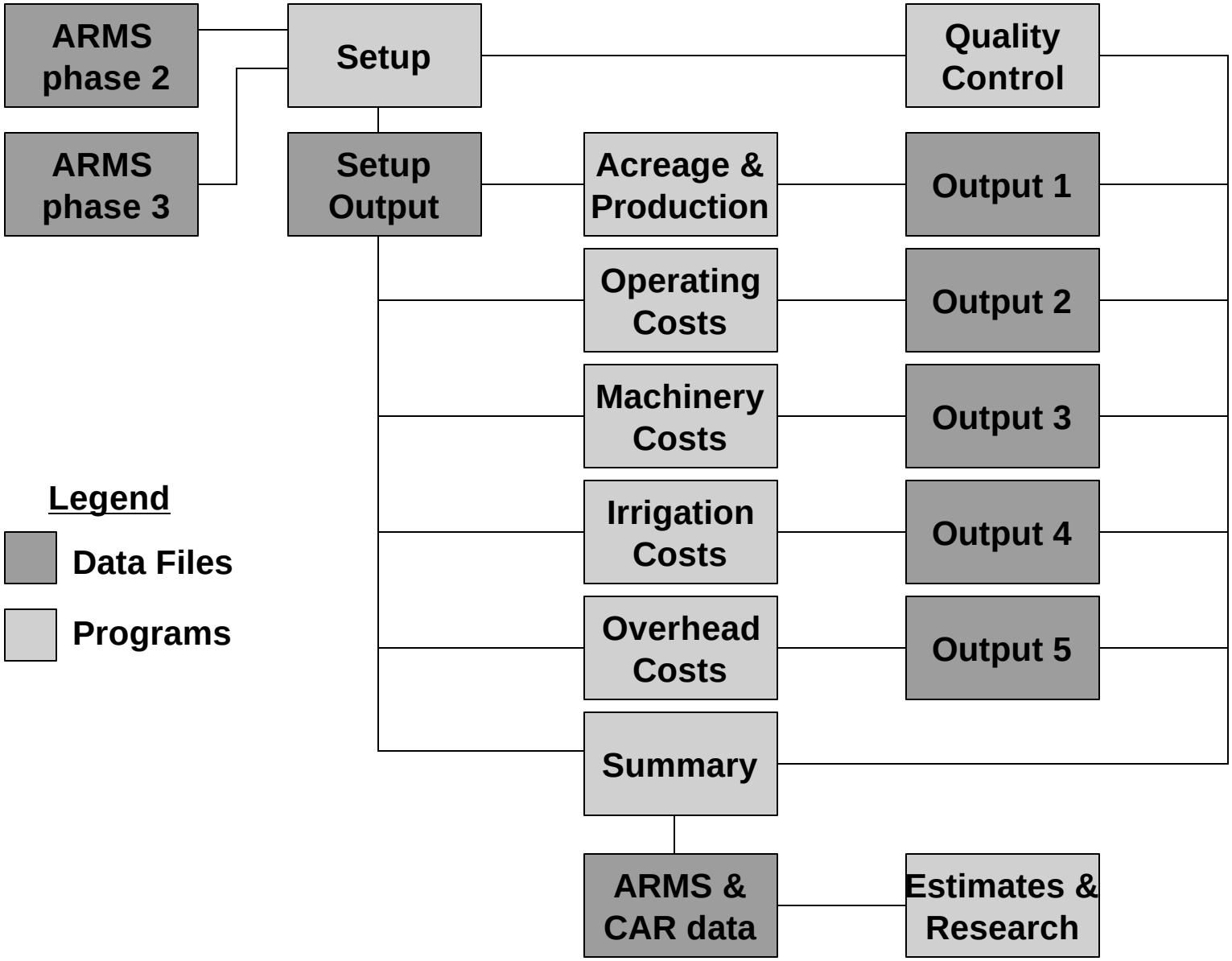
Farrow-to-finish production costs per cwt gain, 1998

Mean = $43.56
CV = 2.28
CI_{95} = $41.43 - $45.69

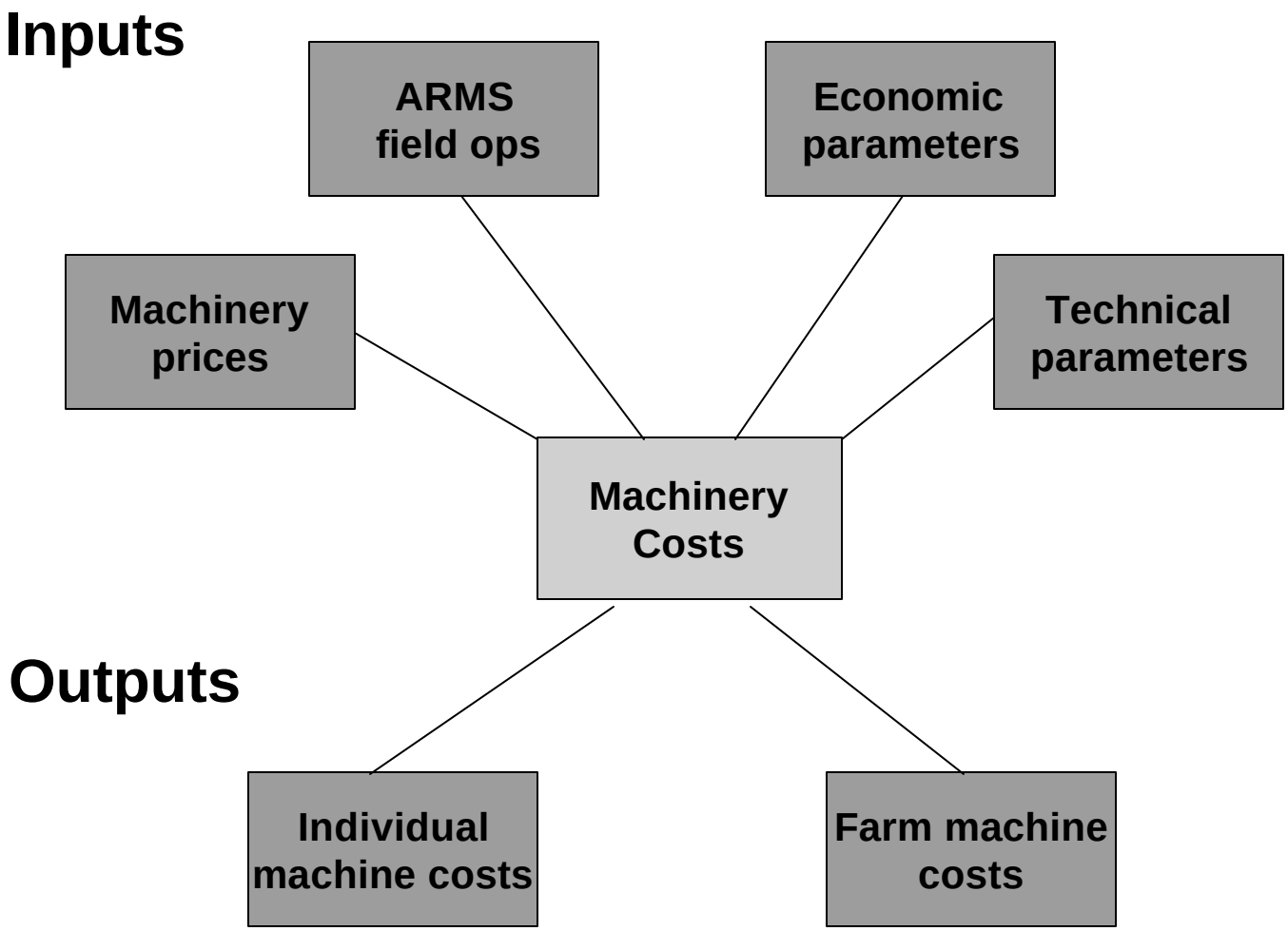
Cumulative distribution of production costs



Developing Farm-Level CAR Estimates



Input and Output of the Machinery Cost Program



Quality Control

- **Survey responses are evaluated for completeness and consistency**

- **Data edited at:**
  - **1-NASS state field offices**
  - **2-ERS**

Data Products from the CAR Estimation Program

1-Phase 2 data file with enterprise:

- **input use**
- **production practices**
- **costs and returns**

2-Phase 3 data file with farm:

- **income and expenses**
- **assets and debt**
- **business and operator characteristics**
- **farm household characteristics**

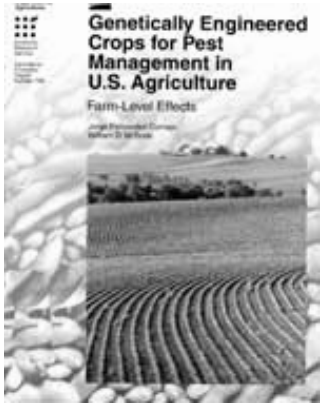
3-Link between phase 2 and phase 3 data

Research Applications of the Data

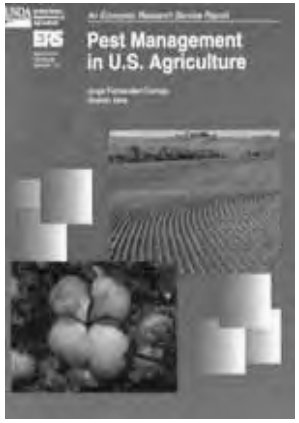
Technology Adoption Decisions in Dairy Production and the Role of Herd Expansion

Land Tenure and the Adoption of Conservation Practices

Genetically Engineered Crops for Pest Management in U.S. Agriculture



Pest Management in U.S. Agriculture



Factors Contributing to Earnings Success of Cash Grain Farms

An Analysis of Risk Premia in U.S. Farm-Level Interest Rates

Accessing the Data

- **Complete project outline with description, objectives, and data needs and planned uses**

- **Project outline is evaluated according to the USDA mission and data adequacy**

- **Sign formal agreements on data use**

- **Access provided at ERS or NASS state statistical office**

- **For more information contact Merritt Padgitt, mpadgitt@ers.usda.gov**