

Water Quantity, Quality and Cost: A Look at Water Science and Policy

2021 Agricultural Outlook Forum

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The findings and conclusions in this presentation are those of the authors and should not be construed to represent any official USDA or U.S. Government determination or policy.



Session Road Map



USDA & Water

- Policy & Funding

- Natural Resource Conservation Service (NRCS) Programs e.g. Environmental Quality Incentives Program (EQIP) and the Conservation Stewardship Program (CSP)

- Data

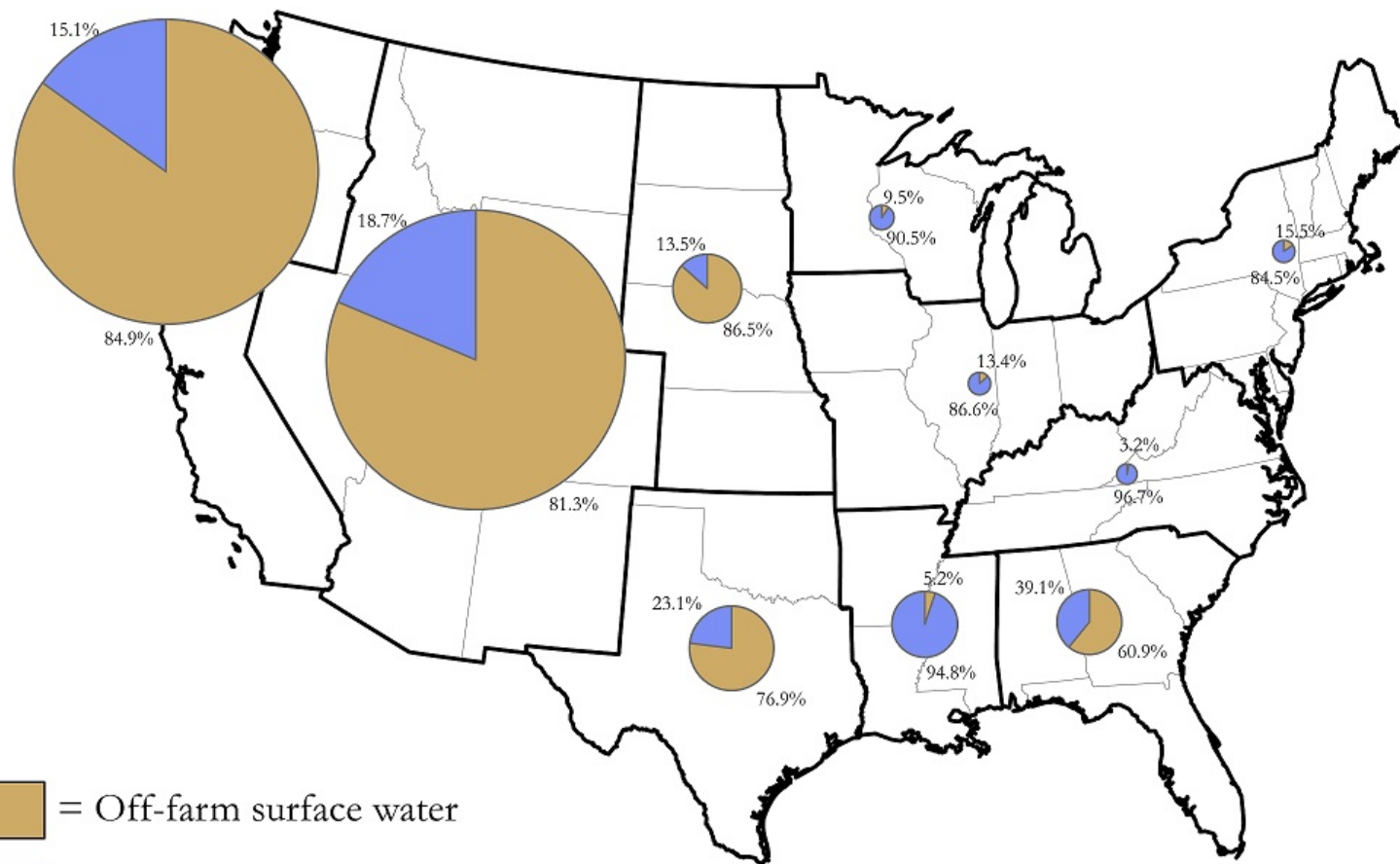
- National Agricultural Statistics Service's (NASS) Irrigation and Water Management Survey and Census of Agriculture

- Analysis

- Agricultural Research Service (ARS), Economic Research Service (ERS), NRCS, etc.



Source of surface water applied to irrigated acreage in 2018, On-farm surface water vs. off-farm surface water



= Off-farm surface water
 = On-farm surface water

Size of regional pie charts is proportional to the total number of acres irrigated with surface water in the region.
 Source: USDA, National Agricultural Statistics Service, 2018 Irrigation and Water Management Survey

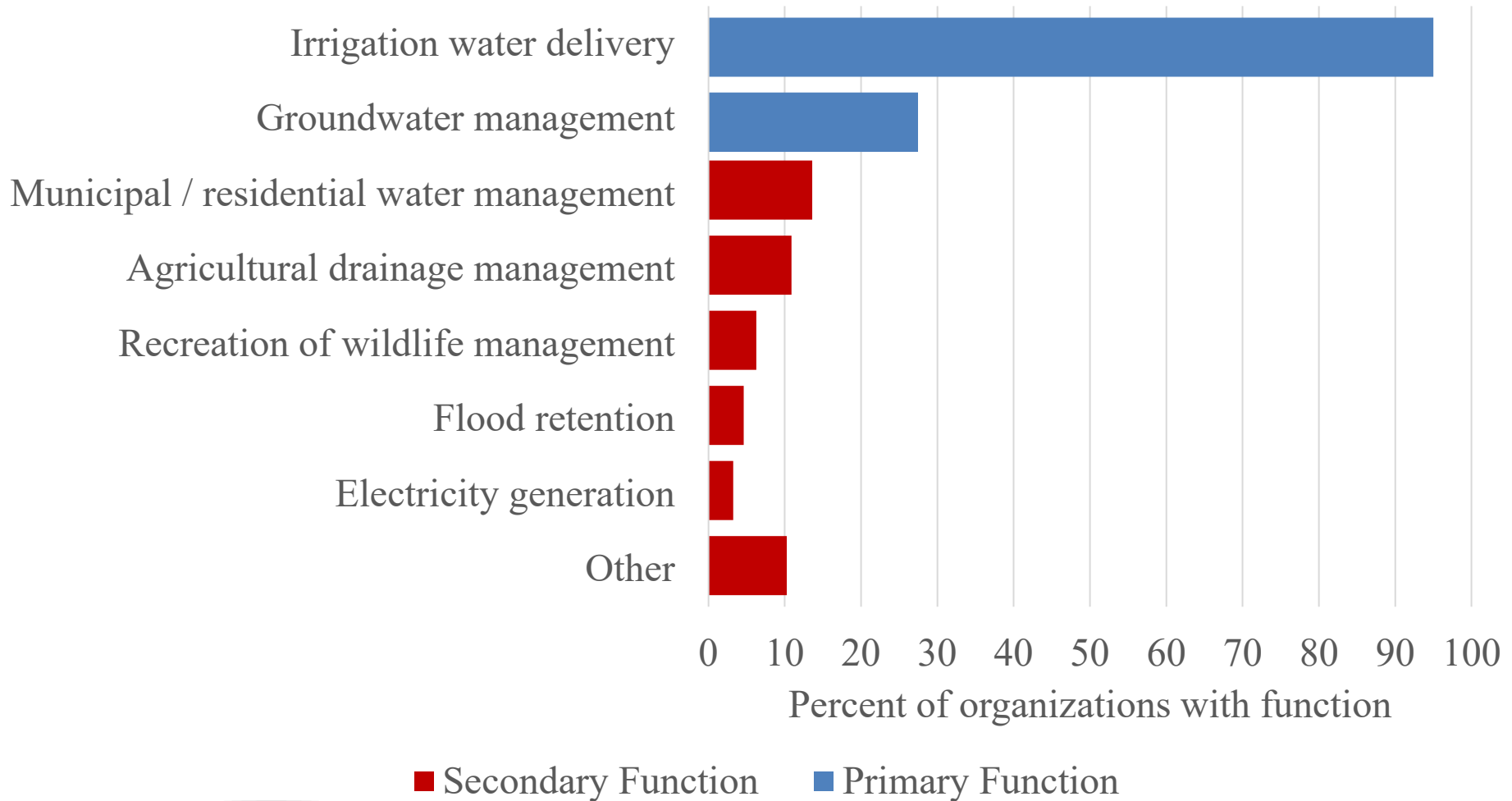


2019 Survey of Irrigation Organizations

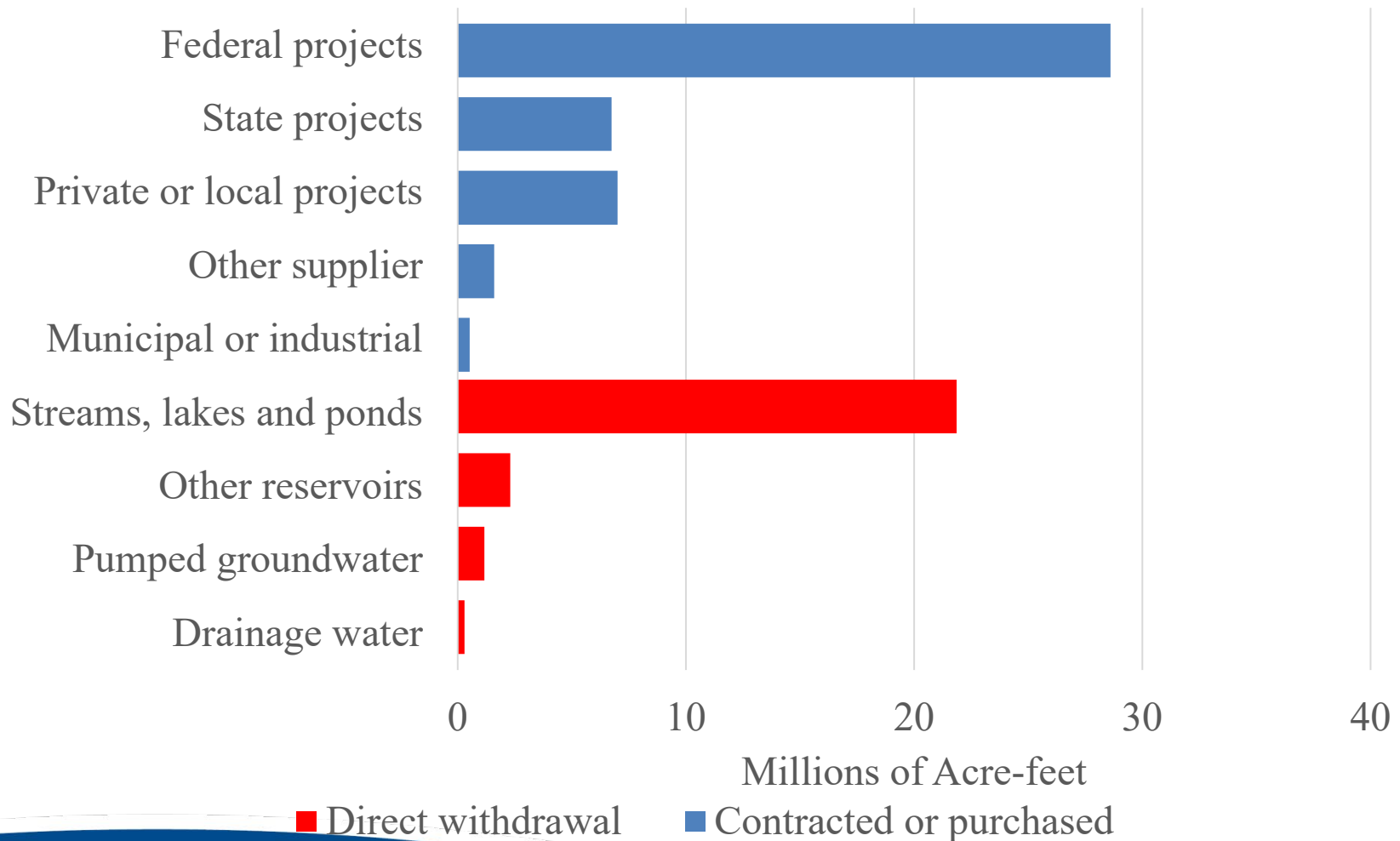
- Collaboration between ERS, NASS, & OCE
- Update of 1978 Census of Irrigation Organizations
- Survey collected data on:
 - Water delivery organizations
 - Groundwater management organization
- Developed in partnership with local, state, and regional stakeholders



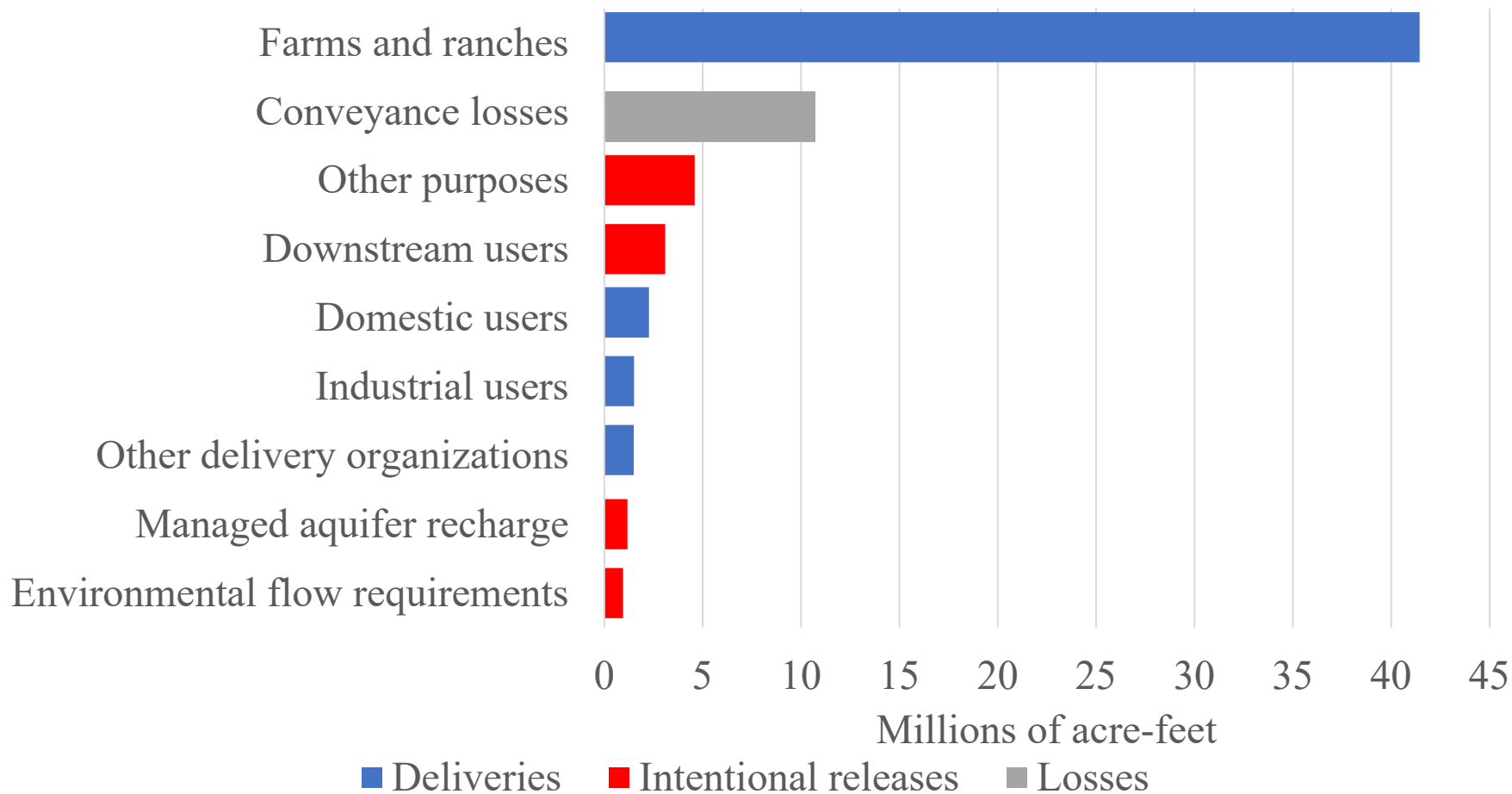
Irrigation organizations perform multiple water-related functions



Off-farm water comes mostly from federal projects or streams, lakes, and ponds



Sixty-two percent of outflows from delivery organizations go to farms



USDA-ERS Water Research

- Irrigation organizations
- Managed aquifer recharge
- Irrigation demand and weather shocks
- Water conservation and irrigation technology adoption
- Value of water in agriculture



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→ **Research Partners and Stakeholders**

