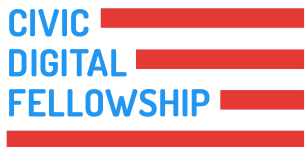


HOUSEHOLD OMISSIONS

Associate Directorate for Research and Methodology

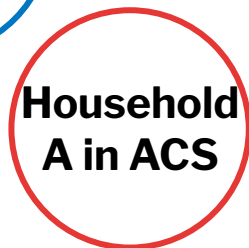
Misty Heggeness — Senior Advisor for Evaluations & Experiments



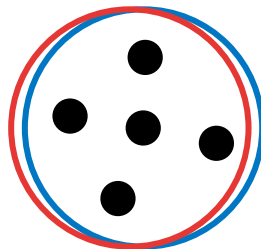
MARIA GARGIULO
Yale University
Statistics & Spanish

WHAT ARE HOUSEHOLD OMISSIONS?

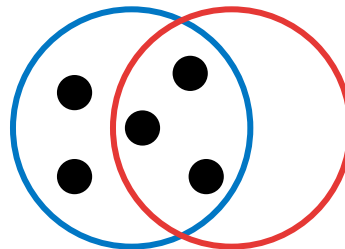
**Household composition
discrepancies** across Census
data products



Theory



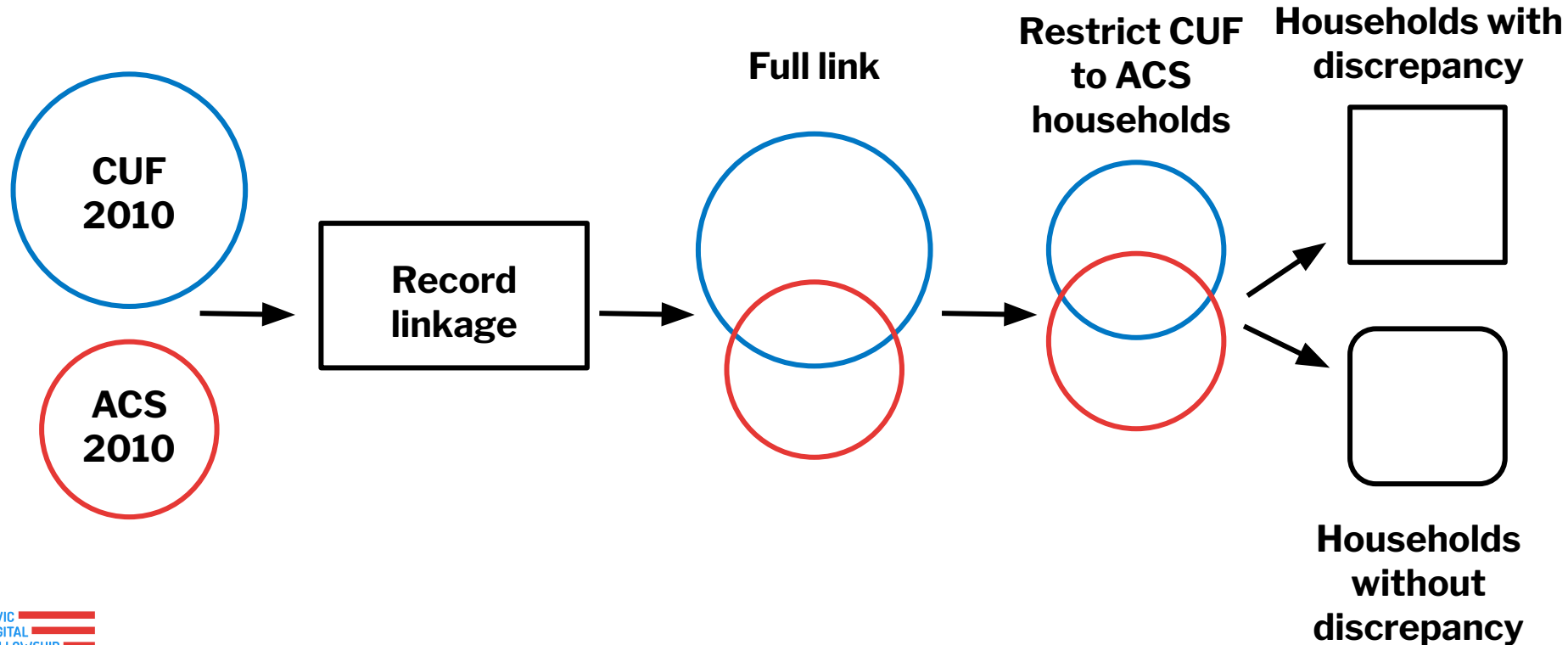
Practice



WHY STUDY DISCREPANCIES?

- Some discrepancies are legitimate
 - Usually time between survey administration dates
 - Migration
 - Death or new birth
- Some discrepancies are illegitimate
 - Purposefully not recording someone living in the household
- Interested in understanding how often this second class of discrepancies occurs

FINDING HOUSEHOLD OMISSIONS



RECORD LINKAGE

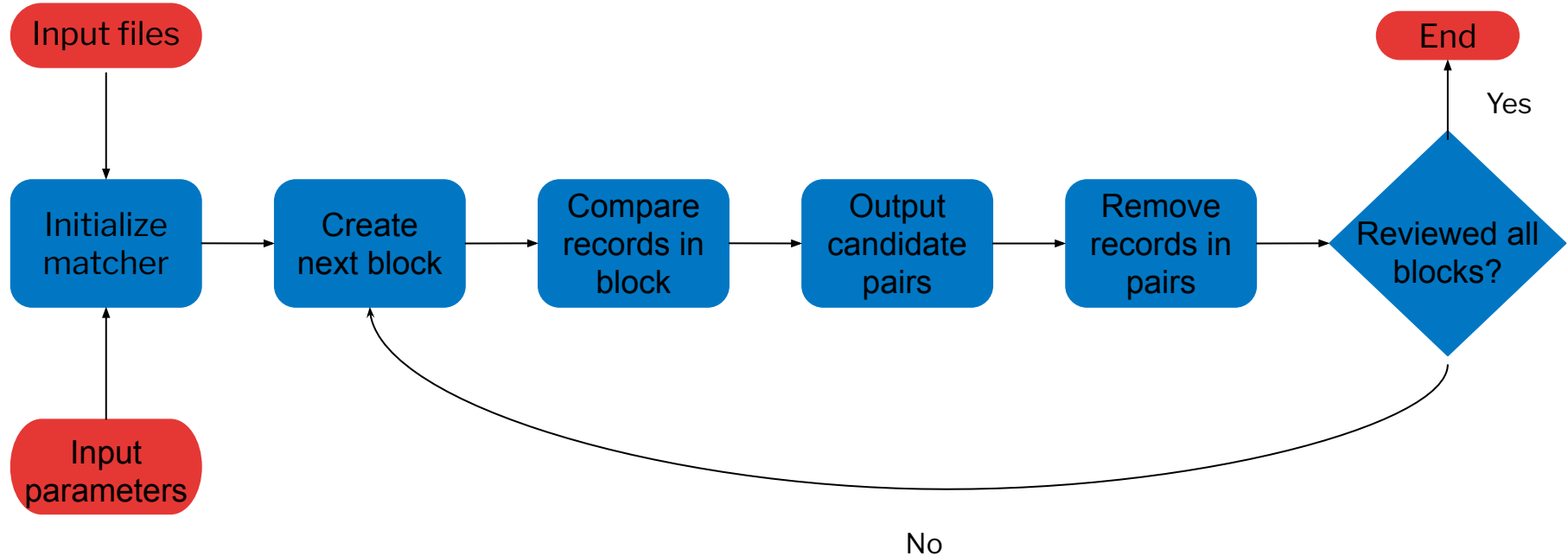
- Identifying individuals and combining information across data sources
- Foundational to the production of quality official statistics
- Optimal linkage is difficult
 - Data is noisy
 - Unique identifiers are inconsistent
 - Computationally intensive
- Probabilistic models necessary to link records

First Name	Last Name	DOB	Source
JANIE	DOE	06/1998	ACS
JANE	DOE	05/1998	CUF
JOHN	DOE	04/1953	CUF



First Name	Last Name	DOB	ACS	CUF
JANE	DOE	06/1998	1	1
JOHN	DOE	04/1953	0	1

RECORD LINKAGE FRAMEWORK



OUTCOMES

- Permits the use of a broader set of observations
- Provides a basis for future demographic and economic analyses
 - Generate household and person statistics
 - Compare households with and without discrepancies
- Contributes to larger discussions about record linkage methodologies happening in CPEX