Population Sized Graphical Record Linkage

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Introduction

Prior work

Bayesian Record Linkage

Notation

Generalized Model

Empirically Motivated Priors

Post-linkage Analysis

General Class of Model

Application: Population Estimation

Experiments

On all datasets, pair results from each record linkage method with each CRC method.

Potential additions: blocking, bootstrap?

Data sets

- NLTCS
- cora
- cd
- voter

Record linkage methods

- unsupervised: Fellegi-Sunter, blink, fastLink, Sadinle
- supervised: logistic regression, random forests, svm, tree, adaboost, bagging, nnet, bumping

Capture-recapture methods

- Johndrow
- Bayesian model averaging (Madigan and York (1997))

Discussion