



Identifying Siblings

Uncovering family relationships in
administrative data



Uses of Sibling Data

- Identifies people with shared household exposure
- Identifies people with varying degrees of shared genetic makeup (e.g. full-siblings, half-siblings, twins)
- Allows studying relationships between genetics, environment, family structure, etc. and educational/health outcomes



Sibling Definition

- Siblings defined as children born to same mother *or* under same adult/married REGNO
- Mother identified through RNBLINK files
- Father inferred from Registry
- Changes in sibling REGNO can provide clues to changes in family structure over time



Sibling Definition

- Where both parents are known, half-siblings may be identified as children with exactly one parent in common



Data Sources

- RNBLINK
 - Linkage of mother and baby hospital records since 1970
 - Provide near certain ID of mother
 - Small percentage of incorrect/missing linkages



Data Sources

- Raw registry files
 - Contain REGNO, allowing construction of REGNO family groups
 - Record changes in REGNO over time, which track changes in family head



Cautions

- REGNO belongs to family head
- Children born under same REGNO to underage mothers may not be siblings!
- Important to check not only REGNO at birth but mother's PHIN



Family Structure

- Groups of children born to same mother or under same adult REGNO are assigned the same family number
- REGNO at age 17 (prior to assignment of adult REGNO) is retrieved from raw registries
- Comparison between birth and late-childhood REGNO determines family type



Family Structure

- Stable Families
 - All children in the family have same REGNO at age 17, and it agrees with birth REGNO
 - Presumably have lived under same family head for entire childhood



Family Structure

- Family Head Change
 - All children in family have same REGNO at age 17, but this differs from birth REGNO
 - Family head changed for all kids at some point, (i.e. divorce, remarriage) but they have remained registered together for entire childhood



Family Structure

- Split Families
 - At least one child has different REGNO at age 17 than at birth
 - Could occur if parents divorce and some children live with mother and some with father



Family Structure

- Blended Families
 - Children from two different families have same REGNO at age 17
 - Depending on family structure of the contributing families, these may contain full, half, or step-siblings