A method for finding reference persons to family immigrants to Norway and some preliminary test results

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SSBs statistics on reason for immigration

- Family immigration one of five categories in Statistics Norway's statistics on reasons for immigration:

  - Labour (33,1)

  - Refuge (20,6)

  - **Family (34,6)**

  - Education (10,0)

  - Other (0,6)

  - (Unknown (1,1))

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Data quality issues regarding family migration

- Data on reference person (the person the family migrant reunites/establishes family with) valuable in analyses of immigration and integration (e.g. Arnesen & Molstad, 2024; Molstad et al, 2022)

- A simplified registration scheme for EU/EEA-citizens and family members of these was introduced by UDI in 2009

- Replaced requirement for residence permit for these groups

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Consequence: Increase in missing reference persons for family immigrants, especially from the EEA

Total: 65 900 family immigrants with missing reference person
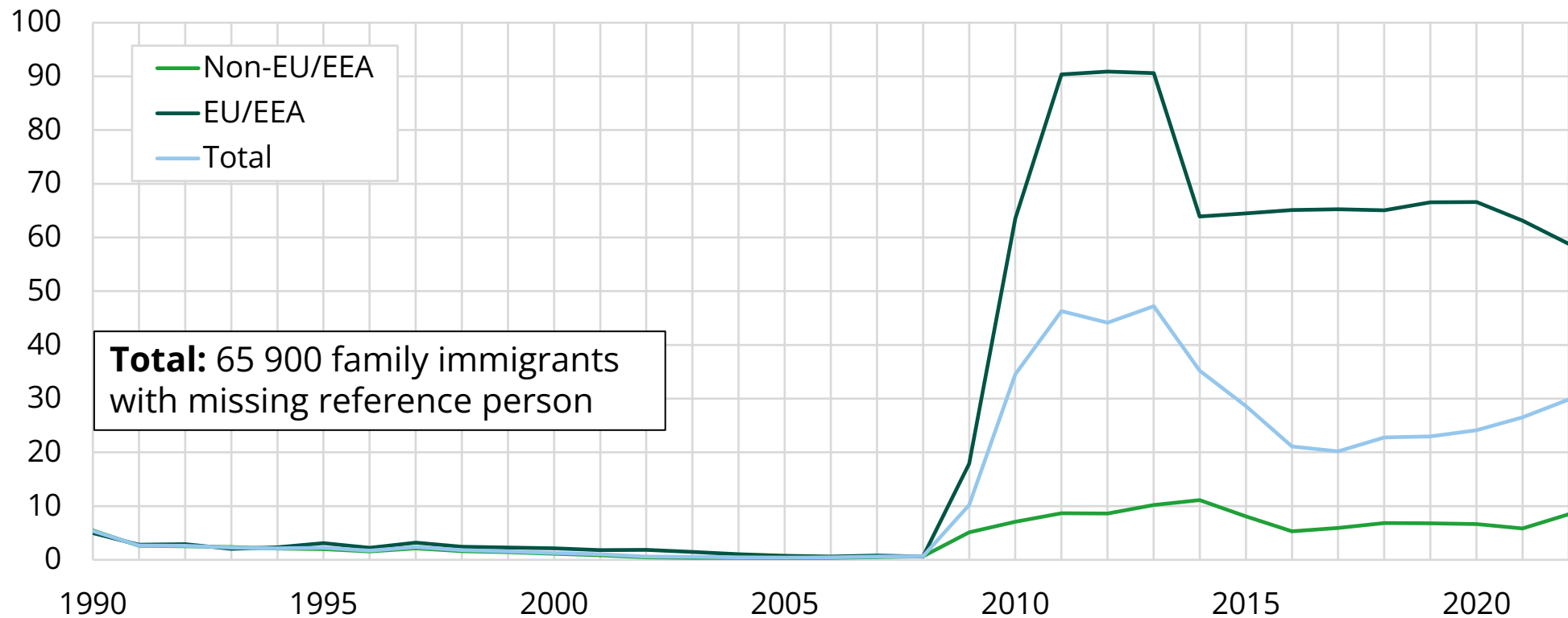
Percentage family immigrants with missing reference person, by citizenship, 1990-2022

Source: Division for Population Statistics

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# The project and its scope

- **2022**: Initiation of project which attempts to cover the information loss, financed by the Ministry of Labour and Social Inclusion (AID)

- Project deadline: **Q3 2024**

- **Aim:** Imputation using administrative data on

  ◦ Kinship relations

  ◦ Households

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Core principles

- Focus on parsimony: as few variables and principles as possible (*Pluralitas non est ponenda sine necessitate*, Ockham, 1990, p. xxi)

- Considerations:

  - Data management

  - Use of imputed data in future statistical analyses

  - Probability

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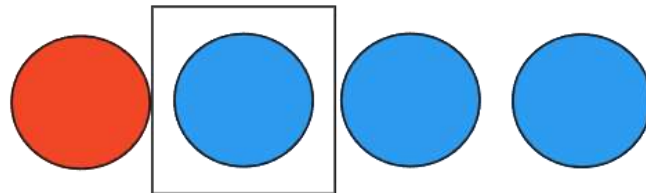Statistics Norway

Selection criterion 1: Sequence of arrival

A) Kin and family member first = 1
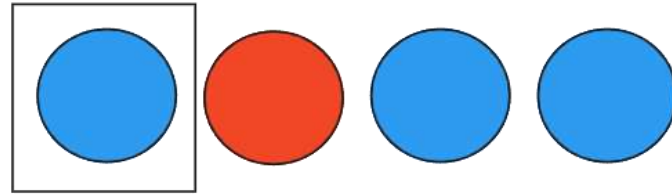
B) Kin and family members first >1
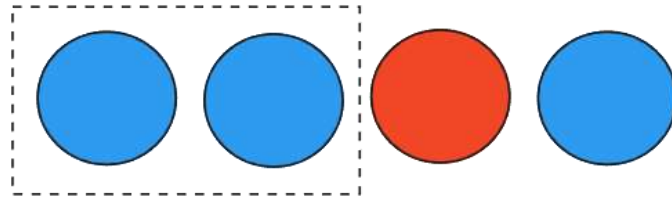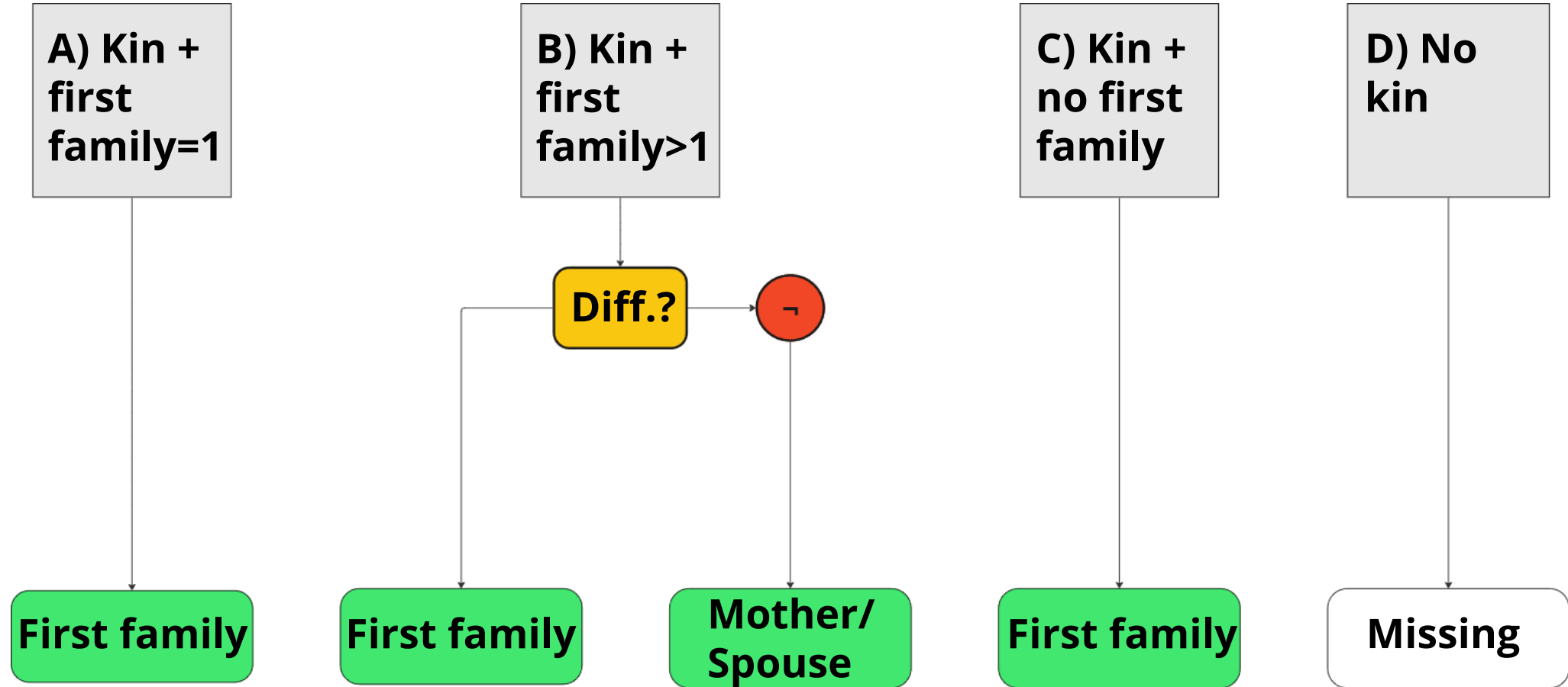
C) Kin and no family member first

D) No kin

= Family immigrant

= Kin (family member)

Sequence (first date)

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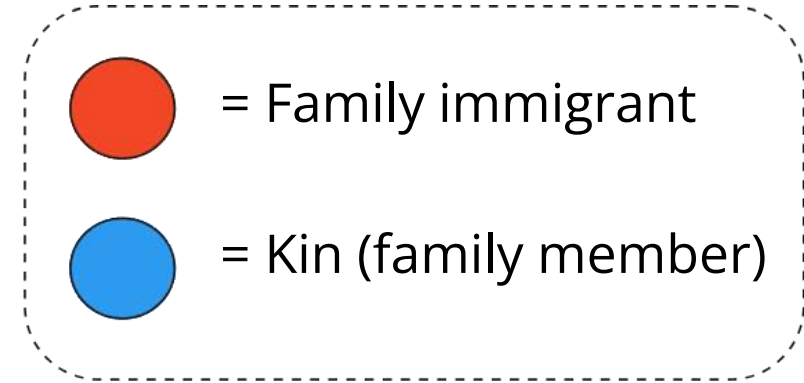
Selection criterion 2: dependent on age at arrival

A) Kin + first family=1

B) Kin + first family>1

C) Kin + no first family

D) No kin

Diff.?

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First family

First family

Mother/ Spouse

First family

Missing

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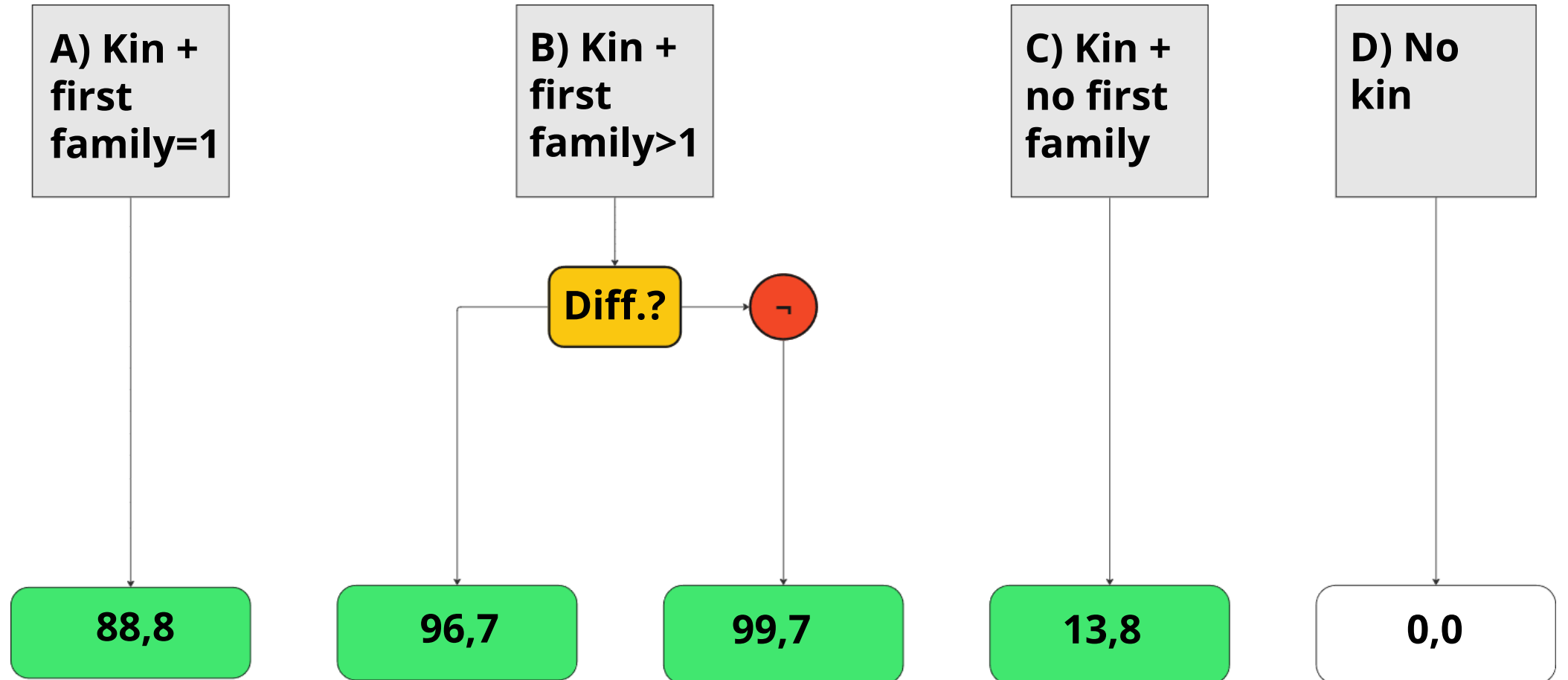Statistics Norway

Test population

- Randomly selected 18 895 family immigrants arriving between 2004 and 2020, with available data on reference persons

- 4 142 citizens of countries in the EEA

- **Correct imputation if imputed reference person matches reference person registered on statistical file**

Test results, children (EEA citizens and reunifications only):

A) Kin + first family=1

B) Kin + first family>1

C) Kin + no first family

D) No kin

Diff.?

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92,4

31,6

79,8

0,0

0,0

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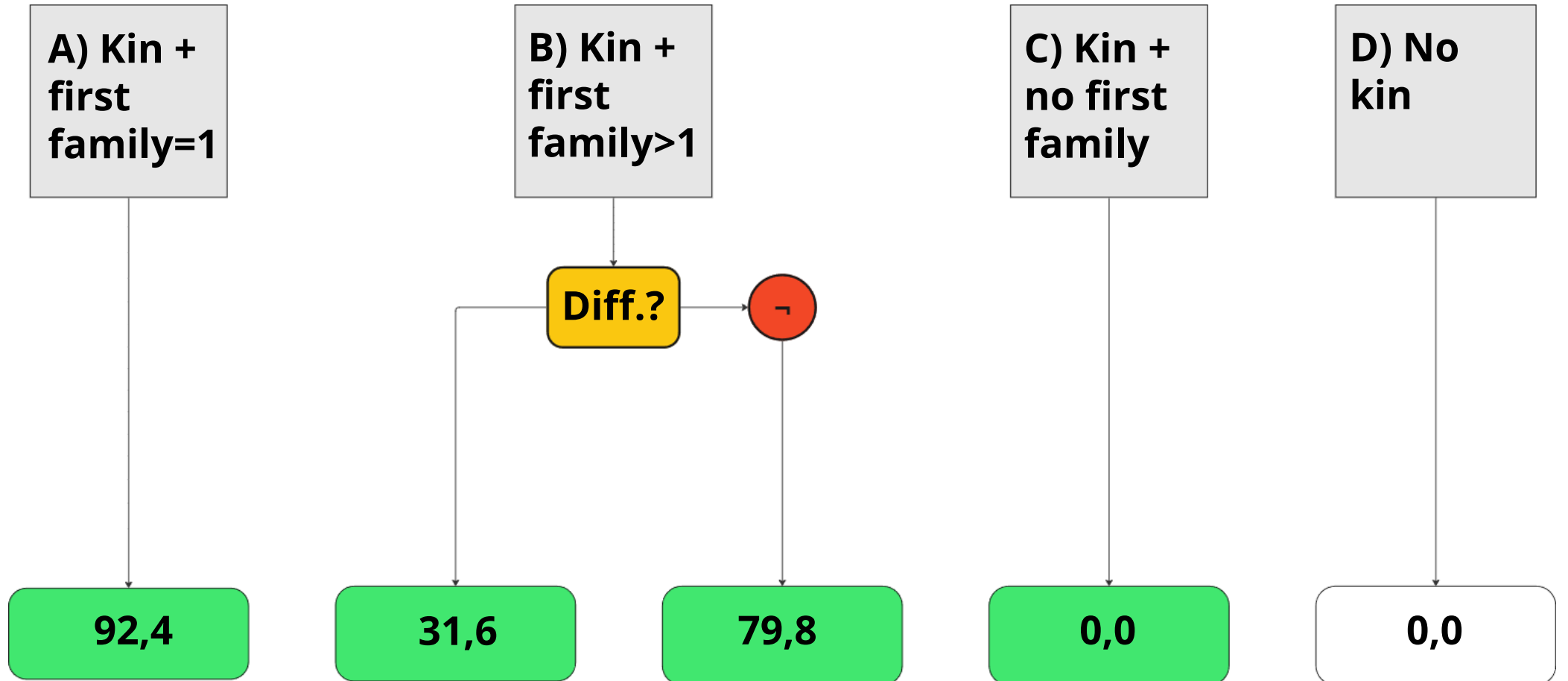
Test results, adults (EEA citizens and reunifications only):

Preliminary conclusions from tests

1. Great majority of imputations (82,6 percent) correct

2. Selecting mothers (for children) and spouses (for adults) seems to be associated with higher precision than picking earliest arriving family member

3. **Challenge:** Is the test population representative?

4. **Additional measure**: Add family/household affilitation?

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Thank you for your attention!

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References

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