



Simulating a Reform of Child-related Policies

Euromod vs. Administrative database

Martin Mikloš

22 September 2023





Goals

- Evaluation of a recent reform of child-related policies
- Introduction of Admin database
- Comparison with EUROMOD

Outline

- Reform background
- EUROMOD simulation
- Admin database
- Input comparison
- Results and reform evaluation

Reform background

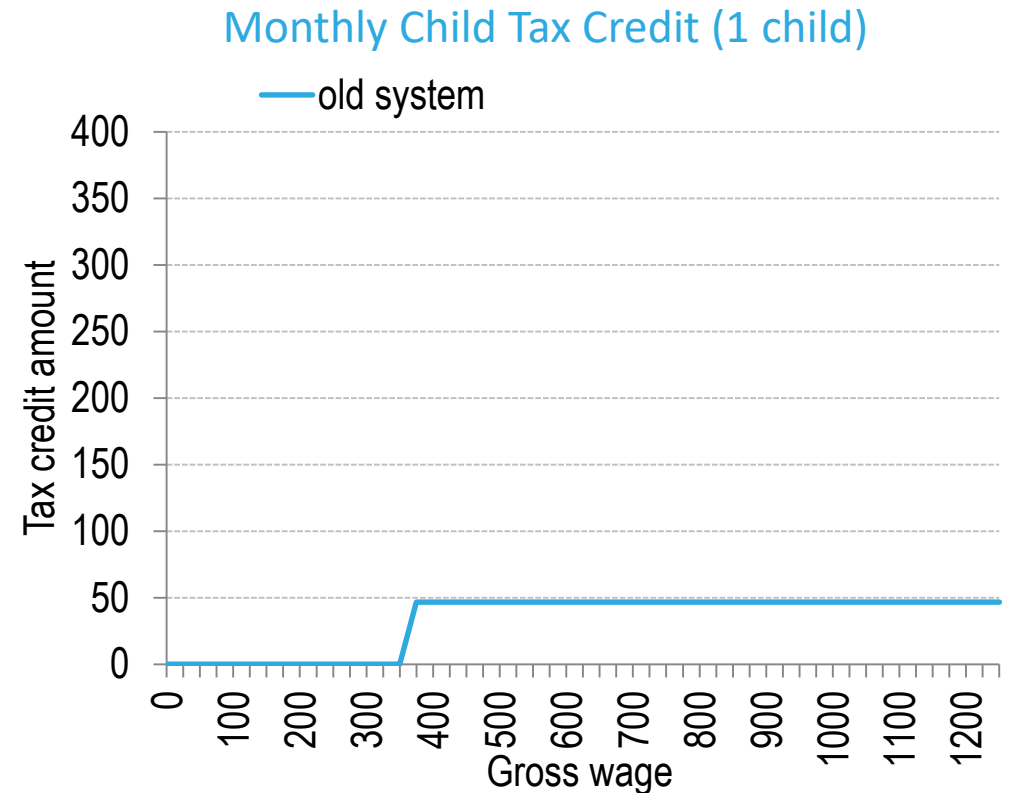


- Increase in the child benefit
 - Universal benefit with no income test
 - Single lump sum per each dependent child
 - Cost: 0,34% GDP
- Increase & re-design of the child tax credit
 - Higher amounts for younger children
 - Cost: 0,66% GDP
- Full introduction in 2023
- Partial changes implemented since July 2022

Reform background



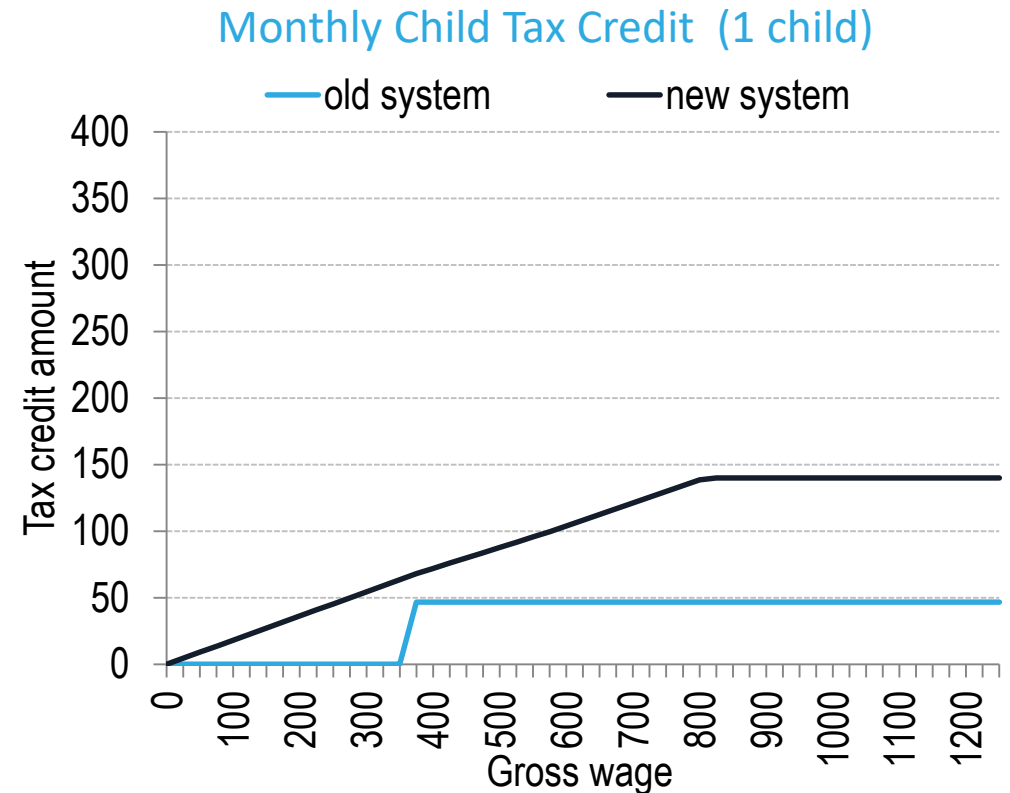
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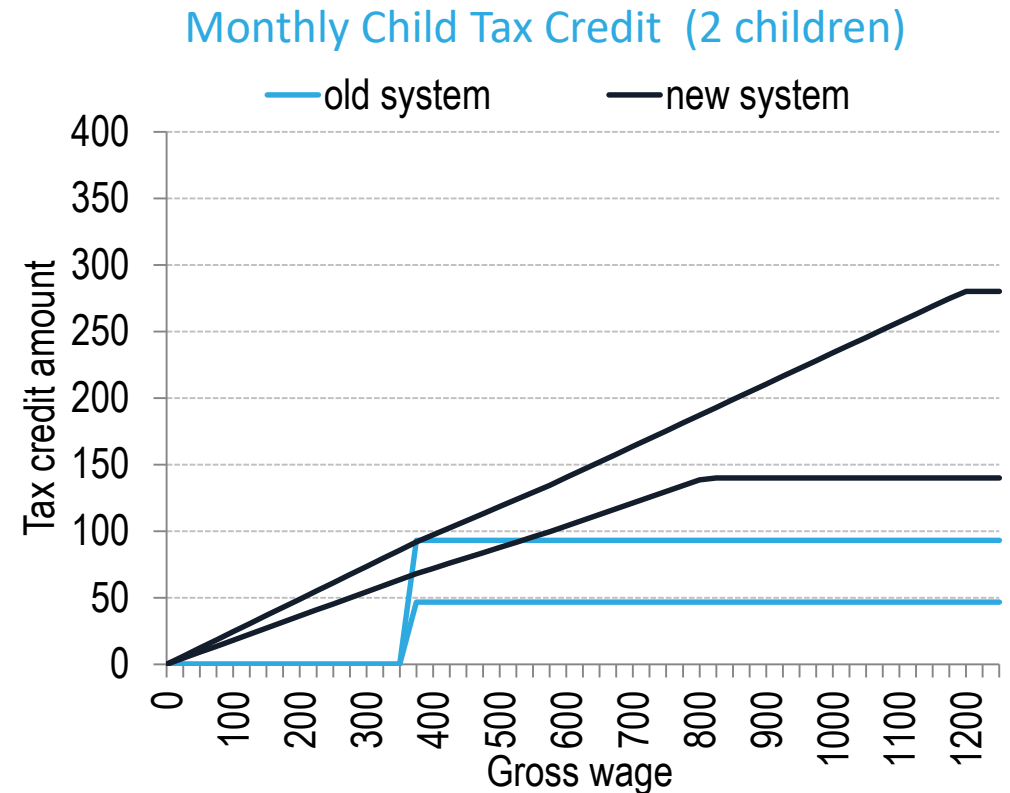
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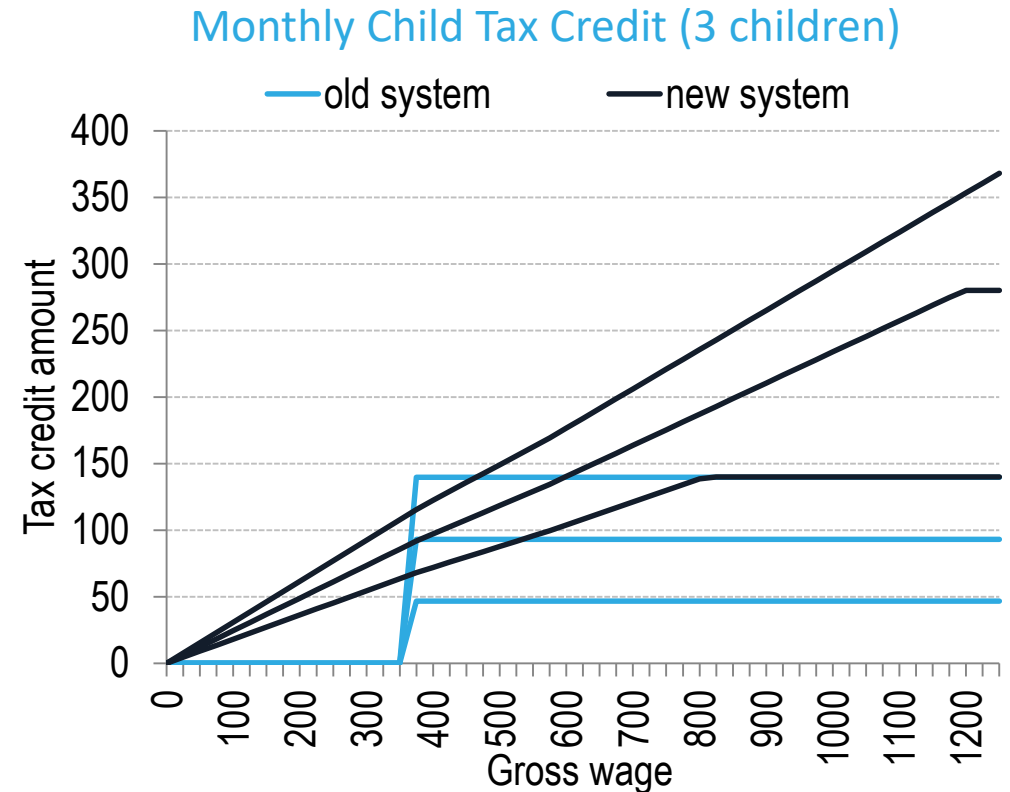
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EUROMOD simulation



- Simple eligibility conditions easy to simulate
- High accuracy with child's month of birth (using FYA)

Tax credit for a child born in September 2007

	01/22	02/22	03/22	04/22	05/22	06/22	07/22	08/22	09/22	10/22	11/22	12/22
Child's age	14	14	14	14	14	14	14	14	15	15	15	15
Before reform	43.6	43.6	43.6	43.6	43.6	43.6	43.6	43.6	43.6	23.57	23.57	23.57
After reform	43.6	43.6	43.6	43.6	43.6	43.6	70	70	70	40	40	40
Increase	0	0	0	0	0	0	26.4	26.4	26.4	16.43	16.43	16.43

- 100% take-up assumed
 - Calibrating take-up using BTA possible but challenging without external statistics
- Quality of SILC data is the key factor
 - Accuracy of results can change each year

EUROMOD simulation



- Child Benefit and Tax Credit were simulated well in Y12

Y12 Macrovalidation (external statistics / Euromod)

	Recipients			Amount		
	2018	2019	2020	2018	2019	2020
Child Benefit	91,1%	91,5%	91,9%	93,4%	95,2%	93,0%
Child Tax Credit	89,9%	87,7%	87,1%	96,6%	89,9%	94,0%

- Macrovalidation one year might not inform the quality of simulation next year

Material Need Benefit Expenditure (external statistics / Euromod)

	2017	2018	2019	2020	2021
Y11	61,0%	51,5%	47,8%		
Y12	57,2%	48,4%	42,7%	34,6%	
Y13		40,5%	39,7%	41,3%	35,8%

Administrative database



Creation of families



Creation of families

Registry of Natural Persons

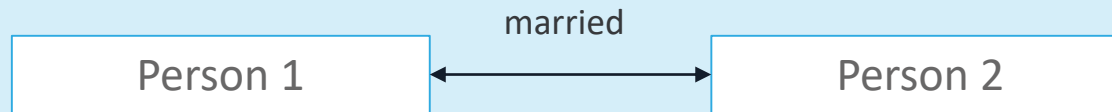
Person 1

Person 2



Creation of families

Registry of Natural Persons

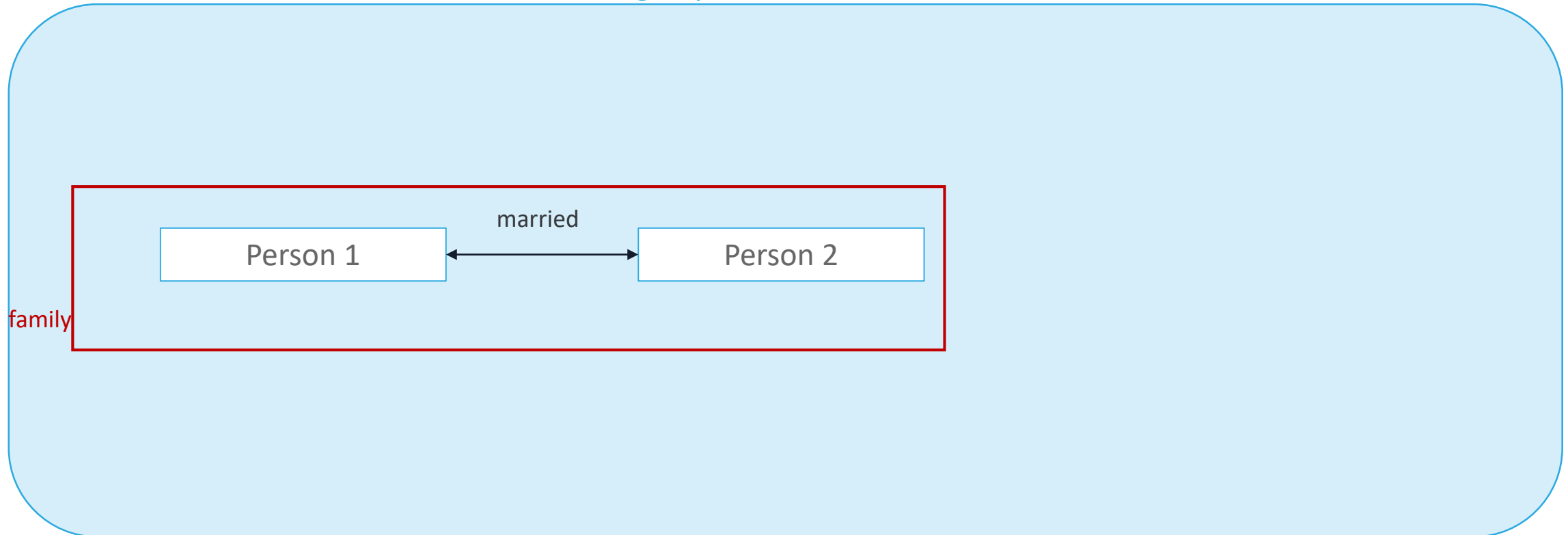


Administrative database



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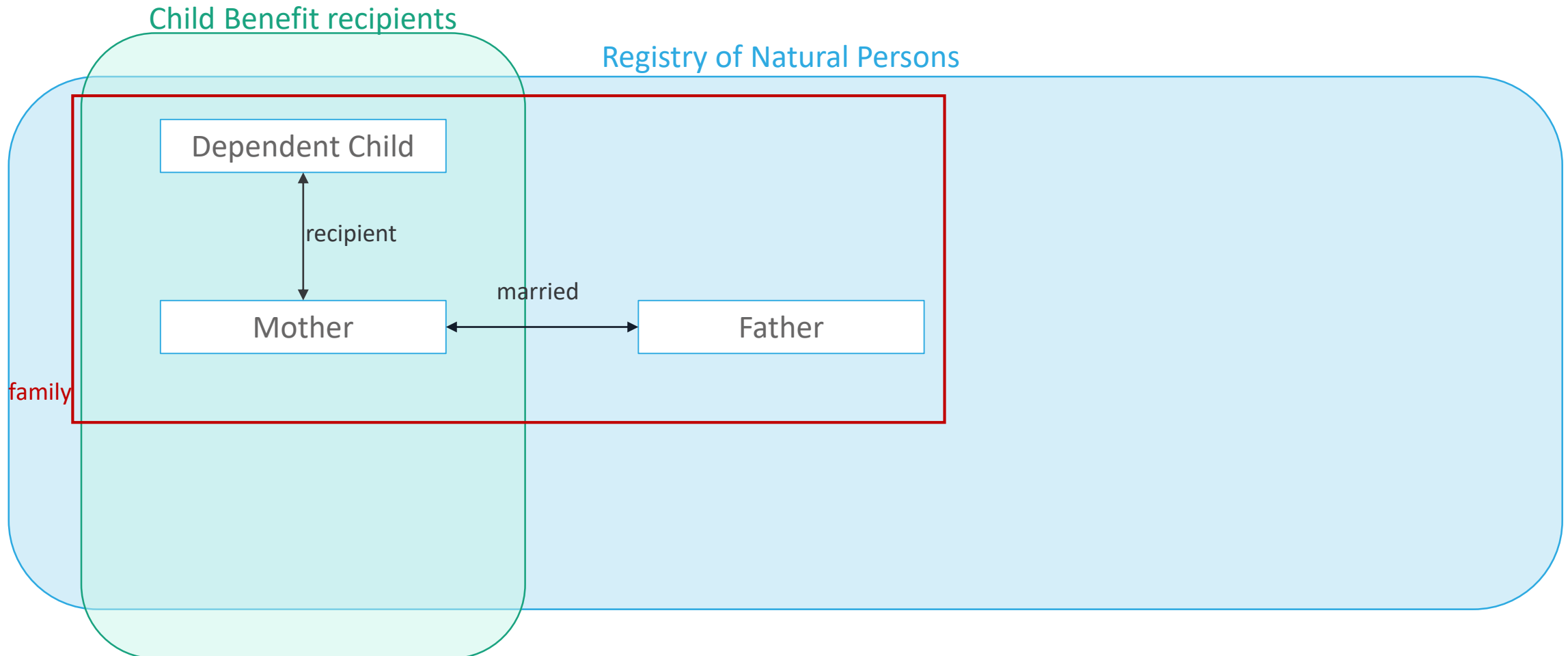
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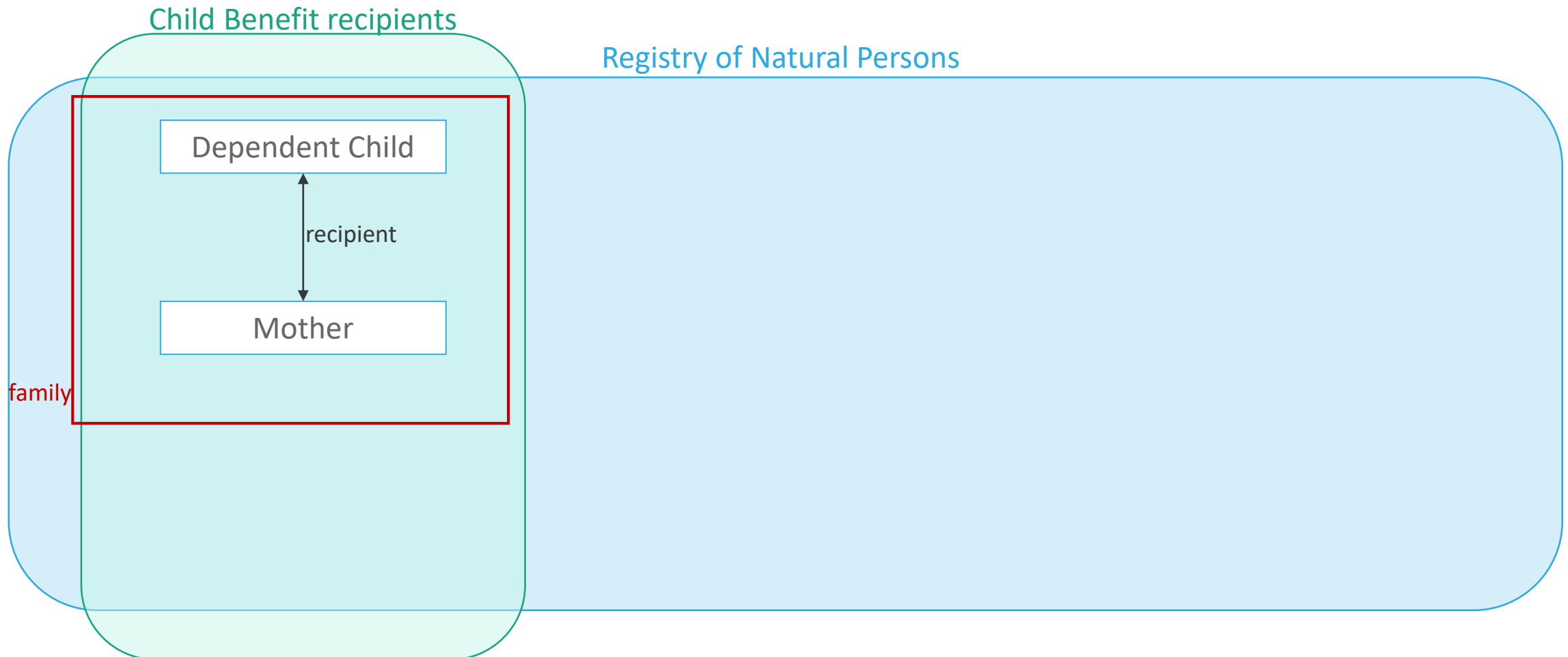
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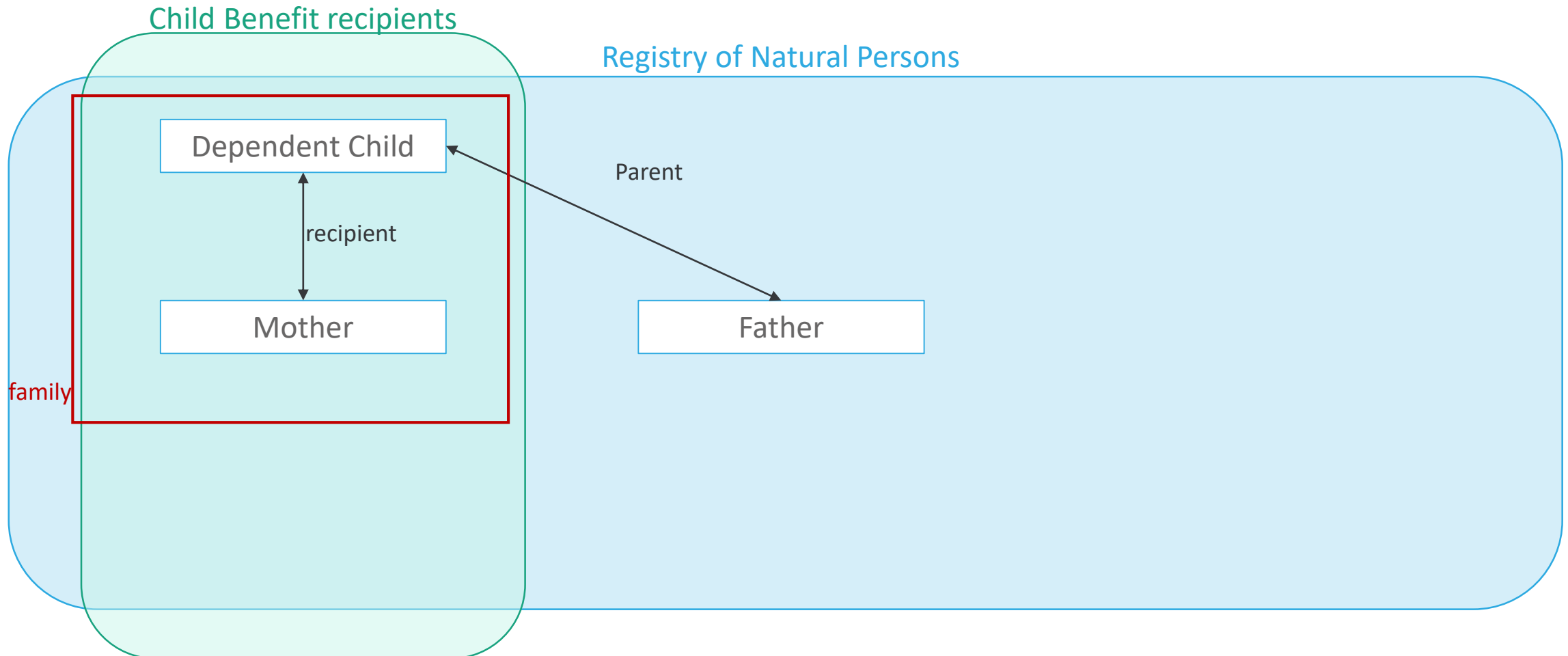
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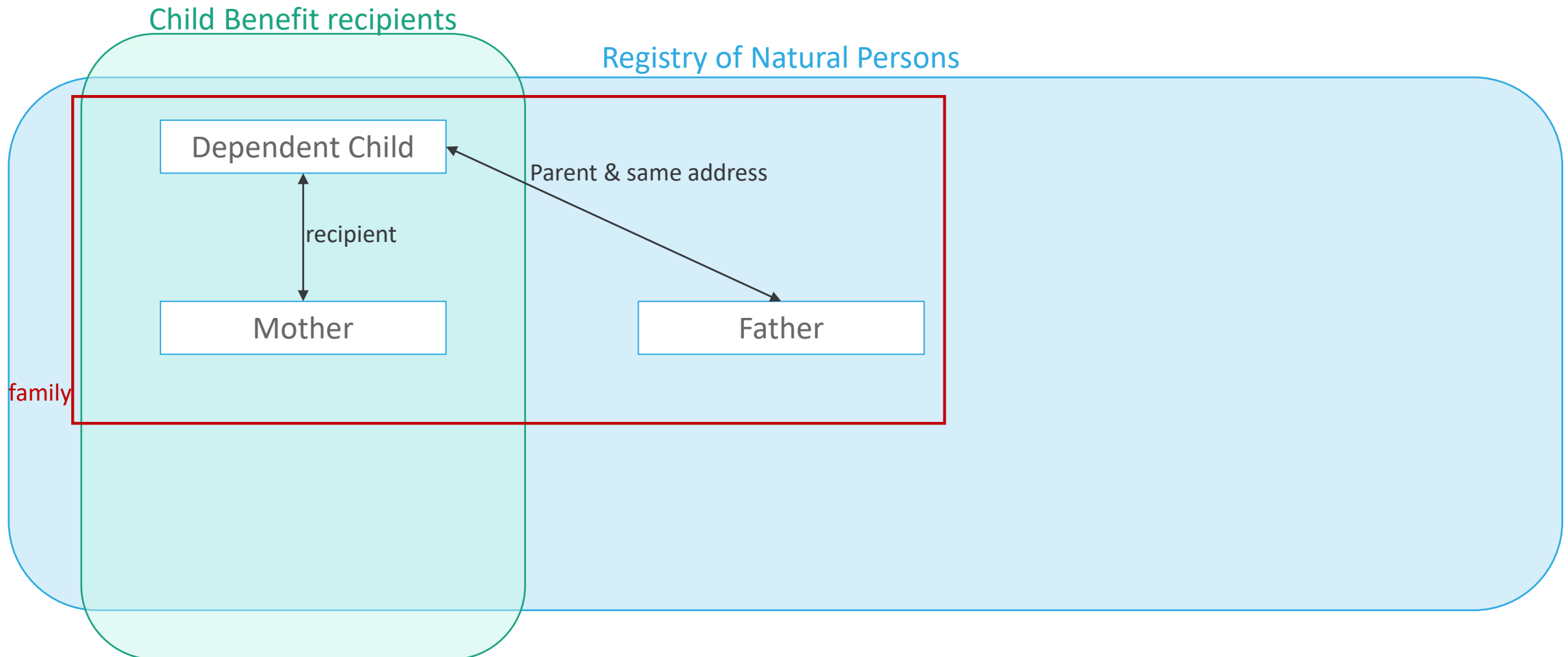
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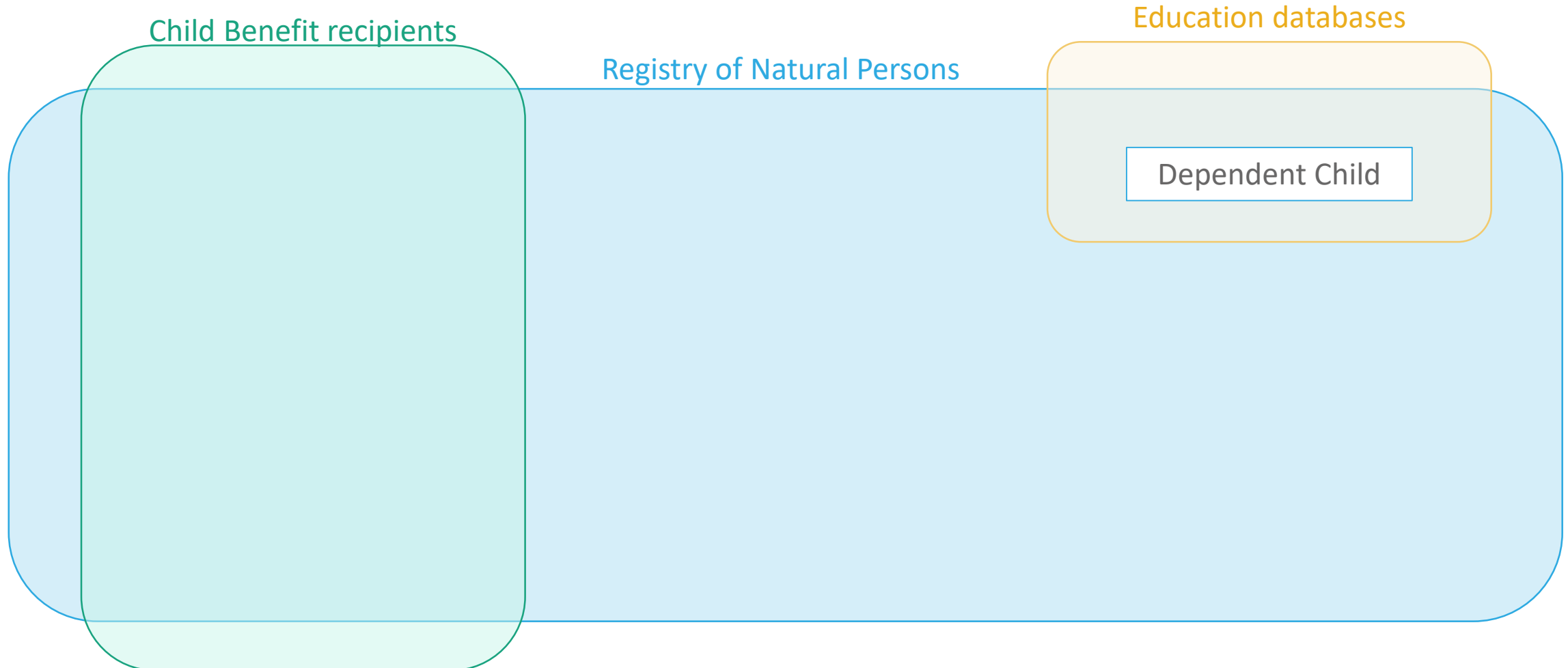
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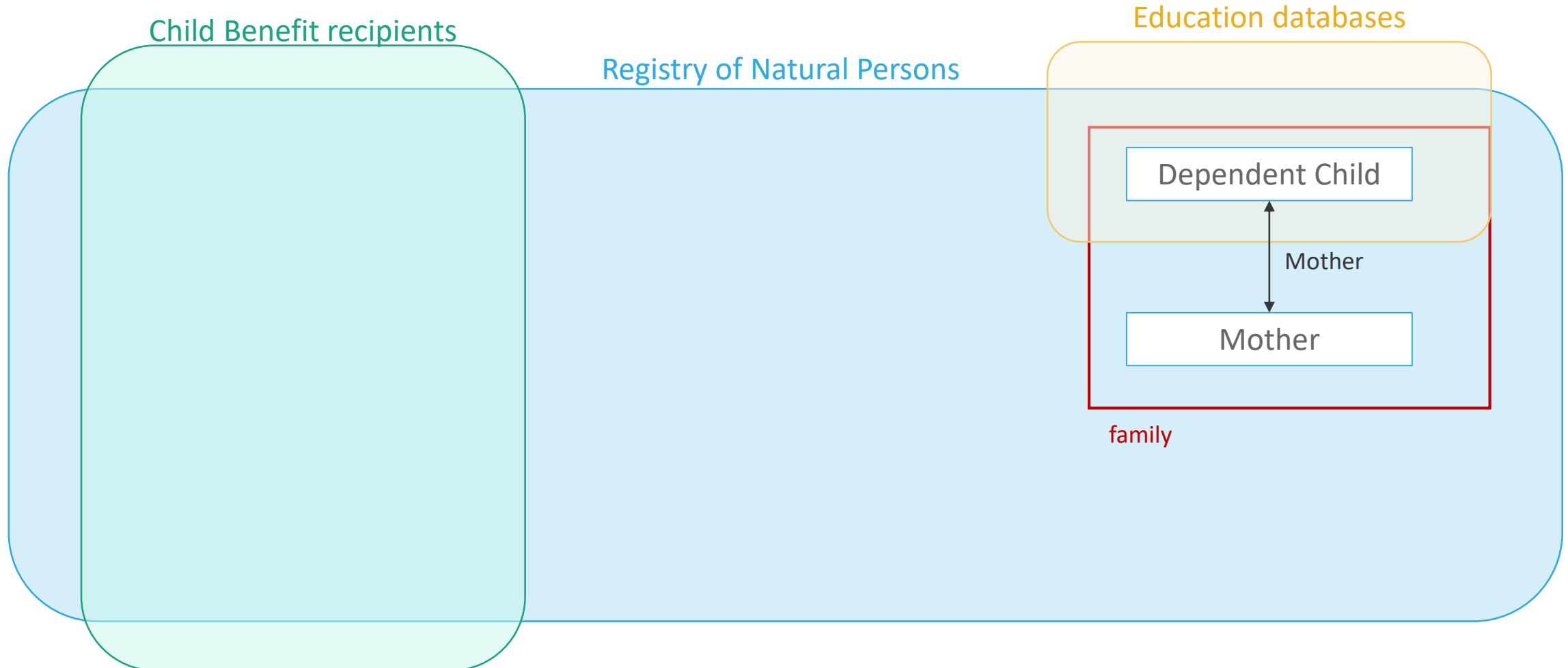
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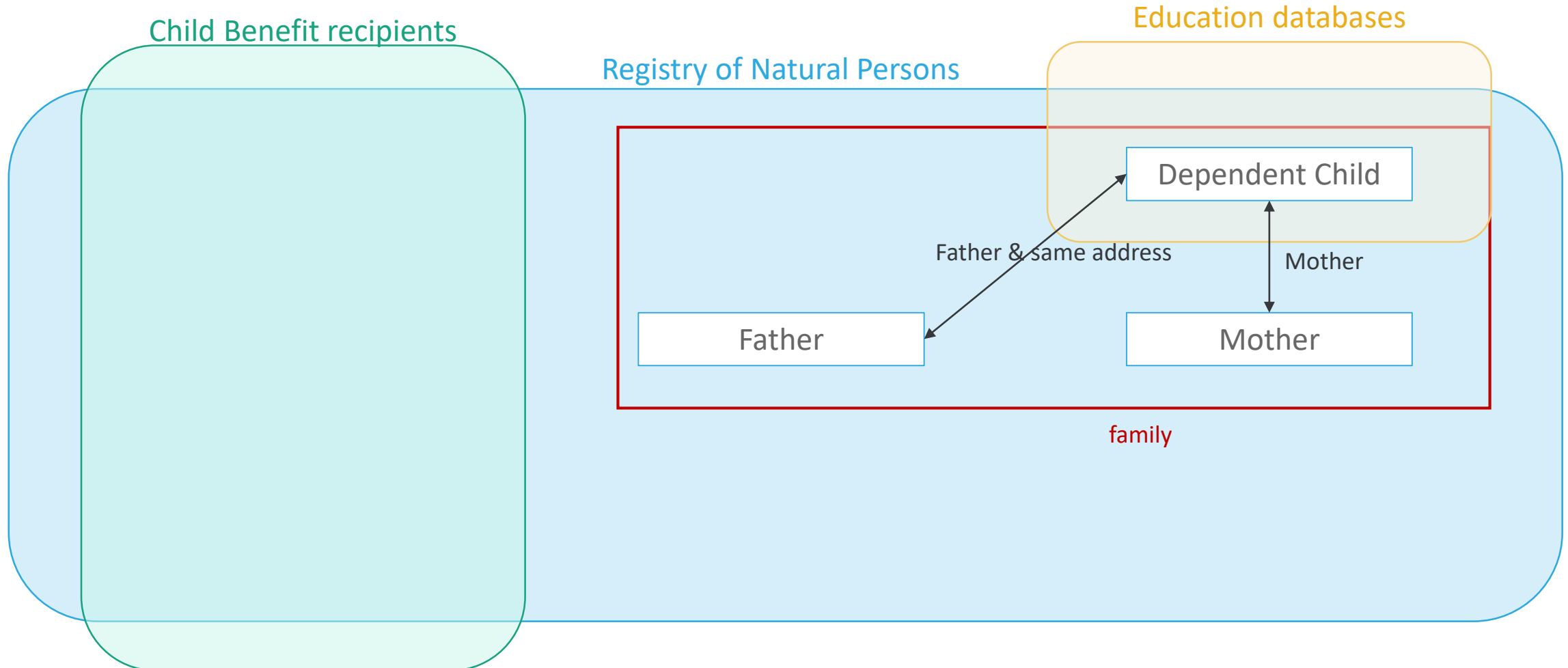
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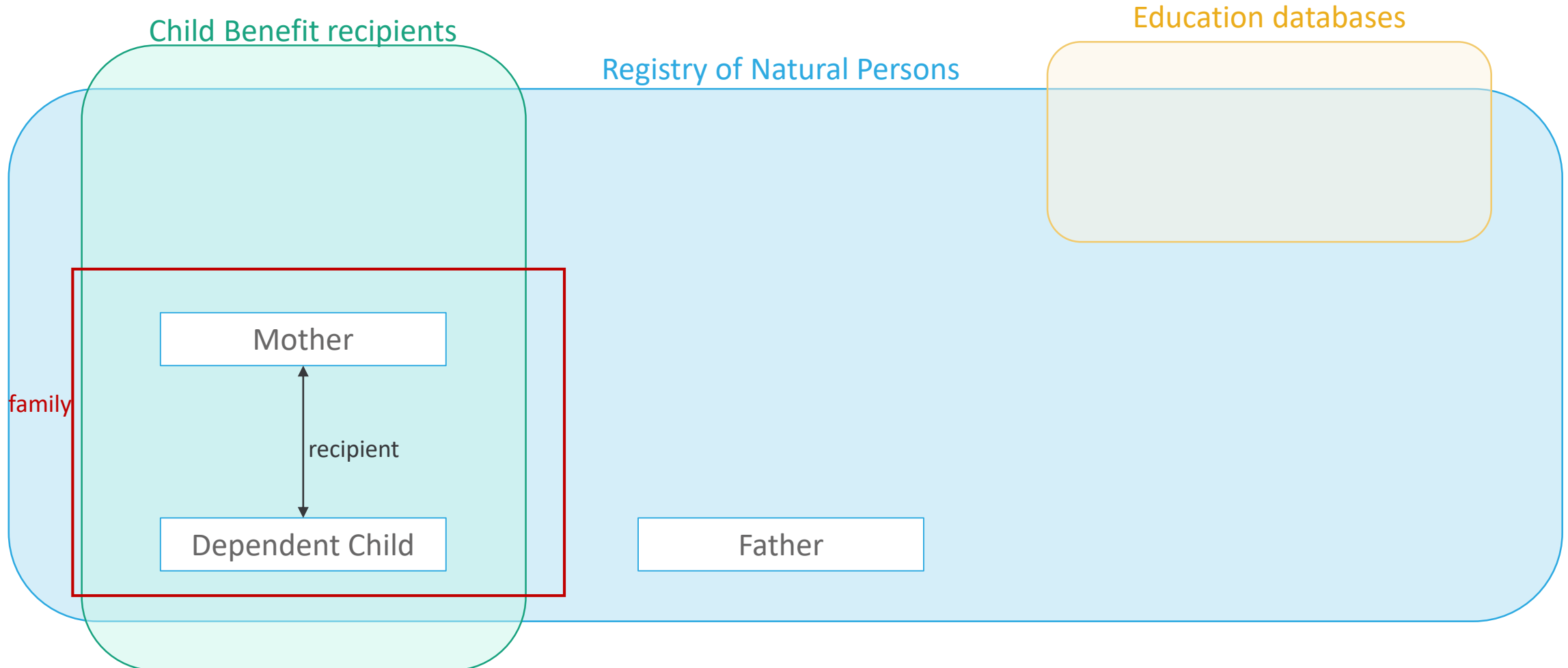
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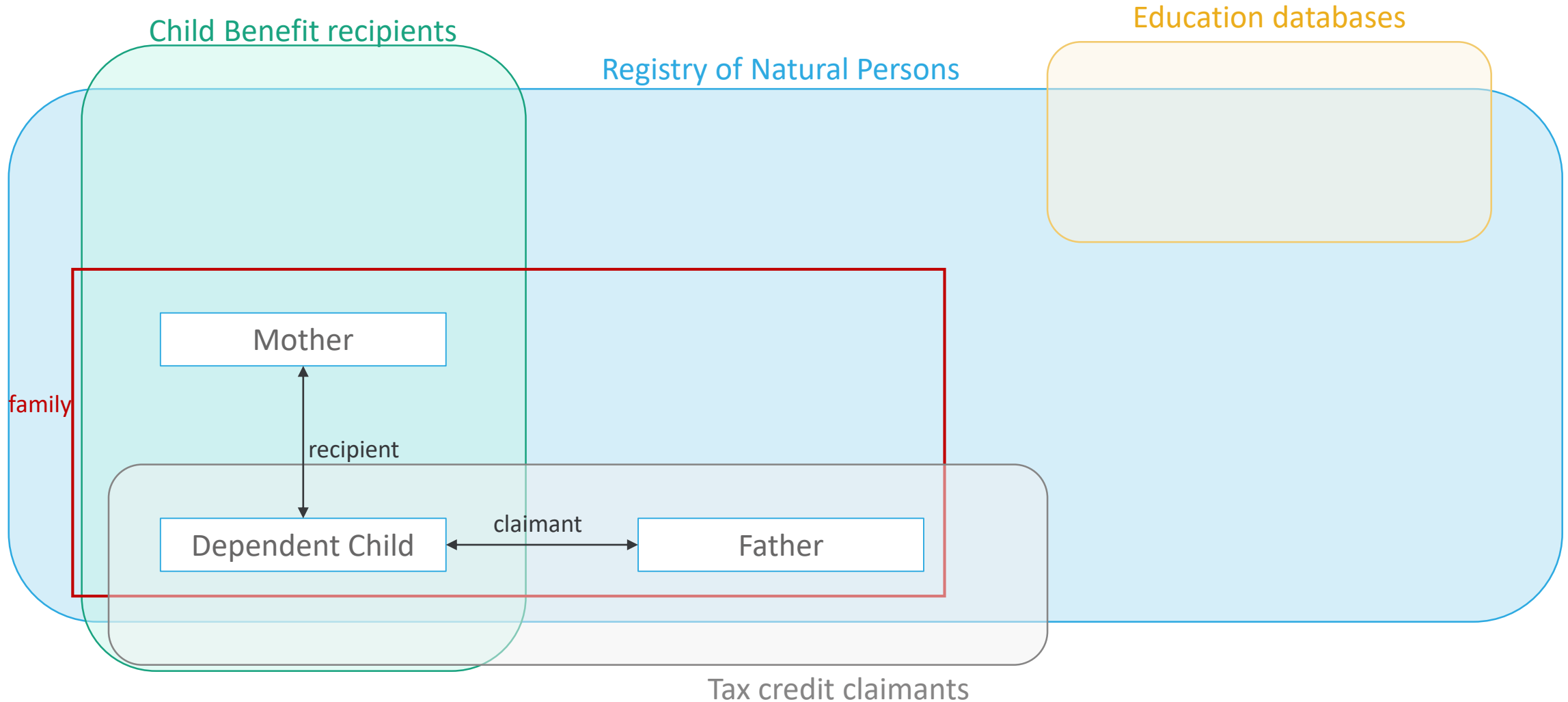
Creation of families – next steps



Administrative database



Creation of families – next steps





Creation of households

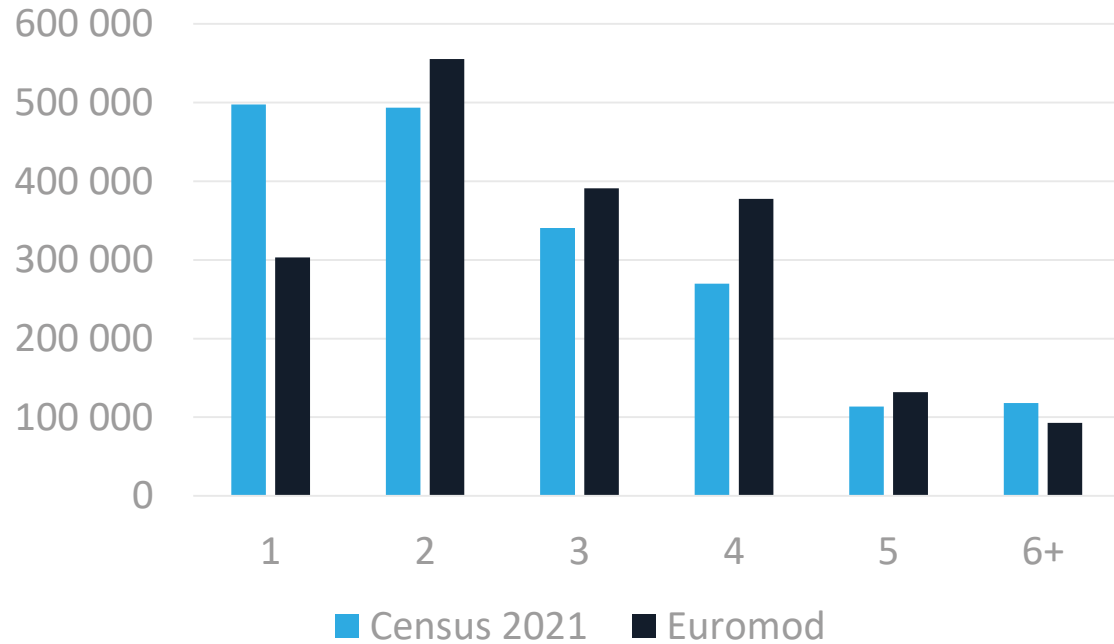
- We still cannot construct households reliably
 - Unreliable and missing address data in the Registry
- Possible next steps
 - Electricity offtake points
 - Census 2021 microdata

Administrative database

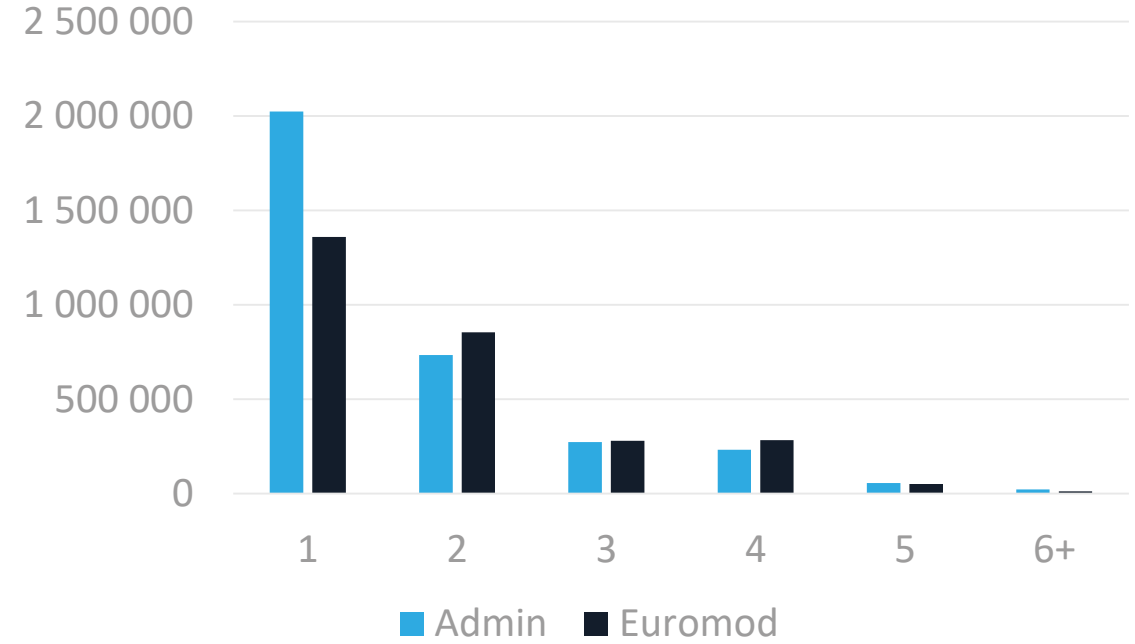


Households vs. families

Distribution of households by size



Distribution of families by size





Incomplete income data

- Full population of PIT returns for labour income
- Full population of public pensions
- Full population of welfare benefits

- No information on private pensions
- No information of capital, wealth, property income (beyond PIT returns)
- No information on incorporated business income & dividends

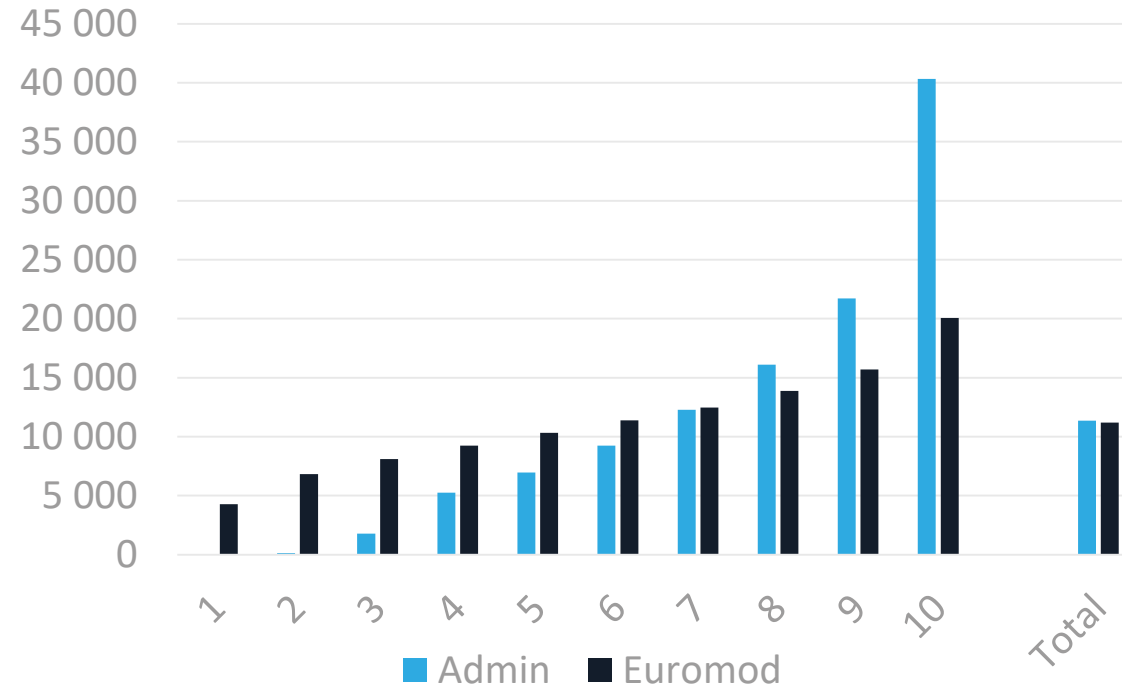
Administrative database



Income deciles

- We cannot construct income deciles consistently

Average annual income by eq. Income decile (EUR)



Inputs

- Current state of the Administrative database sufficient for the given reform
- The number and age structure of children matters

Comparison of input data

	EUROMOD	Admin	Euromod/ Admin
Child Benefit (thousands)			
Eligible children	1 156	1 302	88,8%
Take-up: children	1 156	1 151	100,4%
Take-up: children * months	13 573	13 280	102,2%
Child Tax Credit 2021 (thousands)			
Eligible children of working parents	1 085	903	120,1%
- o/w 0-6 years old	374	263	142,3%
- o/w 7-15 years old	457	374	122,2%
- o/w 16+ years old	253	266	95,2%
Take-up: children	1 085	938	115,6%
Take-up: children * months	12 734	10 319	123,4%
Child Tax Credit 2023 (thousands)			
Eligible children of working parents	1 097	943	116,3%
- o/w 0-6 years old	379	281	134,7%
- o/w 7-15 years old	463	392	118,2%
- o/w 16+ years old	256	270	94,5%
Take-up: children	1 097	943	116,3%
Take-up: children * months	12 883	11 203	115,0%

Inputs

Comparison of input data

	EUROMOD	Admin	Euromod/ Admin
Aggregate income (mil. EUR)			
Employment income	28 227	28 130	100,3%
Self-employment income	4 791	1 766	271,3%
Partial tax base	26 739	26 287	101,7%

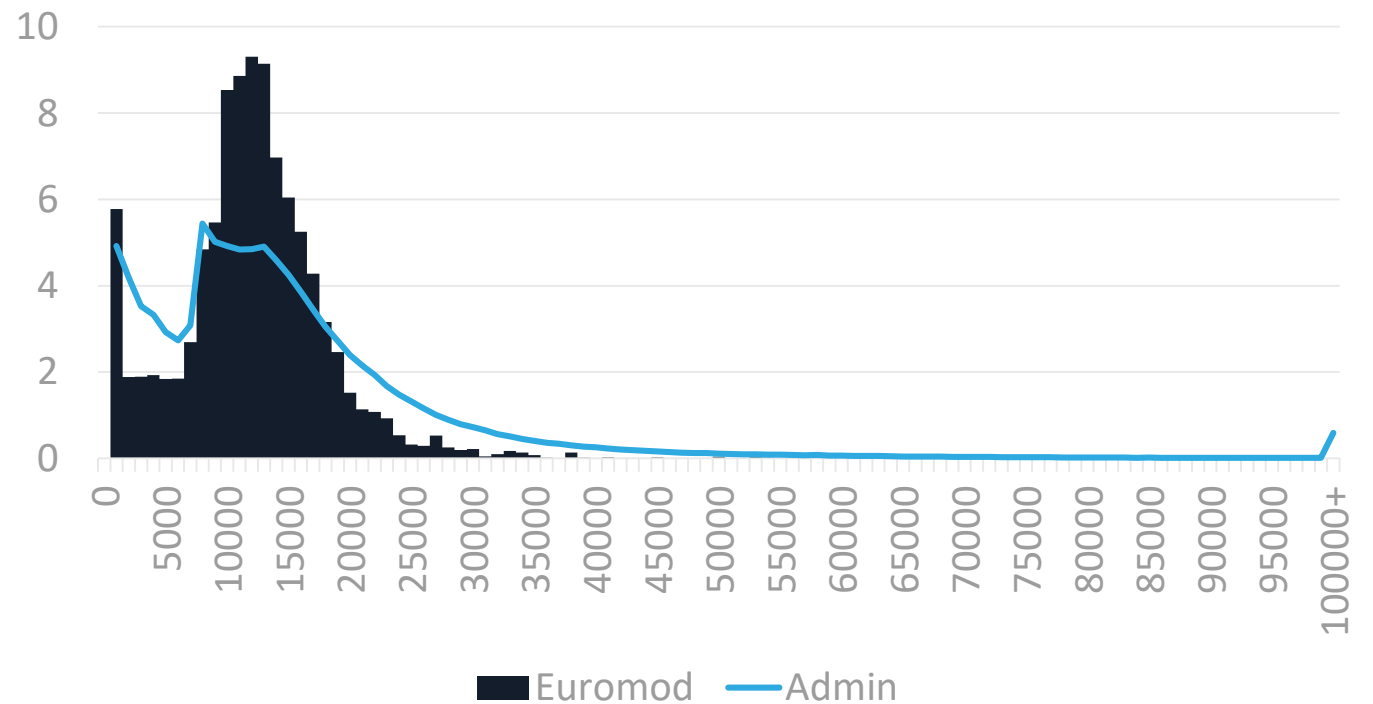
Inputs

- Distribution of income important in addition to aggregate amounts

Comparison of input data

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Distribution of annual employment income (%)





Fiscal Cost

- Child Benefit relatively accurate
 - Euromod take-up: 100%, Admin take-up: 88%
- Large differences for Child Tax Credit

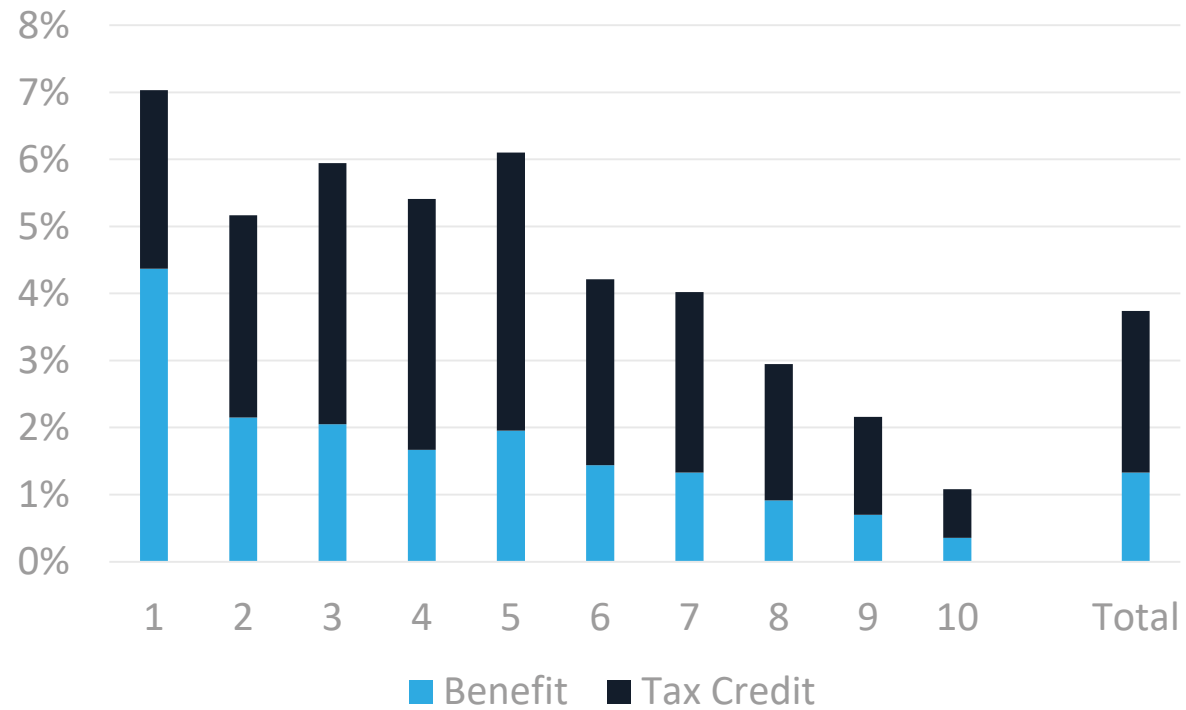
Cost of reform (thousands EUR)

	2022	2023	2024	2025	2026
Child Benefit					
Euromod	27 961	436 788	388 874	363 764	343 540
Admin	22 854	397 281	385 332	358 839	338 604
Ratio	81,7%	91,0%	99,1%	98,6%	98,6%
Child Tax Credit					
Euromod	140 617	979 650	943 182	482 571	482 571
Admin	118 723	772 354	731 779	358 034	337 256
Ratio	84,4%	78,8%	77,6%	74,2%	69,9%



Distributive outcomes

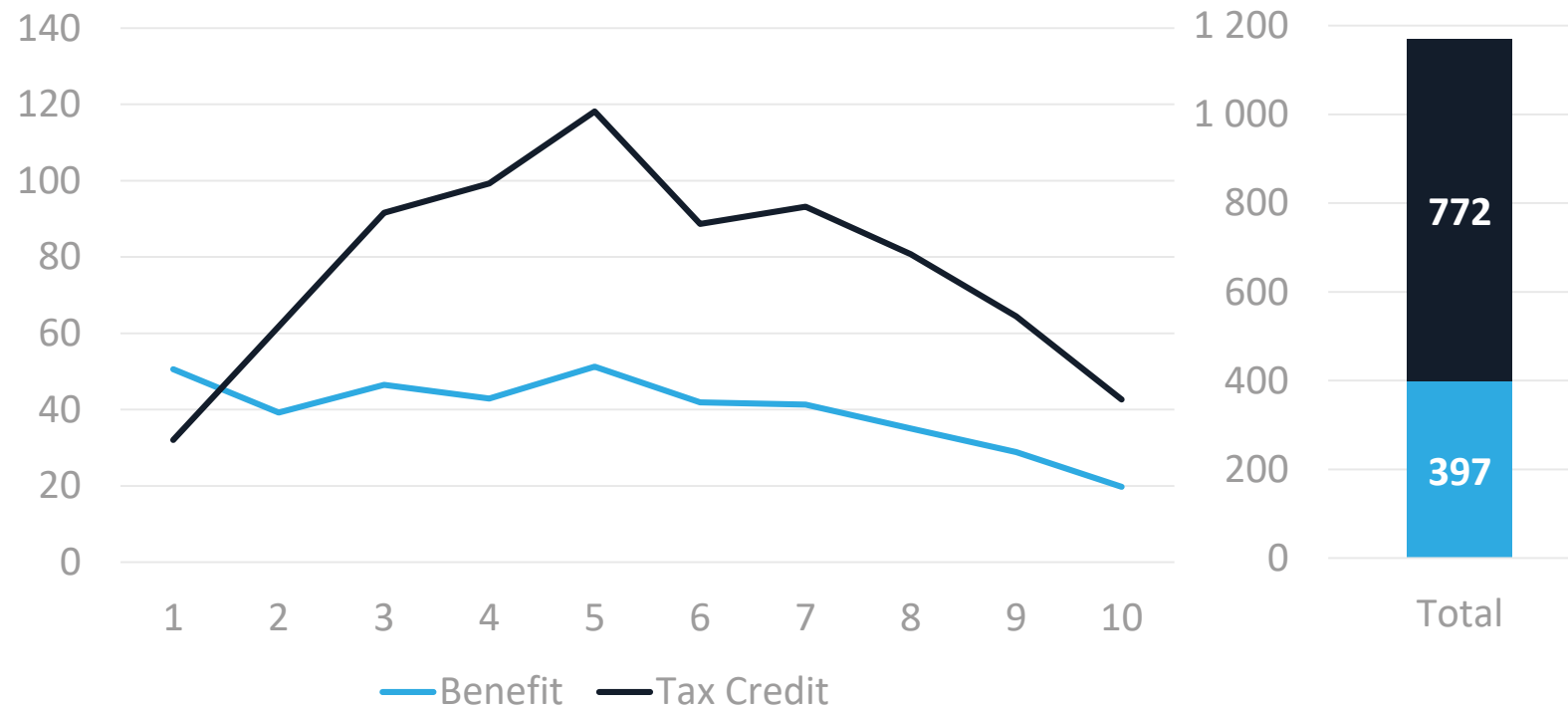
Relative change in disposable income across income deciles





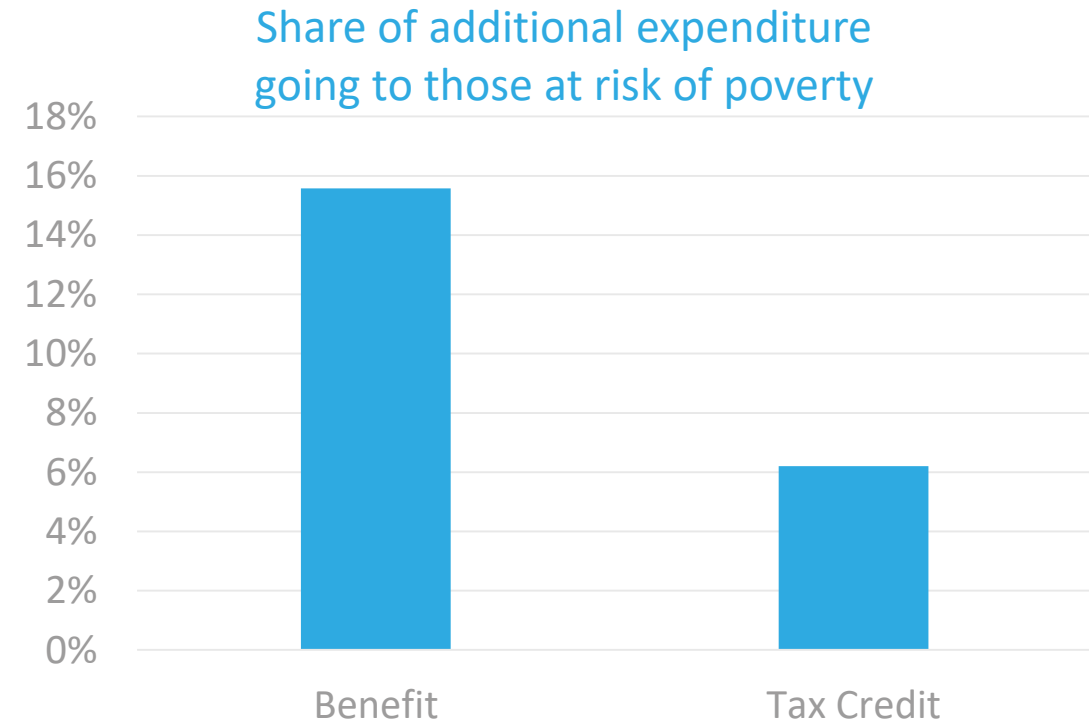
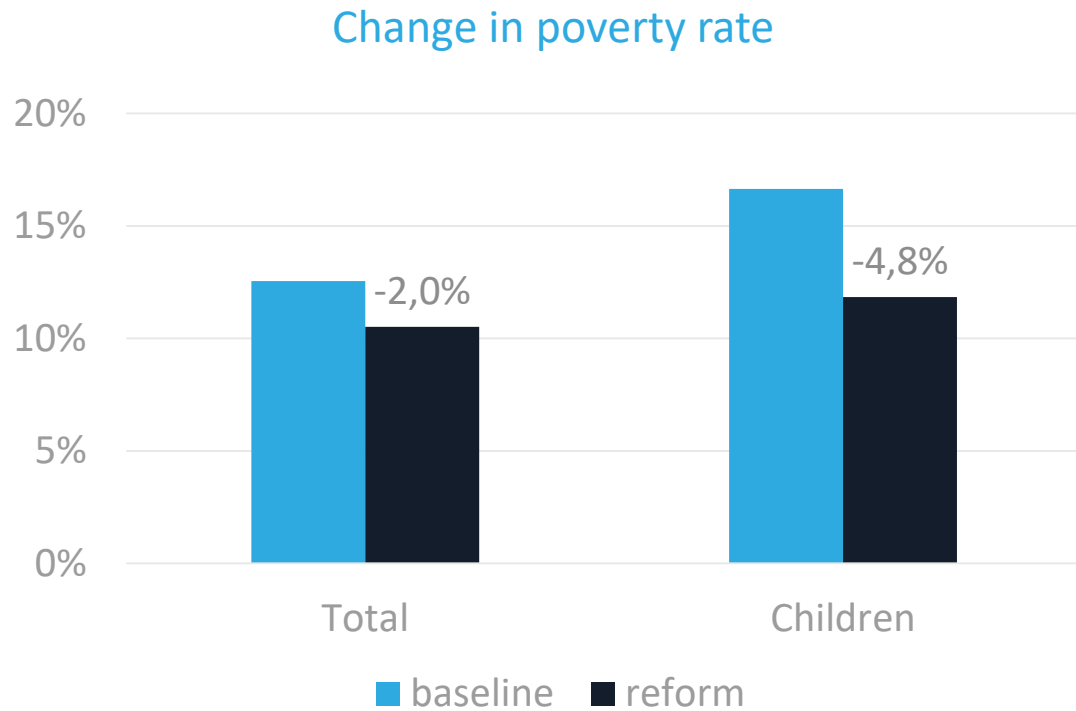
Distributive outcomes

Distribution of fiscal cost across income deciles (mil. EUR)





Distributive outcomes





Work in progress on administrative database

- Good account of family ties
- Reliable data on most sources of income
- No households yet
- Unreliable construction of income deciles

Evaluation of reform of child-related policies

- Fiscal cost more accurate with admin data
- Legitimate policy goal but extremely costly
- Helps reduce poverty but very poorly targeted
- Re-design of the tax credit improves employment incentives



Thank you for
your attention

www.mfsr.sk/en/finance/institute-financial-policy

FB: IFP - Institute for Financial Policy