Welfare Effects of Increasing Transfers to Young Adults: Theory and Evidence from France

Marion Brouard

CREST

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Motivation - Why single out young adults?

- **Financial fragility:**
  - Highest poverty rate (22% vs 17%) and deprivation rate
  - Same pattern for other poverty indicators Sav Pay
- **Inequality:** Evidence
  - Resources: Young adults income depends on parent's income
  - Education choice: High social reproduction Evidence
- **Little social assistance:** Age category receiving the least social assistance, even if: Level Ratio
  - Might help reducing financial fragility and inequalities
  - Can shape education decision (Fack and Grenet (2015))

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⇒ **Why so little assistance compare to other categories? Should it be increased?**

Motivation: Conceptual Challenges

Shed light on the trade-off through **welfare analysis**: Two margins, **the benefits** VS **the costs:**

(1) What is the **social utility**:

- [+] Young adults are poor, so should value it a lot
- [-] Interactions between parents and government transfers can decrease welfare effects
- [?] weights that society put on young adults utility

(2) What is the **fiscal cost** for the government:

- [-] Upfront cost of the policy
- [?] Labor supply responses
- [?] Education decision responses

Research questions

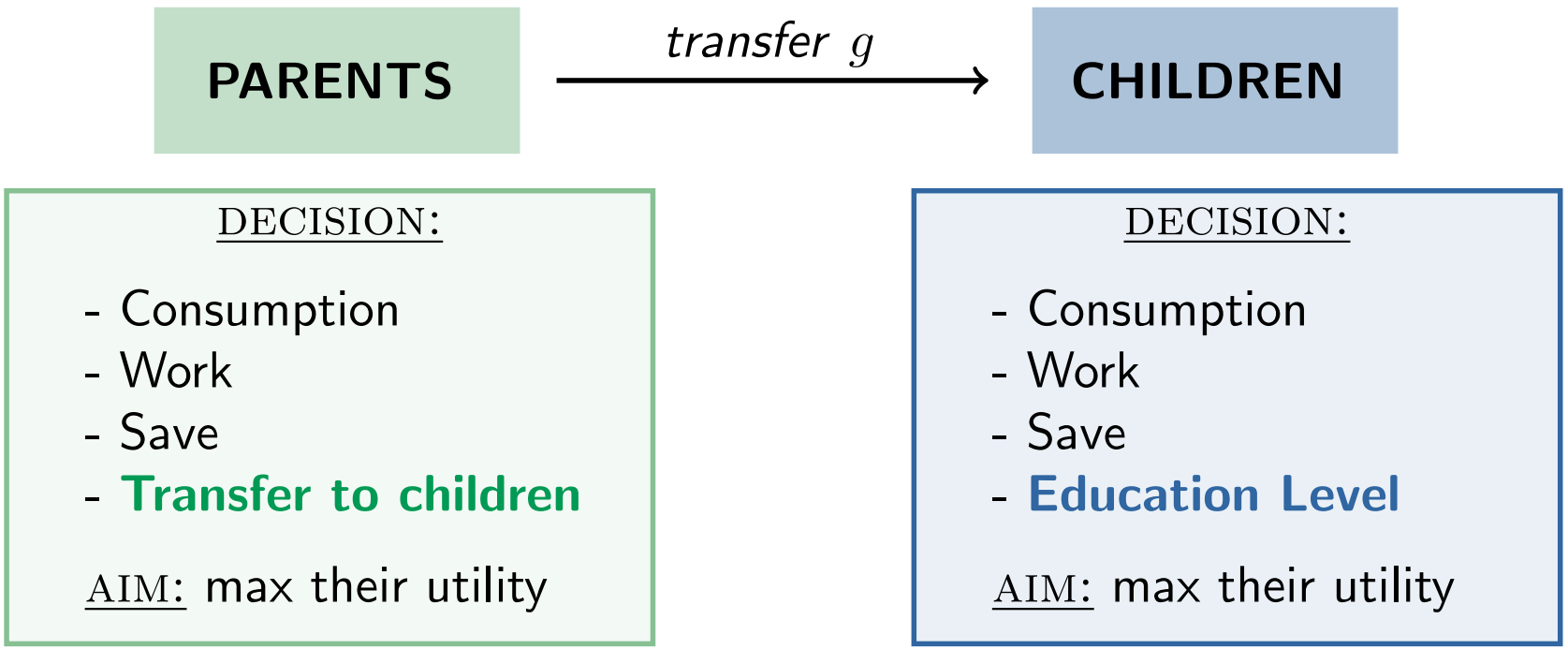
1. What is the **welfare effect** of increasing transfers to young adults financed by older individuals?

2. Should those transfers be tagged?

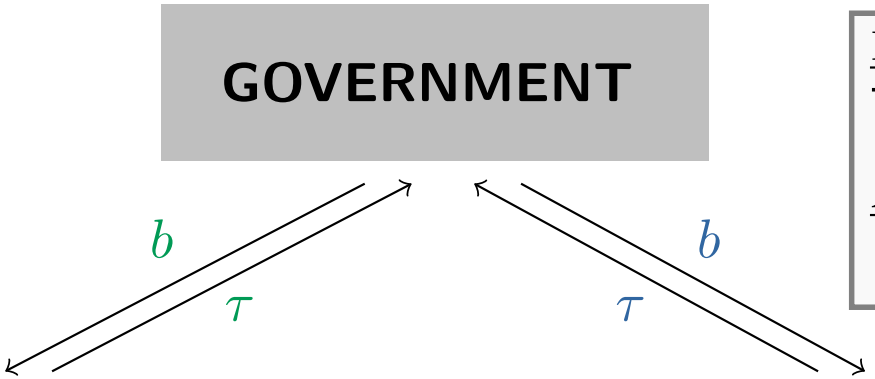
Outline

Outline

Setup - Preview



Setup - Preview



DECISION:
Tax τ & transfer b

AIM: max welfare
s.t. *GBC*

PARENTS — *transfer* g ⇢ **CHILDREN**

DECISION:

- Consumption
- Work
- Save
- **Transfer to children**

AIM: max their utility

DECISION:

- Consumption
- Work
- Save
- **Education Level**

AIM: max their utility

Setup: Wrap-up

Should the government change the benefit age-profile?

- Trade-off when implementing a policy:
  - Social marginal utility (SMU)
  - Pareto weights (ω)
  - Fiscal cost of the policy $= 1 +$ Fiscal Externalities (FE)

- Comparing Policies: *(rely on MVPF literature)*
  - Compare **welfare effect** of small deviations from the actual policy for children vs parents via **cost-benefit ratios**:

$$\frac{\omega \times \text{SMU}^k}{1 + \text{FE}^k} \overset{?}{>} \frac{\omega^P \times \text{SMU}^P}{1+\text{FE}^P}$$

  - Compare benefit increase for children in **education** VS on **the labor market**.

Outline

Social Marginal Utility

- **Components of SMU:**
  - **For transfer to parents:**
    - Utility gain of parents
    - Utility gain of children from the amount **passed-through**
  - **For transfer to children:**
    - Utility gain of children
    - Accounting for possible **crowding-out effect** on parent transfer

Social Marginal Utility

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- **Need to estimate:**
  (1) Transfer derivatives: Crowding-out and pass-through
  (2) Utility gain: Rely on Landais and Spinnewijn (2021)
    - The higher the MPC, the larger the transfer value
    - Ratio of parent-children mpc gives a lower bound of parent-children SMU ratio

Challenges:

(1) MPC: Need **comparable exogenous variation** in income for both children and parents.

(2) Transfer derivatives: Identify parent-to-children transfer and its change

SMU - Empirical Application

Challenges:

(1) MPC: Need **comparable exogenous variation** in income for both children and parents.

(2) Transfer derivatives: Identify parent-to-children transfer and its change

Data: Crédit Mutuel Bank transaction data

- Granular information on **flows and household balance-sheet**:
  - Credit card expenditure at the transaction level
  - All incoming and outgoing transfers at a daily frequency
  - Balance of current and saving accounts, mutual funds and debt
- **Demographic characteristics** (Age, Sex, CSP, etc.)
- Period: 2019 - Now
- Random sample of **300,000 households** ($> 500,000$ individuals)

Outline

Exploit two one-shot transfers in 2020:

- **Transfer to children (18-24):**
  - Target: Entitled to housing benefits (APL) or students with grant
  - Amount: 150 euros
  - Number of treated in data: $\simeq$ 4,000 individuals
- **Transfer to parents:** ARS (Allocation de Rentrée Scolaire)
  - Target: Parents with a child between 6 and 18.
  - Amount: $\simeq$ 500 euros per child
  - Number of treated in data: $\simeq$ 20,000 individuals

- **Compute MPC using an DID event study:**

$$C_{it} = \alpha_i + \boldsymbol{\delta}\text{Treated}_i \cdot \mathbb{1}_{[t>t^*]} + \gamma \mathbb{1}_{[t>t^*]} + \beta X_{it} + \varepsilon_{it}$$

  - Weekly consumption (C_{it}), treatment week t^*, incoming transfer (X_{it})
  - MPC retrieved from re-scaling δ Details

- **Matching:** Control group constructed using the one-to-one nearest-neighbor matching on pre-event characteristics:
  - Exactly matched on demographics characteristics
  - Mahalanobis distance on financial variables

Figure: Children MPC (45%)

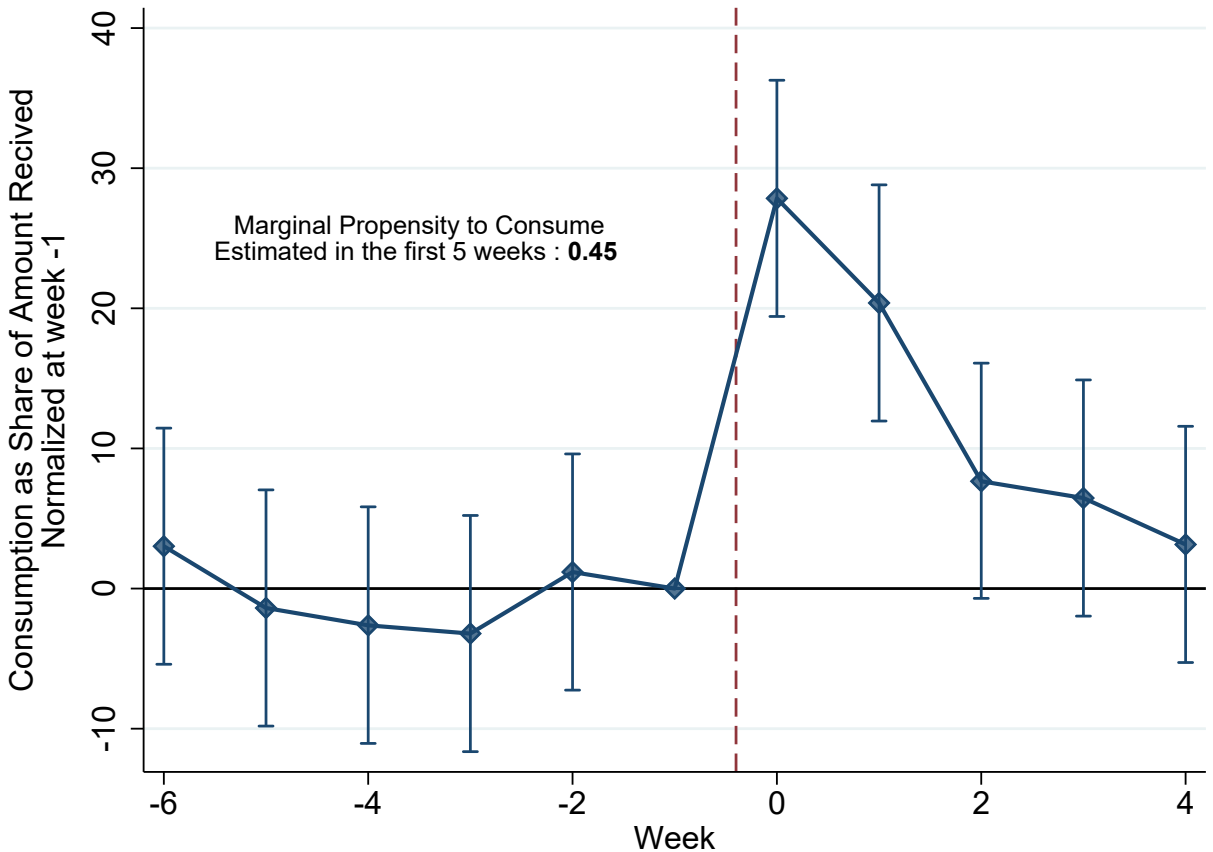
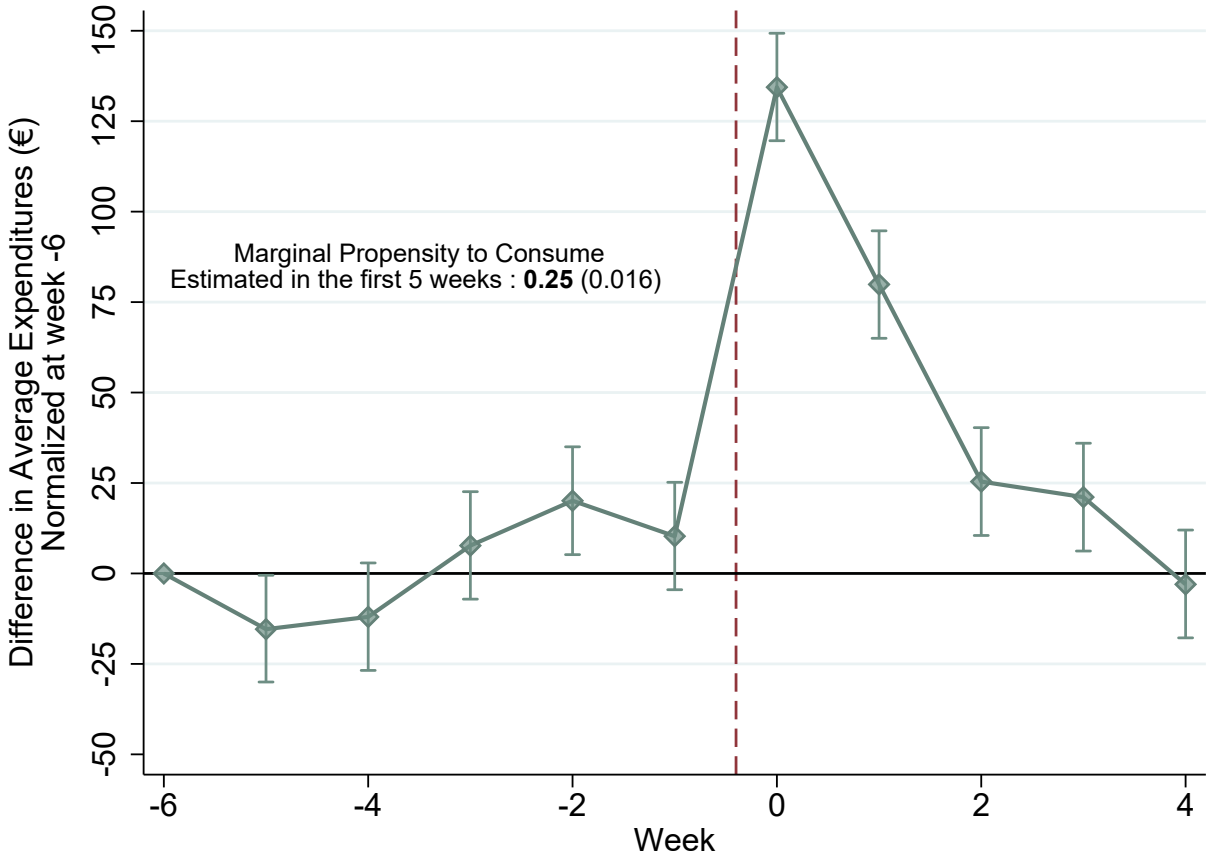


Figure: Parents' MPC (25%)



Amount Year

Outline

Transfer Derivative - Methodology

- Advantage:
  - Data that pins down parent-child transfer
  - Panel follows individuals over several months/years

  $\hookrightarrow$ Move away from standard survey cross-sectional analysis

- Regression: TWFE following individuals (i) over months (t):

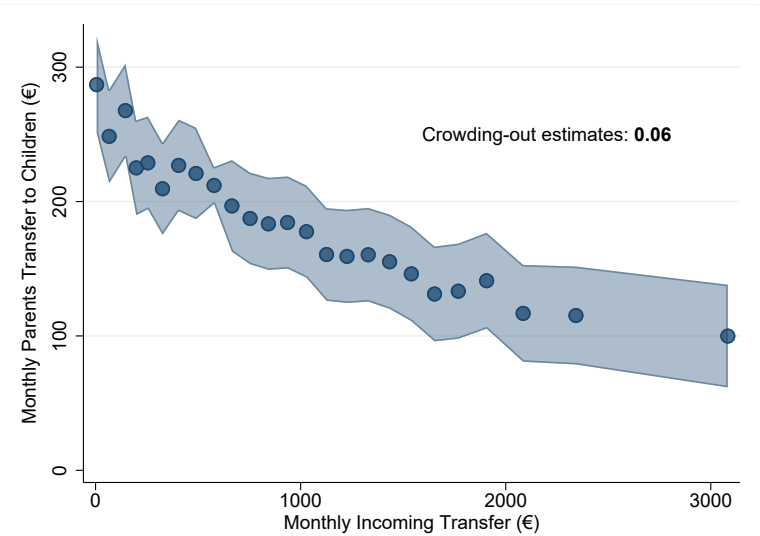
$$G_{it} = \alpha_i + \alpha_t + \beta_1 Y_{it} + \gamma_1 Y_{it}^2 + \beta_2 Y_{it}^P + \gamma_2 Y_{it}^{P^2} + \varepsilon_{it}$$

With G_{it} parents-to-child transfer, Y_{it} children and Y_{it}^P parent's total incoming transfers

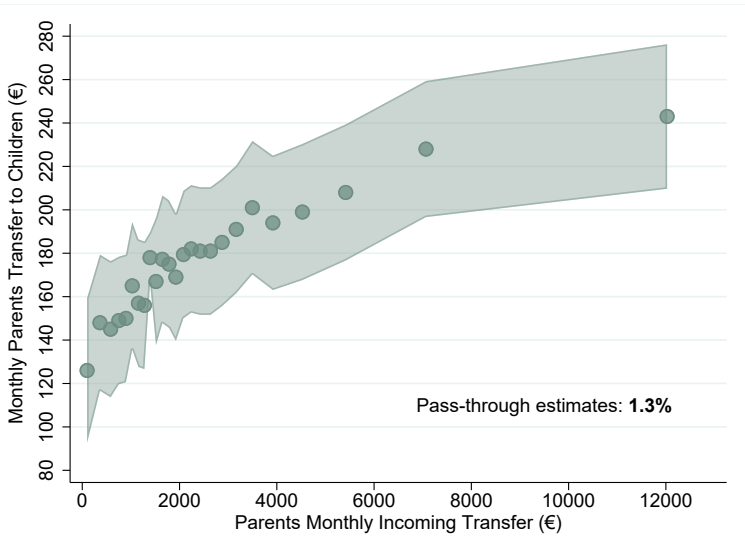
  - Crowding-out recovered from β_1 and γ_1
  - Pass-through recovered from β_2 and γ_2

Transfer Derivatives

(a) Crowding-out (6%)



(b) Pass-through (1%)



- **Methodology 2:** Take advantage of heterogeneity in the scholarship amount (8.5%) OLS Non-Wire

Outline

SMU - Take away

- **Wrap-Up:**
  - MPC significantly higher for young adults
  - Low crowding-out
  - Low pass-through

- **Implication for SMU:** Putting pieces back in the model

$$SMU_t^{b^k} \geq \mathbf{2.05} \times SMU_t^{b^P}$$

  - Social benefit of transferring to children twice bigger

Outline

SMU - Tagging children

Idea: Replicates the analysis for the most two fragile groups

1. **What about tagging low-income workers?**
   - MPC: 55% (0.1) Plot
   - Crowding-out: 7% (0.008)

$$\Rightarrow SMU_t^{b^w} \geq \mathbf{2.9} \times SMU_t^{b^P}$$

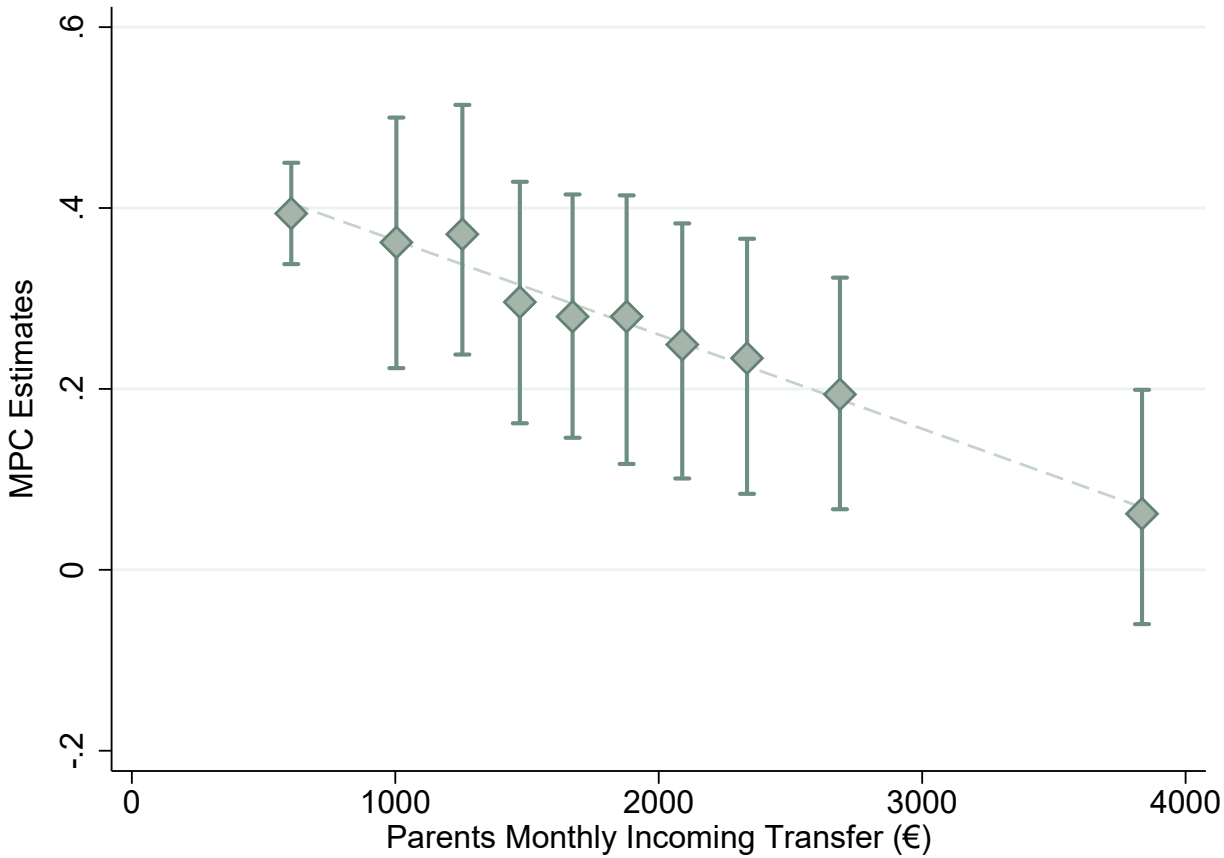
2. **What about tagging students with low-income parents?**
   - MPC: 61% (0.15) Plot
   - Crowding-out: 4.5% (0.017)

$$\Rightarrow SMU_t^{b^e} \geq \mathbf{4.12} \times SMU_t^{b^P}$$

SMU - Tagging parents

- So far the estimated effect is an **upper bound** (population of MPC with on average lower income)

Figure: Parents' MPC by Incoming Transfer



Outline

Benefit Cost Ratio Analysis:

$$\underbrace{\frac{\text{SMU}^k}{\text{SMU}^P}}_{\text{Found to be large}} \overset{?}{>} \underbrace{\frac{1+\text{FE}^k}{1+\text{FE}^P}}_{?}$$

Fiscal Cost

Benefit Cost Ratio Analysis:

$$\frac{\text{SMU}^k}{\text{SMU}^P} \overset{?}{>} \frac{\mathbf{1+FE^k}}{\mathbf{1+FE^P}}$$

- Increasing transfer to parents:
  - [-] Labor supply

Benefit Cost Ratio Analysis:

$$\frac{\text{SMU}^k}{\text{SMU}^P} \overset{?}{>} \frac{\mathbf{1+FE^k}}{\mathbf{1.14}}$$

- Increasing transfer to parents:
  - [-] Labor supply $\Rightarrow$ Hendren (2016) FE $= 0.14$

Fiscal Cost

Benefit Cost Ratio Analysis:

$$\frac{\text{SMU}^k}{\text{SMU}^P} \overset{?}{>} \frac{\mathbf{1+FE^k}}{\mathbf{1.14}}$$

- Increasing transfer to parents:
  - [-] Labor supply $\Rightarrow$ Hendren (2016) FE $= 0.14$
- Increasing transfer to children in education:
  - [+] Education decision (✓)
  - [?] Return to education of pivotal children ($\simeq$)
  - [-] Wealth effects on labor supply (✓)
- Increasing transfer to children in labour market:
  - [-] Education decision (✓)
  - [?] Return to education of pivotal children ($\simeq$)
  - [-] Labor supply (✗)

Estimates

Fiscal Cost - Student

- **Children in education vs. parents:**
  - Fiscal cost $= 0.9$ (Plot)

$$\frac{\text{SMU}^e}{1+\text{FE}^e} \geq \mathbf{6} \times \frac{\text{SMU}^P}{1+\text{FE}^P}$$

  - Redistribution is highly welfare enhancing

Fiscal Cost - Student

- **Children in education vs. parents:**
  - Fiscal cost = 0.9 Plot

$$\frac{\text{SMU}^e}{1+\text{FE}^e} \geq \mathbf{6} \times \frac{\text{SMU}^P}{1+\text{FE}^P}$$

  - Redistribution is highly welfare enhancing

- **"Poor" children in the labor market vs. parents:**
  - If labor supply elasticity is the same for parents and children:

$$\frac{\text{SMU}^w}{1+\text{FE}^w} \geq \mathbf{2} \times \frac{\text{SMU}^P}{1+\text{FE}^P}$$

Plot

Conclusion

- The social utility of increasing transfer to young adult is at least **two times higher** than targeting older individuals
- Fiscal cost depends on whether targeting students or workers, but **never justify such low assistance**
- **Higher welfare effect when targeting:**
  - Students with low income parents
  - Young workers with low income

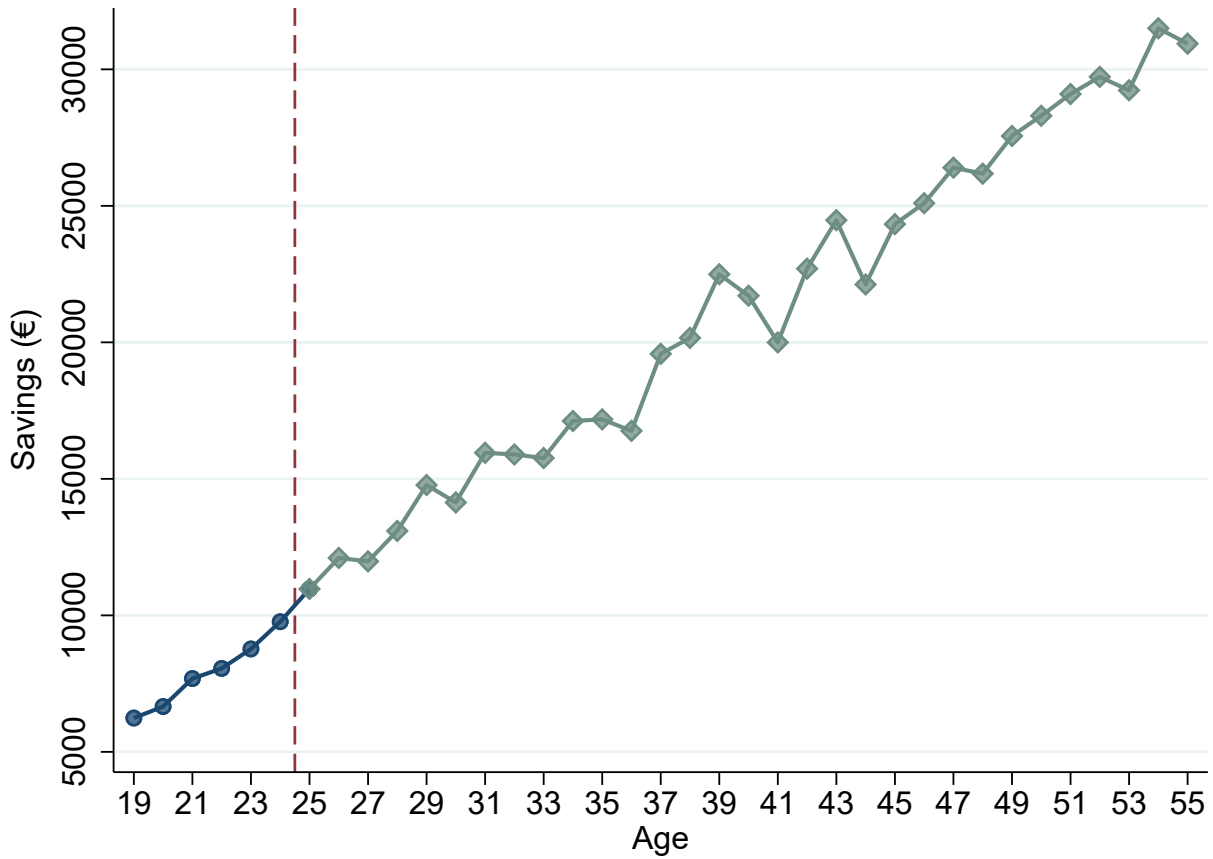
$\Rightarrow$ **Redistribution from older to younger individual would be highly welfare enhancing**

Thank you!

APPENDIX

Motivation - Financial Fragility

Figure: Savings by Age



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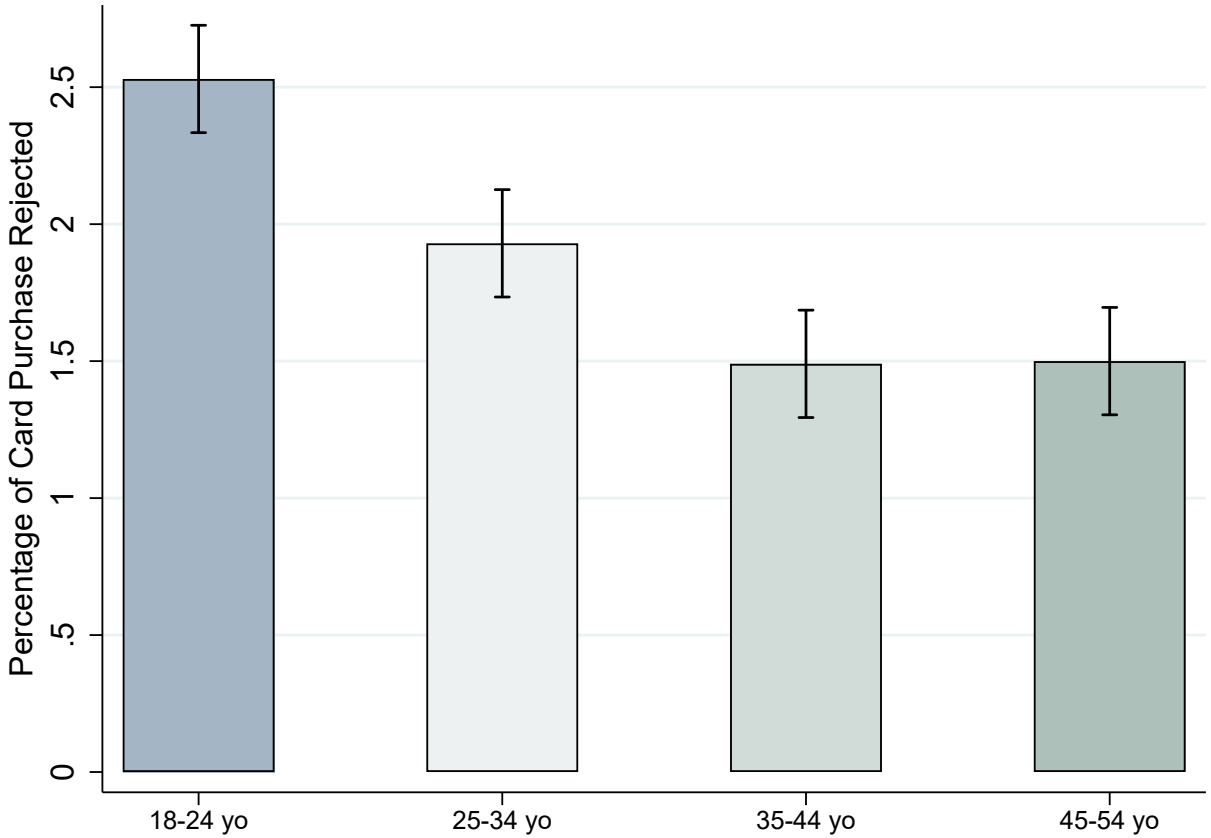
Motivation - Financial Fragility

Figure: Share Card Purchase Rejected



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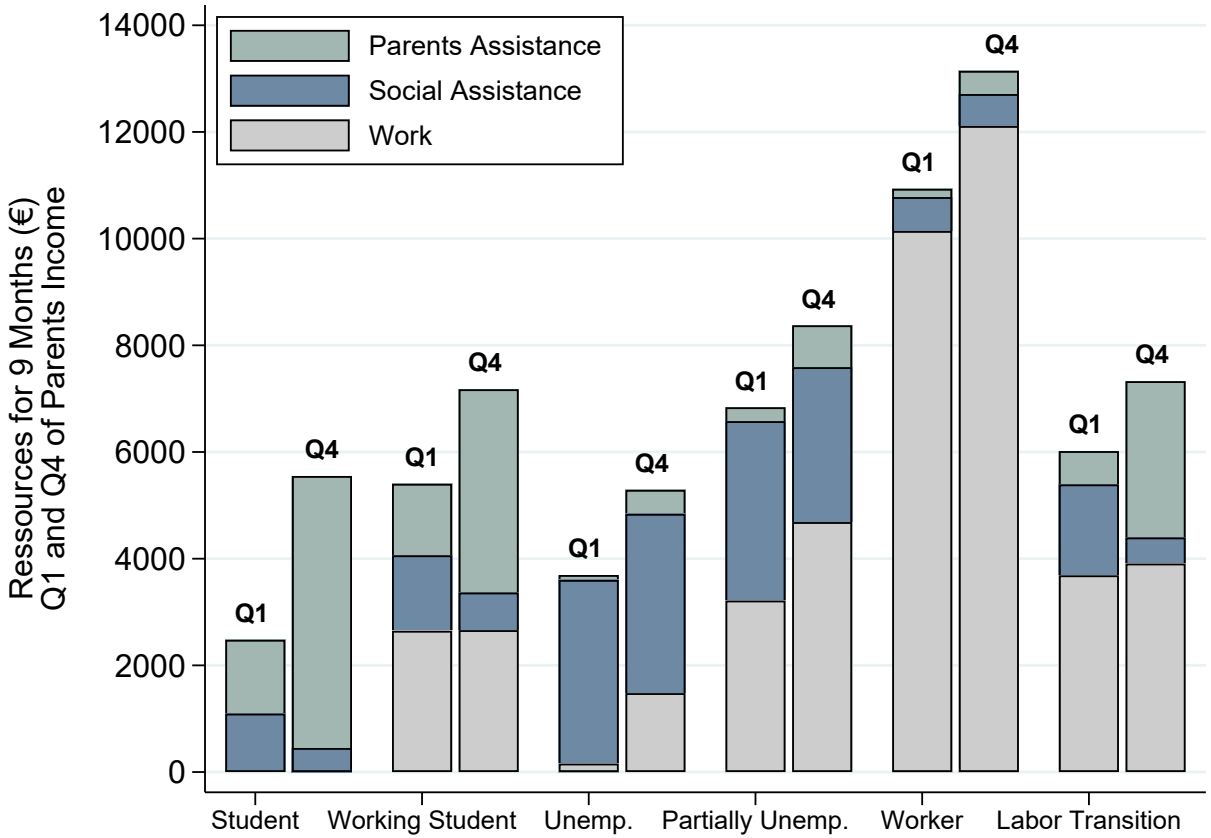
Motivation - Inequality

Figure: Income of Young Adults



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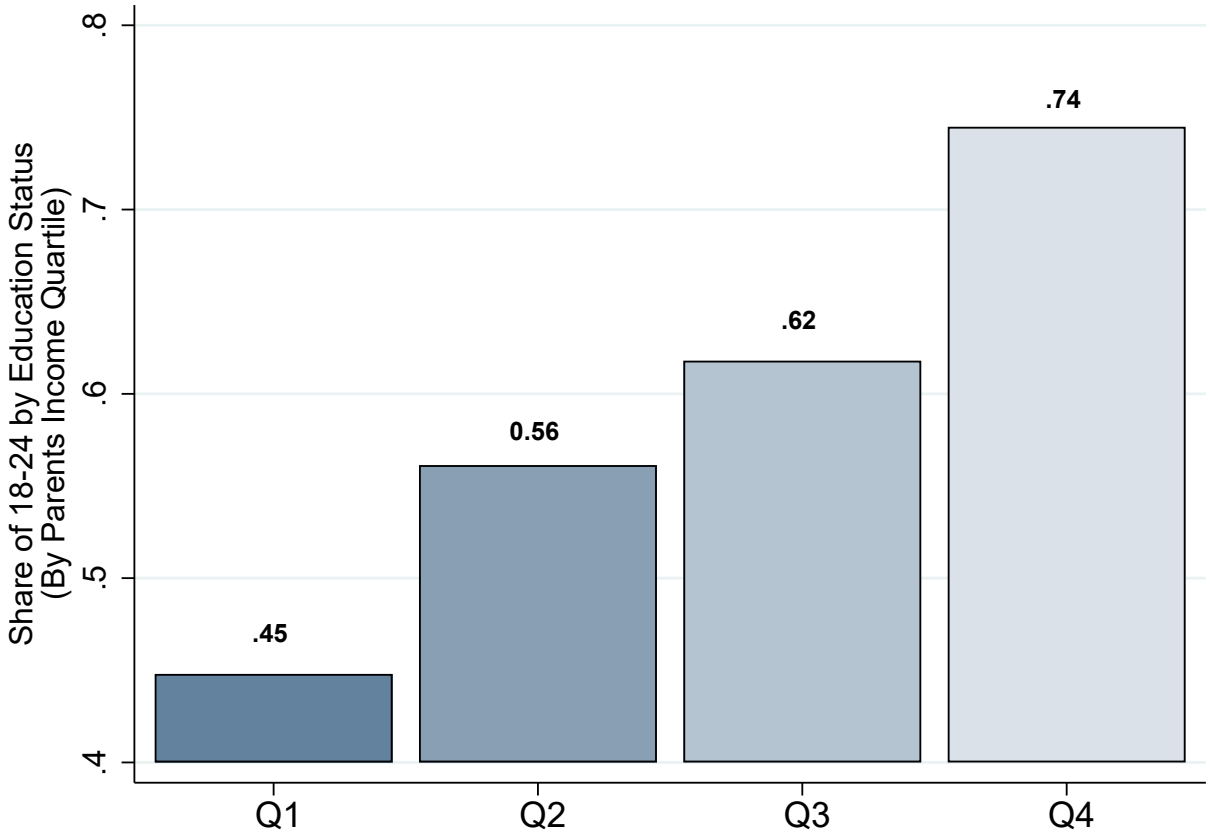
Motivation - Inequality

Figure: Share of 18-24 in Education



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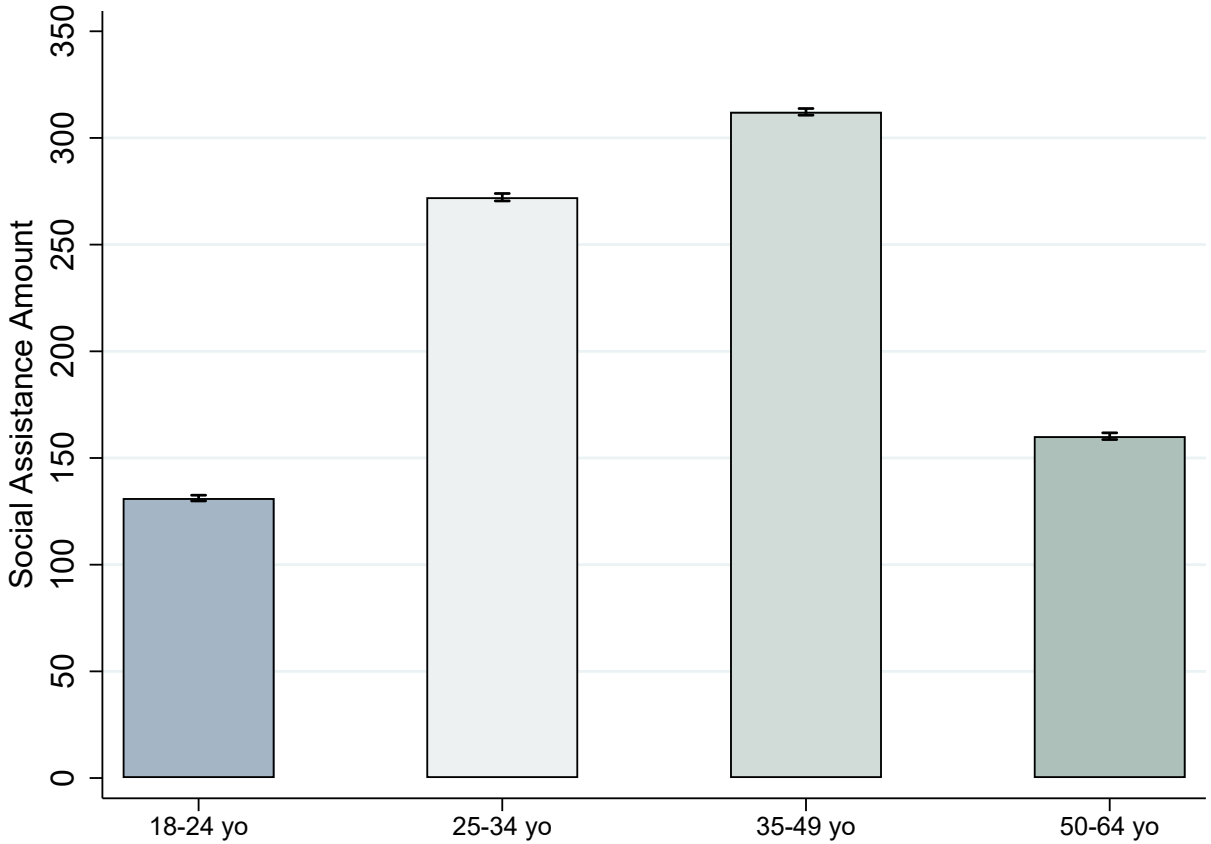
Motivation - Social Assistance

Figure: Social Assistance by Age



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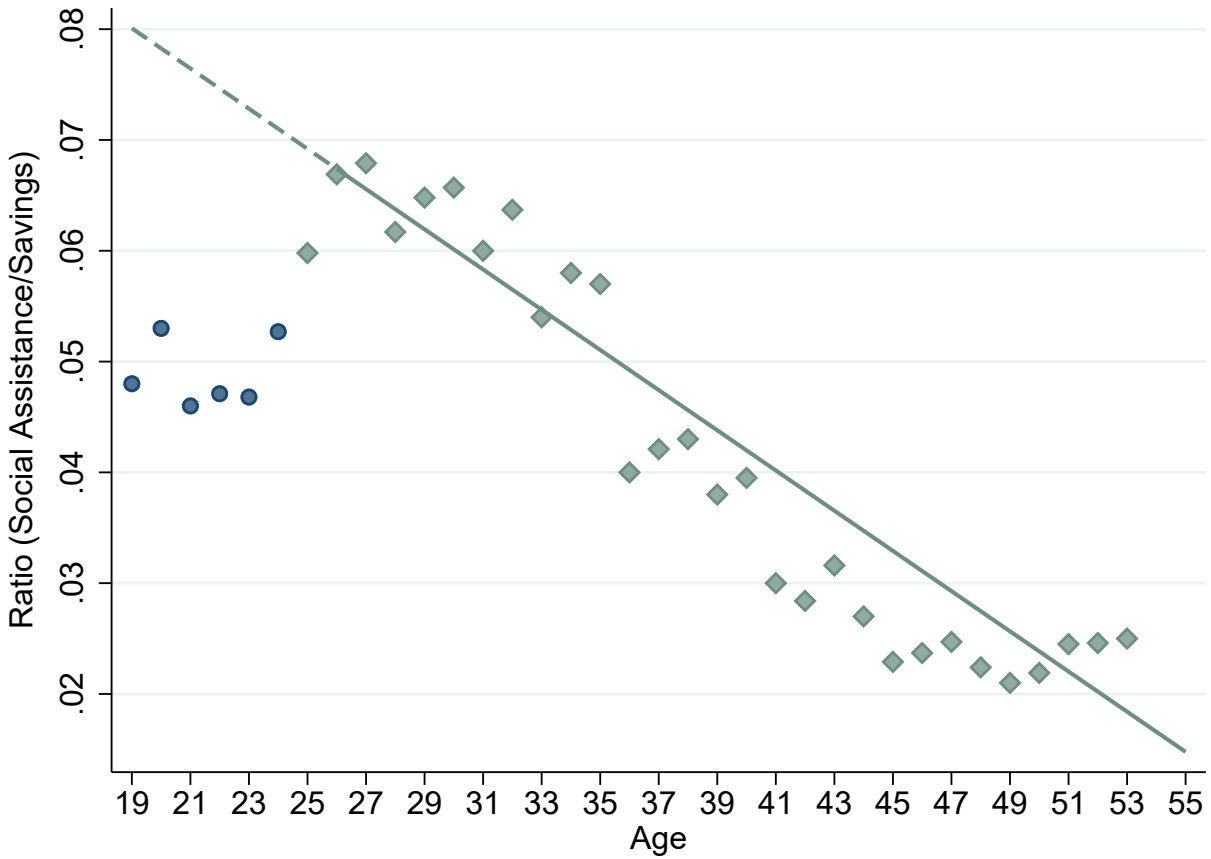
Motivation - Social Assistance

Figure: Ratio Social Assistnace by Savings by Age



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DID, MPC Computation

- **MPC Computation:**

$$C_{it} = \alpha_0 + \alpha_i + \gamma \mathbb{1}_{[t>t^*]} + \beta \text{Treated}_i \cdot \mathbb{1}_{[t>t^*]} + X_{it} + \varepsilon_{it}$$

$$MPC = \frac{\beta \cdot 5}{\text{Transfer Amount}}$$

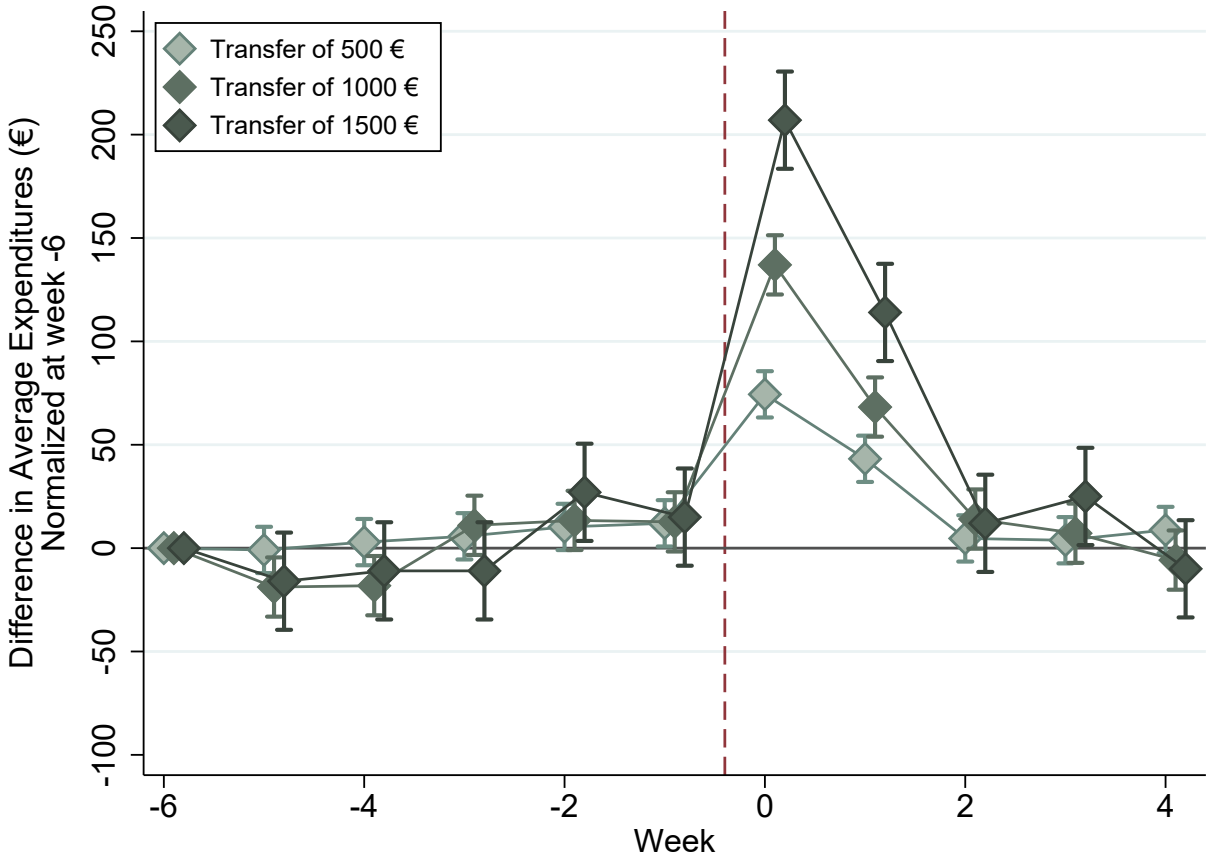
- **DID runs to plot graphs**

$$C_{it} = \alpha_0 + \alpha_i + \gamma \sum_{t \neq -1} Week_t + \beta \sum_{t \neq -1} Week_t \cdot \text{Treated}_i + X_{it} + \epsilon_{it}$$

C_{it} = Weekly consumption, t^* = Treatment week, X_{it} = Incoming transfer Back

MPC - Robustness

Figure: MPC by Amount of Transfer



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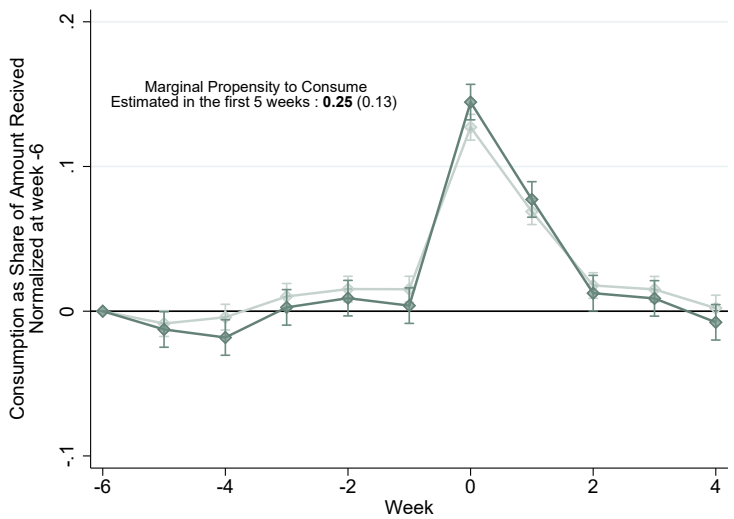
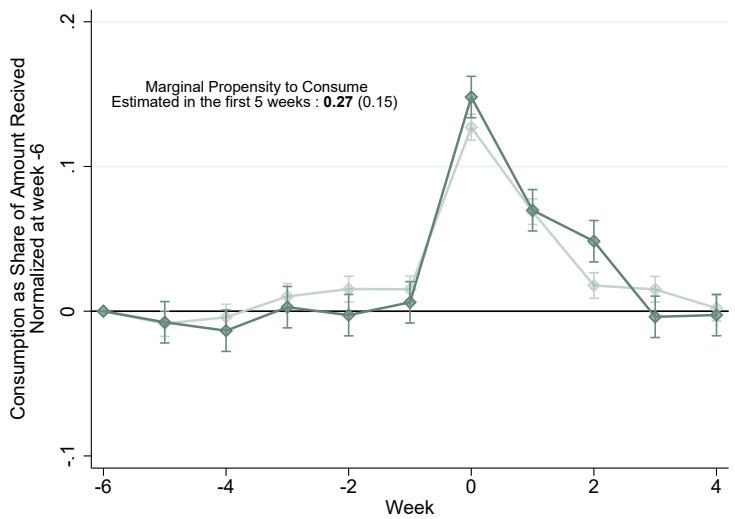
MPC - Robustness

Figure: MPC Parents Additional Year

(a) MPC 2019 (0.25)



(b) MPC 2021 (0.27)



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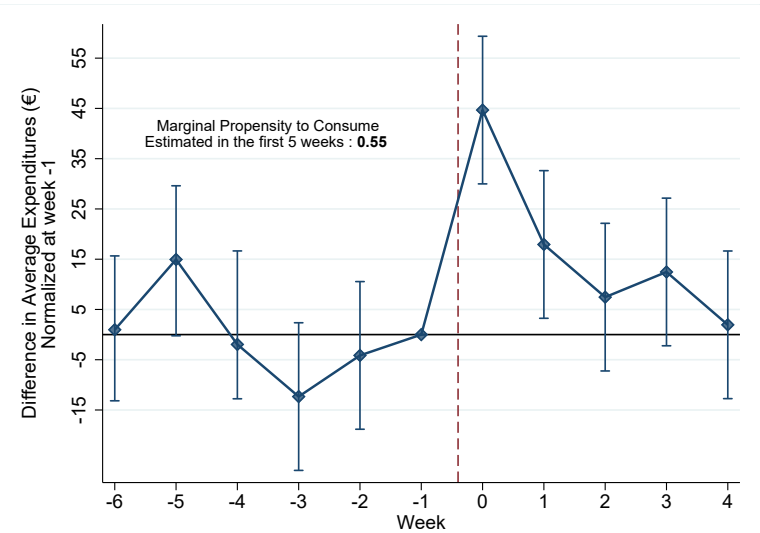
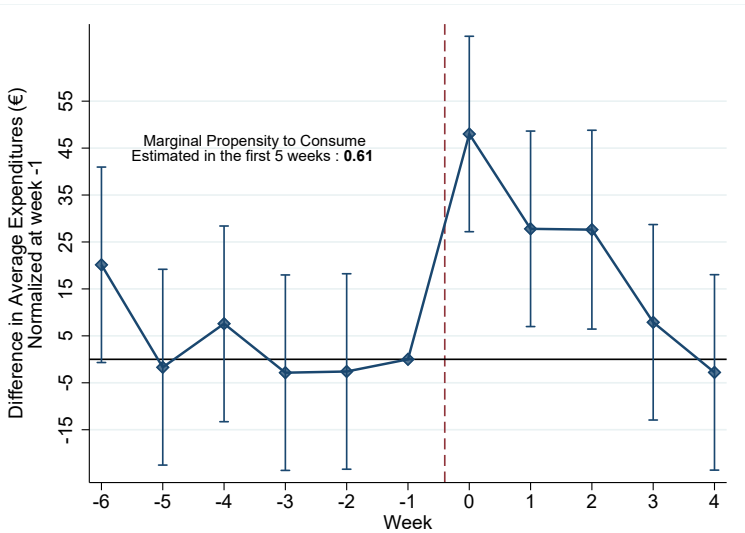
MPC Heterogeneity

(A) Workers (0.55)



(B) Students Grant (0.61)



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Crowding-Out - Scholarship

Table: OLS Estimates, Crowding-out of Scholarship

	(1)	(2)
1. Scolarship		
Scholarship Amount	-0.095***	**-0.085*** **
	(0.027)	(0.028)
Parent Ref Wage	0.0002***	0.2e-4
	(7e-5)	(0.7e-4)
2. Covariates		
Age		3.3
		(4.05)
Nb Siblings ¡18yo		-11.01**
		(4.3)
Gender		-19**
		(8.18)
Incoming Transfers Parents		0.0005***
		(0.8e-5)
Number of Observations	2,833	2,833

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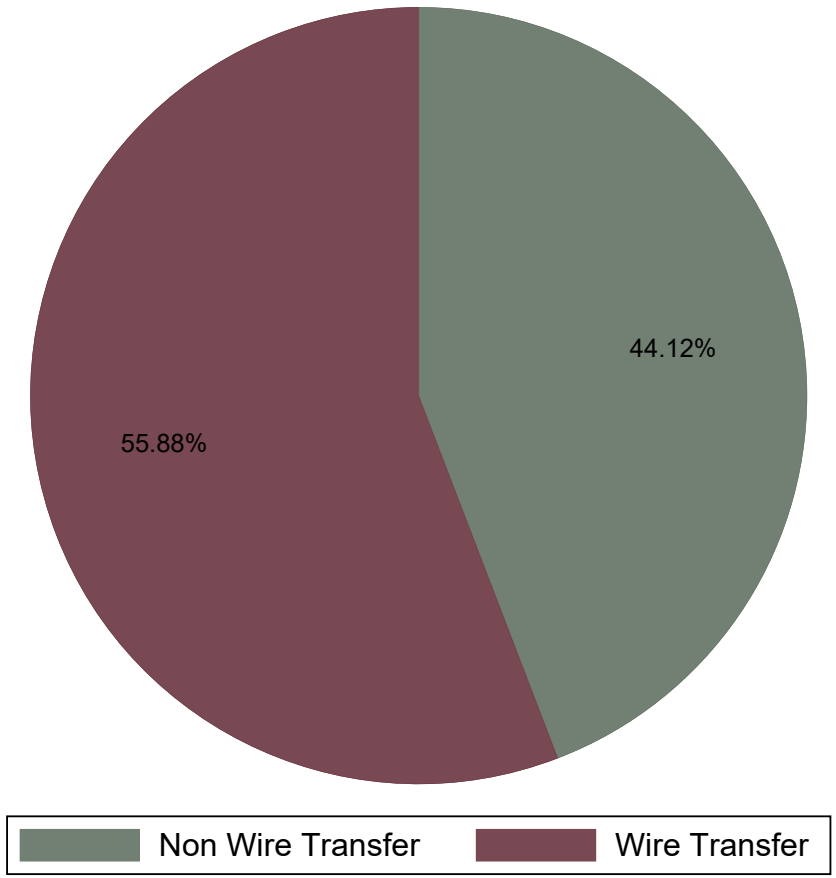
Non-Wire Transfer

Figure: Decomposition Parent's Assistance



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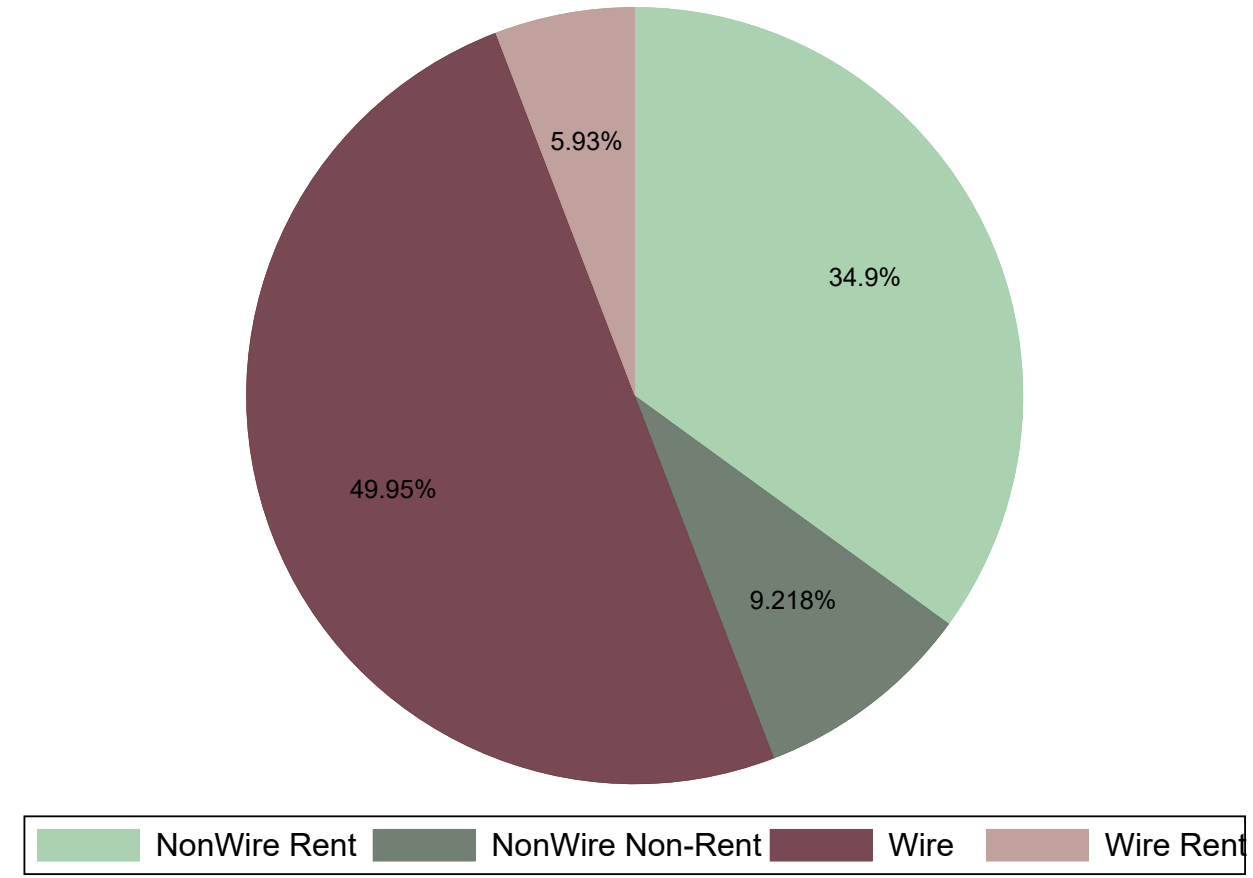

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Behavioural Responses - Estimates

Table: Estimates used

	Parameters	Estimates
1. Labor Supply		
Cesarini et al (2017)	Wealth elasticity	0.01
Hendren (2016)	Labor Supply FC	0.14
2. Education distortion		
Fack et Huillery (2021)	Return to education	0.10
Fack and Grenet	Education responses wrt b^e	0.07/1500
Blundell et al (2016)	Education responses wrt b^w	0.01/270

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