Perceptions of Circumstances vs. Effort in Education and the Demand for Redistribution: Evidence from a Survey Experiment

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EEA-ESEM Congress
August 25, 2022

Motivation

- Educational inequality is concern for policy-makers:
    - ▶ Circumstances out of individual's control determine educational achievement
      (e.g., Schuetz et al. 2008, Björklund and Salvanes 2011, OECD 2018)
    - ▶ Educational inequality → income inequality and intergenerational immobility
      (e.g., Corak 2013)
- Policy aim: Increase opportunities for children from disadvantaged families to mitigate the impact of family background
    - ▶ Preferences for governmental redistributive measures (e.g., Alesina et al. 2018; Hoy and Mager 2021)
    - ▶ Relationship b/w extent of inequality and demand for redistribution
        - Perceived fairness of outcomes and sources of inequality

Paper in a Nutshell

Research Question

How does information about educational inequality in Germany affect
- (i) fairness views
- (ii) demand for private *and* governmental redistribution

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Inform randomly selected treatment group about relationship between children's academic school attendance and their parents' socioeconomic status

Results

(i) Information about educational inequality strongly increases the view that mainly external circumstances determine educational success.

(ii) Information increases private donations to charities but does not affect support for equity-enhancing educational policies.

Related Literature

- Relationship b/w inequality and preferences for governmental redistribution
  - ▶ e.g., Piketty 1995; Bénabou and Ok 2001; Alesina and Giuliano 2011; Hvidberg et al. 2020
- Perceptions regarding fairness and sources of inequality as important factor
  - ▶ e.g., Alesina and Glaeser 2010; Bénabou and Tirole 2006; Alesina and Angeletos 2005, Alesina and La Ferrara 2005; Roth and Wohlfahrt 2018
- Shift in perceptions about extent of inequality & preferences for governmental redistribution
  - ▶ e.g., Cruces et al. 2013; Kuziemko et al. 2015; Karadja et al. 2017; Hoy and Mager 2021; Fehr et al. 2019; Alesina et al. 2018; Lergetporer et al. 2020
- Determinants of charitable giving
  - ▶ e.g., Côté et al. 2015; Duquette and Hargaden 2021; Payne and Smith 2015

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Our Contribution

- Outcomes: Private *and* public redistribution
- Information: *Educational* inequality

Data: ifo Education Survey 2019

- Survey of the German population on education policy
  - ▶ Respondents sampled and surveyed through online platform in May 2019
    - 2,094 (preferred sample)   ▸ Details
  - ▶ Follow-up survey roughly two weeks later: 80% recontact rate
  - ▶ Sample broadly representative of German population in terms of age, gender, region and household income   ▸ Microcensus
- Questions
  - ▶ Cover different topics of education policy
  - ▶ Roughly 30 questions + background information
 - ▶ Median completion time: 30 minutes

Sample Balance

|	Control group	Uncond. SES Gap		
	Mean	Mean	Difference	p-value
Age	53.18	52.95	-0.24	0.72
Female	0.52	0.55	0.03	0.20
Born in Germany	0.95	0.96	0.01	0.54
City size $> 10,000$	0.34	0.39	0.05	0.03
Partner in household	0.59	0.58	-0.01	0.64
Parent(s) with university degree	0.28	0.30	0.03	0.18
Highest educational attainment				
No degree/basic degree	0.23	0.24	0.01	0.71
Middle school degree	0.37	0.34	-0.03	0.15
Univ. entrance degree	0.40	0.42	0.02	0.29
Employment status				
Full-time	0.33	0.32	-0.01	0.78
Part-time	0.12	0.14	0.02	0.22
Self-employed	0.05	0.06	0.01	0.61
Unemployed	0.05	0.04	-0.01	0.32
Retired/Ill/etc	0.45	0.44	-0.01	0.72
Parent status	0.61	0.59	-0.02	0.44
Party preference				
CDU	0.17	0.19	0.01	0.46
SPD	0.18	0.15	-0.04	0.03
Grüne	0.14	0.16	0.01	0.47
Linke	0.10	0.10	0.00	0.86
FDP	0.06	0.05	-0.01	0.17
AfD	0.09	0.11	0.02	0.16
None	0.22	0.23	0.00	0.94
Other	0.02	0.02	0.01	0.22
Educ. Important for vote	0.70	0.72	0.02	0.26
General voting	0.87	0.87	0.00	0.94
Patience	6.51	6.35	-0.16	0.10
Risk tolerance	4.60	4.74	0.14	0.22
Monthly household income (€)	2556.21	2567.73	11.52	0.86
West Germany	0.79	0.80	0.01	0.52
Work in education sector	0.10	0.10	0.00	0.92
Trust in government	0.32	0.32	0.00	0.93

Information Treatment - Institutional Background

- Strong educational inequality in Germany in international comparison
- Pattern in academic school attendance rates:
  - 19 percent of 15-year-old children in lowest 50 percent of families, in terms of their social background and family income, attend a *Gymnasium* (highest track schools)
  - 49 percent of children in the highest 50 percent of families attend a *Gymnasium* (highest track schools)
    → resulting gap: 30 percentage points

Information Treatment

49 percent of schoolchildren from the better-off half of all families (in terms of social background and social background and family income) attend a Gymnasium. Among schoolchildren from the worse-off half of all families, the figure is 19 percent. This results in a difference of 30 percentage points.
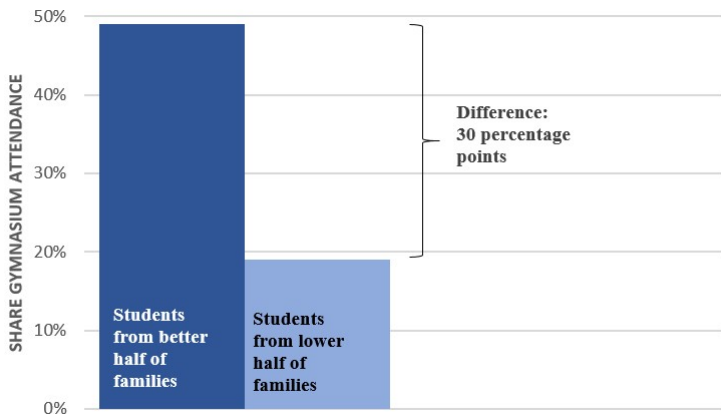
Experimental Setup
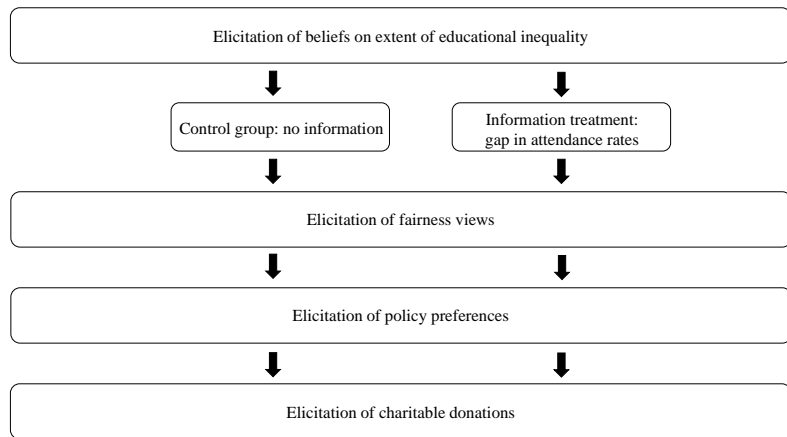
Empirical Strategy

$$y_i = \alpha_0 + \alpha_1 T_i^{uncond} + \delta' X_i + \epsilon_i \tag{1}$$

where:

- y_i is the outcome variable of interest for respondent i (i.e. fairness views or demand for redistribution)
- T_i^{uncond} indicates whether respondent i received information on the gap in *Gymnasium* attendance
    - α_1: unbiased estimates for the causal treatment effect of information provision
- X_i is a vector of control variables
- ϵ_i is the error term

Eliciting Fairness Views

- Degree to which individuals are responsive for their own economic success and the extent to which own effort (vs. external circumstances) pays off

- Q: *Some say that success in life depends primarily on one's own effort. Others say that success in life depends primarily on external circumstances. In your opinion, what determines whether one achieves the following in life?*
    - ○ mainly own effort
    - ○ rather own effort
    - ○ rather external circumstances
    - ○ mainly external circumstances

    ▶ Elicit these views for both *a high educational degree* as well as *a high income*

    ▶ Question

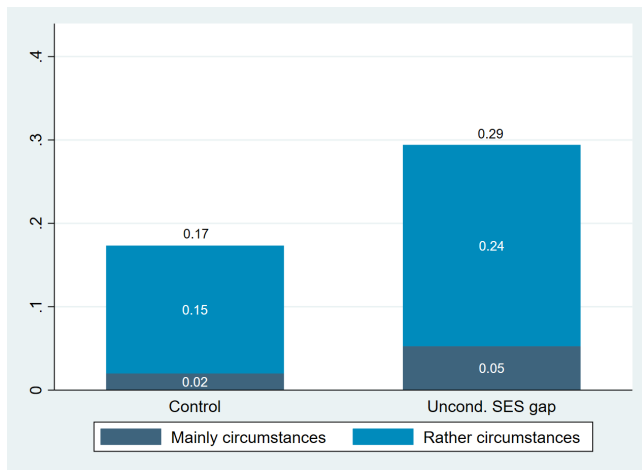# Results - Information Provision and Fairness Views

Figure 1: Effect on Fairness Views
(High Educational Degree)

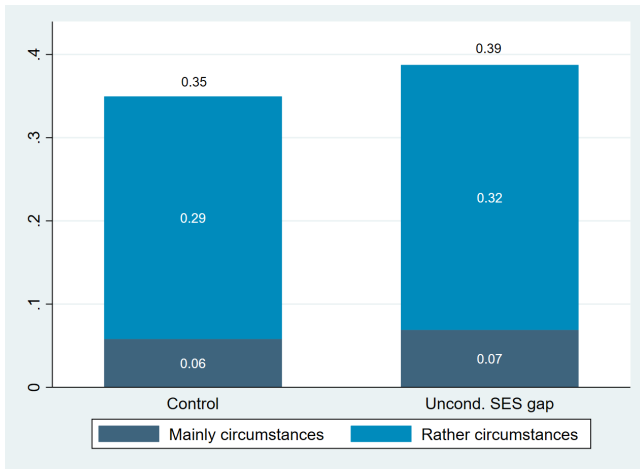# Results - Information Provision and Fairness Views

Figure 2: Effect on Fairness Views
(High Income)

Results - Persistence of Treatment Effects

	High educational degree	High income
	Perceived role of external circumstances	
	(4-point scale)	
	(1)	(2)
Uncond. SES gap	0.256***	0.052
	(0.039)	(0.042)
Follow-up	-0.017	-0.049*
	(0.029)	(0.030)
Uncond. SES gap × Follow-up	-0.183***	-0.036
	(0.040)	(0.043)
Covariates	Yes	Yes
Control mean	1.812	2.192
Observations	1671	1670
R-squared	0.063	0.042
Persistent treatment effects		
Uncond. SES gap + Uncond. SES gap × Follow-up	0.074**	0.016
	(0.035)	(0.040)

Notes: OLS regressions. Dependent variables: (1) external circumstances are decisive for high educational attainment (4-point scale), (2) external circumstances are decisive for high income (4-point scale). Control mean: mean of the outcome variable in the control group. Covariates include: age, female, born in Germany, West Germany, living in large city, risk, patience, parents with university education, income, current employment status, middle school degree, high school degree, partner living in household, parental status, work in education sector and imputation dummies. Sample: respondents who participated in the follow-up survey. Data source: ifo Education Survey 2019. Robust standard errors in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Prior Beliefs

- Misperception in prior beliefs about educational inequality: On average, Germans believe that
  - ... 71 percent of students from a more advantaged family attend the academic school (accurate value 49 percent)
  - ... 30 percent of students from a less advantaged family attend the academic school (accurate value 19 percent)
    $\rightarrow$ SES gap in academic school attendance: 41 percentage points on average (accurate value 30 percentage points)
  - $\rightarrow$ ex-ante unclear how respondents react due to misperceptions

  ▸ Distribution Beliefs

  ▸ Eliciting Beliefs

Results - Posterior Beliefs

	Belief: SES gap in academic school attendance		Belief: Academic school attendance high SES		Belief: Academic school attendance low SES	
	(1)	(2)	(3)	(4)	(5)	(6)
Uncond. SES gap	0.942	1.154	-0.869	-0.784	-1.811***	-1.938***
	(1.033)	(1.032)	(0.813)	(0.808)	(0.668)	(0.671)
Covariates	No	Yes	No	Yes	No	Yes
Control mean	38.689	38.689	68.957	68.957	30.268	30.268
Observations	1671	1671	1671	1671	1671	1671
R-squared	0.000	0.040	0.001	0.042	0.004	0.028

Notes: OLS regressions. Dependent variables: (1) - (6) respondents stated posterior belief as indicated in the table header. Control mean: mean of the outcome variable in the control group. See table 1 for included covariates, Data source: ifo Education Survey 2019. Sample: respondents in the follow-up survey. Robust standard errors in parentheses. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Eliciting Preferences for Redistribution (Private)

Individual donations to charities (*revealed preferences*)

- Respondents can donate any amount b/w 0 and 80 tokens to one or two charities
    - *Deutsches Kinderhilfswerk e.V.*
    - *Chancenstiftung*
    - *Deutsches Kinderhilfswerk e.V.* and *Chancenstiftung*

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▸ Question

	Average donations (1)	No donation (2)	Full donation (3)
Uncond. SES gap	3.267**	-0.093***	0.004
	(1.401)	(0.020)	(0.020)
Covariates	Yes	Yes	Yes
Control mean	37.499	0.338	0.303
Observations	2093	2093	2093
R-squared	0.061	0.056	0.046

Notes: OLS regressions. Dependent variables: (1) dummy variable coded one if amount of donation is 0, (2) amount of donations stated by respondents (in lifepoints), (3) dummy variable coded one if amount of donation is 80 (maximum possible share), (4) dummy coded one if amount of donation is above the median donation. Control mean: mean of the outcome variable in the control group. Covariates include: age, female, born in Germany, West Germany, living in large city, risk, patience, parents with university education, income, current employment status, middle school degree, high school degree, partner living in household, parental status, work in education sector and imputation dummies. Data source: ifo Education Survey 2019. Robust standard errors in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Eliciting Preferences for Redistribution (Public)

Policy aiming at equality of opportunity

- Ask whether survey participants *favor or oppose increased governmental spending for children from less advantaged families with the purpose of increasing equality of opportunity*
    - additional expenditures usually have to be financed through taxes

> Question

Eliciting Preferences for Redistribution (Public)

Policy aiming at equality of opportunity

- Ask whether survey participants *favor or oppose increased governmental spending for children from less advantaged families with the purpose of increasing equality of opportunity*

    - additional expenditures usually have to be financed through taxes

▶ Question

	Support inequality-reducing policies	Opposition inequality-reducing policies	Five-point scale
	(1)	(2)	(3)
Uncond. SES gap	-0.011	0.015	-0.005
	(0.019)	(0.015)	(0.043)
Covariates	Yes	Yes	Yes
Control mean	0.751	0.126	3.823
Observations	2094	2094	2094
R-squared	0.034	0.023	0.040

Notes: OLS regressions. Dependent variables: (1) dummy variable coded one if respondent is mainly/rather in favor of inequality-reducing policies, (2) dummy variable coded one if respondent is rather not/not at all in favor of inequality-reducing policies, (3) support for inequality-reducing policies (5 point scale from *strongly favor* to *strongly oppose*). Control mean: mean of the outcome variable in the control group. Covariates include: age, female, born in Germany, West Germany, living in large city, risk, patience, parents with university education, income, current employment status, middle school degree, high school degree, partner living in household, parental status, work in education sector and imputation dummies. Data source: ifo Education Survey 2019. Robust standard errors in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Results - Heterogeneity

- Potential explanations for why information treatment affect private redistribution, but not preferences for governmental redistribution
  - ▶ Partisan biases or political ideology ▶ Results
  - ▶ Trust in government ▶ Results
  - ▶ Policy effectiveness ▶ Results
  - ▶ Causal Forest ▶ Results

Conclusion

We find that

- ... information about the extent of educational inequality strongly increases the view that mainly external circumstances rather than effort determine educational success.

- ... effects persist into a follow-up survey conducted two weeks later.

- ... information also increases private donations to charities aiming at increasing equality of opportunity (*preferences for private redistribution*).

- ... information does not affect public support for equity-enhancing educational policies (*preferences for governmental redistribution*).

- ... political ideology, trust in government or doubts about policy effectiveness cannot explain the difference in treatment effects on charitable donations vs. policy preferences.

Thank you for your attention!

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Attention Check Question

Question asked half-way through the survey:

It sometimes happens that survey participants do not read individual questions accurately. To ensure that you read the questions accurately, we ask you to ignore the following question and enter the number twenty-two in the text field.

The German states are also responsible for universities and colleges. What do you think, how many currently have tuition fees?

While none of the 16 German states currently have tuition fees, only respondents who answered 22 were left in the final sample.

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Representativeness

	Microcensus		Analysis sample	
	(1)		(2)	
Age	50.764	(0.030)	52.725	(0.272)
Female	0.513	(0.001)	0.532	(0.009)
Living in West Germany (excl. Berlin)	0.801	(0.001)	0.795	(0.007)
Net household income above median	0.479	(0.001)	0.441	(0.009)
Educational attainment				
University entrance degree (Fachabitur/Abitur)	0.326	(0.001)	0.404	(0.009)
Middle school degree (Mittlere Reife)	0.299	(0.001)	0.360	(0.009)
No degree / basic degree	0.375	(0.001)	0.234	(0.008)
Working full-time	0.421	(0.001)	0.332	(0.009)
Observations	405,748		3,082	

Notes: Means; standard errors in parentheses. Column (1): all people aged 18 or older in the Microcensus 2015 (representative of the German population). Column (2): our analysis sample. Data sources: Microcensus 2015 and ifo Education Survey 2019.

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Eliciting Fairness Views

[Q24a] Manche sagen, dass Erfolg im Leben vor allem von eigener Anstrengung abhängt. Andere sagen, dass Erfolg im Leben vor allem von äußeren Umständen abhängt, die man selbst nicht beeinflussen kann.

Was entscheidet Ihrer Meinung nach darüber, ob man Folgendes im Leben erreicht?

	Hauptsächlich eigene Anstrengung	Eher eigene Anstrengung	Eher äußere Umstände	Hauptsächlich äußere Umstände
Einen hohen Bildungsabschluss	O	O	O	O
Ein hohes Einkommen	O	O	O	O

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Results - Information Provision and Fairness Views

	High Educational Degree		High Income	
	Perceived role of external circumstances	Perceived role of external circumstances	Perceived role of external circumstances	Perceived role of external circumstances
	(1)	(2)	(3)	(4)
Uncond. SES gap	0.121***	0.123***	0.038*	0.036*
	(0.018)	(0.018)	(0.021)	(0.021)
Covariates	No	Yes	No	Yes
Control mean	0.173	0.173	0.350	0.350
Observations	2094	2094	2093	2093
R-squared	0.020	0.060	0.002	0.040

Notes: OLS regressions. Dependent variables: (1) - (2) dummy variable coded one if respondent thinks that it is mainly/rather external circumstances that are decisive for high educational attainment, (3) - (4) dummy variable coded one if respondent thinks that it is mainly/rather effort that is decisive for high income. Control mean: mean of the outcome variable in the control group. Covariates include: age, female, born in Germany, West Germany, living in large city, risk, patience, parents with university education, income, current employment status, middle school degree, high school degree, partner living in household, parental status, work in education sector and imputation dummies. Data source: ifo Education Survey 2019. Robust standard errors in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

▶ Robustness Education   ▶ Robustness Income   ◀ back

Results - Information Provision and Fairness Views

	(1) 4-point scale	(2) Mainly external circumstances (dummy)	(3) Rather external circumstances (dummy)	(4) Rather effort (dummy)	(5) Mainly effort (dummy)
High educational degree					
Uncond. SES gap	0.257***	0.033***	0.090***	-0.023	-0.100***
	(0.035)	(0.008)	(0.017)	(0.022)	(0.020)
Covariates	Yes	Yes	Yes	Yes	Yes
Control mean	1.802	0.020	0.153	0.435	0.391
Observations	2094	2094	2094	2094	2094
R-squared	0.073	0.019	0.048	0.014	0.053

Notes: OLS regressions. Dependent variables: (1) external circumstances are decisive for high educational attainment (4 point scale), (2) dummy variable coded one if respondent thinks that it is mainly external circumstances that are decisive for high educational attainment, (3) dummy variable coded one if respondent thinks that it is rather external circumstances that are decisive for high educational attainment, (4) dummy variable coded one if respondent thinks that it is rather effort that is decisive for high educational attainment, (5) dummy variable coded one if respondent thinks that it is mainly effort that is decisive for high educational attainment. Control mean: mean of the outcome variable in the control group. Covariates include: age, female, born in Germany, West Germany, living in large city, risk, patience, parents with university education, income, current employment status, middle school degree, high school degree, partner living in household, parental status, work in education sector and imputation dummies. Data source: ifo Education Survey 2019. Robust standard errors in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

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Results - Information Provision and Fairness Views

	(1) 4-point scale	(2) Mainly external circumstances (dummy)	(3) Rather external circumstances (dummy)	(4) Rather effort (dummy)	(5) Mainly effort (dummy)
High income					
Uncond. SES gap	0.048	0.011	0.025	-0.023	-0.000
	(0.037)	(0.011)	(0.020)	(0.022)	(0.018)
Covariates	Yes	Yes	Yes	Yes	Yes
Control mean	2.181	0.058	0.291	0.424	0.227
Observations	2093	2093	2093	2094	2093
R-squared	0.042	0.018	0.026	0.014	0.029

Notes: OLS regressions. Dependent variables: (1) external circumstances are decisive for high income (4 point scale), (2) dummy variable coded one if respondent thinks that it is mainly external circumstances that are decisive for high income, (3) dummy variable coded one if respondent thinks that it is rather external circumstances that are decisive for high income, (4) dummy variable coded one if respondent thinks that it is rather effort that is decisive for high income, (5) dummy variable coded one if respondent thinks that it is mainly effort that is decisive for high income. Control mean: mean of the outcome variable in the control group. Covariates include: age, female, born in Germany, West Germany, living in large city, risk, patience, parents with university education, income, current employment status, middle school degree, high school degree, partner living in household, parental status, work in education sector and imputation dummies. Data source: ifo Education Survey 2019. Robust standard errors in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

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Eliciting Prior and Posterior Beliefs

- Respondent's information status at baseline: prior beliefs about extent of educational inequality
- Ask respondents about
    - Share of students from the more advantaged half of all families (in terms of social background and family income) who attend an academic school (*Gymnasium*)
    - Share of students from the less advantaged half of all families (in terms of social background and family income) who attend an academic school (*Gymnasium*)
- Same question to elicit posterior beliefs

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Eliciting Prior and Posterior Beliefs

[Q09] Denken Sie an einen Vergleich zwischen Kindern aus der besser und schlechter gestellten Hälfte aller Familien (in Bezug auf sozialen Hintergrund und familiäre Einkommensverhältnisse).

Alle Kinder in Deutschland

Kinder aus der **schlechter** gestellten Hälfte der **Familien**

Kinder aus der **besser** gestellten Hälfte der **Familien**

Was schätzen Sie, wie viel Prozent der Schülerinnen und Schüler aus der….

… **besser** gestellten Hälfte aller Familien besuchen ein **Gymnasium**? ….. Prozent

… **schlechter** gestellten Hälfte aller Familien besuchen ein **Gymnasium**? … Prozent
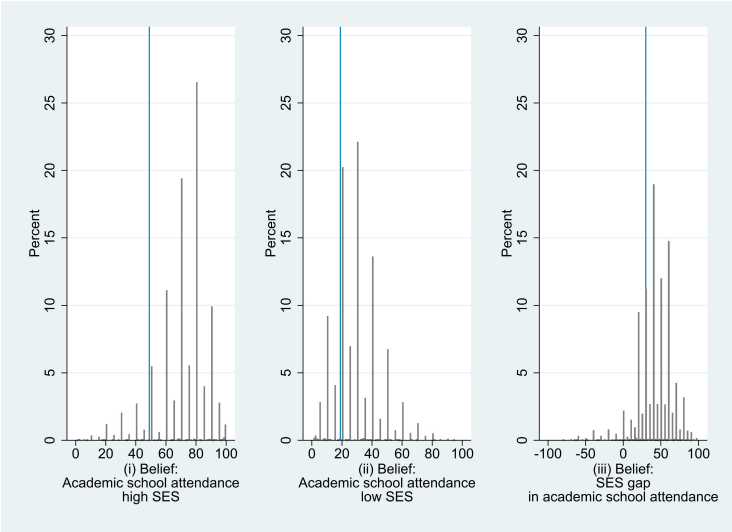
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Prior Beliefs

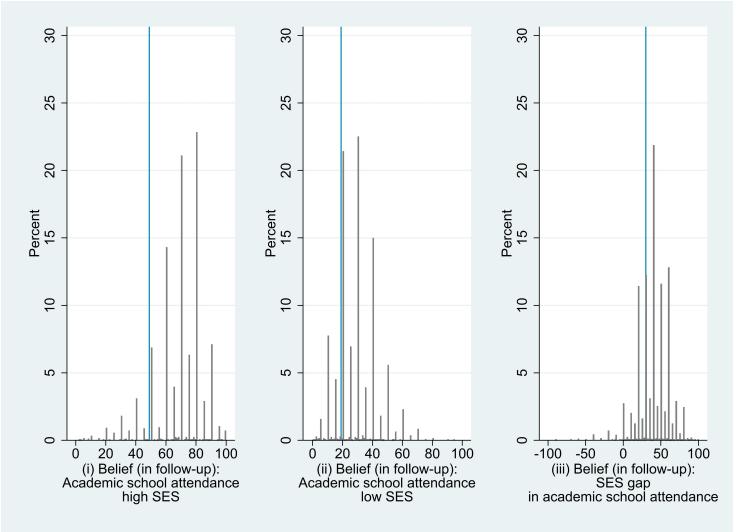Figure 3: Distribution of prior beliefs about educational inequality

Posterior Beliefs

Figure 4: Distribution of posterior beliefs about educational inequality

Eliciting Charitable Donations

Bei dieser Frage erhalten Sie **zusätzlich** zu den Lifepoints, die Sie für diese Umfrage bekommen, einen **Bonus von 80 Lifepoints**.

Sie haben die Möglichkeit, diese Lifepoints an zwei gemeinnützige Stiftungen zu spenden. Beide Stiftungen setzen sich unter anderem für bessere Chancen für Kinder aus schlechter gestellten Familien in Deutschland ein. Der Geldwert der von Ihnen gespendeten Lifepoints wird an die gemeinnützigen Stiftungen überwiesen. Die nicht gespendeten Lifepoints werden **Ihnen nach Abschluss der Befragung gutgeschrieben**.

Wie viele Ihrer 80 Lifepoints möchten Sie insgesamt spenden?

_____ Lifepoints

0 bedeutet, dass Sie nichts spenden möchten; 80 bedeutet, dass Sie alle zusätzlichen Lifepoints spenden möchten.

- o   An *Deutsches Kinderhilfswerk e.V.*
- o   An *Die Chancenstiftung*
- o   An *Deutsches Kinderhilfswerk e.V.* und *Die Chancenstiftung* zu gleichen Teilen

Klicken Sie hier, wenn Sie mehr über die beiden Stiftungen erfahren möchten.
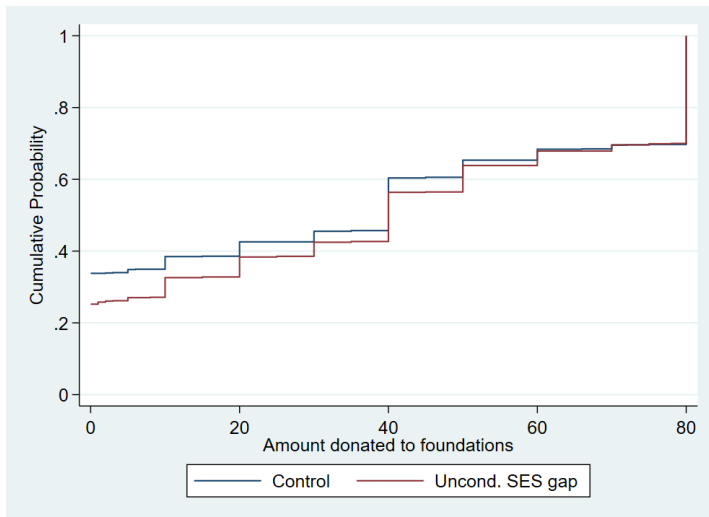
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Results - Private Donations to Charities

Figure 5: Distribution of charitable donations across information treatments

Eliciting Policy Preferences

Sind Sie dafür oder dagegen, mehr staatliche Mittel für Kinder aus schlechter gestellten Familien auszugeben, um die Chancengleichheit zu erhöhen?

Bitte denken Sie daran, dass die zusätzlichen Mittel oft durch Steuern finanziert werden müssen.

- ○ Ich bin sehr dafür
- ○ Ich bin eher dafür
- ○ Ich bin eher dagegen
- ○ Ich bin sehr dagegen
- ○ Ich bin weder dafür noch dagegen

Results - Heterogeneous Effects by Political Ideology

	(1)	(2)	(3)
	Perceived role of external circumstances (education)		
	(left-leaning)	(right-leaning)	(no attachment)
Uncond. SES gap	0.169***	0.079***	0.119***
	(0.030)	(0.029)	(0.037)
Covariates	No	No	No
Control mean	0.200	0.141	0.148
Observations	868	710	472
R-squared	0.035	0.011	0.021

Notes: OLS regressions. Dependent variables: (1) - (3) dummy variable coded one if respondent thinks that it is mainly/rather external circumstances that is decisive for high educational attainment. Control mean: mean of the dummy variable for the control group. See Table 1 for included covariates. Data source: ifo Education Survey 2019. Robust standard errors in parentheses. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

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Results - Heterogeneous Effects by Political Ideology

	(1)	(2)	(3)	(4)	(5)	(6)
	Average donations			Support inequality-reducing policies		
	(left-leaning)	(right-leaning)	(no attach-ment)	(left-leaning)	(right-leaning)	(no attach-ment)
Uncond. SES gap	3.424	2.847	1.453	-0.010	-0.014	0.013
	(2.218)	(2.444)	(2.983)	(0.024)	(0.035)	(0.044)
Covariates	No	No	No	No	No	No
Control mean	41.390	35.161	33.428	0.862	0.692	0.627
Observations	867	710	472	868	710	472
R-squared	0.002	0.002	0.006	0.000	0.000	0.001

Notes: OLS regressions. Dependent variables: (1) - (3) amount of donations stated by respondents (in lifepoints); (4) - (6) dummy variable coded one if respondent is mainly/rather in favor of inequality-reducing policies, Control mean: mean of the dummy variable for the control group. See Table 1 for included covariates. Data source: ifo Education Survey 2019. Robust standard errors in parentheses. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

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Results - Heterogeneous Effects by Trust in Government

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Perceived role of circumstances (high educ. degree)		Perceived role of circumstances (high income)		Average donations		Support inequality-reducing policies	
	(high trust)	(low trust)	(high trust)	(low trust)	(high trust)	(low trust)	(high trust)	(low trust)
Uncond. SES gap	0.131***	0.098***	0.021	0.074**	1.965	4.164*	-0.021	-0.003
	(0.022)	(0.032)	(0.026)	(0.036)	(1.739)	(2.470)	(0.024)	(0.031)
Covariates	No	No	No	No	No	No	No	No
Control mean	0.175	0.170	0.381	0.283	35.150	42.491	0.730	0.798
Observations	1422	672	1421	672	1421	672	1422	672
R-squared	0.024	0.014	0.000	0.006	0.001	0.004	0.001	0.000

Notes: OLS regressions. Dependent variables: (1) – (2) dummy variable coded one if respondent thinks that it is mainly/rather external circumstances that is decisive for high educational attainment; (3) – (4) dummy variable coded one if respondent thinkgs that it is mainly/rather external circumstances that is decisive for high income; (5) – (6) amount of donations stated by respondents (in lifepoints); (7) – (8) dummy variable coded one if respondent is mainly/rather in favor of inequality-reducing policies, Control mean: mean of the dummy variable for the control group. See Table 1 for included covariates. Data source: ifo Education Survey 2019. Robust standard errors in parentheses. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

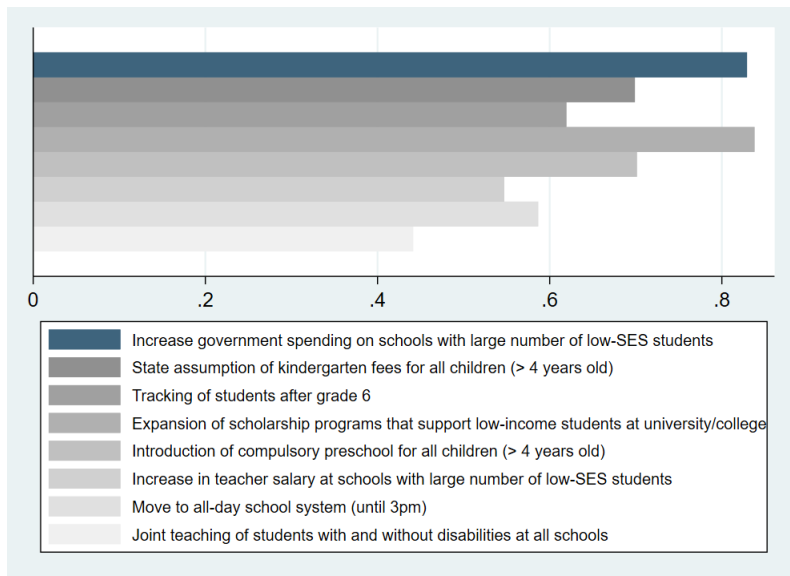◄ back

Policy Effectiveness

Figure 6: Suitability of reform proposal to increase equality of opportunity
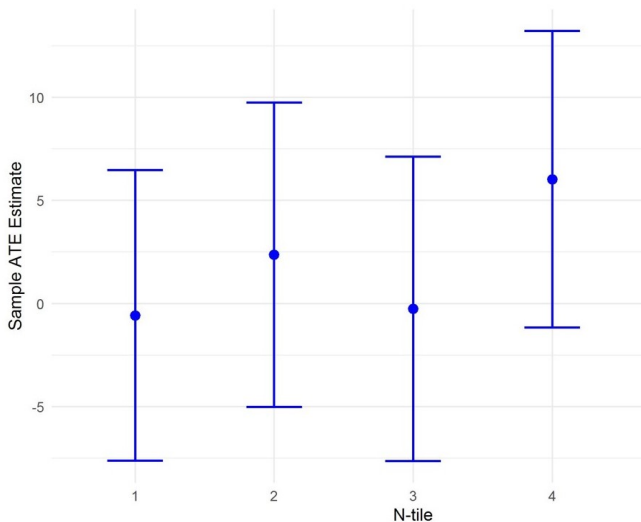
Results - Heterogeneity

Figure 7: ATE within N-tiles (as defined by predicted by CATE) - Average donations
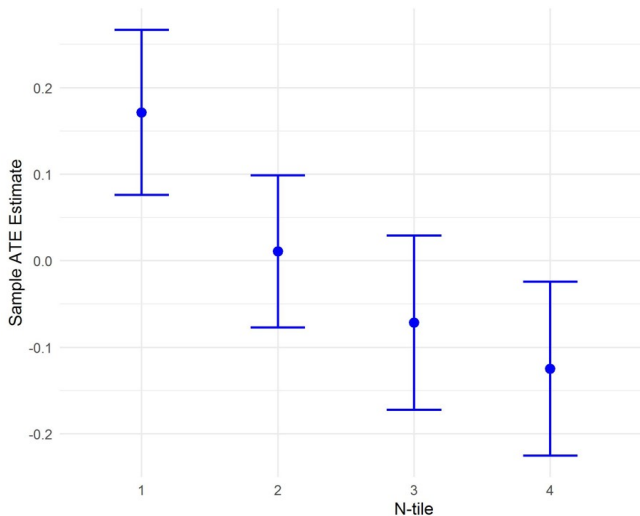
Results - Heterogeneity

Figure 8: ATE within N-tiles (as defined by predicted by CATE) - Policy preferences

Results - Heterogeneity

Table: Variable Importance

Donations	
Variable	
Monthly hh Income (€)	0.18
Patience	0.17
Age	0.17
Risk tolerance	0.10
City size ≥ 100,000	0.06
Retired/Ill/etc.	0.04
Univ. entrance degree	0.03
Parent(s) higher edu	0.03
Right leaning party	0.02
Female	0.02
Work in education sector	0.02
No party preference	0.02
Unemployed	0.02
Educ. important for vote	0.02
West Germany	0.01
Partner in household	0.01
General voting	0.01
Middle school degree	0.01
Trust in government	0.01
Parent status	0.01
Full-time employed	0.01
Left leaning party	0.01
Part-time employed	0.01
Self-employed	0.00
Born in Germany	0.00
No degree	0.00

Policy Preferences	
Variable	
Age	0.17
Patience	0.17
Monthly hh Income (€)	0.14
Risk tolerance	0.12
West Germany	0.05
Born in Germany	0.05
Full-time employed	0.03
Right leaning party	0.03
City size ≥ 100,000	0.03
No party preference	0.02
Educ. important for vote	0.02
Parent(s) higher edu	0.02
Part-time employed	0.02
Female	0.02
Partner in household	0.02
Parent status	0.02
General voting	0.01
Middle school degree	0.01
Trust in government	0.01
Retired/Ill/etc.	0.01
Univ. entrance degree	0.01
Unemployed	0.01
Left leaning party	0.01
Work in education sector	0.01
Self-employed	0.00
No degree	0.00

▶ Characteristics

Results - Heterogeneity (Policy Preferences)

Covariates	Ntile1	Ntile2	Ntile3	Ntile4	p-value (1 vs. 4)
Age	48.27	51.85	53.63	58.68	0.00
Risk tolerance	5.07	4.78	4.61	4.01	0.00
Patience	7.75	7.09	6.30	4.66	0.00
Monthly household income (€)	2.61	2.41	2.39	3.02	0.00

Covariates by Ntiles (Policy Preferences)

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