Online Appendix:
What Drives Overhead Aversion in Charity? Evidence from Field-Experimental Variation in Fundraising Costs

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Table A1: Baseline Characteristics (Suggested Amount Observed in Treatment Year)

	T0: Control	T1: Efficiency	T2: Impact	Difference T1 - T0	Difference T2 - T0
A: Full Sample					
Female	0.489	0.471	0.478	-0.019	-0.011
				(0.020)	(0.020)
Age	49.9	49.3	49.5	-0.566	-0.419
				(0.666)	(0.665)
Suggested Amount $\leq$ €10	0.441	0.438	0.439	-0.003	-0.002
				(0.020)	(0.020)
€25 $\leq$ Suggested Amount $\leq$ €50	0.449	0.455	0.452	0.007	0.003
				(0.020)	(0.020)
Suggested Amount $\geq$ €70	0.110	0.107	0.109	-0.004	-0.001
				(0.013)	(0.013)
Donated Amount	8.750	8.335	9.036	-0.415	0.286
				(0.837)	(0.870)
Makes Donation	0.253	0.235	0.245	-0.018	-0.009
				(0.017)	(0.018)
Number of Observations	1,204	1,228	1,193	2,432	2,397
B: Weakly Committed					
Female	0.479	0.456	0.472	-0.023	-0.007
				(0.022)	(0.022)
Age	47.3	46.9	46.7	-0.337	-0.549
				(0.664)	(0.661)
Suggested Amount $\leq$ €10	0.434	0.428	0.430	-0.006	-0.005
				(0.022)	(0.022)
€25 $\leq$ Suggested Amount $\leq$ €50	0.450	0.465	0.458	0.015	0.008
				(0.022)	(0.022)
Suggested Amount $\geq$ €70	0.116	0.106	0.112	-0.009	-0.004
				(0.014)	(0.014)
Donated Amount	3.048	2.602	2.826	-0.446	-0.221
				(0.513)	(0.581)
Makes Donation	0.106	0.098	0.080	-0.008	-0.025
				(0.013)	(0.013)
Number of Observations	1,004	1,034	973	2,038	1,977
C: Strongly Committed					
Female	0.540	0.546	0.505	0.006	-0.035
				(0.050)	(0.049)
Age	62.9	61.9	61.5	-0.982	-1.393
				(1.767)	(1.716)
Suggested Amount $\leq$ €10	0.475	0.490	0.482	0.015	0.007
				(0.050)	(0.049)
€25 $\leq$ Suggested Amount $\leq$ €50	0.440	0.402	0.423	-0.038	-0.017
				(0.050)	(0.048)
Suggested Amount $\geq$ €70	0.085	0.108	0.095	0.023	0.010
				(0.030)	(0.028)
Donated Amount	37.375	38.892	36.500	1.517	-0.875
				(3.011)	(2.853)
Makes Donation	0.995	0.969	0.973	-0.026	-0.022
				(0.013)	(0.012)
Number of Observations	200	194	220	394	420

Notes: The table displays means of potential donors' baseline characteristics, together with estimated differences in means and corresponding standard errors in parentheses. The sample consists of all potential donors for whom income is observed both in the baseline and the treatment year. Source: Authors' calculations.

Table A2: Comparability of Protestants to General Population

	Single Filers			Joint Filers		
	All Filers	Protestant Filers	Non-Church Members	All Filers	Protestant filers	Non-Church Members
Female	0.474	0.526	0.428	0.500	0.500	0.500
Age	42.8	44.0	42.4	48.2	48.8	47.4
# Child Allowances	0.3	0.3	0.4	1.1	1.1	0.9
Taxable Income (€)	30,425	28,153	33,482	54,795	54,527	55,064
Has Wage Income	0.859	0.858	0.850	0.931	0.928	0.945
Has Capital Income	0.190	0.219	0.153	0.192	0.211	0.149
Has Business Income	0.039	0.033	0.046	0.066	0.066	0.059
Amount Donated (€)	140.0	136.5	144.0	286.8	289.8	305.7

Notes: This table shows the mean characteristics for three groups of income tax filers in Germany, separately for single and joint filing: All filers, Protestants, and non-church members. "Amount donated" is the overall amount of charitable donations (religious and non-religious causes). Source: Personal income statistics, 2007.

Table A3: Probit Regression for Prediction of Donor Type

Dependent Variable:	Donor Strongly Committed in Treatment Year t
Donor Strongly Committed in $t-1$	0.306***
	(0.041)
Donor Strongly Committed in $t-2$	0.312***
	(0.042)
Female	0.058***
	(0.015)
Second Age Quartile	0.000
	(0.026)
Third Age Quartile	0.024
	(0.027)
Fourth Age Quartile	0.071***
	(0.031)
Parish Dummies	YES
Suggested Amount Dummies	YES
Further Controls	YES
Number of Observations	1,194

Notes: The table reports average individual marginal effects from the Probit regression that predicts individual types in the treatment year. As further controls, we include dummy variables for individuals (separately for both baseline years) for whom income is not observed. We run the regression only on individuals in the no-intervention group. Standard errors in parentheses. ***, **, * denote significance level at 1, 5, 10 percent level, respectively. Source: Authors' calculations.

Table A4: Entropy-Reweighted Estimations of Treatment Effects

	Donation Exceeds Suggested Amount (1)	Makes Donation (2)	Donated Amount (3)
A: Non-Interacted Model			
Efficiency	0.065**	−0.013	1.711
	(0.026)	(0.022)	(1.194)
Impact	0.010	0.005	0.956
	(0.025)	(0.022)	(1.170)
Efficiency = Impact	0.030	0.421	0.543
B: Interacted Model			
Efficiency	0.009	−0.010	−0.502
	(0.008)	(0.010)	(0.509)
Impact	−0.001	−0.020**	−0.392
	(0.008)	(0.010)	(0.505)
Efficiency×Strongly Committed	0.133***	0.012	5.281**
	(0.051)	(0.041)	(2.446)
Impact×Strongly Committed	0.012	0.016	1.328
	(0.048)	(0.042)	(2.417)
Strongly Committed	0.206***	0.603***	23.221***
	(0.036)	(0.033)	(1.850)
Efficiency + Efficiency×Strongly Committed = 0	0.004	0.956	0.044
Impact + Impact×Strongly Committed = 0	0.810	0.925	0.689
Number of Observations	3,625	6,433	6,433
Mean Outcome in Control Group	0.066	0.185	€6.36
Controls for Strata Variables	YES	YES	YES

Notes: The table reports a robustness test of the findings for the interacted model in Table 3 in the paper. Results for the non-interacted model are only reported for completeness. Using entropy weights, we adjust the income distribution in the subsample of strongly committed types to the income distribution of weakly committed types. All regressions include a full set of controls for strata variables. Standard errors (SEs) in parentheses. Panel A: SEs are Huber-White robust. Panel B: SEs are bootstrapped. ***, **, * denote significance level at 1, 5, 10 percent level, respectively. The lines with hypothesis tests (Panel A and Panel B) report p-values. Source: Authors' calculations.

Table A5: Treatment Effects Using Identical Sample for All Regressions

	Donation Exceeds Suggested Amount (1)	Makes Donation (2)	Donated Amount (3)
A: Non-Interacted Model			
Efficiency	0.027***	−0.007	0.017
	(0.010)	(0.015)	(0.743)
Impact	0.007	−0.010	−0.214
	(0.010)	(0.015)	(0.749)
Efficiency = Impact	0.048	0.842	0.756
B: Interacted Model			
Efficiency	0.008	−0.011	−0.634
	(0.008)	(0.014)	(0.575)
Impact	−0.001	−0.036***	−1.083*
	(0.007)	(0.013)	(0.582)
Efficiency×Strongly Committed	0.134***	0.059	5.278*
	(0.049)	(0.047)	(3.048)
Impact×Strongly Committed	0.018	0.077	2.205
	(0.047)	(0.047)	(2.934)
Strongly Committed	0.221***	0.578***	23.044***
	(0.034)	(0.037)	(2.236)
Efficiency + Efficiency×Strongly Committed = 0	0.003	0.287	0.116
Impact + Impact×Strongly Committed = 0	0.708	0.358	0.691
Number of Observations	3,625	3,625	3,625
Mean Outcome in Control Group	0.066	0.185	€6.36
Controls for Strata Variables	YES	YES	YES

Notes: The table reports the results of OLS regressions to evaluate the effects of the efficiency and the impact treatments relative to the control group. For each outcome considered, the table separately reports a regression of the non-interacted model (Panel A) and the interacted model (Panel B). For all regression, we restrict the sample to the subpopulation for whom we observe the suggested donation amount in the baseline and in the treatment year. The estimations in Columns (1) is identical to the estimations reported in Table 3 in the paper and is reported only for completeness. All regressions include a full set of controls for strata variables. Standard errors (SEs) in parentheses. Panel A: SEs are Huber-White robust. Panel B: SEs are bootstrapped. ***, **, * denote significance level at 1, 5, 10 percent level, respectively. The lines with hypothesis tests (Panel A and Panel B) report *p*-values. Source: Authors' calculations.

Table A6: Robustness of Responses to Changes in Fundraising Efficiency and Impact to Inclusion of Individuals from Households with More than One Church Member

	Donation Exceeds Suggested Amount (1)	Makes Donation (2)	Donated Amount (3)
A: Non-Interacted Model			
Efficiency	0.030***	−0.011	0.300
	(0.010)	(0.010)	(0.510)
Impact	0.010	−0.010	0.088
	(0.009)	(0.010)	(0.500)
Efficiency = Impact	0.037	0.901	0.685
B: Interacted Model			
Efficiency	0.009	−0.007	−0.450
	(0.007)	(0.009)	(0.401)
Impact	0.004	−0.012	−0.240
	(0.006)	(0.009)	(0.403)
Efficiency×Strongly Committed	0.144***	−0.001	6.778***
	(0.047)	(0.037)	(2.478)
Impact×Strongly Committed	0.012	−0.007	1.470
	(0.044)	(0.037)	(2.295)
Strongly Committed	0.225***	0.616***	22.360***
	(0.032)	(0.028)	(1.713)
Efficiency + Efficiency×Strongly Committed = 0	0.001	0.826	0.009
Impact + Impact×Strongly Committed = 0	0.704	0.588	0.583
Number of Observations	4,130	7,415	7,415
Mean Outcome in Control Group	0.061	0.180	€6.19
Controls for Strata Variables	YES	YES	YES

Notes: The table reports the results of OLS regressions to evaluate the effects of the efficiency and the impact treatments relative to the control group. We include all individuals (i.e. we do not exclude individuals living in households with more than one adult church member). For each outcome considered, the table separately reports a regression of the non-interacted model (Panel A) and the interacted model (Panel B). All regressions include a full set of controls for strata variables (based on age, gender, the suggested donation amount in the baseline including an indicator for missing values, and parish fixed effects). Standard errors (SEs) in parentheses. Panel A: SEs are Huber-White robust. Panel B: SEs are bootstrapped. ***, **, * denote significance level at 1, 5, 10 percent level, respectively. The lines with hypothesis tests (Panel A and Panel B) report *p*-values. Source: Authors' calculations.

Table A7: Robustness of Responses to Changes in Fundraising Efficiency and Impact to Inclusion of Households with More than One Church Member (Household-level Aggregates)

	Donation Exceeds Suggested Amount (1)	Makes Donation (2)	Donated Amount (3)
Efficiency	0.001	−0.012	−0.621
	(0.005)	(0.009)	(0.352)
Impact	−0.000	−0.021**	−0.644*
	(0.005)	(0.008)	(0.366)
Efficiency×Strongly Committed	0.134***	0.019	5.767**
	(0.044)	(0.035)	(2.405)
Impact×Strongly Committed	0.016	0.030	2.593
	(0.042)	(0.034)	(2.263)
Strongly Committed	0.279***	0.604***	22.314***
	(0.030)	(0.025)	(1.593)
Efficiency + Efficiency×Strongly Committed = 0	0.002	0.829	0.031
Impact + Impact×Strongly Committed = 0	0.698	0.783	0.383
Number of Observations	3,687	6,588	6,588
Mean Outcome in Control Group	0.067	0.186	€6.47
Controls for Strata Variables	NO	NO	NO

Notes: The table reports the results of OLS regressions of the interacted model. We aggregate donations and suggested amounts in households with more than one church member. In contrast to Table 3 in the paper, donor types are not predicted by a probit regression, but determined by a simple heuristic (see paper for details). We do not include control variables, except for parish controls, because controls for gender and age cannot easily be constructed on an aggregated household level. Huber-White robust standard errors in parentheses. ***, **, * denote significance level at 1, 5, 10 percent level, respectively. The lines with hypothesis tests report *p*-values. Source: Authors' calculations.

Table A8: Interacted Model Using Heuristic Definition of Donor Types

	Donation Exceeds Suggested Amount (1)	Makes Donation (2)	Donated Amount (3)
Efficiency	0.002	−0.013	−0.653*
	(0.005)	(0.009)	(0.360)
Impact	0.000	−0.022***	−0.629*
	(0.005)	(0.008)	(0.363)
Efficiency×Strongly Committed	0.132***	0.023	5.490**
	(0.043)	(0.035)	(2.201)
Impact×Strongly Committed	0.021	0.048	3.147
	(0.041)	(0.034)	(2.096)
Strongly Committed	0.239***	0.558***	21.522***
	(0.029)	(0.026)	(1.526)
Efficiency + Efficiency×Strongly Committed = 0	0.002	0.759	0.026
Impact + Impact×Strongly Committed = 0	0.612	0.441	0.223
Number of Observations	3,625	6,433	6,433
Mean Outcome in Control Group	0.066	0.185	€6.36
Controls for Strata Variables	YES	YES	YES

Notes: The table reports the results of OLS regressions of the interacted model. In contrast to Table 3 in the paper, donor types are not predicted by a probit regression, but determined by a simple heuristic (see paper for details). All regressions include a full set of controls for strata variables. Huber-White robust standard errors in parentheses. ***, **, * denote significance level at 1, 5, 10 percent level, respectively. The lines with hypothesis tests report p-values. Source: Authors' calculations.

Table A9: Treatment Effect Estimations without Strata Controls

	Donation Exceeds Suggested Amount	Makes Donation	Donated Amount
	(1)	(2)	(3)
A: Non-Interacted Model			
Efficiency	0.027**	−0.009	0.347
	(0.011)	(0.012)	(0.580)
Impact	0.006	−0.009	0.098
	(0.010)	(0.012)	(0.569)
Efficiency = Impact	0.063	0.999	0.675
B: Interacted Model			
Efficiency	0.008	−0.009	−0.469
	(0.008)	(0.010)	(0.425)
Impact	−0.001	−0.019**	−0.493
	(0.007)	(0.010)	(0.430)
Efficiency×Strongly Committed	0.135***	0.018	6.414**
	(0.051)	(0.040)	(2.812)
Impact×Strongly Committed	0.016	0.016	2.084
	(0.048)	(0.040)	(2.652)
Strongly Committed	0.263***	0.638***	22.681***
	(0.035)	(0.031)	(1.980)
Efficiency + Efficiency×Strongly Committed = 0	0.004	0.801	0.030
Impact + Impact×Strongly Committed = 0	0.749	0.937	0.536
Number of Observations	3,625	6,433	6,433
Mean Outcome in Control Group	0.066	0.185	€6.36
Controls for Strata Variables	NO	NO	NO

Notes: The table reports the results of OLS regressions to evaluate the effects of the efficiency and the impact treatments relative to the control group. For each outcome considered, the table separately reports a regression of the non-interacted model (Panel A) and the interacted model (Panel B). No controls for strata variables included. Standard errors (SEs) in parentheses. Panel A: SEs are Huber-White robust. Panel B: SEs are bootstrapped. ***, **, * denote significance level at 1, 5, 10 percent level, respectively. The lines with hypothesis tests (Panel A and Panel B) report p-values. Source: Authors' calculations.

Evangelical-Lutheran Church District of < Place >

Evangelical-Lutheran Church District of < Place >, Address

Mr/Mrs
First Name and Family Name
Street
Zip Code and City

< Place >, Date

NOTICE ON CHURCH CONTRIBUTION 2016

Dear Mr/Mrs [addressee's family name],

Based on the state law regulating the church tax, the Evangelical-Lutheran Church District of < Place > raises a local church contribution for the year 2016. The local church contribution forms part of the general church tax and is therefore a compulsory payment. It serves as a local levy to finance parish expenditures.

< Additional paragraph on reduction of overhead >

The local church contribution is staggered according to income. Please self-assess your income using the adjoining schedule and transfer your contribution within a month's time. Please use the attached bank transfer form when making your payment. This helps us to identify your payment.

In the accompanying leaflet, you will find further information on how the local church contributions are spent. We very much appreciate your cooperation.

With kind regards,
Your Church District Administration in < Place >

See back of this page for legal advice. In case of questions, please contact < phone number >.

Yearly Income or Benefits in Euro	Local Church Contribution in Euro
Up to Exemption Level (8,652)	-
8,653 to 9.999	5
10,000 to 24,999	10
25,000 to 39,999	25
40,000 to 54,999	45
55,000 to 69,999	70
70,000 and above	100

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< Bank transfer form, pre-filled with church's bank account number, the church member's name, and donor ID >