Appendix A. Additional Tables and Figures

Table A.1. Experiment Validation

	Mean in automatic enrollment (1)	Mean in self targeting (2)	No stratum fixed effect (3)	With stratum fixed effect (4)
Log Per Capita Consumption	13.112	13.105	-0.007	-0.001
	(0.228)	(0.251)	(0.024)	(0.021)
Years of education: household head	7.440	7.329	-0.112	-0.083
	(2.203)	(2.055)	(0.213)	(0.167)
PMT score	12.798	12.796	-0.002	0.003
	(0.228)	(0.251)	(0.024)	(0.019)
Percentage of households in agriculture	0.073	0.071	-0.002	-0.004
	(0.068)	(0.063)	(0.007)	(0.005)
Years of education: hamlet head	8.307	8.181	-0.074	-0.105
	(3.697)	(3.334)	(0.182)	(0.311)
Log of number of households in hamlet	4.227	4.241	-0.126	0.031
	(0.520)	(0.468)	(0.353)	(0.045)
Distance to kec	7.434	6.404	-1.031	-1.038
	(21.919)	(8.184)	(1.654)	(1.615)
Log of village size	4.038	3.925	-0.113	-0.129*
	(1.574)	(1.476)	(0.153)	(0.067)
Religious building per household	0.005	0.005	0.000	-0.000
	(0.003)	(0.003)	(0.000)	(0.000)
Primary school per household	0.003	0.003	-0.000	-0.000
	(0.001)	(0.002)	(0.000)	(0.000)
Observations	200	200	400	400
Joint significance test (chi squared):			2.49	7.58
p-value			0.99	0.67

Notes: This table provides mean baseline characteristics (chosen before the data was obtained) for the automatic enrollment (Column 1) and self-targeting (Column 2) treatments. Differences between the treatments, without and with strata fixed effects, are provided in Columns 3 and 4, respectively. Columns 3 and 4 also obtain the p-value from a joint test across all characteristics. *** p<0.01, ** p<0.05, * p<0.1

TABLE A.2. Probability of Showing Up as a Function of the Observed and Unobserved Components of Baseline Log Per Capita Consumption (OLS)

	Showed up		
	All	Very poor	Not very poor
	(1)	(2)	(3)
Observable consumption ($X_i'\beta$)	-0.415***	-0.182	-0.417***
	(0.031)	(0.435)	(0.030)
Unobservable consumption (ε_i)	-0.169***	-0.357**	-0.164***
	(0.025)	(0.171)	(0.025)
Observations	2,000	72	1,928
Mean of dependent variable	0.377	0.653	0.367

Notes: OLS version of Table 3. Very poor is defined as being eligible for the program based on PMT score. Each column shows an OLS regression of show up rates on PMT score and epsilon. Robust standard errors, clustered at the village level, shown in parentheses *** p<0.01, ** p<0.05, * p<0.1

TABLE A.3. Factors Predicting Show Up (Logit)

	Show Up							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: All Households								
PMT Score	-1.807***	-2.172***	-2.216***	-1.709***	-2.210***	-2.224***	-2.179***	-1.545***
	(0.215)	(0.199)	(0.201)	(0.210)	(0.199)	(0.201)	(0.222)	(0.237)
Epsilon	-0.721***	-0.852***	-0.905***	-0.814***	-0.911***	-0.905***	-0.906***	-0.626***
	(0.139)	(0.139)	(0.136)	(0.132)	(0.136)	(0.135)	(0.136)	(0.138)
Self-perceived wealth	-0.606***							-0.510***
	(0.065)							(0.067)
# of comm. activities		-0.120**						-0.081
		(0.058)						(0.060)
Hrs weekly on comm. activities		-0.008						-0.007
		(0.006)						(0.006)
Closely related to vill leader			-0.230					0.176
			(0.535)					(0.585)
Has received raskin				1.051***				0.973***
				(0.224)				(0.245)
Has received askeskin				0.385***				0.325**
				(0.128)				(0.126)
Has received BLT				0.523***				0.412***
				(0.131)				(0.132)
# negative income shocks					0.024			-0.025
					(0.072)			(0.076)
Widow						0.670**		0.469
						(0.296)		(0.298)
HH head years education							-0.007	0.024
							(0.017)	(0.018)
Observations	1,999	2,000	2,000	2,000	2,000	2,000	2,000	1,999
Dependent Var. Mean	0.377	0.377	0.377	0.377	0.377	0.377	0.377	0.377
Panel B: Eligible by PMT Score								
PMT Score	-0.425	-0.757		-0.427	-1.388	-0.885	-1.059	-1.431
	(2.072)	(1.810)		(2.201)	(1.960)	(1.996)	(2.136)	(2.246)
Epsilon	-1.534*	-1.702*		-1.789*	-1.591*	-1.731*	-1.721**	-1.370
	(0.896)	(0.952)		(0.994)	(0.856)	(0.966)	(0.845)	(1.101)
Self-perceived wealth	-0.418							-0.459
	(0.355)							(0.488)
# of comm. activities		0.674*						0.965*
		(0.356)						(0.530)
Hrs weekly on comm. activities		-0.098*						-0.112*
		(0.051)						(0.064)
Closely related to vill leader								
Has received raskin								
Has received askeskin				0.440				0.374
				(0.700)				(0.731)
Has received BLT				0.424				0.518
				(0.637)				(0.769)
# negative income shocks					-0.370			-0.645*
					(0.295)			(0.380)
Widow						0.602		0.612
						(1.626)		(1.510)
HH head years education							0.082	0.226
							(0.137)	(0.158)
Observations	72	72		69	72	72	72	69
Dependent Var. Mean	0.653	0.653		0.681	0.653	0.653	0.653	0.681

Notes: All regressions are logit, following Table 3. Robust standard errors, clustered at the village level, in parentheses. *** p<0.01, ** p<0.05, * p<0.1

TABLE A.4. Factors Predicting Show Up (OLS)

	Show Up							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: All Households								
PMT Score	-0.313***	-0.402***	-0.415***	-0.296***	-0.414***	-0.414***	-0.408***	-0.296***
	(0.034)	(0.031)	(0.031)	(0.035)	(0.031)	(0.031)	(0.036)	(0.035)
Epsilon	-0.116***	-0.155***	-0.168***	-0.139***	-0.169***	-0.168***	-0.169***	-0.061***
	(0.024)	(0.025)	(0.025)	(0.024)	(0.025)	(0.025)	(0.025)	(0.022)
Self-perceived wealth	-0.113***							-0.083***
	(0.011)							(0.010)
# of comm. activities		-0.020**						-0.024***
		(0.009)						(0.009)
Hrs weekly on comm. activities		-0.002						-0.000
		(0.001)						(0.001)
Closely related to vill leader			-0.046					0.037
			(0.101)					(0.093)
Has received raskin				0.113***				0.080***
				(0.027)				(0.026)
Has received askeskin				0.081***				0.038
				(0.026)				(0.023)
Has received BLT				0.122***				0.099***
				(0.029)				(0.027)
# negative income shocks					0.003			-0.001
					(0.015)			(0.014)
Widow						0.136**		0.083
						(0.063)		(0.054)
HH head years education							-0.001	0.004
							(0.003)	(0.003)
Observations	1,999	2,000	2,000	2,000	2,000	2,000	2,000	1,999
Dependent Var. Mean	0.377	0.377	0.377	0.377	0.377	0.377	0.377	0.377
Adjusted R-Squared	0.185	0.151	0.139	0.179	0.139	0.141	0.139	0.288
Panel B: Eligible by PMT Score								
PMT Score	-0.095	-0.185		-0.101	-0.300	-0.196	-0.233	-0.581
	(0.454)	(0.394)		(0.467)	(0.414)	(0.441)	(0.465)	(0.721)
Epsilon	-0.313*	-0.346*		-0.351*	-0.334*	-0.358*	-0.360**	-0.228
	(0.172)	(0.175)		(0.184)	(0.168)	(0.178)	(0.167)	(0.274)
Self-perceived wealth	-0.090							-0.048
	(0.078)							(0.145)
# of comm. activities		0.127**						0.116
		(0.059)						(0.187)
Hrs weekly on comm. activities		-0.019**						-0.020
		(0.009)						(0.026)
Closely related to vill leader								
Has received raskin				0.648***				1.353***
				(0.086)				(0.394)
Has received askeskin				0.085				0.074
				(0.143)				(0.228)
Has received BLT				0.083				0.250
				(0.139)				(0.206)
# negative income shocks					-0.083			-0.096
					(0.065)			(0.149)
Widow						0.106		0.021
						(0.303)		(0.451)
HH head years education							0.018	0.054
							(0.028)	(0.048)
Observations	72	72		72	72	72	72	72
Dependent Var. Mean	0.653	0.653		0.653	0.653	0.653	0.653	0.653
Adjusted R-Squared	0.0422	0.0474		0.0836	0.0407	0.0240	0.0288	0.0730

Notes: All regressions are OLS, but otherwise follow Appendix Table A.3. Robust standard errors, clustered at the village level, in parentheses. *** p<0.01, ** p<0.05, * p<0.1

TABLE A.5. Experimental Comparison of Targeting under Self-Targeting and Automatic Enrollment Treatments (OLS)

	Log consumption beneficiaries (baseline) (OLS) (1)	Log consumption beneficiaries (baseline + midline) (OLS) (1)	Receives benefits (OLS) (2)	Error (OLS) (3)	Exclusion error (OLS) (4)	Inclusion error (OLS) (5)
			Panel A: No Stratum Fixed Effects			
Self targeting	-0.208***	-0.193***	0.269	-0.017*	-0.059	-0.010
	(0.076)	(0.060)	(0.178)	(0.010)	(0.043)	(0.007)
Log consumption			-0.037***			
			(0.009)			
Log consumption * Self targeting			-0.021			
			(0.013)			
Observations	159	904	3,996	3,998	243	3,755
Mean of dependent variable	12.78	13.61	0.0398	0.0855	0.877	0.0344
			Panel B: With Stratum Fixed Effects			
Self targeting	-0.114	-0.175***	0.297*	-0.019**	-0.068	-0.011*
	(0.077)	(0.058)	(0.171)	(0.009)	(0.049)	(0.006)
Log consumption			-0.036***			
			(0.009)			
Log consumption * Self targeting			-0.023*			
			(0.013)			
Observations	159	904	3,996	3,998	243	3,755
Mean of dependent variable	12.78	13.61	0.0398	0.0855	0.877	0.0344

Notes: OLS version of 4. Exclusion error is defined to be 1 if a household is very poor (as measured at baseline) and does not receive PKH. Inclusion error is defined to be 1 if a not-very poor household does receive PKH. Error includes either exclusion or targeting error. Robust standard errors, clustered at the village level, in parentheses. *** p<0.01, ** p<0.05, * p<0.1

TABLE A.6. Comparison of Targeting under Self-Targeting and Hypothetical Universal Automatic Enrollment (OLS)

	Log consumption (beneficiaries) (OLS) (1)	Receives benefits (OLS) (2)	Error (OLS) (3)	Exclusion error (OLS) (4)	Inclusion error (OLS) (5)
		Panel A: No Stratum Fixed Effects			
Self targeting	-0.133*	-0.103	-0.022**	0.013	-0.020**
	(0.069)	(0.194)	(0.010)	(0.047)	(0.008)
Log consumption		-0.064***			
		(0.011)			
Log consumption * Self targeting		0.006			
		(0.014)			
Observations	186	3,996	3,998	243	3,755
Mean of dependent variable	12.78	0.0398	0.0878	0.840	0.0391
		Panel B: With Stratum Fixed Effects			
Self targeting	-0.040	-0.085	-0.023**	0.016	-0.020***
	(0.064)	(0.187)	(0.010)	(0.052)	(0.007)
Log consumption		-0.063***			
		(0.010)			
Log consumption * Self targeting		0.005			
		(0.014)			
Observations	186	3,996	3,998	243	3,755
Mean of dependent variable	12.75	0.0465	0.0878	0.840	0.0391

Notes: OLS version of Table 5. Exclusion error is defined to be 1 if a household is very poor (as measured at baseline) and does not receive PKH. Inclusion error is defined to be 1 if a not-very poor household does receive PKH. Error includes either exclusion or targeting error. Robust standard errors, clustered at the village level, in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

TABLE A.7. Experimental Results: Probability of Showing Up as a Function of Distance (OLS)

	No stratum fixed effects			With stratum fixed effects		
	(1)	(2)	(3)	(4)	(5)	(6)
Close subtreatment	0.048	0.451	0.047	0.058**	0.280	0.043
	(0.034)	(0.471)	(0.058)	(0.026)	(0.457)	(0.053)
Log consumption		-0.277***			-0.254***	
		(0.023)			(0.022)	
Close subtreatment* Log consumption		-0.032			-0.019	
		(0.035)			(0.034)	
Consumption quintile 2			-0.079			-0.079
			(0.058)			(0.056)
Consumption quintile 3			-0.199***			-0.183***
			(0.055)			(0.051)
Consumption quintile 4			-0.259***			-0.236***
			(0.047)			(0.048)
Consumption quintile 5			-0.435***			-0.404***
			(0.044)			(0.045)
Close subtreatment * Consumption quintile 2			-0.066			-0.064
			(0.080)			(0.073)
Close subtreatment * Consumption quintile 3			0.061			0.068
			(0.072)			(0.066)
Close subtreatment * Consumption quintile 4			-0.086			-0.054
			(0.067)			(0.063)
Close subtreatment * Consumption quintile 5			-0.002			0.014
			(0.065)			(0.064)
Stratum fixed effects	No	No	No	Yes	Yes	Yes
Observations	2,000	2,000	2,000	2,000	2,000	2,000
Mean of dependent variable	0.377	0.377	0.377	0.377	0.377	0.377

Notes: OLS version of Table 7. Robust standard errors, clustered at the village level, in parentheses. *** p<0.01, ** p<0.05, * p<0.1

TABLE A.8. Experimental Results: Probability of Showing Up as a Function of Opportunity Cost (OLS)

	No stratum fixed effects			With Stratum fixed effects		
	(1)	(2)	(3)	(4)	(5)	(6)
Both spouse subtreatment	0.046	0.953**	0.112*	0.039	0.794*	0.091*
	(0.034)	(0.464)	(0.057)	(0.025)	(0.434)	(0.050)
Log consumption		-0.259***			-0.235***	
		(0.024)			(0.024)	
Both spouse subtreatment * Log consumption		-0.070**			-0.058*	
		(0.034)			(0.033)	
Consumption quintile 2			-0.073			-0.075
			(0.053)			(0.049)
Consumption quintile 3			-0.118**			-0.109**
			(0.047)			(0.045)
Consumption quintile 4			-0.267***			-0.240***
			(0.042)			(0.040)
Consumption quintile 5			-0.380***			-0.358***
			(0.047)			(0.046)
Both spouse subtreatment * Consumption quintile 2			-0.083			-0.076
			(0.079)			(0.073)
Both spouse subtreatment * Consumption quintile 3			-0.101			-0.078
			(0.070)			(0.064)
Both spouse subtreatment * Consumption quintile 4			-0.066			-0.045
			(0.068)			(0.063)
Both spouse subtreatment * Consumption quintile 5			-0.118*			-0.086
			(0.064)			(0.061)
Stratum fixed effects	No	No	No	Yes	Yes	Yes
Observations	2,000	2,000	2,000	2,000	2,000	2,000
Mean of dependent variable	0.377	0.377	0.377	0.377	0.377	0.377

Notes: OLS version of Table 8. Robust standard errors, clustered at the village level, in parentheses. *** p<0.01, ** p<0.05, * p<0.1

TABLE A.9. Effect of Close Subtreatment on Distance

(A) All Villages

	Reported distance		GPS distance	
VARIABLES	(1)	(2)	(3)	(4)
Close subtreatment	-1.686***	-1.077	-0.963***	-1.317
	(0.167)	(1.688)	(0.209)	(3.496)
Log per capita consumption		-0.125		-0.173
		(0.090)		(0.185)
Close subtreatment * Log per capita consumption		-0.048		0.026
		(0.132)		(0.257)
Observations	1,999	1,999	1,847	1,847
Mean of dependent variable	1.079	1.079	0.652	0.652

(B) Rural Villages

	Reported distance		GPS distance	
VARIABLES	(1)	(2)	(3)	(4)
Close subtreatment	-1.248***	-2.032	-0.897***	-4.574
	(0.154)	(1.603)	(0.199)	(3.952)
Log per capita consumption		-0.159*		-0.191
		(0.096)		(0.244)
Close subtreatment * Log per capita consumption		0.059		0.281
		(0.123)		(0.289)
Observations	1,320	1,320	1,319	1,319
Mean of dependent variable	0.606	0.606	0.463	0.463

(C) Urban Villages

	Reported distance		GPS distance	
VARIABLES	(1)	(2)	(3)	(4)
Close subtreatment	-2.639***	-3.055	-1.418***	-0.974
	(0.412)	(3.327)	(0.427)	(3.238)
Log per capita consumption		-0.222		-0.249**
		(0.174)		(0.101)
Close subtreatment * Log per capita consumption		0.030		-0.036
		(0.263)		(0.246)
Observations	679	679	528	528
Mean of dependent variable	1.997	1.997	1.124	1.124

TABLE A.10. Modeled Effects of Time and Distance Costs on Show Up Rates (Discount Rate Robustness Check)

	Show Up (Exp.)		`Predicted Show Up					
		δ =	0.4	0.5	0.6	0.7	0.8	0.9
	(1)		(2)	(3)	(4)	(5)	(6)	(7)
		Panel A: Coefficient on Interaction Term from Logit Regressions						
β(Close * Log PCE):	-0.093	Reported Total Cost	0.136	0.134	0.122	0.110	0.102	0.097
	(0.224)		(0.215)	(0.213)	(0.223)	(0.215)	(0.231)	(0.228)
		No Differential Travel Costs	0.126	0.125	0.115	0.104	0.098	0.094
			(0.225)	(0.228)	(0.221)	(0.217)	(0.230)	(0.223)
		Distance + 6km	0.138	0.139	0.130	0.119	0.111	0.104
			(0.222)	(0.227)	(0.229)	(0.224)	(0.231)	(0.226)
		Wait Time*6	0.693**	0.611**	0.531**	0.454*	0.385	0.325
			(0.259)	(0.248)	(0.241)	(0.233)	(0.241)	(0.228)
		Panel B: Show-Up Rates (Using Reported Total Cost)						
Above poverty line, far			33.623	33.096	33.158	33.232	33.183	33.113
Above poverty line, close			38.402	37.495	37.102	36.800	36.514	36.285
Below poverty line, far			68.404	69.764	69.740	69.485	69.702	70.047
Below poverty line, close			66.046	66.703	66.266	65.733	65.697	65.834
		Panel C: Difference in Show-Up Rate Ratios						
(Poor/rich, far) –	0.028	Reported Total Cost	0.315	0.329	0.317	0.305	0.301	0.301
(Poor/rich, close)	(0.279)		(0.269)	(0.282)	(0.279)	(0.278)	(0.279)	(0.274)
		No Differential Travel Costs	0.304	0.319	0.309	0.298	0.295	0.296
			(0.264)	(0.272)	(0.292)	(0.276)	(0.285)	(0.278)
		Distance + 6km	0.397	0.398	0.369	0.343	0.329	0.322
			(0.285)	(0.290)	(0.287)	(0.288)	(0.290)	(0.295)
		Wait Time*6	1.139***	1.000***	0.831**	0.693**	0.597**	0.525*
			(0.394)	(0.377)	(0.349)	(0.327)	(0.322)	(0.313)

Notes: Each cell represents the coefficient on close*logPCE from a separate logit regression, showing varying values of delta. Column (3) matches the results shown in 10. Bootstrapped standard errors, clustered at the village level., in parentheses. *** p<0.01, ** p<0.05, * p<0.1

TABLE A.11. Summary Statistics of Modeled Registration Costs

	In-Sample Statistics		Out-Of-Sample Statistics				
	Reported Total Cost		Assuming No Differential Travel Costs	Additional Distance		Inflated Wait Time	
	(Close) (1)	(Far) (2)	(Far) (3)	Distance + 3km (Far) (4)	Distance + 6km (Far) (5)	Wait Time*3 (Far) (6)	Wait Time*6 (Far) (7)
Mean total monetary costs to registration (Rp. thousand)	3.24	5.01	4.87	6.15	6.74	12.65	24.10
Mean distance to registration site (km)	0.28	1.88	1.88	4.88	10.88	1.88	1.88
Mean wait time (mins)	156.55	175.73	175.73	175.73	175.73	527.19	1054.38

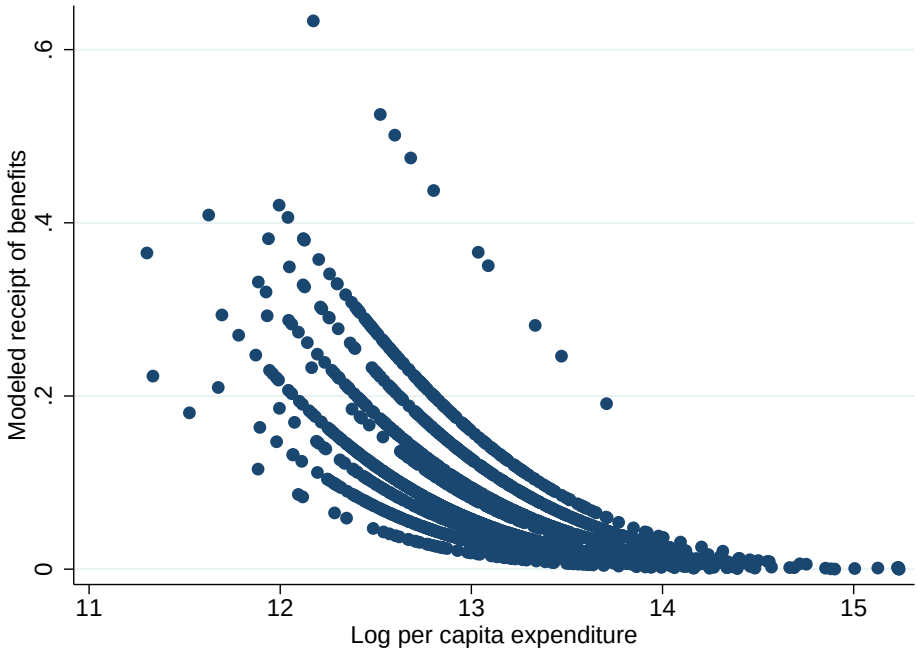
Notes: Costs assume one individual per household goes to sign-up location, even for households in opportunity cost subtreatment.

TABLE A.12. Modeled Effects of Time and Distance Costs on Show Up Rates (Corrected for Small Sample Differences)

	Show Up (Exp.)	Predicted Show Up (Model)[†]								
		Reported Total Cost	Reported Total cost, SD[eps]/2	Reported total cost, SD[eps]=0	Assuming No Differential Travel Cost	Reported total cost, constant mu	Additional Distance		Inflated Wait Time	
							Distance + 3km	Distance + 6km	Wait Time*3	Wait Time*6
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
				Panel A: Logistic Regressions						
Close	0.000	-0.552	-0.267	-0.003	-0.526	-0.613	-0.575	-0.340	-3.418	-5.921**
	(0.000)	(2.754)	(3.055)	(3.332)	(2.970)	(2.376)	(2.905)	(2.908)	(2.923)	(3.111)
Log per capita expenditure	-1.420***	-1.578***	-2.113***	-2.347***	-1.574***	-0.305**	-1.585***	-1.569***	-1.816***	-2.029***
	(0.144)	(0.166)	(0.186)	(0.209)	(0.164)	(0.130)	(0.169)	(0.166)	(0.170)	(0.197)
Close * Log per capita expenditure	0.000	0.048	0.026	0.004	0.045	0.055	0.054	0.038	0.285	0.498**
	(0.000)	(0.211)	(0.236)	(0.258)	(0.228)	(0.181)	(0.223)	(0.223)	(0.225)	(0.240)
N	1972	5916000	5916000	5916000	5910000	5916000	5910000	5910000	5916000	5916000
P-value[‡]		0.821	0.913	0.986	0.842	0.762	0.809	0.863	0.205	0.038
				Panel B: Show-Up Rates						
Above poverty line, far	34.088	32.901	27.301	24.437	32.960	29.920	31.740	31.111	28.457	23.929
Above poverty line, close	34.088	34.347	28.467	25.305	34.336	32.250	34.347	34.347	34.347	34.347
Below poverty line, far	54.237	71.618	72.952	73.059	71.560	34.662	70.361	69.310	69.478	66.497
Below poverty line, close	54.237	72.451	73.958	74.117	72.424	35.919	72.451	72.451	72.451	72.451
				Panel C: Show-Up Rate Ratios						
Poor to rich ratio, far	1.591	2.177	2.672	2.990	2.171	1.159	2.217	2.228	2.441	2.779
	(0.218)	(0.217)	(0.277)	(0.331)	(0.222)	(0.217)	(0.220)	(0.222)	(0.258)	(0.318)
Poor to rich ratio, close	1.591	2.109	2.598	2.929	2.109	1.114	2.109	2.109	2.109	2.109
	(0.218)	(0.211)	(0.259)	(0.305)	(0.201)	(0.206)	(0.209)	(0.212)	(0.208)	(0.206)
Difference of ratios	0.000	0.067	0.074	0.061	0.062	0.045	0.107	0.118	0.332	0.669**
P-value	(0.000)	(0.268)	(0.320)	(0.362)	(0.267)	(0.290)	(0.277)	(0.271)	(0.303)	(0.334)
		0.802	0.817	0.867	0.817	0.877	0.698	0.662	0.272	0.045

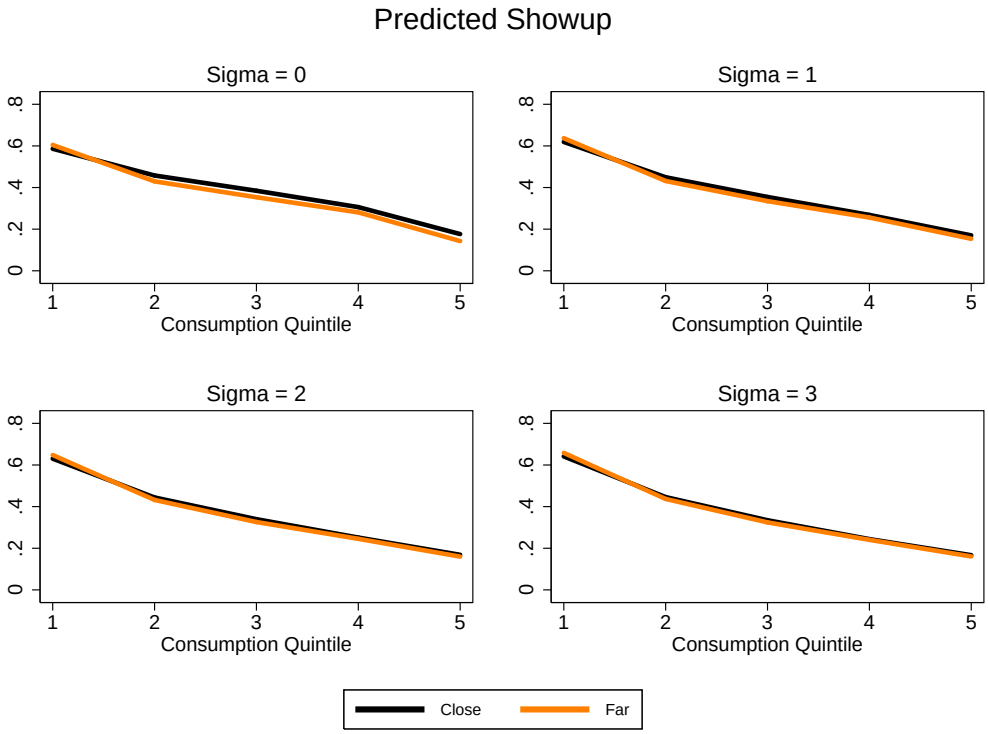
Notes: Alternate version of Table 10, duplicating households in far subtreatment to account for small sample differences. Empirical C[illegible]olumn (1) shows no results, since in reality households did not differ from themselves in their show-up rates.

FIGURE A.1. Probability of Obtaining Benefits (μ) vs. Log Per Capita Consumption



Notes: This figure shows the predicted probability of receiving the benefit, conditional on applying, from a probit model of receiving a benefit as a function of Log PCE. We include urban/rural interacted with district fixed effects in the probit, since the PMT cutoff for inclusion varies slightly for each urban/rural times district cell. These predicted values are the $\mu(y_i)$ that we use in the model.

FIGURE A.2. Model Fit Imposing Different Values of ρ



Notes: This figure shows predicted show up rates from the model for different values of ρ. As is evident from the figure, higher values of ρ lead to a convex show up pattern by income quintile, which is not consistent with the actual show up pattern shown in Figure 10.