Appendix

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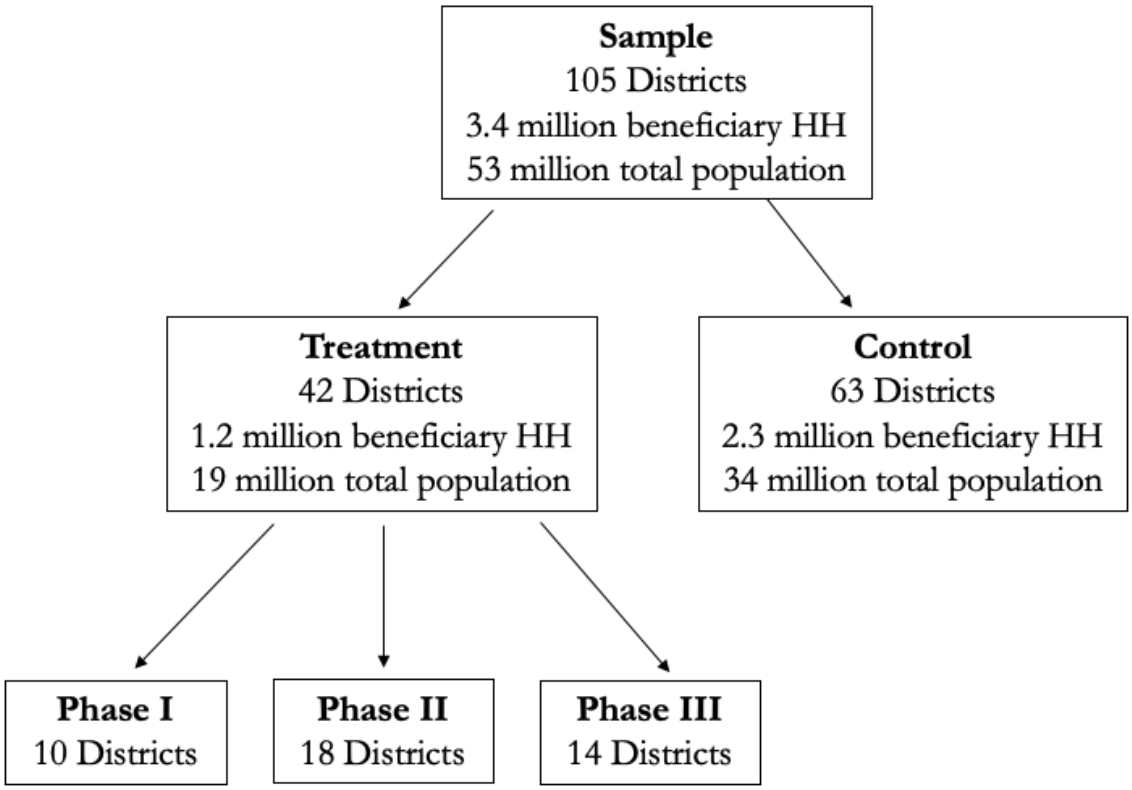
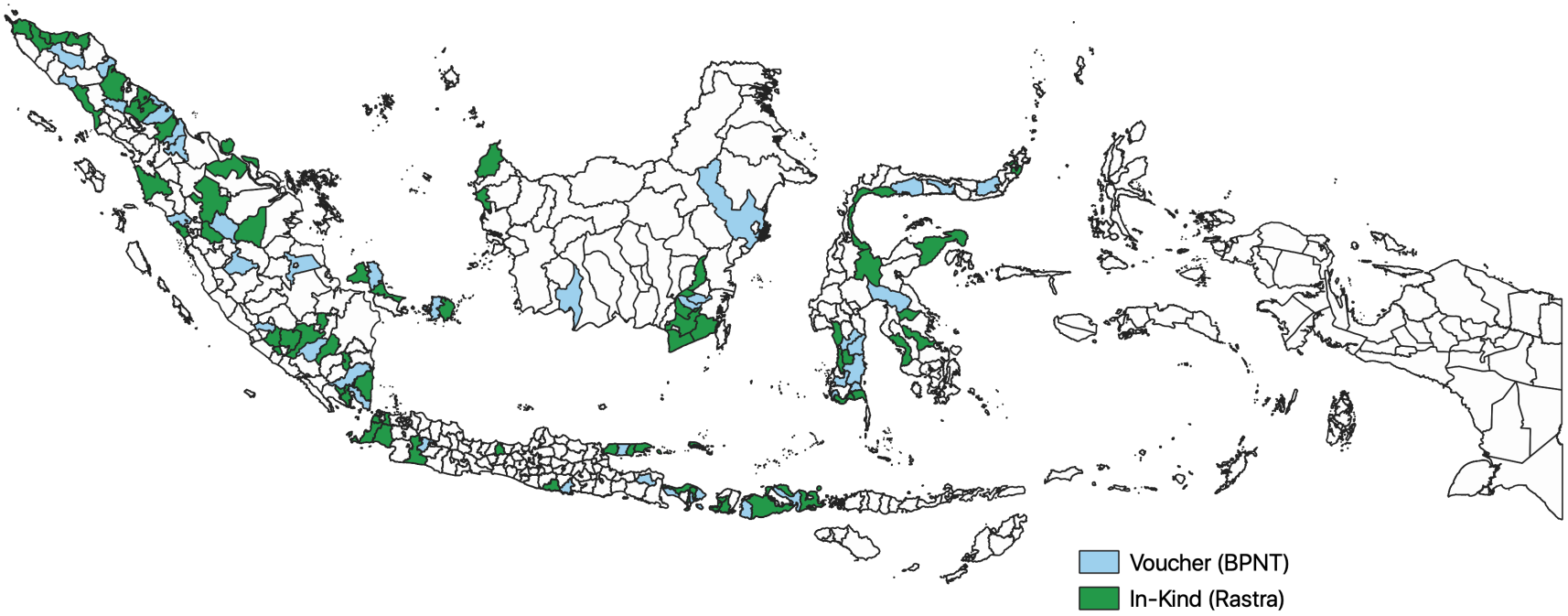
A.1 Figures

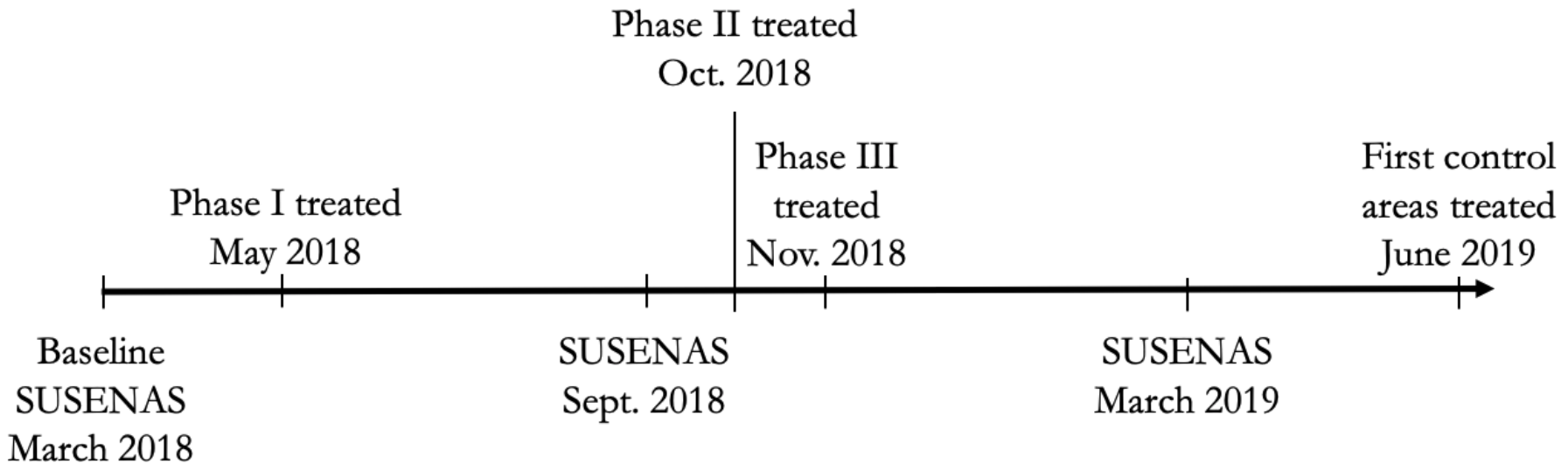
Appendix Figure 1: Randomization Design



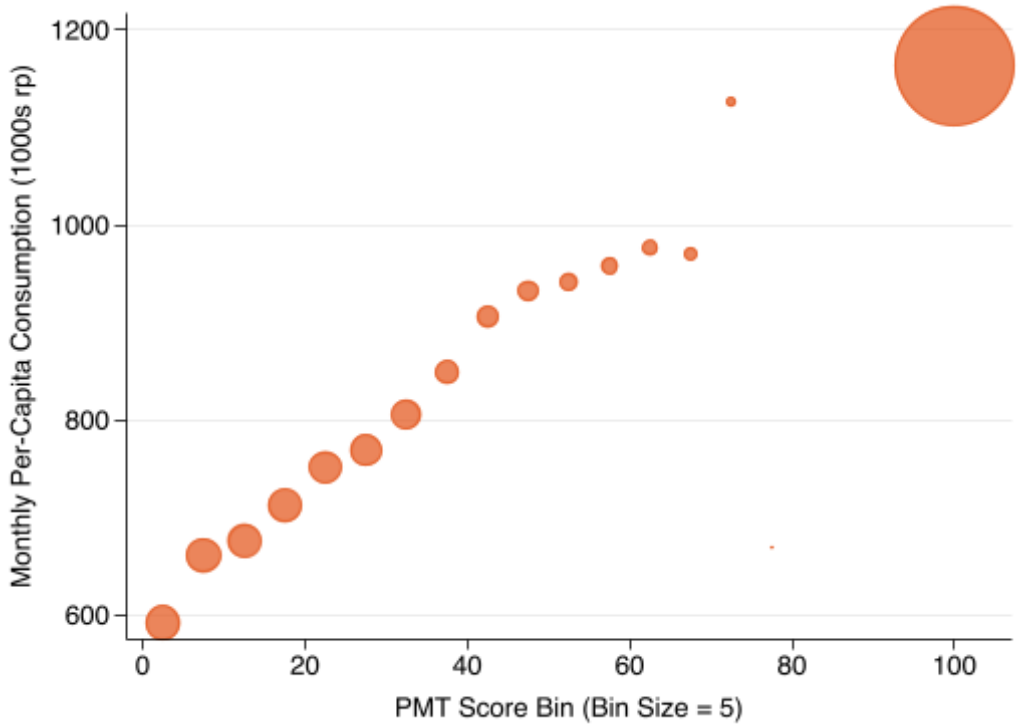
Appendix Figure 2: Map of Experimental Districts



Appendix Figure 3: Timeline



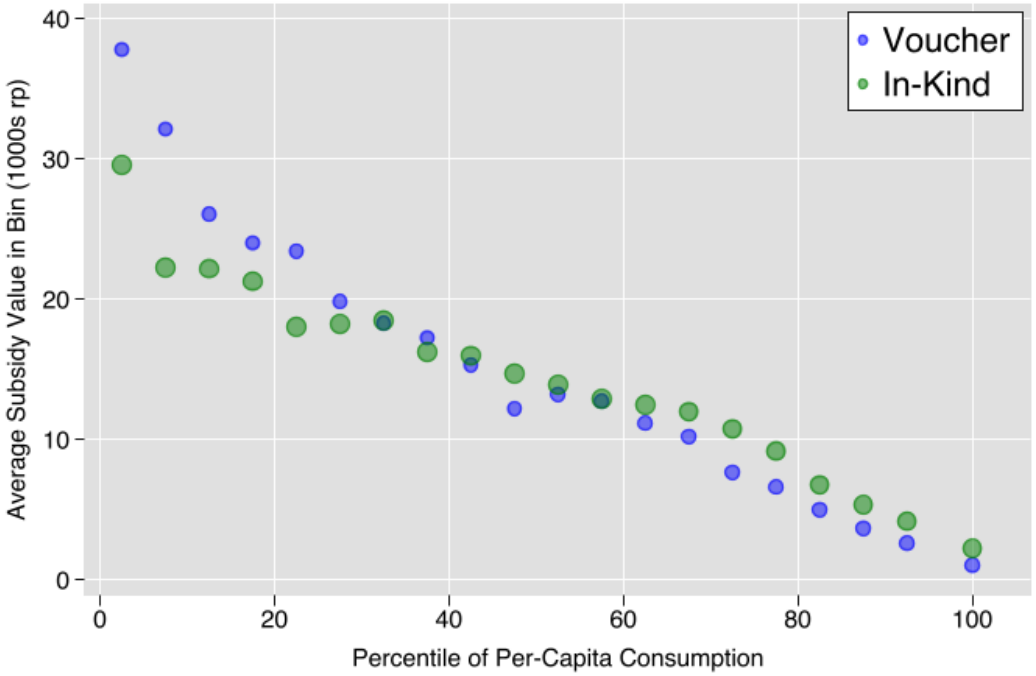
Appendix Figure 4: Relationship between PMT score at Baseline and Per Capita Consumption



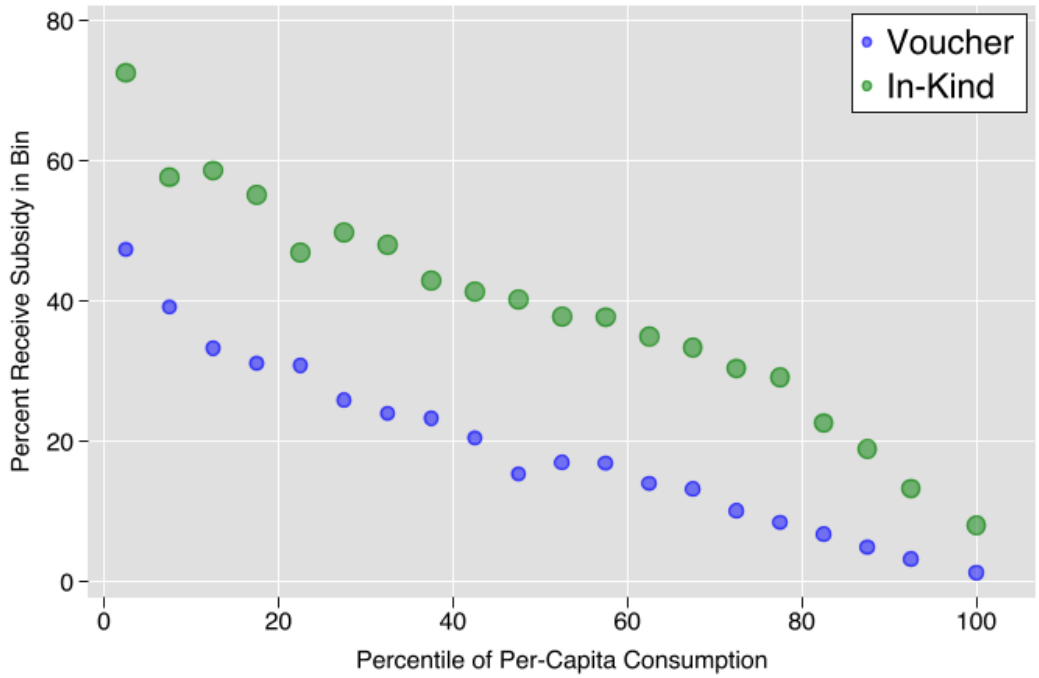
Note: This graph provides the relationship between per capita consumption in 1000s of Rp. and PMT score at baseline. PMT scores are binned in groups of 5, with those who have no PMT score are grouped with those with a score of 100. Markers scaled by number of households in each bin. Data on outcomes are from the March 2018 SUSENAS, while PMT data are from the Unified Targeting Data Base.

Appendix Figure 5: Relationship between Percentile of Consumption and Subsidy Received

Panel A: Total Subsidy (1000s rp)



Panel B: Subsidy Receipt



Notes: This figure replicates Figure 1, plotting bins of per-capita consumption on the x-axis instead of bins of PMT score. Data are from the March 2019 SUSENAS. See Figure 1 for details.

Appendix Figure 6: Picture of BPNT Card

A.2 Tables

Appendix Table 1: Baseline Balance Check

Variable	Control Mean (1)	Treated Mean (2)	Difference (3)
Log Monthly Per-Capita Consumption	13.658	13.678	0.007
			(0.040)
			[0.845]
Daily Per-Capita Calorie Consumption	2265.816	2275.096	-15.246
			(31.605)
			[0.631]
Receive Rastra	0.410	0.330	-0.044
			(0.026)
			[0.144]
HH Has 5.5kg LPG Gas	0.095	0.117	0.036
			(0.016)
			[0.038]
HH Owns Refrigerator	0.552	0.570	0.018
			(0.024)
			[0.515]
HH Has Air Conditioning	0.048	0.051	0.003
			(0.008)
			[0.702]
HH Has Landline	0.006	0.009	0.003
			(0.002)
			[0.210]
HH Owns Computer	0.148	0.162	0.013
			(0.011)
			[0.271]
HH Owns Car	0.095	0.111	0.008
			(0.008)
			[0.284]
HH Owns Flatscreen TV	0.093	0.104	0.010
			(0.010)
			[0.277]
HH Owns Land	0.791	0.747	-0.035
			(0.028)
			[0.125]
N	105	105	105
F-statistic of joint orthogonality test			1.426
Conventional p-value			0.178
Randomization inference p-value			0.384

Note: This table provides a baseline balance check. All data come from the March 2018 SUSENAS, with district-level means computed using SUSENAS household weights. In Column 3, we compute the difference in means conditional on strata fixed effects. Robust standard errors are in parentheses. Randomization inference p-values—in brackets—are from 1,000 permutations of the treatment assignments.

Appendix Table 2: Baseline Summary Statistics, by PMT score group

Variable	PMT <= 30 (1)	PMT > 30 (2)	p-value of difference (3)
Per Capita Consumption (rp 1000s)	689.613 (459.172)	1116.125 (872.613)	0.000
Poor Wall Material	0.150 (0.357)	0.070 (0.255)	0.000
Poor Floor Material	0.736 (0.441)	0.519 (0.500)	0.000
Poor Roof Material	0.029 (0.168)	0.019 (0.137)	0.000
Own Flat-Screen TV	0.024 (0.152)	0.116 (0.320)	0.000
Own Computer	0.036 (0.187)	0.178 (0.383)	0.000
Own Refrigerator	0.321 (0.467)	0.594 (0.491)	0.000
HH Head Higest Education Level is Post-Secondary	0.010 (0.098)	0.085 (0.280)	0.000
HH Head Highest Education Level is High School	0.099 (0.298)	0.250 (0.433)	0.000
HH Head Highest Education Level is Junior High	0.145 (0.352)	0.169 (0.375)	0.000
HH Head Highest Education Level is Primary	0.647 (0.478)	0.446 (0.497)	0.000
HH Head Does Not Have Primary School Education	0.100 (0.300)	0.050 (0.218)	0.000
# HH Members	4.197 (1.726)	3.729 (1.617)	0.000
# Children in HH	1.506 (1.202)	1.217 (1.095)	0.000
Below Poverty Line	0.195 (0.396)	0.066 (0.249)	0.000
HH Receives Rastra (Self-Report)	0.714 (0.452)	0.334 (0.472)	0.000
HH Eligible for Rastra in 2017 (UDB)	0.754 (0.431)	0.057 (0.232)	0.000
N	16348	48381	

Note: Standard deviations in parentheses. Data come from the March 2018 SUSENAS, with the exception of the official indicator for whether the household is eligible for Raskin in 2017 that comes from the Unified Targeting Data Base. All means and standard deviations for SUSENAS variables are calculated using the SUSENAS household weights.

Appendix Table 3: Alternate Versions of Total Subsidy, by PMT Groupings

	PMT > 30	PMT <= 30	PMT <= 25	PMT <= 20	PMT <= 15	PMT <= 10	PMT <= 5
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Total Subsidy (Fixed Price)							
Voucher	-3468.486	9140.029	10025.162	11167.982	12428.917	14908.554	13885.509
	(555.928)	(1844.989)	(2090.904)	(2256.397)	(2533.805)	(2753.197)	(3629.553)
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.008]
Observations	49566	16328	13706	11071	8306	5529	2788
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DV Mean (Control)	9268.476	29230.967	30559.439	31791.101	32826.879	33211.277	33670.687
Panel B: Quality-Adjusted Total Subsidy							
Voucher	-2787.856	11241.006	12207.459	13323.233	14627.702	17014.057	16167.532
	(567.637)	(1932.797)	(2166.490)	(2312.472)	(2580.148)	(2808.868)	(3632.105)
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.001]
Observations	49566	16328	13706	11071	8306	5529	2788
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DV Mean (Control)	9157.160	29099.132	30431.608	31661.954	32642.663	33003.982	33369.103

Note: This table replicates Table 2, but with fixed price total subsidy and quality-adjusted total subsidy as the outcome variables. Total subsidy at fixed prices is calculated by multiplying subsidized rice and eggs by a fixed market price. The fixed price is the average market price paid by non-subsidy recipients in the March 2019 SUSENAS (Rp. 9943 per kg of rice and Rp. 1513 per egg). Quality-adjusted total subsidy uses an adjusted market price for BPNT rice to account for the higher reported quality of BPNT rice. See Table 1 for additional details on the outcome variables and Table 2 for additional details on the specifications.

Appendix Table 4: Replication of Table 1 for September 2018

	Total Subsidy (rp)			Receive Subsidy			Recipients Only: Total Subsidy (rp)
	All	PMT <= 30	PMT > 30	All	PMT <= 30	PMT > 30	All
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Voucher	1638.124	13311.554	-2811.833	-0.150	-0.151	-0.143	38416.148
	(1528.782)	(3102.830)	(1074.933)	(0.030)	(0.033)	(0.029)	(5877.321)
	[0.233]	[0.002]	[0.040]	[0.000]	[0.000]	[0.000]	[0.000]
Observations	16428	3998	12294	16432	3999	12296	5765
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DV Mean (Control)	16597.507	34568.698	10284.263	0.406	0.726	0.294	41098.141

Note: This table replicates Table 1 for the September 2018 SUSENAS. See Table 1 for details.

Appendix Table 5: Replication of Table 1 for Pooled SUSENAS

	Total Subsidy (rp)			Receive Subsidy			Recipients Only: Total Subsidy (rp)
	All	PMT <= 30	PMT > 30	All	PMT <= 30	PMT > 30	All
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Voucher	1399.309	14129.880	-2288.029	-0.136	-0.103	-0.139	31521.767
	(615.970)	(1624.331)	(551.459)	(0.019)	(0.020)	(0.020)	(3191.956)
	[0.058]	[0.000]	[0.002]	[0.000]	[0.000]	[0.000]	[0.000]
Observations	82922	20325	61860	82928	20328	61862	25120
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DV Mean (Control)	15709.936	32319.518	9821.281	0.401	0.702	0.294	39399.904

Note: This table replicates Table 1, pooling the September 2018 and March 2019 SUSENAS. See Table 1 for details.

Appendix Table 6: Replication of Table 1, including only the Strata FE and the Baseline Dependent Variable

	Total Subsidy (rp)			Receive Subsidy			Recipients Only	
							Total Subsidy (rp)	Rice Quality
	All	PMT <= 30	PMT > 30	All	PMT <= 30	PMT > 30	All	All
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Voucher	1330.235	13834.341	-3495.576	-0.127	-0.103	-0.149	35432.229	0.234
	(742.828)	(1766.575)	(613.037)	(0.022)	(0.027)	(0.022)	(3479.809)	(0.020)
	[0.145]	[0.000]	[0.000]	[0.000]	[0.001]	[0.000]	[0.000]	[0.000]
Observations	66494	16327	49566	66496	16329	49566	19355	19260
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mar. 2018 DV	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Double Lasso	No	No	No	No	No	No	No	No
DV Mean (Control)	14456.314	29200.535	9161.727	0.393	0.669	0.293	36918.120	0.630

Note: This table replicates Table 1 without the LASSO chosen control variables. We only include the strata fixed effects and the baseline of the dependent variable from the March 2018 SUSENAS. As the SUSENAS is a repeated cross-section, we use the average of the dependent variable at the district urban-rural level for the baseline value. See Table 1 for additional details.

Appendix Table 7: Replication of Table 1, dropping the holdout sample

	Total Subsidy (rp)			Receive Subsidy			Recipients Only: Total Subsidy (rp)	Recipients Only: Rice Quality
	All	PMT <= 30	PMT > 30	All	PMT <= 30	PMT > 30	All	All
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Voucher	1412.521	13551.140	-2975.763	-0.148	-0.108	-0.161	31506.837	0.208
	(702.016)	(2066.531)	(628.029)	(0.020)	(0.023)	(0.021)	(3663.927)	(0.020)
	[0.106]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Observations	54857	14142	40171	54859	14144	40171	17505	17451
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DV Mean (Control)	14563.986	29068.994	9237.732	0.400	0.671	0.300	36491.540	0.629

Note: This table replicates Table 1 dropping the holdout sample. See Table 1 for additional details.

Appendix Table 8: Replication of Table 1, winsorized at the 0.5th and 99.5th percentile

	Total Subsidy (rp)			Recipients Only: Total Subsidy (rp)
	All	PMT <= 30	PMT > 30	All
	(1)	(2)	(3)	(4)
Voucher	1364.387	13341.041	-2512.924	31269.116
	(614.135)	(1912.012)	(561.681)	(3308.934)
	[0.076]	[0.000]	[0.002]	[0.000]
Observations	66496	16329	49566	19356
Stratum FE	Yes	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes	Yes
DV Mean (Control)	14302.455	28916.967	9049.591	36635.563

Note: This table replicates Table 1 for the continuous outcome variables, winsorizing them at the 0.5th and 99.5th percentile. See Table 1 for additional details.

Appendix Table 9: Replication of Table 1, Decomposed by Month of Voucher Transition

	Total Subsidy (rp)			Receive Subsidy			Recipients Only	
							Total Subsidy (rp)	Rice Quality
	All	PMT <= 30	PMT > 30	All	PMT <= 30	PMT > 30	All	All
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
May Voucher	2375.984	15405.269	-1560.080	-0.151	-0.127	-0.161	44086.506	0.210
	(884.462)	(2439.243)	(796.545)	(0.030)	(0.031)	(0.031)	(4413.189)	(0.023)
Oct. Voucher	171.270	10523.311	-3324.788	-0.122	-0.127	-0.121	32631.515	0.214
	(1163.194)	(3366.988)	(718.384)	(0.022)	(0.031)	(0.024)	(3813.490)	(0.031)
Nov. Voucher	1086.333	12797.151	-2939.658	-0.129	-0.086	-0.146	25272.512	0.197
	(804.098)	(2605.359)	(718.314)	(0.025)	(0.028)	(0.027)	(3783.408)	(0.026)
Observations	66494	16327	49566	66496	16329	49566	19355	19260
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DV Mean (Control)	14456.314	29200.535	9161.727	0.393	0.669	0.293	36918.120	0.630

Note: This table replicates Table 1, but decomposes the voucher treatment by the month in which each district began receiving the voucher. See Table 1 for additional details on the specifications.

Appendix Table 10: Effect of Vouchers on Protests and Local Leader Turnover

	Protest	Corruption	New Village Head
Voucher	0.003	-0.000	0.012
	(0.003)	(0.001)	(0.020)
	[0.351]	[0.895]	[0.510]
Observations	20818	20818	20387
Stratum FE	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes
DV Mean (Control)	0.009	0.004	0.228

Note: This table explores the impact of the transition to the voucher on village-level politics. The dependent variable in Column 1 is a dummy for whether the village experienced a protest in the past year, in Column 2 it is a dummy for any incident of criminal corruption reported in the past year, and in Column 3 it is a dummy for the installment of a new village head during the year. Observations are at the village level. Baseline versions (PODES 2018) of the outcomes and a set of PODES 2018 covariates are included as LASSO controls. Standard errors are clustered at the district (kabupaten) level and displayed in parentheses. Randomization inference p-values are from 1,000 permutations of the treatment assignments.

Appendix Table 11: Consumption by BPNT Receipt in Voucher Districts

	Per-Capita Consumption Minus Subsidy			Total Per-Capita Consumption		
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: All						
Receive BPNT	-497415.3	-435521.9	-211337.8	-472847.5	-410540.5	-186209.8
	(23628.3)	(27180.7)	(16929.8)	(23442.9)	(26654.3)	(16470.4)
Observations	25918	25918	25918	25918	25918	25918
DV Mean (Non-BPNT HHs)	1149537	1149537	1149537	1149783	1149783	1149783
District FE	No	Yes	Yes	No	Yes	Yes
PMT Score FE	No	No	Yes	No	No	Yes
Panel B: PMT <= 30						
Receive BPNT	-169492.5	-169746.9	-156905.9	-146347.2	-145898.0	-132667.0
	(16060.9)	(15881.2)	(16225.1)	(15892.6)	(15532.2)	(15899.1)
Observations	6402	6402	6402	6402	6402	6402
DV Mean (Non-BPNT HHs)	790535	790535	790535	791415	791415	791415
District FE	No	Yes	Yes	No	Yes	Yes
PMT Score FE	No	No	Yes	No	No	Yes

Note: Columns 1-3 present results for monthly consumption per-capita minus BPNT value received per-capita, while Columns 4-6 present results for monthly consumption per-capita including BPNT value received. Standard errors are displayed in parentheses and clustered at the kabupaten level.

Appendix Table 12: Total Subsidy, Heterogeneity by Household Characteristics

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Not Controlling for PMT Score								
Log consumption (non-subsidy) × Voucher	-4270.8							-2372.3
	(1156.7)							(1075.1)
Log # HH members × Voucher		4697.4						1978.5
		(1173.8)						(1098.3)
Fraction kids in HH × Voucher			8513.7					6077.9
			(2537.8)					(2566.0)
HH head primary edu or less × Voucher				4077.3				4128.8
				(1327.8)				(1188.3)
HH member disabled × Voucher					-81.58			-1.079
					(960.3)			(873.6)
HH member recent health issues × Voucher						1183.3		308.4
						(518.1)		(518.9)
HH head widow × Voucher							-3391.9	-2350.1
							(1676.8)	(1457.4)
Panel B: Controlling for PMT Score								
Log consumption (non-subsidy) × Voucher	112.9							1057.3
	(832.4)							(847.1)
Log # HH members × Voucher		3253.6						1665.8
		(840.8)						(885.0)
Fraction kids in HH × Voucher			7425.8					5668.2
			(1810.5)					(1865.6)
HH head primary edu or less × Voucher				-601.9				761.6
				(820.4)				(804.7)
HH member disabled × Voucher					-1396.3			-299.5
					(719.8)			(700.0)
HH member recent health issues × Voucher						56.73		-165.6
						(438.3)		(479.0)
HH head widow × Voucher							-3621.6	-1928.7
							(1219.3)	(1142.6)
Observations	66494	66494	66494	66494	66494	66494	66494	66494
DV Mean (Control)	14592	14592	14592	14592	14592	14592	14592	14592

Note: Panels and columns present results for separate regressions. All regressions control for a voucher dummy, stratum fixed effects, main effects, and main effect-holdout sample interaction terms. Regressions in Panel B additionally control for PMT score and a dummy for no PMT score, as well as their respective interactions with voucher and holdout sample dummies. Standard errors are displayed in parentheses and clustered at the kabupaten level.

Appendix Table 13: Distribution points for the In-Kind and Voucher Districts

Government Only (1)	Agent Only (2)	Both (3)	Other (4)	N (5)
Panel A: In-Kind Subsidy Districts				
87.8%	0.3%	1.9%	10.1%	52
Panel B: Voucher Districts				
0.0%	99.4%	0.0%	0.6%	55

Note: This table tabulates government officials' answers about the Rastra/BPNT distribution point in their district. Multiple officials are interviewed in some districts, in which case responses are averaged at the district level. Note that at the time of this survey, May-July 2019, some districts were implementing both Rastra and BPNT simultaneously. Responses from 102 of the 105 experimental districts are reported.

Appendix Table 14: Total Subsidy, by PMT Groupings

	PMT > 30	PMT <= 30	PMT <= 25	PMT <= 20	PMT <= 15	PMT <= 10	PMT <= 5
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Voucher	-2571.436	13234.952	14334.674	15659.489	17329.950	19803.957	19400.529
	(563.267)	(1915.934)	(2121.507)	(2268.394)	(2513.739)	(2760.619)	(3603.554)
	[0.001]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
N	49566	16327	13705	11070	8305	5528	2788
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DV Mean (Control)	9162	29201	30525	31741	32736	33185	33513

Note: This table replicates Table 2, but with total subsidy as the outcome variable. See Table 2 for additional details.

Appendix Table 15: Subsidy Outcomes for Recipients, by PMT Groupings

	PMT > 30	PMT <= 30	PMT <= 25	PMT <= 20	PMT <= 15	PMT <= 10	PMT <= 5
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Total Subsidy							
Voucher	28360.815	32031.815	31737.490	31890.674	32534.959	32394.448	32575.512
	(3929.113)	(3291.933)	(3449.263)	(3610.285)	(3910.914)	(4232.732)	(5109.684)
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Observations	9131	9862	8634	7230	5642	3874	1975
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DV Mean (Control)	31243.307	43899.509	44481.664	45061.521	45402.485	44736.016	44722.672
Panel B: Rice Quality							
Voucher	0.189	0.209	0.213	0.227	0.228	0.211	0.207
	(0.025)	(0.019)	(0.019)	(0.018)	(0.018)	(0.020)	(0.024)
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Observations	9108	9790	8570	7181	5596	3842	1957
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DV Mean (Control)	0.614	0.649	0.649	0.652	0.652	0.659	0.660

Note: This table replicates Table 2, but with subsidy outcomes for those who received either program as the outcome variable. See Table 1 for additional details on the outcome variables and Table 2 for additional details on the specifications.

Appendix Table 16: Per Capita Consumption by PMT Groupings

	PMT > 30	PMT <= 30	PMT <= 25	PMT <= 20	PMT <= 15	PMT <= 10	PMT <= 5
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Log Per Capita Consumption							
Voucher	0.010	0.005	0.006	0.013	0.030	0.038	0.050
	(0.015)	(0.016)	(0.019)	(0.019)	(0.020)	(0.022)	(0.024)
	[0.523]	[0.758]	[0.773]	[0.523]	[0.166]	[0.104]	[0.049]
Observations	49566	16329	13707	11072	8307	5529	2788
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DV Mean (Control)	13.765	13.391	13.371	13.353	13.327	13.292	13.248
Panel B: Per Capita Consumption (rp)							
Voucher	14183.682	-2559.178	6118.680	9306.161	21423.936	21629.454	28961.330
	(18316.990)	(15351.067)	(14958.885)	(14914.466)	(15292.427)	(17040.968)	(16432.011)
	[0.479]	[0.881]	[0.675]	[0.538]	[0.178]	[0.223]	[0.108]
Observations	49538	16329	13707	11072	8307	5529	2788
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DV Mean (Control)	1136251	742584	727377	713850	694961	674623	646553
Panel C: CRRA Utility (Relative Risk Aversion Coefficient of 3)							
Voucher	0.035	0.062	0.072	0.101	0.151	0.197	0.228
	(0.042)	(0.071)	(0.076)	(0.079)	(0.081)	(0.091)	(0.112)
	[0.346]	[0.392]	[0.386]	[0.246]	[0.105]	[0.059]	[0.030]
Observations	49566	16324	13702	11067	8303	5526	2785
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DV Mean (Control)	-1.006	-1.795	-1.860	-1.916	-2.004	-2.161	-2.327

Note: This table replicates Table 2, but with per capita consumption and constant relative risk aversion (CRRA) utility as the outcome variable. Consumption is converted to millions of rupiah before calculating utility. See Table 2 for additional details on the specifications.

Appendix Table 17: Food Insecurity Indicators by PMT Groupings

	PMT > 30	PMT <= 30	PMT <= 25	PMT <= 20	PMT <= 15	PMT <= 10	PMT <= 5
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Voucher	-0.001	0.004	0.002	0.005	0.003	0.004	-0.003
	(0.005)	(0.010)	(0.010)	(0.011)	(0.012)	(0.013)	(0.016)
	[0.938]	[0.717]	[0.893]	[0.625]	[0.775]	[0.731]	[0.834]
Observations	49410	16254	13641	11021	8271	5505	2776
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DV Mean (Control)	0.062	0.102	0.102	0.102	0.103	0.101	0.105

Note: This table replicates Table 2, but with an index of food insecurity indicators as the outcome variable. See Table 2 for additional details on the specifications.

Appendix Table 18: Alternative Poverty Metrics, by PMT Groupings

	PMT > 30	PMT <= 30	PMT <= 25	PMT <= 20	PMT <= 15	PMT <= 10	PMT <= 5
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Poverty Gap							
Voucher	-0.0014	-0.0053	-0.0062	-0.0074	-0.0104	-0.0122	-0.0132
	(0.0012)	(0.0033)	(0.0035)	(0.0037)	(0.0040)	(0.0046)	(0.0057)
	[0.230]	[0.129]	[0.111]	[0.072]	[0.017]	[0.018]	[0.023]
Observations	49566	16329	13707	11072	8307	5529	2788
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DV Mean (Control)	0.0108	0.0305	0.0324	0.0337	0.0359	0.0411	0.0463
Panel B: Poverty Gap Squared							
Voucher	-0.0002	-0.0014	-0.0016	-0.0018	-0.0026	-0.0032	-0.0037
	(0.0003)	(0.0008)	(0.0009)	(0.0009)	(0.0009)	(0.0012)	(0.0015)
	[0.401]	[0.110]	[0.109]	[0.078]	[0.014]	[0.012]	[0.017]
Observations	49537	16285	13665	11034	8276	5503	2775
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DV Mean (Control)	0.0023	0.0066	0.0071	0.0073	0.0077	0.0090	0.0101

Note: This table replicates Table 2, but with alternative poverty metrics as the outcome variable. See Table 2 for additional details on the specifications.

Appendix Table 19: Being Below the Poverty Line with Fixed-Price Consumption, by PMT Groupings

	All	PMT <= 30	PMT <= 25	PMT <= 20	PMT <= 15	PMT <= 10	PMT <= 5
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Voucher	-0.010	-0.021	-0.024	-0.031	-0.042	-0.043	-0.050
	(0.007)	(0.013)	(0.014)	(0.013)	(0.015)	(0.017)	(0.018)
	[0.123]	[0.123]	[0.113]	[0.037]	[0.016]	[0.023]	[0.018]
Observations	66496	16329	13707	11072	8307	5529	2788
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DV Mean (Control)	0.090	0.165	0.173	0.181	0.192	0.214	0.239

Note: This table replicates Table 2, but with poverty calculated using consumption at fixed island by urban/rural prices. See Table 2 for additional details on the specifications.

Appendix Table 20: Rice Consumption, by PMT Groupings

	PMT > 30	PMT <= 30	PMT <= 25	PMT <= 20	PMT <= 15	PMT <= 10	PMT <= 5
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Subsidized Rice (kg)							
Voucher	-0.424	0.062	0.079	0.113	0.182	0.322	0.174
	(0.058)	(0.205)	(0.227)	(0.247)	(0.286)	(0.313)	(0.411)
	[0.000]	[0.773]	[0.746]	[0.690]	[0.582]	[0.408]	[0.722]
Observations	49566	16328	13706	11071	8306	5529	2788
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DV Mean (Control)	0.957	2.987	3.124	3.250	3.357	3.396	3.446
Panel B: Total Rice (kg)							
Voucher	0.143	-0.411	-0.237	-0.395	-0.388	-0.565	-1.192
	(0.304)	(0.478)	(0.490)	(0.534)	(0.552)	(0.588)	(0.813)
	[0.704]	[0.492]	[0.705]	[0.551]	[0.603]	[0.482]	[0.290]
Observations	49566	16329	13707	11072	8307	5529	2788
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DV Mean (Control)	26.170	31.586	31.870	32.259	32.878	33.874	35.674

Note: This table replicates Table 2, but with rice consumption as the outcome variable. See Table 2 for additional details on the specifications.

Appendix Table 21: Egg Protein, by PMT Groupings

	PMT > 30	PMT <= 30	PMT <= 25	PMT <= 20	PMT <= 15	PMT <= 10	PMT <= 5
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Subsidized Egg Protein (g)							
Voucher	3.362	32.719	35.442	39.039	37.959	39.866	42.351
	(0.463)	(4.648)	(5.122)	(5.876)	(6.301)	(6.958)	(8.161)
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Observations	49552	16270	13655	11030	8271	5503	2774
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DV Mean (Control)	0.015	0.484	0.506	0.567	0.528	0.634	0.524
Panel B: Total Egg Protein (g)							
Voucher	0.566	9.279	10.149	11.593	14.722	17.946	25.823
	(3.781)	(4.750)	(5.134)	(5.676)	(6.191)	(7.623)	(9.139)
	[0.891]	[0.100]	[0.092]	[0.080]	[0.052]	[0.053]	[0.033]
Observations	49555	16327	13705	11070	8306	5529	2788
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DV Mean (Control)	230.738	213.652	214.222	214.699	214.695	214.806	221.421

Note: This table replicates Table 2, but with egg protein consumption as the outcome variable. See Table 2 for additional details on the specifications.

Appendix Table 22: Experimental Difference between Voucher and In-kind Districts on Food Consumption and Temptation Goods, for Targeted Households

	Sugar (oz) (1)	Cooking Oil (l) (2)	Beef (kg) (3)	Chicken (kg) (4)	Milk (rp) (5)	Corn (kg) (6)	Salt (g) (7)	Liquor (l) (8)	Cigarettes (rp) (9)
Voucher	0.028	0.003	-0.003	-0.020	-176.623	0.041	-7.006	-0.002	280.283
	(0.145)	(0.017)	(0.002)	(0.011)	(380.028)	(0.018)	(3.460)	(0.004)	(524.599)
	[0.854]	[0.894]	[0.205]	[0.147]	[0.717]	[0.066]	[0.083]	[0.639]	[0.604]
Observations	16329	16328	16324	16328	16327	16324	16329	16307	16328
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DV Mean (Control)	5.919	0.813	0.012	0.298	6188.233	0.347	106.449	0.019	17053.408

Note: This table examines the difference between voucher and in-kind districts for various food items and temptation goods for targeted households (PMT <= 30). For continuous outcome variables, we drop any value greater than 12 standard deviations from the mean. The outcome data come from the March 2019 SUSENAS; the PMT data come from the Unified Targeting Data Base. We used a double LASSO to choose the control variables (all potential variables used as inputs for the LASSO are listed in Appendix B). Standard errors are clustered at the district (kabupaten) level and displayed in parentheses. Randomization inference p-values are from 1,000 permutations of the treatment assignments. Joint test significance: F-statistic = 1.834, randomized inference p-value = 0.223.

Appendix Table 23: Experimental Difference between Voucher and In-kind Districts on Price (Continuous shock and travel time variables)

	Main Effect Only (1)	Supply Shock (2)	Time to District Capital (3)
Voucher	140.536	-383.354	55.803
	(135.230)	(361.300)	(149.422)
	[0.296]	[0.266]	[0.698]
Voucher × [Variable]		10969.497	1.615
		(7945.179)	(1.050)
		[0.113]	[0.178]
Observations	32343	32343	32334
Stratum FE	Yes	Yes	Yes
Main Effect Included	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes
DV Mean (Control)	9478.508	9478.508	9478.508
[Variable] Mean		0.049	51.708

Note: This table replicates Table 4, but uses continuous variables for the shock and travel time variables.

Appendix Table 24: Differential effect of readiness on leakage

	Subsidy Received / Intended Subsidy (1)	Subsidy Received (Market Prices) / Intended Subsidy (2)	Subsidy Received (Quality-Adjusted) / Intended Subsidy (3)
Voucher	-0.015	-0.053	-0.005
	(0.051)	(0.047)	(0.052)
	[0.787]	[0.284]	[0.925]
Voucher × Above	-0.021	-0.022	-0.026
Med. Readiness Index	(0.059)	(0.056)	(0.063)
	[0.747]	[0.758]	[0.736]
Observations	105	105	105
Stratum FE	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes
DV Mean (Control)	0.587	0.586	0.588

Note: This table examines the differential effect of the voucher as compared to the in-kind transfers by baseline readiness index. The baseline readiness index comes from government administrative data, and was used to decide which districts would be included in the experimental sample. See Table 5 for additional details.

Appendix Table 25: Administrative Cost Calculations

Panel A: In-kind Program

Item	Details	Total annual costs
Program Benefits	5.6 million beneficiaries × Rp. 100,000 per beneficiary per month	Rp. 6.72 trillion
Annual BULOG operating costs	Rp. 120.2 billion	Rp. 120.2 billion
Local operating costs	5.6 million beneficiaries × 10/kg month × 12 months × Rp. 233 / kg	Rp. 156.6 billion
Total operating costs		Rp. 276.6 billion
Costs as a share of benefits		4.1%

Panel B: Voucher Program, assuming all agent costs charged to program

Item	Details	Total annual costs
Program Benefits	10 million beneficiaries × Rp. 110,000 per beneficiary per month	Rp. 13.2 trillion
Card-printing	10 million beneficiaries × Rp. 12,500, assumed to last 3 years	Rp. 41.6 billion
Agents EDC machine (online)	59,315 total agents × 61% online × 12 months × Rp. 130,000 / month	Rp. 56.1 billion
Agents EDC machine (offline capable)	59,315 total agents × 39% online × 12 months × Rp. 671,000 / month	Rp. 187.7 billion
Total operating costs		Rp. 285.5 billion
Costs as a share of benefits		2.1%

Panel C: Voucher Program, assuming 77% of agents were pre-existing, so charging only 23% of agent costs charged to program

Item	Details	Total annual costs
Program Benefits	10 million beneficiaries × Rp. 110,000 per beneficiary per month	Rp. 13.2 trillion
Card-printing	10 million beneficiaries × Rp. 12,500, assumed to last 3 years	Rp. 41.6 billion
Agents EDC machine (online)	59,315 total agents × 61% online × 12 months × 23% × Rp. 130,000 / month	Rp. 12.9 billion
Agents EDC machine (offline capable)	59,315 total agents × 39% online × 12 months × 23% × Rp. 671,000 / month	Rp. 43.2 billion
Total operating costs		Rp. 97.7 billion
Operating costs as a share of benefits		0.7%

Note: Administrative costs from BULOG are from the 2018 BULOG Annual Report. Local in-kind operating costs from Banerjee et al. (2019).

B Appendix B

Full List of Variables Used as Inputs for LASSO

Dataset	Level	Variables
March 2016-2018 SUSENAS	District by Urban/ Rural Level	# Household Members, House Floor Area, Per-Capita Expenditure, Home Ownership/Lease Status, Roof Material Type, Wall Material Type, Floor Material Type, Restroom Access Categories, Toilet Type, Restroom Access × Toilet Type, Asset Ownership Variables (Cooking Gas, Refrigerator, Air Conditioning, Water Heater, Landline, Personal Computer, Gold/Jewelry 10g+, Motorcycle, Boat, Motor Boat, Car), Waste Disposal Location, Drinking Water Source, Drinking Water Purchase Type, Water Source Ownership Status, Cooking Water Source, Washing Water Source, Public Water Source, Clean Drinking Water, Clean Cooking Water, Clean Washing Water, # Male Household Members, # Female Household Members, # Children in Household, # Cell Phones Owned, Any Cell Phone Owned, # Household Members Use Computer, Any Household Member Uses Computer, # Household Members Use Internet from Source (Any, Home, Outside Home, Office, School, Public, Vehicle), Any Household Member Uses Internet from Source (Any, Home, Outside Home, Office, School, Public, Vehicle), Internet Use Reasons, Electricity Subscription Status, Cooking Gas Types
UDB	Household	Household in UDB, PKH Enrollment Status, BPNT Enrollment Status, KKS Card in 2016, KKS Card in 2017, PBI Enrollment Status, Household in Dapodik, Household in UDB in 2015, # Cows Owned, # Water Buffalo Owned, # Horses Owned, # Pigs Owned, # Goats Owned, Proxy-Means Test (PMT) Percentile Score, Home Ownership/Rental Status, Land Ownership Status, House Floor Area, Floor Material Type, Wall Material Type, Roof Material Type, Drinking Water Source, Drinking Water Subscription Status, Electricity Subscription Status, Electricity Wattage Categories, Cooking Fuel Categories, Restroom Facilities Ownership Status, Toilet Types, Waste Disposal Location, Floor Condition, Wall Condition, Roof Condition, Household Assets (Gas Tank, Air Conditioner, Landline, Water Heater, Gold/Jewelry 10g+, Bicycle, Motorcycle, Car, Boat, Motor Boat, Ship, Refrigerator), Household Assets (Self-Reported), Business Ownership, Self-Reported KKS Card, Self-Reported KIS Card, Self-Reported PKH Enrollment, Self-Reported Jamsostek Status, Self-Reported KIP Card, Self-Reported BPJS Mandiri Enrollment, Self-Reported Other Health Insurance, Self-Reported Rastra Enrollment, Land/Estate Ownership, Land/Estate Area, Second Home Ownership, Self-Reported KUR Enrollment, # Household Members (Categories), # Family Members (Categories), # Rooms in Home (Categories), Head of Household Marital Staus, # Hours Head of Household Works, Head of Household Age, Male Head of Household, Head of Household Education Level Completed, Head of Household Highest Education Level Reached, Head of Household Highest Degree Received, Head of Household Works, Head of Household Employment Sector, Head of Household Employment Status, Pregnant Woman in Household, Disability in Household, Chronic Disease in Household, Student in Household, Worker in Household
PODES	Village	Main Agricultural Crop in Village Categories, Road to Village Center Type, Road Passability Categories, Distance to Subdistrict Capital, Travel Time to Subdistrict Capital, Travel Cost to Subdistrict Capital, Cell Signal Strength Categories, Mobile Internet Types, Bank Agent in Village, Distance to Nearest Bank Agent if None in Village, Ease of Reaching Nearest Bank Agent if None in Village

Missing observations for variables in the PODES and UDB are set to 0, and indicator variables are included to indicate missing status. Variables from the March 2016-2018 SUSENAS are averaged at the district by urban/rural level using household weights.

C Appendix C

Appendix C Table 1: Total Subsidy (rp)

	September 2018			March 2019			Pooled		
	All	PMT <= 30	PMT > 30	All	PMT <= 30	PMT > 30	All	PMT <= 30	PMT > 30
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Voucher	1638.124	13311.554	-2811.833	1304.749	13234.952	-2571.436	1399.309	14129.880	-2288.029
	(1528.782)	(3102.830)	(1074.933)	(617.738)	(1915.934)	(563.267)	(615.970)	(1624.331)	(551.459)
	[0.233]	[0.002]	[0.040]	[0.087]	[0.000]	[0.001]	[0.058]	[0.000]	[0.002]
Observations	16428	3998	12294	66494	16327	49566	82922	20325	61860
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DV Mean (Control)	16597.507	34568.698	10284.263	14456.314	29200.535	9161.727	15709.936	32319.518	9821.281

Note: This table populates the pre-specified analysis plan table 1. See Table 1 for additional details on the variable and specifications.

Appendix C Table 2: Subsidized Rice Quality

	All (1)
Voucher	0.203 (0.020) [0.000]
Observations	19260
Stratum FE	Yes
Double Lasso	Yes
DV Mean (Control)	0.630

Note: This table populates the pre-specified analysis plan table 2. See Table 1 for additional details on the variable and specifications.

Appendix C Table 3: Food Insecurity Indicators

	All (1)	PMT <= 30 (2)	PMT > 30 (3)
Voucher	0.001 (0.006) [0.905]	0.004 (0.010) [0.717]	-0.001 (0.005) [0.938]
Observations	66258	16254	49410
Stratum FE	Yes	Yes	Yes
Double Lasso	Yes	Yes	Yes
DV Mean (Control)	0.072	0.102	0.062

Note: This table populates the pre-specified analysis plan table 3. See Table 3 for additional details on the variable and specifications.