2024Q1 CITY OF MINNEAPOLIS GUARANTEED BASIC INCOME PILOT PROGRAM EVALUATION CUMULATIVE WORKING RESULTS

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February 26, 2024

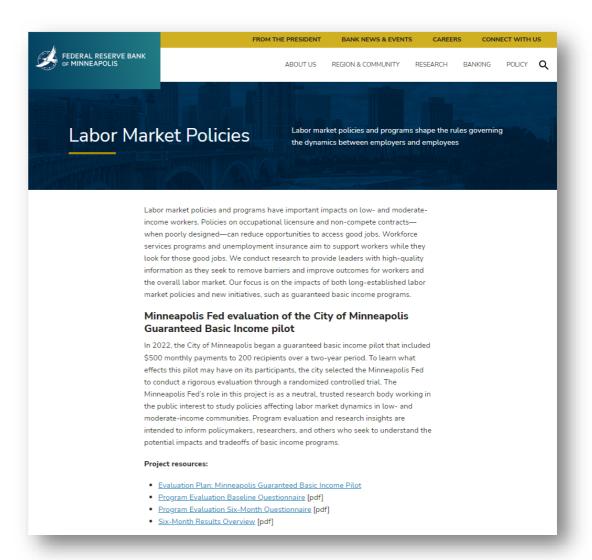


FEDERAL RESERVE BANK OF MINNEAPOLIS

The views expressed here are those of the authors and not necessarily those of the Federal Reserve Bank of Minneapolis or the Federal Reserve System.

RESOURCES AND DETAILS

- Full questionnaires
- Detailed analysis plan
- All materials published to date



https://www.minneapolisfed.org/topic/labor-market-policies

Also linked from <u>City's GBI pilot landing page</u>



SUMMARY OF RESULTS AT 18 MONTHS

• Evidence so far from the City of Minneapolis' guaranteed basic income (GBI) pilot shows:

Positive impacts on:

- Food security
- Financial security
- Self-assessed well-being
- Psychological wellness
- Housing stability ☆

Potential positive impacts on:

• Labor supply **☆**

Cannot detect (at this time) impacts on:

- Healthcare access ☆
- Transportation access
- School/training attendance
- Use of low-cost credit
- Healthcare utilization
- Housing "quantity"

Formal outcome measures shown in **bold**☆ indicates a change at 18 months compared to 12 months

• We will report on new data through 2023–24

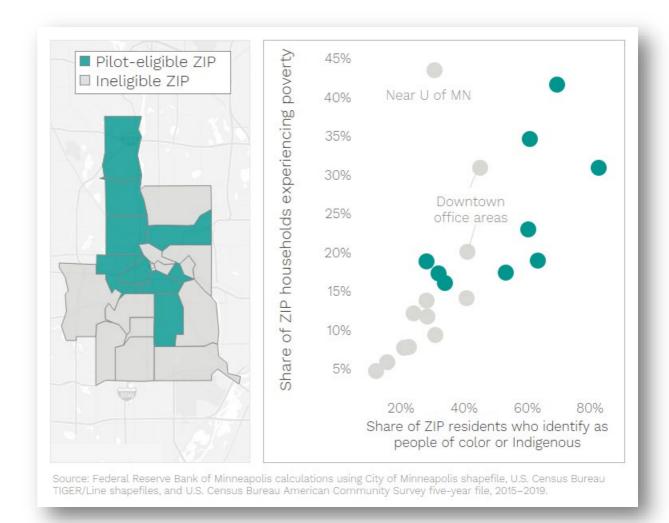




MINNEAPOLIS GBI PILOT: OVERVIEW

Basic design:

- City of Minneapolis recruited participants from community at large, through community-based organizations and advertising
- After baseline survey, randomization, and eligibility verification by the City:
 - 200 participants assigned to the payment (treatment) group to receive \$500 per month for 24 months
 - 330 participants assigned to the survey
 (comparison) group to receive compensation for taking surveys
- o Surveys occur every six months (planned)
- o Minneapolis Fed serves as neutral program evaluator





EVALUATION TIMELINE TO PRESENT







CURRENT COUNTS

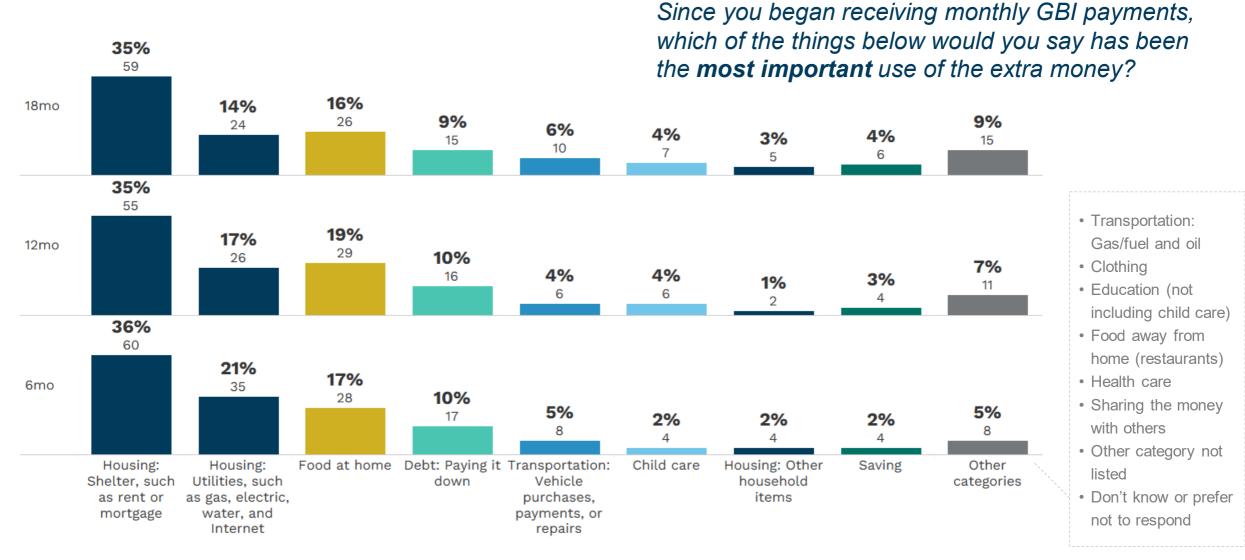
Pool of potential future survey respondents: **330**Total of **296** reportable responses at 6 months, **281** at 12 months, and **292** at 18 months

	Ever received pay Loss of 6 to date (none		Current eligibility unknown	Not currently eligible	Currently eligible	All
Randomized to payment group	Assigned to payment group	Confirmed eligible		5	165	170
		Confirmed ineligible		9		9
	Assigned to survey (control) group	Confirmed eligible			4	4
		Eligibility unknown	15	\		15
Randomized to survey	Assigned to payment group	Confirmed eligible		X	30	31
(control) group		Confirmed ineligible		2		2
	Assigned to survey (control) group	Confirmed eligible		7	131	138
		Confirmed ineligible		21		21
		Eligibility unknown	130			130
	Opted out	Confirmed ineligible		9		9
All			145	54	330	529
A = - f = 1 = 1 = 0.0004						

As of February 26, 2024

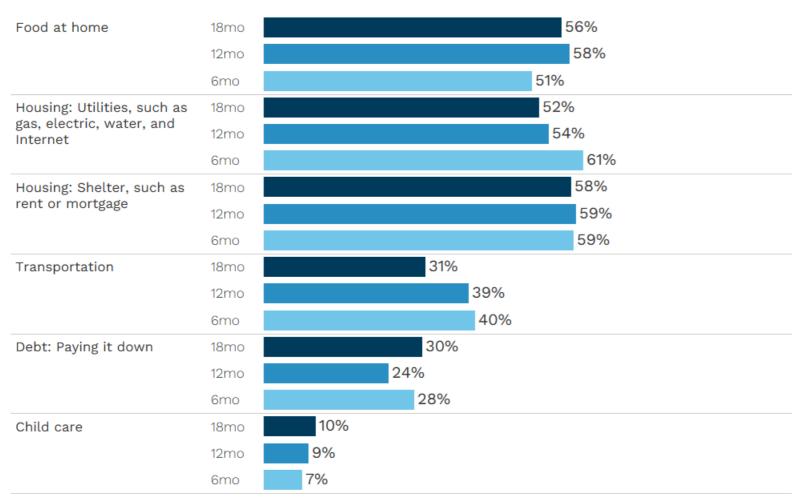


CUMULATIVE RESULTS: MOST IMPORTANT USE



Includes responses from participants ultimately verified to have been study-eligible at baseline; future results may show small changes

CUMULATIVE RESULTS: TOP 3 SPENDING CATEGORIES



Since you began receiving monthly GBI payments, which of the things below would you say has been the **most important** use of the extra money?

...second most important?

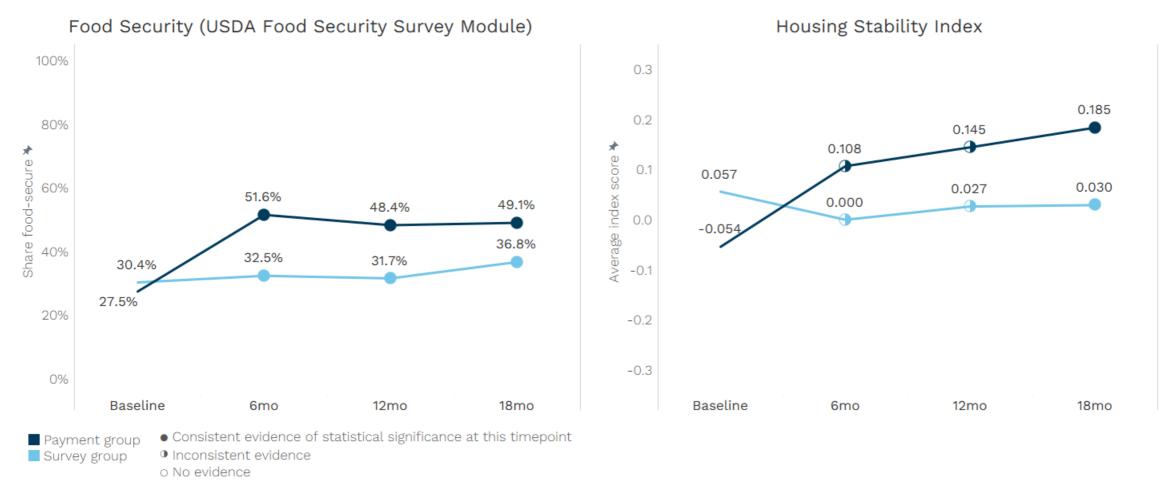
...third most important?

Includes responses from participants ultimately verified to have been study-eligible at baseline; future results may show small changes





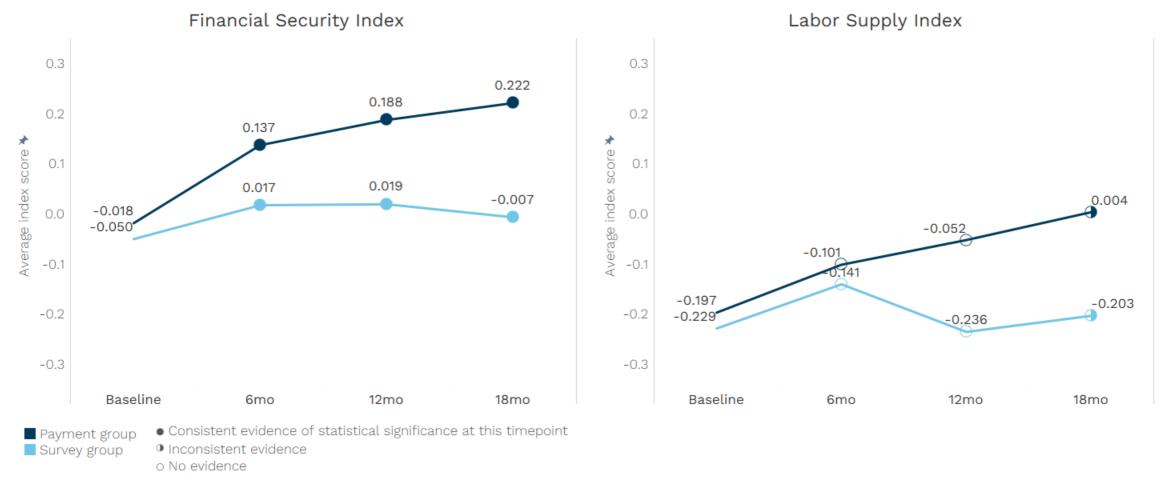
CUMULATIVE RESULTS: FORMAL OUTCOMES (slide 1 of 3)







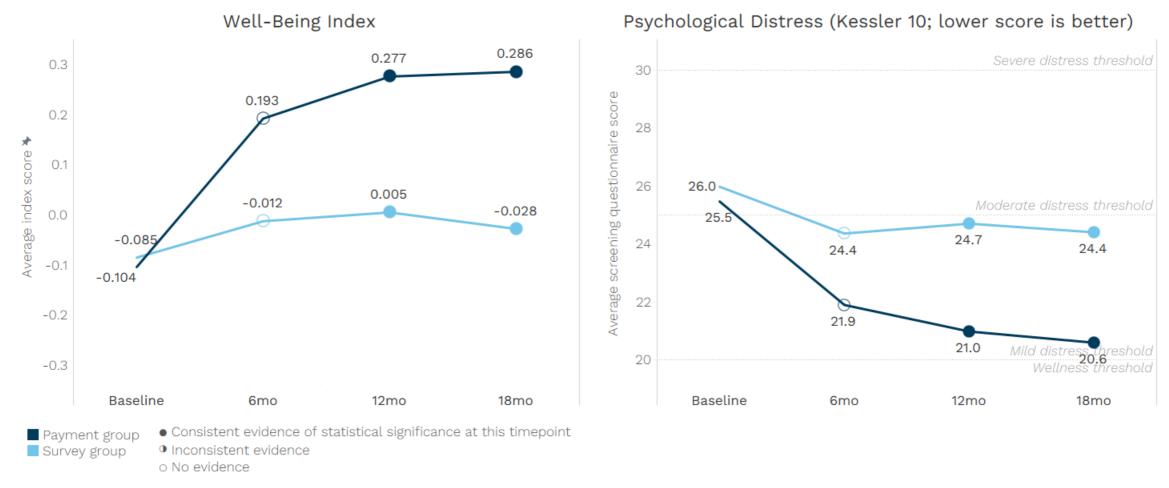
CUMULATIVE RESULTS: FORMAL OUTCOMES (slide 2 of 3)







CUMULATIVE RESULTS: FORMAL OUTCOMES (slide 3 of 3)



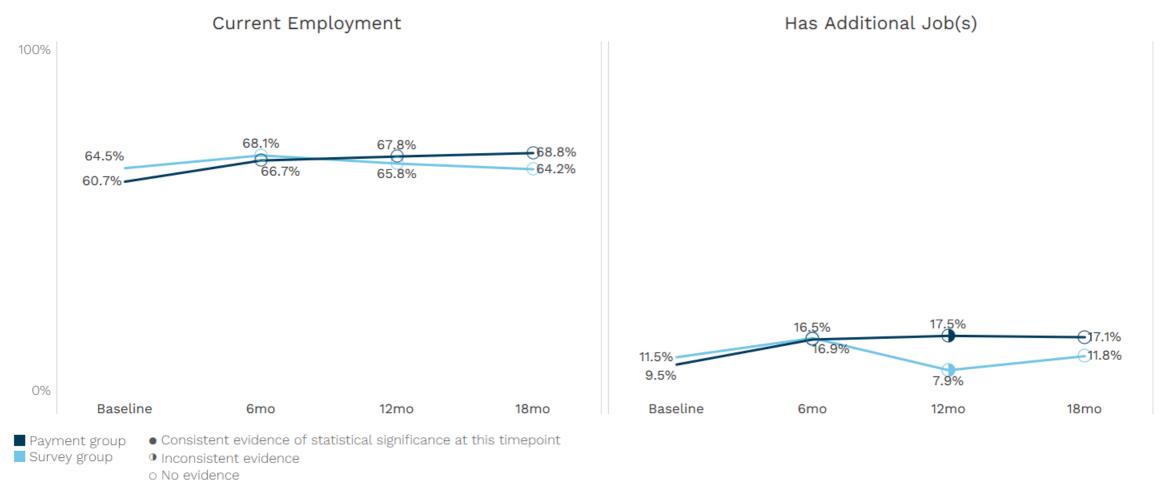




EXPLORATORY OUTCOMES



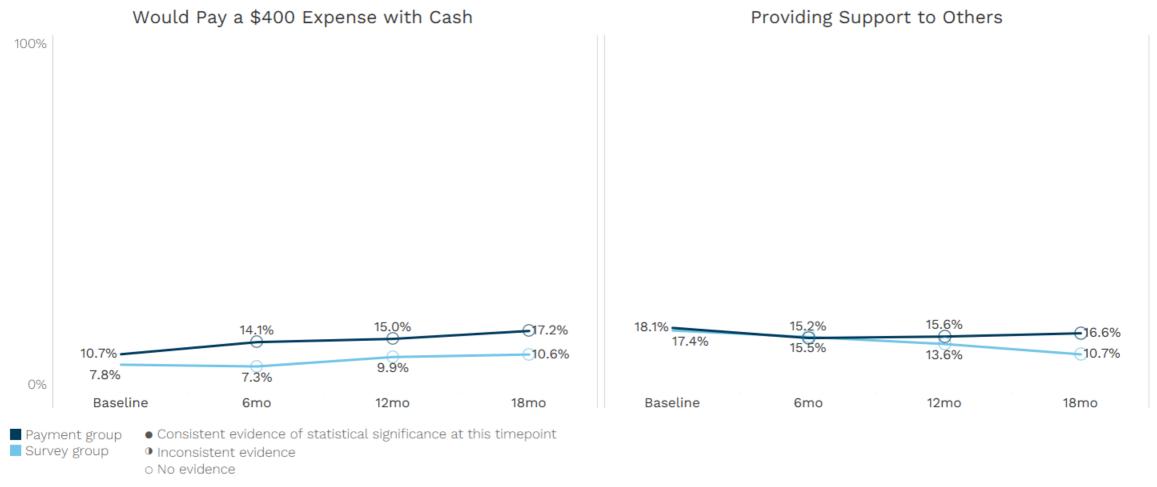
CUMULATIVE RESULTS: EXPLORATORY OUTCOMES (slide 1 of 6)







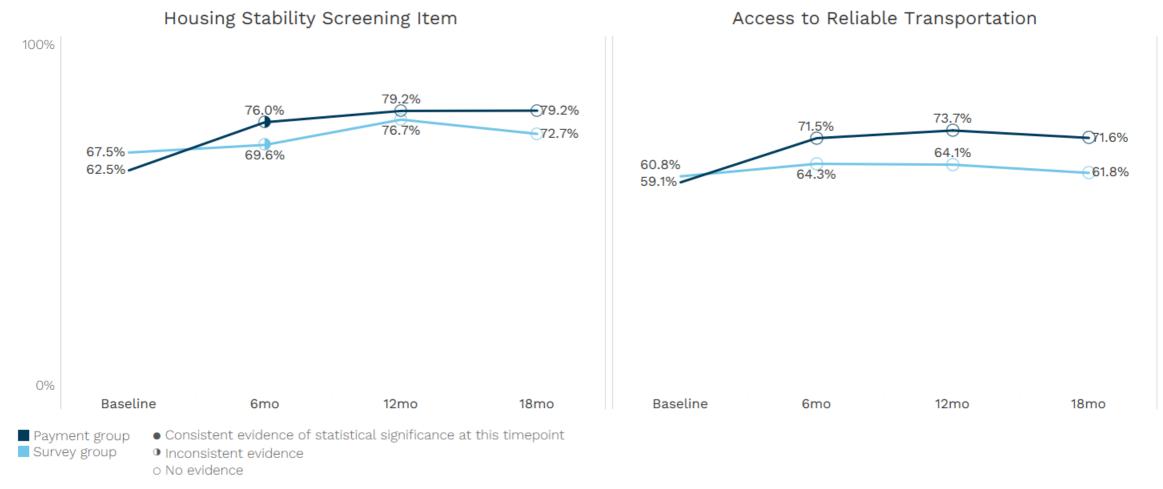
CUMULATIVE RESULTS: EXPLORATORY OUTCOMES (slide 2 of 6)







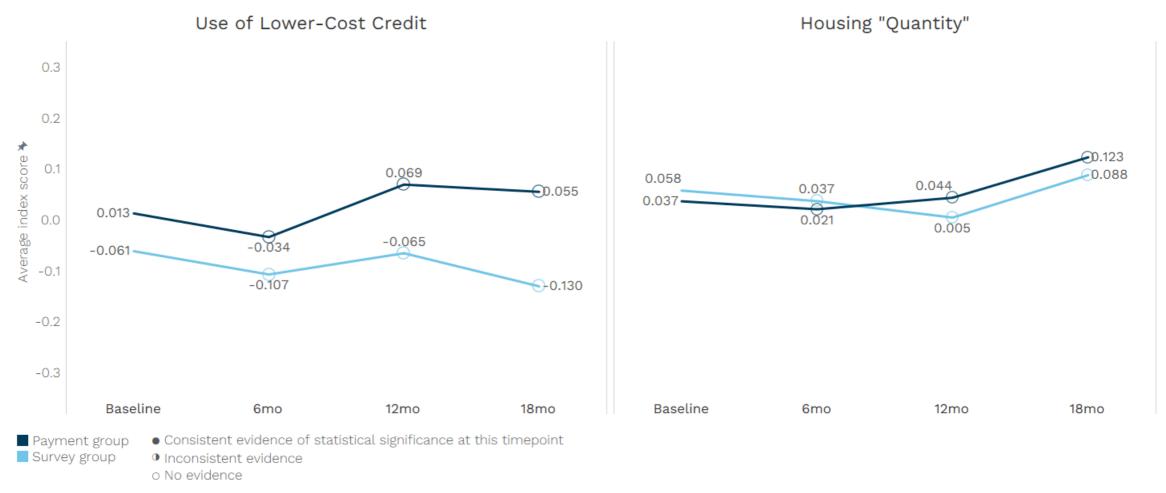
CUMULATIVE RESULTS: EXPLORATORY OUTCOMES (slide 3 of 6)







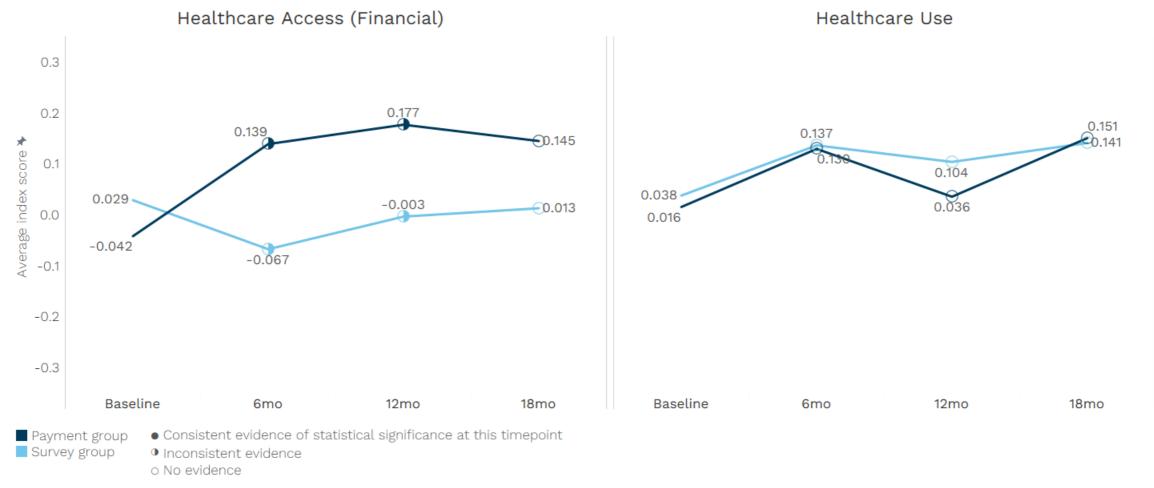
CUMULATIVE RESULTS: EXPLORATORY OUTCOMES (slide 4 of 6)







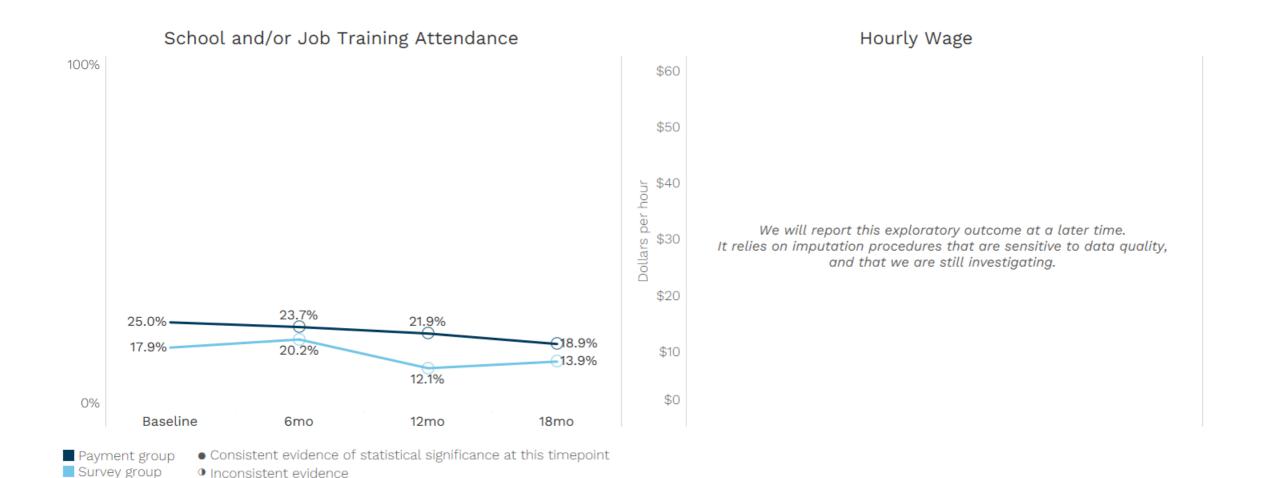
CUMULATIVE RESULTS: EXPLORATORY OUTCOMES (slide 5 of 6)







CUMULATIVE RESULTS: EXPLORATORY OUTCOMES (slide 6 of 6)



Showing responses over time from participants who responded to the 18-month survey and who had been verified to have been study-eligible as of that time; future results may show small changes



o No evidence

FIGURE P1.

Characteristics of GBI Pilot-Eligible ZIP Codes *See Slide 5*



PRE-SPECIFIED EXHIBITS

NUMBERING AND ORDERING REFLECT PRE-ANALYSIS PLAN:

HTTPS://WWW.MINNEAPOLISFED.ORG/RESEARCH/COMMUNITY-DEVELOPMENT-WORKING-PAPERS/EVALUATION-PLAN-MINNEAPOLIS-GUARANTEED-BASIC-INCOME-PILOT

TABLE P1.

GBI Pilot Household Income Eligibility Thresholds by Household Size

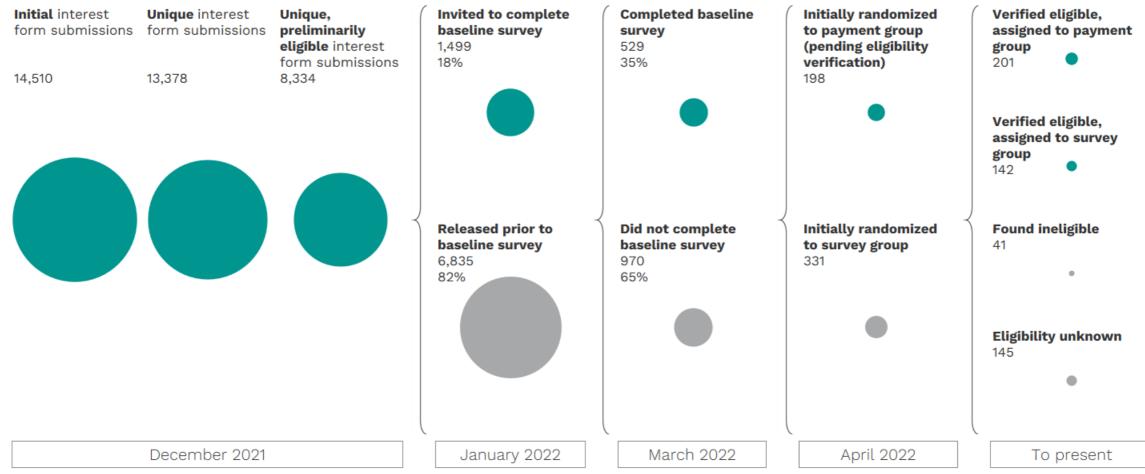
Household size	Income
1	\$36,725
2	\$41,975
3	\$47,225
4	\$52,450
5	\$56,646
6	\$60,842
7	\$65,038
8	\$69,234
9	\$73,425
10	\$77,625
11	\$81,825
12	\$86,025

Source: U.S. Department of Housing and Urban Development (2021), https://www.huduser.gov/portal/datasets/il.html



FIGURE P2.

Stages of Recruitment



Counts reflect a duplicate baseline survey submission discovered during eligibility verification. Updated February 26, 2024



TABLE P2R. (SLIDE 1 OF 2)

Balance Test in the Full Study Sample

Outcome	Control mean (s.d.)	Treatment mean (s.d.)	Difference Treatment-Control (s.d.)
i. Education			
Share less than high school	0.13 (0.32)	0.177 (0.345)	0.0475 (0.333)
Share high school grad	0.254 (0.434)	0.248 (0.431)	-0.00649 (0.432)
Share some college	0.312 (0.465)	0.267 (0.445)	-0.0443 (0.455)
Share post-secondary	0.287 (0.434)	0.298 (0.443)	0.0111 (0.439)
ii. Gender			
Share male	0.259 (0.405)	0.258 (0.413)	-0.00155 (0.409)
Share other gender	0.0241 (0.107)	0.0458 (0.119)	0.0217 (0.113)
Share female	0.71 (0.412)	0.691 (0.415)	-0.0193 (0.414)
iii. Age			
Age	38.4 (10.8)	38.5 (10.8)	0.136 (10.8)
iv. Household size and distribution of childre	n		
Household size	2.87 (1.35)	2.85 (1.24)	-0.0241 (1.30)
Number kids under 18	1.38 (0.789)	1.44 (0.814)	0.0658 (0.802)
Number kids under 5	0.439 (0.512)	0.367 (0.461)	-0.0718 (0.487)
v. Cumulative Income Distribution			
HH income < \$5,000	0.138 (0.239)	0.174 (0.241)	0.0357 (0.240)
HH income < \$7,500	0.217 (0.275)	0.239 (0.276)	0.0220 (0.275)
HH income < \$10,000	0.283 (0.279)	0.309 (0.275)	0.0259 (0.277)
HH income < \$12,500	0.353 (0.245)	0.4 (0.232)	0.0468 (0.238)
HH income < \$15,000	0.438 (0.3)	0.44 (0.245)	0.00245 (0.273)
HH income < \$20,000	0.54 (0.288)	0.551 (0.269)	0.0105 (0.278)



TABLE P2R. (SLIDE 2 OF 2)

Balance Test in the Full Study Sample

Outcome	Control mean (s.d.)	Treatment mean (s.d.)	Difference Treatment-Control (s.d.)
v. Cumulative Income Distribution (cont'd)			
HH income < \$25,000	0.64 (0.285)	0.642 (0.272)	0.00196 (0.279)
HH income < \$30,000	0.722 (0.277)	0.707 (0.28)	-0.0145 (0.279)
HH income < \$35,000	0.81 (0.229)	0.819 (0.278)	0.00904 (0.255)
HH income < \$40,000	0.867 (0.187)	0.884 (0.209)	0.0172 (0.199)
HH income < \$50,000	0.946 (0.138)	0.955 (0.101)	0.00931 (0.121)
HH income < \$75,000	0.997 (0.0199)	1.00 (0.00)	0.00303 (0.0141)
vi. Outcome Indices			
Credit Use Index	-0.0146 (0.510)	0.00764 (0.530)	0.0223 (0.520)
Financial Security Index	0.00891 (0.385)	0.0177 (0.419)	0.00875 (0.402)
Food Security Index	0.338 (0.464)	0.288 (0.458)	-0.0501 (0.461)
Healthcare Access Index	0.0148 (0.700)	-0.0254 (0.662)	-0.0402 (0.681)
Housing Quantity Index	0.00325 (0.553)	-0.0257 (0.481)	-0.0290 (0.518)
Housing Stability Index	-0.0324 (0.495)	-0.0410 (0.490)	-0.00867 (0.492)
Healthcare Utilization Index	0.0194 (0.585)	-0.0252 (0.574)	-0.0447 (0.579)
Psychological Distress Index	25.0 (9.32)	24.4 (10.8)	-0.571 (10.1)
Labor Supply Index	-0.203 (0.705)	-0.246 (0.670)	-0.0437 (0.688)
Well-Being Index	0.00276 (0.784)	-0.0375 (0.755)	-0.0403 (0.770)
Joint p-value		0.674	



FIGURE P3.

Distribution of Sampled Households Across Strata

Assignment to **payment** and **survey** groups

	ZIP Group 0 (55405, 55	411, 55412, 55413, 55430)	ZIP Group 1 (55403, 55404, 55407, 55454)			
	No kids under 18	Yes kids under 18	No kids under 18	Yes kids under 18		
At or above poverty threshold	15 15	46 32	23 13	32 18		
Below poverty threshold	16 11	26 23	29 20	14 10		

Counts reflect verified ever-eligibility as of February 26, 2024



TABLE P2C. (SLIDE 1 OF 3)

Balance Test in the Confirmed-Eligible Sample

Outcome	Control mean (s.d.)	Treatment mean (s.d.)	Difference Treatment-Control (s.d.)
i. Education			
Share less than high school	0.0809 (0.220)	0.148 (0.319)	0.0674 (0.274)
Share high school grad	0.247 (0.407)	0.232 (0.420)	-0.0157 (0.414)
Share some college	0.320 (0.465)	0.300 (0.464)	-0.0192 (0.464)
Share post-secondary	0.339 (0.447)	0.310 (0.457)	-0.0289 (0.452)
ii. Gender			
Share male	0.197 (0.351)	0.268 (0.421)	0.0706 (0.387)
Share other gender	0.0327 (0.100)	0.0382 (0.112)	0.00551 (0.106)
Share female	0.764 (0.374)	0.685 (0.426)	-0.0798 (0.401)
iii. Age			
Age	38.9 (10.8)	37.6 (10.9)	-1.30 (10.9)
iv. Household size and distribution of childr	ren		
Household size	2.74 (1.05)	2.81 (1.18)	0.0753 (1.12)
Number kids under 18	1.36 (0.743)	1.43 (0.785)	0.0729 (0.764)
Number kids under 5	0.454 (0.500)	0.389 (0.461)	-0.0648 (0.481)
v. Cumulative Income Distribution			
HH income < \$5,000	0.149 (0.247)	0.172 (0.244)	0.0238 (0.246)
HH income < \$7,500	0.227 (0.283)	0.222 (0.273)	-0.00527 (0.278)
HH income < \$10,000	0.287 (0.289)	0.297 (0.274)	0.0101 (0.282)
HH income < \$12,500	0.367 (0.251)	0.384 (0.210)	0.0171 (0.231)
HH income < \$15,000	0.443 (0.314)	0.433 (0.262)	-0.00928 (0.289)
HH income < \$20,000	0.557 (0.260)	0.548 (0.266)	-0.00925 (0.263)



TABLE P2C. (SLIDE 2 OF 3)

Balance Test in the Confirmed-Eligible Sample

Outcome	Control mean (s.d.)	Treatment mean (s.d.)	Difference Treatment-Control (s.d.)
v. Cumulative Income Distribution (cont'd)			
HH income < \$25,000	0.652 (0.304)	0.646 (0.280)	-0.00641 (0.292)
HH income < \$30,000	0.723 (0.254)	0.716 (0.278)	-0.00661 (0.266)
HH income < \$35,000	0.830 (0.203)	0.844 (0.268)	0.0139 (0.238)
HH income < \$40,000	0.901 (0.143)	0.893 (0.206)	-0.00795 (0.178)
HH income < \$50,000	0.969 (0.0981)	0.970 (0.0928)	0.000934 (0.0955)
HH income < \$75,000	1.00 (0.00)	1.00 (0.00)	0.00 (0.00)
vi. Outcome Indices			
Credit Use Index	-0.0429 (0.505)	0.0189 (0.500)	0.0619 (0.503)
Financial Security Index	-0.0278 (0.380)	-0.000581 (0.404)	0.0272 (0.392)
Food Security Index	0.332 (0.474)	0.264 (0.440)	-0.0685 (0.457)
Healthcare Access Index	0.0634 (0.638)	-0.0305 (0.656)	-0.0939 (0.647)
Housing Quantity Index	0.00701 (0.517)	-0.0190 (0.493)	-0.0260 (0.505)
Housing Stability Index	0.0173 (0.441)	-0.0628 (0.491)	-0.0801 (0.467)
Healthcare Utilization Index	0.0270 (0.613)	0.00667 (0.567)	-0.0203 (0.590)
Psychological Distress Index	25.7 (9.65)	24.9 (10.1)	-0.750 (9.85)
Labor Supply Index	-0.277 (0.678)	-0.210 (0.709)	0.0670 (0.694)
Well-Being Index	-0.0514 (0.759)	-0.0654 (0.721)	-0.0140 (0.740)



TABLE P2. BALANCE TEST (SLIDE 3 OF 3)

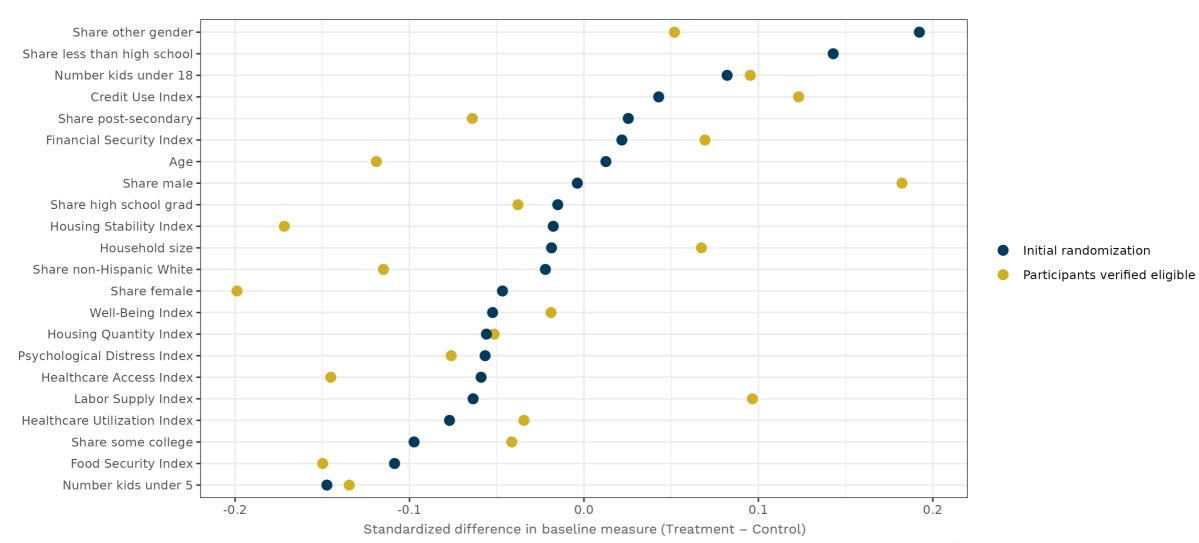




TABLE P3A.

Response Rates by Outcome Domain, Wave, and Treatment Assignment

Outcome Domain	6-month		12-m	onth	18-month	
	Control (%)	Treatment (%)	Control (%)	Treatment (%)	Control (%)	Treatment (%)
Credit Use Index	42.4%	74.0%	41.7%	68.3%	41.4%	73.6%
Financial Security Index	42.4%	74.0%	41.7%	68.3%	41.4%	73.6%
Food Security Index	42.4%	74.0%	41.7%	68.3%	41.4%	73.6%
Healthcare Access Index	42.1%	73.6%	41.4%	67.8%	41.1%	73.1%
Housing Quantity Index	42.4%	74.0%	41.7%	67.8%	41.4%	73.1%
Housing Stability Index	42.4%	74.0%	41.7%	68.3%	41.4%	73.6%
Healthcare Utilization Index	42.4%	74.0%	41.7%	68.3%	41.4%	73.6%
Psychological Distress Index	42.4%	74.0%	41.7%	68.3%	41.4%	73.6%
Labor Supply Index	42.4%	73.6%	41.7%	67.8%	41.4%	73.1%
Well-Being Index	42.4%	73.6%	41.7%	67.8%	41.4%	73.1%
Differential attrition test:						
Effect of treatment assignment on response rate (coef, s.e.)	0.316 (0.041)	0.265 ((0.042)	0.322 ((0.041)



TABLE P3B.

Response and Eligibility Verification Counts by Treatment Assignment

		Baseline	6-month		12-month		18-month	
		Responded	Responded	Did not respond	Responded	Did not respond	Responded	Did not respond
Initially randomized to contro	l group							
Assigned to control group	TOTAL	298	149	149	128	170	121	177
	Ineligible	30	4	27	1	32	0	34
	Unverified	130	21	109	5	125	0	130
	Eligible	138	124	13	122	13	121	13
Assigned to treatment group	TOTAL	33	27	6	24	9	26	7
	Ineligible	2	0	2	0	2	0	3
	Eligible	31	27	4	24	7	26	4
Initially randomized to treatm	ent group							
Assigned to control group	TOTAL	19	7	12	5	14	4	15
	Unverified	15	3	12	1	14	0	15
	Eligible	4	4	0	4	0	4	0
Assigned to treatment group	TOTAL	179	141	38	131	48	141	38
	Ineligible	9	0	11	0	12	0	12
	Eligible	170	141	27	131	36	141	26



TABLE P4. (SLIDE 1 OF 3)

Selective Attrition Tests at Baseline

			Baseline	means	p-values				
Index (Formal Outcomes)	Wave	Control Respondents	Control Attritors	Treatment Respondents	Treatment Attritors	Unconditional IV-P test (Assumption 1)	Unconditional IV-R test (Assumption 2)	Conditional IV-P Test (Assumption 1X)	Conditional IV-R Test (Assumption 2X)
Financial Security	6-month	-0.0393	0.0689	-0.0249	0.067	0.141	0.25	0.275	0.775
	12-month	-0.0671	0.0877	-0.0193	0.0382	0.135	0.432	0.192	0.694
	18-month	-0.0501	0.0747	-0.0184	0.0472	0.112	0.216	0.529	0.791
Food Security	6-month	0.312	0.362	0.256	0.39	0.000362	0.119	0.148	0.45
	12-month	0.302	0.369	0.271	0.333	0.00643	0.0468	0.547	0.481
	18-month	0.304	0.367	0.275	0.333	1.32E-08	0.00566	0.281	0.405
Housing Stability	6-month	0.0378	-0.0434	-0.0627	-0.094	3.20E-05	0.00435	0.0866	0.269
	12-month	0.0431	-0.0462	-0.0584	-0.0976	7.00E-06	0.0487	0.0364	0.741
	18-month	0.0565	-0.0552	-0.0536	-0.119	9.17E-07	0.00376	0.015	0.571
Psychological Distress	6-month	26	23.6	25.6	23.3	0.134	0.782	0.131	0.611
	12-month	25.6	23.8	25.7	23.4	0.309	0.9	0.544	0.864
	18-month	26	23.6	25.5	23.6	0.0873	0.801	0.158	0.596



TABLE P4. (SLIDE 2 OF 3)

Selective Attrition Tests at Baseline

	Baseline means					p-values			
Index (Formal Outcomes)	Wave	Control Respondents	Control Attritors	Treatment Respondents	Treatment Attritors	Unconditional IV-P test (Assumption 1)	Unconditional IV-R test (Assumption 2)	Conditional IV-P Test (Assumption 1X)	Conditional IV-R Test (Assumption 2X)
Labor Supply	6-month	-0.242	-0.194	-0.223	-0.214	0.165	0.306	0.00143	0.0791
	12-month	-0.223	-0.209	-0.204	-0.256	0.251	0.371	0.00481	0.075
	18-month	-0.229	-0.204	-0.197	-0.287	0.102	0.227	0.00405	0.0709
Well-Being	6-month	-0.0798	0.0715	-0.109	0.159	0.0572	0.731	0.0414	0.156
	12-month	-0.0683	0.0615	-0.115	0.124	0.0548	0.528	0.0451	0.141
	18-month	-0.0852	0.0728	-0.104	0.14	0.0264	0.616	0.0006	0.0844



TABLE P4. (SLIDE 3 OF 3)

Selective Attrition Tests at Baseline

	Baseline means						p-values			
Index (Exploratory Outcomes)	Wave	Control Respondents	Control Attritors	Treatment Respondents	Treatment Attritors	Unconditional IV-P test (Assumption 1)	Unconditional IV-R test (Assumption 2)	Conditional IV-P Test (Assumption 1X)	Conditional IV-R Test (Assumption 2X)	
Credit Use	6-month	-0.074	0.0449	0.00398	-0.0368	0.0934	0.165	0.148	0.431	
	12-month	-0.0635	0.036	0.001	-0.0231	0.0294	0.1	0.133	0.515	
	18-month	-0.0612	0.0338	0.0129	-0.0609	0.207	0.514	0.159	0.707	
Healthcare Access	6-month	0.0729	-0.0162	-0.0389	-0.00447	2.36E-08	0.00274	0.0978	0.132	
	12-month	0.0309	0.015	-0.0848	0.0888	0.00165	0.0518	0.256	0.171	
	18-month	0.029	0.0164	-0.0415	0.00245	0.00277	0.0355	0.243	0.169	
Housing Quantity	6-month	0.0207	-0.00957	-0.00253	-0.078	0.0853	0.152	0.119	0.571	
	12-month	0.0188	-0.00788	0.0357	-0.145	0.061	0.0642	0.134	0.254	
	18-month	0.0577	-0.0352	0.0366	-0.184	0.014	0.0906	0.0454	0.243	
Healthcare Utilization	6-month	0.000695	0.00676	-0.0037	0.0107	0.0104	0.368	0.0712	0.628	
	12-month	0.012	-0.00143	0.00312	-0.00658	0.0261	0.402	0.0459	0.545	
	18-month	0.0381	-0.0199	0.0157	-0.0436	0.0409	0.198	0.0733	0.571	





TABLE P5.

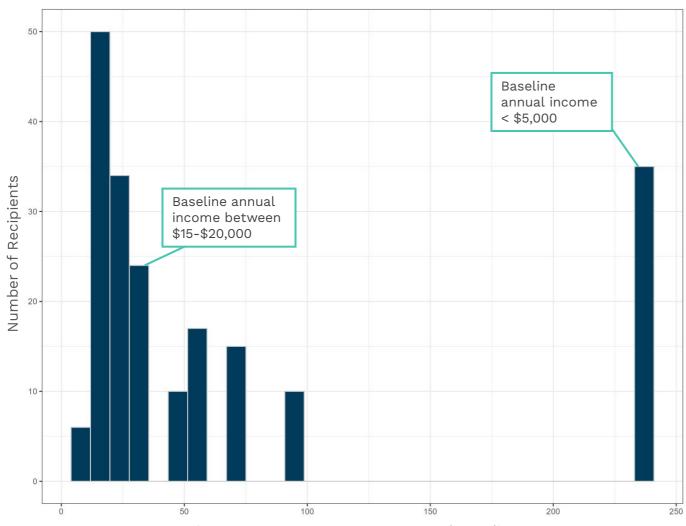
Distribution of Respondents Across Strata and Stratum Treatment Probabilities

Stratum	Kids	ZIP	Poverty	Respondents (Treatment Probability)					
				Baseline	6 months	12 months	18 months		
1	No children	ZIP group 0	Not experiencing	49 (39%)	31 (48%)	25 (60%)	27 (59%)		
2	No children	ZIP group 0	Experiencing	44 (36%)	24 (42%)	22 (36%)	23 (43%)		
3	Children	ZIP group 0	Not experiencing	71 (38%)	52 (44%)	45 (49%)	47 (51%)		
4	Children	ZIP group 0	Experiencing	112 (42%)	75 (52%)	64 (53%)	65 (58%)		
5	No children	ZIP group 1	Not experiencing	69 (45%)	45 (58%)	44 (55%)	45 (56%)		
6	No children	ZIP group 1	Experiencing	61 (39%)	33 (61%)	27 (67%)	27 (67%)		
7	Children	ZIP group 1	Not experiencing	38 (40%)	23 (52%)	21 (52%)	20 (55%)		
8	Children	ZIP group 1	Experiencing	85 (39%)	41 (56%)	40 (58%)	38 (66%)		



FIGURE P4.

Distribution of the Percent Increase Over Annual Baseline Income from Annual GBI Payments in the Treatment Group



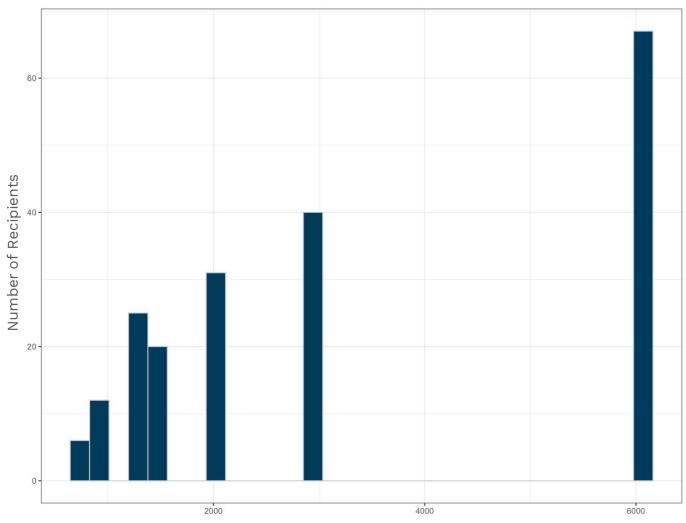
For the median participant, GBI payments represented a 34 percent increase over annual baseline income.



Approximate Percent Increase over Annual Baseline Income

FIGURE P5.

Distribution of Per-Person GBI Payment in the Treatment Group



On average, participants in the treatment group received \$3,291 per person in their household in annual GBI payments.



TABLE P6. (SLIDE 1 OF 2)

Experimental Results for Formal Outcomes

Multiple hypothesis test adjustments to p-values use family-wise error rate approach; see <u>pre-analysis plan</u> for details

Outcome	Wave	Control Mean (N)	Treatment Mean (N)	Simple Difference in Means	Model 1 (multiple hypothesis test- adjusted p-value)	Model 2 (multiple hypothesis test- adjusted p-value)	Model 3 (multiple hypothesis test- adjusted p-value)
	mo06	-0.163 (127)	-0.129 (166)	0.0927	0.0116 (0.902)	0.0274 (0.707)	0.0214 (0.776)
Labor Supply	mo12	-0.221 (124)	-0.0485 (153)	0.243	0.173 (0.135)	0.150 (0.111)	0.159 (0.0705)
	mo18	-0.203 (124)	0.00365 (164)	0.284	0.233 (0.0398)	0.172 (0.0812)	0.156 (0.0928)
	mo06	-0.00752 (128)	0.0931 (168)	0.107	0.157 (0.174)	0.125 (0.239)	0.198 (0.00867)
Housing Stability	mo12	0.0290 (126)	0.146 (154)	0.127	0.135 (0.196)	0.146 (0.0885)	0.209 (0.0126)
	mo18	0.0297 (125)	0.185 (166)	0.183	0.180 (0.0309)	0.237 (0.00206)	0.268 (0.00119)
Financial Security	mo06	0.0143 (128)	0.159 (167)	0.151	0.167 (0.00835)	0.154 (0.0120)	0.133 (0.0373)
	mo12	0.0156 (126)	0.187 (154)	0.194	0.199 (0.00657)	0.157 (0.00899)	0.138 (0.0559)
	mo18	-0.00666 (125)	0.222 (165)	0.24	0.263 (0.000218)	0.224 (0.00)	0.201 (0.00119)



TABLE P6. (SLIDE 2 OF 2)

Experimental Results for Formal Outcomes

Multiple hypothesis test adjustments to p-values use family-wise error rate approach; see <u>pre-analysis plan</u> for details

Outcome	Wave	Control Mean (N)	Treatment Mean (N)	Simple Difference in Means	Model 1 (multiple hypothesis test- adjusted p-value)	Model 2 (multiple hypothesis test- adjusted p-value)	Model 3 (multiple hypothesis test- adjusted p-value)
	mo06	0.0426 (128)	0.198 (167)	0.158	0.219 (0.167)	0.148 (0.195)	0.166 (0.147)
Well-Being	mo12	0.0191 (126)	0.282 (155)	0.303	0.340 (0.0295)	0.300 (0.000803)	0.318 (0.000793)
	mo18	-0.0279 (125)	0.286 (165)	0.35	0.426 (0.00567)	0.343 (0.00181)	0.327 (0.00227)
	mo06	0.359 (128)	0.500 (168)	0.141	0.166 (0.0422)	0.164 (0.0138)	0.198 (0.00804)
Food Security	mo12	0.325 (126)	0.484 (155)	0.151	0.143 (0.115)	0.160 (0.00948)	0.194 (0.0105)
	mo18	0.368 (125)	0.491 (167)	0.136	0.161 (0.0529)	0.149 (0.0226)	0.174 (0.0226)
	mo06	23.9 (128)	22.1 (168)	-1.84	-2.36 (0.162)	-1.12 (0.354)	-1.14 (0.445)
Psychological Wellness (Kessler 10)	mo12	24.6 (126)	21.0 (155)	-3.96	-3.94 (0.0279)	-3.77 (0.000321)	-3.76 (0.00736)
	mo18	24.4 (125)	20.6 (167)	-4	-4.89 (0.00262)	-3.28 (0.00219)	-3.22 (0.0215)



TABLE P7. (SLIDE 1 OF 4)

Experimental Results for Exploratory Outcomes

Multiple hypothesis test adjustments to p-values use Benjamini, Krieger, and Yekutieli false discovery rate approach; see <u>pre-analysis plan</u> for details

Exploratory Outcome	Wave	Control Mean (N)	Treatment Mean (N)	Simple Difference in Means	Model 1 (multiple hypothesis test- adjusted p-value)	Model 2 (multiple hypothesis test- adjusted p-value)	Model 3 (multiple hypothesis test- adjusted p-value)
	mo06	0.0512 (128)	0.0105 (168)	-0.0118	0.0129 (1.00)	-0.0295 (1.00)	-0.0178 (1.00)
Housing Quantity	mo12	-0.00444 (126)	0.0378 (153)	0.0693	0.0266 (0.708)	0.0439 (0.151)	0.0180 (0.929)
	mo18	0.0880 (125)	0.123 (166)	0.0474	0.0724 (0.349)	0.0711 (0.232)	0.0325 (0.586)
	mo06	-0.113 (128)	-0.0258 (167)	0.0771	0.0710 (0.470)	0.0366 (1.00)	0.0186 (1.00)
Use of Low-Cost Credit	mo12	-0.0771 (126)	0.0746 (154)	0.147	0.171 (0.0507)	0.131 (0.102)	0.106 (0.316)
	mo18	-0.130 (125)	0.0552 (165)	0.157	0.207 (0.159)	0.138 (0.135)	0.112 (0.559)
	mo06	0.124 (128)	0.119 (167)	0.0092	0.00202 (1.00)	0.0379 (1.00)	0.0186 (1.00)
Healthcare Utilization	mo12	0.120 (125)	0.0353 (154)	-0.0871	-0.0811 (0.517)	-0.0769 (0.151)	-0.0709 (0.518)
	mo18	0.141 (125)	0.151 (165)	-0.00465	0.00176 (1.00)	0.0400 (0.232)	0.0144 (0.795)



TABLE P7. (SLIDE 2 OF 4)

Experimental Results for Exploratory Outcomes

Multiple hypothesis test adjustments to p-values use Benjamini, Krieger, and Yekutieli false discovery rate approach; see <u>pre-analysis plan</u> for details

Exploratory Outcome	Wave	Control Mean (N)	Treatment Mean (N)	Simple Difference in Means	Model 1 (multiple hypothesis test- adjusted p-value)	Model 2 (multiple hypothesis test- adjusted p-value)	Model 3 (multiple hypothesis test- adjusted p-value)
	mo06	-0.0265 (128)	0.131 (166)	0.134	0.163 (0.198)	0.200 (0.0388)	0.244 (0.0492)
Healthcare Access (Financial)	mo12	0.00186 (125)	0.178 (153)	0.174	0.187 (0.0507)	0.220 (0.0523)	0.303 (0.00507)
	mo18	0.0132 (125)	0.145 (163)	0.128	0.184 (0.159)	0.175 (0.135)	0.225 (0.196)
	mo06	0.667 (126)	0.665 (161)	0.0313	-0.00794 (1.00)	0.0286 (1.00)	0.0271 (1.00)
Current Employment	mo12	0.664 (122)	0.682 (151)	0.0477	0.0183 (0.708)	0.0561 (0.151)	0.0502 (0.476)
	mo18	0.642 (123)	0.688 (160)	0.0818	0.0376 (0.398)	0.0607 (0.232)	0.0747 (0.559)
	mo06	0.159 (82)	0.163 (104)	0.0584	NA (NA)	NA (NA)	0.102 (0.418)
Has Additional Job(s)	mo12	0.0875 (80)	0.172 (99)	0.125	0.994 (0.00)	NA (NA)	0.177 (0.0362)
	mo18	0.118 (76)	0.171 (105)	0.0653	0.0488 (0.398)	NA (NA)	0.108 (0.559)



TABLE P7. (SLIDE 3 OF 4)

Experimental Results for Exploratory Outcomes

Multiple hypothesis test adjustments to p-values use Benjamini, Krieger, and Yekutieli false discovery rate approach; see <u>pre-analysis plan</u> for details

Exploratory Outcome	Wave	Control Mean (N)	Treatment Mean (N)	Simple Difference in Means	Model 1 (multiple hypothesis test- adjusted p-value)	Model 2 (multiple hypothesis test- adjusted p-value)	Model 3 (multiple hypothesis test- adjusted p-value)
	mo06	0.0667 (120)	0.133 (150)	0.0774	0.0797 (0.198)	NA (NA)	0.0688 (0.307)
Would Pay a \$400 Expense with Cash	mo12	0.0940 (117)	0.155 (142)	0.0575	0.0598 (0.450)	NA (NA)	0.0291 (0.518)
	mo18	0.106 (113)	0.172 (151)	0.0803	0.0906 (0.159)	NA (NA)	0.0466 (0.559)
	mo06	42.0 (73)	44.6 (90)	-19.5	NA (NA)	-32.2 (1.00)	-11.0 (1.00)
Hourly Wage	mo12	31.0 (76)	57.3 (84)	37	8.38 (0.708)	42.3 (0.102)	19.6 (0.518)
	mo18	50.1 (69)	33.9 (91)	-6.03	NA (NA)	-23.4 (0.232)	-4.66 (0.795)
Providing Support to Others	mo06	0.142 (127)	0.165 (164)	0.0334	0.0172 (1.00)	NA (NA)	0.0274 (1.00)
	mo12	0.131 (122)	0.154 (149)	0.0475	0.0207 (0.708)	NA (NA)	0.0110 (0.929)
	mo18	0.107 (122)	0.166 (163)	0.0762	0.0715 (0.193)	NA (NA)	0.0320 (0.559)



TABLE P7. (SLIDE 4 OF 4)

Experimental Results for Exploratory Outcomes

Multiple hypothesis test adjustments to p-values use Benjamini, Krieger, and Yekutieli false discovery rate approach; see <u>pre-analysis plan</u> for details

Exploratory Outcome	Wave	Control Mean (N)	Treatment Mean (N)	Simple Difference in Means	Model 1 (multiple hypothesis test- adjusted p-value)	Model 2 (multiple hypothesis test- adjusted p-value)	Model 3 (multiple hypothesis test- adjusted p-value)
	mo06	0.691 (123)	0.759 (162)	0.0771	0.131 (0.198)	0.146 (0.0388)	0.180 (0.0492)
Housing Stability Screening Item	mo12	0.754 (122)	0.795 (146)	0.0482	0.0498 (0.517)	0.101 (0.102)	0.153 (0.0825)
	mo18	0.727 (121)	0.792 (159)	0.0641	0.0997 (0.193)	0.0834 (0.205)	0.118 (0.559)
	mo06	0.643 (126)	0.707 (164)	0.0944	0.127 (0.198)	NA (NA)	0.0709 (0.432)
Access to Reliable Transportation	mo12	0.650 (123)	0.740 (154)	0.103	0.0488 (0.517)	NA (NA)	0.0795 (0.413)
	mo18	0.618 (123)	0.716 (162)	0.141	0.114 (0.193)	NA (NA)	0.117 (0.559)
School and/or Job Training Attendance	mo06	0.192 (125)	0.236 (165)	0.0523	0.0413 (0.609)	NA (NA)	-0.00936 (1.00)
	mo12	0.123 (122)	0.222 (153)	0.101	0.114 (0.0507)	NA (NA)	0.0138 (0.929)
	mo18	0.139 (122)	0.189 (164)	0.061	0.0399 (0.398)	NA (NA)	-0.0378 (0.559)



FIGURES P6 AND P7, TABLE P8

Figure P6. Estimated Power Curves for an Index Outcome Figure P7. Estimated Power Curves for a Binary Outcome Table P8. Experimental Results from Stockton SEED Demonstration

Please see pre-analysis plan: https://www.minneapolisfed.org/research/community-development-working-papers/evaluation-plan-minneapolis-guaranteed-basic-income-pilot



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