

# Appendix: Not For Publication

## A Additional Figures and Tables

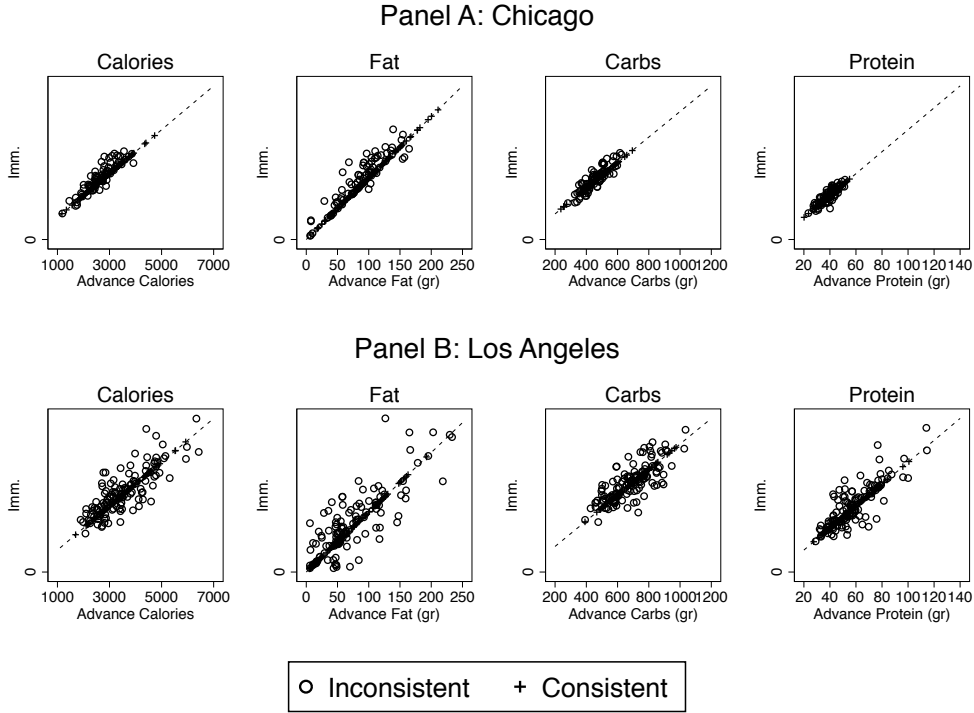


Figure A1: Frequency of Calories, Fat, Carbohydrates and Protein in Advance and Immediate Bundles

*Notes:* Each participant is represented by a point. Figures include calories, fat grams (1 fat gram = 9 calories), carbohydrate grams (1 carbohydrate gram = 4 calories) and protein grams (1 protein gram = 4 calories). Subjects who choose more of a nutrient in advance versus immediate choice lie below the 45° line. This graph includes a 5% jitter.

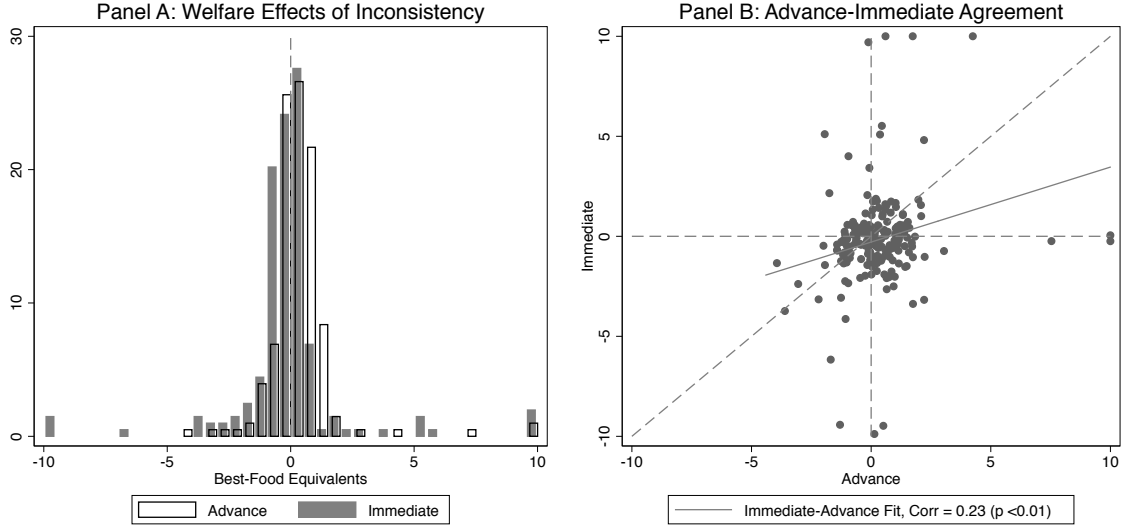


Figure A2: ‘Best-Food Equivalents’ Welfare Consequences of Dynamic Inconsistency

*Notes:* Panel A provides a histogram of individual estimates of the welfare costs of inconsistency under advance and immediate preferences. Panel B provides a scatterplot of agreement between advance and immediate welfare measures for the inconsistent observations. Panel B points graphed with 10% jitter. Welfare consequences of inconsistency calculated as ‘best-food’ equivalents. For example, for advance choice the measure is,  $\frac{V_{A,i}(\mathbf{q}_{A,i}) - V_{A,i}(\mathbf{q}_{I,i})}{\max_{j \in J} [\mathbf{x}_j \beta_{A,i}]}$ . Values are top and bottom coded at  $\pm 10$  ‘best’ foods. The advance best-food equivalent has a median [25th-75th percentile] value of 0.285 [-0.154, 0.806]. The immediate best-food equivalent has a median [25th-75th percentile] value of -0.145 [-0.704, 0.269]. There is broad distributional disagreement in these measures with inconsistency being costly according to the advance measure and beneficial according to the immediate measure, *Mann-Whitney*  $z = 8.31$ , ( $p < 0.01$ ). Nonetheless a clear correlation between the measures exists in Panel B,  $\rho = 0.23$ , ( $p < 0.01$ ).

Table A1: Nutritional Information

Food	Calories	Saturated		Carbohydrates (g)	Fiber (g)	Natural	Added	Protein (g)
		Fat (g)	Fat (g)			Sugar (g)	Sugar (g)	
Panel A: Chicago								
3 bananas	405	1.50	0.51	104.16	12.00	55.77	0	4.98
1 cucumber	68	0.50	0.17	16.39	2.30	7.54	0	2.93
2 Granny Smith apples	238	0.78	0.00	56.08	11.60	39.52	0	1.82
2 green peppers	131	1.12	0.38	30.44	11.20	15.74	0	5.64
2 oranges	216	0.55	0.07	54.05	11.00	43.01	0	4.32
2 Bosc pears	294	0.40	0.00	70.52	13.60	44.80	0	1.58
2 plums	120	0.72	0.02	30.16	3.60	26.20	0	1.84
2 Red Delicious apples	250	0.84	0.00	59.62	9.80	44.44	0	1.14
1 red pepper	74	0.72	0.06	14.36	5.00	10.00	0	2.36
1 tomato	33	0.36	0.05	7.08	2.20	4.79	0	1.60
2 bags Cheetos	360	24.75	3.38	29.25	2.25	0.00	0	2.25
1 bag Cheez-Its	210	11.00	2.50	24.00	1.00	0.00	0	5.00
2 bags Doritos	315	18.00	2.25	36.00	2.25	0.00	0	4.50
2 fudge brownies	780	34.00	10.00	112.00	2.00	0.00	62	6.00
2 Honey Buns	680	30.00	16.00	90.00	2.00	0.00	50	10.00
2 bags potato chips	360	22.50	3.38	33.75	2.25	2.25	0	4.50
4 Nutter Butter cookies	250	10.00	2.50	37.00	2.00	0.00	15	4.00
6 Oreo cookies	270	11.00	3.50	41.00	2.00	0.00	23	2.00
1 PayDay bar	240	13.00	2.50	27.00	2.00	0.00	21	7.00
1 Snickers bar	250	12.00	4.50	33.00	1.00	0.00	27	4.00
Panel B: Los Angeles								
16 oz bag baby carrots	159	0.59	0.10	37.38	13.15	21.59	0	2.90
4 bananas	484	1.79	0.61	124.32	14.15	66.56	0	5.93
14.5 oz can tomatoes	86	0	0	13.60	3.29	10.19	0	0.85
2 cucumbers	193	1.41	0.48	46.65	6.42	21.46	0	8.35
4 oz cup diced peaches	81	0	0	19.06	1.02	18.06	0	0.99
2 Gala apples	194	0.41	46.54	7.82	35.28	0	0.85	
12 oz bag salad	82	0	0	16.02	4.08	7.99	0	4.01
2 green apples	140	0.46	0	32.94	6.78	23.21	0	1.06
2 oranges	213	0.54	0.07	53.30	10.89	42.41	0	4.26
16 oz bag red grapes	313	0.73	0.24	82.10	4.08	70.21	0	3.27
3 chocolate chip cookies	163	7.23	3.57	24.06	0.66	0	13.58	1.33
4 oz bag Doritos	577	32.98	6.18	70.10	4.12	0	8.25	
8 oz gelatin cup	865	0	0	205.39	0	0	205.39	10.81
1 palmier	110	6.00	3.99	11.99	0	0	11.99	1.00
1 raspberry roll	157	4.84	1.73	26.89	0.42	0	15.67	1.46
8 oz rice pudding cup	245	4.88	2.74	41.71	0.68	0	26.28	7.32
1 Salvadorian bread	1,496	68.48	18.45	189.92	2.80	0	99.60	28.48
2 sweet buns	462	14.59	2.75	71.04	2.89	0	15.75	11.87
4 oz bag Takis chips	567	30.24	9.45	64.26	7.59	0	0	7.56
6 oz bag tortilla chips	845	37.79	4.72	114.55	7.99	0	2.06	11.25

*Notes:* Calculations of nutrition based on \$1 quantities in study. Natural and added sugar calculated separately for healthy and unhealthy food items.

Table A2: Unambiguous Utility Estimates

	(1)	(2)	(3)	(4)	(5)	(6)
	Chicago	<i>All Subjects</i> Los Angeles	Pooled	Chicago	<i>Inconsistent Subjects</i> Los Angeles	Pooled
Fruit/Vegetable	0.004 (0.049)	0.507*** (0.041)	0.211*** (0.028)	-0.049 (0.090)	0.435*** (0.060)	0.172*** (0.044)
Perishable		0.309*** (0.028)			0.268*** (0.038)	
Fat	-0.007*** (0.002)	0.002 (0.001)	-0.004*** (0.001)	-0.009** (0.004)	0.001 (0.002)	-0.005*** (0.001)
Carbohydrates	0.001*** (0.001)	0.003*** (0.000)	0.002*** (0.000)	0.001 (0.001)	0.004*** (0.000)	0.002*** (0.000)
Protein	0.030*** (0.006)	-0.022*** (0.004)	-0.001 (0.003)	0.034*** (0.011)	-0.021*** (0.006)	-0.000 (0.005)
# Observations	4211	4851	9062	1491	2151	3642
# Rankings	218	256	474	82	121	203
# Clusters	218	171	389	82	95	177
Log-Likelihood	-8777.216	-9870.306	-18737.92	-3026.495	-4265.669	-7325.432

*Notes:* Rank Order Logit regression results from unambiguous ordering  $r_U$ , ignoring all foods ever exchanged. Standard errors clustered on individual level in parentheses. Levels of significance: \* 0.10, \*\* 0.05, \*\*\* 0.01.

Table A3: Utility Estimates and Commitment

	(1)	(2)	(3)	(4)	(5)	(6)
	<i>Chicago</i>		<i>Los Angeles</i>		<i>Pooled</i>	
	Commit = 0	Commit = 1	Commit = 0	Commit = 1	Commit = 0	Commit = 1
Fruit/Vegetable	0.062 (0.061)	0.009 (0.079)	0.360*** (0.082)	0.559*** (0.044)	0.073* (0.042)	0.368*** (0.035)
Perishable			0.216*** (0.048)	0.332*** (0.032)		
Fat	-0.004* (0.002)	-0.012*** (0.004)	0.001 (0.002)	0.003** (0.002)	-0.006*** (0.001)	-0.003** (0.001)
Carbohydrates	0.000 (0.001)	0.003*** (0.001)	0.003*** (0.001)	0.003*** (0.000)	0.001*** (0.000)	0.003*** (0.000)
Protein	0.034*** (0.008)	0.025** (0.011)	-0.017** (0.008)	-0.025*** (0.005)	0.010** (0.005)	-0.009** (0.004)
Immediate Choice						
X Fruit/Vegetable	-0.080*** (0.019)	-0.061*** (0.022)	-0.120*** (0.035)	-0.043*** (0.011)	-0.065*** (0.016)	-0.035*** (0.008)
X Perishable			-0.030 (0.030)	-0.023** (0.010)		
X Fat	0.000 (0.001)	-0.002* (0.001)	-0.003* (0.002)	-0.000 (0.001)	0.000 (0.001)	0.000 (0.000)
X Carbohydrates	0.001** (0.000)	0.000* (0.000)	-0.001** (0.000)	-0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)
X Protein	-0.007* (0.004)	0.001 (0.003)	0.013** (0.005)	-0.000 (0.002)	0.000 (0.003)	-0.001 (0.001)
# Observations	5800	2920	2560	7680	8360	10600
# Rankings	290	146	128	384	418	530
# Clusters	145	73	37	134	182	207
Log-Likelihood	-12267.53	-6164.32	-5375.17	-15956.13	-17674.27	-22219.70
$H_0 : \beta_A(Commit = 0) = \beta_A(Commit = 1)$	$\chi^2(4) = 8.01$ ( $p = 0.09$ )		$\chi^2(5) = 6.81$ ( $p = 0.24$ )		$\chi^2(4) = 46.15$ ( $p < 0.01$ )	
$H_0 : \beta_I(Commit = 0) = \beta_I(Commit = 1)$	$\chi^2(4) = 10.53$ ( $p < 0.05$ )		$\chi^2(5) = 12.41$ ( $p < 0.05$ )		$\chi^2(4) = 56.21$ ( $p < 0.01$ )	
Fraction Inconsistent	0.441	0.247	0.813	0.359	0.555	0.328
$\rho(Commit, Inconsistent)$	-0.190 ( $p < 0.01$ )		-0.393 ( $p < 0.01$ )		-0.228 ( $p < 0.01$ )	

Notes: Rank Order Logit regression results. Standard errors clustered on individual level in parentheses. Levels of significance: \* 0.10, \*\* 0.05, \*\*\* 0.01. Null hypothesis test stationarity of preferences from interacted rank order logit regression of choices on nutritional characteristics with different coefficients for immediate choice. Test corresponds to all interaction terms being equal to zero.

Table A4: Behavior and Offered Commitment

	(1) Fruits/Veg	(2) Sweets	(3) Salty Snacks	(4) Calories	(5) Fat (g)	(6) Carb (g)	(7) Protein (g)
<i>Panel A: Artefactual Data (Augmented with Final Week)</i>							
Immediate Choice	-0.192*** (0.028)	0.150*** (0.025)	0.042** (0.020)	59.474*** (14.935)	3.626*** (0.803)	5.981*** (2.232)	0.745*** (0.265)
Commitment Offered	-0.378*** (0.115)	0.401*** (0.107)	-0.017 (0.072)	135.162* (70.961)	1.211 (3.467)	29.489*** (11.145)	1.246 (1.195)
Immediate X Commitment Offered	0.043 (0.035)	-0.047 (0.032)	0.004 (0.028)	-6.594 (18.834)	-0.396 (1.026)	-0.859 (2.839)	-0.037 (0.312)
Constant	6.757 (0.116)	2.258 (0.098)	0.979 (0.060)	3353.643 (59.517)	67.435 (3.119)	665.464 (8.804)	55.769 (1.064)
# Observations	1726	1726	1726	1726	1726	1726	1726
# Subjects	389	389	389	389	389	389	389
Location X Week Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Panel B: Experimental Data (Los Angeles Week 2, Immediate Choice )</i>							
Commitment Offered	0.370 (0.254)	-0.242 (0.221)	-0.129 (0.147)	-337.227** (138.217)	-14.029* (7.540)	-49.129** (19.119)	-4.018 (2.589)
Constant	6.141 (0.206)	2.776 (0.177)	1.082 (0.111)	3673.699 (114.068)	81.629 (6.343)	707.879 (14.720)	60.185 (2.139)
# Observations	171	171	171	171	171	171	171

*Notes:* Ordinary least squares regression. Panel A: Standard errors clustered on individual level in parentheses. Panel B: Robust standard errors in parentheses. Levels of significance: \* 0.10, \*\* 0.05, \*\*\* 0.01.

## B Experiment Script

### B.1 Chicago

#### Recruitment and Item Selection (Week 1)

Thank you for participating in the store promotion. Only certain items are eligible. To see which items are eligible you should look at this promotion sheet (see Figure 1). Each box is worth \$1. Pick 10 items for a basket worth \$10/

#### Delivery Dates

1. Your basket will be delivered in ONE WEEK. Please specify on the back side which dates and times you will be available to receive it. You MUST be at home to get your basket: we cannot leave the basket for you.
2. At the end of the day, we will call you to confirm a delivery date and time

#### Special Promotion

1. Your \$10 basket is FREE OF CHARGE
2. In addition, you will get \$20 just for participating in our store promotion and completing the questionnaires. But you MUST BE HOME both times for the basket delivery.

#### Delivery Confirmation Call (Week 1)

Hi, this is [NAME] from Louis' Groceries. I'm calling for [NAME]. (Or, Is this [NAME]?). You have signed up for the FREE food basket delivery program. I'm just confirming that we have you scheduled to receive the basket of items that you picked out in store on [DATE].

1. Remember, you MUST be home to receive your basket, we are not able to leave it at your door. Does this still work for you? [ If not, try to reschedule them within 2 days ]
2. Great, we will see you next week on [DATE] between [TIME START] and [TIME END].

#### Delivery Reminder Call (Week 2)

Hi, this is [NAME] from Louis' Groceries. I'm calling for [NAME]. (Or, Is this [NAME]?). I am calling to remind you that your FREE food basket delivery is scheduled on [DATE] between [TIME START] and [TIME END]. You MUST be home to receive your basket and participate in the promotion that earns you \$20 after 2 weeks.

#### First Delivery and Item Selection for Second Week (Week 2)

Hello, I am here with your basket. Please take a look [Bring open basket, allow person to look through]. We also have some extra items available. If you like, you can exchange

any one item in your basket for one of these items [ show extra items on tray ]. I brought four additional items, so you can make up to 4 exchanges. Do you want to make any exchange? [Great thanks, let me note that on your order sheet.]

Remember next week you will also get a basket. Here is a Week 2 basket order sheet and the promotion items [hand to person.] Will you please go ahead and fill this out? I will wait in the car and prepare the next round of deliveries while you do that. When you are done, just come outside and we will get your order sheet from you.

**Remember:**

1. Your delivery will be next [DATE] between [TIME START] and [TIME END].
2. You MUST be home to receive your basket next week
3. Your \$10 basket is FREE OF CHARGE
4. In addition you will get \$20 just for participating in our store promotion and completing the questionnaires. Next week when I come back and after you complete the questionnaire I will give you a voucher to pick up \$20 in store.

**Reminder Call and Commitment Elicitation (Week 3)**

Hi, this is [NAME] from Louis' Groceries. [ I'm calling for [NAME]. Or, Is this [NAME]?]. I am calling to remind you that your FREE food basket delivery is scheduled on [DATE] between [TIME START] and [TIME END]. You MUST be home to receive your basket and participate in the promotion that earns you \$20 after 2 weeks.

Last time, we brought some extra items for you so you could exchange if you changed your mind from your previous choices. This time, we can also bring extra items, but I wanted to check if you'd like that or not. It is up to you: would you like me to bring extra items this time, or not?

**Second Delivery (Week 3)**

Hello, I am here with your basket. Please take a look [Bring open basket, allow person to look through].

[If they wanted an exchange] We also had some extra items from the deliveries, If you like, you can exchange any one item in your basket for one of these items [show extra items on tray ]. I brought four additional items, so you can make up to 4 exchanges. Do you want to make any exchange? [Great thanks, let me note that on your order sheet.]

Here is a questionnaire we hope you can fill out about the promotion. After you are done, please bring this questionnaire back to the store to receive your \$20 IN CASH just for your participation in the promotion.



## B.2 Los Angeles

### Recruitment and Item Selection (Week 1)

Do you want to participate in our promotion?

- You will get 3 weeks of free food deliveries valued at \$10 each.
- You will get to pick the foods you want from a list.
- You need to be at home to receive your deliveries.
- You will answer a few questions when you sign up and each time you get a delivery.
- You will get a \$25 Northgate gift card for completing all the steps.

[Interviewer next records participant name, address, phone number and scheduled date and time of delivery for about one week in the future.]

Thank you for signing up for the promotion! You'll first make food selections for your delivery. Then I'll also ask you a few questions. [Interviewer will place visual aids in front of respondent so they can point to answer or answer verbally. Later in survey, the interviewer will have the survey in front of them, and face the respondent.]

You will now select foods for the FREE basket that will be delivered to your house next week. You are deciding just for next week. Next week, you will decide for the following week and you will do the same the week after for a total of 3 weeks of deliveries. These are the foods that are available. [show food sheet MENU]. The foods will come from Northgate market when possible. Here are the foods. Each item on this list is worth \$1 and you can select 10 - for a FREE basket worth \$10. You can choose each item more than once. This also tells you how MANY of each item you will get with each \$1 order. You can say or point to the items and I will write down what you selected.

### Delivery Reminder Call (Week 2, 3 and 4)

Hi, this is [NAME] from the Northgate Delivery Promotion. I'm calling for [NAME]. (Or, Is this [NAME]?). I am calling to remind you that your FREE food basket delivery is scheduled on [DATE] between [TIME START] and [TIME END]. You MUST be home to receive your basket and participate in the promotion that earns you \$20 after 2 weeks.

### First/Second/Third Delivery and Item Selection for Second/Third Delivery (Week 2 and 3)

Hi, I am from the Northgate Delivery Promotion and am here with a food delivery. Are you [NAME]?

- If Yes, 'Great, may I see an ID just so I can verify that?'
- If No, 'Is [NAME] home? I can only leave the delivery with [NAME].' Arrange to come back at a time when [NAME] is available (either then or by phone later).

Today I will give you your food delivery, you will decide on foods for next week, and then I'll also ask you a few questions. Here is your food delivery [show box]. Please take a look [bring open basket, allow person to look through].

*The below is only asked for everyone on their first delivery (Week 2) or anyone who did not commit for the subsequent deliveries (Weeks 3-4).*

We also have some extra items available. If you like, you can exchange any one item in your basket for one of these items [show extra items in tray]. I brought all the menu items, and you can make up to 4 exchanges. Do you want to make any exchange? [Great thanks, let me note that on your order sheet/ BE SURE TO RECORD WHAT WAS SWITCHED ON ORDER SHEET AND TAKE BACK ORDER SHEET].

Is [ NEXT WEEK SAME DATE ] and [ NEXT WEEK SAME TIME ] still good for you?

- If Yes, 'Great'
- If No, 'I can reschedule for [ AROUND SAME TIME +/- 2 days ]'

You will now select foods for the FREE basket that will be delivered to your house next week. You are deciding just for next week. Next week, you will decide for the following week for a total of 3 weeks of deliveries. These are the foods that are available. [show food sheet MENU]. The foods will come from Northgate market when possible.

Each item on this list is worth \$1 and you can select 10 - for a FREE basket worth \$10. You can choose each item more than once. This also tells you how MANY of each item you will get with each \$1 order.

You can say or point to the items and I will write down what you selected. Please go ahead and start. [Record below]

**Commitment Question (Week 2 for half of participants, Week 3 for all participants)**

For this week's delivery, you had the option to change your mind by exchanging items in your basket. This time, you can choose whether you want the option to make exchanges, or whether you want to stick to your pre-ordered choices. It is no trouble for us either way, it is entirely up to you. Do you want to have the option to make exchanges, or do you want to stick to your pre-ordered choices?