Appendix to "Vertical Integration and Consumer Choice: Evidence from a Field Experiment" by Farronato, Fradkin, and MacKay

A   Additional Data Details

A.1   Balance Checks

Table A.1: Covariate Balance—Demographics

	White (1)	Income Code (1-7) (2)	Household Size (3)	Spend Share Code (1-4) (4)	Prime Member (5)	Ad Blocker (6)
Constant	0.744***	4.139***	2.426***	2.829***	0.828***	0.242***
	(0.019)	(0.076)	(0.055)	(0.037)	(0.017)	(0.019)
Hide Amazon	-0.018	0.096	-0.042	-0.066	0.001	-0.003
	(0.027)	(0.106)	(0.076)	(0.052)	(0.023)	(0.026)
Hide Random	-0.014	-0.054	0.127	-0.031	0.005	0.003
	(0.028)	(0.108)	(0.078)	(0.054)	(0.024)	(0.027)
R^2	0.000	0.001	0.003	0.001	0.000	0.000
Observations	1,549	1,359	1,549	1,549	1,549	1,549

Notes: This table presents regressions where the outcome variable is regressed on treatment assignment. An observation is a participant who answered these questions in the intake survey. Restricting attention to participants who successfully completed the incentivized shopping tasks or milestone 1 does not change the results.
***$p < 0.01$; **$p < 0.05$.

We perform three sets of checks to verify that: 1) demographics are balanced across the treatment groups; 2) there is no differential attrition across the treatment groups; and 3) since we rely on the extension collecting participant data, there is no differential tracking across treatment groups.

We confirm that participants across the treatment groups have similar demographics and shopping behavior by running linear regressions of participant characteristics on treatment dummies. The constant term refers to the control group, so the coefficient estimates on Hide Amazon and Hide Random are tests for differences in average outcomes between each of the treatment groups and the control. Table A.1 presents the results for consumer demographics, based on participants' survey answers. The table confirms that on all demographic dimensions—race, income, household size, online spending, whether they are Prime members, and whether they have an ad blocker installed—participants are statistically indistinguishable across experimental conditions. Note that the share of participants with a Prime membership is high, at 82% in the control group and the share of participants who have an ad blocker is 24%.

Similarly, participants are comparable across treatment conditions in their shopping behavior on Amazon. Table A.2 uses data collected by the browser extension about participants' Amazon orders from the beginning of 2022 until enrollment in the study. Participants have a comparable number of past orders (around 160), spending (around $5,000), average item price ($23), share of sales by Amazon (42%), and share of Amazon branded items (2.5%). One no-

Table A.2: Covariate Balance—Shopping Behavior on Amazon

	N. Orders (1)	Items per Order (2)	Spending (3)	Avg Item Price (4)	Share 1P Items (5)	Share Amazon Branded Items (6)
Constant	159.456***	1.411***	4,960.817***	23.331***	0.416***	0.025***
	(7.628)	(0.013)	(238.535)	(0.394)	(0.008)	(0.002)
Hide Amazon	4.658	0.052**	26.039	-0.403	-0.003	-0.004
	(10.293)	(0.023)	(314.596)	(0.531)	(0.011)	(0.002)
Hide Random	15.658	0.028	208.480	0.232	-0.012	0.000
	(10.967)	(0.022)	(328.453)	(0.783)	(0.011)	(0.003)
R^2	0.002	0.003	0.000	0.001	0.001	0.002
Observations	1,463	1,463	1,463	1,460	1,463	1,463

Notes: This table presents regressions where the outcome variable is regressed on treatment assignment. ***$p < 0.01$; **$p < 0.05$.

table exception is in column (2), where participants in the Hide Amazon condition purchase a slightly larger number of items for each order compared to the control group, although the difference is less than 4%. Note that the average share of items sold by Amazon roughly matches publicly available figures on the share of first-party sales on Amazon.[30]

Since participants' browsing experience on Amazon is manipulated in the treatment groups, one may worry that such manipulation may worsen participants' browsing experience enough to lead to differential attrition across experimental conditions. To test for this, we run linear probability models of study completion (i.e., completing milestone 2) on treatment dummies. Of all participants who installed the extension, 44% successfully completed the study, and this rate was not impacted by the assigned treatment condition (column (1) of Table A.3). Results remain similar if we focus on the 1,255 participants who completed milestone 1 (column (2)).

Before concluding this section, we need to check whether participants in the treatment groups were less likely to be tracked by Webmunk. Note that participants had the possibility to uninstall the extension or turn it off temporarily. Such actions would limit our ability to manipulate and track participants' browsing behavior for the duration of the interruption. For every item included in a participant's wishlist, we verify whether that item's product page was tracked on Webmunk. Table A.4 displays results of linear probability models. On average, just over 75% of items were tracked through Webmunk, and this share was not significantly lower in either of the treatment conditions. The point estimates are small and statistically indistinguishable from zero.[31]

---

[30]https://www.statista.com/statistics/1309709/amazon-e-commerce-retail-sales-business-models/.

[31]Table C.1 performs a similar test for whether products in the wishlist are found in search results tracked by Webmunk.

Table A.3: Study Completion Rate

	Milestone 2 (1)	Conditional Milestone 2 (2)
Constant	0.435***	0.729***
	(0.019)	(0.022)
Hide Amazon	0.011	-0.031
	(0.027)	(0.031)
Hide Random	0.010	0.001
	(0.027)	(0.031)
R^2	0.000	0.001
Observations	2,063	1,255

Notes: This table regresses whether an individual finished the study on the treatment assignment. In column (2), the regression is only for the set of individuals who completed milestone 1. ***$p < 0.01$; **$p < 0.05$.

Table A.4: Webmunk Tracking Rate of Product Pages

	Tracked Through Webmunk (1)	Tracked — M1 (2)
Constant	0.757***	0.781***
	(0.018)	(0.019)
Hide Amazon	-0.006	-0.010
	(0.025)	(0.027)
Hide Random	-0.001	0.000
	(0.025)	(0.028)
R^2	0.000	0.000
Observations	9,883	7,723

Notes: This table regresses whether a product in the wishlist was tracked through Webmunk on treatment assignment. Column (2) limits to only those who completed milestone 1. ***$p < 0.01$; **$p < 0.05$.

B   List of Tracked Domains

During the experiment, the Webmunk extension tracked a list of top retail domains. The list is as follows:

anthropologie.com apple.com barnesandnoble.com bathandbodyworks.com bestbuy.com bhphotovideo.com birchbox.com bodybuilding.com boxed.com chewy.com costco.com cvs.com dillards.com dollargeneral.com ebay.com etsy.com forever21.com gamestop.com gap.com gnc.com hm.com homedepot.com hsn.com iherb.com ikea.com warbyparker.com johnlewis.com kohls.com kroger.com lego.com lordandtaylor.com nyxcosmetics.com lowes.com macys.com microsoft.com neimanmarcus.com newegg.com nike.com nordstrom.com overstock.com qvc.com rakuten.com riteaid.com samsclub.com sephora.com shop.app staples.com target.com vitaminshoppe.com ulta.com urbanoutfitters.com victoriassecret.com walgreens.com walmart.com wayfair.com yoox.com zappos.com zulily.com shop.app

C Additional Figures and Tables

Table C.1: Webmunk Tracking Rate Based on Search Data

	Tracked Through Webmunk (1)	Tracked — M1 (2)
Constant	0.605***	0.617***
	(0.015)	(0.017)
Hide Amazon	0.018	0.016
	(0.021)	(0.023)
Hide Random	0.013	0.007
	(0.022)	(0.024)
R^2	0.000	0.000
Observations	11,288	8,884

Notes: This table presents estimates of linear probability models as a function a treatment condition dummies. The outcome is equal to 1 if the selected product is tracked in search results through Webmunk. Otherwise, the table is identical to Table A.4.

Table C.2: Summary Statistics Based on Search Data

	Meta-Categories with Amazon Brands			Meta-Categories without Amazon Brands		
	Control (1)	Hide Random (2)	Hide Amazon (3)	Control (4)	Hide Random (5)	Hide Amazon (6)
Amazon Brand	0.09	0.09	0.01	0	0	0
Price ($)	20.5	19.8	19.91	16.02	15.52	15.6
Average Star Rating	4.63	4.63	4.63	4.53	4.54	4.55
Nr. Reviews	29,578	30,065	21,670	13,119	13,666	13,679
Prime Eligible	0.75	0.75	0.73	0.7	0.74	0.72
Free Delivery	0.85	0.86	0.85	0.84	0.85	0.86
Fast Delivery	0.16	0.15	0.13	0.14	0.15	0.11
Sponsored	0.31	0.29	0.29	0.3	0.26	0.32
Best Seller	0.08	0.09	0.06	0.03	0.05	0.06

Notes: This table is the same as Table 3 except that the wishlist products have been matched to products in search data.

Table C.3: Treatment Effect Regressions – Personal Care Category

	Price (1)	Ratings (2)	Stars (3)	Major Brand (4)	Prime Eligible (5)	Sponsored (6)
Hide Amazon	-0.638	1,627.044	0.016	0.025	0.006	0.052***
	(0.562)	(1,167.792)	(0.016)	(0.025)	(0.027)	(0.010)
R^2	0.048	0.018	0.066	0.339	0.005	0.025
Observations	1,055	1,057	1,057	1,068	1,068	1,068
Mean of Y	16.73	12787.064	4.522	0.481	0.749	0.0038
Category fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

Notes: $p < 0.001$; **$p < 0.01$; *$p < 0.05$.

Table C.4: Treatment Effect Regressions – Difference-in-Differences

	Amazon Brand (1)	Price (2)	Ratings (3)	Stars (4)	Major Brand (5)	Prime Eligible (6)	Sponsored (7)
Hide Amazon	-0.077***	0.116	-10,679.661***	-0.016	0.014	-0.030*	-0.024*
	(0.007)	(0.526)	(1,994.886)	(0.017)	(0.027)	(0.015)	(0.011)
R^2	0.279	0.489	0.275	0.348	0.441	0.785	0.216
Observations	6,418	6,335	6,295	6,295	6,418	6,418	6,418
User fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Category fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: $p < 0.001$; **$p < 0.01$; *$p < 0.05$.

Table C.5: Counterfactual Welfare Effects with Rank-Independent Utility

Scenario	Consumer Surplus ($)	% Change in CS	% Change in Prices	Inside Share
Baseline	4.73	—	—	0.524
Remove Amazon	4.50	-4.83	0.20	0.502
Remove Amazon (No Price Adj.)	4.52	-4.35	0.00	0.504
Remove Random	4.58	-3.13	-0.05	0.511

Notes: This table reports the effects of removing products on consumer welfare, excluding placebo personal care categories (nail clippers, deodorant, toothpaste, and comb/brush). The second row reports the impacts of removing Amazon products, adjusting search ranks, and computing equilibrium prices. Impacts without equilibrium price adjustments are reported in the third row. For comparison, the impacts of removing products at random and re-computing equilibrium prices are reported in the fourth row. Consumer surplus is calculated following Small and Rosen (1981), with with realized search rank removed from the calculations using the procedure from Allcott (2013) and Train (2015). Percent changes are reported relative to the baseline scenario. Price changes are weighted by choice probabilities (shares). Inside share represents the total probability of purchasing any product within the choice set.

Table C.6: Predicting Rank as a Function of Product Characteristics

	Delta Only (1)	Full Controls (2)	Delta + Brand (3)
Delta	-23.757***		-23.724***
	(0.560)		(0.560)
Amazon Brand		-4.320***	-1.767***
		(0.251)	(0.190)
Price		-0.026***	
		(0.005)	
Stars		-1.798***	
		(0.204)	
Log(Ratings)		-1.219***	
		(0.047)	
Prime		-2.492***	
		(0.422)	
Fast Delivery		1.926***	
		(0.162)	
Major Brand		0.497**	
		(0.159)	
Missing Stars		-11.718***	
		(1.136)	
Price×Apparel		-0.014	
		(0.010)	
Price×Electronics		0.012	
		(0.006)	
Price×Health		-0.015	
		(0.008)	
Price×Household		0.006	
		(0.008)	
Price×Personal Care		0.023**	
		(0.008)	
R^2	0.621	0.388	0.621
Observations	1,626,189	1,626,189	1,626,189
Mean of Y	33.822	33.822	33.822
Consumer-Search FEs	Yes	Yes	Yes

Notes: The dependent variable is the assigned search rank. Delta represents the mean product utility calculated from our demand estimates. $p < 0.001$; **$p < 0.01$; *$p < 0.05$.

Figure C.1: Webmunk Tasks
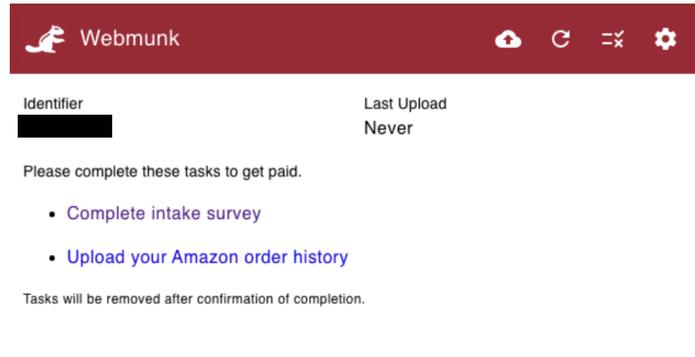
Notes: This figure presents a snapshot of the Webmunk browser extension popup with a list of tasks (with links) for the participant.

Figure C.2: Treatment Groups

(a) Control Group

(b) Hide Amazon Treatment

(c) Hide Random Treatment

Figure C.3: Special Product Positioning

Compare Battery Types

	Alkaline	Rechargeable, Standard	Rechargeable, Performance	Industrial Alkaline	Lithiu
Best Used For	Single-use, everyday devices	Multi-use, everyday devices	Multi-use, high power devices	Single-use, heavy use devices	Single-use, uni
Battery Sizes	AAAA, AAA, AA, C, D, 9V, 23A	AAA, AA	AAA, AA, C, D	AAA, AA	9V, CR, & Coin
Shelf Life	3-10 year, depending on size	5 year or once recharged 1000x	5 year or once recharged 500x	5 year	8-10 year, depen
How To Dispose	Any authorized recycle center	Any authorized recycle center	Any authorized recycle center	Any authorized recycle center	Any authorized re
Voltage (V)	1.5-12V, depending on size	1.2V	1.2-8.4V, depending on size	1.5V	3V-9V, dependi
Recharge Rate	-	1,000x	500x	-	-
Capacity (mAh)	-	800-2,000, depending on size	2,400-5,000, depending on size	-	-

Frequently bought together

Total price: $30.94

Add both to Cart

This item: Native Deodorant | Natural Deodorant for Men and Women, Aluminum Free with…
$12⁹⁷ ($4.89/Ounce)

Native Natural Body Wash for Women, Men | Sulfate Free, Paraben Free, Dye Free, with…
$17⁹⁷ ($0.50/Fl Oz)
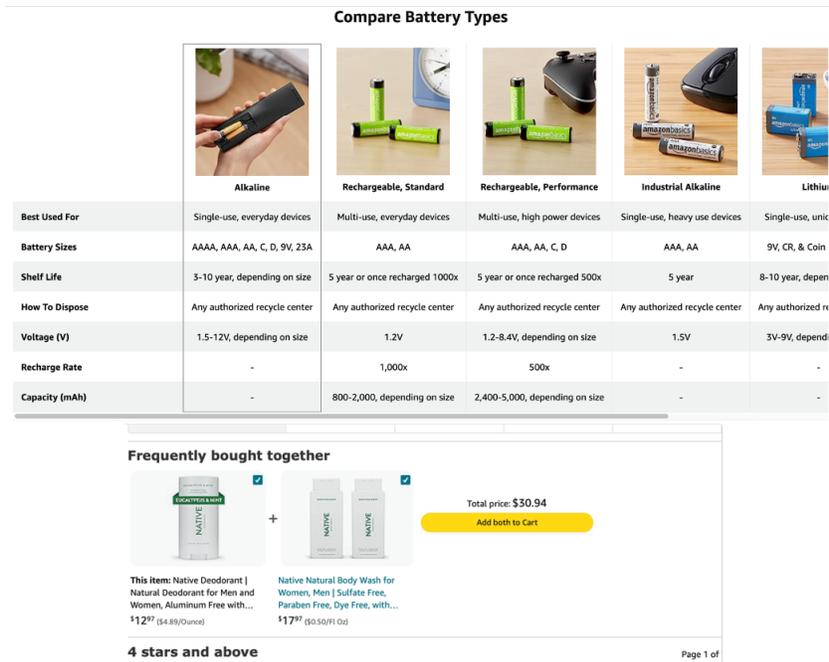
4 stars and above

Page 1 of
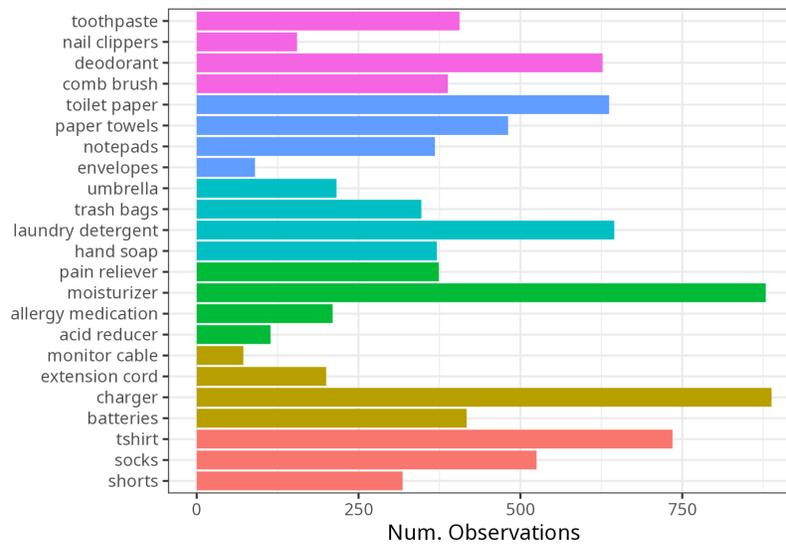
Figure C.4: Product Categories Selection

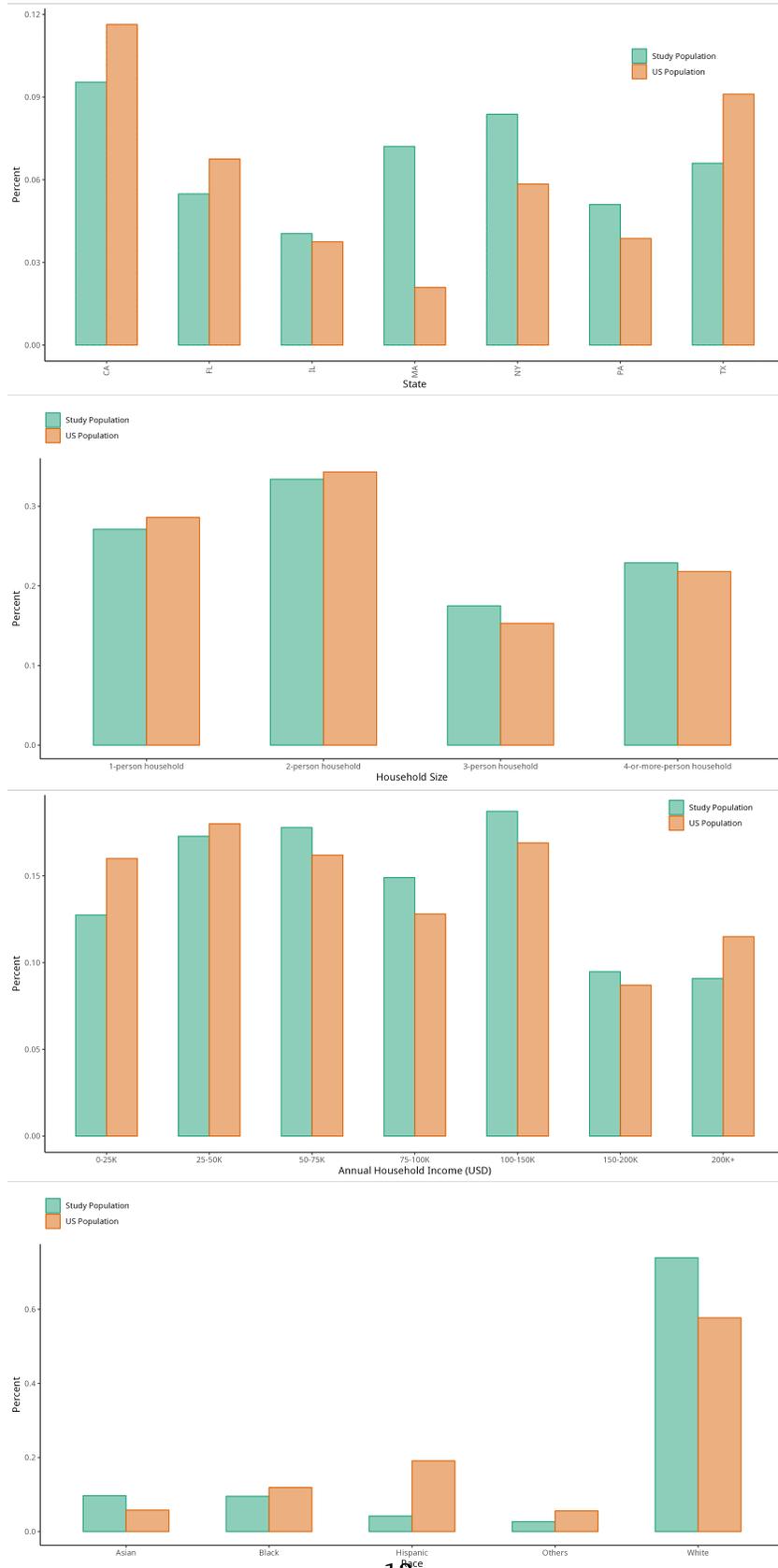Figure C.5: Demographics Distribution of the US and the Study Population

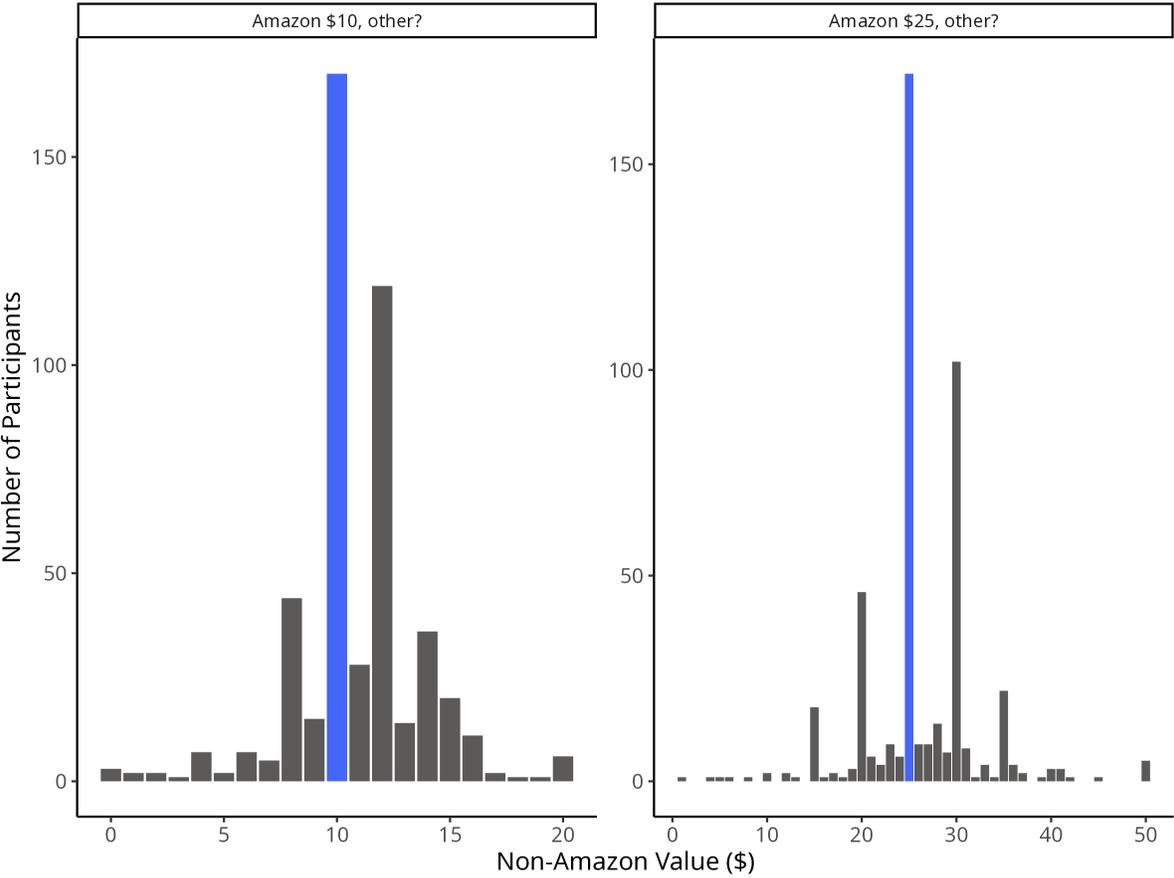Figure C.6: Willingness to Pay for Non-Amazon Branded Products

Figure C.7: Mean Utility by Search Rank

Search Rank vs Delta
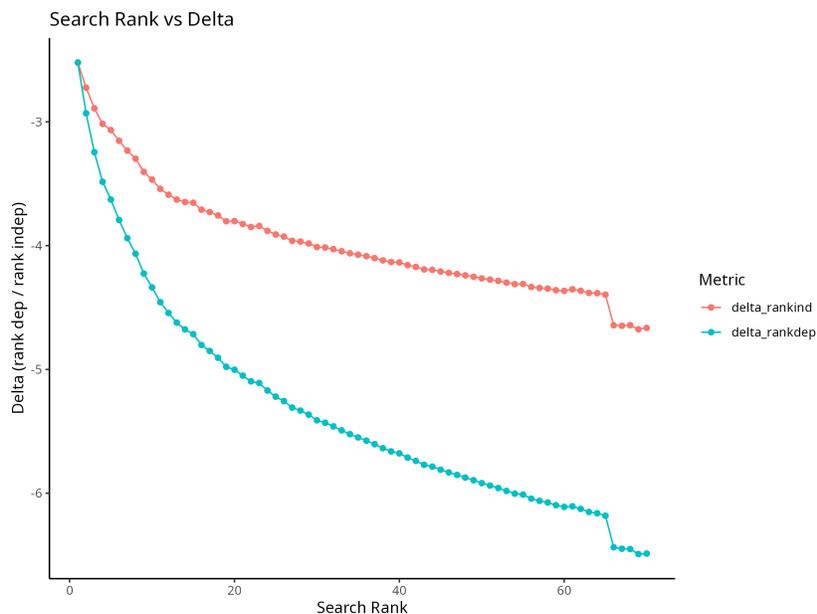
Notes: Figure plots the average estimated product utility by search rank, including the realized rank (delta_rankdep) and excluding realized rank (delta_rankind).

Figure C.8: Remove Amazon vs. Remove Random

(a) Difference in Consumer Surplus Impact

(b) Mean Utility: Amazon vs. Other Brands
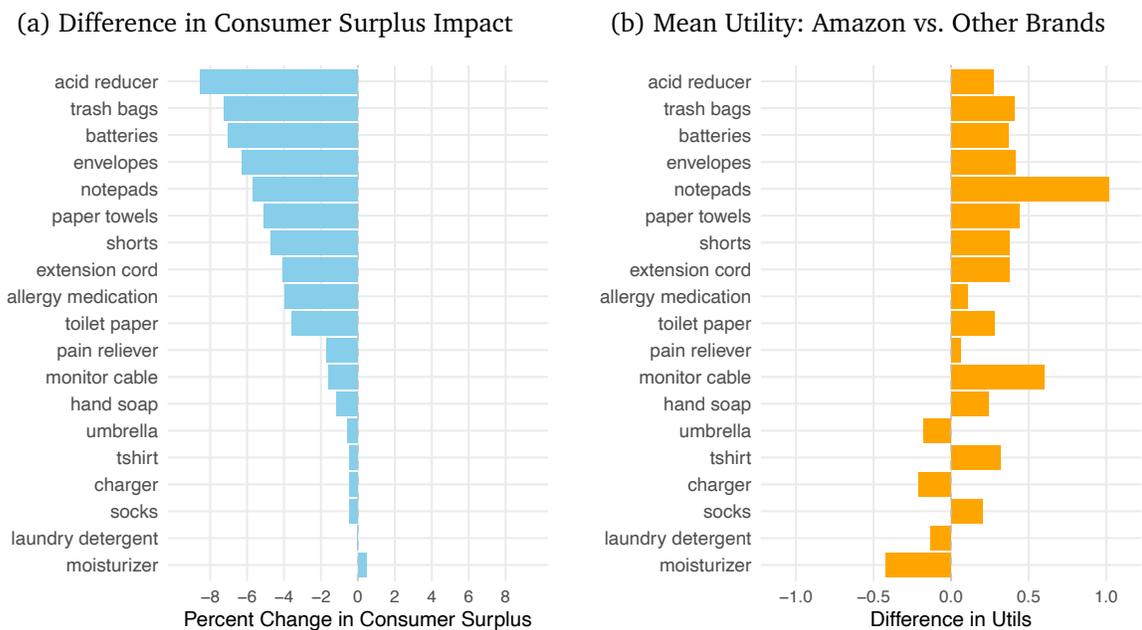
Notes: Figure presents comparisons of Amazon products to other products. Panel (a) reports the differences in category-level consumer surplus impacts of removing Amazon versus removing random products in our counterfactuals following Figure 4. Panel (b) reports the difference in mean utility for Amazon products compared to products from other brands. Categories are sorted in ascending order based on impacts in panel (a).

Figure C.9: Consumer Surplus Effects of Re-ranking Amazon Products

(a) Demote by Four Slots   (b) Demote by Two Slots
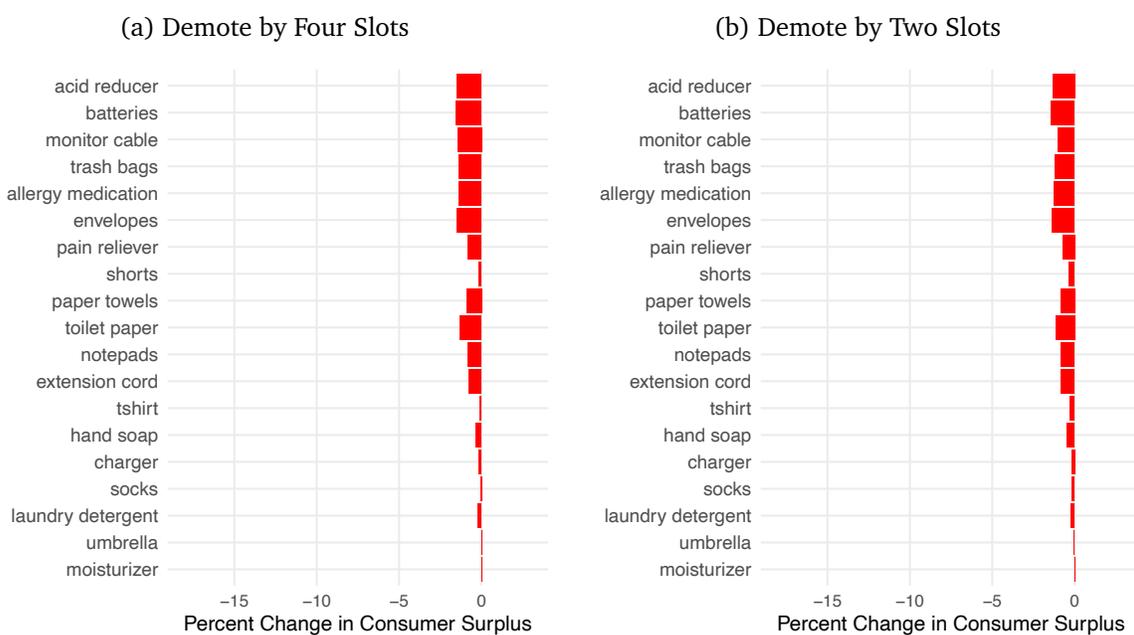
Notes: Figure reports the category-level percent changes in consumer surplus from demoting Amazon products by four slots (panel (a)) or two slots (panel (b)). Consumer surplus is calculated following Small and Rosen (1981) after search ranks are adjusted and new equilibrium prices are computed. Categories are sorted in ascending order based on the impact from the removal of Amazon products in Figure 4.

D   Surveys

This appendix presents the Qualtrics surveys used in the study:

- Eligibility: the eligibility survey contains the set of questions determining whether a study participant is eligible to take part in the study; the consent form; and initial instructions to install the web browser extension and enroll in the study.

- Intake: the intake survey contains a set of questions about the participant's demographics and shopping behavior. It also contains instructions on how to create a wishlist on Amazon, and instructs participants to search for products on Amazon and add them to the newly created wishlist.

- Outtake: the outtake survey contains a set of questions about the participants' shopping behavior during the eight weeks of our study, as well as questions related to consumer perception of Amazon brands.

Eligibility

0:00 / 0:32

[Professor Farronato's Webpage](#)

Would you like to help us understand online shopping behavior? We are a team of Harvard and Boston University researchers who study e-commerce and its value to consumers like you. We want to understand consumer shopping and how it is affected by the choices that e-commerce platforms make.

By fully completing this study, you will earn at least $30 and up to $180 if you also win lotteries throughout the study. We will ask you to complete two surveys: one now, which will take about 40 minutes to complete, and one in 8 weeks, which will take about 10 minutes. For the 8-week study period, we will also ask you to install a browser extension and to share information about your online shopping.

Click below if you want to know more and discover if you qualify!

We have a few quick questions before we start.

We would like to collect your answers to some questions about yourself and your shopping habits for the purposes of our research study. The information collected will be linked to research data only if you later decide to participate in the full study, otherwise these answers will remain anonymous and will not be linked to you in any way. It is your choice to participate.

Do we have your permission to collect your answers?

Yes

No

Do you live in the United States?

Yes

No

What is your age? Please type a number.

[   ]

What gender do you identify with?

Male

Female

Non-binary / Third-gender

Prefer not to say

What is 12 minus 4? Please type a number.

[   ]

What is the language you primarily speak? Select all that apply:

Spanish

English

Other [Which?]

How frequently do you shop on Amazon?

Never

Less than once a month

Once a month

Two to three times a month

More than three times a month

When shopping on Amazon, which device do you primarily use?

Laptop computer

Ipad or another tablet

Desktop computer

Phone

Other

When shopping on Amazon, which web browser do you primarily use?

Internet Explorer

Firefox

Chrome

Safari

Microsoft Edge

Other

Do other members of your household also use your primary device to shop online?

Yes

No

Do you currently work at one of these companies?

Facebook

Microsoft

Amazon

Apple

Google

None of these companies

Did you participate in a prior study with us in the past?

Yes

No

Not Eligible – Thanks

Thank you for your answers! Unfortunately, you do not qualify to participate in our study. Have a great day!

Consent

Congrats! You are qualified to participate.

Participants like you are crucial to the study. Together, we can understand and improve digital shopping!

If you complete the study, we'll pay you using gift cards that you can redeem at many retailers and buying products that you select.

Click "Next" to proceed.

Thanks!

Consent Form IRB21-1677

Study Overview

We're glad you want to know more about our study. The following is a summary with key information to help you decide whether you want to participate.

Why am I being invited to take part in a research study?
We invite you to take part in this research study because you are a frequent online shopper based in the United States.

Who is inviting you to take part in a research study?
We are a team of Harvard and Boston University professors who study the digital economy:

- Chiara Farronato, Associate Professor ([Faculty Page](#))

- Andrey Fradkin, Assistant Professor ([Faculty Page](#))

- Alexander J. MacKay, Assistant Professor ([Faculty Page](#))

What should I know about a research study?
Research studies are conducted to better understand the choices we make. Whether or not you take part is completely up to you. Your decision will not be held against you. You can ask all the questions you want before you decide. You can even agree to take part and later change your mind.
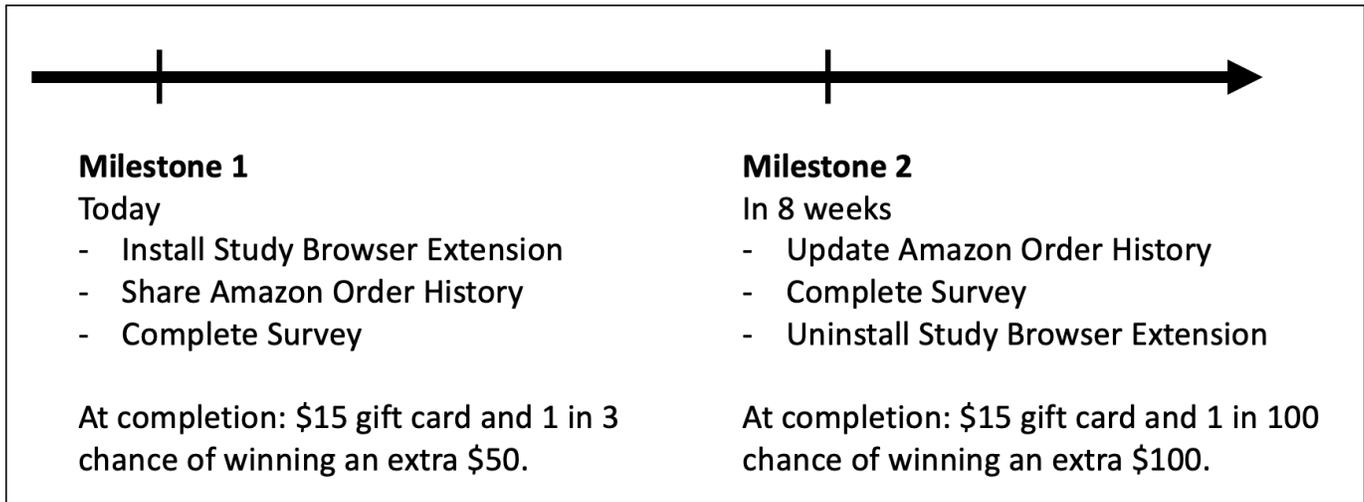
Why is this research being done?
We want to understand consumer shopping behavior online and how it is affected by the choices that e-commerce platforms make. Not only this will allow us to understand how people like you and us shop online, but it will also help us understand whether and how we should limit the control that e-commerce platforms have over how they choose which products to show us.

How long will the research last and what will I need to do?
The study will last 8 weeks, but we will only ask you for at most 1 hour of your time. Everything we ask you to do can be done from the comfort of your home. If you choose to participate, we'll ask you to:

- Install the study browser extension, which is an application we developed for this study. We will have instructions for you on how to install the extension.

- Complete two surveys. We'll send you the first survey today (it will take about 40 minutes to complete) and the next survey in eight weeks (it will take about 10 minutes to complete). The first survey will ask you to create a wishlist on Amazon to which you can add products that you would like to purchase. Again, we will provide you with instructions on how to create an Amazon wishlist and share it with us.

Here is the timeline at a glance:

Milestone 1
Today
- Install Study Browser Extension
- Share Amazon Order History
- Complete Survey

At completion: $15 gift card and 1 in 3 chance of winning an extra $50.

Milestone 2
In 8 weeks
- Update Amazon Order History
- Complete Survey
- Uninstall Study Browser Extension

At completion: $15 gift card and 1 in 100 chance of winning an extra $100.

The study browser extension will record and may tweak your browsing experience on Amazon.com. The extension will also track whether you visit other e-commerce websites without tracking what you do on those websites. The extension will not record any of your activity outside of e-commerce websites. We'll ask you to keep this extension installed for eight weeks.

Will I be compensated for participating in this research?

Yes. We will pay you at least $30 for completing the two milestones presented in the timeline above.

Payments will come in the form of gift cards sent to your email address. Some people will earn more because:

- At completion of milestone 1, in addition to the $15 payment, you will have a 1 in 3 chance to win an additional $50 in value divided in two parts:
  - We will buy a product from your wishlist for you;
  - We will send you the difference between $50 and the price of the purchased item as a gift card. For example, if you selected a product that costs $31.50 (tax + shipping included), we will purchase that product for you and send you a gift card for an additional $18.50.
- At completion of milestone 2, in addition to the second $15 payment, you will have a 1 in 100 chance to win an additional $100.

We will pay you with electronic gift cards that you can use at over 60 retailers, including Amazon, Starbucks, Target, and Walmart.

Is there any way being in this study could be bad for me?

There are some risks you might experience from being in this study. The study browser extension may tweak the information displayed to you while using certain e-commerce websites. This may change the products you purchase or how long you spend searching for products. If the products you purchase are worse, more expensive, or if you search more, then this may be bad for you. We do not know whether our tweaks to your shopping experience are good or bad for you. We will not compensate you for these differences.

Since we may collect personal information, there is a risk of breach of confidentiality. We have worked hard to minimize this risk. For example, we have ensured that we are not storing the name, mailing address, or payment information that you use on Amazon. We will encrypt any data before storing it. Before accessing the data for analysis, we will also permanently delete all personal information except for your email address, which will be stored separately from all other data.

Will being in this study help me in any way?

We cannot promise any benefits to you or others from your taking part in this research. It is possible, however, that our tweaks to your online browsing lead to a better (or worse) online shopping experience.

Detailed Information

Withdrawing from the Study.

You can leave the research at any time; your decision will not be held against you. We may use the data you have shared with us prior to withdrawing as part of the study. We will provide simple instructions for how you can withdraw. Researchers can remove you from the research study without your approval. Possible reasons for removal include not complying with instructions to install the study browser extension or intentionally avoiding data tracking through the extension.

Privacy.

Data security and privacy are important to us. We will ask for your email address to send you payments and other communications. During the course of the study we may collect other personal information. The personal information that we know we are collecting will be deleted immediately, except for your email address. Other personal information that we inadvertently collect will be stored but removed after we finish collecting data.

We cannot promise complete secrecy, although efforts will be made to limit the use and disclosure of your personal information. Data will be encrypted and stored on secure servers and cannot be accessed by anyone outside the research team. At no time will study information be available over any public or private network in an unencrypted state.

In the future, when we publish our research, we will post anonymized data from this study in a data repository so that other researchers can reproduce our results. By then, no information that can identify you personally will be available, to us or others. We will not sell data from the study or share data for any commercial or marketing purposes.

Who can I talk to?

If you have questions, concerns, or complaints, or think the research has hurt you, do not hesitate to reach the research team at webmunk_study@hbs.edu.

This research has been reviewed and approved by the Harvard University Area Institutional Review Board ("IRB"). You may talk to them at (617) 496-2847 or cuhs@harvard.edu if your questions, concerns, or complaints are not being answered by the research team; you cannot reach the research team; you want to talk to someone besides the research team; you have questions about your rights as a research subject; you want to get information or provide input about this research.

Please indicate below whether you agree to participate in the study. Agreeing to participate means you are willing to install the study browser extension, provide your email address, and complete the surveys.

I agree to participate.

I do not agree to participate.

Not Consent – Thanks

Thank you for letting us know you do not want to participate. Have a great day!

Willingness

Thank you for your interest in participating in our study!

For this particular study, it is especially important to gather high-quality data. Will you do your best to carefully answer each question on our surveys?

Yes

No

Not Willing – Thanks

Thank you for your willingness to participate in this study. Since we need to be able to gather high-quality data, you do not qualify to participate. Have a good day!

Subject Info

Thank you for your willingness to carefully answer our questions!

What is your preferred email address? (We will use this email to send you payments.)

<div style="border:1px solid #ccc; width:350px; height:45px;"></div>

To confirm, please enter your email again:

<div style="border:1px solid #ccc; width:350px; height:45px;"></div>

We'll ask you to install the study browser extension next.

App Installation

Study Browser Extension Installation Instructions.

To install the study browser extension, please **use Chrome** on the computer (or computers) that you use for online shopping:

- Click <u>here</u>. This will open a new window from where you can install the browser extension.
- Click "Add to Chrome."

Home > **Extensions** > Study Browser Extension

Study Browser Extension

★★★★★ 0 ⓘ | **Productivity** | 38 users

Add to Chrome

Overview   Privacy practices   Reviews   Related

- When prompted, click "Add Extension."

Add "Study Browser Extension"?

It can:

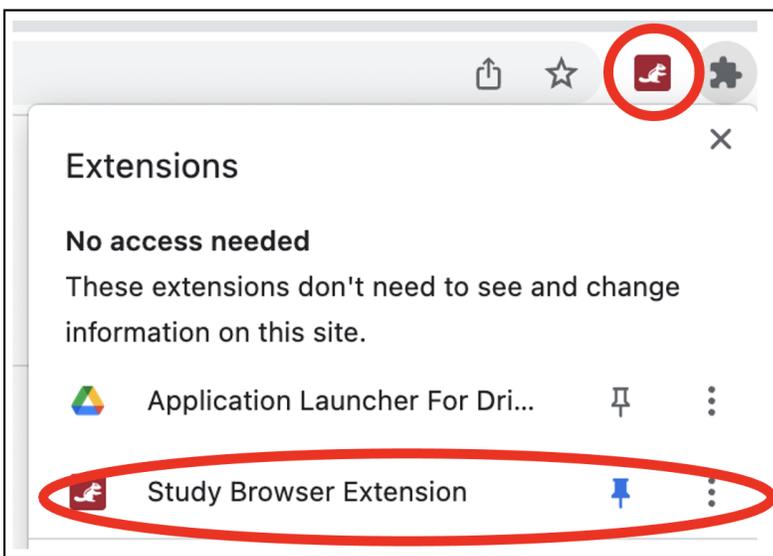Read and change all your data on all websites

Cancel   **Add extension**

- You will be asked to add your email address. Please use the email address that you shared with us earlier.

- You should now see the browser extension icon on the top right corner of your browser. If you don't see it, it may be hidden under the puzzle icon, which is visible in the upper right corner of the screenshot below.

- You are all set.

If you have trouble installing the study browser extension, please email us at webmunk_study@hbs.edu and we will help you with additional instructions.

Were you able to successfully install the extension?

Yes

No, but I have emailed you

What difficulties have you encountered installing the extension?

Thank you! Please check the browser extension pop-up window for the next steps. A link to the initial survey will appear shortly.

If you have any questions in the meantime, or if the initial survey does not appear in the browser extension window within the next 15 minutes, please email us at webmunk_study@hbs.edu.

Please click the "Finish" button below to complete this part of the study.

We really appreciate you for participating in this research!

Powered by Qualtrics

Intake Survey Intro

Welcome back to our study!

Please read the instructions below carefully before proceeding to the next screen. **To receive compensation, you must complete the task from the computer where you have installed the study browser extension.**

This task will take you about 40 minutes to complete. If you do not have 40 minutes right now or you're not at your computer, please come back later.

We will first ask you some basic questions about yourself and your online shopping behavior. Then, we will ask you to create an Amazon wishlist. You will search for products on Amazon and add them to your wishlist.

When you add products to your wishlist, make sure each of them costs $50 or less (tax+shipping included).

After completing milestone 1, you will receive $15. You will also have a 1 in 3 chance to receive additional compensation worth $50 that is made of two parts:

- We will pick one of the items you added to your wishlist, buy it, and ship it to the address you entered;
- We will also send you a gift card for the difference between $50 and the price of the product you selected.

For example, if you selected a product that costs $31.50 (tax+shipping included), we will buy that product for you and send you $18.50 as a gift card.

Therefore, **it is best for you to be truthful in selecting which products you like the most.**

Intake Survey

What is your race/ethnicity?

Hispanic or Latinx

White

Asian or Pacific Islander

American Indian or Alaska Native

Black or African American

Other

In what zip code do you currently live?

[   ]

What was your total household income in 2022? Please include only employment income (wages, salary, bonuses, tips, and any income from your own businesses).

$0 to $24,999

$25,000 to $49,999

$50,000 to $74,999

$75,000 to $99,999

$100,000 to $149,999

$150,000 to $200,000

$200,000 and up

How many people live in your household?

Only myself

2 people

3 people

4 people

5 or more people

How many children under the age of 18 live in your household?

None

1 child

2 children

3 children or more

What is the highest level of school you have completed?

Some high school

High school degree

Some college

Associate's degree in college

Bachelor's degree in college (BA, AB, BS, ...)

Some graduate studies

Graduate degree (MA, MS, MBA, MD, JD, PhD, ...)

What portion of your shopping expenditures ($) do you do online?

0% - 25%

25% - 50%

50% - 75%

75% - 100%

At which retailers did you shop **in-store** over the past year? (Select all that apply)

Costco	Kohl's	Dollar Tree
Best Buy	Whole Foods	Macy's
CVS	Apple	Walgreens
Target	Kroger	Dollar General
Walmart	Sam's Club	Other (specify below):

At which retailers did you shop **online** over the past year? (Select all that apply)

Target.com	Shein.com	Macys.com
Wayfair.com	Apple.com	Samsclub.com
Ebay.com	Bestbuy.com	Costco.com
Walmart.com	Kohls.com	Etsy.com
Walgreens.com	Amazon.com	Other (specify below):

Which of the following product categories have you shopped for **online** over the past year?

Pet Supplies	Groceries	Home, Garden, and Tools
Sports and Outdoor	Jewelry and Watches	Shoes
Furniture	Personal Care	Health
Electronics	Books	Beauty
Appliances	Paper Products	Apparel (Clothing)
Household Items	Toys	Other (specify below):

Are you the primary shopper for your household?

Yes

No

Are you an Amazon Prime member?

Yes

No

Do you use an ad blocker such as AdBlock or uOrigin?

Yes. If so, which?

No

Install Question

Do you have the study browser extension installed on your Chrome browser? To check that, you should see the study browser extension icon on the top right corner of your browser. If you don't see the extension icon, it may be hidden under the puzzle icon, which is visible in the upper right corner of the screenshot below.
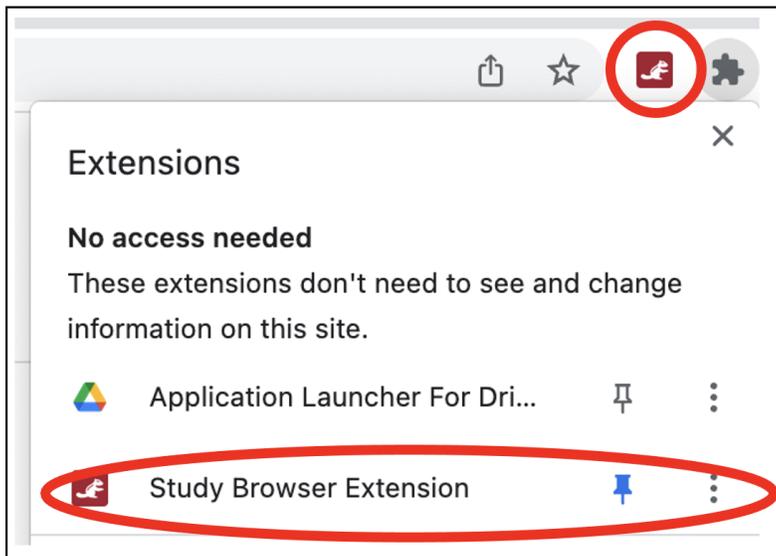
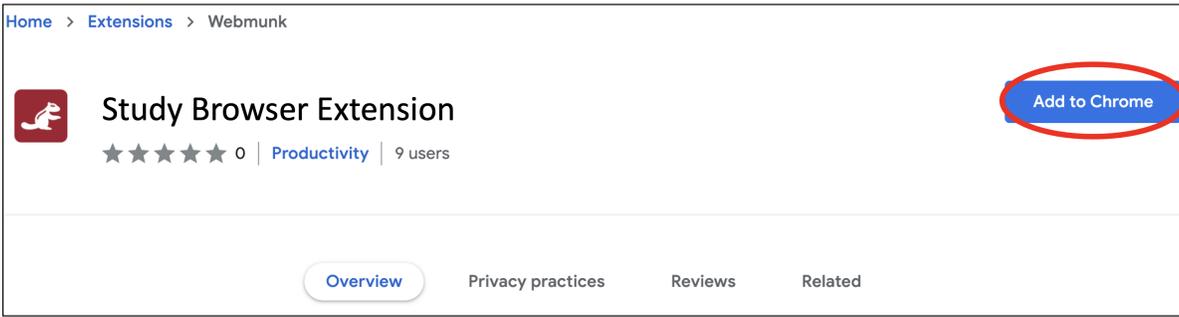Yes, I have the study browser extension installed on my web browser.
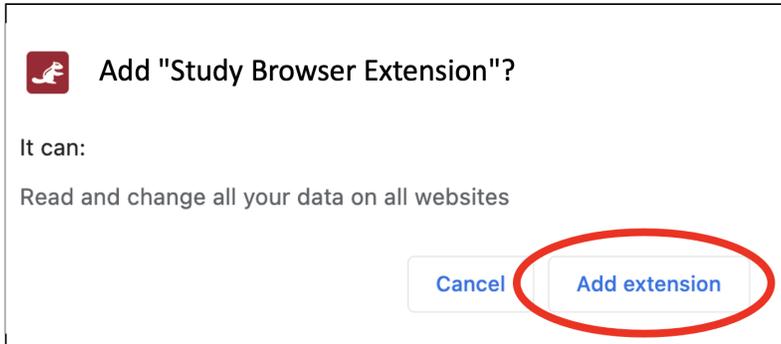
No, I do not have study browser extension installed on my web browser.

App Installation

Study Browser Extension Installation Instructions.

To install the study browser extension, please **use Chrome** on the computer (or computers) that you use for online shopping:

- Click here.
- Click "Add to Chrome."

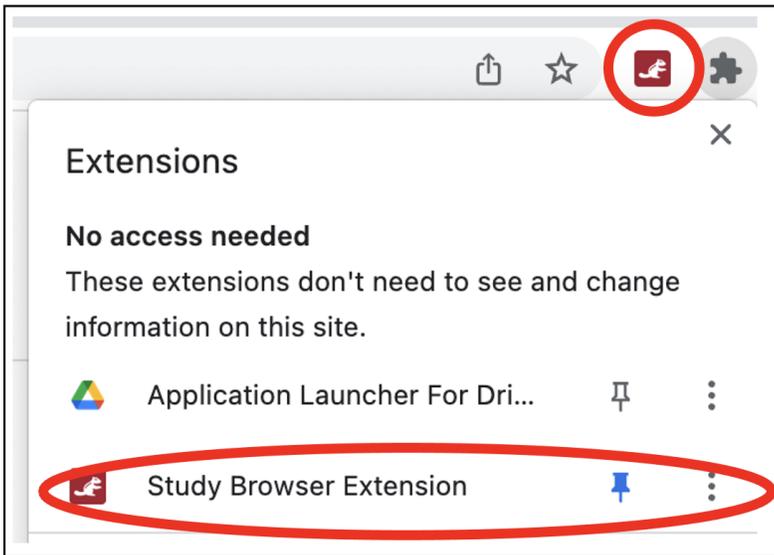Home > Extensions > Webmunk

Study Browser Extension   Add to Chrome

★ ★ ★ ★ ★ 0 | Productivity | 9 users

Overview   Privacy practices   Reviews   Related

- When prompted, click "Add Extension."

Add "Study Browser Extension"?

It can:

Read and change all your data on all websites

Cancel   Add extension

- You will be prompted to add your email address. Please use the email address that you shared with us earlier.

Get Started

Please enter your e-mail address to get started:

E-Mail Address

→ CONTINUE
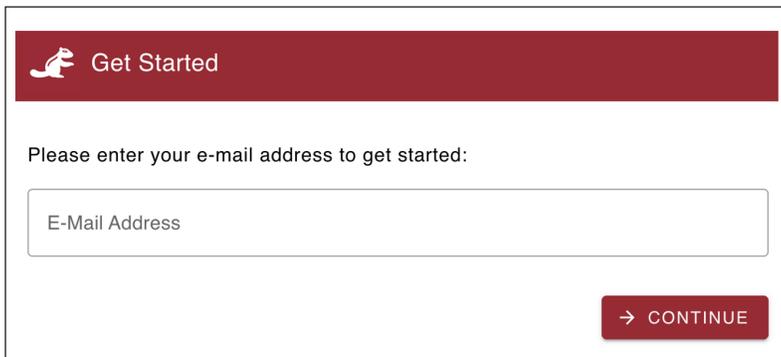
- You should now see the the study browser extension icon on the top right corner of your browser. If you don't see it, it may be hidden under the puzzle icon, which is visible in the upper right corner of the screenshot below.

- You are all set.

If you have trouble installing the study browser extension, please email us at webmunk_study@hbs.edu and we will help you with additional instructions.

Were you able to successfully install the study browser extension?

Yes

No, but I have emailed you

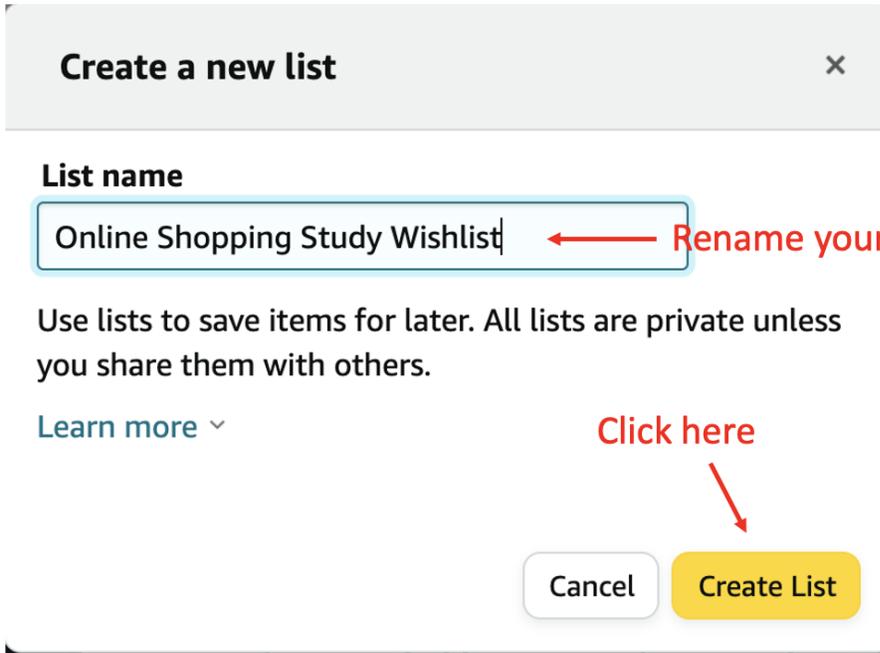What difficulties have you encountered installing the extension?

[ ]

Introduction to the Wishlist Task

Below, we describe how to create an Amazon Wishlist and share it with the study researchers. Please follow these steps in order:

1. Go to amazon.com and log into your Amazon account.

2. On the top right side, hover on the tab titled "Account & Lists" and select "Create a List."
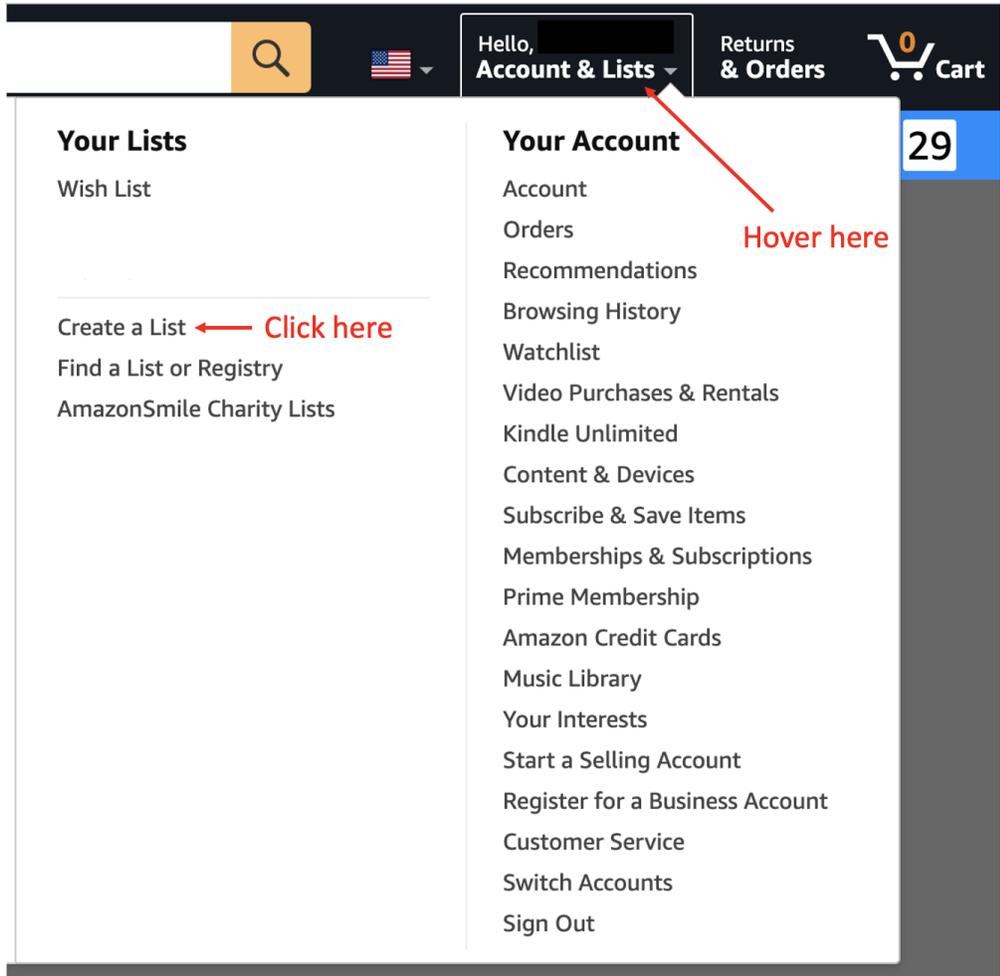
3. A new tab will pop up asking you to enter your list name. Please name it "Online Shopping Study Wishlist". The list will now appear empty.

Create a new list   ✕

List name

Online Shopping Study Wishlist   ⟵—— Rename your list

Use lists to save items for later. All lists are private unless
you share them with others.

Learn more ⌄

Click here

Cancel   **Create List**

4. To add your shipping address, on the top right side of the list click on "More"
and then "Manage List."

Click here

Online Shopping Study Wishlist Private   ⤳ Send list to others   ••• More

○ + Invite   Manage list

▦ ☰   🔍 Search this list   Filte   Print List
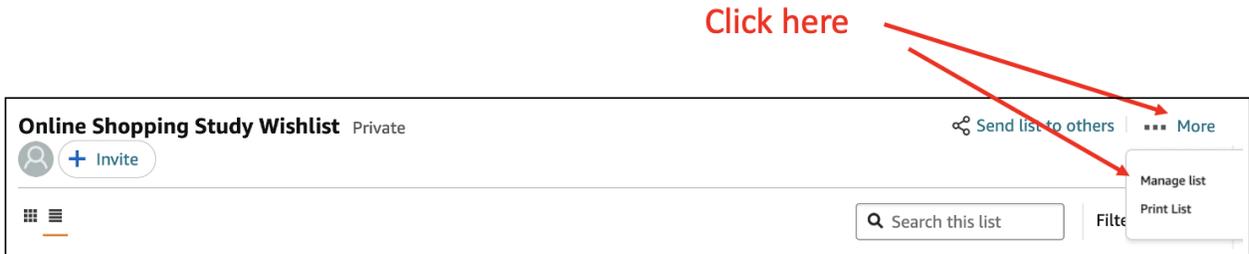
5. Click on the Privacy tab and select "Public". This will allow us to see your list.

6. Scroll down to "Shipping Address" and enter the address you would like the product to be shipped to. Note, the study researchers will not be able to access your address.

7. Click "Save Changes".

8. To share the list with study researchers, on the top right side of the list click on "Send list to others." It is next to the "More" button you clicked on before.
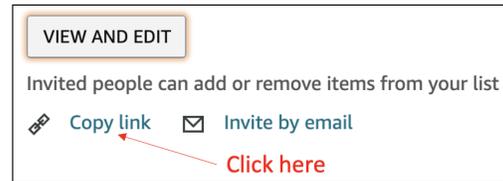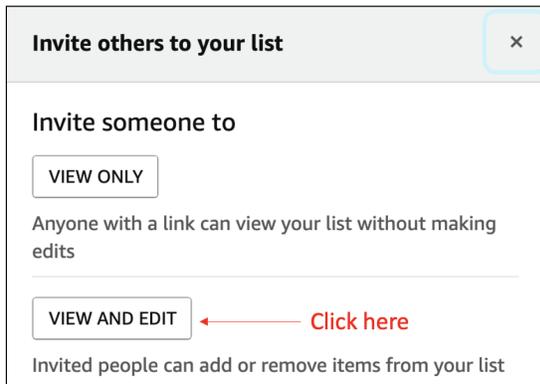
9. Select "VIEW AND EDIT" and "Copy link" to copy the link to your clipboard.

Invite others to your list	✕
Invite someone to	
VIEW ONLY	
Anyone with a link can view your list without making edits	
VIEW AND EDIT ←— **Click here**	
Invited people can add or remove items from your list	

VIEW AND EDIT
Invited people can add or remove items from your list
🔗 Copy link　✉ Invite by email
—— **Click here**

Please paste the link you just copied into the text form below. We will use this list to reward you for completing the study.

To paste the link, right click in the text box below and select "Paste."

Select product categories

Please select one product that you would like to purchase in each of the following categories:

Personal Care (Select one):

Nail clippers

Deodorant

Comb / brush

Toothpaste

Electronics (Select one):

Batteries

Phone charger

Monitor cable (HDMI, USB-c)

Extension cord

Apparel (Select one):

Socks

Shorts

T-shirt

Household Items (Select one):

Umbrella

Hand soap

Trash bags

Laundry detergent

Paper Products (Select one):

Toilet paper

Notepads

Envelopes

Paper towels

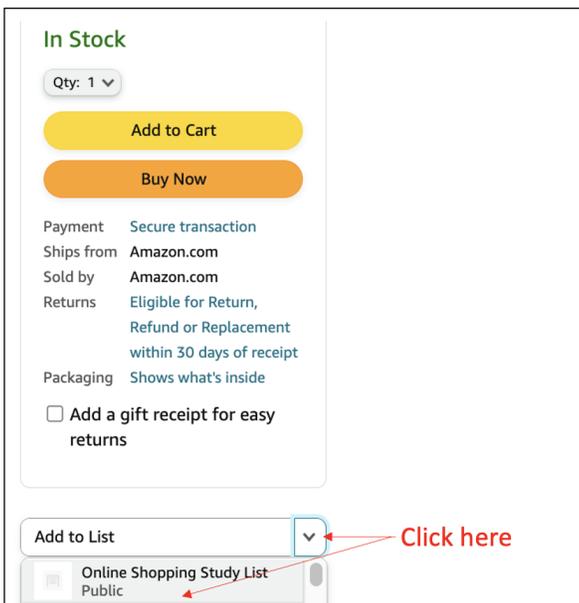## Health (Select one):

Allergy medication

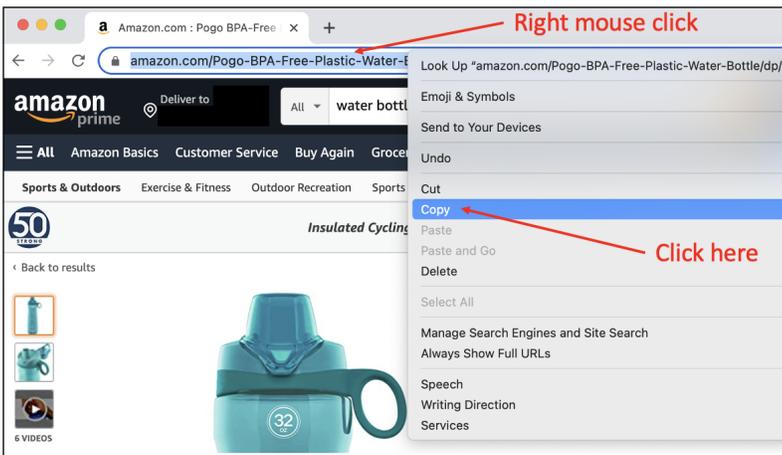Moisturizer

Acid reducer

Pain reliever

Personal Care

You have selected **${q://QID47/ChoiceGroup/SelectedChoices}** in the Personal Care category. Please search on Amazon for the product you would like to purchase. Make sure the product you select costs less than $50 (taxes+shipping included).

Once you find the product you'd like, please add it to the "Online Shopping Study List" wishlist. You can do this by clicking the arrow next to "Add to List" and select "Online Shopping Study List," as shown below. Please make sure you add the product to the "Online Shopping Study List" rather that adding it to your cart or to another list.

Please copy the URL of the product you selected and paste it below.

To copy the URL, right click with your mouse on the address bar, then select "Copy."

To paste the URL, right click in the text box below and select "Paste."

Electronics

You have selected **${q://QID1/ChoiceGroup/SelectedChoices}** in the Electronics category. Please search on Amazon for the product you would like to purchase. Make sure the product you select costs less than $50 (taxes+shipping included).

Once you find the product you'd like, please add it to the "Online Shopping Study List" wishlist. You can do this by clicking the arrow next to "Add to List" and select "Online Shopping Study List," as shown below. Please make sure you add the product to the "Online Shopping Study List" rather that adding it to your cart or to another list.

Please copy the URL of the product you selected and paste it below.

To copy the URL, right click with your mouse on the address bar, then select "Copy."
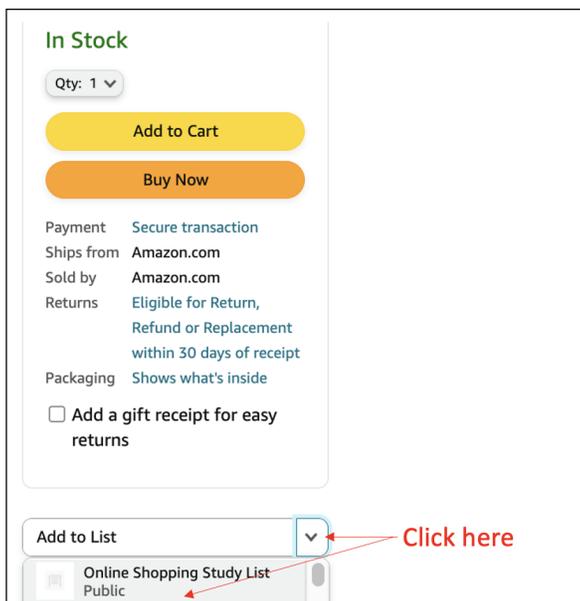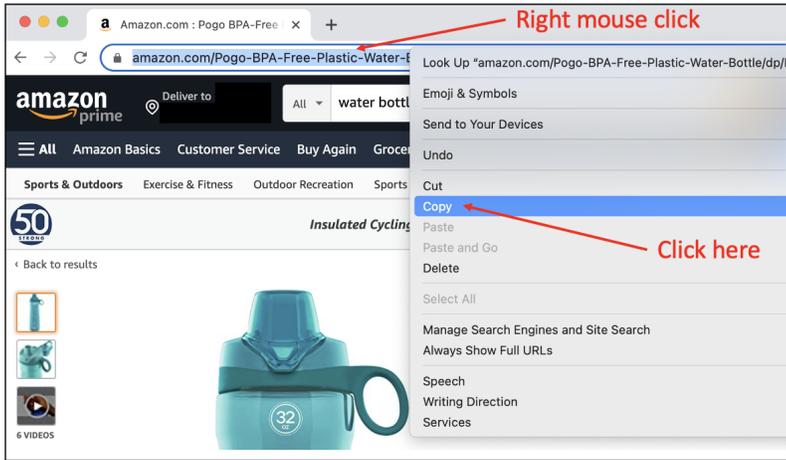
To paste the URL, right click in the text box below and select "Paste."

Apparel

You have selected **${q://QID3/ChoiceGroup/SelectedChoices}** in the Apparel category. Please search on Amazon for the product you would like to purchase. Make sure the product you select costs less than $50 (taxes+shipping included).

Once you find the product you'd like, please add it to the "Online Shopping Study List" wishlist. You can do this by clicking the arrow next to "Add to List" and select "Online Shopping Study List," as shown below. Please make sure you add the product to the "Online Shopping Study List" rather that adding it to your cart or to another list.

Please copy the URL of the product you selected and paste it below.

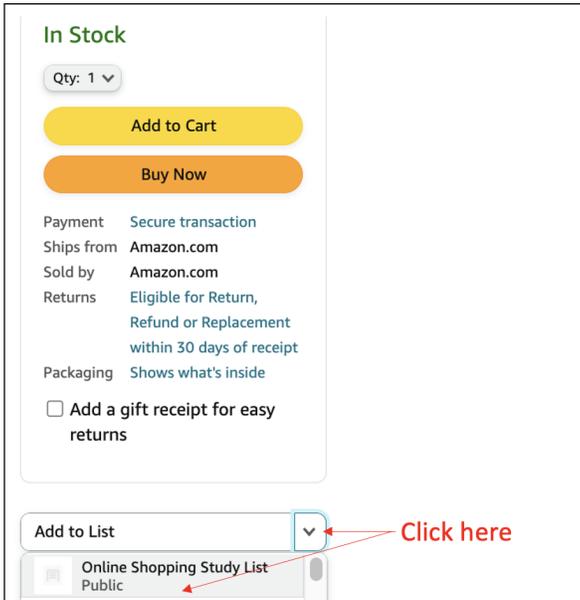To copy the URL, right click with your mouse on the address bar, then select "Copy."

To paste the URL, right click in the text box below and select "Paste."

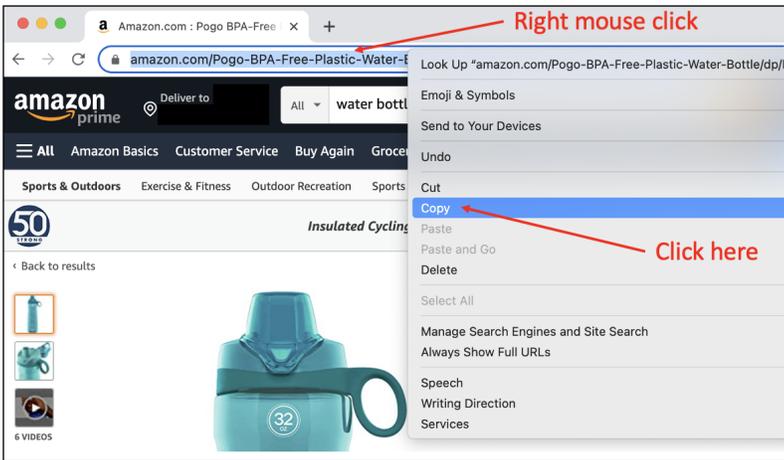## Household Items

You have selected **${q://QID4/ChoiceGroup/SelectedChoices}** in the Household Items category. Please search on Amazon for the product you would like to purchase.
Make sure the product you select costs less than $50 (taxes+shipping included).

Once you find the product you'd like, please add it to the "Online Shopping Study List" wishlist. You can do this by clicking the arrow next to "Add to List" and select "Online Shopping Study List," as shown below. Please make sure you add the product to the "Online Shopping Study List" rather that adding it to your cart or to another list.

Please copy the URL of the product you selected and paste it below.

To copy the URL, right click with your mouse on the address bar, then select "Copy."
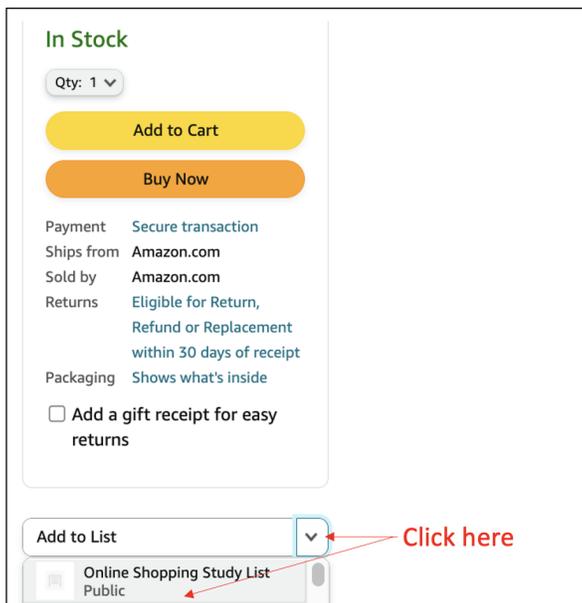
To paste the URL, right click in the text box below and select "Paste."

Paper and Wipes

You have selected **${q://QID5/ChoiceGroup/SelectedChoices}** in the Paper and Wipes category. Please search on Amazon for the product you would like to purchase. Make sure the product you select costs less than $50 (taxes+shipping included).

Once you find the product you'd like, please add it to the "Online Shopping Study List" wishlist. You can do this by clicking the arrow next to "Add to List" and select "Online Shopping Study List," as shown below. Please make sure you add the product to the "Online Shopping Study List" rather that adding it to your cart or to another list.

Please copy the URL of the product you selected and paste it below.

To copy the URL, right click with your mouse on the address bar, then select "Copy."

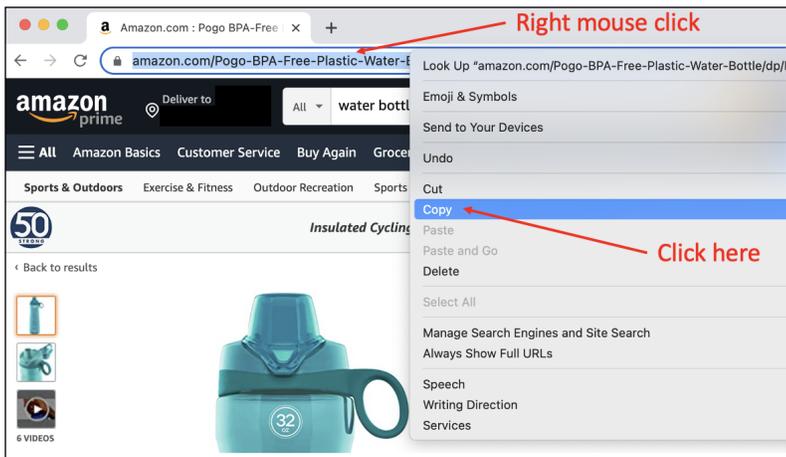To paste the URL, right click in the text box below and select "Paste."

Health

You have selected **${q://QID6/ChoiceGroup/SelectedChoices}** in the Health category. Please search on Amazon for the product you would like to purchase. Make sure the product you select costs less than $50 (taxes+shipping included).

Once you find the product you'd like, please add it to the "Online Shopping Study List" wishlist. You can do this by clicking the arrow next to "Add to List" and select "Online Shopping Study List," as shown below. Please make sure you add the product to the "Online Shopping Study List" rather that adding it to your cart or to another list.

Please copy the URL of the product you selected and paste it below.

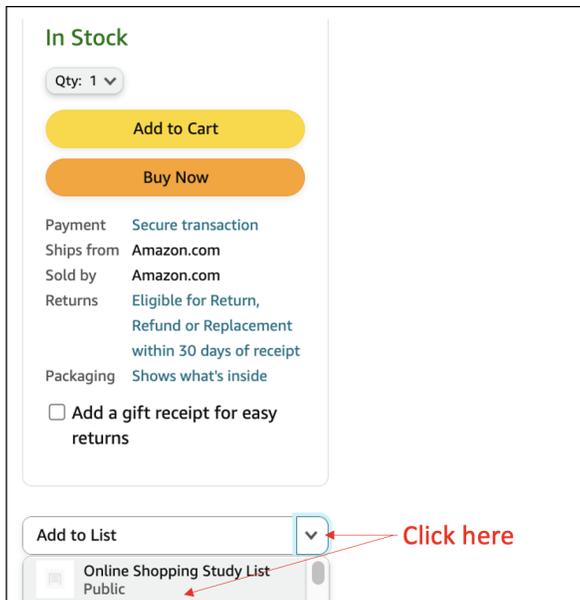To copy the URL, right click with your mouse on the address bar, then select "Copy."

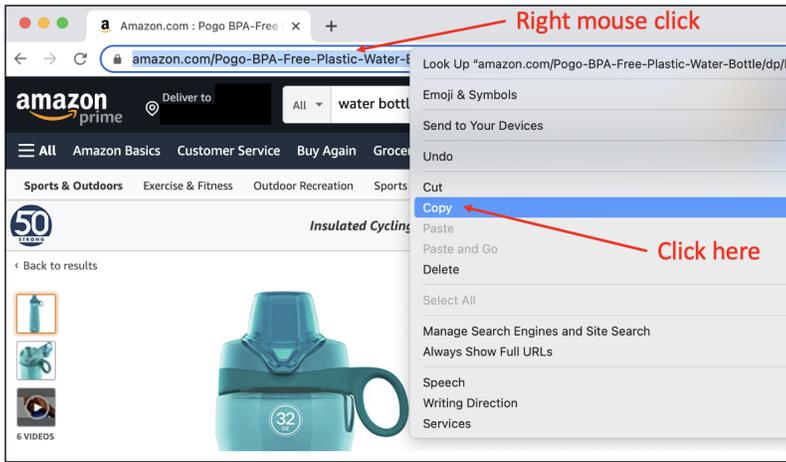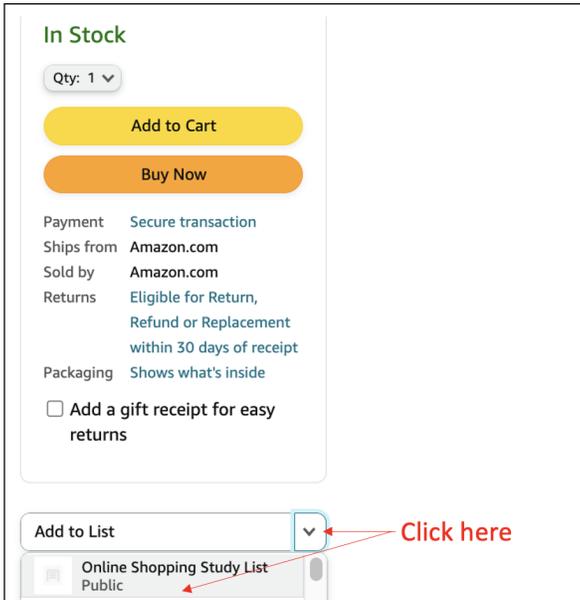To paste the URL, right click in the text box below and select "Paste."

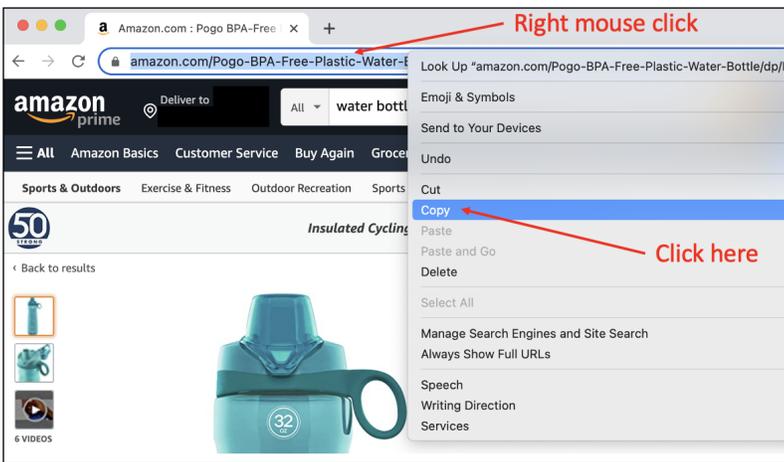## Upload data

We're almost at the end of this survey.

Let's make sure you have added 6 items to your Online Shopping Study Wishlist:

- Navigate to your wishlist. Here's the link that you shared earlier that you can copy and paste into your browser:
  ${q://QID1714808541/ChoiceTextEntryValue}
- **Check that you have 6 items on the list**, one per category you selected. Note: you will need to have these items in the list in order to receive compensation. If you do not, please go back and add products in the remaining categories.

It is now time to upload data to the study browser extension:

- To do that, click on the extension icon on the top-right corner of your browser. If you don't see it, it may be hidden under the puzzle icon, which is visible in the upper right corner of the screenshot below.
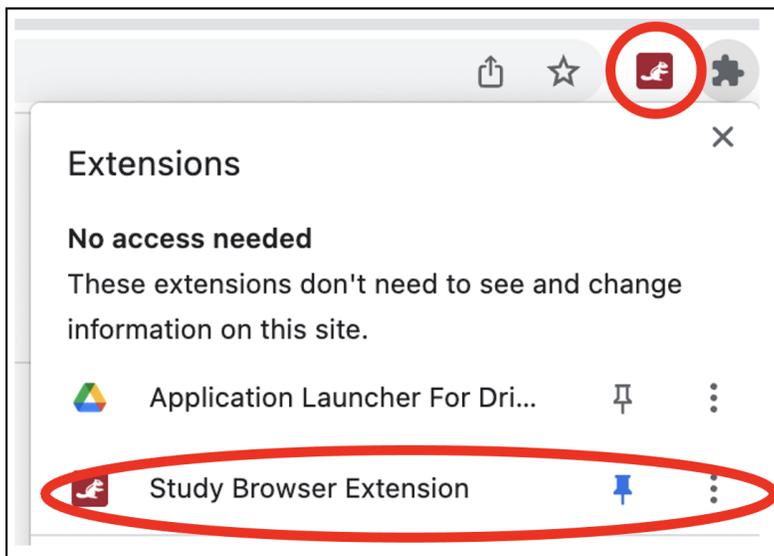
- A pop-up window should appear. If it does not, it may be hidden behind another browser window. Click on the "Upload Data" icon, as in the screenshot below.
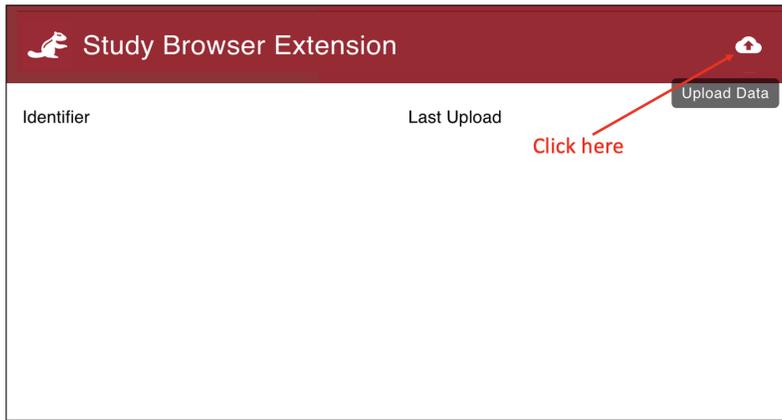
The data upload may take a while. Please do not close Chrome. If you need to close it, the data upload will restart automatically the next time you open Chrome.

If you encounter any trouble, please email us at webmunk_study@hbs.edu.

In the meantime, **click below to answer the last few questions in this survey**.

Final Questions

What were the most important factors to you when shopping for the items for your wishlist? Select up to three factors:

Familiarity with Seller	Quality
Delivery Speed	Easy Returns
Value for Money	Quantity of Product
Price	Ratings/Reviews
Brand	Other Product Features

If you had to buy products in these categories again, would you shop for them again on Amazon.com?

	Definitely not on Amazon.com	Likely not	Unsure	Likely yes	Definitely yes on Amazon.com
Personal care	○	○	○	○	○
Electronics	○	○	○	○	○

	Definitely not on Amazon.com	Likely not	Unsure	Likely yes	Definitely yes on Amazon.com
Apparel	○	○	○	○	○
Household items	○	○	○	○	○
Paper products	○	○	○	○	○
Health	○	○	○	○	○

How satisfied are you with your online shopping experience during this survey?

Very dissatisfied	Dissatisfied	Neutral	Satisfied	Very satisfied

Now that you've completed the shopping tasks, do you have any feedback for us about the task or the survey?

You have answered all of the questions in the initial survey. Please be sure to complete other tasks remaining in the browser extension window, including uploading your Amazon order history.

In 8 weeks, the browser extension will automatically prompt you to complete the final survey.

Please click the arrow below to complete this task.

Powered by Qualtrics

Default Question Block

Welcome back to our study!

Today we'll ask you some final questions about your recent online shopping experience. After you complete it, we will provide you with instructions on how to uninstall the study browser extension from your browser. This step will conclude your participation in the study and you will receive the second payment.

Please complete this survey on the computer where you have the study browser extension installed.

Block 3

Which of these statements do you agree with the most?

Over the last couple of months, I primarily shopped for myself and my family.

Over the last couple of months, I primarily shopped for myself and my partner.

Over the last couple of months, I primarily shopped for myself.

At which retailers did you shop **in-store** over the past <u>two months</u>? (Select all that apply)

Best Buy	Whole Foods	Dollar General
Walmart	Dollar Tree	Walgreens
CVS	Costco	Macy's
Apple	Sam's Club	Kohl's
Target	Kroger	Other (specify below):

At which retailers did you shop **online** over the past <u>two months</u>? (Select all that apply)

Apple.com	Ebay.com	Etsy.com

Samsclub.com	Target.com	Wayfair.com
Kohls.com	Amazon.com	Shein.com
Walgreens.com	Walmart.com	Costco.com
Macys.com	Bestbuy.com	Other (specify below):

[   ]

Which of the following product categories have you shopped for **online** over the past <u>two months</u>?

Shoes	Personal Care	Home, Garden, and Tools
Appliances	Sports and Outdoor	Electronics
Jewelry and Watches	Health	Household Items
Furniture	Groceries	Toys
Pet Supplies	Books	Beauty
Paper Products	Apparel (Clothing)	Other (specify below):

[   ]

What were the most important factors to you when shopping for items online over the past two months? Select up to three factors:

Value for Money	Easy Returns
Quality	Delivery Speed
Ratings/Reviews	Price
Familiarity with Seller	Quantity of Product
Brand	Other Product Features

How satisfied are you with your online shopping experience during this study?

| Very dissatisfied | Dissatisfied | Neutral | Satisfied | Very satisfied |

Was your Amazon.com shopping experience similar or different compared to before the start of the study?

Similar

Different

What was different? Please describe.

wishlist product

We bought the following product from your Amazon wishlist:

$$\text{\$\{e://Field/wl\_product\}}$$

Have you received it?

Yes
No

How would you rate this product based on the following aspects?

	Very bad	Bad	Average	Good	Very good
Price	◯	◯	◯	◯	◯
Quality of product	◯	◯	◯	◯	◯
Overall rating	◯	◯	◯	◯	◯

product1

In this page we will ask you to review products that you purchased on Amazon in the past couple of months.

Have you received the item below?

${e://Field/product1}

I have not received it yet

I have received it

I bought it for somebody else

Somebody else bought it

How would you rate this product based on the following aspects?

${e://Field/product1}

	Very bad	Bad	Average	Good	Very good
Price	O	O	O	O	O
Quality of product	O	O	O	O	O
Delivery speed	O	O	O	O	O
Overall rating	O	O	O	O	O

Product 1 and 2

In this page we will ask you to review products that you purchased on Amazon in the past couple of months.

Have you received the item below?

${e://Field/product1}

I have not received it yet

I have received it

I bought it for somebody else

Somebody else bought it

How would you rate this product based on the following aspects?

${e://Field/product1}

	Very bad	Bad	Average	Good	Very good
Price	O	O	O	O	O
Quality of product	O	O	O	O	O
Delivery speed	O	O	O	O	O
Overall rating	O	O	O	O	O

Have you received the item below?

${e://Field/product2}

I have not received it yet

I have received it

I bought it for somebody else

Somebody else bought it

How would you rate this product based on the following aspects?

${e://Field/product2}

	Very bad	Bad	Average	Good	Very good
Price	O	O	O	O	O
Quality of product	O	O	O	O	O
Delivery speed	O	O	O	O	O
Overall rating	O	O	O	O	O

Product 1, 2 and 3

In this page we will ask you to review products that you purchased on Amazon in the past couple of months.

Have you received the item below?

${e://Field/product1}

I have not received it yet

I have received it

I bought it for somebody else

Somebody else bought it

How would you rate this product based on the following aspects?

${e://Field/product1}

	Very bad	Bad	Average	Good	Very good
Price	○	○	○	○	○
Quality of product	○	○	○	○	○
Delivery speed	○	○	○	○	○
Overall rating	○	○	○	○	○

Have you received the item below?

${e://Field/product2}

I have not received it yet

I have received it

I bought it for somebody else

Somebody else bought it

How would you rate this product based on the following aspects?

${e://Field/product2}

	Very bad	Bad	Average	Good	Very good
Price	○	○	○	○	○
Quality of product	○	○	○	○	○
Delivery speed	○	○	○	○	○
Overall rating	○	○	○	○	○

Have you received the item below?

${e://Field/product3}

I have not received it yet

I have received it

I bought it for somebody else

Somebody else bought it

How would you rate this product based on the following aspects?

${e://Field/product3}

	Very bad	Bad	Average	Good	Very good
Price	○	○	○	○	○
Quality of product	○	○	○	○	○
Delivery speed	○	○	○	○	○
Overall rating	○	○	○	○	○

Amazon Questions (Group A)

The following questions pertain to shopping on Amazon.com. Amazon sells its own lines of products, which we refer to as "Amazon-branded" products. These products include brands such as Amazon Basics, Presto!, and Solimo.

Suppose an Amazon-branded product you want is selling on Amazon for $10, and there is a similar product available (not Amazon-branded) with the same rating and delivery options.

What is the most you might be willing to pay for the other product?

Price of the Other Product (not Amazon-Branded) ($)

0   2   4   6   8   10   12   14   16   18   20

Suppose a product you want is selling on Amazon for $25, and there is a similar Amazon-branded product available with the same rating and delivery options.

What is the most you might be willing to pay for the Amazon-branded product?

Price of the Amazon-Branded Product ($)

| 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |

Suppose a product you want is selling on Amazon for $25, and there is a similar Amazon-branded product available with the same delivery options.

However, the Amazon-branded product has a **lower rating.** It has 4 stars, compared to 4.5 stars for the other product. What is the most you might be willing to pay for the Amazon-branded product?

Price of the Amazon-Branded Product ($)

| 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |

Suppose a product you want is selling on Amazon for $25, and there is a similar Amazon-branded product available with the same rating.

However, the Amazon-branded product has a **faster delivery time**. It offers 1-day delivery, compared to 3-day delivery for the other product. What is the most you might be willing to pay for the Amazon-branded product?

Price of the Amazon-Branded Product ($)

| 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |

Amazon Questions (Group B)

The following questions pertain to shopping on Amazon.com. Amazon sells its own lines of products, which we refer to as "Amazon-branded" products. These products include brands such as Amazon Basics, Presto!, and Solimo.

Suppose an Amazon-branded product you want is selling on Amazon for $25, and there is a similar product available (not Amazon-branded) with the same rating and delivery options.

What is the most you might be willing to pay for the other product?

Price of the Other Product (not Amazon-Branded) ($)

0	5	10	15	20	25	30	35	40	45	50

Suppose a product you want is selling on Amazon for $10, and there is a similar Amazon-branded product available with the same rating and delivery options.

What is the most you might be willing to pay for the Amazon-branded product?

Price of the Amazon-Branded Product ($)

0	2	4	6	8	10	12	14	16	18	20

Suppose a product you want is selling on Amazon for $10, and there is a similar Amazon-branded product available with the same delivery options.

However, the Amazon-branded product has a **lower rating.** It has 4 stars, compared to 4.5 stars for the other product. What is the most you might be willing to pay for the Amazon-branded product?

Price of the Amazon-Branded Product ($)

0   2   4   6   8   10   12   14   16   18   20

Suppose a product you want is selling on Amazon for $10, and there is a similar Amazon-branded product available with the **same rating**.

However, the Amazon-branded product has a **faster delivery time**. It offers 1-day delivery, compared to 3-day delivery for the other product. What is the most you might be willing to pay for the Amazon-branded product?

Price of the Amazon-Branded Product ($)

0   2   4   6   8   10   12   14   16   18   20

End of Survey

Thank you for completing the final survey.

After completion, you will be prompted to uninstall the study browser extension from the extension pop-up window.

Powered by Qualtrics