

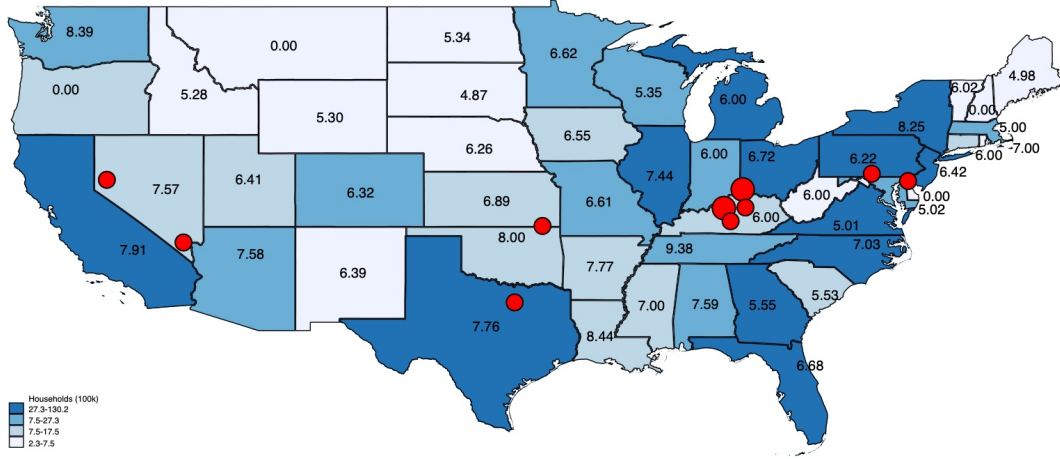
The Impact of Distance in Retail Markets

Danny Edgel, Jean-François Houde, Peter Newberry, Katja Seim*

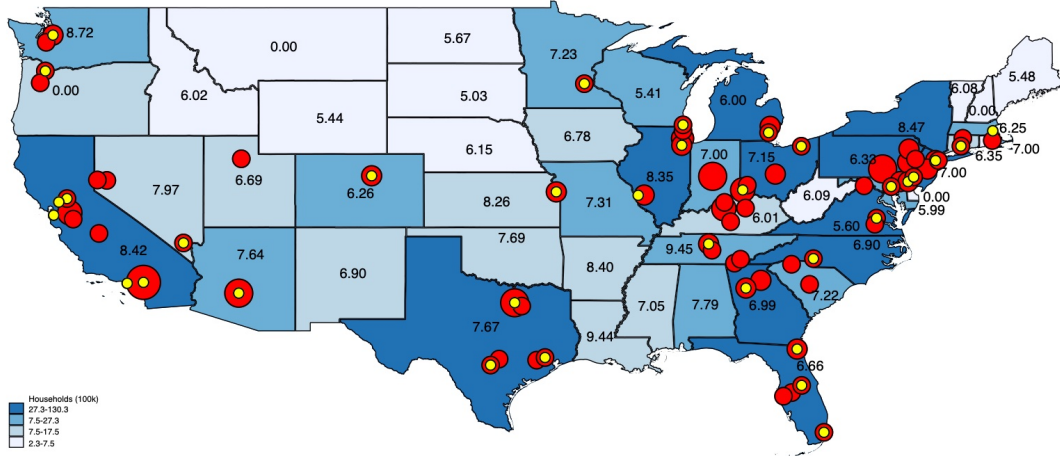
ONLINE APPENDIX

Figure A1. : Distribution Center Network, 2006 and 2018

(a) Amazon fulfillment center network, 2006



(b) Amazon fulfillment center (red) and sortation center (yellow) network, 2018

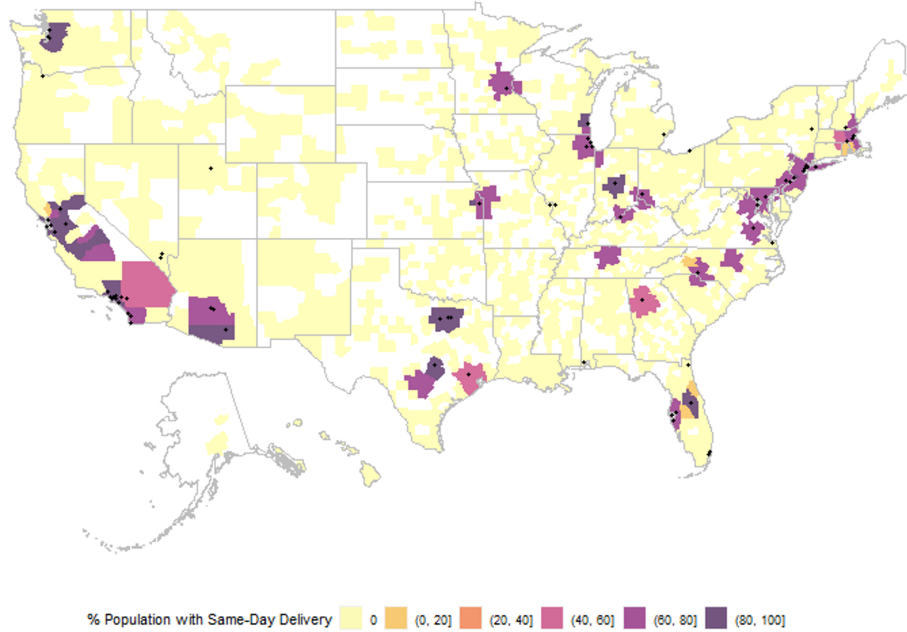


Notes: Replicated from ?. States categorized into and shaded by quintiles of the distribution of number of households. Mean sales tax indicated. Size of each bubble scales with number of fulfillment centers.

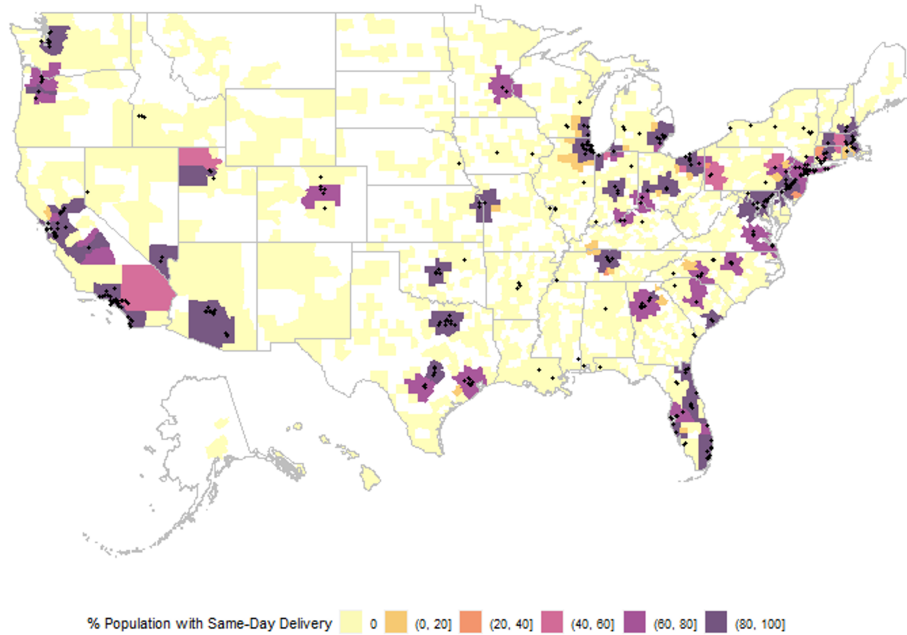
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Figure A2. : Same-Day Delivery Center Network, 2017 and 2020

(a) Delivery center locations and CSAs with same-day availability, 2017



(b) Delivery center locations and CSAs with same-day availability, 2020



Notes: CSAs shaded by percent population residing zip codes with in same-day availability.

Table A1—: Heterogenous Effects of taxes and distance on the probability of buying from Amazon

| Variable name | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | | | | | | Proximity | Post 2014 | |
| Log(1+Amazon Tax) | -0.306 (0.056) | -0.066 (0.072) | 0.016 (0.059) | -0.713 (0.138) | -0.280 (0.058) | -0.065 (0.072) | -0.142 (0.058) | -0.651 (0.148) |
| ×(100<Income) | 0.182 (0.099) | | | | 0.120 (0.111) | | | |
| ×(2012-2016) | | -0.283 (0.093) | | | | -0.270 (0.093) | | |
| ×(Q4) | | | -0.802 (0.064) | | | | -0.349 (0.053) | |
| ×(Urban) | | | | 0.493 (0.136) | | | | 0.427 (0.150) |
| Proximity | -0.001 (0.003) | -0.001 (0.003) | 0.002 (0.002) | -0.006 (0.003) | -0.004 (0.003) | -0.003 (0.003) | -0.007 (0.003) | -0.003 (0.003) |
| ×(100<Income) | -0.000 (0.003) | | | | -0.002 (0.002) | | | |
| ×(Q4) | | | -0.006 (0.002) | | | | 0.022 (0.001) | |
| ×(Urban) | | | | 0.004 (0.002) | | | | -0.003 (0.002) |
| Constant | 0.053 (0.015) | 0.054 (0.015) | 0.065 (0.014) | 0.045 (0.015) | 0.145 (0.008) | 0.147 (0.008) | 0.144 (0.008) | 0.144 (0.008) |
| Obs | 2,695,421 | 2,695,421 | 2,695,421 | 2,695,421 | 2,695,421 | 2,695,421 | 2,695,421 | 2,695,421 |
| R-Sq | 0.383 | 0.383 | 0.384 | 0.383 | 0.383 | 0.383 | 0.385 | 0.383 |

Table A2—: USPS Measures of Proximity

| Variable name | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|-------------------|--------------------------------------|-------------------------------------|--------------------------------------|--|--------------------------------------|-------------------------------------|--------------------------------------|--|
| | | | | | | Proximity | Post 2014 | |
| Log(1+Amazon Tax) | -0.274 (0.055) | -0.271 (0.056) | -0.272 (0.055) | -0.277 (0.055) | -0.265 (0.056) | -0.282 (0.056) | -0.269 (0.055) | -0.258 (0.057) |
| Proximity | -0.011 (0.011) | 0.001 (0.004) | -0.002 (0.005) | -0.003 (0.004) | -0.014 (0.014) | 0.011 (0.007) | -0.006 (0.006) | -0.009 (0.009) |
| Constant | 0.373 (0.012) | 0.363 (0.006) | 0.363 (0.006) | 0.365 (0.007) | 0.398 (0.012) | 0.384 (0.007) | 0.363 (0.006) | 0.395 (0.006) |
| Obs | 243,030 | 243,030 | 243,030 | 243,030 | 243,030 | 243,030 | 243,030 | 243,030 |
| R-Sq | 0.191 | 0.191 | 0.191 | 0.191 | 0.191 | 0.191 | 0.191 | 0.191 |
| Proximity | Priority Ship- ping <3 Days | Package Ship- ping <4 Days | Standard Ship- ping <4 Days | First Class Ship- ping <3 Days | Priority Ship- ping <3 Days | Package Ship- ping <4 Days | Standard Ship- ping <4 Days | First Class Ship- ping <3 Days |

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DATA APPENDIX

Availability Statements for Proprietary Data Sources

Safegraph Safegraph is owned by Dewey Data, Inc., which offers discounted subscriptions to academics. More information can be found at <https://www.deweydata.io/data-partners/safegraph>.

ComScore ComScore, Inc., offers subscriptions for access to their online shopping data. More information can be found at <https://www.comscore.com/Products/Retail>.

Thomson-Reuters Our data on state and local tax rates come from Tax Data Systems, which is owned by Thomson-Reuters, which offers subscriptions to the data. More information can be found at <https://tax.thomsonreuters.com/en/onesource/indirect-tax/rates>.

Bibliography for Publicly Available Data Sources

Amazon, Inc. (Multiple dates) “Amazon Free Same-day Delivery.” *Internet Archive*. Retrieved from https://web.archive.org/web/20230000000000*/https://www.amazon.com/Prime-FREE-Same-Day-Delivery/b?ie=UTF8&node=8729023011 and https://web.archive.org/web/20230000000000*/https://www.amazon.com/Prime-FREE-Same-Day-Delivery/.

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