

Georgia IE Project - Replication Package

Replication Package Author: Savanna Li, Aidan Coville

Research Paper Authors: Aidan Coville, Adam Osman, Caio Piza

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Project Overview

This replication package contains all code and documentation necessary to replicate the analysis for the paper "Barriers to Market Access: Experimental Tests of Supply- and Demand-Side Strategies", which evaluates the effects of supply and demand shock interventions on Georgian businesses' e-commerce adoption.

Statement about Rights

- I certify that the author(s) of the manuscript have legitimate access to and permission to use the data used in this manuscript.
- I certify that the author(s) of the manuscript have documented permission to redistribute/publish the data contained within this replication package. Appropriate permission are documented in the LICENSE.txt file.

Project Structure

```

Georgia-ecommerce/

├─ i. replication/

| └─ code/       # All analysis do-files

| └─ data/

| | └─ input/     # Raw survey data (private mode only; not included in public package)

| | | └─ deid/    # De-identified input data (public package)

| | └─ output/    # Cleaned and analysis datasets

| └─ outputs/

```
| └─ tables/ # Generated LaTeX tables
...

```

## ## Data Availability

The data used in this study were collected under a research agreement with the Georgia Innovation and Technology Agency (GITA). Access to the raw (PII-containing) survey data requires permission from the authors — please contact them directly to request access.

This replication package ships in **\*\*public mode\*\*** with de-identified input data. The following datasets are included and sufficient to reproduce all results:

### **\*\*De-identified inputs (`data/input/deid/`):\*\***

- `1 baseline/WB\_BFD\_CATI\_response\_merged\_final.dta`
- `2 training/randomized\_firms.dta`
- `2 training/training participation\_cdc.dta`
- `3 follow up/follow\_up\_de\_id.dta`
- `4 demand shock/sample\_randomization.dta`
- `4 demand shock/sample\_randomization\_second\_round.dta`
- `4 demand shock/sample\_randomization\_round3\_g4.dta`
- `5 endline/WB\_business\_new.dta`

### **\*\*Additional inputs (no PII):\*\***

- `data/input/3 follow up/sample.dta` — follow-up sample frame with treatment assignments
- `data/output/intermediate/takeup\_demand.dta` — demand shock take-up data (pre-built; see note on script 4.2 below)

## **## Instructions for replicators**

### **### Setup Instructions**

#### **1. \*\*Set Your User Path:\*\***

- Open `\_master.do`
- Update the `global user` number (line 61)
- Add your project folder path in the appropriate user block (lines 65–72)

#### **2. \*\*Check the mode toggle (public users: no action needed):\*\***

- `\_master.do` contains `global private\_mode 0` — this is the correct setting for public replicators using the de-identified data included in this package.
- If you have access to the raw PII data (by arrangement with the authors), set `global private\_mode 1`. This will first run script `0 deidentify.do` to generate the de-identified files, then proceed with the full pipeline.

#### **3. \*\*Run the Master File:\*\***

```
```stata
```

```
do "_master.do"
```

```
```
```

This will execute all cleaning, construction, and analysis scripts in the correct order.

## **## Requirement**

### **### Software**

- Stata 17 or higher

### ### Stata Packages

The master do-file automatically checks for and installs the following packages if needed:

- `ietoolkit`
- `estout`
- `elabel`
- `lassopack`
- `sxpose`
- `ritest`
- `winsor2`

### ## List of Exhibits

| Exhibit | Table Title | Do File |
|---------|-------------|---------|
|---------|-------------|---------|

|       |       |       |
|-------|-------|-------|
| ----- | ----- | ----- |
|-------|-------|-------|

|         |                                           |                                   |
|---------|-------------------------------------------|-----------------------------------|
| Table 1 | Baseline Descriptive Statistics by Sample | ` 7 table_1_descriptive_stats.do` |
|---------|-------------------------------------------|-----------------------------------|

|         |                                                 |                                  |
|---------|-------------------------------------------------|----------------------------------|
| Table 2 | Supply Experiment: Short- and Long-term Effects | ` 8 table_2_training_results.do` |
|---------|-------------------------------------------------|----------------------------------|

|         |                                                 |                                                |
|---------|-------------------------------------------------|------------------------------------------------|
| Table 3 | Demand Experiment: Short- and Long-term Effects | ` 9 table_3_results_demand_sells_online_dl.do` |
|---------|-------------------------------------------------|------------------------------------------------|

|         |                                                                                     |                                                    |
|---------|-------------------------------------------------------------------------------------|----------------------------------------------------|
| Table 4 | Demand Experiment: Selected Long-Term Results by Baseline Propensity to Sell Online | ` 10 table_4_results_demand_2025_dl_propensity.do` |
|---------|-------------------------------------------------------------------------------------|----------------------------------------------------|

|         |                                     |                                                     |
|---------|-------------------------------------|-----------------------------------------------------|
| Table 5 | Demand and Supply Complementarities | ` 11 table_5_results_demand_sells_online_dl_int.do` |
|---------|-------------------------------------|-----------------------------------------------------|

|          |                                         |                                           |
|----------|-----------------------------------------|-------------------------------------------|
| Table A1 | Supply Experiment Attrition (July 2021) | ` A1 attrition_training_followup_2021.do` |
|----------|-----------------------------------------|-------------------------------------------|

|          |                                          |                                          |
|----------|------------------------------------------|------------------------------------------|
| Table A2 | Supply Experiment Attrition (March 2025) | ` A2 attrition_training_endline_2025.do` |
|----------|------------------------------------------|------------------------------------------|

| Table A3 | Demand Experiment Attrition (March 2025) | `A3 attrition\_demand\_2025.do` |

| Table A4 | Supply Experiment Balance (July 2018) | `A4  
balance\_training\_baseline\_2018.do` |

| Table A5 | Demand Experiment Balance (July 2021) | `A5 balance\_demand\_2021.do` |

| Table A6 | Balance: Supply and Demand Overlap Sample (July 2018) | `A6  
balance\_training\_interaction\_2018.do` |

| Table A7 | Balance: Supply and Demand Overlap Sample (July 2021) | `A7  
balance\_demand\_interaction\_2021.do` |

| Table A8 | Supply Experiment Results (July 2021) | `A8 results\_training\_2021.do` |

| Table A9 | Supply Experiment Results (March 2025) | `A9 results\_training\_2025.do` |

## ## Code Organization

### ### Data Cleaning & Construction (Scripts 0–6)

| Script | Filename | Description |

|-----|-----|-----|

| 0 | `0 deidentify.do` | Generates de-identified input files from raw PII data (**\*\*private  
mode only\*\***) |

| 1 | `1 clean\_baseline.do` | Cleans baseline survey data (2018) |

| 2.1 | `2.1 match\_training\_baseline.do` | Matches training participants to baseline |

| 2.2 | `2.2 build\_training\_participation.do` | Constructs training participation variables |

| 3 | `3 clean\_followup.do` | Cleans first follow-up survey (2021) |

| 4.1 | `4.1 build\_sample\_demand.do` | Builds demand shock sample |

| 4.2 | `4.2 import\_takeup\_demand.do` | Imports demand shock take-up data from raw  
Excel files (**\*\*private mode only\*\***; output `takeup\_demand.dta` is pre-built in the public  
package) |

| 5 | `5 clean\_endline.do` | Cleans endline survey (2025) |  
| 6 | `6 build\_analysis.do` | Creates final analysis dataset |

### ### Main Analysis (Scripts 7–11)

| Table | Filename | Description |

|-----|-----|-----|

| Table 1 | `table\_1\_descriptive\_stats.do` | Baseline Descriptive Statistics by Sample |

| Table 2 | `table\_2\_training\_results.do` | Supply Experiment: Short- and Long-term Effects  
|

| Table 3 | `table\_3\_results\_demand\_sells\_online\_dl.do` | Demand Experiment: Short- and  
Long-term Effects |

| Table 4 | `table\_4\_results\_demand\_2025\_dl\_propensity.do` | Demand Shock Results by  
Baseline Propensity - March 2025 - Post-Double Selection Lasso |

| Table 5 | `table\_5\_results\_demand\_sells\_online\_dl\_int.do` | Demand and Supply  
Complementarities |

### ### Appendix A: Additional Analysis (Scripts A1-A9)

| Table | Filename | Description |

|-----|-----|-----|

| A1 | `A1 attrition\_training\_followup\_2021.do` | Supply Experiment Attrition (July 2021) |

| A2 | `A2 attrition\_training\_endline\_2025.do` | Supply Experiment Attrition (March 2025) |

| A3 | `A3 attrition\_demand\_2025.do` | Demand Experiment Attrition (March 2025) |

| A4 | `A4 balance\_training\_baseline\_2018.do` | Supply Experiment Balance (July 2018) |

| A5 | `A5 balance\_demand\_2021.do` | Demand Experiment Balance (July 2021) |

| A6 | `A6 balance\_training\_interaction\_2018.do` | Balance test for supply and demand experiment overlap sample (July 2018) |

| A7 | `A7 balance\_demand\_interaction\_2021.do` | Balance test for supply and demand experiment overlap sample (July 2021) |

| A8 | `A8 results\_training\_2021.do` | Supply Experiment Results (July 2021) |

| A9 | `A9 results\_training\_2025.do` | Supply Experiment Results (March 2025) |

## **## Methodological Notes**

### **### Double LASSO Selection**

Main analysis tables use double LASSO for covariate selection:

- One LASSO for outcome prediction
- Separate LASSO(s) for treatment prediction
- Final specification includes union of selected covariates

## **## Output Files**

All tables are generated in LaTeX format and saved to ` \$tables/`

## **## Timeline of Interventions**

1. **\*\*Baseline Survey:\*\*** 2018
2. **\*\*Training Intervention:\*\*** 2018-2019
3. **\*\*First Follow-up:\*\*** 2021
4. **\*\*Demand Shock Intervention:\*\*** 2022

5. **\*\*Endline Survey:\*\*** 2025

## **## Contact**

For questions about this replication package, please contact:

- **\*\*Savanna Li\*\*** or **\*\*Aidan Coville\*\*** - DEC Development Impact, World Bank

## **## License**

This replication package is provided for research purposes. Please cite if using this code.