

# TRANSPORTATION AND PRICE LEADERSHIP ROLE OF THE POSTAL SERVICE

Progress Report and Preliminary Results:

Question 1

April, 2011

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Submitted to the Postal Regulatory Commission

Contract #109909-10-Q-0017



# Outline of Presentation

- Review four study questions
- Review approach to study question 1
  - Identify alternative services:
    - Rental mailboxes
    - Money orders
    - Parcel and express delivery
  - Analyze access
    - Distance to nearest location
    - Density of locations within a geographic area
- Present results to date
- Suggest areas for further research



# Study Questions

1. Does the Postal Service offer greater access to parcel and express transportation, money orders, and post office boxes than the private sector?
2. Do Postal Service prices establish a competitive baseline for other delivery services, money orders, and mailbox box rentals constraining unfettered pricing?
3. Does the Postal Service offer competitive advantages to small and home-based business that would not exist without the services that they offer?
4. Does the Postal Service provide commercial customers with an economical means of shipping packages that would be more expensive if private sector carriers were used?

# Focus of Current Presentation:

## Study Question One

1. Does the Postal Service offer greater access to parcel and express transportation, money orders, and post office boxes than the private sector?
2. Do Postal Service prices establish a competitive baseline for other delivery services, money orders, and mailbox box rentals constraining unfettered pricing?
3. Does the Postal Service offer competitive advantages to small and home-based business that would not exist without the services that they offer?
4. Does the Postal Service provide commercial customers with an economical means of shipping packages that would be more expensive if private sector carriers were used?

# Approach

- Identify alternatives to USPS
- Select stratified sample of counties to examine
- Select address within the county
- Scan provider websites to identify
  - Nearest location and locations within 1, 5, 10, 25 miles of address
- Analyze the data to evaluate
  - Differences in access between private sector and USPS by strata

# Access to Services

- Rental mail boxes and Money Orders
  - Require a retail outlet
    - Mail box delivery requires physical delivery
    - Money orders require customer presentation of cash to vendor
- Parcel Services
  - Do not necessarily require a retail outlet
    - Depends on customer and service provided



# Parcel Services – Access Options

- Self Service
  - Primary access method for Express services
- Retail network
  - Collection point for shipping parcels and Express by sender
  - Can act as a ship-to location
  - Collection point for pre-paid returns
  - Collection point for missed deliveries (USPS)



# Parcel Services – Access Options (cont'd)

- Pick Up options
  - Carrier/driver on-demand pick-up; scheduled on-line/phone
  - Carrier/driver pick-up when delivering; requires regular deliveries and physical hand-off of delivery
  - Carrier/driver scheduled pick-up; used by larger shippers
- Pick-up charges depend on carrier and customer's size





# Parcel Services – Access Options (cont'd)

- **Supplies**
  - Retail outlet
  - Delivered by parcel/express carrier
- **Web access / payment**
  - USPS – individual package – significant discount offered
  - UPS/FedEx – carrier/shipper account or individual shipment
- **Weighing and rating and billing**
  - In person cash/credit card or account
  - Flat rate – eliminate need for weighing, rating, billing
  - Customer estimate – carrier confirm
    - UPS and FedEx will adjust rate and credit card /account charge; USPS does not offer this option

# Study Methodology – Focus on Retail / Self Service Access and Location Density

- Hypotheses
  - Access to retail alternatives differs between the Postal Service and private sector alternatives;
  - Access to retail alternatives differs between urban and rural areas for Postal Service and private sector alternatives
  - Density of retail alternatives differs between the Postal Service and private sector alternatives;
  - Density of retail alternatives differs between urban and rural areas for Postal Service and private sector alternatives

# Assumptions

- Private sector retail outlets exist where there is market demand
- Non-retail alternatives available to nearly all customers from the most urban to the most rural areas
  - Carrier pick-up available in almost all zip codes as both private sector carriers and the Postal Service deliver to all zip codes
    - The most rural parts of Alaska may be exception
  - Web access available in all zip codes

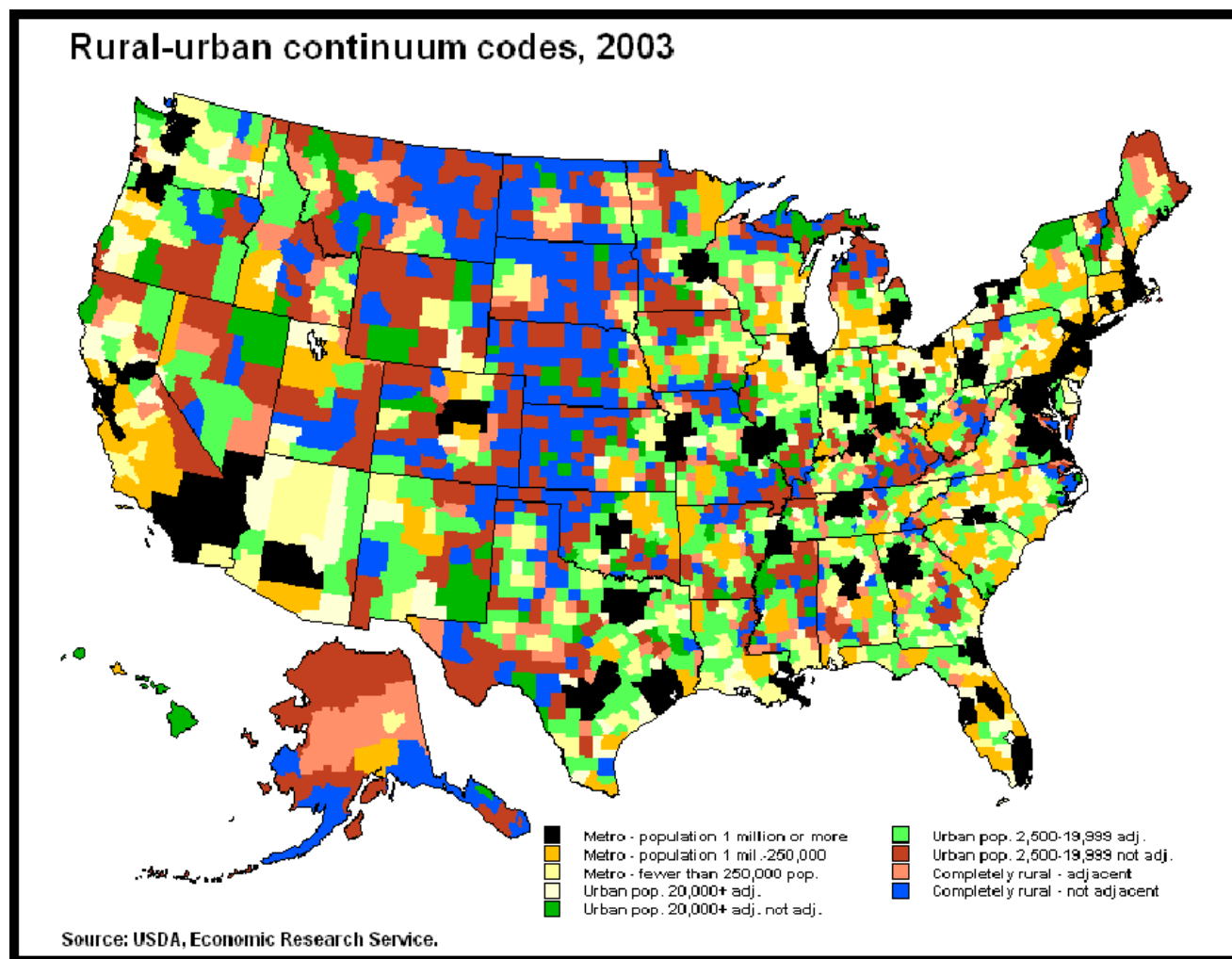
# Sampling Method

- Counties selected in 9 strata
  - Strata are 9 urban-rural categories used by the United States Department of Agriculture to designate county rurality
  - 30 or more locations selected within each strata
- Sample address used is city/town hall in county seat of selected counties
  - Address required for consistency in data collection
  - When no city hall, public library, public school or county courthouse address chosen
  - County seat used as it is likely to be the historical geographic or economic center of the county
  - City/town hall chosen as it was an identifiable address on the web

# Urban – Rural Continuum Code Descriptions

Code	Description	Number of Counties	Population (2009 est.)
<b>Metro Counties:</b>			
1	Counties in metro areas of 1 million population or more	414	165,073,706
2	Counties in metro areas of 250,000 to 1 million population	325	61,388,480
3	Counties in metro areas of fewer than 250,000 population	351	30,091,925
<b>Non-metro Counties:</b>			
4	Urban population of 20,000 or more, adjacent to a metro area	218	15,201,256
5	Urban population of 20,000 or more, not adjacent to a metro area	105	5,847,401
6	Urban population of 2,500 to 19,999, adjacent to a metro area	609	15,565,512
7	Urban population of 2,500 to 19,999, not adjacent to a metro area	450	8,440,643
8	Completely rural or less than 2,500 urban population, adjacent to a metro area	235	2,444,742
9	Completely rural or less than 2,500 urban population, not adjacent to a metro area	435	2,696,123

# Urban – Rural Continuum Codes Map



- Rural areas are concentrated
- The most rural areas are sparsely populated and cover vast geographic areas
- Defined rural areas are often quite remote

# Identification of Locations

- Websites of
  - Providers of service
  - Franchisees/contractors of providers
- Locations not identified – no clean Google / Internet yellow page search method
  - Locations of independent providers of services
  - Locations not contained on websites of providers/franchisees
  - Locations of providers that do not provide distance data from address or zip code
    - Example: CVS Pharmacies which sell money orders

# Competitors Offering Rental Mail Boxes

- U.S. Postal Service
- Private Mail Receiving Centers
  - UPS Store
  - Pakmail
  - Postnet
  - Parcel Plus
  - Smaller Franchises\*
  - Independent Operators\*

\* Not examined





# Competitors Offering Money Orders

- U. S . Postal Service
- Western Union
- MoneyGram
  - MoneyGram website did not provide data in useful format - data collected from 3 of its largest franchisees
    - Walmart
    - Ace Cash Express
    - Advance America
  - Access to many MoneyGram franchisees are not examined including:
    - CVS
    - Independent operators

# Competitors Offering Parcel Delivery

- Providers
  - U.S. Postal Service
  - FedEx (Express and Ground)
  - United Parcel Service
- Types of Locations
  - Company owned
  - Contract / franchise (e.g., Staples, UPS Store, Postnet, etc.)
  - Self service (UPS Air and FedEx Express)
    - Primary private sector access strategy for express and in particular express documents and small parcels

# Data Collected from Each Company

- Nearest location
- Nearest self-service location (for express documents and small parcels)
- Nearest pick-up location (for picking up parcels after receiving a delivery notice or sticker)
- Number of locations within 1, 5, 10, and 25 miles
- Number of express boxes within 1, 5, 10, and 25 miles (assumed express box at all Post Offices)

# Questions Analyzed

- Money orders and mail boxes
  - What is the difference between access to services offered by USPS and **any** private sector provider?
- Parcels and Express
  - What is the difference between access to services offered by USPS and **any** private sector provider?
  - What is the difference between access to services offered by USPS, FedEx and UPS?

# Example of Data Collected

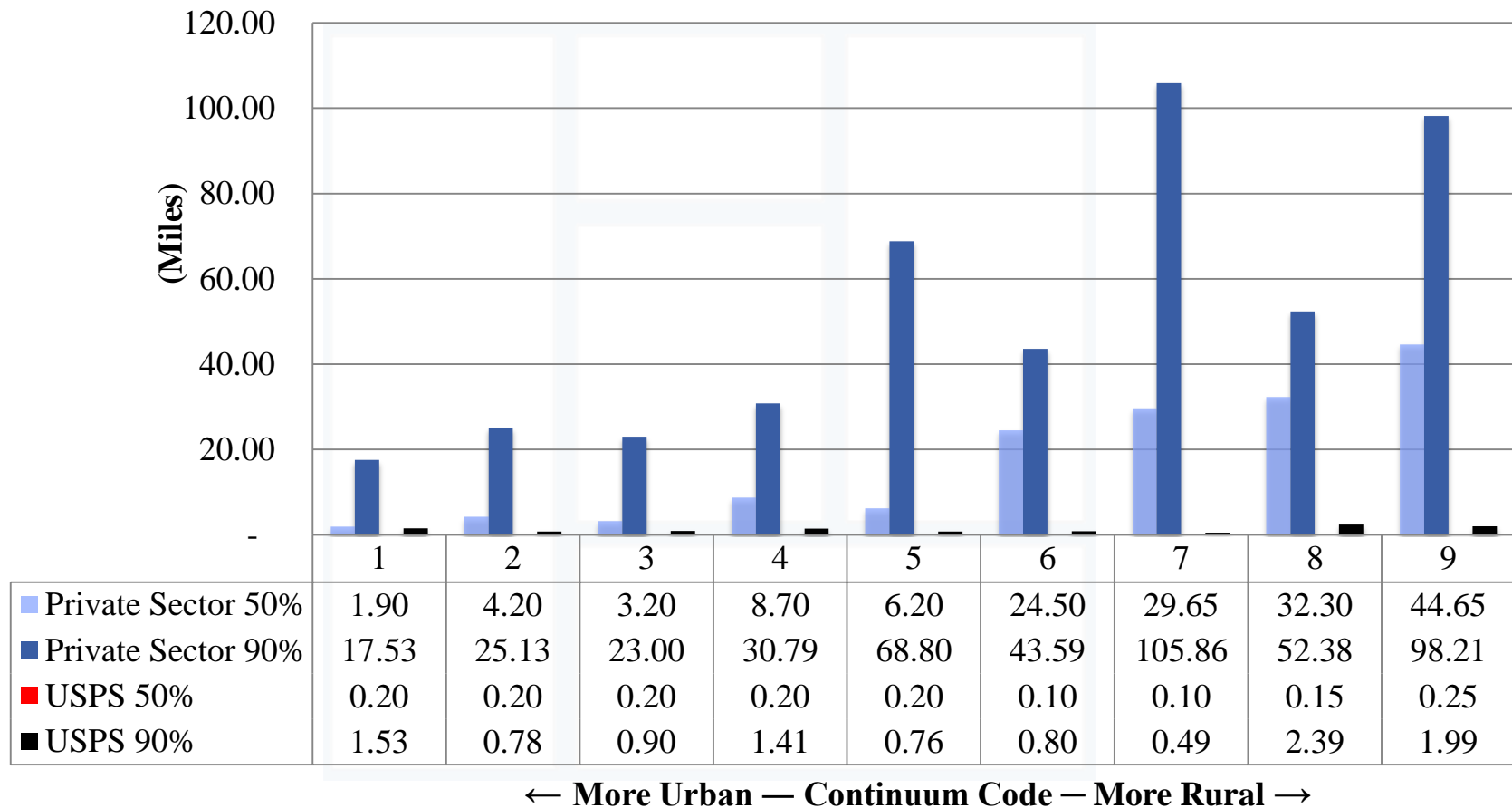
## Hardin County, IL (urban/rural code 9)

- Access to a self service express location
  - USPS – 0.3 miles to the nearest location.
  - FedEx - 14.6 miles to the nearest location
  - UPS – 24 miles to the nearest location
- Density of locations within a 1, 5, 10, and 25 mile driving distance
  - USPS – 1, 4, 5, and 30 locations respectively
  - FedEx – 0, 0, 0, and 2 locations respectively
  - UPS – 0, 0, 0, and 1 location respectively

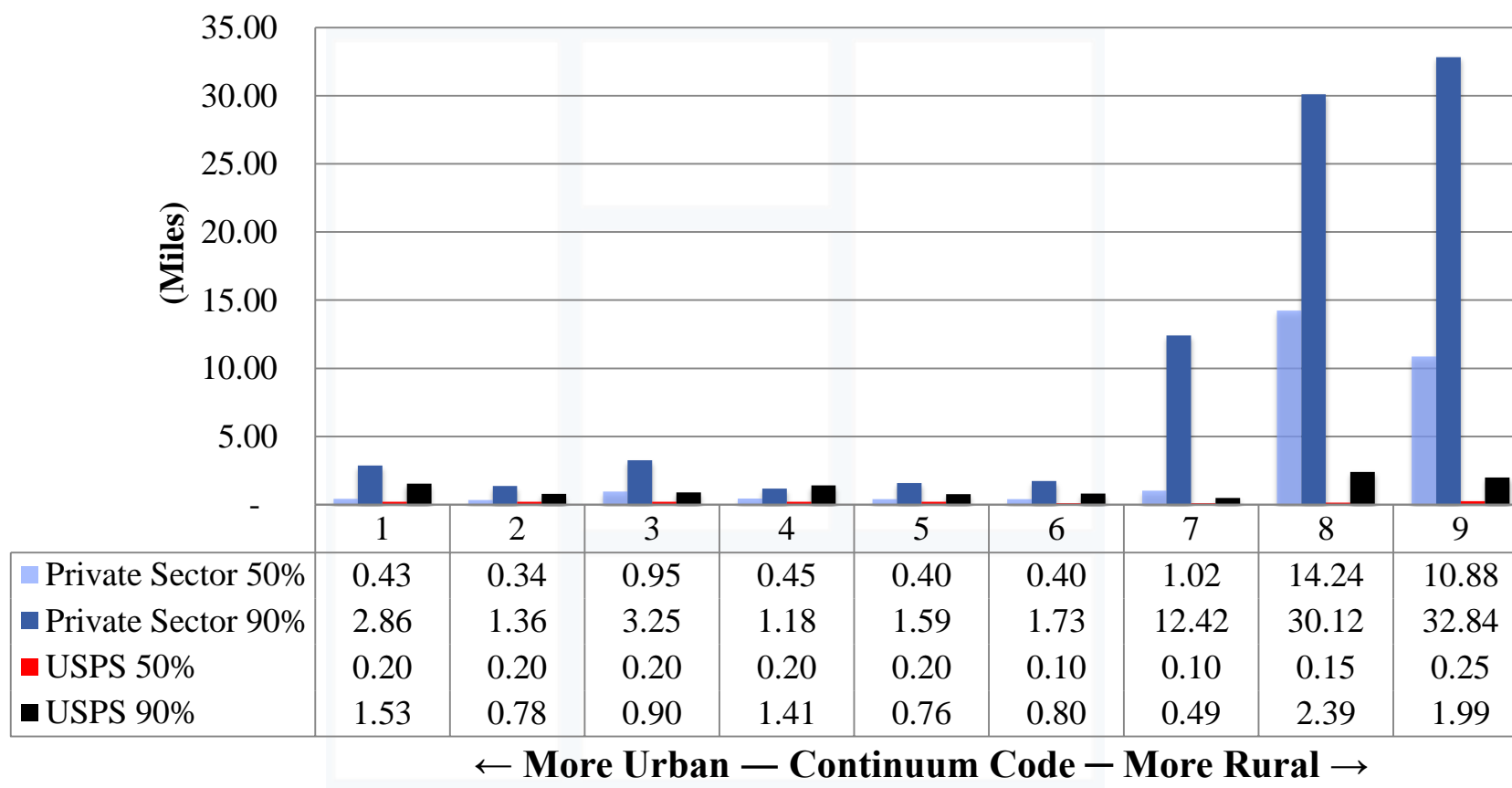
# Access Analysis

- Analyzes distance to closest location of the private sector and the Postal Service
  - Measured for both private sector competitors combined
  - Measured FedEx and UPS separately as well
- Charts presented show
  - Median distance to the nearest location within each strata – locations for 50% of all counties are no further than the displayed number of miles from the county seat
  - 90th percentile distance to the nearest location within each strata – locations for 90% of all counties are no further than the displayed number of miles from the county seat

# Distance to Nearest Outlet Renting Mail Boxes: 50th and 90th Percentile of Sample Locations by Urban – Rural Strata

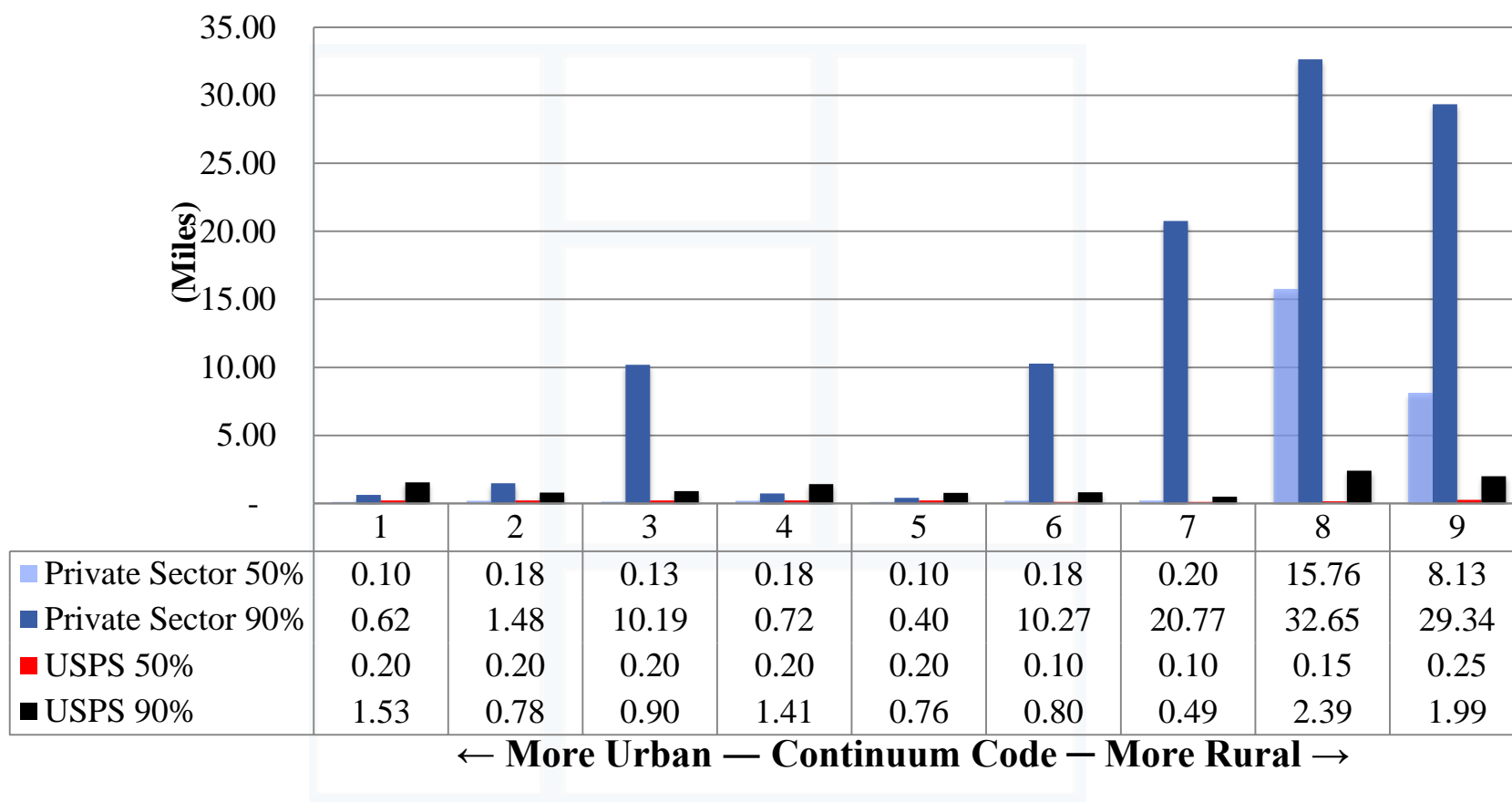


# Distance to Nearest Outlet Selling Money Orders: 50th and 90th Percentile of Sample Locations by Urban – Rural Strata

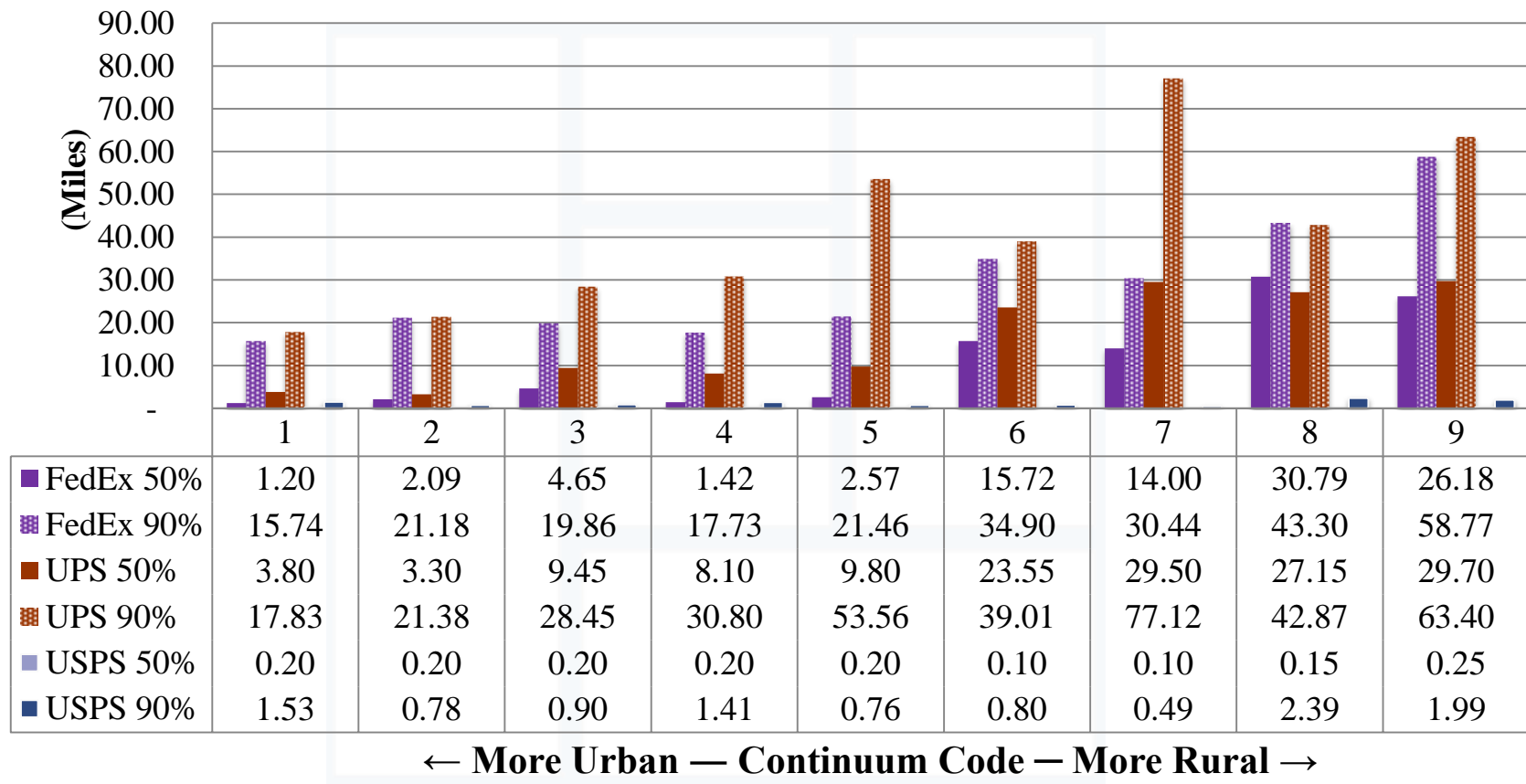




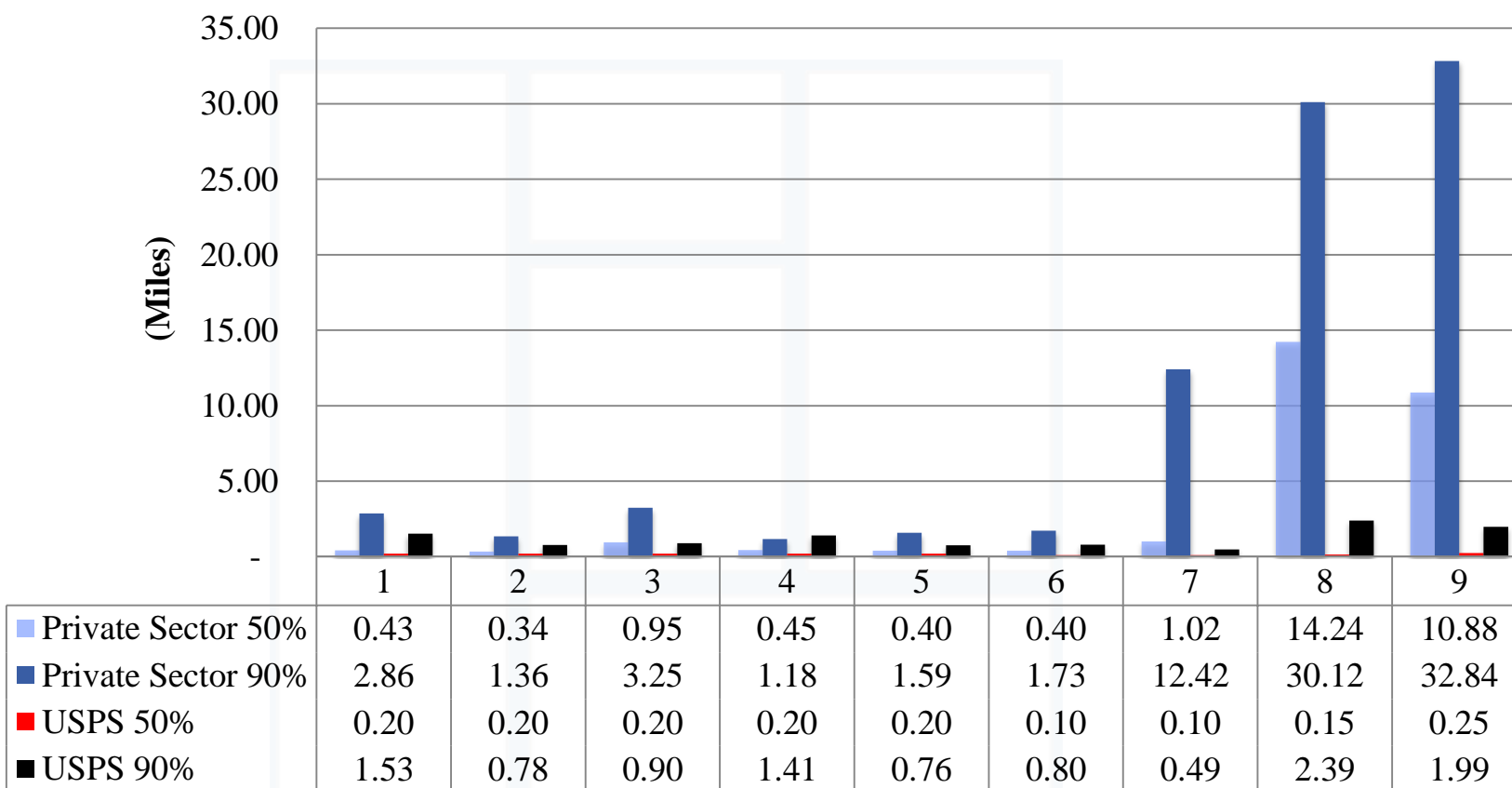
# Distance to Nearest Self Service Location for Express Services: 50th and 90th Percentile of Sample Locations by Urban – Rural Strata



# Distance to Nearest Self Service Location for Express Services: 50th and 90th Percentile of Sample Locations by Private Provider and Urban – Rural Strata

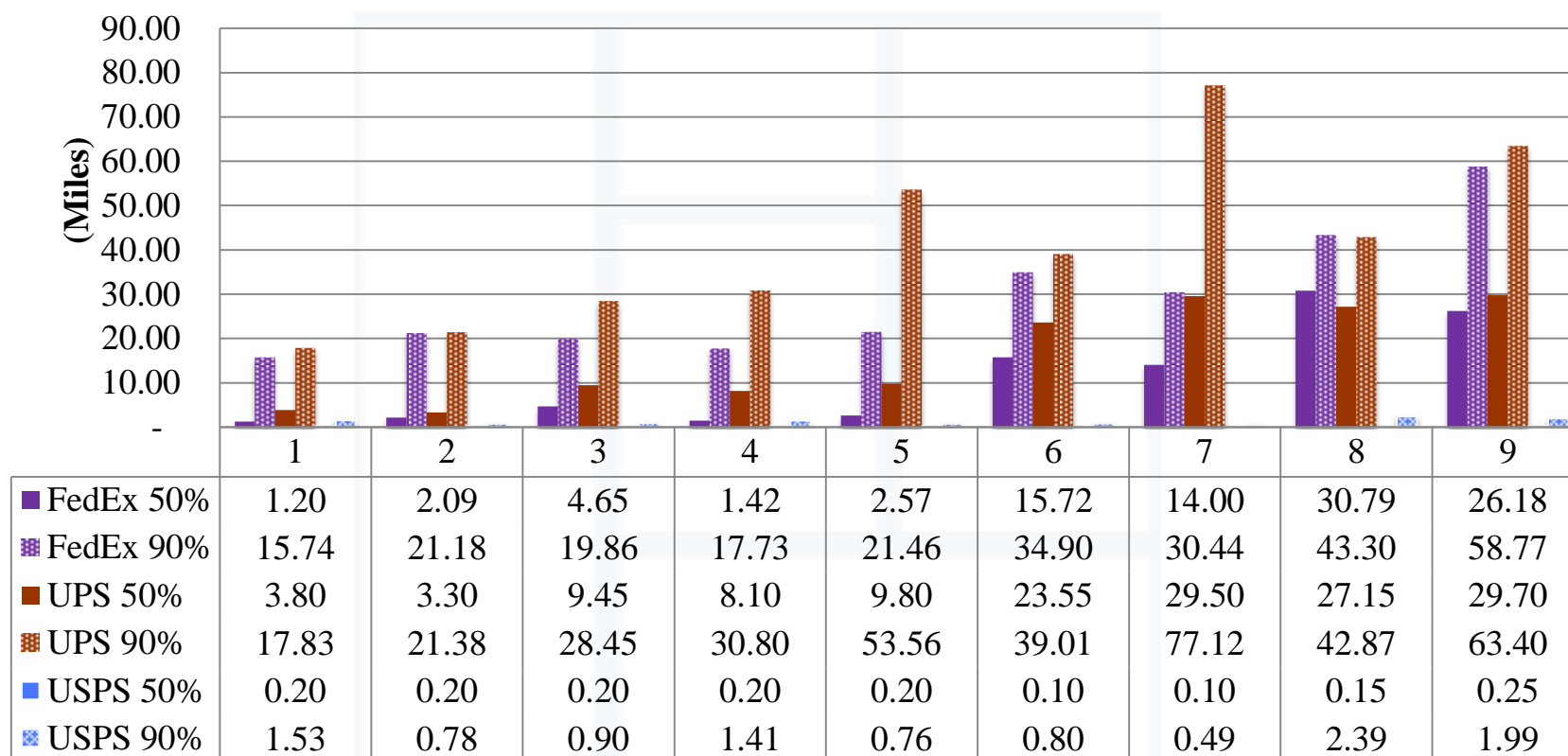


# Distance to Nearest Retail Parcel Outlet: 50th and 90th Percentile of Sample Locations by Urban – Rural Strata



← More Urban — Continuum Code — More Rural →

# Distance to Nearest Retail Parcel Outlet: 50th and 90th Percentile of Sample Locations by Private Provider and Urban– Rural Strata

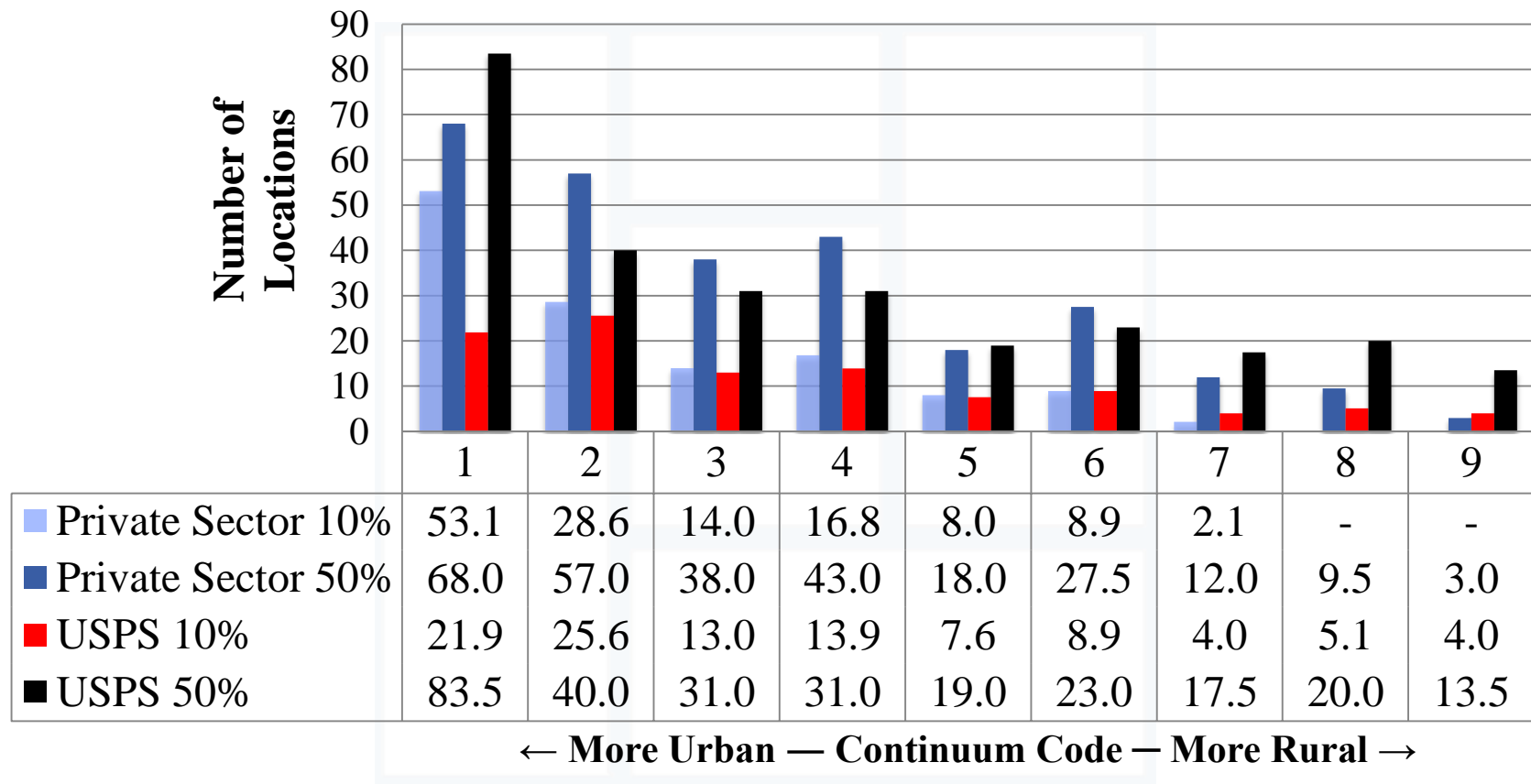


← More Urban — Continuum Code — More Rural →

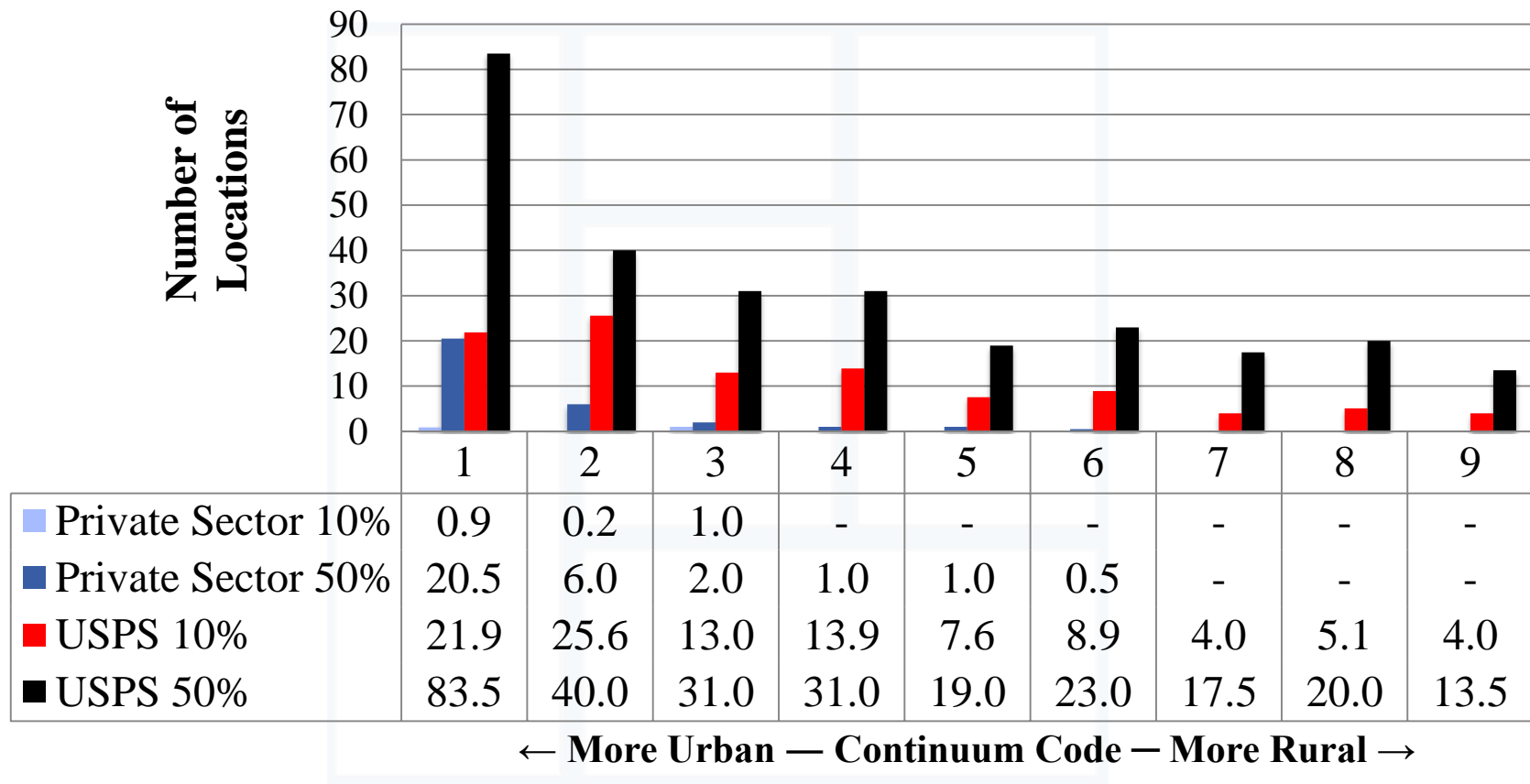
# Density Analysis

- Analyzes the number of locations within 25 miles of the selected address
  - Measured both private sector competitors combined
  - Measured FedEx and UPS separately as well
- Rough estimate of the density of service points
- Charts presented show
  - Median number of outlets within 25 miles—50% of all counties have at least the number of locations displayed
  - 10<sup>th</sup> percentile number of outlets within 25 miles – 10% of all counties have no more than the number of locations displayed

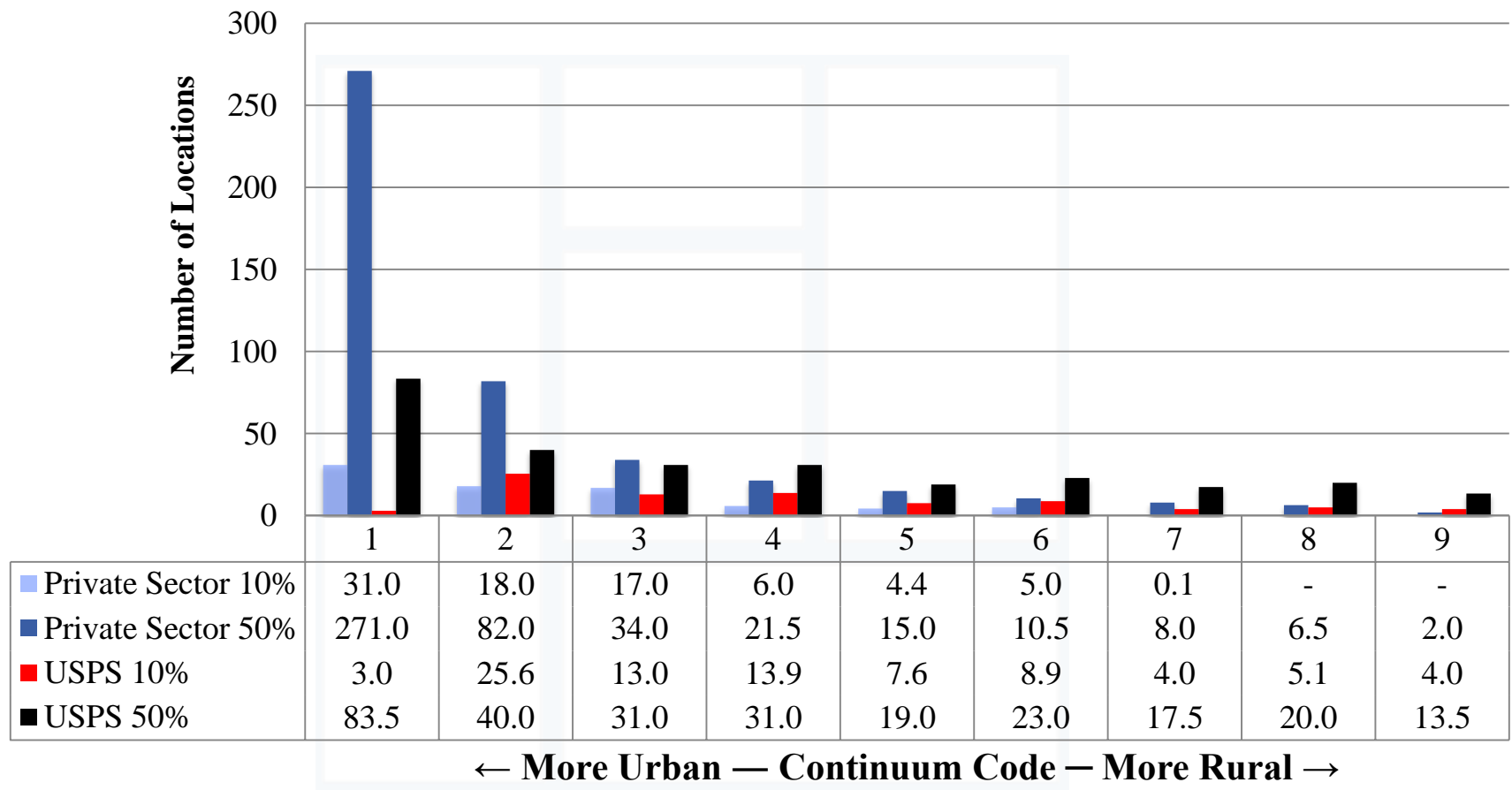
# Number of Locations to Buy Money Orders within 25 Miles of Address for 10th and 50th Percentile of Sample Locations by Urban – Rural Strata



# Number of Locations to Rent a Mail Box within 25 Miles of Address for 10th and 50<sup>th</sup> Percentile of Sample Locations by Urban – Rural Strata

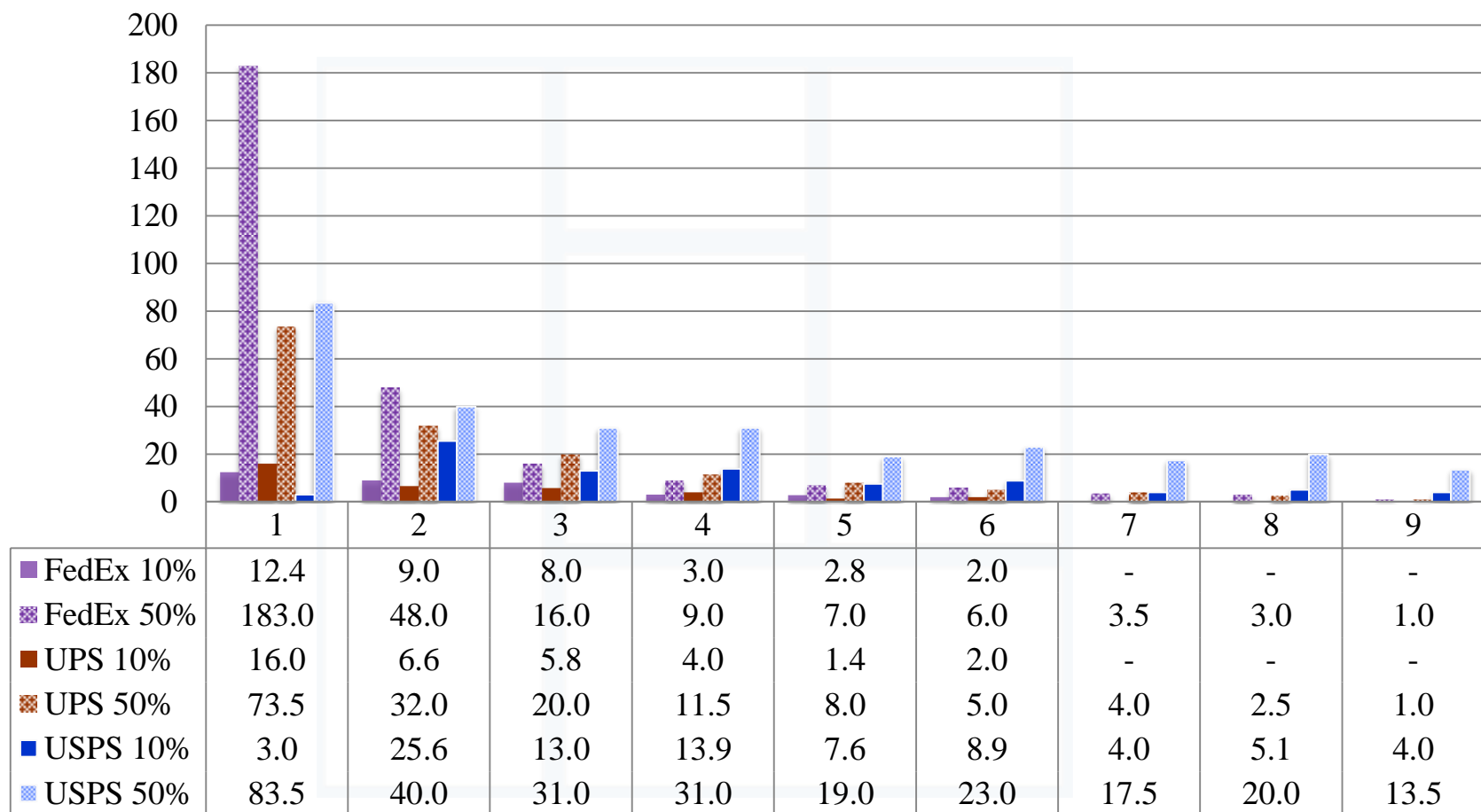


# Number of Express Self Service Boxes within 25 Miles of Address for 10th and 50th Percentile of Sample Locations by Urban – Rural Strata



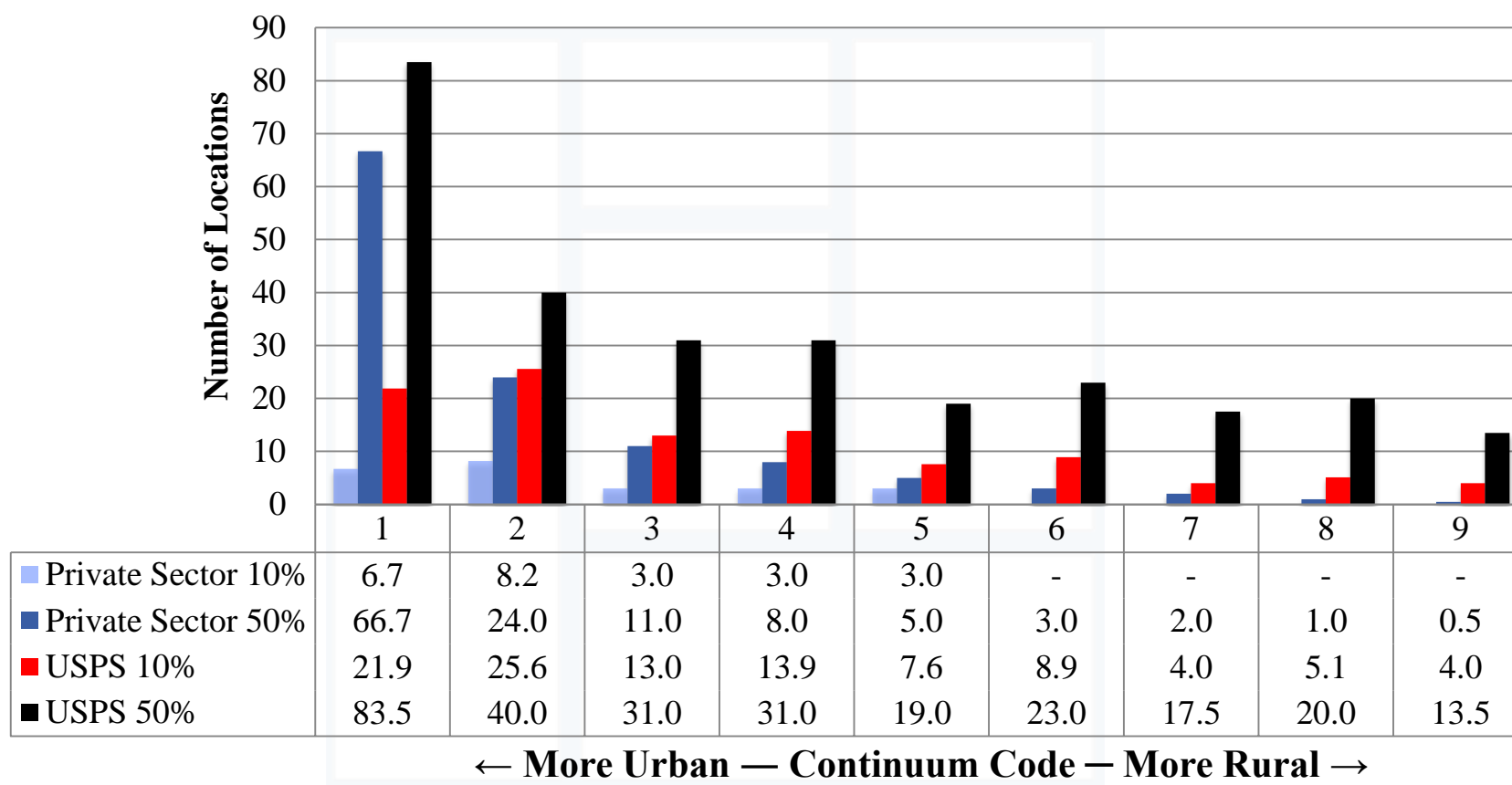


# Number of Express Self Service Boxes within 25 Miles of Address for 10th and 50th Percentile of Sample Locations by Private Provider and Urban – Rural Strata

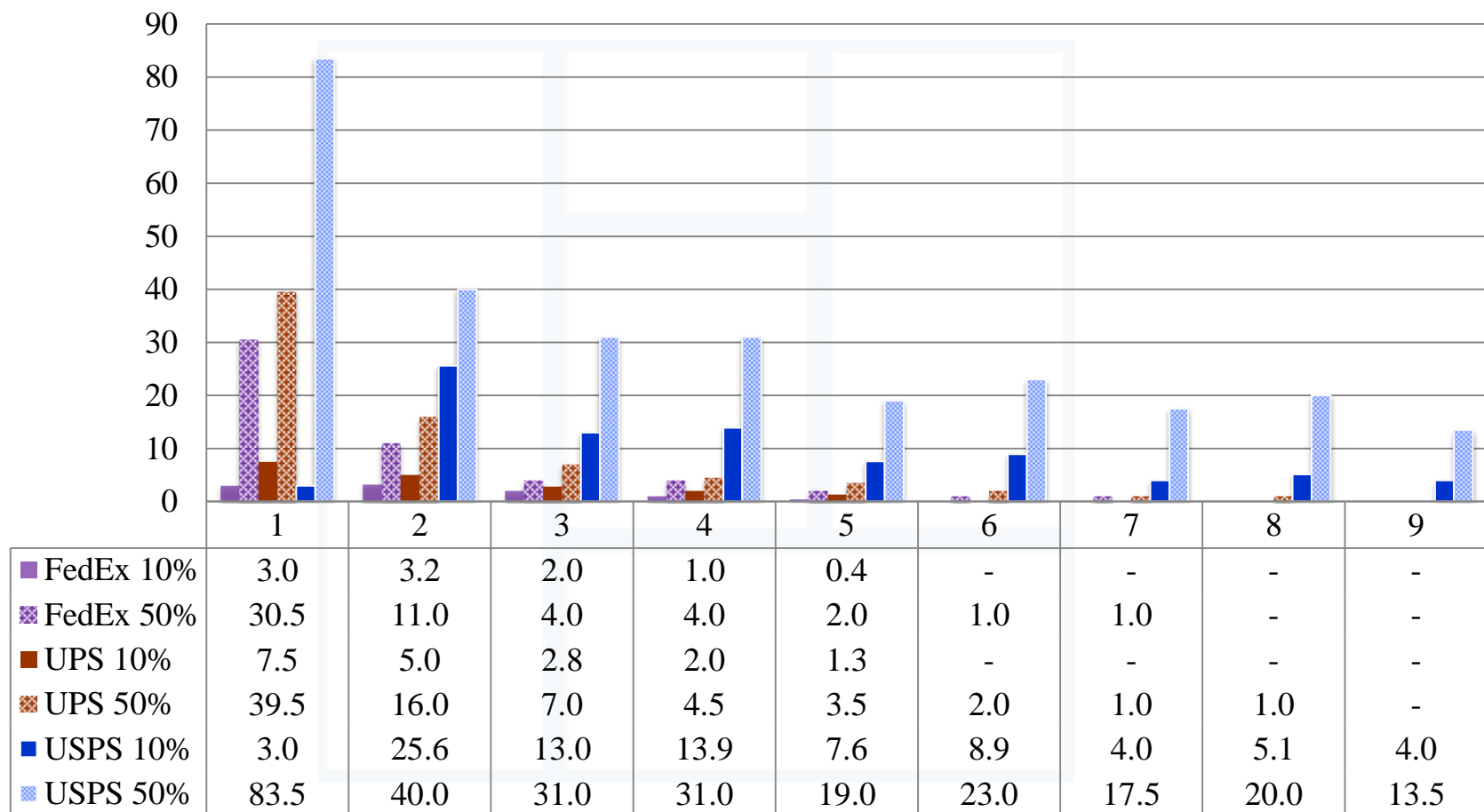


← More Urban — Continuum Code — More Rural →

# Number of Retail Parcel Outlets within 25 Miles for 10th and 50th Percentile of Sample Locations by Urban – Rural Strata



# Number of Parcel Retail Outlets within 25 Miles of Address for 10th and 50th Percentile of Sample Locations by Private Providers and Urban Rural – Strata



← More Urban — Continuum Code — More Rural →

# Conclusions

- Access to Services from the Postal Service is ubiquitous
  - Post Office within a few miles of county seat in every county examined
- Postal Service offers easier access to its retail outlets from downtown addresses than most competitors in all but the most densely populated areas
  - The value of easier access depends on how close customer is to downtown and mode of access (i.e., on foot, public transit, automobile)
  - For many rural areas, access to a retail service at a Post Office is the only retail option within a fifteen minute or half an hour drive
    - It is unknown how access to Post Offices compares to access to other types of retail services in either urban or rural America

# Conclusions

- Private sector locations with services competitive to those offered by the Postal Service exist in markets large enough to profitably provide such services as part of a broader retail offering.
  - Nearly all locations of competitors offer a broad range of complementary services in addition to the services offered that compete with the Postal Service.
  - The exception is some corporate owned parcel shipping locations that limit their services offerings to parcel and express shipping services.

## Conclusions (cont'd)

- The Postal Service provides access to retail mailbox rental, money order, and retail parcel shipping centers in many markets that do not have a private sector location within 25 miles.
  - Postal Service is most likely to be the only provider of retail services in the most rural areas.
  - Postal Service likely to offer services in multiple locations within a 25 mile radius of the county seat even in the most rural counties.

## Conclusions (cont'd)

- In the most densely populated and/or urban counties in the sample, private sector providers of services offer a competitive level of access to services.
  - The distance to the nearest location is competitive between the Postal Service and private sector providers
  - The number of locations within 25 miles sometimes outstrip Postal Service locations and usually offer potential customers access to the service from a private sector vendor.

## Conclusions (cont'd)

- In areas without private sector access to services, other services offered by private sector firms also are often not available
  - Mailbox rental locations – packing services, notary services, office supplies, copying, passport photographs, internet access, etc.
  - Money order – money transfer, debit cards, in person e-bill payment, check cashing, etc.
- Customers willing to use either UPS or FedEx
  - Can find locations that are more accessible and more locations within 25 miles than customers that must choose UPS or FedEx



## Conclusions (cont'd)

- Lack of access to retail outlets has impacts on e-commerce
  - Returns
  - Missed delivery
  - Delivery to retail location for pick-up

## Conclusions (cont'd)

- Density of supply of private sector outlets depends on density of demand. Ranked in order of density:
  1. Money order
  2. Self-service Express boxes
  3. Parcel Shipping – any carrier
  4. Parcel Shipping – specific carrier
  5. Mailbox rentals
- More limited services offered by private sector competitors in the most rural parts of the United States implies that density of demand is not sufficient to support significant retail access.

# Study Limitations

- No information on:
  - Demand for services at retail outlets in communities without private sector competitors and how it compares to communities that have alternatives
  - Characteristics of customers who use retail outlets, including customers who purchase service on web
  - Demand for services not requiring retail outlets
  - Characteristics of customers who use self-service, and carrier pick-up services instead of using retail outlets
- Financial/Market Share Impact
  - While differences in access are identified, the value of access advantages on market share or revenue to the Postal Service is unknown

## Study Limitations (cont'd)

- Results are best available but most likely underestimate private sector access
  - Exclusion of CVS outlets selling money orders in study due to limitations of MoneyGram and CVS websites
  - Companies do not list all locations on web sites
    - Marquette County, WI (county code 8) – two hardware stores that indicate that they offer UPS parcel shipping on their own website are not listed on UPS website
    - Iowa, Minnesota and Wisconsin – Kwik Trip locations that sell Western Union money orders not in data base
  - Large number of independent mailbox rental locations not easily identified on web
    - 2 independent locations in zip code 20910 alone

# Implications of Study Findings

- Rural Post Offices (even as franchises) may not make business sense if:
  - Service offerings remain restricted to all or a subset of existing postal products
  - The profit center does not include retail and delivery services
    - Australia Post franchisees are financially viable and provide a broad line of retail services and often also provide mail/parcel delivery services
- Lack of competition may affect access to other services
- Unclear what impact the Postal Service has on private sector locations of outlets
  - Further study needed to determine geographic market areas of USPS and private sector retail outlets in both urban and rural areas

# Areas for Further Research

- More research on demand for services at retail outlets
  - Volume of service by type at post offices without any private competition in close proximity
  - Consumer surveys/interviews on service demand and access
- More detailed examination looking at geographic market areas
  - Focus on a set of market areas in urban and rural areas
  - Integrate demand analysis with analysis of density of suppliers

# Appendices

## 1. Access Probability Density Charts

- Charts show full probability densities presented in summary in the Access Analysis section

# How to read the Density Probability Charts

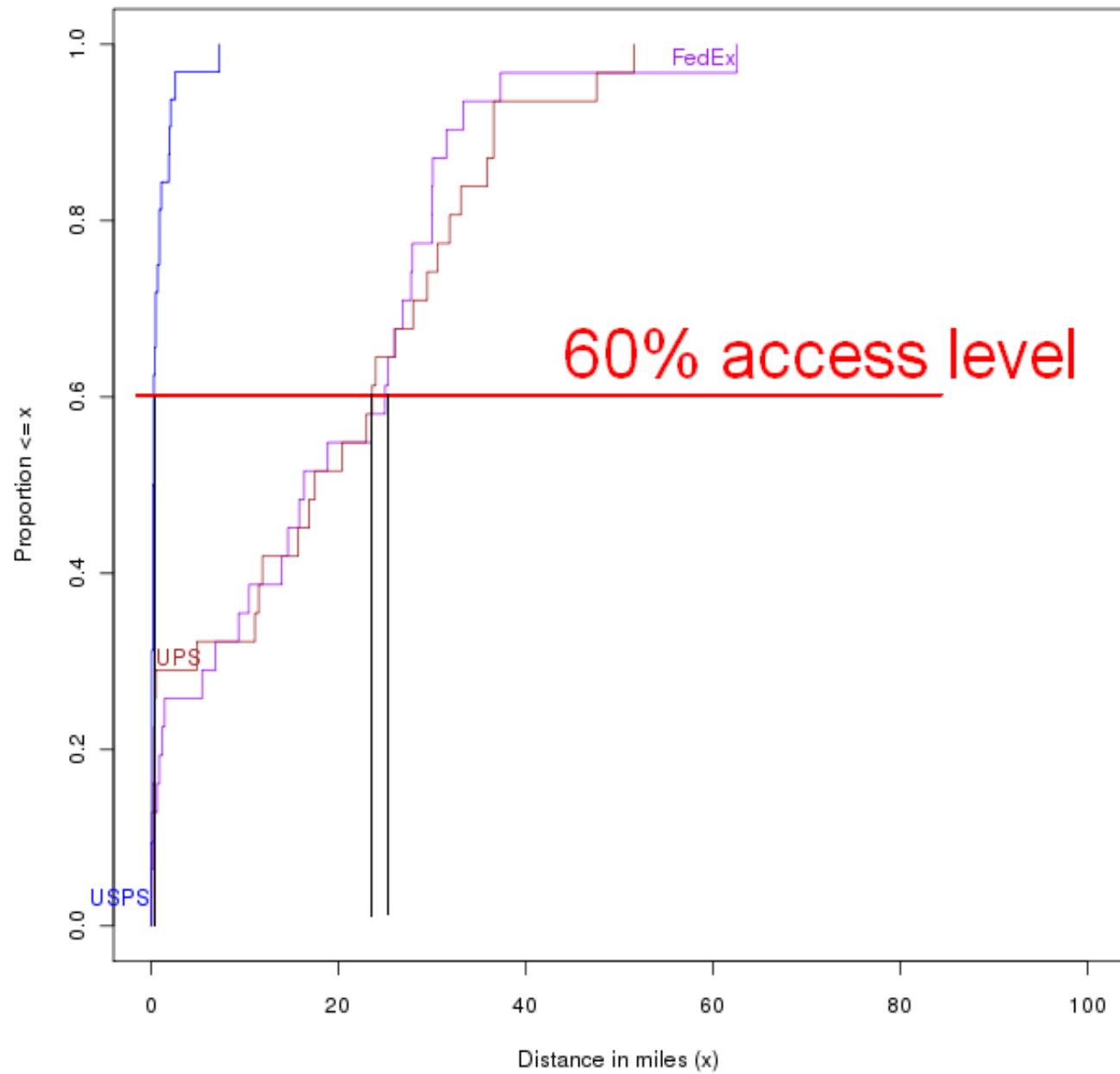
- Results are graphically presented by using a “*cumulative access plot*”.
  - X-axis – distance in miles to the nearest facility (retail location/pick-up box etc.)
  - Y-axis – proportion of county locations that have at least one facility within  $x$  miles.



## Reading the graphs, an example

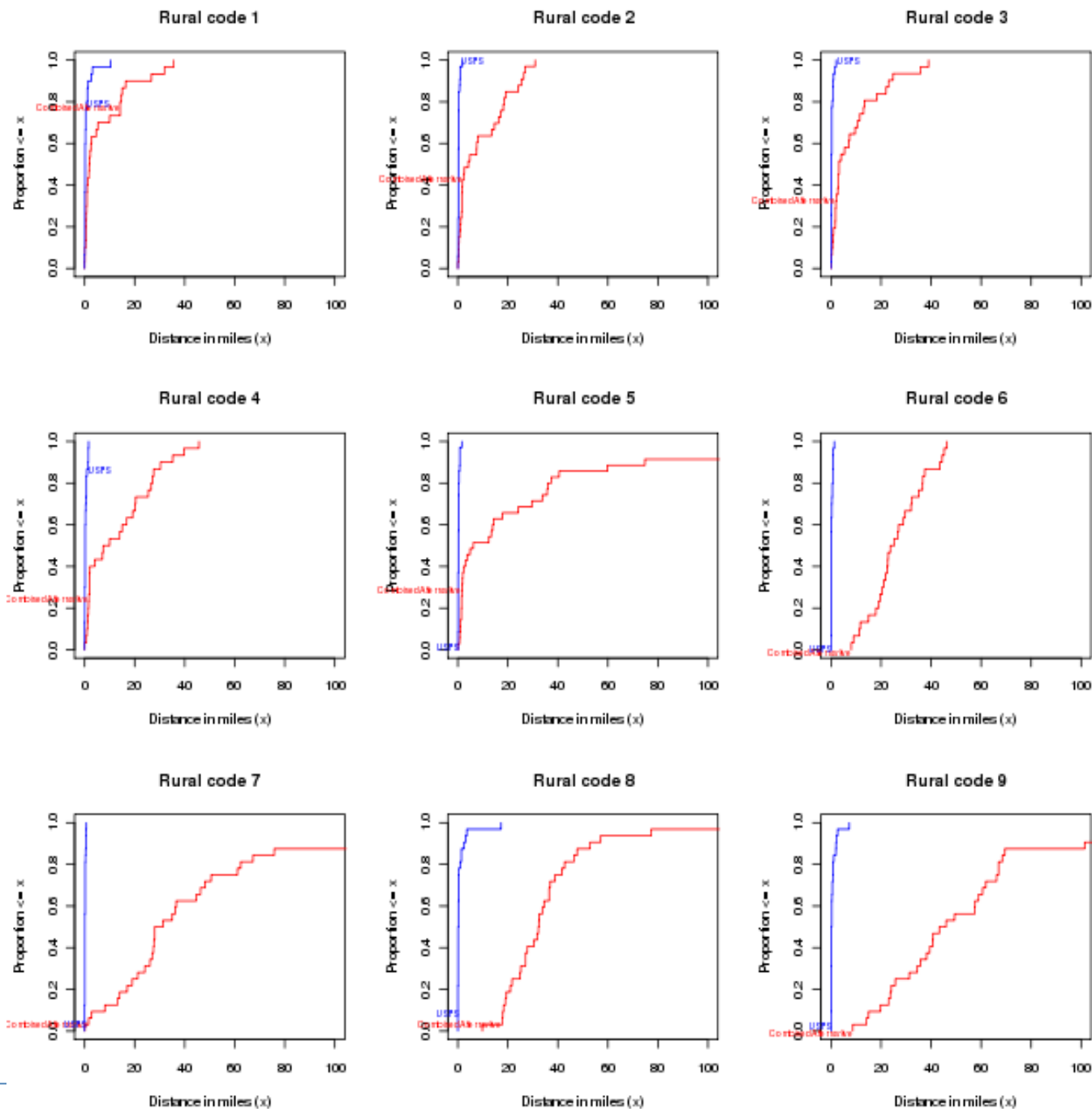
- How far do we have to go, to make sure 60% of locations have access to a facility?
- The example is for an Express Drop Box in Rural Code 9.
  - USPS: 60% have access within 1 mile.
  - UPS: 60% have access within 22 miles.
  - Fed Ex: 60% have access within 24 miles.

### Rural code 9



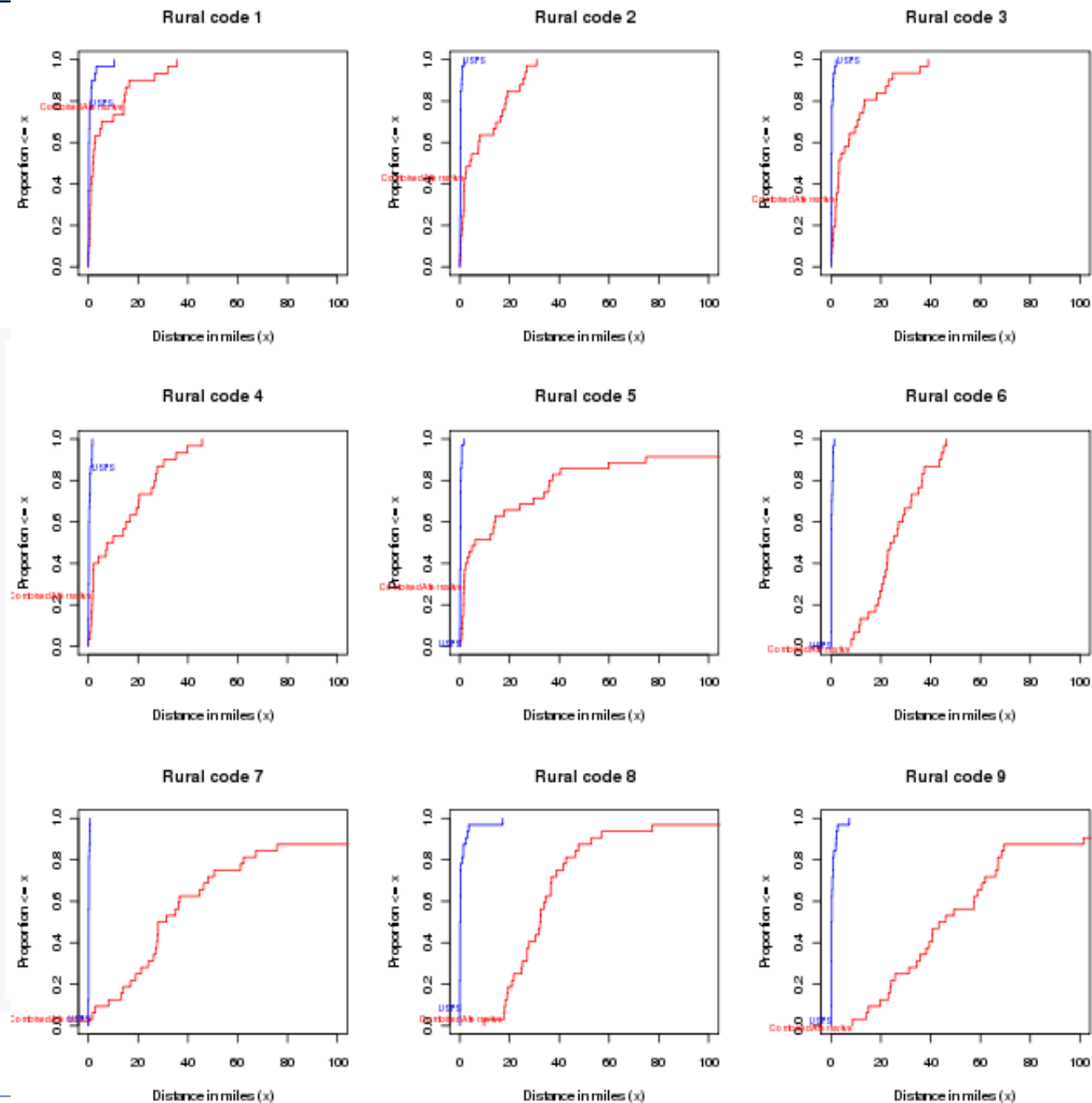
# Money Orders Retail

**USPS**  
**Private Sector**



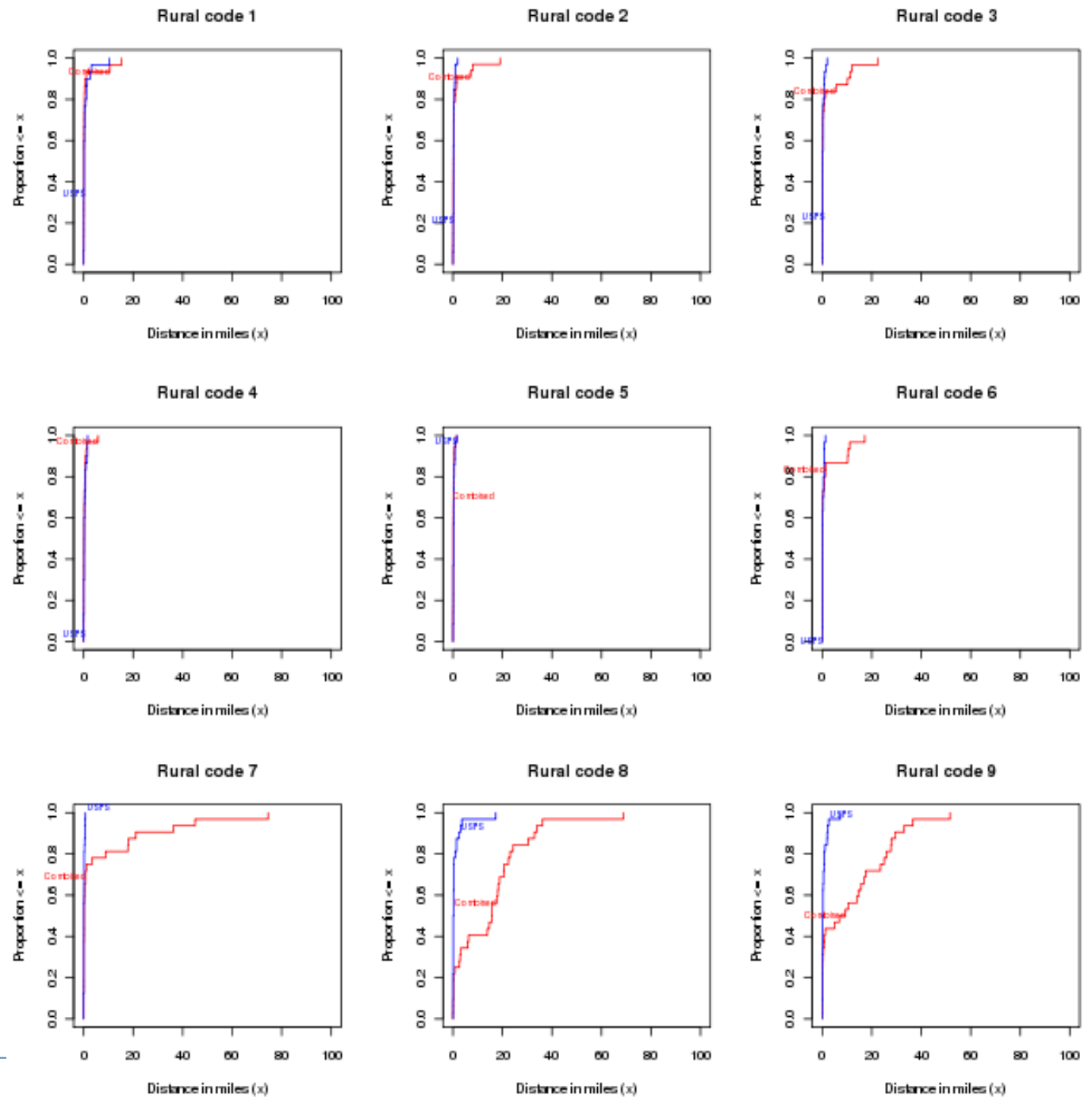
# Mailbox Rental Retail

**USPS**  
**Private Sector**



# Parcels Self Service

**USPS**  
**Private Sector**



# Parcels Retail

**USPS**  
**Private Sector**

