



## Innovations in Last-Mile Delivery – The USPS OIG Perspective

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TRB Urban Freight Transportation Committee Meeting - January 13, 2020

Disclaimer: The views expressed here are those of the author and do not necessarily represent or reflect the views of the US Postal Service Office of Inspector General



#### USPS: Key Assets, Well-known Vulnerabilities



delivery points



**6.1** billion packages/year

Best-liked federal government agency

35,000 retail outlets



Limited investment resources

High fixed, labor costs

Legally prohibited from offering 'non postal' services

Growing competition in the (package) last mile



#### USPS OIG: A Body of Work on the Last Mile



Last mile/parcel innovations

Internet of "Postal" Things

**Drones and AMRs** 

Coordination and Optimization Technologies

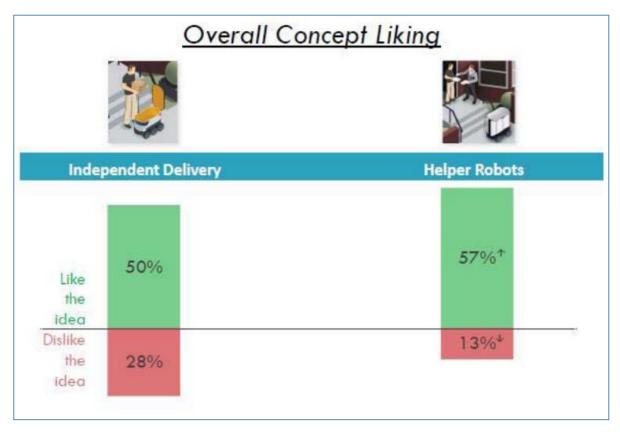
Same-Day Delivery

'Sustainable' delivery



### Last Mile Technologies Can Drive Brand Positivity: AMRs

Percentage of People that Like and Dislike Robotic Delivery Concepts



More respondents like the idea of delivery AMRs than dislike it, particularly when it comes to robots that help the carrier.

Source: OIG survey



#### Same-day Delivery May Not Become the New Normal

#### *Reasons for selecting same-day delivery*

Offered free Like getting items ASAP Wanted food or drink quickly Needed item quickly (not gift/health) Gift needed quickly Reasonable price (not free) Free through subscription service Needed for a health situation

76%	
75%	
67%	
66%	
64%	
64%	
61%	
58%	
57%	

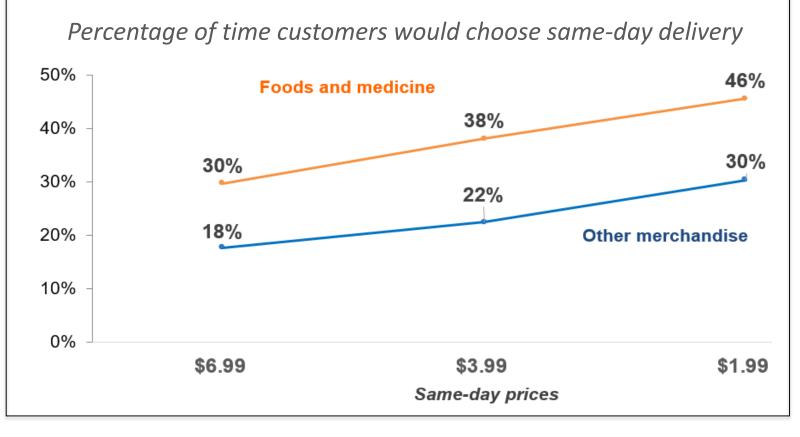
Need and price are key drivers.

Same-day represents 2% of parcels volume.

Americans may prefer pickup in store and free next-day over same-day delivery.



#### A Low Willingness to Pay for Same-Day Delivery



At all price points customers are more willing to pay for sameday delivery if it involves food or medicine.

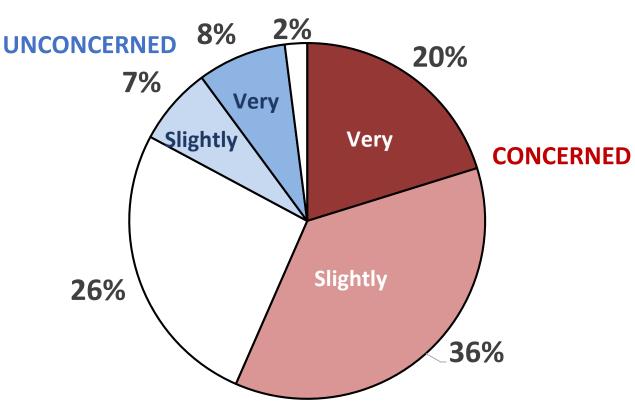
Over 40% of the population would never buy for same day delivery at any price.

Source: OIG survey



#### A Green Last Mile Does Matter

Level of concern about the environmental impact of package delivery



56% of Americans are concerned about the environmental impact of deliveries.

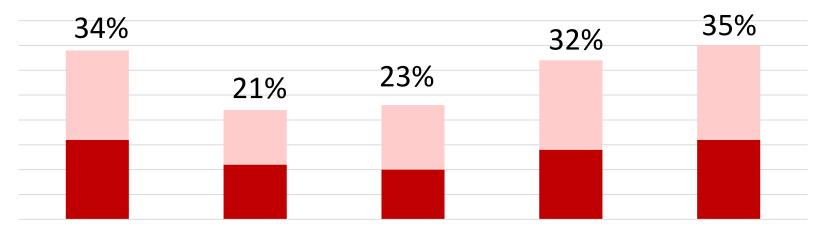
Millennials and urban residents are much more concerned.

Source OIG survey, 2,841 respondents, December 2019



#### **Top Concerns are Packaging Waste and Air Pollution**

#### *Percentage of 'extremely' + 'very' concerned customers*



Air pollution Delivery vehicles Delivery vehicles Vehicles being Package delivery caused by gas- take up too many add too much sent out when leads to wasted powered delivery parking spots traffic on the road cardboard and/or not full to get vehicles packages other shipping delivered faster, materials increasing the number of trips

Source: OIG survey, 2,841 respondents, December 2019



## Solutions That Cut Packaging Waste Are Top of Mind

Like 'Very much' or like 'somewhat' this idea for making delivery more environmentally-friendly

Government Policies		Packaging
Tax cuts	65%	<ul> <li>Recycled shipping materials</li> <li>80%</li> </ul>
<ul> <li>Evening deliveries</li> </ul>	60%	<ul> <li>Reusable/returnable packaging 76%</li> </ul>
<ul> <li>Fines for non environmentally- friendly delivery trucks</li> </ul>	40%	<ul> <li>'Smaller' [on-demand] packaging 74%</li> </ul>
Last Mile Initiatives		CO2 compensation programs 72%
<ul> <li>Routing optimization</li> </ul>	74%	
Energy-efficient delivery vehicles	74%	0000
<ul> <li>Fuller trucks (consolidation)</li> </ul>	69%	Source: OIG survey,



#### Our Reports Often Discuss Last-Mile Concepts

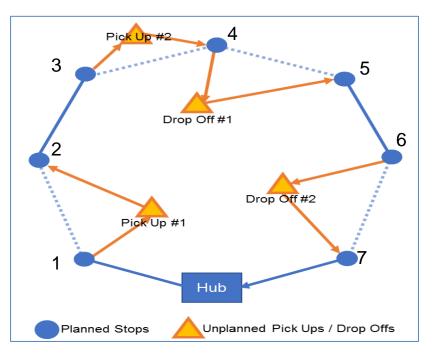
Sharing postal warehouses with shippers?



Microhubs?



Same-day pickups and deliveries along fixed routes?





#### Cheaper, Slower, Greener Letters?

**73% of respondents** would accept slower service standards in exchange of cheaper, cleaner letter deliveries.







Source: OIG survey, 2,841 respondents, December 2019



# The Social Value of the Last Mile: New Carrier-based Services



A distraction from parcel delivery, a source of additional revenue, or a key public service mission?



Promoting Integrity and Accountability in America's Postal System