United States Government Accountability Office

Report to Ranking Member, Committee on Homeland Security and Governmental Affairs, U.S. Senate

December 2019

U.S. POSTAL SERVICE

Offering Nonpostal Services through Its Delivery Network Would Likely Present Benefits and Limitations

Accessible Version

This report was revised on December 18, 2019, to correct our summary of the United States Postal Service's letter commenting on the draft report, on page 33, and to include that letter as appendix II, on page 45.

GAO-20-190

GAO Highlights

Highlights of GAO-20-190, a report to Ranking Member, Committee on Homeland Security and Governmental Affairs, U.S. Senate

View GAO-20-190. For more information, contact Lori Rectanus at (202) 512-2834 or RectanusL@gao.gov.

Why GAO Did This Study

USPS manages a vast "last mile" delivery network of mail carriers and delivery vehicles that move mail from a delivery unit (such as a post office) to its destination. This network is critical to help USPS accomplish its mission of providing postal services throughout the country. However, USPS faces major financial challenges because costs are growing faster than revenues. Given the ubiquity of this network, some have suggested that USPS provide new nonpostal services (i.e., services not directly related to mail delivery) to generate revenue and enhance value to customers and communities. USPS is currently prohibited from providing many nonpostal services.

GAO was asked to review costs of and opportunities for USPS's last mile network. This report examines: (1) the costs associated with the last mile network and changes since 2008, and (2) the potential benefits and limitations of new nonpostal services, among other topics. GAO analyzed USPS data to estimate key last mile and operating costs for fiscal years 2008 through 2018; reviewed relevant documents and reports from USPS and others; and interviewed USPS officials, postal union representatives, foreign postal operators that have experience with nonpostal services, industry stakeholders, and officials from various federal agencies to obtain their views on the relevant nonpostal services' benefits and limitations.

GAO is making no recommendation in this report. USPS noted legal and other constraints to offering new nonpostal services that leverage USPS's last mile network.

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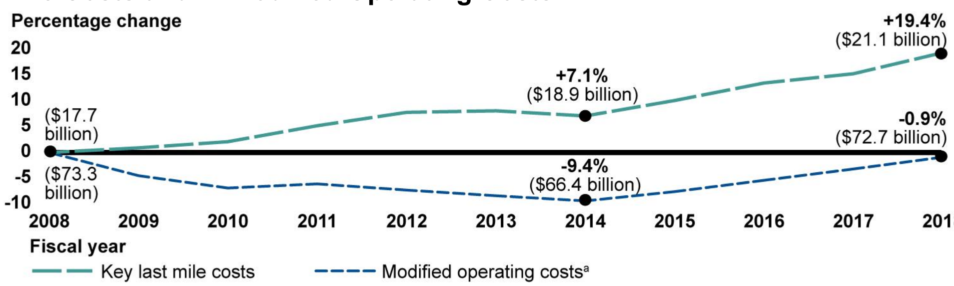
Offering Nonpostal Services through Its Delivery Network Would Likely Present Benefits and Limitations

What GAO Found

Costs associated with U.S. Postal Service's (USPS) last mile delivery network, referred to as "last mile" in this report, have increased since 2008 and in 2018 were nearly a third of USPS's operating costs. GAO found that last mile costs—which consist of street delivery activities and include mail carrier compensation and delivery vehicle maintenance—increased by 19.4 percent from fiscal years 2008 through 2018, while USPS's modified operating costs were 0.9 percent lower than their amounts in fiscal year 2008 (see figure). According to USPS, it has been able to reduce costs in other areas but is less able to reduce last mile costs, despite a decline in mail volume, because of the requirement to deliver mail 6 days a week and the continued growth in addresses it must deliver to.

Percentage Change from Fiscal Year 2008 in U.S. Postal Service Key Last Mile Costs and in Modified Operating Costs



Source: GAO analysis of United States Postal Service (USPS) data. | GAO-20-190

Data Table for Percentage Change from Fiscal Year 2008 in U.S. Postal Service Key Last Mile Costs and in Modified Operating Costs

Fiscal year	Key last mile costs	Total operating costs
2008	0	0
2009	0.9	-4.5
2010	2.1	-6.9
2011	5.2	-6.1
2012	7.8	-7.3
2013	8.1	-8.4
2014	7.1	-9.4
2015	10.1	-7.6
2016	13.5	-5.4
2017	15.3	-3.2
2018	19.4	-0.9

Notes: Values in the line graph represent the percentage change in costs relative to their starting values in 2008 and are not adjusted for inflation. Key last mile costs exclude in-office costs.
[a]In this report, GAO made certain adjustments to USPS's total operating expenses by excluding expenses that do not relate to active employees' current compensation costs because they relate to services performed in the past and thus do not reflect the effect of operational changes. This adjusted measure is referred to as "modified operating costs" in this report.

Providing new nonpostal services that leverage the last mile delivery network could potentially generate more value—including societal benefits and possibly revenue—but also presents a number of limitations and would not likely significantly affect USPS's current financial condition. For example, adding nonpostal services to existing mail carrier activities—such as providing check-in services for older or homebound individuals—could help improve social isolation among at-risk populations but could distract from USPS's primary mission of mail delivery. Attaching mobile sensors to delivery vehicles could allow USPS to collect potentially valuable data for other entities—such as mobile wireless coverage and air quality information. According to officials and experts GAO spoke with, USPS could have flexibility in its level of involvement and, for example, allow its vehicles to act as a platform for others to collect data. Alternatively, USPS could collect, store, and analyze these data on its own, functions that could lead to potentially greater revenues but may require large up-front costs. Given that these potential services present both benefits and limitations, the decision to pursue them—including addressing current legal prohibitions—is dependent on the goal for providing such services and desired effect for USPS.

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Abbreviations

APHIS	Animal and Plant Health Inspection Service
DARPA	Defense Advanced Research Projects Agency
FCC	Federal Communications Commission
EPA	Environmental Protection Agency
HHS	Department of Health and Human Services
NALC	National Association of Letter Carriers
PAEA	Postal Accountability and Enhancement Act
PRC	Postal Regulatory Commission
USPS	United States Postal Service

USPS OIG U.S. Postal Service’s Office of Inspector General

U.S. GOVERNMENT ACCOUNTABILITY OFFICE
441 G St. N.W.
Washington, DC 20548

December 17, 2019

The Honorable Gary C. Peters
Ranking Member
Committee on Homeland Security and Governmental Affairs
United States Senate

Dear Senator Peters:

According to the Task Force on the United States Postal System, the United States Postal Service's (USPS) delivery network "is a critical part of the nation's infrastructure that cannot be replicated by private actors, or, for the foreseeable future, displaced by emerging delivery technologies."[1] This network, referred to as the "last mile," involves delivering mail from a USPS facility (such as a post office) to its final destination. The last mile delivery network consists of mail carriers, delivery vehicles, and USPS's address and routing systems, and it enables USPS to carry out its mission of providing universal postal service.[2] However, for over a decade, while USPS has carried out this mission as required, it has not been operating as a self-financing entity because of reduced demand for traditional postal services as costs have continued to increase. This situation has led to significant losses—$69 billion over the last 11 fiscal years. As a result, USPS's financial viability has been on our list of high-risk areas since 2009.[3]

Given the ubiquity of USPS's network, subject matter experts and other postal stakeholders, such as postal associations, have suggested that the last mile delivery network could be leveraged to provide additional

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[1]The Task Force, created by the president and chaired by the Secretary of the Treasury and also including the Director of the Office of Management and Budget and the Director of the Office of Personnel Management, further maintained that "maintaining this critical infrastructure as a national resource should be considered the primary business objective of the USPS." See Task Force on the United States Postal System, *United States Postal Service: A Sustainable Path Forward, Report from the Task Force on the United States Postal System* (Washington, D.C.: Dec. 4, 2018).

[2]As part of its universal service obligation, USPS is required to provide prompt, reliable, and efficient services to patrons in all areas and …postal services to all communities." 39 U.S.C. § 101(a).

[3]GAO, *High-Risk Series: Substantial Efforts Needed to Achieve Greater Progress on High-Risk Areas*, GAO-19-157SP (Washington, D.C.: Mar. 6, 2019). We added USPS's financial condition to our high-risk list in July 2009.

services, generate revenue, and enhance its value to customers and communities.[4] However, the Postal Accountability and Enhancement Act (PAEA) currently prohibits USPS from providing new types of nonpostal services, with limited exceptions.[5] Even if USPS were authorized to offer these services, there is little consensus as to what sorts of opportunities may be worth pursuing. You asked us to review several issues related to costs and opportunities of USPS's last mile delivery network. This report examines

- the costs associated with this network and the extent to which they have changed since 2008
- efforts USPS has taken since 2008 to leverage its last mile delivery network for nonpostal services and the results, and
- the potential benefits and limitations of leveraging USPS's last mile delivery network for new types of nonpostal services.

We selected 2008 to begin our analysis, because that was when new restrictions on nonpostal services took effect.[6] In this report, we use the term "nonpostal" to refer to efforts that are not directly related to mail delivery.

In this report, we defined USPS's last mile delivery network's costs as expenses associated with street delivery activities—that is, once a mail carrier has left a delivery unit (such as a post office). We also included the

[4]For example, in June 2014, the U.S. Postal Service's Office of Inspector General (USPS OIG) assessed a number of opportunities for USPS to add carrier services—such as serving court documents or monitoring homes while customers are on vacation—to delivery operations to generate revenue. See USPS OIG, *Delivery Operations – Additional Carrier Services*, Management Advisory Report, DR-MA-14-004 (Arlington, VA.: June 3, 2014).

[5]Pub. L. No. 109-435, § 102(a) (2006). USPS was statutorily authorized, subject to Postal Regulatory Commission approval, to provide various "nonpostal services" offered as of January 1, 2006. The term "nonpostal service" is defined by statute to mean any service that is not a "postal service." See 39 U.S.C. § 404(e)(1). A "postal service" is defined as the delivery of letters, printed matter, or mailable packages, including acceptance, collection, sorting, transportation, or other functions ancillary thereto. See 39 U.S.C. §§ 102(5).

[6]The Postal Regulatory Commission was required to determine which nonpostal services USPS would be allowed to continue within 2 years of PAEA's enactment in 2006. 39 U.S.C. § 404(e)(3). See Postal Regulatory Commission, *Review of Nonpostal Services Under the Postal Accountability and Enhancement Act,* Order No. 154, Docket No. MC2008-1 (Washington, D.C.: Dec.19, 2008). Fiscal year 2008 also includes the beginning of the Great Recession of 2007–2009.

costs of supporting functions, such as mail carrier supervision for street delivery activities and delivery vehicles and vehicle maintenance. Our definition of "last mile delivery costs" differs from how USPS defines and reports "delivery" costs because we excluded in-office activities, among other differences.[7] Further, we based our estimates on the costs of street delivery activities through USPS's existing network. As such, our last mile delivery cost estimates should not be taken to indicate potential costs that could be saved or avoided by eliminating street delivery (see app. I for more information).[8]

To examine key costs associated with USPS's last mile delivery network and operating costs, we reviewed documentation, studies, and other publicly available reports from USPS, the USPS's Office of Inspector General (USPS OIG), and the Postal Regulatory Commission (PRC)—an independent establishment of the executive branch that regulates USPS.[9] Based on these reviews and interviews with USPS officials, we compiled data on costs associated with street delivery activities and other operating costs from USPS's *Annual Compliance Reports* and other reports for fiscal years 2008 through 2018.[10] Along with USPS's input, we reviewed related documentation, corroborated data across sources, and determined our estimates were reliable for the purposes of our reporting objectives. Although we defined "last mile delivery" differently than USPS defines "delivery," we discussed our cost estimation methodology with USPS officials, and they considered our approach to be reasonable for the purposes of our objectives.

[7]USPS has also referred to services such as those offered to bulk shippers that drop parcels deeper into its network for USPS to deliver as "last mile" deliveries. Office activities refer to casing and sequencing mail for delivery, while street activities are those that occur once the mail carrier has left the delivery unit.

[8]According to USPS officials, eliminating street delivery would result in reorganizing its delivery unit network, and the cost savings could only be estimated with a detailed operational analysis. However, this was outside the purposes of this report, as our objective was not to estimate potential costs saved or avoided if street delivery were eliminated.

[9]We use the term "key last mile costs" because our last mile cost estimates do not include all expenses that could be associated with street delivery activities, such as mail carrier retiree health benefits costs, because there is not a reliable way estimate the amounts associated with street delivery activities.

[10]2008 was the first full fiscal year after PAEA was enacted, which made changes to USPS's reporting requirements.

Separately, we made certain adjustments to USPS's total operating expenses as stated in its *Reports on Form 10-K* by excluding certain components of workers' compensation and retirement benefits expenses that do not relate to active employees' compensation costs, because they are costs related to service performed in the past and thus do not reflect the effect of operational changes. Specifically, we excluded changes in workers' compensation expenses resulting from discount rate changes and actuarial revaluation of existing cases; retiree health benefit premiums for beneficiaries; the amounts of fixed "prefunding" prepayments into the Postal Service Retiree Health Benefits Fund in excess of the normal costs;[11] and unfunded retiree health benefit and pension liability amortization expenses. We did not exclude the normal costs associated with these items or the costs of new workers' compensation cases or administrative fees because they relate to costs associated with active employees. We additionally applied a 3-year centered moving average to the costs of new workers' compensation cases to smooth out annual variations. We refer to the amounts resulting from these adjustments as USPS's "modified operating costs" in this report (see app. I for more detail).[12]

To describe efforts USPS has taken to leverage its last mile delivery network for nonpostal purposes, we reviewed relevant government reports, industry articles, and publications from associations, academia, and subject matter experts. We also interviewed 16 organizations and stakeholders—including executive branch agencies that currently partner with USPS on initiatives, including the Census Bureau, Department of Agriculture, and Department of Housing and Urban Development (HUD); the USPS OIG; postal employee unions; postal associations: subject matter experts with knowledge of nonpostal services—and reviewed relevant documentation.

To assess the benefits and limitations of leveraging USPS's last mile delivery network for additional nonpostal services, we reviewed prior GAO

[11]The "normal cost" is the annual expected growth in liability attributable to an additional year of employees' service. During 2 years, the amount of the required prefunding payment was lower than the normal cost due to statutory changes. However, we included the full amount of the normal cost as a retiree health benefit cost for those years. For more information on the Postal Service Retiree Health Benefits Fund, see GAO, *Postal Retiree Health Benefits: Unsustainable Finances Need to Be Addressed,* GAO-18-602 (Washington, D.C.: Aug. 31, 2018).

[12]The net totals of these excluded expenses were, on average, $5.1 billion per year.

reports and relevant documents from USPS, the USPS OIG, foreign postal operators, and select academic literature. We surveyed officials from USPS, postal employee unions, the USPS OIG, and subject matter experts (noted above) to assess the feasibility of new nonpostal services and any key considerations when implementing the services. We also interviewed two foreign postal operators—France's La Poste and the United Kingdom's Royal Mail—who have experience with nonpostal services similar to the nonpostal services we reviewed. Based on these surveys and interviews, we selected ideas for such services that postal or other stakeholders agreed might be the most feasible, could add to USPS's brand, or generate the most revenue. We selected four nonpostal services for further review—two services that could be provided by mail carriers and two that could be provided through delivery vehicles.

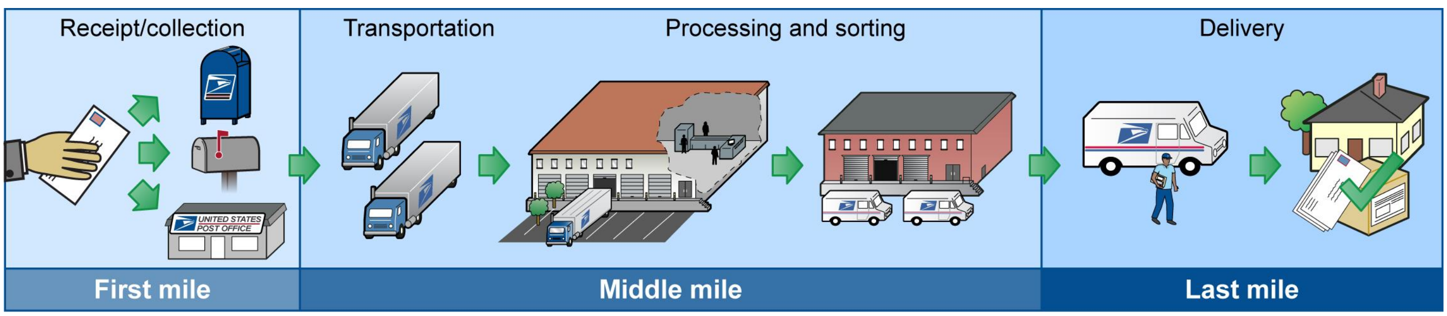
To obtain a range of views on the benefits and limitations of these efforts, we also reviewed literature and interviewed USPS officials and 11 stakeholders and organizations selected for their expertise including the USPS OIG, postal employee unions, foreign postal operators, and industry groups representing entities potentially affected by the services. We also interviewed officials from several executive branch and independent federal agencies that could potentially benefit from nonpostal services—the Environmental Protection Agency (EPA), the Federal Communications Commission (FCC), and the Federal Emergency Management Agency—to obtain their views on the relevant nonpostal services' benefits and limitations. Finally, we reviewed statutes, including PAEA, regulations, and legal rulings, to evaluate USPS's current legal authority to provide these services.

We conducted this performance audit from October 2018 to December 2019 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

USPS is required to provide prompt, reliable, and efficient services to patrons in all areas and postal services to all communities."[13] Currently, USPS delivers mail to most customers 6 days a week, excluding Sundays and federal holidays.[14] To carry out its universal service obligation, USPS has developed a vast mail collection, processing, transportation, and delivery network. USPS's network operations include the first, middle, and last miles (see fig. 1).

Figure 1: Example of How Mail Moves through the U.S. Postal Service's Network



Source: GAO. | GAO-20-190

Note: This illustration of U.S. Postal Service's network is an example of how mail can be collected and delivered but does not reflect all collection, transportation, processing, and delivery options. For example, mail can also enter the postal network further "downstream" via bulk mailers that drop off at USPS facilities, such as distribution centers or delivery units (middle mile). The last mile may also act as the first mile when mail carriers collect mail from street collection points or mailboxes.

For this report, we defined USPS's last mile delivery network as street delivery and collection activities once a mail carrier has departed a delivery unit (usually post offices), as well as associated supporting functions.[15] USPS's last mile delivery network is unique in its ubiquity and consists of several component parts.

[13]39 U.S.C. § 101(a).

[14]Some residents do not receive 6-day delivery, particularly those located in remote or seasonal vacation areas. In some areas, USPS additionally delivers packages on Sundays.

[15]This definition excludes some office activities that could be associated with delivery, such as mail carriers casing and sequencing mail and loading delivery vehicles. However, it includes other functions that support street delivery activities, such as vehicle maintenance.

- **Mail carriers—**USPS employed approximately 340,000 mail carriers (210,000 city carriers and 130,000 rural carriers)[16] in fiscal year 2018 who deliver mail and packages to residences and businesses using three basic modes: door delivery (mail slots in the door, mailboxes attached to the business near the door, or locations in office buildings); curbside and sidewalk delivery to individual mailboxes; and centralized delivery (e.g., apartment building mailboxes, cluster boxes, and parcel lockers).[17]
- **Delivery vehicles—**USPS operated and maintained over 230,000 delivery vehicles in fiscal year 2018. In addition, many rural mail carriers use their personal vehicles for delivery and receive a monetary allowance based on their assigned delivery route.
- **USPS's address data and routes—**USPS managed and updated over 150 million address records and over 230,000 mail-carrier delivery routes in fiscal year 2018. Mail carriers help maintain address quality by noting address changes on their routes and submitting them to update USPS's address database.

Federal law defines the types of services that USPS may and may not provide. As previously noted, PAEA placed limitations on the nonpostal services USPS could provide. In particular, it allowed USPS to continue to provide nonpostal services that were offered as of January 1, 2006, and were permitted by PRC to continue.[18] However, PAEA prohibited USPS from initiating new nonpostal services, though it did not eliminate USPS's authority to provide some nonpostal services to federal agencies.[19] If a nonpostal service is to be provided to a federal agency, generally, USPS and the parties must specify the terms and conditions of their collaboration, including the activities to be performed by USPS and the

[16]Of the 210,000 city carriers, 168,000 were career and 42,000 were non-career mail carriers. Of the 130,000 rural carriers, 71,000 were career and, 59,000 were non-career mail carriers.

[17]Cluster boxes are centralized units of individually locked compartments. Parcel lockers are lockers installed in some USPS post offices that serve as a "last mile" delivery point for packages that cannot be delivered directly into P.O. Boxes.

[18]39 U.S.C. § 404(e).

[19]See, e.g., 39 U.S.C. § 411.

terms of reimbursement, if applicable. USPS is currently not authorized to partner with state or local entities.[20]

[20]However, according to USPS officials, USPS can provide services to state and local governments on behalf of another federal agency.

USPS's Last Mile Delivery Costs Have Increased since Fiscal Year 2008 and Account for an Increasing Portion of Operating Costs

USPS's Last Mile Delivery Network Accounted for Nearly One-Third of Operating Costs in Fiscal Year 2018

Last mile delivery costs account for nearly a third of USPS's operating costs.[21] Specifically, we estimated last mile delivery costs—representing street delivery activities once a mail carrier has departed a postal facility—totaled at least $21.1 billion, or about 29 percent of USPS's modified operating costs, in fiscal year 2018.[22] As shown in figure 2, estimated city and rural street delivery costs constituted $14.6 billion and $6.5 billion, respectively, in fiscal year 2018. Combined city and rural mail carrier compensation for street delivery activities accounted for about $18.2 billion, or 86 percent of key last mile costs.[23] Other last mile costs include combined vehicle maintenance and depreciation costs ($2.1 billion), mail carrier supervision ($691 million), and other vehicle and

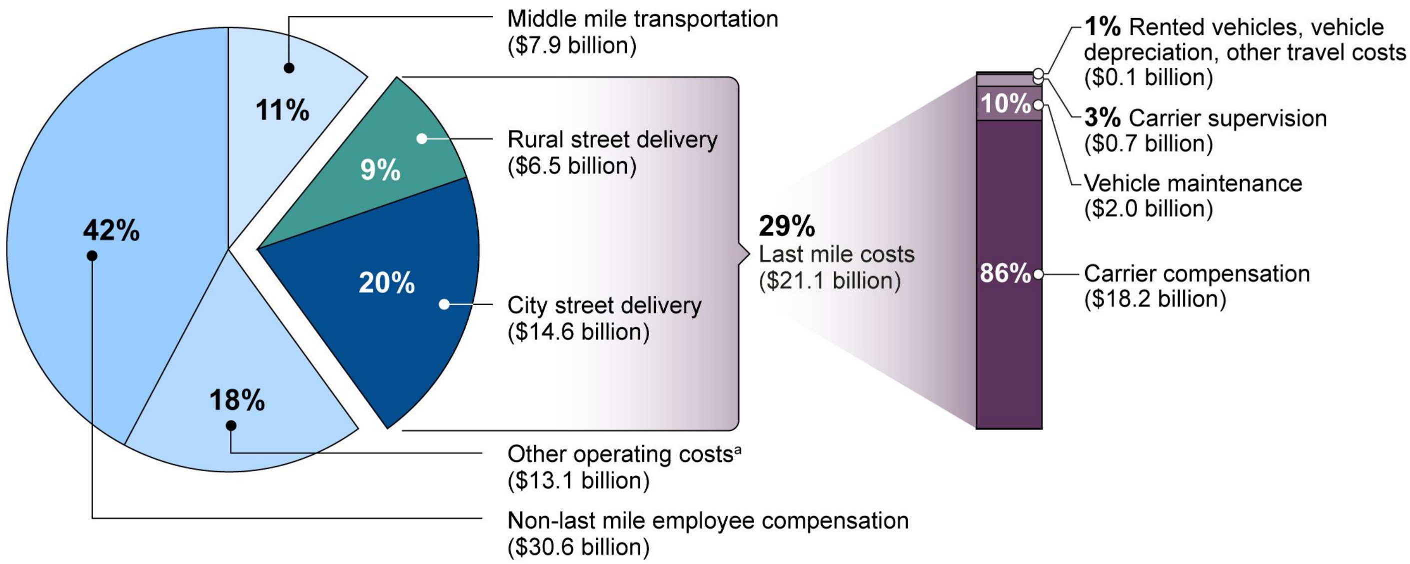
[21]In this report, last mile delivery costs refer to expenses associated with street delivery activities. Our definition of last mile delivery costs differs from how USPS defines and reports "delivery" costs because we excluded in-office costs, among other differences. Because we based our estimates on USPS's existing network, they should not be taken to indicate potential costs that could be saved or avoided by eliminating street delivery. According to USPS officials, eliminating street delivery would result in reorganizing its delivery unit network, and the cost savings could only be estimated with a detailed operational analysis.

[22]In this report, we made certain adjustments to USPS's total operating costs by excluding expenses that do not relate to active employees' current compensation costs because they are costs related to services performed in the past and thus do not reflect the effect of operational changes. We refer to our adjusted measure as "modified operating costs" (see app. I for more detail). Key last mile costs accounted for about 28 percent of USPS's total operating expenses (if these items are included) in fiscal year 2018.

[23]Employee compensation costs also include benefits, such as health insurance and pension contributions, for active employees. Our last mile cost estimates do not include certain other costs that could be associated with employees, such as retiree health benefits or workers' compensation costs.

travel costs ($50.2 million).[24] These costs exclude contract delivery service suppliers, which provided mail carrier services to about 2 percent of USPS's delivery points in fiscal year 2018, at a base cost of $396.4 million, according to the USPS OIG.[25]

Figure 2: Estimated U.S. Postal Service Modified Operating Costs and Key Last Mile Costs by Function, in Billions of Dollars and Percentage of Operating Costs, Fiscal Year 2018



Source: GAO analysis of United States Postal Service (USPS) data. | GAO-20-190

Data table for Figure 2: Estimated U.S. Postal Service Modified Operating Costs and Key Last Mile Costs by Function, in Billions of Dollars and Percentage of Operating Costs, Fiscal Year 2018

Cost category	Dollars in billions	Percentage
Transportation	7.9	11
Rural street delivery	6.5	9
City street delivery	14.6	20

[24]Our cost estimates do not include cash outlays for capital costs such as those for vehicles, as USPS instead records depreciation of these purchases as operating costs. Vehicle maintenance costs include rural mail carriers' equipment maintenance allowance for use of their personal vehicles. They also do not include some supervision and equipment costs that could be associated with street delivery activities, such as mail carriers' mobile delivery devices.

[25]This percentage excludes 19.3 million P.O. Box delivery points. See USPS OIG, *Contract Delivery Service Costs*, CP-AR-19-002 (Arlington, VA.: Aug. 20, 2019). USPS's address management costs were an additional $6.3 million in fiscal year 2018.

Cost category	Dollars in billions	Percentage
Other operating costs	12.9	18
Non-last mile employee compensation	30.6	42

Last mile costs	Costs (dollars in millions)	Percentage
Total	21.1	100
Carrier compensation	18.2	86
Vehicle maintenance	2.0	10
Carrier supervision	0.7	3
Vehicle depreciation, Rented vehicles, other travel costs	0.1	1

Notes: Key last mile costs exclude carrier in-office costs. Middle mile transportation refers to costs of transporting mail and other products between facilities. Employee compensation costs also include benefits, such as health insurance and pension contributions, for active employees. Vehicle maintenance costs include rural mail carriers' equipment maintenance allowance for using their personal vehicles.

[a]In this report, we made certain adjustments to USPS's total operating costs by excluding expenses that do not relate to active employees' current compensation costs because they relate to services performed in the past and thus do not reflect the effect of operational changes. We refer to our adjusted measure as "modified operating costs."

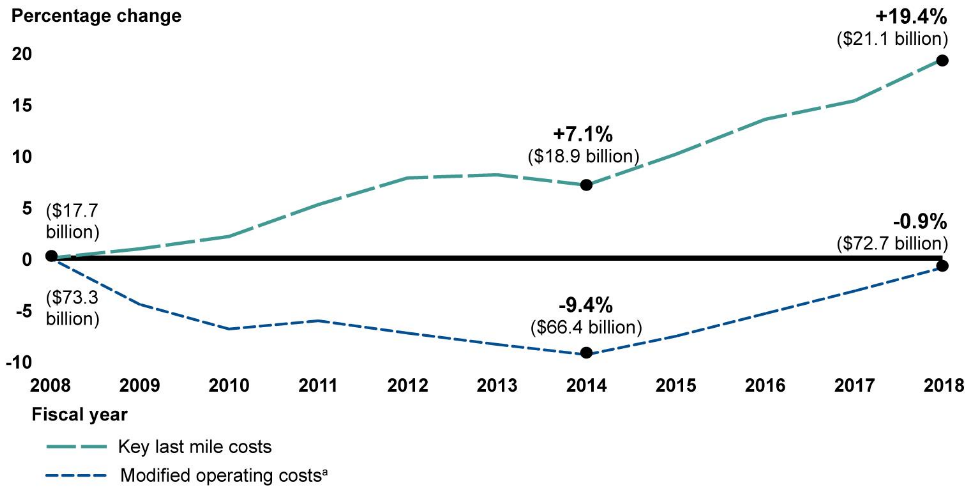
Further, compensation costs for USPS's last mile delivery network accounted for more than one-third of total USPS employee compensation costs in fiscal year 2018 (39 percent of $50 billion). Mail carriers alone accounted for more than half of all USPS employees, 39 percent of total employee workhours, and 36 percent ($18.2 billion) of employee compensation costs.[26] Compensation costs for mail carrier supervisors and delivery vehicle maintenance employees accounted for an additional $1.2 billion in fiscal year 2018.

Key Last Mile Costs Have Increased since Fiscal Year 2008

Estimated key last mile costs have increased more than USPS's modified operating costs. As shown in figure 3, from fiscal years 2008 through 2018, key last mile costs increased by 19.4 percent ($3.4 billion), while modified operating costs were 0.9 percent ($655 million) lower than in their amounts in fiscal year 2008.

[26]Mail carrier and supervisor workhours and compensation costs exclude office workhours and compensation because our analysis focused only on street delivery activities.

Figure 3: Percentage Change from Fiscal Year 2008 in U.S. Postal Service Key Last Mile Costs and in Modified Operating Costs



Source: GAO analysis of United States Postal Service (USPS) data. | GAO-20-190

Data table for Figure 3: Percentage Change from Fiscal Year 2008 in U.S. Postal Service Key Last Mile Costs and in Modified Operating Costs

Fiscal year	Key last mile costs	Total operating costs
2008	0	0
2009	0.9	-4.5
2010	2.1	-6.9
2011	5.2	-6.1
2012	7.8	-7.3
2013	8.1	-8.4
2014	7.1	-9.4
2015	10.1	-7.6
2016	13.5	-5.4
2017	15.3	-3.2
2018	19.4	-0.9

Notes: Values in the line graph represent percentage change in costs relative to their starting value in 2008 and are not adjusted for inflation. Key last mile costs refer to costs associated with street delivery activities and include mail carrier and supervisor compensation and benefits and vehicle maintenance and depreciation costs and exclude in-office costs. These costs do not include some costs that could be associated with street delivery activities, such as mail carriers' retiree health benefits and mobile delivery devices.

[a]In this report, we made certain adjustments to USPS's total operating costs by excluding expenses that do not relate to active employees' current compensation costs because they relate to services performed in the past and thus do not reflect the effect of operational changes. We refer to our adjusted measure as "modified operating costs."

Further, if key last mile costs are excluded, all other modified operating costs in fiscal year 2018 were 7.3 percent ($4.1 billion) lower than their amounts in fiscal year 2008. As a result, key last mile costs as a percentage of modified operating costs increased from 24 percent in fiscal year 2008 to 29 percent in fiscal year 2018. Last mile employee workhours also increased from 32 percent of total employee workhours from fiscal year 2008 to 41 percent in fiscal year 2018, meaning that even when controlling for wage changes, last mile activities represent a larger share of USPS resources.

USPS Faces Greater Challenges to Reduce Last Mile Delivery Costs than Other Operating Costs

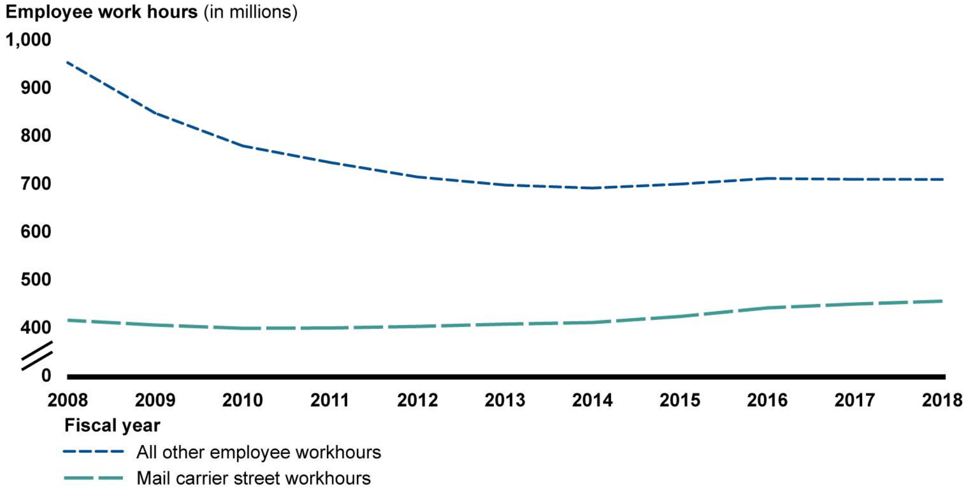
According to USPS financial reports, USPS reduced costs over several years due to a variety of actions, particularly to respond to large declines in mail volume and workload. USPS reported that it reduced costs from fiscal years 2008 through 2014 through expanding its non-career workforce and reducing employee workhours by consolidating operations and employee attrition.[27] For example, from fiscal years 2008 through 2014, clerk and mail processing personnel costs declined by 24.2 percent ($4.4 billion) partly due to these efforts. Additionally, the percentage of non-career employees grew from roughly 13 percent in fiscal year 2008 to over 20 percent by fiscal year 2014, an increase that can reduce employee compensation costs per workhour. The USPS OIG also reported that USPS reduced its overall network costs from fiscal years 2006 through 2015 by reducing employee compensation costs, downsizing and restructuring its network (for example, consolidating mail processing plants), and decreasing its use of air transportation.[28] However, while total USPS employee workhours fell substantially from fiscal years 2008 through 2014, mail carriers' street workhours remained

[27]USPS offered targeted separation incentives to encourage attrition among postmasters, clerks, mail handlers, and administrative employees. See USPS, *2014 Report on Form 10-K* (Washington, D.C.: Dec. 5, 2014). Most USPS employees are divided into "career", and "non-career" categories. Career employees are considered permanent and are entitled to a range of benefits (e.g., health and retirement) and privileges. Non-career employees are generally considered temporary and are hired, for example, during periods of large mail volume such as major holidays and the holiday mailing season. Non-career employees receive fewer benefits and lower pay than career employees.

[28]USPS OIG, *Peeling the Onion: The Real Cost of Mail,* RARC-WP-16-009 (Apr. 18, 2016). USPS also changed its delivery standards to increase the expected number of days that it can take to deliver some types of mail, a step that contributed to some of the employee compensation cost and network reductions.

relatively flat due to USPS's obligation to provide universal service (see fig. 4).[29]

Figure 4: U.S. Postal Service Employee Workhours—Mail Carriers' Street Workhours and All Other Employees, Fiscal Years 2008–2018



Source: GAO analysis of United States Postal Service (USPS) data. | GAO-20-190

Data table for Figure 4: U.S. Postal Service Employee Workhours—Mail Carriers' Street Workhours and All Other Employees, Fiscal Years 2008–2018

Fiscal year	Mail carrier street workhours	All other employee workhours
2008	418.144	955.21
2009	408.136	849.889
2010	401.336	781.611
2011	401.98	747.02
2012	405.223	716.777
2013	410.033	699.967
2014	413.347	693.653
2015	425.952	701.948
2016	443.899	713.701
2017	451.935	711.965
2018	457.882	711.718

Note: Mail carrier street workhours exclude carrier in-office workhours.

[29]As discussed above, mail carrier compensation costs represent the vast majority of USPS's key last mile delivery network costs.

USPS's universal service obligation limits its ability to reduce last mile delivery costs. This obligation necessitates, among other things, a large, ongoing, number of mail carrier workhours and a large delivery vehicle fleet to provide 6-day delivery to an increasing number of delivery points. Nevertheless, USPS implemented several actions to help control its last mile delivery network costs. For example, in 2012, USPS took actions to shift door deliveries to less costly delivery modes, such as curbside or delivery to a central location.[30] USPS also consolidated some delivery routes in response to falling mail volume, delivering mail on fewer but longer routes, which helped USPS eliminate nearly 24,000 mostly city routes (10 percent) and dispose of over 8,000 delivery vehicles (4 percent) from fiscal years 2008 through 2014.[31] As a result, the average number of delivery points served on each city and rural route increased from 531 to 613 over this period.

While USPS was able to reduce costs in other areas and improve delivery efficiency through fiscal year 2014, key last mile costs still increased. Additionally, some of the resource reductions USPS was able to achieve by implementing these efforts were subsequently reversed, as USPS invested in its last mile delivery network to accommodate increased package volume. For example, since fiscal year 2014, USPS added over 18,000 delivery vehicles and about 7,600 routes to accommodate growth in package volume and delivery points.[32]

Additionally, while USPS's costs in other areas have increased since fiscal year 2014, key last mile costs have increased at a greater rate. To

[30]In April 2012, USPS updated its policy regarding assigning delivery modes to new addresses. USPS revised its *Postal Operations Manual* to specify that USPS determines the mode of the delivery for new addresses and that those new addresses must receive less costly modes, such as centralized delivery, unless USPS approves an exception. Additionally, USPS implemented voluntary conversions to less costly delivery modes in fiscal year 2013. The *Postal Operations Manual* is a regulation of the USPS pursuant to the Code of the Federal Regulations. 39 C.F.R. § 211.2 (a)(2).

[31]USPS also relocated mail carriers from some local post offices to centralized delivery offices.

[32]According to USPS reports, packages are more labor intensive and cost more to process and deliver than letters. See USPS, *2018 Report on Form 10-K (Washington, D.C.: Nov. 16, 2018).* While USPS package volume increased by an average of 228 million pieces each year from fiscal years 2010 through 2014, it has increased by an average of roughly 545 million pieces each year from fiscal years 2014 through 2018. USPS's vehicle rental and depreciation costs in fiscal year 2018 were about $62 million (79 percent) higher than in fiscal year 2014.

help control last mile delivery costs in recent years, USPS has increasingly relied on its lower-cost, non-career carrier workforce.[33] According to USPS data, although non-career and part-time carrier workhours as a percentage of city and rural carrier workhours have increased since 2014, total mail carrier workhours and compensation costs also increased over that time frame. The number of delivery points per route has also remained relatively flat since fiscal year 2014. Table 1 compares changes in key last mile operating figures relative to other USPS operating figures in fiscal years 2008 through 2014 and fiscal years 2014 through 2018.

Table 1: Comparison of Percentage Changes in Select U.S. Postal Service's Last Mile Figures Relative to Other Operating Figures in Fiscal Years 2008 through 2014 and 2014 through 2018

	Percentage change 2008–2014			Percentage change 2014–2018		
	City	Rural	**Total**	City	Rural	**Total**
Key last mile costs	3%	18%	**7%**	10%	16%	**11%**
Mail carrier street workhours	-4%	4%	**-1%**	9%	14%	**11%**
Delivery points	2%	8%	**4%**	2%	7%	**4%**
Delivery routes	-13%	-4%	**-10%**	1%	8%	**4%**
Delivery points per route	17%	13%	**16%**	1%	0%	**0%**
Delivery vehicles	-	-	**-4%**	-	-	**10%**
Mail volume	-	-	**-23%**	-	-	**-6%**
Package volume	-	-	**31%**	-	-	**55%**
Total employee workhours	-	-	**-19%**	-	-	**6%**
Total employee workhours without last mile workhours	-	-	**-27%**	-	-	**3%**
Modified operating costs[a]	-	-	**-9%**	-	-	**9%**
Modified operating costs without last mile costs[a]	-	-	**-15%**	-	-	**9%**
Total operating revenue	-	-	**-9%**	-	-	**4%**

Source: GAO analysis of United States Postal Service (USPS) data. | GAO-20-190

Notes: Table compares changes in operating figures within time periods (i.e., vertically) rather than across them. "-" indicates data are not available or not applicable. Key last mile costs refer to costs associated with street delivery activities and include mail carrier and supervisor compensation and benefits and vehicle maintenance and depreciation costs and exclude in-office costs.

[a]In this report, we made certain adjustments to USPS's total operating costs by excluding expenses that do not relate to active employees' current compensation costs because they relate to services performed in the past and thus do not reflect the effect of operational changes. We refer to our adjusted measure as "modified operating costs."

[33]USPS, *2018 Report on Form 10-K.*

Additional efforts to reduce last mile delivery network costs under USPS's current authority may not significantly reduce costs and present challenges. USPS is limited in its ability to make certain changes to reduce delivery costs, such as changing the requirement to provide 6-day delivery.[34] While USPS has considered several options within its current authority to control delivery costs, the estimated cost savings may not significantly affect USPS's financial viability. For example, according to USPS, it plans to invest in new delivery vehicles that would reduce maintenance costs.[35] However, USPS vehicle maintenance and rental costs accounted for about 7 percent ($1.5 billion) of key last mile delivery network costs in fiscal year 2018.[36] Additionally, we previously found that USPS could achieve cost savings by mandating conversions from door delivery to other modes, such as cluster boxes.[37] In 2018, USPS projected it could save about $1.25 billion annually if about half of all door delivery points were converted to cluster box delivery or $850 million if the conversions were limited to curbside delivery, but these projections do not take into account practical considerations that would affect the conversion process. We previously found USPS has been reluctant to mandate conversions due to possible resistance from customers, employees, and postal stakeholders.[38] According to a USPS OIG and Gallup survey conducted in 2014, a majority of consumers would prefer paying additional postage to receive door delivery for parcels compared to a cluster box located no more than a quarter mile away from their home or a parcel locker at a postal facility.[39] Nevertheless, in April 2018, USPS

[34]In 2010, USPS estimated it could save $2.7 billion in annual delivery costs by reducing delivery from 6 to 5 days, although it also estimated $400 million in potential lost revenue. See USPS, *Ensuring a Viable Postal Service for America – How Five-Day Delivery is Part of the Solution*, Docket No. N2010-1 (Washington, D.C.: March 2010).

[35]USPS, *Fiscal Year 2019 Integrated Financial Plan* (Nov. 21, 2018).

[36]This excludes other vehicle costs such as rural carriers' equipment maintenance allowance and vehicle depreciation that would not be affected by replacing existing vehicles.

[37]GAO, *U.S. Postal Service: Delivery Mode Conversions Could Yield Large Savings, but More Current Data Are Needed*, GAO-14-444 (Washington, D.C.: May 12, 2014).

[38]GAO-14-444.

[39]Consumers who received cluster box delivery at the time of the survey placed a higher value on parcel delivery to the door than respondents with other modes of delivery. See USPS OIG, *What Postal Services Do People Value the Most?: A Quantitative Survey of the Postal Universal Service Obligation*, RARC-WP-15-007 (Arlington, VA.: Feb. 23, 2015).

revised its policies for delivery to new addresses, making centralized delivery the preferred method for the delivery of mail.[40]

USPS Has Pursued Efforts to Leverage Its Last Mile Delivery Network for Nonpostal Purposes, but Outcomes Are Mixed

USPS Has Previously Engaged in Nonpostal Efforts Involving Mail Carriers and Delivery Vehicles with Mixed Results

USPS has leveraged its last mile delivery network for several nonpostal services since 2008. In some cases, these efforts have provided societal benefits to the public or to other federal agencies with no funds exchanged. In other cases, USPS received funds sufficient to cover its costs—about $6 million total.

- **Reporting unusual mail accumulation to local service agencies—** In 1982, USPS and the National Association of Letter Carriers (NALC) launched the Carrier Alert program across the country, which enabled mail carriers to look for and report unusual mail accumulation at a given address to local service agencies.[41] According to NALC, USPS and NALC developed this program because unusual mail accumulation, particularly at households with older or physically restricted individuals, might be a sign of distress.[42] Mail carriers participated on a voluntary basis, and USPS did not collect any fees or revenues from the program. In June 2012, NALC and USPS leadership signed a joint statement of support, encouraging NALC branch leaders and local postmasters to recommit themselves to working with local service agencies. However, neither USPS nor

[40]According to USPS, centralized delivery improves delivery efficiency and lowers operational workhours.

[41]NALC is the labor union that represents city mail carriers.

[42]Under the program, mail carriers placed a Carrier Alert symbol on enrollees' mailboxes—which alerts all mail carriers to watch for signs of distress. If a mail carrier notified the partnering local service agency of suspicious mail accumulation, the organization would then initiate whatever communication had been authorized by the enrollee (e.g., notifying family members or police).

NALC officials we interviewed could tell us about the program's current status, extent, or effect, as it was primarily operated and managed at the local level. Further, USPS officials informed us that the program has scaled back due to a lack of participation, potentially because of a lack of program advertising. NALC also noted that the program required establishing a network of participating mail carrier volunteers and required sponsorship from local community service organizations, factors that could be challenging.

- **Preparing to aid in a response to a biological attack—**In 2004, USPS signed a memorandum of agreement with the Department of Health and Human Services (HHS) and the Department of Homeland Security to establish policies and procedures for USPS to help distribute medical countermeasures (oral antibiotics) to residential addresses in the event of catastrophic events like a widespread airborne release of anthrax. In 2006–2007, drills were conducted in three cities to test various aspects of the concept, such as how mail carriers communicated and engaged with local law enforcement escorts. In 2010, in response to an executive order, USPS coordinated with other agencies to develop a National Postal Model for the Delivery of Medical Countermeasures.[43] In the event of a biological attack, HHS would request that USPS activate those mail carriers who had volunteered pre-event; mail delivery would then cease, and these carriers would instead deliver oral antibiotics to all residences in an affected area. Participating mail carriers and supervisors were given antibiotic kits to store at home for themselves and their household members; in addition, USPS stored individual antibiotic kits at delivery units for participating USPS personnel. USPS spent and was reimbursed by HHS over $6 million deploying the program in 5 cities. However, in 2014, the program was suspended after HHS did not refresh the antibiotic kits and provide further funding, according to USPS. As a result, USPS could not maintain operational capability.
- **Scanning for radiological materials—**In 2014, the federal Defense Advanced Research Projects Agency (DARPA) conducted a pilot project with USPS mail carriers who volunteered to carry radiological detectors. During the pilot, participating USPS mail carriers carried small radiological monitoring devices and cell phone transmitters with them as they performed their mail delivery duties, which gathered and

[43]See Exec. Order No. 13527, 75 Fed. Reg. 737 (Jan. 6, 2010). USPS coordinated with HHS, the Department of Homeland Security, Department of Justice, and Department of Defense.

transmitted data to the DARPA team. USPS was reimbursed $39,210 from DARPA for direct costs associated with planning and operating the pilot. According to USPS, the pilot was well received by mail carriers, union representatives, and DARPA. However, in 2015, USPS declined to participate in future pilots and the memorandum of agreement was terminated due to concerns from USPS leadership of potential public perception that the privacy of USPS customers would be violated.

- **Collecting data for road and pavements assessments—**In 2018, a private company began working with USPS on several pilot projects to collect data for road and pavement assessments by installing sensor devices on USPS delivery vehicles.[44] While there were some initial challenges, according to USPS and the private company, the pilots were largely successful, and the company believes there are commercial opportunities to pursue with USPS.[45] While USPS has not earned any revenue or fully assessed the costs associated with these pilots, this process has helped USPS assess the concept of using its delivery vehicles as a platform to collect information, according to officials we spoke with. According to USPS officials, previous pilots helped examine feasibility and whether the service might interfere with mail delivery operations, and upcoming pilots will aid in further assessing the costs, benefits, and scalability of the service.

Federal Agencies Using USPS's Address Data Find Them Valuable

Several federal agencies use USPS's address data for nonpostal purposes, and officials told us they find the data highly valuable. USPS maintains and routinely updates its address management system, which includes information about new building constructions, addresses not receiving mail, addresses considered vacant, and postal patrons who have submitted change-of-address requests.[46] Among other agencies

[44]According to officials, USPS is permitted to lease space in its delivery vehicles for nonpostal purposes.

[45]Under a hypothetical arrangement, the private company would find potential customers and pay USPS to passively collect data on its behalf by attaching sensor devices to delivery vehicles while on delivery routes. According to USPS officials, leasing space on USPS property, such as its delivery vehicles, was one of the nonpostal services that were grandfathered by the PRC after enactment of PAEA.

[46]As part of normal duties, mail carriers record an address as vacant after mail has not been picked up for 90 days.

and entities, the Census Bureau, HUD, and the Animal and Plant Health Inspection Service (APHIS) regularly use USPS's address data for various purposes. USPS received about $47,000 for supplying data to APHIS and HUD in 2018.[47]

- **Census Bureau—**USPS provides the Census Bureau biannual updates of several USPS address products, which the Census Bureau uses to help carry out population censuses and surveys.[48] The Census Bureau maintains a complete address database to conduct each decennial census and other surveys. According to Census Bureau officials, USPS's address data are the primary source for this database and are crucial to the accuracy of the Census Bureau's data and operations.[49] Census Bureau officials told us they also work with state, local, and tribal governments to obtain addresses, but there is no substitute for the quality, content, and currency of USPS's nationwide list of addresses. For example, while state, local, and tribal governments may assign addresses, only USPS's regularly updated address lists enable the Census Bureau to determine how long an address has been receiving mail. Because USPS delivers to an address almost every day, Census Bureau officials said they can have high confidence in the accuracy and quality of the address.

  According to Census Bureau officials, obtaining commercial address lists would cost potentially millions of dollars each year for a lower-quality product. The officials told us that the most expensive part of collecting population census data is sending enumerators—Census workers that visit the homes of people who did not respond to their census questionnaires and attempt to enumerate the household—into the field. They also noted that USPS maintains the primary

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[47]In providing nonpostal services for federal agencies, USPS considers direct costs of providing the service as well as a reasonable share of overhead costs not directly attributable to any product or service that are reasonably consistent with fees for providing postal services. 39 C.F.R. § 259.1.

[48]The Census Address List Improvement Act of 1994 required USPS to share its address information with the Census Bureau. See Pub. L. No. 103-430, § 4 (1994). According to officials, USPS does not receive compensation for supplying these data.

[49]We previously reported that a complete and accurate address list is the cornerstone of a successful census because it both identifies all households that receive a census questionnaire and serves as the control mechanism for following up with individuals at households that fail to respond. Census Bureau officials also said that this arrangement likely benefits the Census Bureau more than USPS. See GAO, *Decennial Census: Census Bureau and Postal Service Should Pursue Opportunities to Further Enhance Collaboration*, GAO-11-874 (Washington, D.C.: Sept. 30, 2011).

authoritative database Census Bureau uses to learn about address change information (e.g., if a street name or address number changes), which prevents costly duplicative mailings and sending enumerators to potentially out-of-date or nonexistent addresses. According to Census Bureau officials, if questionnaires are sent to nonexistent addresses and are not returned, the Census Bureau must send out enumerators to the nonresponsive addresses and determine where the addresses are located, a process that is costly.[50]

- **Department of Housing and Urban Development—**USPS's address data help HUD forecast and assess neighborhood changes. HUD purchases quarterly updates of aggregated and anonymized USPS address data to forecast neighborhood changes, target funding, assess neighborhood needs, and measure the performance of several HUD programs.[51] For example, officials told us HUD has used USPS's address data to assess the displacement of New Orleans residents and neighborhood recovery trends following Hurricane Katrina. HUD has also used USPS's address data to assess investment and development in Opportunity Zones[52] and to help identify at-risk areas to target Neighborhood Stabilization Program funding.[53] According to HUD officials, the data they receive from USPS are highly valuable because they are current, not subject to sampling error, and allow for trend analysis because HUD receives them on a quarterly basis. HUD additionally aggregates USPS's address data and sublicenses access to approved government and

[50]In the 2010 Census, the Census Bureau hired over 600,000 employees to visit about 50 million non-responsive addresses at a cost of over $2 billion (in real 2020 dollars).

[51]USPS is authorized to furnish property and services to federal executive agencies. 39 U.S.C. § 411. The dataset HUD receives contains aggregated counts of total residential and business addresses and whether they are vacant or if mail carriers do not deliver to an address for other reasons, such as new constructions.

[52]An Opportunity Zone is an economically-distressed community where new investments, under certain conditions, may be eligible for preferential tax treatment. They were established in the Tax Cuts and Jobs Act of 2017 to spur economic development by providing tax benefits to investors. Pub. L. No. 115-97, § 13823 (2017).

[53]The Neighborhood Stabilization Program was established to provide emergency assistance to stabilize communities with high rates of abandoned and foreclosed homes. According to HUD, Congress appropriated nearly $7 billion in grant funding from 2008–2010 to be administered by HUD.

non-profit entities.[54] According to HUD and USPS officials, the aggregated data were initially publicly available at no cost, but following strong interest from commercial entities, USPS and HUD restricted access to only certain entities for specific purposes.[55]

- **Animal and Plant Health Inspection Service—**Since 2014, APHIS has purchased USPS change-of-address data.[56] USPS's address data have helped APHIS mitigate the spread of migratory pests, such as the gypsy moth. Per an interagency agreement, USPS sends APHIS select change-of-address records of households that have moved from a quarantined area to a non-quarantined area. Such a move can introduce the risk of infestation to the non-quarantined area. The gypsy moth, for example, has been known to travel along with a household (e.g., on outdoor furniture).[57] According to APHIS officials, they use USPS records as part of a predictive risk model to identify areas to target for outreach and pest detection surveys. Officials told us that this allows APHIS to maximize the effect of available funds and other resources.

Officials told us USPS has considered leveraging its address data for additional revenue-generating efforts but is restricted in what it can make available and to whom. USPS is prohibited from disclosing names or addresses (past or present) of postal patrons or other persons.[58] In limited circumstances, USPS is allowed to share some address data with executive branch agencies, as noted above. USPS also sells or licenses various address data products and services to commercial mailers, which

[54]For example, researchers from the University at Buffalo used data from USPS and HUD to assess long-term address vacancy and poverty rates in Buffalo, New York. See Robert Mark Silverman, Li Yin, and Kelly L. Patterson, "Dawn of the Dead City: An Exploratory Analysis of Vacant Addresses in Buffalo, NY 2008–2010," in *Journal of Urban Affairs* (Milwaukee, Wisconsin: 2012).

[55]Entities must apply and agree to only use the data for measuring and forecasting neighborhood change, assessing neighborhood needs, and measuring or assessing various HUD programs in which the users are involved. USPS officials told us they are working on developing a commercial address vacancy product.

[56]APHIS has paid about $5,000–$9,000 per year for these data.

[57]The gypsy moth is an invasive species that causes harm to forests and can be transported on outdoor household articles. Residents moving from a gypsy moth quarantined area to a non-quarantined one are required to obtain a certificate for outdoor household items for signs of the moth before moving. See 7 C.F.R.§ 301.45

[58]See 39 U.S.C. § 412.

generate some revenue.[59] For example, USPS reported $26.5 million in revenues from its commercial address products in fiscal year 2018. USPS officials and stakeholders we spoke with noted that there may be additional value in USPS's address data, especially if some of these restrictions were removed.

Other Selected Nonpostal Services That Could Leverage USPS's Last Mile Network May Provide Some Benefits but Also Have Limitations

Adding New Nonpostal Services to Mail Carrier Activities May Result in Societal Benefits but Could Increase Costs and Affect Mail Service

Adding nonpostal services to mail carrier activities continues to be proposed by some as a way for USPS to extract value from its extensive last mile network. Stakeholders and subject matter experts we spoke with identified several new nonpostal services that mail carriers could provide, if authorized, and considered the feasibility of those services. Further, the USPS OIG reported on additional services mail carriers could provide to generate additional revenues for USPS or address community needs.[60] Of all identified potential nonpostal services, we selected two to assess in depth based, in part, on our feasibility surveys of officials from USPS, the USPS OIG, postal employee unions, and another subject matter expert (see fig. 5):[61]

- Mail carriers checking in on older or homebound residents for a fee, and

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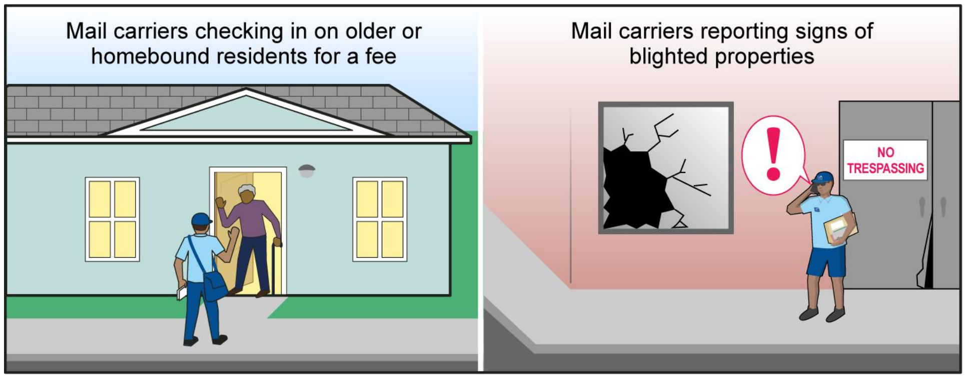
[59]USPS's commercial address products and services are generally used to update and check the accuracy of customer-provided address lists. USPS does not provide names or addresses of postal patrons.

[60]See USPS OIG, *The Postal Service and Cities: A "Smart" Partnership*, RARC-WP-16-017 (Sept. 26, 2016); and USPS OIG, *Delivery Operations – Additional Carrier Services*, DR-MA-14-004.

[61]While we only selected two nonpostal services that mail carriers could provide, if authorized, we believe the benefits and limitations would be similar to benefits and limitations for other mail carrier nonpostal services.

- Mail carriers reporting signs of blighted properties.[62]

Figure 5: Two Potential Nonpostal Services That Could Be Provided by U.S. Postal Service Mail Carriers



Source: GAO. | GAO-20-190

Potential Benefits

If authorized, adding nonpostal services—such as checking in on homebound and older residents and reporting signs of blighted properties—to existing mail carrier activities could produce societal benefits, according to prior studies and stakeholders we interviewed. According to the USPS OIG, mail carriers on their daily routes already serve a valuable neighborhood watch function, alerting authorities to accidents, dangerous situations, and customers who have become incapacitated through accidents or illness.[63]

- **Enhanced societal benefits—**Some stakeholders we interviewed agreed that adding nonpostal services to mail carrier activities could result in societal benefits, such as social connectedness for at-risk populations. Representatives we spoke with at AARP stated that mail carrier check-ins could help decrease social isolation among older Americans and increase community connectedness. According to national polls, USPS mail carriers are among the most trusted federal government employees. To take advantage of a similar connection,

[62]HUD considers a structure to be “blighted” when it exhibits objectively determinable signs of deterioration sufficient to constitute a threat to human health, safety, and public welfare. See 24 C.F.R. § 570.483.

[63]USPS OIG, *The Postal Services’ Role as Infrastructure,* RARC-WP-15-003 (Dec. 15, 2014).

some foreign postal operators currently offer check-in services for older residents. For example, La Poste, France's postal operator, offers a service called Watch Over My Parents *(Veiller Sur Mes Parents)* where mail carriers make regular visits to elderly residents for a monthly fee. According to La Poste, this service helps fulfill the government's goal of assisting elderly citizens in need.

Mail carriers reporting signs of blighted properties in communities can also enhance societal benefits. We previously found that mail carriers are familiar with the local living conditions in their communities and, in some communities, can identify hazardous locations along delivery routes.[64] Mail carriers reporting signs of blighted properties could help cities and municipalities preemptively target and ameliorate housing blight, which can depress home values and lead to population loss. According to a March 2017 study, for most cities, blighted properties are reported on an ad-hoc basis, either through citizen complaints, intermittent code inspections, or the random citing by a city official.[65] While less costly or labor-intensive, data received in this ad-hoc manner can be biased or inconsistently collected. According to the USPS OIG, mail carriers' daily presence would allow city governments to identify problems quickly and the information would be reliable because it comes from a trusted source.[66]

- **Reduced costs for government entities—**Some stakeholders we interviewed and a USPS OIG report suggested that adding nonpostal services to mail carrier activities could reduce costs for other governmental entities. In particular, officials noted potential cost savings and efficiencies through carriers systematically reporting signs of blighted properties, major neighborhood changes, or assessing housing outcomes after major disasters. According to the USPS OIG, city officials from Chicago, Richmond, and Memphis stated that mail carriers could provide additional assistance and reduce costs by identifying blighted properties and notifying city officials when mail delivery ceases.[67] A 2017 study on housing blight reported that identifying blight would require cataloging potentially

[64]GAO-11-874.

[65]Bradley Pough and Qian Wan, "Data Analytics and the Fight Against Housing Blight: A Guide for Local Leaders" in *Response Communities* (Mar. 2017).

[66]USPS OIG, *The Postal Service and Cities,* RARC-WP-16-017.

[67]USPS OIG, *The Postal Service and Cities,* RARC-WP-16-017.

tens of thousands of homes within city borders, requiring significant local government resources.[68]

Given that the most common method for identifying blight is to physically inspect the outside of properties through ground-level inspection, cities could defray costs of hiring government inspectors by having mail carriers report blight-related issues. The USPS OIG reported that mail carriers' unique knowledge of their routes and neighborhoods position them to alert appropriate city officials when a property has been abandoned or become blighted and that problems would be caught because of the daily presence of the carrier.[69] HUD has hired individuals to assess recovery efforts after a major disaster to determine whether homes were abandoned or not, which HUD officials told us could be costly. According to HUD and Federal Emergency Management Agency officials, mail carriers can be helpful in reporting housing conditions after major disasters and reduce costs to the federal government. As many cities in the United States are fiscally constrained, this new service could help local governments save the time, effort, and resources necessary to identify blighted properties and assess housing outcomes after major disasters.

- **Increased trust in federal government—**Some stakeholders we interviewed noted that adding nonpostal services to mail carrier activities could enhance trust in USPS and the federal government. USPS officials we spoke to stated that mail carriers checking in on older or homebound residents for a fee could generate goodwill and increase trust in the federal government. For example, stakeholders we spoke to—including representatives from a postal employee union, a postmasters union, and an industry group—stated that assisting older and homebound residents would reinforce mail carriers' existing reputation as the most trusted federal employees and USPS's image as a trustworthy federal entity as noted earlier. The USPS OIG reported that mail carriers reporting signs of blighted properties could also promote the public good and generate intangible benefits like increasing goodwill.[70]

[68]Pough and Wan, "Data Analytics and the Fight Against Housing Blight."

[69]USPS OIG, *The Postal Service and Cities,* RARC-WP-16-017.

[70]USPS OIG, *The Postal Service and Cities,* RARC-WP-16-017.

Potential Limitations

Stakeholders identified revenue, cost, and operational limitations to adding nonpostal services—such as checking in on homebound and older residents and reporting signs of blighted properties—to existing mail carrier activities.

- **Limited net revenue potential—**There is significant uncertainty regarding the potential net revenues that could be gained from mail carriers providing nonpostal services. USPS officials we spoke with were not able to quantify the potential costs and revenues for several reasons. To determine the net revenue potential for a check-in service, USPS officials told us they would have to assess a number of factors including the tasks performed (e.g., house maintenance or trash disposal); time associated with those tasks (e.g., number of conversations that would be added to the mail carrier's delivery route); costs associated with the tasks; market demand and consumers' willingness to pay; and fee and payment structure (e.g., a one-time fee or monthly or subscription-based fee). Officials from France's La Poste told us that revenues from its comparable mail carrier check-in service are nominal and range from €150,000–€200,000 per year (approximately $170,000—$220,000 in U.S. dollars). Officials from the United Kingdom's Royal Mail stated that nonpostal services have historically not been profitable. Similarly, HUD officials we interviewed told us that although reporting signs of blighted properties could provide value to cities and communities, revenue potential is low and payment for such services would likely have to come from state or local governments.
- **Additional training—**Adding nonpostal services to mail carrier activities could likely result in additional costs to USPS because of additional mail carrier workhours and training costs. Implementation of nonpostal mail carrier services could require training over 340,000 mail carriers to perform new duties. USPS and La Poste officials and AARP representatives confirmed that providing a check-in service for older and homebound residents would require additional training or certification depending on what activities the check-ins entail. According to USPS officials, reporting blighted properties while delivering mail could also add to USPS's costs if the mail carrier were required to take photographs of the properties, for example. As we discuss later in this report, the costs of these services, including for training USPS employees, are unknown since USPS has not fully assessed them.

- **Adverse effect on service delivery—**Providing nonpostal services may detract from the mission of USPS by taking mail carriers away from their mail delivery duties. USPS officials and other stakeholders, including representatives from AARP, a mailer industry group, and a postal employee union agreed that adding nonpostal services to current mail carrier duties could adversely affect service delivery. According to USPS and PRC annual reports, USPS already struggles to meet its delivery goals, and USPS officials maintained that additional nonpostal services they may consider are primarily those that would not add to basic mail carrier duties.[71]
- **Lack of familiarity with residents and communities due to changing mail carriers and delivery routes—**Rotation of mail carrier and routes may reduce carriers' familiarity with residents and communities—a key advantage of mail carriers providing nonpostal services. USPS has had to adjust delivery methods and optimize mail carrier routes to accommodate changes in mail volume, changes that could mean that a mail carrier who typically serves a neighborhood or community could change. AARP representatives noted that mail carrier turnover and rotating mail delivery schedules could limit the benefits of a check-in service for older and homebound residents. Similarly, a new mail carrier who does not have familiarity with the mail route and the surrounding community could be less effective in reporting signs of blighted properties or neighborhood changes.

Using Delivery Vehicles for Nonpostal Services Could Generate Revenues but Would Pose Technical Challenges

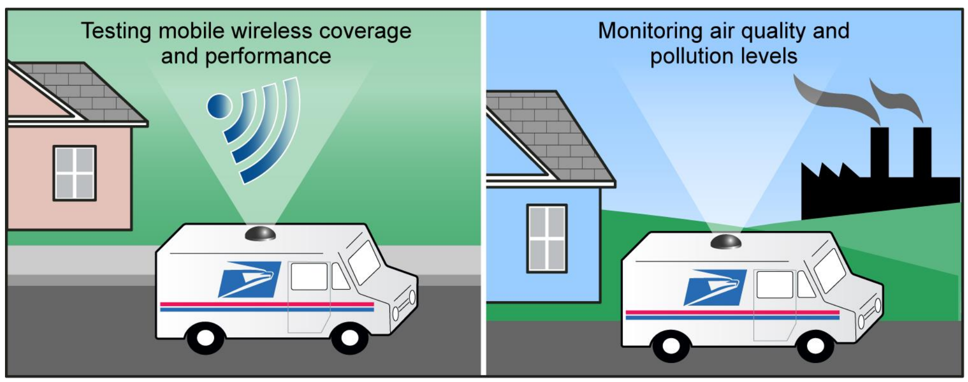
Similar to nonpostal services provided by mail carriers, utilizing delivery vehicles to provide additional nonpostal services continues to be proposed as a way for USPS to add value to its extensive last mile network. The USPS OIG and subject matter experts we spoke to previously reported on various applications to collect data using mobile

[71]PRC found that USPS failed to meet its performance and timeliness goals for many categories of mail in fiscal year 2018. See PRC, *Analysis of the Postal Service's FY 2018 Annual Performance Report and FY 2019 Performance Plan* (May 13, 2019).

sensors attached to delivery vehicles.[72] For example, the USPS OIG identified four such pilot opportunities, such as collecting data on pavement and bridge conditions. Of the identified potential nonpostal services, we selected two to assess in depth based, in part, on our surveys of officials from USPS, the USPS OIG, postal employee unions, and another subject matter expert on the feasibility of various options (see fig. 6):

- Collecting data on mobile wireless coverage and performance, and
- Collecting data on air quality and pollution levels.

Figure 6: Two Potential Nonpostal Services That Could Be Provided through Mobile Sensors Attached to U.S. Postal Service Delivery Vehicles



Source: GAO. | GAO-20-190

Potential Benefits

- **Potential revenue generation—**Some stakeholders we interviewed agreed that using USPS delivery vehicles to collect mobile wireless coverage and air pollution data, among other types of information, could potentially result in revenue generation from third parties. FCC officials said that, mobile wireless service providers generally contract with private companies that drive vehicles outfitted with drive testing measurement equipment to measure coverage and performance, which can range in cost depending on the capabilities of the

[72]USPS OIG, *The Postal Service and Cities: A "Smart" Partnership,* RARC-WP-16-017 (Sept. 26, 2016).; Michael J. Ravnitzky, "Offering Sensor Network Services Using the Postal Delivery Vehicle Fleet," in *Reinventing the Postal Sector in an Electronic Age,* ed. Michael A. Crew and Paul R. Kleindorfer (Northampton, Mass.: Edward Elgar Publishing, 2011).

equipment.[73] According to FCC officials, certain mobile wireless service providers are required to supply their coverage and or performance information to the FCC semi-annually.[74] Other entities have also performed their own vehicle-based testing to assess coverage claimed by mobile wireless providers.[75] USPS officials told us that this option could introduce new business opportunities that could leverage USPS delivery vehicles to collect these data and possibly generate revenue. EPA officials also confirmed that it is possible for USPS to partner with researchers or a private company to collect air quality and pollution data. Given the nationwide scale of USPS's fleet and the frequency of mail delivery, USPS could generate revenue by collecting and licensing the data on its own. However, whether the revenue would be sufficient to amount to a net positive income stream would depend on market demand and the level of effort and costs involved to get the service to market. Regardless, while any net revenues generated from these nonpostal services would benefit USPS, it is not likely that they would materially affect USPS's financial condition, given the extent of USPS's yearly operational losses.

- **Little interference with mail delivery—**Some stakeholders and the USPS OIG noted that data collection through vehicles would likely not interfere with mail delivery. Unlike nonpostal mail carrier services, which would temporarily disrupt mail delivery duties, USPS delivery vehicles could collect data passively and therefore would not interfere with mail delivery operations. According to FCC and EPA officials, mobile wireless coverage and performance and air quality data could be collected by mounting a mobile sensor and drive testing equipment

[73]According to FCC, drive testing is generally used for competition evaluation and network optimization conducted by contractors under the complete management and technical standards of the providers. Under certain circumstances, however, FCC requires mobile wireless providers to submit data from drive tests to verify their compliance with specific coverage and performance standards. *See, e.g.*, 47 C.F.R. §§ 54.1006(a)-(c). 54.1009(a)(3); *see also Applications of T-Mobile US, Inc., and Sprint Corporation for Consent to Transfer Control of Licenses and Authorizations*, Memorandum Opinion and Order, Declaratory Ruling, and Order of Proposed Modification, FCC 19-103 (2019) (conditioning approval of the transaction on the verification of coverage and performance through drive tests).

[74]47 C.F.R. §§ 1.7001, 1.7002.

[75]For example, see Vermont Department of Public Service, *Mobile Wireless in Vermont* (Jan. 15, 2019).

either inside or outside the USPS delivery vehicle.[76] Once attached to the vehicle, mail carriers would not be expected to operate the equipment. FCC officials also added that because USPS already has the delivery network infrastructure reaching all addresses across the United States, passively capturing mobile wireless coverage and performance data through USPS delivery vehicles could be especially beneficial in identifying coverage gaps or poor performance in rural and hard-to-reach areas.

- **Independent source of data—**Some stakeholders we interviewed also noted that data collected by USPS could provide unbiased information. USPS and FCC officials and a representative from CTIA—an industry group representing mobile wireless providers—told us that having a trusted government entity or an independent assessor to collect mobile wireless coverage and performance data could be a helpful supplement to mobile wireless providers' coverage data. We previously reported that mobile wireless service providers may overstate coverage, especially in rural areas, to access federal funding.[77] Further, FCC and USPS officials added that USPS-collected mobile wireless coverage and performance data could be more extensive and likely more statistically valid (given the consistency and frequency of mail delivery) than the snapshot data that private companies currently collect. Similarly and as noted in a 2017 study, data routinely collected from delivery vehicles (in this case USPS's) could provide another data source for environmental agencies and researchers and help inform policy decisions.[78]
- **Flexibility in level of involvement—**USPS could choose its level of involvement if it were to use its delivery vehicles for nonpostal services. According to USPS and USPS OIG officials, and subject matter experts, USPS could lease or rent space on its delivery vehicles for third parties to attach sensors and collect data. USPS officials confirmed that USPS currently has authority to rent space on

[76]The specific location of the sensor device or other equipment on the vehicle will influence the quality, interpretation, and potential use of the data.

[77]GAO, GAO-18-630, *Broadband Internet: FCC's Data Overstate Access on Tribal Lands* (Washington, D.C.: Sept. 7, 2018).

[78]Joshua S. Apte, Kyle P. Messier, Shahzad Gani, Michael Brauer, Thomas W. Kirchstetter, Melissa M. Lunden, Julian D. Marshall, Christopher J. Portier, Roel C.H. Vermeulen, and Steven P. Hamburg, *High-Resolution Air Pollution Mapping with Google Street View Cars: Exploiting Big Data*, (June 5, 2017).

its delivery vehicles.[79] In that scenario, the third party would be responsible for installing and maintaining the sensors, collecting the data, and ensuring data security, which would reduce some of the technical challenges for USPS, but could also reduce revenue potential. In contrast, USPS could operate as a “full service provider,” which would require USPS to own the hardware and software in addition to managing data collection, storage, and analysis. As a full service provider, USPS could potentially collect higher fees for the data. According the USPS OIG, USPS could start with a business model that has a low level of involvement and, if successful, consider advancing to a full service provider model.[80]

Potential Limitations

Stakeholders cited two potential limitations of collecting data through mobile sensors and drive testing equipment attached to USPS delivery vehicles.

- **Up-front costs—**If USPS operated as a full service provider by purchasing its own equipment and analyzing and selling the data itself, it would require large up-front costs. According to EPA officials, vehicle-based air quality data collection may be costly because these efforts could require several different sensors depending on the intended purpose. For example, detecting certain air pollutants could require several different sensors. Similarly, depending on the mobile wireless data collected, FCC officials told us there is wide range in cost of equipment depending on the capabilities required and data collected.
- **Technical specifications—**Collecting, storing, and analyzing large amounts of data could be a complex undertaking for USPS. According to EPA and FCC officials and a CTIA representative, several technical factors must be controlled for when collecting these data. For example, EPA officials told us that collection efforts would likely need to be configured to control for environmental interference (e.g., emissions from other vehicles) and integrated with USPS’s delivery routes. A CTIA representative added that USPS-collected mobile wireless coverage and performance should not be the exclusive

[79]According to USPS officials, leasing space on USPS property was one of the nonpostal services that were grandfathered by the PRC after enactment of PAEA.

[80]USPS OIG, *The Postal Service and Cities, A “Smart” Partnership*, RARC-WP-16-017 (Sept. 26, 2016).

source of these data for similar reasons and could potentially impose new burdens on mobile wireless providers. FCC officials also stated that developing the equipment to test mobile wireless coverage and performance would be costly and time consuming. Once collected, packaging the data in a way that would appeal to potential customers wishing to purchase such data could be costly and challenging since different customer types would have their own data needs.[81] According to the USPS OIG and two subject matter experts, greater control of the technology and data process would likely lead to greater revenue potential. A USPS official we interviewed also added that USPS already has advanced capacity for data analytics.

USPS is in the early stages of considering whether or not these types of services warrant further action. For example, as previously noted, USPS has conducted several pilots with a private company to collect data for road and pavement assessments using USPS delivery vehicles. Further, USPS plans to issue a request for proposal to leverage its delivery vehicles to capture data along its routes and is considering additional vehicle-based services.

As discussed above, given that these potential services present both benefits and limitations, the decision to pursue them—including addressing current legal prohibitions on providing nonpostal services—is dependent on what the goal is for providing those services. If the goal of offering such nonpostal services is solely to generate net revenue, we identified only a few potential services with such potential, and those services are not likely to significantly improve USPS's financial condition. They also could affect the provision of basic postal services in some cases. If the goal is to maximize the societal benefits of USPS's vast and unique delivery network, we identified some services USPS is well positioned to offer that could enhance societal benefits. However, it is possible that these services would not generate net revenue, instead increasing costs for USPS in a variety of ways. USPS officials told us that these factors are among those they are considering in deciding whether to further explore certain new nonpostal services.

[81]EPA and FCC officials could not provide us estimates of the additional costs since they have not tested these potential nonpostal services.

Agency Comments

We provided a draft of this report to the Census Bureau, EPA, FEMA, FCC, HUD, USDA, and USPS. The Census Bureau and FCC provided technical comments, which we incorporated as appropriate. USPS provided a written response, which is reproduced in appendix II.

In its response, USPS noted that it is prohibited by statute from offering new types of nonpostal services other than those grandfathered in when the law was enacted. Further, according to USPS, adding nonpostal services to the current duties of mail carriers could negatively impact mail delivery services and jeopardize the ability of USPS to carry out its universal service obligation.

We are sending copies of this report to the appropriate congressional committees, the Postmaster General, the Chairman of PRC, and other interested parties. In addition, the report will be available at no charge on the GAO website at http://www.gao.gov.

If you or your staff members have any questions about this report, please contact me at (202) 512-2834 or rectanusl@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made major contributions to this report are listed in appendix III.

Sincerely yours,

Lori Rectanus

Lori Rectanus,
Director, Physical Infrastructure Issues

Appendix I: Objectives, Scope, and Methodology

Our objectives in this report were to (1) examine the costs associated with U.S. Postal Service's (USPS) last mile delivery network and the extent to which they have changed since 2008, (2) review efforts USPS has taken since 2008 to leverage its last mile delivery network for nonpostal services and the results, and (3) examine the benefits and limitations of leveraging USPS's last mile delivery network for additional nonpostal services. In this report, we used the term "nonpostal" to refer to efforts that are not directly related to mail delivery.[1]

In this report, we defined USPS's last mile delivery network costs as expenses associated with street delivery activities—that is, once a mail carrier has left a delivery unit (such as a post office). We also included the costs of supporting functions, such as mail carrier supervision for street delivery activities and delivery vehicles and vehicle maintenance. Our definition of "last mile delivery" differs from how USPS defines and reports "delivery" because we excluded in-office costs, among other differences.[2]

Further, we based our estimates on the costs of street delivery activities through USPS's existing network. As such, our last mile delivery cost estimates should not be taken to indicate potential costs that could be saved or avoided by eliminating street delivery. According to USPS officials, last mile delivery is designed as part of a system that includes warehousing, transportation, and delivery costs in a way that attempts to minimize overall costs. For example, this system could include additional office and warehousing costs if it would save even more street delivery costs. Eliminating street delivery would result in USPS reorganizing its

[1]A "postal service" is defined as the delivery of letters, printed matter, or mailable packages, including acceptance, collection, sorting, transportation, or other functions ancillary thereto. See 39 U.S.C. §§ 102(5). In addition, the Postal Service was statutorily authorized, subject to Postal Regulatory Commission's approval, to provide "nonpostal services" offered as of January 1, 2006. The term "nonpostal service" is defined by statute to mean any service that is not a "postal service." See 39 U.S.C. § 404(e)(1).

[2]USPS has also referred to services such as those offered to bulk shippers that drop parcels deeper into its network for USPS to deliver as "last mile" deliveries. Office activities refer to casing and sequencing mail for delivery, while street activities are those that occur once the mail carrier has left the delivery unit.

delivery unit network and the structure of its in-office activities. According to USPS, the estimated cost savings of a network without street delivery could only be estimated with a detailed operational analysis that would construct a postal service network without delivery and calculate the cost differential between its current state and its new state without a delivery function. However, this analysis was outside the purposes of this report, as our objective was not to estimate potential costs saved or avoided if street delivery activities were to be eliminated.

To examine key costs associated with USPS's last mile network and the extent to which they have changed over time, we reviewed and analyzed data on USPS's costs from its *Annual Compliance Reports* for fiscal years 2008 through 2018, which USPS files with the Postal Regulatory Commission (PRC)—an independent establishment of the executive branch that regulates USPS.[3] Specifically, we reviewed various folders within the *Annual Compliance Report,* including USPS's *Public Cost Segments and Components Reports, Non-Operation Specific Piggyback Factors report, Cost and Revenue Analysis Model, Cost Segment 3 Cost Pools and Other Related Information,* and as well as supporting documentation. We also reviewed USPS's *Annual Tables, Fiscal Year 2018 (Total Factor Productivity)* report. We selected the 2008–2018 time frame to begin our analysis in the first full fiscal year following enactment of the Postal Accountability and Enhancement Act (PAEA) on December 20, 2006, which made changes to USPS reporting requirements.[4]

Based on reviews of PRC and USPS Office of Inspector General (USPS OIG) reports as well as interviews with USPS officials, we developed a methodology to estimate costs associated with USPS's street delivery activities through USPS's existing network using data from relevant cost components from USPS's *Annual Compliance Report.* Although we defined "last mile delivery" differently than USPS defines "delivery," we discussed our methodology with USPS officials and they considered our approach to be reasonable for the purposes of our reporting objectives. Along with USPS's input, we reviewed related documentation, corroborated data across sources, and determined our estimates were reliable for the purposes of our reporting objectives.

[3]We use the term "key last mile costs" because our last mile cost estimates do not include all expenses that could be associated with street delivery activities, such as mail carrier retiree health benefits costs, because there is not a reliable way to estimate the amounts associated with street delivery activities.

[4]Pub. L. No. 109-435, (2006).

- We used USPS's *Non-Operation Specific Piggyback Factors* reports for fiscal years 2008–2018, which identify cost components that support major functions (specifically city and rural delivery), to identify cost components that could be associated with street delivery activities. For example, the 2018 report identifies 57 cost components that directly or indirectly contribute to city delivery costs and 34 that contribute to rural delivery costs.
- While mail carriers perform both in-office and street activities, our analysis focused only on costs associated street delivery functions. To exclude cost components associated with office activities, we reviewed supporting documentation describing of each of these cost components and categorized all cost components into those that relate to street activities and those that relate to office activities. We asked USPS to assess the accuracy of these categorizations. USPS made some minor adjustments to our categorizations, which we incorporated into our analysis. USPS provided us total annual accrued costs for each relevant cost component using data from its *Cost and Revenue Analysis Model* for fiscal years 2008–2018.
- While city carriers are compensated on an hourly basis and USPS separates these costs into office and street functions, rural carriers are generally compensated based on route assessments, which do not separately account for office and street costs. We estimated rural carrier street costs using rural route evaluation forms and Rural Mail Count weekly averages provided by USPS. We identified three cost components that included both office and street costs for rural carriers and applied the percentage of estimated street time to the total accrued costs of each cost component for each year to exclude estimated office costs.
- To estimate mail carrier, carrier supervisor, and vehicle maintenance employee workhours for 2008–2018, we divided total personnel expenses for each craft by their respective productive hourly rate, as listed in each year's *Cost Segment 3 Cost Pools and Other Related Information* report.
- We obtained total employee workhours and career and non-career employee workhours from USPS's *Annual Tables, Fiscal Year 2018 (Total Factor Productivity).*
- We obtained figures on USPS's operating expenses, total employee compensation and benefits expenses, number of employees, mail volume, delivery vehicles, delivery points, and delivery routes from USPS's *Reports on Form 10-K* submitted to PRC and *Annual Report to Congress and Comprehensive Statement on Postal Operations.*

To further inform our analysis of USPS street delivery costs and trends and factors that affect them, we also reviewed prior GAO reports, PRC reports such as its *Financial Analysis of United States Postal Service Financial Results and 10-K Statement* reports and various regulatory orders; USPS reports, including its *Reports on Form 10-K, Annual Report to Congress and Comprehensive Statement of Postal Operations,* and other documentation; various USPS OIG reports; and select academic literature, which we identified largely through stakeholders and subject matter experts. We additionally interviewed USPS, USPS OIG, and PRC officials; subject matter experts; and industry stakeholders, such as mailer associations, about USPS's delivery costs.

Separately, we made certain adjustments to USPS's total operating expenses by excluding certain components of workers' compensation and retirement benefits expenses that do not relate to active employees' compensation costs because they are costs related to services performed in the past, and thus do not reflect the effect of operational changes. To make these adjustments, we replaced certain amounts as stated in USPS's results of operations and operating expenses from its *Reports on Form 10-K* with costs only associated with active employees for their current year of service.[5] We then summed a new total for each year within our period of analysis. We refer to the amounts resulting from these adjustments as USPS's "modified operating costs" in this report. The net totals of these excluded items ranged from $1.2 billion to $13.0 billion in additional operating expenses each year between fiscal years 2008 and 2018.[6] We made the following adjustments to USPS's total operating expenses:

- Compensation and benefits—We did not make any changes to compensation and benefits costs. These consist of costs related to USPS's active career and non-career employees, including USPS expenses for active employee health insurance, Federal Employees Retirement System normal costs, and Social Security and Thrift

[5]For more information on these items, see USPS, *2018 Report on Form 10-K* (Washington, D.C.: Nov. 16, 2018).

[6]On average, the net totals of these excluded expenses were $5.9 billion from fiscal years 2008 through 2016 and $1.5 billion in fiscal years 2017 and 2018.

Savings Plan contributions.[7] The relevant portions of these expenses are included in our estimates of last mile delivery costs.

- Unfunded pension benefits amortization—These required annual amortization payments are for the purposes of paying down unfunded pension liabilities in the Civil Service Retirement System and Federal Employees Retirement System and are costs attributable to benefits earned in the past rather than current service.[8] We excluded these amounts because they do not relate to current costs associated with active employees and thus do not reflect the effect of changes in current operations. As noted above, USPS's Federal Employee Retirement System normal costs are included in "compensation and benefits," and USPS does not incur normal costs for Civil Service Retirement System Retirement benefits.
- Retiree health benefits—We replaced the total reported retiree health benefits expenses with only the normal costs, including those that were implicitly included in Postal Service Retiree Health Benefits Fund fixed "prefunding" prepayments from fiscal years 2008–2016.[9] Following the enactment of PAEA, subsequent statutory changes reduced the 2009 prefunding requirement from $5.4 billion to $1.4 billion[10] and delayed the $5.5 billion payment initially due during fiscal year 2011 to fiscal year 2012.[11] This resulted in a requirement to make payments of $5.5 billion and $5.6 billion ($11.1 billion total)

[7]The "normal cost" is the annual expected growth in liability attributable to an additional year of employees' service. The majority of career USPS employees participate in either of two federally defined benefit pension programs, the Civil Service Retirement System or the Federal Employees Retirement System. By law, USPS does not incur normal costs for Civil Service Retirement System retirement benefits. See 5 U.S.C. § 8334(a)(1).

[8]Over our period of analysis, USPS did not incur these expenses until fiscal year 2014. PAEA suspended USPS Civil Service Retirement System contributions until fiscal year 2017.

[9]Under PAEA, the first 10 years (through fiscal year 2016) of prepayments were fixed, and USPS was also required to continue "pay-as-you-go" payments for its share of premiums for current retirees. The permanent schedule for USPS payments to prefund retiree health benefits under PAEA started in fiscal year 2017 and is based on actuarial funding principles. USPS is required to make annual payments based on actuarial determinations of: (1) a 40-year amortization schedule to address the unfunded liabilities and (2) the normal costs for current employees. For more information on the Postal Service Retiree Health Benefits Fund, see GAO, *Postal Retiree Health Benefits: Unsustainable Finances Need to Be Addressed,* GAO-18-602 (Washington, D.C.: Aug. 31, 2018).

[10]Pub. L. No. 111-68, § 164(a) (2009).

[11]Pub. L. No. 112-74 § 632, (2011).

during fiscal year 2012.[12] However, in our adjusted measure, we included the full amounts of the normal costs for these years ($2.9 billion in fiscal years 2009 and 2011 and $2.8 billion in fiscal year 2012) as retiree health benefits costs and excluded retiree health benefits costs in excess of these amounts. By doing so, we included costs associated with active employees' current year of service and excluded expenses for prior service (retiree health benefits premiums for beneficiaries), unfunded liability amortization expenses, and fixed prefunding prepayments in excess of the normal costs.[13]

- Workers' compensation—We replaced the total reported workers' compensation expense with only the costs of new cases and administrative fees paid to Department of Labor. We additionally applied a 3-year centered moving average to the costs of new cases to smooth out annual variations.[14] By doing so, we excluded the effects of changes in discount and inflation rates and actuarial revaluation of existing cases on USPS's workers' compensation expense. These items can increase or decrease USPS's workers' compensation expense, but they do not reflect costs associated with active employees.
- Transportation—We did not make any changes to transportation expenses. Transportation expenses include the costs USPS incurs to transport mail and other products between its facilities. With the exception of contract delivery services, USPS's costs to deliver mail and other products to delivery points are not included within "transportation" but in "compensation and benefits" for employee costs and in "other operating expenses" for fuel, vehicle maintenance and repair, and other costs. Transportation expenses do not include the compensation of employees responsible for transporting mail and other products between facilities.

[12] USPS did not make either of these payments in fiscal year 2012 but recorded an expense of $11.1 billion.

[13] Until fiscal year 2017, USPS's retiree health benefit expenses consisted of health premiums for beneficiaries and fixed prefunding prepayments into the Postal Service Retiree Health Benefits Fund. Beginning in 2017, premiums for beneficiaries are paid out of the Postal Service Retiree Health Benefits Fund and were not reported as operating expenses.

[14] For example, in our adjustments, the costs of new cases in fiscal year 2017 are the average of these costs in fiscal years 2016, 2017, and 2018. However, fiscal year 2018 is the average of only fiscal years 2017 and 2018; and fiscal year 2008 is the average of only fiscal years 2008 and 2009.

- Other operating expenses—We did not make any changes to "other operating expenses."[15] The relevant amounts of some of these expenses are included in our estimates of last mile delivery costs.
- Non-operating expenses—We excluded these costs because they are not considered "operating expenses" under generally accepted accounting principles.

To describe efforts USPS has taken to leverage its last mile delivery network for nonpostal efforts since 2008, we conducted a review of relevant published literature that included government reports, industry articles, and publications from associations, academia, and subject matter experts, and interviewed USPS officials and other stakeholders. We excluded efforts that are focused on efficiency of USPS mail delivery, primarily related to delivering mail or other products, and efforts not exclusive to the last mile delivery network. For example, we excluded efforts like dynamic routing or use of autonomous vehicles because these efforts are designed to improve the efficiency of USPS's mail and package delivery.[16] We interviewed 11 stakeholders and other organizations, including the USPS OIG, postal employee unions, postal associations, and subject matter experts with knowledge on these recent efforts. We also interviewed executive branch agencies that currently partner with USPS on initiatives—including the Census Bureau, Department of Agriculture, and Department of Housing and Urban Development (HUD)—to obtain views on USPS's current efforts to leverage its last mile delivery network. We reviewed documentation—including memorandums of understanding, interagency agreements, and invoices—to identify instances when other entities leveraged USPS's last mile network and any financial transactions between agencies.

To examine the benefits and limitations of leveraging USPS's last mile network for additional nonpostal services, we reviewed prior GAO reports and relevant documents and reports from USPS, the USPS OIG, foreign postal operators, and select academic literature to identify nonpostal services that USPS could potentially provide through its last mile delivery

[15]"Other operating expenses" include supplies and services; depreciation and amortization; rent and utilities; vehicle maintenance service; delivery vehicle fuel; information technology and communications; rural carrier equipment maintenance; and "miscellaneous other."

[16]For more information on some pilots we excluded, see GAO, *U.S. Postal Service: Addressing Policy Gaps Could Improve Pilot Design and Evaluation for Postal Innovations*, GAO-19-293 (Washington, D.C.: Mar. 14, 2019).

network. We also contacted select foreign postal operators from France and the United Kingdom to obtain views on current efforts they have taken to leverage their last mile delivery networks and to what extent they generated revenues. In particular, we identified three key reports that helped us create an initial list of potential nonpostal services:

- U.S. Postal Service, Office of Inspector General. *Delivery Operations – Additional Carrier Services.* DR-MA-14-004. June 3, 2014.
- U.S. Postal Service, Office of Inspector General. *The Postal Service and Cities: A “Smart” Partnership.* RARC-WP-16-017. September 26, 2016.
- Ravnitzky, Michael J. “Offering Sensor Network Services Using the Postal Delivery Vehicle Fleet.” In *Reinventing the Postal Sector in an Electronic Age,* edited by Michael A. Crew and Paul R. Kleindorfer. Northampton, Massachusetts: Edward Elgar Publishing, 2011.

We then categorized the list of nonpostal services into two groups: (1) services provided by mail carriers, and (2) services provided by postal delivery vehicles. See table 1 for the list of nonpostal services that we initially identified.

Table 2: List of Potential Nonpostal Services for U.S. Postal Service

Services by Mail Carriers
Checking in on older or homebound residents for a fee
Security monitoring services for customers on vacation
Collecting donations for charities door-to-door
Collecting take away boxes for recycling and clothing
Mail carriers serving as Census enumerators
Processing passports at the door
Issuing drivers' licenses and other licensing services at the door
Reading utility meters (gas, electric)
Reporting signs of blighted properties
Recording observations of specified wildlife and game populations (e.g., quail and rabbits)
Services by Postal Delivery Vehicles
Monitoring for chemical or biological agents or radiological materials
Identifying and monitoring for gas leaks
Monitoring air quality and pollution levels
Testing for mobile wireless coverage and performance
Monitoring parking or pedestrian traffic patterns
Biological surveying (e.g., airborne pollen and bacteria counts)
Pest control via pheromone dispersion
Photo imaging and street photography (e.g., "street view")
Mapping roads
Monitoring traffic patterns
Monitoring bridge conditions and integrity
Mapping electric and magnetic fields
Measuring noise signals and profiles (e.g. airports, factories, or construction sites)
Collecting weather data

Source: GAO interviews and analysis of USPS Office of Inspector General reports and other literature. | GAO-20-190

We then surveyed officials from USPS, postal unions, the USPS OIG, and other subject matter experts about their views of the feasibility of additional services and any key considerations when implementing the services. Based on these surveys and interviews and using criteria, we narrowed down the list of services to four nonpostal services for further review—two services that could be provided by mail carriers and two that could be provided through delivery vehicles. Criteria included technical and operational feasibility, whether the service is provided by a foreign postal operator, and potential privacy concerns, among other factors. We selected the following services: (1) checking in on older and homebound residents for a fee, (2) reporting signs of blighted properties, (3) monitoring mobile wireless coverage and performance, and (4) monitoring air quality and pollution levels.

To obtain a range of views on the benefits and limitations of these efforts, we also reviewed literature and interviewed USPS officials and 11 stakeholders and organizations selected for their expertise including the USPS OIG, postal employee unions, foreign postal operators, and industry groups representing entities potentially affected by the services. We also interviewed officials from several executive branch and independent federal agencies that could potentially benefit from nonpostal services—Environmental Protection Agency (EPA) and Federal Communications Commission (FCC), and Federal Emergency Management Agency—to obtain their views on the benefits and limitations of the potential nonpostal services. We selected two foreign postal operators to interview—France's La Poste and the United Kingdom's Royal Mail—because they have experience with similar nonpostal services. Finally, we also reviewed laws, regulations and legal rulings—including PAEA—to evaluate USPS's legal authority to provide these services.

We conducted this performance audit from October 2018 to December 2019 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings

Appendix II: Comments from the United States Postal Service

KEVIN L. MCADAMS
VICE PRESIDENT, DELIVERY & RETAIL OPERATIONS

UNITED STATES POSTAL SERVICE

December 4, 2019

Ms. Lori Rectanus
Director, Physical Infrastructure Issues
United States Government Accountability Office
441 G Street, NW
Washington, DC 20548-0002

SUBJECT: Draft report review of U.S. Postal Service: Offering of Non-postal Services through its Delivery Network Would Likely Present Benefits and Limitations (GAO 20-190) December 2019

Dear Ms. Lori Rectanus:

We would like to thank you for the opportunity to comment on the United States Government Accountability Office (GAO) Draft Report titled: Offering Non-postal Services through Its Delivery Network Would Likely Present Benefits and Limitations".

The report suggests that the USPS last mile delivery network could be leveraged to support additional non-postal services for generating revenue and enhancing the value it provides to its customers and their communities.

From a legal perspective, the most obvious constraint would be that current laws significantly restrict the non-postal services that USPS can offer. The Postal Accountability and Enhancement Act (PAEA) prohibits the Postal Service from adding new types of non-postal services other than those grandfathered in when the law was enacted.

In addition to the legal restrictions, there are other prohibitive limitations called out in the Draft that the Postal Service faces when considering the addition of non-postal services to include: upfront costs, complex technical specifications for collecting and storing data, limited net revenue, additional training and an adverse effect on mail delivery services.

In terms of revenue and societal benefits, the value of monetary and goodwill non-postal services may not outweigh the cost of time, service delays, fuel, vehicle maintenance, training and the manpower required to provide those services. In addition, inherent financial costs related to increased exposure to liability and risk of litigation could be incurred for services performed incorrectly, tardily or omitted. Furthermore, no model or statistical analysis was provided in the Draft to validate if potential benefits would counterbalance the costs and associated risks.

Finally, adding non-postal services to the current duties of mail carriers could negatively impact mail delivery services and jeopardize the universal obligation of the Postal Service "to provide postal services that bind the Nation through the personal, educational, literary, and business correspondence of the people."

Sincerely,

Kevin L. McAdams

475 L'ENFANT PLAZA SW
WASHINGTON DC 20260-1600
(202) 268-6500
FAX: (202) 268-3331
WWW.USPS.COM

Text of Appendix II: Comments from the United States Postal Service

December 4, 2019

Ms. Lori Rectanus

Director, Physical Infrastructure Issues

United States Government Accountability Office

441 G Street, NW

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Dear Ms. Lori Rectanus:

We would like to thank you for the opportunity to comment on the United States Government Accountability Office (GAO) Draft Report titled: Offering Non-postal Services through Its Delivery Network Would Likely Present Benefits and Limitations".

The report suggests that the USPS last mile delivery network could be leveraged to support additional non-postal services for generating revenue and enhancing the value it provides to its customers and their communities.

From a legal perspective, the most obvious constraint would be that current laws significantly restrict the non-postal services that USPS can offer. The Postal Accountability and Enhancement Act (PAEA) prohibits the Postal Service from adding new types of non-postal services other than those grandfathered in when the law was enacted.

In addition to the legal restrictions, there are other prohibitive limitations called out in the Draft that the Postal Service faces when considering the addition of non-postal services to include: upfront costs, complex technical specifications for collecting and storing data, limited net revenue, additional training and an adverse effect on mail delivery services.

In terms of revenue and societal benefits, the value of monetary and goodwill non-postal services may not outweigh the cost of time, service delays, fuel, vehicle maintenance, training and the manpower required to provide those services. In addition, inherent financial costs related to increased exposure to liability and risk of litigation could be incurred for services performed incorrectly, tardily or omitted. Furthermore, no model or statistical analysis was provided in the Draft to validate if potential benefits would counterbalance the costs and associated risks.

Finally, adding non-postal services to the current duties of mail carriers could negatively impact mail delivery services and jeopardize the universal obligation of the Postal Service "to provide postal services that bind the Nation through the personal, educational, literary, and business correspondence of the people."

Sincerely,

Keven McAdams

Appendix III: GAO Contact and Staff Acknowledgments

GAO Contact

Lori Rectanus at (202) 512-2834 or RectanusL@gao.gov.

Staff Acknowledgments

In addition to the individual named above, Kyle Browning (Assistant Director), Tina Paek (Analyst-in-Charge), Amy Abramowitz, Kenneth John, Delwen Jones, Joshua Ormond, Matthew Rabe, Rachel Stoiko, Matthew Valenta, and Crystal Wesco made key contributions to this report.

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