

UNITED STATES OF AMERICA
POSTAL REGULATORY COMMISSION
WASHINGTON, D.C. 20268-0001

Six-Day to Five-Day Street Delivery
and Related Service Changes

Docket No. N2010-1

CHAIRMAN'S INFORMATION REQUEST NO. 5

(Issued June 11, 2010)

The Postal Service is requested to respond to the following questions to clarify the record on its request for an advisory opinion under 39 U.S.C. 3661(c) for the elimination of Saturday delivery. In order to facilitate inclusion of the required material in the evidentiary record, the Postal Service is to have a witness attest to the accuracy of the answers and be prepared to explain, to the extent necessary, the basis for the answers at hearings. Responses should be provided no later than June 25, 2010.

1. The Postal Service states that tri-weekly routes will continue to exist under 5-day delivery and that service standards will not change. See Response to CHIR No. 2, Question 1.
 - (a) USPS Handbook M-38 "Management of Rural Delivery Services" discusses Tri-Weekly Routes and indicates that Tri-Weekly Routes include a Saturday component on half of the routes. If the Postal Service's proposal to eliminate Saturday delivery is instituted, what would be the effect on the Tri-Weekly routes that incorporate a Saturday Delivery?
 - (b) Please identify the number of Tri-Weekly Routes by Three Digit ZIP Code area or by state.
 - (c) Please identify the approximate total number of customers currently served by Tri-Weekly Routes, if that information is available.

2. Please provide the title page and table of contents only for the following reports conducted for the Postal Service:
 - (a) Reactions to Five-Day Delivery, Opinion Research Corporation, June 1980.
 - (b) Nonbusiness Users of the Postal Service and Their Attitudes Toward Five-Day Delivery, Opinion Research Corporation, April 1980.
 - (c) Reactions to Five-Day Delivery, USPS Marketing Services Division, Contract 104230-76-W-2217, Volumes 1 and 2, 1979.
 - (d) Nonbusiness Users of the Postal System and Their Attitudes Toward Possible Changes the USPS Might Make, Opinion Research Corporation, October 1977.
 - (e) Reactions to Five-Day Delivery (Revised Version), USPS Marketing Services Division, September 1977.
 - (f) Reactions to Five-Day Delivery and Changes in Mail Deposit Patterns, Decision Making Information Inc., Volumes 1 to 3, Contract Number 104230-76-W-2217, August 1977.
 - (g) Five-Day Delivery Task Force Report/Operations, May 19, 1980 [cited on pages 15-16 in the June 9, 2009 Congressional Research Service Report entitled, "U.S. Postal Service and Six Day Delivery: Issues for Congress."].
 - (h) The study on Five-Day Delivery performed by the Postal Service to support the President's Commission on the United States Postal Service during 2002-2003.
 - (i) Any other Five-Day Delivery studies or reports prepared for or by the Postal Service between 2003 and the present that have not already been provided in this case.

3. In a five-day delivery and outgoing processing environment, does the Postal Service plan to make special accommodations for vote by mail in those states

(such as Louisiana) that hold Saturday elections? If so, how will the Postal Service accommodate those states? Has the Postal Service gathered information on how many states and localities hold Saturday elections?

The following question pertains to the direct testimony of witness Granholm (USPS-T-3).

4. Please refer to Tables 1 and 2 below. The employee types shown by row are the same as those appearing in USPS-T-7, Attachment 1.
 - (a) Please provide estimates for the data in the format indicated for city and rural carriers, annually, beginning in FY 2010 and ending in FY 2015.
 - (b) Please provide estimates for the data shown in the two tables indicated in USPS-T-7, Attachment 1 for each of the same period.

Table 1 – City Carriers

Type	BOY Personnel Count	Hires		Retirement		Reduction in Force		Movement Among Types		EOY Personnel Count
		Without Elimination of Saturday Delivery	With Elimination of Saturday Delivery	Without Elimination of Saturday Delivery	With Elimination of Saturday Delivery	Without Elimination of Saturday Delivery	With Elimination of Saturday Delivery	Without Elimination of Saturday Delivery	With Elimination of Saturday Delivery	
FTR										
PTR										
PTF										
Subtotal										
TE										
Casual										
Total										

Table 2 – Rural Carriers

Type	BOY Personnel Count	Hires		Retirement		Reduction in Force		Movement Among Types		EOY Personnel Count
		Without Elimination of Saturday Delivery	With Elimination of Saturday Delivery	Without Elimination of Saturday Delivery	With Elimination of Saturday Delivery	Without Elimination of Saturday Delivery	With Elimination of Saturday Delivery	Without Elimination of Saturday Delivery	With Elimination of Saturday Delivery	
Career										
Non-Career										
Bargaining										
Casuals										
Total										

The following question pertains to the direct testimony of witness Neri (USPS-T-4).

5. Please refer to USPS-LR-N2010-1/NP2, file “Vol_Rev_Contrib_Change_5-Day_Delivery.xls,” tab “Nat'l, Premier & Preferred” and the response to CHIR No. 4, Question 9. The responses to the following subparts require building an Excel spreadsheet starting with the source figures from each of the sources listed. The spreadsheet should also show each step of the calculations performed in order to yield the results reported by the Postal Service in each of the below-referenced cells.
 - (a) Please provide an Excel spreadsheet that demonstrates the steps taken to manipulate the source volume information from “FY 2009 RPW extract reports” and from “CBCIS” to derive the Periodicals Regular and Nonprofit volume figures for National, Premier and Preferred Accounts in cells E69,

F69 and G69; and E70, F70 and G70. See Response to CHIR No. 4, Question 9(a).

- (b) Please provide an Excel spreadsheet that demonstrates the steps taken to manipulate the source “BCI, CBCIS” information to derive the revenue figures for National, Premier, and Preferred Accounts in cells D100, D101 and D102. See Response to CHIR No. 4, Question 9(c).
- (c) Please provide an Excel spreadsheet that demonstrates the steps taken to manipulate the source information from “RPW Extract File” to derive the “volume and revenue profiles” for First-Class, Priority, and Parcel Post meter mail in cells E99, F99 and G99. See Response to CHIR No. 4, Question 9(d).
- (d) Please provide an Excel spreadsheet that demonstrates the calculation, starting with source revenue and volume figures for FY2009, of the revenue per piece for First-Class, Priority, and Parcel Post meter mail in cells H99, I99 and J99. See Response to CHIR No. 4, Question 9(d).

The following questions pertain to the direct testimony of witness Grossmann (USPS-T-5).

6. Witness Grossmann provides estimates of the percentage reduction in Vehicle Service Driver (VSD) transportation and contracted surface transportation that result from eliminating Saturday delivery. “In total, I estimate that the planned changes in processing and delivery will permit the elimination of approximately 20 percent of inter-area HCR transportation on Saturdays and 80 percent on Sundays.” USPS-T-5 at 9. Please provide, in the following tabular format, the percentage reductions of transportation under the appropriate units column for each surface transportation type. Please provide the data in two separate tables, one for Saturday and the other for Sunday.

Surface Transportation Type	Percentage Change in:				Explanation	Source
	Trips	Cubic Feet	Cubic Feet Miles	Other (Specify)		
Inter-Area Transportation						
Inter-Cluster and Inter-P&DC Transportation						
Inter- BMC Transportation						
Intra-BMC Transportation						
Intra-CSD Transportation						
Intra-P&DC Transportation						
Vehicle Service Drivers						

7. Referring to surface transportation, Witness Grossmann states,

To estimate the reduction in overall capacity needs, I reviewed the amount of each type of surface transportation by time of day. I then identified the number of trips of each type and time of day that are linked to Saturday collection and/or delivery. I also considered mitigating factors, such as continued transportation needs for certain types of mail that will continue to be processed on Saturday. From this review, I was able to determine the approximate percent reductions resulting from the proposed mail processing and delivery network.

USPS-T-5 at 7.

- (a) Please provide the “number of trips of each type and time of day that are linked to Saturday collection and/or delivery.”
- (b) Please provide all data and supporting analyses used to estimate these results.
- (c) Please provide all data and supporting analyses used to determine “the approximate percent reductions resulting from the proposed mail

processing and delivery network” by surface transportation mode in the units provided in response to the previous question.

8. Please provide all supporting data and analyses used to estimate the new distributions of air transportation volume by air carrier when moving the eliminated Sunday transportation to Tuesday, as described on page 6 of USPS-T-5.

The following questions pertain to the direct testimony of witness Bradley (USPS-T-6).

9. The Postal Service states that the system-wide carrier cost model $C = C(V, N, Z) = c(V/N, Z)N$ “will hold if the system-wide cost function is linear, but will generally not hold for nonlinear system-wide cost functions such as quadratic or translog.” Response to CHIR No. 3, Question 9. Please consider and comment on the following constant elasticity system-wide cost function $C = N \cdot a(Z) \cdot (V/N)^\epsilon$ where cost per day is equal to $c = a(Z) \cdot (V/N)^\epsilon$ and the shift parameter (a) is shown as a function of Z , the vector of control variables. Note that the system-wide cost function can also be shown as $C = N \cdot a(Z) \cdot V^\epsilon / N^\epsilon$, and therefore:

$$C = a(Z) \cdot N^{(1-\epsilon)} \cdot V^\epsilon.$$

- (a) Would the Postal Service agree that the value for (ϵ) represents the system-wide volume variability for carrier costs? If not, please explain.
- (b) Would the Postal Service agree that the value for $1 - \epsilon$ represents the system-wide elasticity of carrier costs with respect to delivery days? If not, please explain.
10. Please consider and comment on the system-wide cost function $C(V, N, Z)$ as homogenous of degree one with respect to V and N such that $C(V, N, Z)^k = C(V^k, N^k, Z)$. This homogenous cost function, as shown, states that system-

level costs vary in proportion to volume and the number of delivery days. So for example, if $C(V, N, Z)$ represent annual costs, then bi-annual costs can be represented as $C(V, N, Z)*2 = C(V*2, N*2, Z)$, keeping all other variables constant (the Z vector). Costs double over a measurement period that is twice as long (two years) because volume and the number of delivery days also double, when measured over the same period (but the annual amounts for these variables remain constant). Now letting $k = 1/N$, and substituting into $C(V, N, Z)*k = C(V*k, N*k, Z)$ yields:

$$\begin{aligned} C(V, N, Z)/N &= C(V/N, 1, Z) \\ &= c(V/N, Z), \end{aligned}$$

so therefore:

$$C(V, N, Z) = N*c(V/N, Z).$$

- (a) Would the Postal Service agree that the constant elasticity function represented in the previous section is an example of the above homogenous function? If not, please explain.
 - (b) Please comment on the above homogenous form as the type of function useful for describing the impact on carrier costs from changes in the number of delivery days when volume is held constant or when volume changes.
11. With respect to use of the $C(V, N, Z) = N*c(V/N, Z)$ homogenous function for purposes of estimating carrier cost savings, the Postal Service states, "Third, this approach assumes that there are no changes to the daily cost function, $c(V/N, Z)$ as a result of the elimination of Saturday delivery. This requires assuming that there would be no operational changes that could lead to a shift or movement in the cost surface. If such operational changes did occur, then a revision of the function would also be required." Response to CHIR No. 3, Question 9. The

Postal Service also states that operational experts do not anticipate any changes in the number of city and rural carrier routes in response to eliminating Saturday delivery. USPS-T-6 at 12, 24.

- (a) Because changes in the number of routes are not anticipated, please identify what other operational changes might be pertinent to analyzing cost effects from eliminating Saturday delivery. Please explain how these changes might cause a revision of the cost function.
- (b) Can these operational factors affecting carrier costs be included in a vector of Z variables for a particular cost function? If not, please explain.
12. Assume a week i cost function, homogenous of degree one, and of the form $C_i = N \cdot a(Z_i) \cdot (V_i/N)^\epsilon = a(Z_i) \cdot V_i^\epsilon \cdot N^{(1-\epsilon)}$, where V_i is the week i system volume, N is the weekly delivery frequency and $i \in \{1, 2, \dots, 52\}$. Assume the current $N = 6$. Then using this constant elasticity function, cost savings for any week i from reducing delivery frequency by one day can be calculated as:

$$\begin{aligned} \Delta C_i &= \text{Six Day Cost} - \text{Five Day Cost} \\ &= a(Z_i) \cdot V_i^\epsilon \cdot 6^{(1-\epsilon)} - a(Z_i) \cdot V_i^\epsilon \cdot 5^{(1-\epsilon)} \\ &= a(Z_i) \cdot V_i^\epsilon \cdot 6^{(1-\epsilon)} \cdot (1 - (5/6)^{(1-\epsilon)}) \\ &= C_i \cdot (1 - (5/6)^{(1-\epsilon)}). \end{aligned}$$

The weekly cost savings can also be approximated by the following marginal cost with respect to delivery days:

$$\begin{aligned} (\partial C_i / \partial N) \big|_{N=6} &= a(Z_i) \cdot (V_i/6)^\epsilon \cdot (1 - \epsilon) \\ &= (C_i/6) \cdot (1 - \epsilon). \end{aligned}$$

where $(1 - \epsilon)$ is the cost elasticity with respect to delivery days and $C_i/6$ is the average daily cost. Please comment on the use of such a weekly cost function to

determine cost savings per week, through either of the two methods presented above, and ultimately cost savings for the entire year when eliminating Saturday delivery service.

The following question pertains to the direct testimony of witness Colvin (USPS-T-7).

13. The Postal Service states that total workhours for city carriers are 394,939,572. This number is derived from the workyear calculation model. See Docket No. ACR2009, Response to CHIR No. 3, Question 20. However, in the FY 2009 Total Factor Productivity tables filed with the Commission on March 2, 2010, specifically at Table 13, total city carrier workhours are 410,017,555. Please explain the apparent discrepancy and provide a reconciliation.

The following question pertains to the direct testimony of witness Whiteman (USPS-T-9).

14. The Postal Service sets forth estimated volume, revenue, cost and net income changes from five-day delivery in FY 2009. USPS-T-9 at 15, Chart 1. This chart shows that the Postal Service expects Periodicals Nonprofit volume to increase by 1.43 percent or 23.8 million pieces from implementing five-day delivery. Please provide the rationale that explains why Periodicals Nonprofit volume would increase as a result of eliminating Saturday delivery.

By the Chairman.

Ruth Y. Goldway