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

Six-Day to Five-Day Street Delivery   Docket No. N2010-1
and Related Service Changes

CHAIRMAN'S INFORMATION REQUEST NO. 6

(Issued June 25, 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, filed March 30, 2010. 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 July 9, 2010.

1.   In the past three years, has the Postal Service or its Postal Customer Council(s) conducted studies on the likelihood of postal patrons seeking alternative methods for: (1) mail delivery; (2) bill payments; (3) receiving magazines and/or newspapers; and/or (4) communicating with others? If so, please provide a copy of the studies.

The following questions pertain to the testimony of witness Granholm (USPS-T-3).

2.   Please refer to the response to question 1 of CHIR No. 2. Please confirm that those routes currently served by three-day-a-week delivery on Tuesday, Thursday, and Saturday will continue to receive three-day-a-week delivery on Tuesday, Thursday, and Saturday in a five-day environment. If not confirmed, please explain.

3.   In USPS-LR-N2010-1/3, worksheet "Saturday Workhours" in file "City Delivery Library Reference.xls" cell D8 shows the formula .68 = .59 + (10/60*.5256) for city carrier daily office workhours that are classified as non-volume variable. To explain the calculation, footnote 2, page 3 of file "City. Delivery.Support.pdf" from the same library reference states:

> DOIS data for August and September 2009 show an average of .59 workhours of Fixed Office Time per route and that 52.56 percent of City routes are in units that have elected to take a 10 minute office break. Combining the Fixed Office Time with the average office break time yields .68 hours of total Fixed Office Time.

Please provide the data and the calculations used to derive the .59 and .5256 fractions indicated above.

4.   The response to question 2(a) of CHIR No. 4 contains the allowance factors applied to the appropriate workload levels (volume or non-volume measures) for cells identified in the Rural Route Evaluation Worksheet (PO-603 Exhibit 531.3). Please indicate how these data, cell by cell, are used to calculate the average number of boxes and volume factors, contained in cells D11 and D12, respectively, in worksheets "K RTS", "J RTS", "H RTS", and "AUX RTS" contained in file "Library_Ref_Route_Structures.xlsx". Because the average number of boxes and volume factor variables are shown as hardcoded values in the indicated cells, please show all formulas used to derive these values from the Rural Route Evaluation Worksheet.

5.   Please refer to USPS-LR-N2010-1/3. For the FY 2008 and FY 2009 DOIS data used in the USPS-T-3 analysis, please produce an EXCEL spreadsheet with a table and chart containing the following variables, identifying those weeks with a holiday:

     a.   Total volume by week;

b.   Total street hours by week;

c.   Total routes by week; and

d.   Productivity by week.

6.   Please state the estimated productivity, by week, for FY 2008 and
FY 2009 after elimination of Saturday delivery, using the implied
absorption factor in the USPS-T-3 analysis.

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

7.   Witness Neri demonstrates the calculation of the net savings in mail processing
workhours for a 5-day delivery environment in library reference
USPS-LR-N2010-1/5 and an accompanying workbook
entitled:"Mail_processing_background_3_30_10.xls". The following separate
analyses are conducted:

- 2-week Columbus Day Holiday Analysis for shape-based outgoing
  operations;
- 6-month Saturday workhours savings analysis for 15 operational groups;
- 4-week Monday–Friday trend analysis for regions and Operation 010 only;
- 4-week Monday vs. Saturday productivity analysis for 6 operational
  groups;
- 6-month PQ 1&2 vs. PQ 3&4 analysis to calculate the 1.88 second half of
  the fiscal year mail volume discount factor; and
- P.O. Box addressed mail volume destined for Saturday delivery analysis
  for a single Friday (Saturday morning) in October.

In order to verify and test the robustness of these results, please provide daily
MODS volumes and workhours for the same operations at the same sites used in
the analyses for FY 2006 through FY 2009.

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

8.   Please consider the following hypothetical scenario. Assume for a given time period (t) that there are T_i number of truck trips for the "i^{th}" type of transportation under a six day delivery environment.   Suppose that excess capacity in the system exists for that type of transportation, such that a lower T_i ' number of trips would be needed at full capacity under the same environment and volume level. The Postal Service commits to eliminate excess capacity and, therefore, reduce the number of truck trips for that type of transportation by T_i - T_i ' and bank the related savings. Separately, the Service also decides to eliminate Saturday delivery. With no excess capacity, the resulting number of truck trips with five day delivery is T_i " where T_i " < T_i '. Therefore the total reduction in the number of truck trips from both projects is:

$$T_i - T_i{}'' = (T_i - T_i{}') + (T_i{}' - T_i{}''). \tag{1}$$

Because trip savings are yielded from both projects, please state whether the total savings T_i - T_i " should be considered: (a) joint to both projects and unattributable to each; (b) divisible to each project according to the two component terms shown on the right hand side of (1); or (c) divisible to each project according to some other method.

9.   In response to question 2 of CHIR No. 3, witness Bradley states that traditional volume variability analysis to model the cost effects of eliminating Saturday delivery suffers from a methodological weakness in that the traditional analysis focuses on cost effects that occur at the margin, rather than cost effects of large changes in volume that require network reconfiguration.   As corroboration for this view, he cites the Commission's comments at pages 128-29 of its Report on Universal Postal Service and the Postal Monopoly, issued December 19, 2008. In the pages cited, the Commission assumes that changing the number of delivery days would shift enough volume to require "a basic reconfiguration of the delivery function." According to the Postal Service, however, eliminating

Saturday delivery will not require reconfiguration of the delivery function. USPS-T-6 at 12-13. It asserts that the number of routes served by a given delivery unit on remaining delivery days will not change, and that volume peaks will be successfully mitigated using an array of short-run techniques such as use of flexible employees, overtime, and delivery deferral. *See* USPS-T-3 at 4, 11, 16 and USPS-LR-N2010-1/3 at 4. The Postal Service asserts that substantial reconfiguration of the transportation network to handle volume peaks will not be required, since no additional trips will be needed on remaining delivery days in either the purchased transportation or VSD networks. USPS-T-6 at 41. Substantial reconfiguration of the mail processing network will not be required, since no new mail processing operations or sort schemes will be needed on remaining delivery days. USPS-T-7 at 14-15. If the Postal Service views 5-day delivery as a sustained mode of operation, and if the Postal Service does not expect to make substantial changes to its mail processing, transportation, or delivery networks to deal with day-of-the-week volume peaks, what remaining obstacles would there be to applying volume variability (marginal) analysis to model the cost effect of within-week fluctuations in volume?

10.   In FY 2009, under its Carrier Optimal Routing (COR) initiative, the Postal Service undertook a comprehensive review of its delivery network and eliminated a substantial percentage of its city delivery carrier routes.

   a.   Please describe in detail the functions that the COR software performed and the data to which it was applied.

   b.   Please provide a copy of the COR software program with documentation and a copy of the dataset to which it was applied.

   c.   What role did the data and software used in the COR initiative play in the Postal Service's estimate of the savings from eliminating Saturday delivery?

11.   Please refer to the Response to CHIR No. 3, question 3. The response to section (b) of that question states that fixed in-office time per route would vary proportionately to the number of routes, if that fixed time were the same for each route. The response to (c) states that institutional time for the delivery unit would also vary by the number of routes.

   a.   Do these responses imply that all fixed in-office time, whether classified as fixed per route or institutional, varies proportionately with respect to the number of routes? If not, please explain.

   b.   If so, is there any distinction between institutional fixed and route fixed time? Please explain.

   c.   If the word "street" is substituted for "in-office" in (a) through (f) of question 3 would all the same responses apply, but now with respect to street time? If not, please explain.

12.   Please provide the file for the SAS program used to construct the translog model described in the response to question 9, CHIR No. 3.

13.   Please refer to the capacity variabilities by contract type shown on page 44 of USPS-T-6. Did the transportation cost analysis, described by witness Bradley in USPS-T-18, Docket No. R2000-1, include effects from any surface transportation excess capacity existing at the time the analysis was undertaken? If so, please explain how excess capacity effects were incorporated into the analysis.

14.   Page 45 of USPS-T-6 presents the Postal Service's calculation for the annualized cost change for contract type "i" from eliminating a portion of Saturday and Sunday surface transportation as:

Cost Savings$_i$ = ε_i*[%ΔCFM]*Baseline Cost$_i$
where:

$Cost\ Savings_i$ = annualized cost savings for contract type

ε_i = capacity variability for contract type

$\%\Delta CFM$ = percent change in cubic feet-miles

$Baseline\ Cost_i$ = annualized baseline cost for contract type i for either Saturday or Sunday.

The Postal Service uses this calculation to estimate surface transportation cost savings for Saturday and Sunday using the percent capacity reductions shown on page 42 and the capacity variabilities shown on page 44. Please consider the following extension to this calculation to estimate system level cost impacts from shifting Saturday and Sunday affected cubic feet-miles of transportation to week days. For any day t (including Saturday and Sunday) annualized cost savings from changing cubic feet-miles of transportation on that day by fraction $\Delta CFM_t/CFM_t$ is :

$$Cost\ Savings_t = \varepsilon_t*(\Delta CFM_t/CFM_t)*Baseline\ Cost_t$$

The formula applies at the contract type level, therefore the i subscript is dropped.

The total annualized effect can be determined by summing the daily effects across all days in the week. Therefore total annualized cost savings from redistributing cubic feet-miles of transportation among delivery days can be shown as:

$$Total\ Cost\ Savings = \sum \varepsilon_t*(\Delta CFM_t/CFM_t)*Baseline\ Cost_t$$

where the annualized daily cost savings are summed (from t = 1 to t = 7) to represent total cost savings. Next, assume a constant capacity variability (as with a constant elasticity model). Then, the last can be expressed as:

$$Total\ Cost\ Savings = \varepsilon*Total\ Baseline\ Cost *\sum(\Delta CFM_t/CFM_t)*$$

$$(\text{Baseline Cost}_t/\text{Total Baseline Cost}), \quad (1)$$

where Total Baseline Cost = $\sum$ Baseline Cost$_t$.   Also assume no loss of the cubic foot miles of transportation from the redistribution.   Then $\sum \Delta \text{CFM}_t = 0$, or equivalently:

$$0 = \sum (\Delta \text{CFM}_t/\text{CFM}_t)^*(\text{CFM}_t/\text{CFM total}), \qquad\qquad (2)$$

where CFM total = $\sum \text{CFM}_t$. Notice in this set-up, that if CFM$_t$/CFM total = Baseline Cost$_t$/Total Baseline Cost for each day, then net savings in transportation costs are zero when comparing (1) and (2) above. This happens because the added costs from redistributing CFM of transportation from weekends to weekdays exactly offsets the cost savings on Saturdays and Sundays (the absorption factor is zero). This would occur when cubic foot miles transported each day are the same. In that case, marginal costs for each day are the same, and therefore cost impacts must sum to zero. Therefore any net cost savings depends on daily CFM, from Monday through Friday, being greater than daily CFM for Saturday and Sunday.

Assuming zero excess capacity for surface transportation, please comment on the usefulness of the above approach for estimating systems savings of surface transportation costs in an analytically coherent structure. Also because the above technique yields a first order approximation of cost impacts, are other methods available that yield estimates of the cost impact that do not depend on point estimates of marginal costs? For example, knowing the capacity variabilities on page 44, can a constant elasticity model be calibrated to yield non-marginal estimates of cost impacts. If so, please explain or provide such a structure.

15.   Page 42 of USPS-T-6 displays a table containing percent capacity reductions in surface transportation for Saturday and Sunday when eliminating Saturday delivery.   Reductions are shown by contract type, and are defined in terms of cubic feet-miles. By contrast, in response to GCA/USPS-T5-5(a), witness Grossmann explains that the values shown in the table are percent reductions in the number of trips by contract type on Saturday and Sunday. Please reconcile these two different notions of transportation capacity and describe when one measure of capacity is preferred over the other to estimate transportation cost savings.

16.   Please refer to pages 35 and 36 of USPS-T-6 and the table shown on page 44 of the same document.   At the bottom of page 35, the annual Saturday cost for each route trip is stated as "the product of its route miles (RM), frequency (Freq) and its cost per mile". The table on page 44 shows the capacity variabilities for each contract type with capacity defined in terms of cubic feet-miles.

   a.   With respect to route trip costs, does the stated formula imply that Saturday (or Sunday) costs for each route trip are proportional to changes in the corresponding number of trips (the frequency variable)? If not, please explain.

   b.   Because all capacity variabilities shown in the table are less than 100 percent, does any percent decline in the frequency variable result in a percent decline in the corresponding cubic feet-miles that is greater? If not, please explain.

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

17.   For each of the city carrier employee types indicated in Attachment 1 of USPS-T-7, please provide the distribution of total city carrier work years,

indicated in the third column of the first table, by day of the week, for FY 2009.

18. Please refer to the second page of the SAS program filed as Appendix to Response to CHIR No. 3, question 9. At the top of the second page, the following SAS code appears:

Data USPSD; Set USPS;
if HRS_OFC lt 10000 then delete;

    a. Please confirm that the SAS Data set USPSD contains all observations in data set "USPS" less those observations where total office hours are less than the numeric value of 10000. If you cannot confirm, please explain.

    b. Please confirm that the regression results presented as a response to question 9 were developed using data set USPSD. If you cannot confirm, please explain.

    c. Were regression results developed using data set USPS? If so, please provide these results and any explanatory documentation.

By the Chairman.

Ruth Y. Goldway