

BEFORE THE  
POSTAL REGULATORY COMMISSION  
WASHINGTON, D.C. 20268-0001

Six-Day to Five-Day Street Delivery and  
Related Service Changes, 2010

Docket No. N2010-1

Library Reference USPS-LR-N2010-1/6  
Calculation of City and Rural Carrier Cost Savings

## PREFACE

This is a Category 2 library reference that will be sponsored by Postal Service Witness Bradley (USPS-T-6). It contains the documentation for calculation of cost savings for rural and city carriers. The Library Reference has two parts. The first part is this Microsoft Word (pdf) document that provides the explanation of the calculations. The second part contains the Microsoft Excel workbook that performs the calculations.

## Calculating City and Rural Cost Savings

The calculation of city and rural cost savings from cessation of Saturday delivery proceeds in three steps:

1. Establish the baseline six-day costs and hours.
2. Calculate the hours savings from eliminating Saturday delivery.
3. Calculate the cost savings from eliminating Saturday delivery.

All of these steps are accomplished in the accompanying Excel workbook entitled, "Carrier Cost Savings.USPST6.xlsx"

The cost saving calculation starts with the FY2009 accrued costs for city and rural carriers by cost component. These costs are taken directly from the FY2009 ACR model and are presented in the worksheet entitled "FY2009 Costs." That worksheet lists separately the city carrier in-office costs, the city carrier street time costs, and the rural carrier costs.

The next step is the calculation of hours saved by cost component. For city carriers this calculation is performed in the worksheet entitled, "City Hours," and for rural carriers the calculation is performed in the worksheet, entitled, "Rural Hours."

The calculation of city hours saved starts with the total FY2009 city carrier hours provided by the Direct Testimony of Jeff L. Colvin, USPS-T-7. DOIS proportions are then used to distribute the FY2009 city carrier hours to street and office activities for Saturday and then for Monday through Friday. The street and office hours, by day of week, are further subdivided into the ACR model cost components. This is done to permit calculation of the hours saved by those cost components and ensure consistency with the baseline six-day costs. The proportions of the FY2009 costs for components within street time are used to disaggregate the street time hours and the proportions of the FY2009 costs for components within office time serve the same purpose for office hours. The exercise provides the six-day hours for M-F and Saturday by the ACR model's cost components.

The five-day hours for these components are calculated next. These calculations are based upon the operational analysis presented in witness Granholm's testimony (USPS-T-3) and Library References LR- N2010-1/3 and LR- N2010-1/4. Finally, the worksheet presents the calculation of the additional collection hours that will be needed on Monday and the time (and cost) required for delivery Express Mail on Saturdays in a five-day environment.

The calculation of rural hours saved also starts with the FY2009 total rural carrier hours obtained from USPS-T-7. This calculation is presented in the worksheet entitled, "Rural Hours." The total rural carrier hours for FY2009 are distributed to the four different types of rural routes, K, J, H, and auxiliary based upon the staffing of those routes in FY2009 as presented in the operational analysis of rural routes in Library Reference LR- N2010-1/4. These hours are then cumulated into the two ACR model cost components involving rural carrier labor. This provides the baseline hours in the six-day environment for rural carriers.

Based upon the operational analysis in LR- N2010-1/4, the rural carrier hours, by route type are calculated in a five-day environment. After the total five-day hours for each route type is calculated, the five-day hours by ACR model cost component are summed. The difference between the six-day hours and the five-day hours represents the hours savings for rural carriers from eliminating Saturday delivery.

The worksheet entitled "Rural Hours" also presents the calculation of the Saturday rural carrier hours and cost for delivering Express Mail in a five-day environment.

The cost savings are calculated in the worksheet entitled, "Ops Approach to Cost Savings." That worksheet first reads in the accrued cost for each of the city and rural cost components from the worksheet entitled, "FY2009 Costs." It then reads on the six-day hours for city and rural carriers from the "City Hours" and "Rural Hours" worksheets. It does the same for the five-day hours. The absolute and percentage savings in hours are then calculated by cost component.

The percentage cost savings are then multiplied by the accrued cost in each component to get the dollar savings. However, this calculation assumes that the dollars per hour saved is equal to the average dollars per hour in FY2009. Operations experts do not anticipate this being the case and a wage modification is required. The correct equation for calculating the dollar cost savings in this case is:

$$\text{Five Day Cost} = (1 - p\omega) \left[ \frac{\text{Six Day}}{\text{Cost}} \right]$$

where  $p$  is percentage reduction in hours from moving to five day and  $\omega$  is the ratio of the cost-saving wage to the average wage.

The final worksheet in the workbook, entitled "Including Indirect Costs," combines the city and rural indirect costs identify by witness Colvin (USPS-T-7) with the direct costs calculated in earlier worksheet.