

PRC-LR-2  
Cost RollForward Model

## PRC LR-2

### Postal Rate Commission Cost Rollforward Workpapers

These workpapers document the procedures the Commission uses to roll forward base year attributable costs to the test year. The Commission's cost rollforward model remains substantially the same as in Docket No. R2000-1. The primary change in the programming accommodates the new class and subclass structure adopted by the Postal Service in this proceeding by combining the nonprofit subclasses of Periodicals, Standard Mail, and Package Services with the regular rate subclasses. The cost model is written in the C++ programming language which can be operated on any personal computer operating in a Windows 95 or Windows 98 environment in the DOS window. A listing of the programs, factor files, manual input, and results of the Commission's rollforward of costs from the base year to the test year are included in this library reference.

The workpapers are divided into five volumes. The first volume contains the base year manual input, the base year cost matrix, the factor files used to develop the base year cost matrix, and a cost component crosswalk. The second volume contains the factor files and the cost rollforward matrices for FY 2001; the third volume contains the factor files and the cost rollforward matrices for FY 2002. The fourth volume contains the factor files and the cost rollforward matrices for the test year before rates, and the fifth volume contains the factor files and the cost rollforward matrices for the test year after rates.

#### **Development of PRC Base Year Attributable Costs**

The Commission's base year and test year attributable costs parallel those proposed by the Postal Service in this docket except where the Postal Service's proposals do not reflect the Commission's R2000-1 cost attribution methodology:

1. Segment 3, mail processing

2. Segments 2, 7, 12, 13, and 20 City Delivery Carriers, street time, single subclass costs (See PRC LR-3)
3. Segment 3, Expedited Clerks, non-volume related attribution.
4. Segment 14, Transportation
5. Addition of product specific costs in segments 15, 16, 18, and 20.
6. Adjustment of equipment variabilities from the maintenance labor, parts and supplies, and capital factors distribution keys. Also adjustment of the equipment variabilities from the cost reduction and other programs cost changes.

These cost changes are derived from the Postal Service's replication of the Commission's R2000-1 cost methodology in USPS Library Reference J-74<sup>1</sup> are entered into the manual input binary file **baseyear.bin** using the **prcredit.exe** program. There are then six runs of the cost model programs to develop the short-run cost matrix. This short-run matrix is similar to the Postal Service's "A" report in Meehan workpaper A-2. The six runs are:

1. Development of Segment 11 custodial maintenance (component 75) and Segment 16 supplies and services (component 184).
2. The first calculation of the indirect cost distribution.
3. Development of Segment 3, Administrative Clerks, Quality Control and General Administrative.
4. The second calculation of the indirect cost distribution.
5. Development of Segment 2, Higher Level Supervision.
6. Final calculation of indirect cost distribution.

These six steps result in the binary cost matrix **by00pclr.bin**, which, as noted before, is similar in format as the CRA "A" report. The long run cost program, **lrcost.exe**, is run using the factor file **pessa00c.fac**. This program calculates the PESSA costs and the Segment 3 expedited clerk non-volume

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<sup>1</sup> The Commission corrected the USPS replication of Segment 7 City Carriers, Street Time. See Appendix D of the Commission's Opinion and Recommended Decision, Docket No. R2001-1.

variable costs. The result of this program is the binary matrix **by00pclr.lr**. This matrix corresponds to witness Meehan Exhibit 11A.

The DOS batch file **setprc00.bat** shows the programs, factor files, and the resultant binary cost matrices used to develop the Commission's base year and can be used to develop the base year cost matrix from the manual input file (baseyear.bin) to the base year cost matrix (by00pclr.lr).

### **PRC Test Year After Rates Attributable Costs**

The Commission uses the rollforward methodologies proposed by the Postal Service in Docket No. R2001-1.

The factors used for the six cost effects in the rollforward (cost level, mail volume, non-volume workload, additional workday, cost reductions, and other programs) are shown in the factor files.

### **Cost Rollforward Process**

The Commission's cost roll forward begins with the base year cost matrix **by00pclr.bin**. The new test year volumes are input into the base year cost matrix using **prcredit.exe**. The factor file used to roll forward to FY 2001 before the workload adjustment is **fy2001pc.fac**. The short run cost model, **costmod.exe** is then used to rollforward the base year to FY 2000 before the workload adjustment creating the binary cost matrix **fy2001pc.bin**. This cost model program is used again with the factor file **fy01mxpc.fac** to adjust FY 2001 costs for the change in workload mix to create the cost matrix **fy01mxpc.bin**. The long run cost program; **lrcost.exe** is then run using the factor file **pessa01c.fac**. This program calculates the PESSA costs and the Segment 3 expedited clerks non-volume variable attributable costs. The program also applies the Alaska Air adjustment to component 681. The results of this program are the binary matrix **fy01mxpc.lr**. This matrix corresponds to witness Patelunas Exhibit 12B, before final adjustments.

The DOS batch file **fy01prc.bat** shows the programs, factor files, and the resultant binary cost matrices used to develop the Commission's FY 2000 after workload mix adjustment.

The Commission's FY 2002, Test Year Before Rates, and Test Year After Rates costs are developed similarly as the FY 2000 costs. The rollforward begins with the cost matrix **FY2001pc.bin** for FY 2002, **FY2002pc.bin** for the Test Year Before Rates, and **Fy02arpc.bin** for the Test Year After Rates. The file **Fy02arpc.bin** is a duplicate of the file **FY2002pc.bin** and is used to avoid the intermediate cost effect matrix files from the before rates run being overwritten during the after rates run of the cost model. The factor files used to develop FY 2002 are **fy2002pc.fac**, **fy02mxpc.fac**, and **pessa02c.fac**. The factor files used to develop test year before rates costs are **fy03brpc.fac**, **tybrmxpc.fac**, and **pessa03c.fac**. The factor files used to develop test year after rates costs are **fy03arpc.fac**, **tyarmxpc.fac**, and **pessa03c.fac**. The DOS batch files **fy02prc.bat** and **typrc.bat** shows the programs, factor files, and the resultant binary cost matrices used to develop the Commission's Test Year costs after workload mix adjustments.