



ODIS-RPW MERGER

**Postal Rate Commission Briefing
September 17, 2003**



ODIS-RPW MERGER BRIEFING

- **Introduction and Agenda**
- **ODIS and RPW – History/Background**
- **Rationale for Merger**
- **ODIS-RPW Development**



ODIS and RPW - History/Background

- **ODIS – Origin-Destination Information System**
 - **Currently collects mail characteristics data with emphasis on mail transit information.**
 - **Originally established in 1968-70 to focus on mail volume flows between postal facilities.**



ODIS and RPW - History/Background

- **ODIS – Origin-Destination Information System**
 - **ODIS developers also decided to measure service performance.**
 - **In 1971, ODIS was selected to measure service achievement for First-Class Mail and airmail.**



ODIS and RPW - History/Background

- **ODIS – Origin-Destination Information System**
 - **External First Class Measurement (EXFC) replaced ODIS for service measurement in 1990.**
 - **ODIS is still used by some non-EXFC offices for service measurement.**
 - **ODIS has limited rate case involvement.**
 - **Service performance interrogatories.**
 - **Some mail characteristics distribution keys used.**
 - **Basic systems documentation.**



ODIS and RPW - History/Background

- **ODIS – Origin-Destination Information System**
 - **Basic sampling unit is a Mail Exit Point (MEP).**
 - **Example: “All letters being made available for delivery at one Associate Office.”**
 - **Two-stage sample design**
 - **First Stage – Select a MEP for a given day.**
 - **Second stage – Sub sample (“skip sample”) the MEP-day volume.**
 - **About 129,000 ODIS samples taken per year.**



ODIS and RPW - History/Background

- **RPW – Revenue, Pieces and Weight System**
 - Known as the *Domestic Probability Sampling System* in rate case documentation.
 - Started in 1965.
 - Primarily collects information on single piece rated mail categories.
 - Accounting data captures postage payment methods (e.g. stamp revenue), not revenue and volume by mail class.



ODIS and RPW – History/Background

- **RPW – Revenue, Pieces and Weight System**
 - **Focuses on per piece revenue and weight, special services, zone measurement, and Parcel Post dimensions.**
 - **The RPW sample is the primary input for single piece rate items in the RPW Report.**



ODIS and RPW – History/Background

- **RPW – Revenue, Pieces and Weight System**
 - **Substantial rate case involvement**
 - **Primary driver of RPW statistical variance calculations for single piece items.**
 - **Main source of inputs for Billing Determinants.**



ODIS and RPW – History/Background

- **RPW – Revenue, Pieces and Weight System**
 - **Substantial rate case involvement**
 - **Used for analysis involving distributions by shape, additional ounce rate, cubic pounds, etc.**
 - **Substantial systems documentation.**



ODIS and RPW – History/Background

- **RPW – Revenue, Pieces and Weight System**
 - **RPW has two basic sampling units**
 - **Mail Exit Points**
 - **Identical to ODIS.**
 - **Consolidated Originating Units (COUs)**
 - **COUs are used to sample originating registered, insured and COD Mail as well as Certificates of Mailing.**



ODIS and RPW – History/Background

- **RPW – Revenue, Pieces and Weight System**
 - **RPW has a three stage sample design.**
 - **First Stage**
 - **A panel of post offices for each CAG (D through L) is randomly selected.**
 - **RPW samples are randomly selected from these panels.**
 - **Second & Third stages – *Identical to ODIS First & Second stages.***
 - **About 51,500 RPW samples are taken per year (45,000 at MEPS; 6,500 at COUs.)**



Rationale for Merger

- **Why Merge ODIS and RPW**
 - **ODIS and RPW MEP sampling units are identical.**
 - **(COUs would still need to be sampled in any merged system.)**
 - **ODIS and RPW sample designs are almost identical.**
 - **Eliminate RPW First-Stage and they are identical.**



Rationale for Merger

- **Why Merge ODIS and RPW**
 - **ODIS and RPW collect almost the same information from the same mail categories.**
 - **Both measure volume and collect information on rate category, shape, and indicia.**
 - **Both collect data for the same mail categories.**
 - **Although depth of collected information varies.**



Rationale for Merger

- **Why Merge ODIS and RPW**
 - **Field staff have long asked**

“On different days I go to the same Mail Exit Point and collect almost the same information from the same mail. Can’t the two systems be combined?”



Rationale for Merger

- **Advantages of ODIS-RPW Merger**
 - **Capture efficiencies inherent in the existing overlap of the two systems.**
 - **New system could ask RPW questions on all ODIS samples and provide substantially more RPW data.**
 - **Effectively increase RPW sample by a factor of 2.8.**



Rationale for Merger

- **Advantages of ODIS-RPW Merger**
 - **Eliminate First Stage RPW Panel**
 - **First Stage approach was criticized in 1985 by WESTAT and its removal was recommended.**
 - **First Stage panel effects have been an object of concern at the Postal Rate Commission.**
 - **Recommended by the 1999 Data Quality Study sponsored by USPS, the PRC and the General Accounting Office.**



Rationale for Merger

- **Advantages of ODIS-RPW Merger**
 - **Improved statistical precision due to**
 - **More observations**
 - **Removal of First Stage Panel**



ODIS-RPW Development

- **Merger to Date**
 - **In the 1998-99 period Postal Service staff decided to pursue the merger.**
 - **Data Quality Study in April 1999 gave the merger additional impetus due to the study's call for the elimination of the RPW panel.**



ODIS-RPW Development

- **Merger to Date**
 - **Between 1999-2002, steps were taken to align the two systems to facilitate a merger.**
 - **Key system characteristics were made identical.**
 - **Sub sampling rules**
 - **Mail shape definitions**
 - **Mail identification rules**
 - **Training materials were brought in concordance.**



ODIS-RPW Development

- **Merger to Date**
 - **Characteristics RPW (CRPW) was introduced in September 2001.**
 - **This new data collection approach replaced traditional RPW as a necessary step before the ODIS-RPW merger.**
 - **Traditional RPW depended heavily on data collector judgment to determine rate categories.**
 - **This differed from ODIS which has a “key what you see” approach.**



ODIS-RPW Development

- **Merger to Date**
 - **Characteristics RPW (CRPW)**
 - **The ODIS-RPW merger required an ODIS-like RPW data collection instrument so staff who had never done RPW samples could be more easily trained.**
 - **By moving mail classification decisions from data collectors to computer algorithms, a potential source of nonsampling error was eliminated.**



ODIS-RPW Development

- **Merger to Date**
 - **A cross functional USPS Finance team was put together to pursue the merger.**
 - **Data requirements for a merged software were produced in early 2002.**
 - **A user group was held in June 2002 to examine the requirements.**
 - **Laptop data collection software was produced and software validation conducted.**



ODIS-RPW Development

- **Merger to Date**
 - **ODIS-RPW software replaced ODIS at 8 Districts in FY 03 in order to provide assessment data.**
 - **The two systems' estimates of revenue per piece and weight per piece, for major items of interest, have overlapping 95% confidence intervals.**
 - **The historical relationship, for major items of interest, between ODIS and RPW volumes appear to be preserved between RPW and ODIS-RPW.**



ODIS-RPW Development

- **Merger to Date**
 - **Training requirements were determined and training materials produced.**
 - **In August 2003, national Statistical Programs training was held in Norman, OK.**



ODIS-RPW Development

- **Merger To Date**
 - **Field Statistical Programs managers are currently training staff unable to attend the Norman training.**
 - **Quarter 1 FY 04 ODIS-RPW sample has been drawn and released to the field.**
 - *Note: Quarter 1 FY 04 starts October 1, 2003.*



ODIS-RPW Development

- **Merger To Date**
 - **New scales are being distributed to the field.**
 - **Work continues on updating statistical estimation and data reporting software.**
 - **Data collection starts on October 1, 2003.**
 - **Quarter 1 reports are due in early January 2004.**