

**Public Material Supporting Professor Bradley's Analysis  
of UPS Proposals One and Two**

**I. PREFACE**

**A. Purpose and Content**

The purpose of USPS-RM2016-2/1 is to provide the supporting public materials for material discussed in Professor Bradley's analysis of United Parcel Service's Proposals One and Two.

**B. Predecessor Documents**

None.

**C. Methodology Changes**

Not applicable.

**II. ORGANIZATION**

In addition to this Word (pdf) Preface, USPS-RM2016-2/1 consists of a zip file containing four directories and three subdirectories. The table on the following page provides the name and purpose of each directory. The specific contents of each directory and subdirectory are described in order starting on page three.

The Excel Workbooks directory includes a file (Dr. Neels Case 1 Compared with Corrected Inframarginal Costs.xlsx) with a tab (Neels Case 1 2014), in which column L contains values that are linked to a file containing nonpublic information. That file is provided under seal in USPS-RM2016-2/NP1.

**List of Directories included in RM2016-2/1**

<b>Directory</b>	<b>Purpose</b>
I. Excel Workbooks	This directory contains nine Excel workbooks across three subdirectories. Three workbooks are input datasets for the SAS programs. Three workbooks provide analysis behind Professor Bradley's report. Three workbooks also provide corrections to Dr. Neels' analysis.
II. SAS Logs	This directory contains the corresponding SAS logs to the SAS programs with the same name.
III. SAS Output	This directory contains the SAS output that corresponds to the SAS programs with the same name. Much of the output from the SAS programs is copied into the Excel workbooks within the Professor Bradley Analysis subdirectory where further calculations are performed.
IV. SAS Programs	This directory contains three SAS programs that support Professor Bradley's response.

## A. Specific Contents of Files by Directory

### I. Directory – Excel Workbooks

#### Subdirectories - 3

#### 1. Corrections to Dr. Neels Analysis

##### Contents

Excel Workbook	Contents
Correct and Replicate Dr. Neels Table 6	Contains two tabs 1) ICSummary and 2) Table 6 Revised. Tab ICSummary has the corrected and Dr. Neels' attributable and inframarginal costs by product. Tab Table 6 Revised replicates Table 6 from Dr. Neels' analysis and shows what Table 6 would look like after the corrected assignments are used.
Dr. Neels Case 1 Compared with Corrected Inframarginal Costs	Contains two tabs 1) Neels Case 1 2014 and 2) Key. Tab Neels Case 1 2014 illustrates Dr. Neels' and the corrected inframarginal costs by component. Tab Key provides a detailed description for the codes used in Dr. Neels' inframarginal model.
Institutional Costs for Costpools with No Attributable Costs	Contains the institutional costs for costpools with no attributable costs.

#### 2. Input Data Sets for SAS Programs

##### Contents

Excel Workbook	Contents
Aggregate Data	Contains the input data to the SAS program Analysis of Aggregate Simple Regression.
Dr. Neels total attrib fixed cost real working	Contains input data to the SAS programs Producing Results for Variability Calculations and Analysis of Simple Regression Results with Trend.
Dr. Neels weighted component volume	Contains input data to the SAS programs Producing Results for Variability Calculations and Analysis of Simple Regression Results with Trend.

### 3. Professor Bradley Analysis

#### Contents

Excel Workbook	Contents
Computing variabilities for Dr. Neels Regressions	Contains the SAS output from the SAS program Producing Results from Variability Calculation. It also contains the variability calculations for selected components.
Example Three Product Shapley Allocation	Contains the calculations necessary for a Shapley allocation for three products.
Test for Variable Cost	Contains two tabs 1) Test for Variable Cost and 2) Components Passing VC Test. Both tabs contain output from the SAS program Analysis of Simple Regression Results with Trend. Tab Test for Variable Cost also contains t-test calculations for Intercept, WV, and a combined test for Intercept and WV.

## II. Directory – SAS Logs

#### Contents

SAS Log	Contents
Analysis of Aggregate Simple Regression	SAS log that corresponds to the SAS program of the same name.
Analysis of Simple Regression Results with Trend	SAS log that corresponds to the SAS program of the same name.
Producing Results for Variability Calculations	SAS log that corresponds to the SAS program of the same name.

### III. Directory –SAS Output

#### Contents

<b>SAS Output</b>	<b>Contents</b>
Analysis of Aggregate Simple Regression	SAS output that is illustrated in various tables in Professor Bradley's response.
Analysis of Simple Regression Results with Trend	SAS output that is also shown in the Excel workbook Test for Variable Cost.
Producing Results for Variability Calculations	SAS Output that is also shown in the Excel workbook Computing variabilities for Dr. Neels Regressions.

### IV. Directory –SAS Programs

#### Contents

<b>SAS Programs</b>	<b>Contents</b>
Analysis of Aggregate Simple Regression	SAS program that reads aggregate annual data from 2007-2014 and performs various regressions whose results are shown in Professor Bradley's response.
Analysis of Simple Regression Results with Trend	SAS program that reads in data at the component level and runs regressions. The output is shown in Excel workbook Test for Variable Cost.
Producing Results for Variability Calculations	SAS program that reads in data at the component level and performs the necessary calculations for the variabilities to be calculated in the Excel workbook Computing variabilities for Neels Regressions.