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

PERIODIC REPORTING (PROPOSAL ONE)	Docket No. RM2022-3

RESPONSES OF THE UNITED STATES POSTAL SERVICE
TO QUESTIONS 1-11 OF CHAIRMAN'S INFORMATION REQUEST NO. 5
(March 14, 2022)

The United States Postal Service hereby provides its responses to the above listed questions of Chairman's Information Request No. 5, issued March 7, 2022. The questions are stated verbatim and followed by the response.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorney:

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March 14, 2022

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1. Please *see* Attachment filed under seal.

RESPONSE:

Please see the response provided under seal in USPS-RM2022-3-NP2.

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2. Please *see* Attachment filed under seal.

RESPONSE:

Please see the response provided under seal in USPS-RM2022-3-NP2. There is a portion of that answer, however, that is not required to be kept under seal. Specifically, with respect to the special study conducted regarding collection mail, the question (in part) sought the rationale behind choosing an "upper limit of 400 pieces" and why those route-days "recording more than 400 collection pieces" were eliminated rather than imputed. The response indicates that, as explained in the Bradley study, Postal Service personnel with substantial experience in city carrier operations and city carrier volumes were consulted to determine if there was a realistic upper bound on the amount of mail a city carrier would collect from customers' receptacle in a day. Their experience was that carriers never collected as many as 400 pieces, and any reports of a route collecting more than 400 pieces from customers receptacles were data errors and thus invalid.

3. The Bradley Study provides equations for "marginal time for product type 'j,'" variability, and "percentage response in street time." Bradley Study at 64. Please also refer to Library Reference USPS-RM2022-3-1, January 5, 2022, folder "Rev01212022", folder "Directory 2 CRE Model Programs and Results," SAS program files "CRE Model Combined Restricted Quad with Time Effects.sas," "CRE Model Combined Restricted Quad Dec.sas," and "CRE Model Combined Restricted Quad Rand2.sas." Please provide a thorough breakdown of how the referenced equations are calculated in the abovementioned programs. In your response, please include comments on the summands involving k, the sum of products involving variables such as sqm and pct_cent, and the 0.0138889 multiplier used in the first program mentioned above.

RESPONSE:

The formulas provided on page 64 of the Bradley study are general, and cover all of the different quadratic models. The actual calculations of marginal times and variabilities for any specific model are done by the SAS code in the estimation program for that model. The question specifically requests explanation of the calculation of marginal times and elasticities for the correlated random effects model, so that is the SAS code that will be explained in this response.

The first thing to note is that, like the program's title suggests, the correlated random effects model being estimated is a restricted quadratic equation. The mathematical implication of that restriction for the marginal time and elasticity calculation is that the coefficients on the cross-product terms in that model are omitted. Thus, for the restricted pooled and CRE models, the computational version of the marginal time equation is straightforward, and looks like:

$$MT_j = \beta_j \ + 2 * \beta_{jj}\bar{V}_j.$$

The SAS code that implements the calculation, mimics this form. For example, for DPS mail, the relevant SAS code is:

```
mtdps= dps +2*dps2*mdps  ;
```

In this equation, "mtdps is" the marginal time for DPS mail (the MT_j in the general equation), "dps" is the first-order coefficient on DPS volumes in the estimated equation (the β_j in the general equation), "dps2" is the second-order term in the estimated equation (the β_{jj}) in the general equation and "mdps" is the mean value for DPS volume (the $\bar{V}_j$) in the general equation.

In similar fashion, the version of the general formula for the elasticity that is applicable to the correlated random effects model is:

$$\varepsilon_j = \frac{\beta_j \bar{V}_j \ + 2 * \beta_{jj} \bar{V}_j^2}{\widehat{ST}},$$

Inspection of that equation shows that the numerator is just the previously calculated marginal time multiplied by the average volume. In the SAS code, this is implemented as follows: mtdps*mdps. The denominator in the formula contains the predicted street time at the mean value for the right-hand-side variables:

$$\widehat{\mathrm{ST}} = \ \alpha + \sum_{j=1}^{m} \beta_j \bar{V}_j \ + \sum_{j=1}^{m} \beta_{jj} \bar{V}_j^2 \ + \\ \sum_{p=1}^{n} \delta_p \bar{Z}_{\mathrm{p},it} \ + \sum_{p=1}^{n} \delta_{pp} \bar{Z}_{p,it}^2$$

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For the summations involving the "V_j" variables (in the letter "j") the value for "m" is seven, covering the seven different volume terms. The SAS code for that part of the calculation is given by:

```
+ dps*mdps + dps2*mdps*mdps
+ cm *mcm  + cm2*mcm*mcm
+ seq*mseq + seq2*mseq*mseq
+ fss*mfss + fss2*mfss*mfss
+ irp*mirp + irp2*mirp*mirp
+ devpa*mdevpa + devpa2*mdevpa*mdevpa
+ cv*mcv   + cv2*mcv*mcv
```

The summations for the "Z" variables (in the letter "p") are a bit more complicated because they include three different types of variables, the non-volume characteristic variables (that explain non-volume variations in street times across ZIP Codes), the cross-section means (which control for unobserved heterogeneity), and the time-period categorical variables (which control for seasonal and day-of-week variations). The implementation of the equation for each of these types of variables will be explained separately.

For the characteristic variables, the number on the top of the summation operator (n) is nine, as there are nine different characteristic variables. The SAS code for that summand is given by:

```
+ sqm*msqm +ruca1*mruca1+pd*mpd + boxes*mboxes +busrat*mbusrat

+ dt*mdt + pct_curb*mpct_curb + pct_cbu*mpct_cbu + pct_cent*mpct_cent
```

For the cross-section means there are two summation operators, one for the first order terms and one for the squared terms. Both operators have the same upper limit of summation as "n" in the above equation would equal seven in both cases. This reflects the fact that there are seven volume variables. The SAS code for this set of variables is given by:

```
+ zdps*mzdps + zdps2*mzdps2 + zcm*Mzcm + zcm2*Mzcm2
+ zseq*Mzseq + zseq2*Mzseq2 + zfss*Mzfss+ zfss2*Mzfss2
+ zirp*Mzirp + zirp2*Mzirp2+ zdevpa*Mzdevpa+ zdevpa2*Mzdevpa2
+ zcv*mzcv   + zcv2*mzcv2
```

In this SAS code the "z" in front of the variables indicates that the coefficients are associated with the cross-section means. For example, zdps is the coefficient on the first-order term for the cross section means for DPS mail (mzdp), and zdps2 is the coefficient on the second-order term for the cross section means for DPS mail (mzdps2).

The last set of variables in the equation are the time-period categorical variables, for which there is one value (zero) for all but one of the 72 time periods in the analysis data set and a value of one for the last period. As with the other variables, each of the estimated coefficients (e.g., dum2) is multiplied by the mean, or average, value for the associated variables. Because the time-period categorical variables take on a value of one for the period in which they are active and zero for all other periods, their average value across the full year is thus 1/72 or 0.0138889. Because the mean value is the same for all of the time-period categorical variables, one can multiply that mean value times all of the estimated coefficients. The SAS code for the inclusion of these variables in the equation looks like:

0.0138889*(dum2+dum3+dum4+. . .)

When all of the pieces of the equation are combined, the result is the predicted street hours at the mean values for the right-hand-side variables, which is $\widehat{ST}$ in the general equation and psh in the SAS code. The SAS code for calculating the elasticity for each of the volume terms is the numerator, as described above divided by psh. For example, for DPS volume the SAS code is elas_dps = mtdps*mdps/psh;

4. Please refer to the Bradley Study and the statement, "[i]n the course of their delivery activities, letter carriers also collect mail from customers' receptacles. The amount of volume collected is material, so it is important to include some measure of this collected volume to avoid omitted variables bias... Carriers from over one thousand ZIP Codes participated in the collection volume study in a two-week period in January and February 2021." Bradley Study at 24-25 (internal citations omitted). Please also refer to the Bradley Study that states that "collection volumes vary across ZIP Codes and days of the week, but for each day of the week, for each ZIP Code, the collection volume amount will be the same across all months." Bradley Study at 36.

a. Please explain how the average day-of-week collection volume from a study in a two-week period in January and February 2021 can serve as a good proxy for collection volumes for other months. In your explanation, please discuss how this proxy can address the seasonality associated with collection volumes in different months.

b. Please discuss whether any weighting of collection volumes was considered to adjust for seasonality when merging these volumes into the final panel Delivery Data Set. If not considered, please explain how the proposed methodology accounts for the seasonality of the collection volumes.

RESPONSE:

a. The average day-of-week collection volume from the two-week study turns out to be the best available proxy for collection volume (obtained at customers' receptacles) throughout the year, as it is the only such data available. Volumes collected from customers' receptacles are not included in the Postal Service's delivery operations data systems. To measure such volume required a special field study in which carriers took time during their workday to measure the volumes collected. Field studies, by their nature, are complex and challenging to implement. The collection volume study in January and February 2021 involved over 140,000 carrier volume measurements to collect data over a two-week period. Expansions of this type of study to a full year would require carriers to undertake over 3.5 million individual volume measurements, which is simply not feasible.

b. Weighting the collection volumes for seasonality was not considered because there is no information available on the nature of that seasonality. Different types of mail have different seasonal patterns and, without additional information, it would be inappropriate to assign one type of volume's seasonal pattern to another type of volume. Unless additional information on the seasonality of collection mail becomes available, it would not be appropriate to attempt seasonal weighting in a top-down analyses. In fact, it is not clear there is a material degree of seasonality for mail collected from customers' receptacles.

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5. Please refer to the Bradley Study and the statement that "[i]f there were less than 5 of those other days with non-zero volume, then the remaining data were not sufficient to form the basis for calculating a replacement for the illegitimate days, and the route was removed from the data set. This process eliminated another 37 routes. On the other hand, when there were 5 or more days with non-zero volumes, the average value for the legitimate days was calculated and used in place of the illegitimately reported volumes." Bradley Study at 28.

a. Please explain how the number 5 was chosen as a cutoff point in the referenced quotations.

b. Please explain the reason why imputation was attempted in some scenarios and elimination in others, such as in the above example, rather than using elimination in all scenarios.

RESPONSE:

a. This question refers to the analysis of the very small number of routes for which apparently illegitimate numbers were reported for collection volume. Moreover, it specifically relates to the subset of those routes for which apparently illegitimate numbers were reported just once or twice out of the twelve days. For this small number of routes, the question was if the data on the remaining days could be used to impute a value for the one or two days with apparently illegitimate numbers. If there were two such days, then there would be as many as ten days left with non-zero volumes to calculate an imputation. But if some of those remaining days had no volume, then the utility of this approach is reduced.

There are some legitimate reasons that a route would report zero collecting volume. For example, business routes only collect five days of the week. Or, the "6^{th} day carrier," who delivers the mail on the regular carrier's day off may not have been aware of the study. Or, a low volume route could occasionally just not have any collected volume.

After careful review of the remaining data for the affected routes, it was determined that at least half of the remaining route days should have positive volumes. That determination led to the selection of the lower limit of five days. Please note that this replacement took place for just 62 of the over 13,300 routes in the study.

b. The Postal Service chose to impute in situations where there were sufficient data to support imputation and the number of zero volume days was reasonable. The collection volume field study was relatively large, encompassing a great many ZIP codes and routes, but collection volume collected from customer receptacles is still a small portion of regular letter carrier street time and volume. The Postal Service did not wish to eliminate data where reasonable situations for zero volume records might exist. In sum, if there were sufficient volume data on the other days to form a reliable imputation, then the imputation was performed. If there were insufficient volume data on the other days, then the imputation was not performed and the route was eliminated.

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6. Please refer to Response to CHIR No. 1 question 1.c., which states, "[s]imply put, there are so few observations for which imputation is being applied, that there is no need to test whether the data are missing randomly." Please explain how the imputation procedures used add to the validity of the proposed methodology and provide the theory and evidence used in support of this claim. In your response, please discuss whether and why the Postal Service considers that the net benefit of imputation outweighs the practical costs (in terms of loss of transparency, increased complexity, etc.) of time and effort required to conduct the imputation procedures.

RESPONSE:

Imputation provides a mechanism for preserving observations in the data sets used for variability analyses, so in constructing the data for the top-down model, the Postal Service investigated its use. That investigation revealed that a very small number of imputations could preserve a relatively large number of observations and would thus support creation of a large analysis data set. For example, in the case of zero street hours, imputation for 19 days preserved complete representation for 1,152 ZIP Code days. Because of the number of right-hand-side volume variables in the top-down model, having a large number of observations is useful because it helps resolve multicollinearity issues, so the imputation process turned out to be meritorious.

As the number of imputations was small, it likely would have been possible to estimate the top-down model without employing them but, on balance, the imputations made a positive contribution to constructing the analysis data set. Because of the small number and nature of imputations required, straightforward imputation processes could be applied without raising concerns about a large number of constructed observations and without generating excessive complexity and cost.

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7. Please refer to Response to CHIR No. 3, question 4.d.i. The Postal Service states that, "[t]he ZIP Codes used for comparison with the FSS ZIP Codes were the non-FSS ZIP Codes. The deployment of FSS machines was not done randomly. Specifically, the machines were deployed in zones that had high levels of flats volume. Because volumes, by type, are correlated across ZIP Codes, ZIPs that received FSS machines, were large, high volume ZIP codes with high numbers of routes, hours and volumes." Please confirm that in the proposed methodology, stratifying by FSS ZIP Code costs is essentially a proxy for stratifying by ZIP Codes that receive high number of volumes (and therefore costs).

a. If confirmed, please also confirm whether the Postal Service considered alternative models which would estimate variabilities for ZIP Codes with different volumes (or costs), *e.g.,* by using indicator variables for different volume (or cost) buckets. If confirmed, please report the conclusions from these alternative analyses and explain why the Postal Service retained the proposed approach. If not confirmed, please explain how ZIP Codes receiving FSS machines would affect street time, all else equal.

b. Please discuss the potential issues of stratifying by FSS ZIP Codes for future street time variability updates (assuming this proposal is approved). In your discussion, please consider the fact that the composition of FSS ZIP Codes may change as the FSS machines are phased out of certain facilities.

RESPONSE:

Not confirmed. FSS ZIP codes do have a higher mail volume, but there are further identifying factors that mark FSS ZIP codes as distinct. Demographics, population density, delivery points, space availability in the mail processing facility, bin availability, and precedence on the FSS machine are all factors that contribute to the differences between FSS ZIP codes and non-FSS ZIP codes.

a. Not confirmed. Street times in FSS ZIP Codes could be different because the carriers have an additional bundle or container of mail to handle in those ZIP Codes.

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b. To the extent that FSS machines are phased out before the data are collected for an update of the top-down model, the current stratification strategy would be re-evaluated. The re-evaluation would consider the number of ZIP Codes continuing to have FSS machines and the characteristics of those ZIP Codes. For example, if FSS machines were to be completely phased out, the FSS stratification would no longer be necessary.

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8. The Bradley Study states that "because the c_i are random variables, there is a possibility that they are correlated with the various volume variables and, if so, the estimated coefficients on the volume variables will be biased." Bradley Study at 88.

a. Please confirm whether the inclusion of cluster averages of the volume variables as additional explanatory variables is the only possible way to account for the correlation between c_i and the various volume variables. If confirmed, please explain. If not confirmed, please explain why this particular function of volumes, *i.e.,* cluster averages of the volume variables, is chosen to account for the above correlation and why, in the specific context of the Top-down model, the use of cluster averages of the volume variables is better than possible alternative functions of volumes.

b. Please explain whether, and if so, why, Proposal One considers any change in street time induced by a change in the cluster average of mail volume as irrelevant to the calculation of variabilities. In your response, please consider the fact that, for a given ZIP Code, the cluster average of a mail volume changes when the corresponding volume changes.

RESPONSE:

a. Not confirmed. An alternative approach to account for the correlation between the ci and the various volume variables is to estimate a fixed effects model. The use of cluster averages to account for the correlation between the c_i and the various volume variables is known as a correlated random effects model, which is the preferred approach to dealing with the correlation for the top-down model.[1] One of the strengths of the correlated random effects model is that it can provide consistent

[1] Please also note that a panel data model is not required to control for unobserved heterogeneity. The CCE pooled model also controls for unobserved heterogeneity, and when estimated for the top-down model, produces variabilities that are almost identical to those produced by the correlated random effects model.

estimates of relevant parameters, like a fixed effects model, but, unlike a fixed effects model, it can explicitly allow for correlation between omitted site-specific effects and volume and estimation of the impact of characteristic explanatory variables on street time. The correlated random effects model also provides a straightforward and reliable test of whether the omitted site-specific effects are significant.

The correlated random effects model is also appropriate for estimating the top-down model because it addresses concerns the Commission has expressed about the application of fixed effects to the estimation of attributable postal costs. For example, the Commission has argued that the fixed effects are not fixed, but actually "endogenous," meaning they are related to volume.[2] Because the correlated random effects model explicitly specifies parameters to estimate the relationship between the unobserved effects and volume it directly addresses the Commission's concern.

b. The ZIP Code or "cluster" average volume for a ZIP Code is the average value for that ZIP Code calculated over the 12 months in the top-down data set. It is necessarily the case that the ZIP Code average volume could change only if there were to be a change in the underlying monthly data. In other words, there cannot be a change in the ZIP Code average which is independent from the change in measured

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[2] *See*, Opinion And Recommended Decision, Docket No. R2000-1, November 13, 2000, Appendix F at 47, 49, and 71.

volume for the ZIP. The impacts of any changes in the underlying monthly data are captured by the estimated volume coefficients in either the correlated random effects model or the common correlated effects pooled model. In sum, Proposal One does account for any volume changes associated with changes in the cluster average volumes.

Moreover, it is important to keep in mind what the coefficients on the cluster average volumes are estimating. In the correlated random effects model, street time is influenced both by volume and by non-volume variables. Some of those non-volume variables are observed and some are not. The random effects model allows for both types of non-volume variables:

$$y_{it} = x_{it}'\beta + z_i'\psi + c_i + \varepsilon_{it}$$

In the top-down model, the y_{it} are the various street time across ZIP Codes and time periods. The x_{it}' are the volumes and their squares, which vary both across ZIP Codes and through time, the z_i' are the observed non volume variables, like the number of boxes or the indicator of congestion, the c_i are the unobserved non-volume variables, and the ε_{it} are the stochastic error terms. The impacts of volumes on street time are captured by the β coefficients and the impact of the non-volume variables are captured by the ψ and c_i. To avoid bias in the estimated volume responses, the correlated random effects model explicitly incorporates the correlation between the volumes and the unobserved effect by specifying that the unobserved effects can be related, in part, to average volumes:

$$c_i = \alpha + \bar{x}_i'\gamma + \zeta_{i.}$$

In this equation, the γ coefficients measure the correlation between volumes and the unobserved non-volume effects. They do not measure the response of street hours to changes in volume. Substituting this expression into the original equation yields:

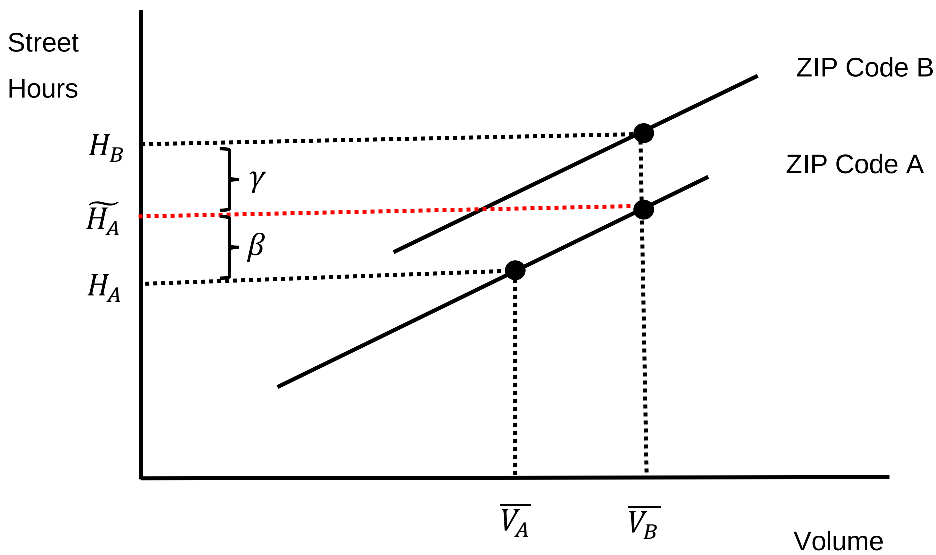
$$y_{it} = \alpha + x_{it}'\beta + z_i'\psi + \bar{x}_i'\gamma + \zeta_{i.} + \varepsilon_{it}$$

The γ coefficients continue to measure the correlation between volume and the unobserved non-volume effects. They are appropriately interpreted as "contextual" effects."[3] For the top-down model, they measure the differences in street time across two ZIP Codes with the same amount of volume and are not measures of the responsiveness of street hours to volume. This can be illustrated graphically for a linear version of the top-down equation. Figure 1 presents the mean volumes and associated street hours for two hypothetical ZIP Codes, with ZIP Code B having both higher volume and higher street hours. The difference in hours is the vertical distance between H_A and H_B. That distance can be decomposed into its two parts. First, there is the difference in street hours due to the difference in volume. This is found by calculating the amount of

[3] *See*, Bell, Andrew, Fairbrother, Malcom and Kelvyn Jones, "Fixed and Random Effects Models: Making an Informed Choice," *Quality and Quantity*, Vol. 53, No. 2, March 2019 at 1053.

hours ZIP Code A would incur if it had the same volume as ZIP Code B and is labeled $\widetilde{H_A}$. The additional hours due to the higher volume is given by the vertical distance between H_A and $\widetilde{H_A}$.

Figure 1



But ZIP Code B has a higher level of hours than $\widetilde{H_A}$ as its hours are given by H_B. The second reason that ZIP Code B has higher hours is due to non-volume related heterogeneity and that difference is measured by the difference in street hours between the two ZIP Codes at the same level of volume. In Figure 1, it is measured by the vertical distance between $\widetilde{H_A}$ and H_B.[4] In the top-down model, the volume-caused

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[4] To simplify the graph, this example includes only volume differences and non-volume differences due to unobserved heterogeneity. In the actual top-down model, the

difference in hours is measured by the β coefficients and the non-volume caused difference in hours is measured by the γ coefficients.

That the γ coefficients measure something different than the response of street hours to volume can also be illustrated by including them in the calculation of the marginal times and variabilities. Table 1 presents the marginal times and variabilities for the correlated random effects model when the γ coefficients are also used to calculate them. The estimation of the model has not changed, only the variability and marginal times calculations. The table shows that the resulting marginal times and variabilities are counter-intuitive, with the DPS variability alone approaching 50 percent and the in-receptacle parcel marginal time and variability being negative.[5]

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difference between H_A and H_B would be decomposed into three parts, the difference due to volume differences, the difference due to unobserved heterogeneity, and the difference due to observed non-volume variables.

[5] The program that estimates the marginal times and variabilities, MTs and Variabilities Including Cluster Coefficients.sas, and its log and listing are attached electronically to this response.

Table 1: Marginal Times and Variabilities Including the Coefficients on ZIP Code Means

Volume Type	Marginal Time	Variability
DPS	8.88	48.0%
Cased	8.50	13.5%
Sequenced	1.96	1.2%
FSS	6.67	1.4%
In-receptacle Parcels	-40.06	-6.1%
Dev. Parcel & Accountables	130.70	14.8%
Collection	18.63	3.2%

Source: MTs and Variabilities Including Cluster Coefficients.sas

9. The Bradley Study states that "[t]he correlated random effects model also produces evidence on whether the pooled model suffers from unobserved heterogeneity which is correlated with volume. If so, the variabilities estimated by the pooled model are biased." Bradley Study at 94. Please confirm whether the unobserved characteristics that are possibly correlated with volume levels can be alternatively accounted for as random intercepts or as ZIP-Code-specific random slopes. If confirmed, please explain why, in the specific context of the Top-down model, the expression of the unobserved characteristics as random intercepts is better than their expression as ZIP Code-specific random slopes. If not confirmed, please explain.

RESPONSE:

Not confirmed. In a random slopes model, it is still important to control for unobserved characteristics which are correlated with volume. Correlated random slopes models allow the slopes, as well as the unobserved effects, to be correlated with the model's covariates. Estimation of a correlated random slopes model can be difficult to estimate for panels that have a large number of cross-sectional units and a relatively small number of time periods. This difficulty arises because such estimation typically requires the time dimension of the panel to exceed the number of parameters being estimated, which is unlikely to hold for a model, like the top-down model, that has a large number of parameters to be estimated.

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10. Please provide a reference to a published scientific article in which a CRE model similar to the model proposed is used in the following way:

a. The model is employed to calculate the elasticity of the predicted dependent with respect to a time-dependent explanatory variable.

b. In the calculation of elasticity in 10.a., the change in the cluster average of the explanatory variable induced by the change in the variable itself is ignored, *i.e.,* it is counted as zero.

RESPONSE:

a. and b. Please see Meyerhoefer, Chad D. and Zuvekas, Samuel H. "New Estimates Of The Demand For Physical and Mental Health Treatment," *Health Economics*, Vol. 19, April 2009, 297-315. On page 304, the authors state "[W]e compute the average point elasticity, by taking derivatives of the expected quantity demanded with respect to the log of expected end-of-year price and dividing by expected demand."

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11. Please refer to Response to CHIR No. 3, folder "OneDrive_2022-02-22," folder "RM2022-3," folder "ChIR 3 Response Attachments," SAS log file "RM2022.3.CHIR3.Q4b.FSS.nonFSS.txt," SAS output file "RM2022.3.CHIR3.Q4b.FSS.nonFSS.lst," and SAS program file "RM2022.3.CHIR3.Q4b.FSS.nonFSS.sas." Please also refer to Response to CHIR No 3, question 4.b. Please confirm that the program file referenced above does not correspond with the referenced log file, output file, and "Table: Comparison of Means between FSS and non-FSS ZIP Codes in the Analysis Dataset Used in the Top-Down Model" provided by the Postal Service in Response to CHIR No. 3, question 4.b. If confirmed, please provide an updated SAS program file. If not confirmed, please explain the discrepancy between the results of running the program file and the contents of the referenced table, output file, and log files.

RESPONSE:

Please see Notice of the United States Postal Service of Revised Attachments to the Response to Question 4 of Chairman's Information Request No. 3 – Errata, filed on February 24, 2022, and its attachments.