OEBB Health Plan Choice Documentation

March 2021

I. Research Aims and Procedure Outline

1) Use claims data, choice set data, and plan characteristics to model the costs of eligible beneficiaries in all plans that they could have chosen to assess their choice rationality.
2) Test various interventions that may improve choices.

II. Notes

1) We provide various file paths in blue and red. The blue file paths reference the locations of .dta and .do files in our internal servers. These are provided for the reader's convenience to reference in the code; we do not provide the referenced .dta files. The red file paths point to various .do files in the online appendix, i.e. readers have the ability to read the referenced .do files.

III. Data Availability Statement

We utilized the following propriety datasets:

- Oregon Educators Benefit Board, Claims and Eligibility Data, 2008-2013.
- Oregon Educators Benefit Board, Billing Categories from Claims for each Insurer, 2008-2013.
- Oregon Educators Benefit Board, Premiums Data, 2008-2013.
- Oregon Educators Benefit Board, Choice Set Data, 2008-2013.
- Oregon Educators Benefit Board, School District Surveys and Union Contracts.
- Oregon Educators Benefit Board, Plan Characteristics, 2008-2014.
- Oregon Educators Benefit Board, Informed Enrollment, 2012-2013.

This is restricted-use data with personally identifiable information. Users can access the same data under a data-use agreement with the Oregon Health Authority.

IV. Data Received

We received the following propriety data. The file paths provided are for the reader's convenience to reference the code; we do not provide this data.:

1) Claims and eligibility data from OEBB via Truven
    a. Five packages of raw text files from Truven are located here: /disk/agedisk3/oebb.work/cbehrer/oregon/data/raw/truventext/
    b. Corresponding labeled Stata .dta files are saved here: /disk/agedisk3/oebb.work/cbehrer/oregon/data/raw/labeleddta/
2) Crosswalk1: Claim to proprietary code crosswalk from insurers
    a. To model claims in counterfactual plans, we use three crosswalks. The first of those is from claim to the billing category that each insurer uses for the claim: /disk/agedisk3/oebb.work/cbehrer/oregon/data/given/clean/treatmentcodematch/

3) Choice set and premium data from OEBB
    a. Raw premium data: /disk/agedisk3/oebb.work/cbehrer/oregon/data/given/PlanRateStructureandPremium.csv
    b. Choice set data, for i = 1-5: /disk/agedisk3/oebb.work/cbehrer/oregon/data/given/PlanEligibilityallYears20131202_`i'.csv
4) District contribution data from districts via OEBB
    a. We received surveys and union contracts and compiled the data into a single excel file. See III.1. for more information.
5) Plan characteristics from OEBB
6) Informed enrollment from OEBB via Truven
    a. /disk/agedisk3/oebb.work/cbehrer/oregon/data/given/clean/informedenrollment/2013/MITData_December2013.xlsx

V. DATA CONSTRUCTED

We constructed the following data using the propriety data described above. The file paths provided are for the reader's convenience to reference within the code; we do not provide this data.:

1) District contribution to premiums and district specific HSA/HRA rules.
    a. /disk/agedisk3/oebb.work/cbehrer/oregon/data/built/premium/ContributionInfoSurveys_03012016.xlsx
2) Crosswalk2: Maps insurer code to internally created variable (serviceid) to model across insurers. We built the mappings based on the qualitative description of insurer proprietary payment codes to match codes for similar services across insurers. E.g. we say that TOS (MODA) code A and Kaiser Code B are for the same type of service, and map them both to serviceid 0001. We have two such mappings, because the calculator modelling counterfactual Kaiser/Providence plans was not very accurate with the initial mapping; these secondary mappings are stored in the "rebuild" directory listed below. We created mappings for each year *y* in (2008-2013) and insurer *c* (Kaiser Medical (kaiser), Providence (provd), ODS (ods)). These files are entitled as:
    a. /disk/agedisk3/oebb.work/cbehrer/oregon/data/given/clean/service_procedure_cwalk/20`y'/treatmentcodematch`y''c'
    b. /disk/agedisk3/oebb.work/cbehrer/oregon/data/given/clean/service_procedure_cwalk/20`y'/rebuild/treatmentcodematch`y''c'
3) Crosswalk3: Maps payment rules to internally created variable (serviceid). These are built using the proprietary plan design spreadsheets and updated based on what we observed in the data to minimize errors. We combine the payment rules for each year *y* (2008-2013) across all insurers (Kaiser, Providence, ODS). These files are entitled as:
    a. /disk/agedisk3/oebb.work/cbehrer/oregon/data/given/clean/service_procedure_cwalk/20`y'/medicalservices`y'
    b. /disk/agedisk3/oebb.work/cbehrer/oregon/data/given/clean/service_procedure_cwalk/20`y'/rebuild/ medicalservices`y'

c. /disk/agedisk3/oebb.work/cbehrer/oregon/data/given/clean/service_procedure_cwalk/20`y'/pharmacycopay`y'

d. /disk/agedisk3/oebb.work/cbehrer/oregon/data/given/clean/service_procedure_cwalk/20`y'/rebuild/ pharmacycopay`y'

4) OOP max and deductible data.

a. /disk/agedisk3/oebb.work/cbehrer/oregon/data/given/clean/limits.csv

VI. DO FILES – DATA AND ANALYSIS

1) Claims data cleaning .do files

a. Purpose: Our raw claims data are 35 text files received from Truven. These 11 .do files collectively read in these text files, label variables and values, stack the various datasets, deduplicate and devoid the data and save Stata datasets that can be used in the calculator. The final claims datasets used by the calculator are saved here: /disk/agedisk3/oebb.work/cbehrer/oregon/data/cleaning/3devoid/

AND the eligibility data (which did not need to be devoided) is saved here:

/disk/agedisk3/oebb.work/cbehrer/oregon/data/cleaning/2deduplicated/deduplicated_eligibility_11_Jun_2015.dta

The _trimmed_ datasets saved in /disk/agedisk3/oebb.work/cbehrer/oregon/data/cleaning/3devoid/ are simply the non-trimmed files with unnecessary variables dropped to accelerate run time.

Two non-obvious aspects of the data cleaning step are stacking/devoiding and the personid variable. Critically, the claimid variable is not always shared between a voided claim and a voiding claim.

To stack and devoid, we read in the claims data reverse chronologically from when we received it. For each dataset, we drop any data from the period covered by the next dataset – e.g. drop all data from the second to last dataset that is from a time period covered by the last dataset and so forth.

We then match a void claim with a voiding claim based on a progressive set of pairing variables, and drop both the voided and voiding. We have to go through this rather cumbersome process, rather than the traditional claims processing steps of summing across a person to allow voiding and devoided to cancel out, because we need an accurate set of individual claim that were paid, rather than the total costs, so that we can model counterfactual plan choices.

There are two personid variables, personid and personidIE for the informed enrollment experiment. These .do files use crosswalks to add both variables to all datasets. There should be a 1:1 mapping between these two variables.

b. Location:

i. /disk/agedisk3/oebb.work/cbehrer/oregon/do/0_dataprep/

ii. \online_appendix\do\data_analysis\01_claims_data_cleaning\

c. Files:

i. 0_1datalabeling_pkg1_24Apr2015.do
ii. 0_2datalabeling_pkg2_24Apr2015.do
iii. 0_3datalabeling_pkg3_24Apr2015.do
iv. 0_4datalabeling_pkg4_24Apr2015.do
v. 0_5datalabeling_pkg5_11May2015.do
vi. 0_6misc_cleaning_10Jun2015.do
vii. 0_7deduplicate_NEWMETHOD_11Jun2015.do
viii. 0_8devoidfacility_11june2015.do
ix. 0_9devoidprofessional_11june2015.do
x. 10devoiddrug_11june2015.do
xi. 0_11trimvariables_26sept2016.do

2) Building premium and choice sets
   a. Purpose: Combine raw premium data, district contribution, and choice set data to create Stata files of choice sets and premiums faced by beneficiaries. NOTE: *prem* variables indicate raw premiums, *empamt* variables are the amount the beneficiary (employee) faces and can be negative here in order to follow rules about excess subsidies being contributed to HSA/HRA's later.
   b. Location:
      i. /disk/agedisk3/oebb.work/cbehrer/oregon/do/1_premiumandchoiceset
      ii. \online_appendix\do\data_analysis\02_premium_choice_sets\
   c. Files:
      i. 1_SHELL_createpremiumstructure.do
      ii. 1_Aoregonpremium_03-14-16.do
      iii. 1_Bcontributionfile_03-14-16.do
      iv. 1_Ccomputeempprem_03-14-16.do
3) Sample selection
   a. Purpose: Limit our sample to beneficiaries meeting various criteria that allow accurate analysis. Creates results for Appendix Table C2 of the paper.
   b. Locations:
      i. /disk/agedisk3/oebb.work/cbehrer/oregon/do/1B_sampleselection
      ii. \online_appendix\do\data_analysis\03_sample_selection\
   c. Files:
      i. 1B_1sampleselection_PB_23_sept_2016.do
      ii. 1B_2sampleselection_PF_23_sept_2016.do
4) Running the calculator

a. Purpose: Model individuals in counterfactual plans. PB/PF model families in plans that are in their observed choicesets. ACG models each individual as an individual and in every possible plan, even if that plan was not in their choiceset.

b. Note: There are 2 sets of files for the calculator, one for MODA/ODS counterfactual plans and one for Kaiser/Providence counterfactual plans. This was done because the initial structure (MODA/ODS) had high errors for Kaiser/Providence, so we built a new set of crosswalks for our internal variable (serviceid) to improve accuracy for Kaiser/Providence. In principle we could map the existing ODS/MODA set of crosswalks 1:1 into the new crosswalk to have just one set of files, but this would not change predictions in any way, would take a large amount of time, and initial attempts to do so were very error prone. The Kaiser/Providence files are in the rebuild subdirectories. For each set, there are each of the 3 expectation method shell files (PB/PF/ACG) which call the same two actual calculator .do files.

c. Locations:

   i. /disk/agedisk3/oebb.work/cbehrer/oregon/do/2calculator/base/june2015/ AND /disk/agedisk3/oebb.work/cbehrer/oregon/do/2calculator/base/june2015/rebuild/

   ii. \online_appendix\do\data_analysis\04_calculator\ AND \online_appendix\do\data_analysis\04_calculator\rebuild\

d. Files: (the coder runs the *0SHELL* files, which call files vii – x which contain the nested .do files listed in section 4e. below)

   i. 0SHELL_fullrun_base_PB_09-22-15.do

   ii. 0SHELL_fullrun_base_PF_09-22-15.do

   iii. 0SHELL_fullrun_base_ACG_09-22-15.do

   iv. /rebuild/0SHELL_fullrun_base_PB_09-24-15.do

   v. /rebuild/0SHELL_fullrun_base_PF_09-24-15.do

   vi. /rebuild/0SHELL_fullrun_base_ACG_09-22-15.do

   vii. 1calculator_input_09-22-16.do – builds datasets of all claims in counterfactual plans

   viii. 2oregon_calculator_09-22-16.do – models costs

   ix. /rebuild/1calculator_input_KP_09_22_16.do – builds datasets of all claims in counterfactual plans

   x. /rebuild/2oregon_calculator_KP_09_22_16.do – models costs

e. Nested files

   i. Located in:

      1. /disk/agedisk3/oebb.work/cbehrer/oregon/do/2calculator/pieces_calc/

      2. \online_appendix\do\data_analysis\04_calculator\nested\

   ii. File: ods_dedmax_fix.do is nested and called to change deductible and OOP max values from only individual or family to individual for 1 person, individual * 2 for 2 people, etc. and family as appropriate.

iii. The 2oregon_calculator_09-22-16.do file was written for OMED/MODA claims. Five .do files are called in the 2oregon_calculator_KP_09_22_16.do calculator to model kaiser/providence claims.
    1. /disk/agedisk3/oebb.work/cbehrer/oregon/do/2calculator/pieces_calc/rebuild
    2. \online_appendix\do\data_analysis\04_calculator\nested\rebuild\

5) ACG
    a. Purpose: Create predicted risk scores for health expenditure.
    b. Locations:
        i. /disk/agedisk3/oebb.work/cbehrer/oregon/do/JHUacg/
        ii. \online_appendix\do\data_analysis\05_ACG\
    c. Files:
        i. Shell files for years 2009 – 2013: Oregon_acg_SHELL_`y'.do
        ii. Called file: 1-ACGinputfile_12-6.do
    d. Notes:
        i. The above Stata .do files just prepare datasets. ACG software (with an ACG license) to produce risk scores must be run in UNIX using the commands included as comments in the above .do files.

6) "Analysis" – combining calculator and premium data (3analysis)
    a. Purpose: Combine the two sets of calculator output, aggregate to policy holder total costs, add in premiums, and apply HSA/HRA rules. Note that the ACG version of these files is only used to generate another model of gross expected out of pocket costs, so none of premium or HSA/HRA analysis is necessary, we can apply the values for premium and offsetting OOP costs from the PF/PB runs to get net (after HSA/HRA offset) ACG OOP costs.
    b. Locations:
        i. /disk/agedisk3/oebb.work/cbehrer/oregon/do/3analysis/
        ii. \online_appendix\do\data_analysis\06_calculator_premium_analysis\
    c. Files:
        i. 0_1combine_PF_calc_output.do
        ii. 0_2combine_PB_calc_output.do
        iii. 0_3combine_ACG_calc_output.do
        iv. 1_1_SHELL_PF_analysis_savingsaccount_dv.do
        v. 1_2_SHELL_PB_analysis_savingsaccount_dv.do
        vi. 1_3_ACG_analysis_firstpiece.do
        vii. [called by shell files] analysis-dv.do
        viii. [called by shell files] analysis-firstpiece.do

7) ACG "analysis"
    a. Purpose: Make distributions of expected costs for 2,000, 10,000, and 20,000 draws.
    b. Locations:
        i. /disk/agedisk3/oebb.work/cbehrer/oregon/do/3analysis/acg/
        ii. \online_appendix\do\data_analysis\07_ACG_analysis\
    c. Files:
        i. 00cells_create_10_03_16.do – uses JHU software output to make cells
        ii. 0HM_sumcalc_10_03_16.do – gets data from calculator run of all beneficiaries as individuals in all plans
        iii. 1HM_sample_10_03_16.do – draw samples of `i'k beneficiaries in each cell, where i = 2, 10, 20.
        iv. 2HM_build_families_10_03_16.do – build a list of beneficiaries, their cell, and their observed choice set. Chop this into 100 pieces. We have to merge on 2k, 10k, or 20k estimates of OOP costs for each observation in the dataset output by this program, so we need to do the next step in pieces.
        v. 51 .do files of form: 3HM_merge_w_acg_`i'k_`j'_`yyyy'_10_03_16.do

            These files merge the `i'k estimates of OOP costs onto the list of beneficiaries produced by 2HM_build_families_10_03_16.do, collapse to family*draw number totals, apply deductible and OOP maxes to create the desired draw number estimates of OOP costs for a family, and then collapse these estimates into summary statistics of the distribution of expected costs for each family, plan, drugplan. Datasets are still in 100 pieces though.
        vi. 4HM_stack_`i'k_10_12_16.do – stack the 100 pieces together.

8) Building analysis datasets (5regressionanalysis)
    a. Purpose: Combine existing data into one dataset for choice models and other analyses. Some steps require files from "9) Informed enrollment" to have been run first. Files in 8 and 9 were may be run simultaneously and are not in linear order.
    b. Locations:
        i. /disk/agedisk3/oebb.work/cbehrer/oregon/do/5regressionanalysis/
        ii. \online_appendix\do\data_analysis\08_build_analysis_data\
    c. Files:
        i. 0build_dataset_04_Oct_2016.do – This is the central dataset building file. Builds .dta file analysis_dataset_PBPF.
        ii. Adding ACG – Separated into 3 files because of runtime constraints.

            The order based on ACG datasets available was: first build PF/PB dataset using .do file 0build_dataset; then add 2K acg data, then run initial IE code in 9) below, then add IE data, then add 10k and 20k. All of these *addXXX* files just merge on variables and can be done in any order. Based on the order they were

originally run, 0_1addacg20K_4_Oct_2016.do builds the final .dta file analysis_dataset.

1. 0_1addacg2K_20_Dec_2017.do – must run before IE code below
2. 0_1addacg10K_20_Dec_2017.do
3. 0_1addacg20K_20_Dec_2017.do

iii. 0_1addIE_20_Dec_2017.do

1. Must first run: 0_informed_enrollment_6_Oct_2016.do

9) Informed enrollment

a. Purpose: Clean and analyze experiment data.

b. Locations:

i. /disk/agedisk3/oebb.work/cbehrer/oregon/do/4informedenrollment/

ii. \online_appendix\do\data_analysis\09_informed_enrollment\

c. Files:

i. 0_informed_enrollment_6_Oct_2016.do – Cleans IE data and builds .dta file IE2013_regress_input

ii. 1_0_balance_checks_16_Nov_2016.do – produces manuscript balance Table 5

iii. 1_1_IE_recommend_regs_6_Oct_2016.do – builds .dta file IE2013_simulation_data

iv. 1_1_IE_recommend_regs_ACG_6_Oct_2016.do – builds .dta file IE2013_simulation_data_ACG

v. 1_2_IE_choice_simulation_7_Oct_2016.do – simulates control as the control group and control as if they were treatment.

vi. 1_2_IE_choice_simulation_ACG_7_Oct_2016.do – simulates control as the control group and control as if they were treatment for ACG.

vii. 2_1_IE_trteffect_7_Oct_2016.do – Computes basic summary statistics of chosen plans for treatment and control groups and builds .dta file IE2013_observedcost_trteffect_data

viii. 2_2_IE_choiceassessment_7_Oct_2016.do – Computes summary statistics of chosen, recommended, and lowest cost plans for various groups.

ix. 3_IE_acgcosts_trteffect_regs_8_Oct_2016.do – Assesses treatment effect via regression using ACG costs.

x. 3_IE_observedcosts_trteffect_regs_8_Oct_2016.do – Assesses treatment effect via regression using observed costs.

xi. 9_IE_recommendation_only_simulations_8_Oct_2016.do – Estimates logit model of choice on recommendation and controls among those with recommendation only using perfect backcast costs (e.g. replicating tool).

xii. 9_IE_recommendation_only_simulations_ACG_8_Oct_2016.do – Estimates logit model of choice on recommendation and controls among those with recommendation only using ACG costs.

VII. TABLES AND FIGURES IN THE PAPER

1) Table 1
    a. Generated using propriety plan design spreadsheets received from OEBB.
2) Table 2
    a. Files:
        i. oregonanaliterate.do – Call Section Table 2
        ii. oregonanal102119auxloop.do
        iii. makeplandiff.do
        iv. finalsamprestrict.do
        v. regsetup.do
        vi. regoutput.do
    b. Locations:
        i. ~/do/6paper_do/Jadofiles/
        ii. \online_appendix\do\tab_fig\
    c. Log Files: \online_appendix\logs\Table 2\
3) Table 3
    a. Files:
        i. oregonanaliterate.do – Call section Table 3 and Appendix Table C4 (Part A)
        ii. oregonanal102119auxloop.do
        iii. makeplandiff.do
        iv. finalsamprestrict.do
        v. regsetup.do
        vi. regoutput.do
    b. Locations:
        i. ~/do/6paper_do/Jadofiles/
        ii. \online_appendix\do\tab_fig\
    c. Log Files: \online_appendix\logs\Table 3\
4) Table 4
    a. Files:
        i. oregonanaliterate.do - Call section Table 4
        ii. oregonanal102119choicesetreg.do
        iii. finalsamprestrict.do

iv. regsetup.do
v. makeplanreg.do

b. Locations:
i. ~/do/6paper_do/Jadofiles/
ii. \online_appendix\do\tab_fig\

c. Log Files: \online_appendix\logs\Table 4\

5) Tables 5 and 6
a. Files:
i. oregonanaliterate.do – Call section Table 5
ii. oregonanal102119auxloopnumplans.do
iii. makeplandiff.do
iv. finalsamprestrict.do
v. regsetup.do
vi. regoutputnumplans.do

b. Locations:
i. ~/do/6paper_do/Jadofiles/
ii. \online_appendix\do\tab_fig\

c. Log Files: \online_appendix\logs\Table 5 and 6\

6) Table 7
a. Files:
i. oregonanaliterate.do – Call section Table 7
ii. oregonanal102119auxloopotherLHS.do
iii. makeplandiff.do
iv. finalsamprestrict.do
v. regsetup.do

b. Locations:
i. ~/do/6paper_do/Jadofiles/
ii. \online_appendix\do\tab_fig\

c. Log Files: \online_appendix\logs\Table 7\

7) Table 8
a. File:
i. oregonanal121718anyrestrict.do

b. Locations:
i. ~/do/6paper_do/Jadofiles/
ii. \online_appendix\do\tab_fig\

c. Log Files: \online_appendix\logs\Table 8\

8) Table 9

a. Files:

i. oregonanaliterate.do – Call section Table 9

ii. oregonanal102119auxloopplaninvestigate.do

iii. makeplandiff.do

iv. finalsamprestrict.do

b. Locations:

i. ~/do/6paper_do/Jadofiles/

ii. \online_appendix\do\tab_fig\

c. Log Files: \online_appendix\logs\Table 9\

9) Table 10

a. Files:

i. oregonanaliterate.do – Call section Table 10

ii. oregonanal062120auxloopbadremove.do

iii. makeplandiff.do

iv. finalsamprestrict.do

v. regsetup.do

vi. makegridsearch.do

vii. makeinfosim.do

viii. makelogitprob.do

b. Locations:

i. ~/do/6paper_do/Jadofiles/

ii. \online_appendix\do\tab_fig\

c. Log Files: \online_appendix\logs\Table 10\

10) Figure 1

a. Files:

i. oregonanaliterate.do – Call section Figures 1, C1, and C2

ii. makefigures.do

iii. finalsamprestrict.do

b. Locations:

i. ~/do/6paper_do/Jadofiles/

ii. \online_appendix\do\tab_fig\

c. Log Files: \online_appendix\logs\Figure 1 and 3\

11) Figure 2

a. Files:
    i. oregonanaliterate.do – call section Figure 2
    ii. plantable.do
    iii. makeplandiff.do
    iv. makeplantable.do
b. Locations:
    i. ~/do/6paper_do/Jadofiles/
    ii. \online_appendix\do\tab_fig\
c. Log Files: \online_appendix\logs\Figure 2\

12) Figure 3
a. Files:
    i. oregonanaliterate.do – call section Make Figures 1, C1, and C2
    ii. makefigures.do
    iii. finalsamprestrict.do
b. Locations:
    i. ~/do/6paper_do/Jadofiles/
    ii. \online_appendix\do\tab_fig\
c. Log Files: \online_appendix\logs\Figure 1 and 3\

13) Figure 4
a. Files:
    i. oregonanaliterate.do – Call section Figure 4
    ii. oregonanalFigure4_041920.do
    iii. makeplandiff.do
    iv. finalsamprestrict.do
    v. regsetup.do
b. Locations:
    i. ~/do/6paper_do/Jadofiles/
    ii. \online_appendix\do\tab_fig\
c. Log Files: \online_appendix\logs\Figure 4\

14) Figure C1
a. Files:
    i. oregonanaliterate.do – Call section Make Figures 1, C1, and C2
    ii. makefigures.do
    iii. finalsamprestrict.do
b. Locations:

i. ~/do/6paper_do/Jadofiles/
ii. \online_appendix\do\tab_fig\

c. Log Files: \online_appendix\logs\Figure C1 and C2\

15) Figure C2

a. Files:
i. oregonanaliterate.do – Call section Make Figures 1, C1, and C2
ii. makefigures.do
iii. finalsamprestrict.do

b. Locations:
i. ~/do/6paper_do/Jadofiles/
ii. \online_appendix\do\tab_fig\

c. Log Files: \online_appendix\logs\Figure C1 and C2\

16) Appendix Table C1

a. Generated using proprietary plan design spreadsheets received from OEBB.

17) Appendix Table C2

a. Files:
i. 1B_1sampleselection_PB_23_sept_2016.do
ii. 1B_2sampleselection_PF_23_sept_2016.do

b. Locations:
i. ~/do/6paper_do/Jadofiles/
ii. \online_appendix\do\tab_fig\

c. Log Files: \online_appendix\logs\Appendix Table C2\

18) Appendix Table C3

a. Files:
i. oregonanal111616MODAauxACGsensitivity.do
ii. oregonanal111616ALLauxACGsensitivity.do

b. Locations:
i. ~/do/6paper_do/Jadofiles/
ii. \online_appendix\do\tab_fig\

c. Log Files: \online_appendix\logs\Appendix Table C3\

19) Appendix Table C4

a. Files:
i. oregonanaliterate.do – To create the upper portion of the table (with plan dummies), call section Table 3 and Appendix Table C4 (Part 1). To create the

lower portion of the table (without plan dummies), call Appendix Table C4 Part 2.

ii. oregonanal102119auxloop.do

iii. makeplandiff.do

iv. finalsamprestrict.do

v. regsetup.do

vi. regoutput.do

b. Locations:

i. ~/do/6paper_do/Jadofiles/

ii. \online_appendix\do\tab_fig\

c. Log Files: \online_appendix\logs\Table 3\

20) Appendix Table C5

a. Files:

i. oregonanaliterate.do – Call section Appendix Table C5

ii. oregonanal102119auxloop.do

iii. makeplandiff.do

iv. finalsamprestrict.do

v. regsetup.do

vi. regoutput.do

b. Locations:

i. ~/do/6paper_do/Jadofiles/

ii. \online_appendix\do\tab_fig\

c. Log Files: \online_appendix\logs\Appendix Table C5\

21) Appendix Table C6

a. Files:

i. oregonanaliterate.do – To create the "MODA Only" columns, call section Table 3. To create the "All Plans" columns, call section Table 3, but set the MODA variable to 0.

ii. oregonanal102119auxloop.do

iii. makeplandiff.do

iv. finalsamprestrict.do

v. regsetup.do

vi. regoutput.do

b. Locations:

i. ~/do/6paper_do/Jadofiles/

ii. \online_appendix\do\tab_fig\

c. Log Files: \online_appendix\logs\Appendix Table C6\

22) Appendix Table C7

a. Files:

i. oregonanaliterate.do – Call section Appendix Table C7
ii. oregonanal102119auxloopagerestrict.do
iii. makeplandiff.do
iv. finalsamprestrict.do
v. regsetup.do
vi. regoutput.do

b. Locations:

i. ~/do/6paper_do/Jadofiles/
ii. \online_appendix\do\tab_fig\

c. Log Files: \online_appendix\logs\Appendix Table C7\

23) Appendix Table C8

a. Files:

i. oregonanaliterate.do – Call section Appendix Table C8
ii. oregonanal102119auxloopotherrisk.do
iii. makeplandiff.do
iv. finalsamprestrict.do
v. regsetup.do
vi. regoutput.do

b. Locations:

i. ~/do/6paper_do/Jadofiles/
ii. \online_appendix\do\tab_fig\

c. Log Files: \online_appendix\logs\Appendix Table C8\

24) Appendix Table C9

a. Files:

i. oregonanaliterate.do – Call section Appendix Table C9
ii. oregonanal102119auxloopcontroltest.do
iii. makeplandiff.do
iv. finalsamprestrict.do
v. regsetup.do
vi. oregonanalchoice111616robust.do

b. Locations:

i. ~/do/6paper_do/Jadofiles/
ii. \online_appendix\do\tab_fig\

c. Log Files: \online_appendix\logs\Appendix Table C9\

25) Appendix Table C10

a. Files:
i. oregonanaliterate.do – Call section Appendix Table C10
ii. oregonanal102119auxlooprisktest.do
iii. makeplandiff.do
iv. finalsamprestrict.do
v. regsetup.do
vi. oregonanalchoice111616.do

b. Locations:
i. ~/do/6paper_do/Jadofiles/
ii. \online_appendix\do\tab_fig\

c. Log Files: \online_appendix\logs\Appendix Table C10\

26) Appendix Table C11

a. Files:
i. oregonanaliterate.do – Call section Appendix Table C11
ii. oregonanal062120auxloopbadremovewelf.do
iii. makeplandiff.do
iv. finalsamprestrict.do
v. regsetup.do
vi. makegridsearchwelf.do
vii. makeinfosimwelf.do
viii. makelogitprob.do

b. Locations:
i. ~/do/6paper_do/Jadofiles/
ii. \online_appendix\do\tab_fig\

c. Log Files: \online_appendix\logs\Appendix Table C11\

27) Appendix Table C12

a. Files:
i. oregonanal112916modelMODAREtable4.do
ii. oregonanalchoice111616.do

b. Locations:
i. ~/do/6paper_do/Jadofiles/

ii. \online_appendix\do\tab_fig\

c. Log Files: \online_appendix\logs\Appendix Table C12\

VIII. STATA PACKAGES

Install the dependencies prior to running the code. Run the following code in Stata:

ssc install iia

ssc install matwrite

ssc install outreg

ssc install mixlogit

net install zdemo, from(https://stats.idre.ucla.edu/stat/stata/ado/teach/)

ssc install distinct

net install sg153, from(http://www.stata.com/stb/stb58/)

net install ml3_ado, from(http://www.stata-press.com/data/gps/ml3/)

ssc install kdens2

ssc install tabout

ssc install _gwtmean

ssc install ranktest

ssc install geocode

ssc install traveltime

ssc install moremata

ssc install ftools

ssc install lassopack

ssc install listsome

ssc install binscatter