

```

1  *-----
   --*
2  User:                ACER
3  Date:                May 11, 2024
4  Time:                18:45:35
5  Site:                70110891
6  Platform:           X64_8HOME
7  Maintenance Release: 9.04.01M3P062415
8  EM Version:          14.1
9  *
10 *-----
    --*
11 * Training Log
12 Date:                May 11, 2024
13 Time:                18:45:28
14 *-----
    --*
15 10865  proc freq data=EMWS1.Reg2_VariableSet noprint;
16 10866  table ROLE*LEVEL/out=WORK.Reg2META;
17 10867  run;
18
19 NOTE: There were 22 observations read from the data set EMW
    S1.REG2_VARIABLESET.
20 NOTE: The data set WORK.REG2META has 2 observations and 4 v
    ariables.
21 NOTE: PROCEDURE FREQ used (Total process time):
22      real time                0.06 seconds
23      cpu time                  0.00 seconds
24
25
26 10868  proc print data=WORK.Reg2META label noobs;
27 10869  var ROLE LEVEL COUNT;
28 10870  label ROLE = "%sysfunc(sasmsg(sashelp.dmine, meta_ro
    le_vlabel, NOQUOTE))" LEVEL = "%sysfunc(sasmsg(sashelp.dmin
    e, meta_level_vlabel, NOQUOTE))" COUNT = "%sysfunc(sasmsg(s
    ashelp.dmine, rpt_count_vlabel, NOQUOTE))";

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[illegible]

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63             INFORMAT='BEST32.0'
64             INDEX='N'
65             INDEXTYPE='NONE'
66             LENGTH=8
67             USE='Y'
68         ) [11345]
69 PERFORMANCE DETAILS
70 WORK.EM_DMDB WORK.EM_DMDB
71 WORK.EM_DMDB WORK.EM_DMDB WORK EM_DMDB
72 "No decisions defined for target "percent_vaccinated"."
73 10936 proc print data = EMWS1.Reg2_percent_vaccinat_DM noo
       bs label;
74 10937 var _type_ variable label;
75 10938 where _type_ ^in('MATRIX', 'DECISION', 'TRAINPRIOR',
       'DATAPRIOR', 'DECPRIOR');
76 10939 label _TYPE_ = "%sysfunc(sasmsg(sashelp.dmine, rpt_t
       ype_vlabel, NOQUOTE))" VARIABLE = "%sysfunc(sasmsg(sash
       elp.dmine, rpt_variable_vlabel, NOQUOTE))" LABEL = "%sysfun
       c(sasmsg(sashelp.dmine, meta_label_vlabel, NOQUOTE))";
77 10940 title9 ' ';
78 10941 title10 "%sysfunc(sasmsg(sashelp.dmine, rpt_predDecV
       ars_title , NOQUOTE))";
79 10942 run;
80
81 NOTE: There were 3 observations read from the data set EMWS
       1.REG2_PERCENT_VACCINAT_DM.
82     WHERE _type_ not in ('DATAPRIOR', 'DECISION', 'DECPRI
       OR', 'MATRIX', 'TRAINPRIOR');
83 NOTE: The PROCEDURE PRINT printed page 2.
84 NOTE: PROCEDURE PRINT used (Total process time):
85     real time             0.00 seconds
86     cpu time              0.00 seconds
87
88
89 10943 title10;
90

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91 NOTE: There were 3 observations read from the data set EMWS
    1.REG2_PERCENT_VACCINAT_DD.
92 NOTE: The data set WORK.PERCENT_VACCINATED has 3 observatio
    ns and 1 variables.
93 NOTE: There were 3 observations read from the data set EMWS
    1.REG2_PERCENT_VACCINAT_DD.
94 NOTE: The data set WORK.PERCENT_VACCINATED has 3 observatio
    ns and 1 variables.
95 10953 *-----*
    -----*;
96 10954 * Reg2: Create decision matrix;
97 10955 *-----*
    -----*;
98 10956 data WORK.percent_vaccinated(label="percent_vaccinat
    ed");
99 10957     length    percent_vaccinated                8
100 10958           ;
101 10959
102 10960     percent_vaccinated=25.6;
103 10961 output;
104 10962     percent_vaccinated=77.2;
105 10963 output;
106 10964     percent_vaccinated=51.8875882946519;
107 10965 output;
108 10966     ;
109 10967 run;
110
111 NOTE: The data set WORK.PERCENT_VACCINATED has 3 observatio
    ns and 1 variables.
112 NOTE: DATA statement used (Total process time):
113         real time                0.00 seconds
114         cpu time                  0.00 seconds
115
116
117 10968 proc datasets lib=work nolist;
118 10969 modify percent_vaccinated(type=PROFIT label=percent_

```

```

        vaccinated);
119 10970  run;
120
121 NOTE: MODIFY was successful for WORK.PERCENT_VACCINATED.DAT
    A.
122 10971  quit;
123
124 NOTE: PROCEDURE DATASETS used (Total process time):
125         real time          0.06 seconds
126         cpu time           0.00 seconds
127
128
129 10972  data EM_DMREG / view=EM_DMREG;
130 10973  set EMWS1.Varsel_TRAIN(keep=
131 10974  appartments_per_1000_persons entities_registered_per
    _10k_pers forests_area
132 10975  installations_bathroom installations_central_heating
    installations_network_gas
133 10976  installations_toilet installations_watersupply net_m
    igrations_per_1000_persons
134 10977  net_scholarization percent_vaccinated persons_per_ap
    partment persons_per_room
135 10978  population_density population_per_pharmacy revenues_
    per_capita
136 10979  revenues_per_capita_CIT revenues_per_capita_PIT unem
    ployment_rate
137 10980  unemployment_rate_f unemployment_rate_m urbanization
    _rate);
138 10981  run;
139
140 NOTE: DATA STEP view saved on file WORK.EM_DMREG.
141 NOTE: A stored DATA STEP view cannot run under a different
    operating system.
142 NOTE: View EMWS1.VARSEL_TRAIN.VIEW used (Total process time
    ):
143         real time          0.02 seconds

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144         cpu time                0.00 seconds
145
146 NOTE: DATA statement used (Total process time):
147         real time                0.02 seconds
148         cpu time                  0.00 seconds
149
150
151 10982  *-----
        -----* ;
152 10983  * Reg2: DMDBClass Macro ;
153 10984  *-----
        -----* ;
154 10985  %macro DMDBClass;
155 10986
156 10987  %mend DMDBClass;
157 10988  *-----
        -----* ;
158 10989  * Reg2: DMDBVar Macro ;
159 10990  *-----
        -----* ;
160 10991  %macro DMDBVar;
161 10992      appartments_per_1000_persons entities_registered
        _per_10k_pers forests_area
162 10993      installations_bathroom installations_central_heat
        ing installations_network_gas
163 10994      installations_toilet installations_watersupply ne
        t_migrations_per_1000_persons
164 10995      net_scholarization percent_vaccinated persons_per
        _apartment persons_per_room
165 10996      population_density population_per_pharmacy revenu
        es_per_capita
166 10997      revenues_per_capita_CIT revenues_per_capita_PIT u
        nemployment_rate
167 10998      unemployment_rate_f unemployment_rate_m urbanizat
        ion_rate
168 10999  %mend DMDBVar;

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169 11000  *-----*
          -----*;
170 11001  * Reg2: Create DMDB;
171 11002  *-----*
          -----*;
172 11003  proc dmdb batch data=WORK.EM_DMREG
173 11004  dmdbcat=WORK.Reg2_DMDB
174 11005  maxlevel = 513
175 11006  ;
176 11007  var %DMDBVar;
177 11008  target
178 11009  percent_vaccinated
179 11010  ;
180 11011  run;
181
182 NOTE: Variable _WARN_ is uninitialized.
183 NOTE: Records processed = 991    Memory used = 511K.
184 NOTE: There were 991 observations read from the data set EM
      WS1.PART2_TRAIN.
185 NOTE: View WORK.EM_DMREG.VIEW used (Total process time):
186         real time           0.06 seconds
187         cpu time             0.00 seconds
188
189 NOTE: There were 991 observations read from the data set EM
      WS1.VARSEL_TRAIN.
190 NOTE: There were 991 observations read from the data set WO
      RK.EM_DMREG.
191 NOTE: PROCEDURE DMDB used (Total process time):
192         real time           0.07 seconds
193         cpu time             0.00 seconds
194
195
196 11012  quit;
197 11013  *--- end code ---*;
198
199 11014  *-----*

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-----*;
200 11015  * Reg2: Run DMREG procedure;
201 11016  *-----
-----*;
202 11017  proc dmreg data=EM_DMREG dmdbcat=WORK.Reg2_DMDB
203 11018  validata = EMWS1.Varsel_VALIDATE
204 11019  outest = EMWS1.Reg2_EMESTIMATE
205 11020  outterms = EMWS1.Reg2_OUTTERMS
206 11021  outmap= EMWS1.Reg2_MAPDS namelen=200
207 11022  ;
208 11023  class
209 11024  ;
210 11025  model percent_vaccinated =
211 11026  apartments_per_1000_persons
212 11027  entities_registered_per_10k_pers
213 11028  forests_area
214 11029  installations_bathroom
215 11030  installations_central_heating
216 11031  installations_network_gas
217 11032  installations_toilet
218 11033  installations_watersupply
219 11034  net_migrations_per_1000_persons
220 11035  net_scholarization
221 11036  persons_per_apartment
222 11037  persons_per_room
223 11038  population_density
224 11039  population_per_pharmacy
225 11040  revenues_per_capita
226 11041  revenues_per_capita_CIT
227 11042  revenues_per_capita_PIT
228 11043  unemployment_rate
229 11044  unemployment_rate_f
230 11045  unemployment_rate_m
231 11046  urbanization_rate
232 11047  /error=normal
233 11048  coding=GLM

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```
234 11049  nodesignprint
235 11050  selection=STEPWISE choose=NONE
236 11051  Hierarchy=CLASS
237 11052  Rule=NONE
238 11053  ;
239 11054  ;
240 11055  score data=EMWS1.Varsel_TEST
241 11056  out=_null_
242 11057  outfit=EMWS1.Reg2_FITTEST
243 11058  role = TEST
244 11059  ;
245 11060  code file="E:\Personal\WEC - UW\wec_covid19\Workspaces\EMWS1\Reg2\EMPUBLISHSCORE.sas"
246 11061  group=Reg2
247 11062  ;
248 11063  code file="E:\Personal\WEC - UW\wec_covid19\Workspaces\EMWS1\Reg2\EMFLOWSCORE.sas"
249 11064  group=Reg2
250 11065  residual
251 11066  ;
252 11067  run;
253
254 NOTE: Variable _WARN_ is uninitialized.
255 NOTE: 9 observations in the training data were not used due
      to missing values in the target or input variables or to i
      nvalid frequency values.
256 NOTE: The training data contains 9 cases that have missing
      input values. The fit statistics in the OUTEST= data set (w
      hich are based on all cases) might differ from those in the
      printed output (which are based only on cases with no miss
      ing inputs).
257 NOTE: Variable _WARN_ is uninitialized.
258 NOTE: Variable _WARN_ is uninitialized.
259 NOTE: External file E:\Personal\WEC - UW\wec_covid19\Worksp
      aces\EMWS1\Reg2\EMPUBLISHSCORE.sas opened.
260 NOTE: External file E:\Personal\WEC - UW\wec_covid19\Worksp
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aces\EMWS1\Reg2\EMFLOWSCORE.sas opened.
261 NOTE: View EMWS1.VARSEL_TEST.VIEW used (Total process time)
    :
262         real time             0.19 seconds
263         cpu time               0.04 seconds
264
265 NOTE: There were 743 observations read from the data set EM
    WS1.PART2_TEST.
266 NOTE: View EMWS1.VARSEL_VALIDATE.VIEW used (Total process t
    ime):
267         real time             0.23 seconds
268         cpu time               0.04 seconds
269
270 NOTE: There were 743 observations read from the data set EM
    WS1.PART2_VALIDATE.
271 NOTE: There were 991 observations read from the data set EM
    WS1.PART2_TRAIN.
272 NOTE: View WORK.EM_DMREG.VIEW used (Total process time):
273         real time             0.28 seconds
274         cpu time               0.04 seconds
275
276 NOTE: There were 991 observations read from the data set EM
    WS1.VARSEL_TRAIN.
277 NOTE: There were 991 observations read from the data set WO
    RK.EM_DMREG.
278 NOTE: There were 743 observations read from the data set EM
    WS1.VARSEL_VALIDATE.
279 NOTE: There were 743 observations read from the data set EM
    WS1.VARSEL_TEST.
280 NOTE: The data set EMWS1.REG2_EESTIMATE has 45 observation
    s and 56 variables.
281 NOTE: The data set EMWS1.REG2_OUTTERMS has 14 observations
    and 5 variables.
282 NOTE: The data set EMWS1.REG2_MAPDS has 2 observations and
    23 variables.
283 NOTE: The data set EMWS1.REG2_FITTEST has 14 observations a
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```
        nd 14 variables.
284 NOTE: The PROCEDURE DMREG printed page 3.
285 NOTE: PROCEDURE DMREG used (Total process time):
286         real time             0.31 seconds
287         cpu time               0.06 seconds
288
289
290 11068 quit;
291
292 11069 proc datasets lib=WORK nolist;
293 11070 delete Reg2_DMDB;
294 11071 run;
295
296 NOTE: The file WORK.REG2_DMDB (memtype=DATA) was not found,
        but appears on a DELETE statement.
297 11072 quit;
298
299 NOTE: PROCEDURE DATASETS used (Total process time):
300         real time             0.00 seconds
301         cpu time               0.00 seconds
302
303
304 11073 proc datasets lib=WORK nolist;
305 11074 delete Reg2_DMDB / memtype=catalog;
306 11075 run;
307
308 NOTE: Deleting WORK.REG2_DMDB (memtype=CATALOG) .
309 11076 quit;
310
311 NOTE: PROCEDURE DATASETS used (Total process time):
312         real time             0.01 seconds
313         cpu time               0.00 seconds
314
315
316 11077 data WORK.ESTIMATE;
317 11078 length _NAME_ $32;
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318 11079 set EMWS1.Reg2_EMESTIMATE;
319 11080 drop _AIC_--_VSUMW_
320 11081 ;
321 11082 where _CHOSEN_ ne '' and _TYPE_ in('PARMS', 'T', 'P'
    );
322 11083 drop _STEP_ _CHOSEN_;
323 11084 select(_TYPE_);
324 11085 when('PARMS') _NAME_='Coefficient';
325 11086 when('T') _NAME_='tValue';
326 11087 when('P') _NAME_='PValue';
327 11088 otherwise;
328 11089 end;
329 11090 run;
330
331 NOTE: There were 3 observations read from the data set EMWS
    1.REG2_EMESTIMATE.
332 WHERE (_CHOSEN_ not = ' ') and _TYPE_ in ('P', 'PARMS
    ', 'T');
333 NOTE: The data set WORK.ESTIMATE has 3 observations and 24
    variables.
334 NOTE: DATA statement used (Total process time):
335         real time          0.00 seconds
336         cpu time           0.00 seconds
337
338
339 11091 proc transpose data=WORK.ESTIMATE out=WORK.ESTIMATE(
    rename=(_NAME_=Effect));
340 11092 run;
341
342 NOTE: There were 3 observations read from the data set WORK
    .ESTIMATE.
343 NOTE: The data set WORK.ESTIMATE has 22 observations and 5
    variables.
344 NOTE: PROCEDURE TRANSPOSE used (Total process time):
345         real time          0.03 seconds
346         cpu time           0.00 seconds

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```
347
348
349 11093 proc transpose data=EMWS1.Reg2_MAPDS out=WORK.MAP(re
      name=(_NAME_=Effect INPUT=Variable
350 11094 ));
351 11095 var 'appartments_per_1000_persons'n--'urbanization_r
      ate'n;
352 11096 run;
353
354 NOTE: There were 2 observations read from the data set EMWS
      1.REG2_MAPDS.
355 NOTE: The data set WORK.MAP has 21 observations and 3 varia
      bles.
356 NOTE: PROCEDURE TRANSPOSE used (Total process time):
357         real time          0.01 seconds
358         cpu time            0.00 seconds
359
360
361 11097 proc sort data=WORK.MAP;
362 11098 by Effect;
363 11099 run;
364
365 NOTE: There were 21 observations read from the data set WOR
      K.MAP.
366 NOTE: The data set WORK.MAP has 21 observations and 3 varia
      bles.
367 NOTE: PROCEDURE SORT used (Total process time):
368         real time          0.01 seconds
369         cpu time            0.00 seconds
370
371
372 11100 proc sort data=WORK.ESTIMATE;
373 11101 by Effect;
374 11102 run;
375
376 NOTE: There were 22 observations read from the data set WOR
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```

K.ESTIMATE.
377 NOTE: The data set WORK.ESTIMATE has 22 observations and 5
    variables.
378 NOTE: PROCEDURE SORT used (Total process time):
379     real time           0.01 seconds
380     cpu time            0.00 seconds
381
382
383 11103  data EMWS1.Reg2_EFFECTS(rename=(_LABEL_=EffectLabel)
    );
384 11104  length Variable ClassLevel $32;
385 11105  merge WORK.ESTIMATE WORK.MAP;
386 11106  by Effect;
387 11107  label Effect = "%sysfunc(sasmsg(sashelp.dmine, rpt_e
    ffect_vlabel, NOQUOTE))" Variable = "%sysfunc(sasmsg(sashel
    p.dmine, rpt_variable_vlabel, NOQUOTE))" Sign = "%sysfunc(s
    asmsg(sashelp.dmine, rpt_sign_vlabel, NOQUOTE))" ClassLevel
    =
388 11108     "%sysfunc(sasmsg(sashelp.dmine, rpt_level_vlabel,
    NOQUOTE))" Abscoefficient = "%sysfunc(sasmsg(sashelp.dmine
    , rpt_abscoefficient_vlabel, NOQUOTE))" Coefficient = "%sys
    func(sasmsg(sashelp.dmine, rpt_coefficient_vlabel, NOQUOTE)
    )" _LABEL_ =
389 11109     "%sysfunc(sasmsg(sashelp.dmine, rpt_effectLabel_v
    label, NOQUOTE))" CODE = "%sysfunc(sasmsg(sashelp.dmine, rp
    t_scorecodevar_vlabel, NOQUOTE))";
390 11110  label tvalue = "%sysfunc(sasmsg(sashelp.dmine, rpt_t
    value_vlabel,
    NOQUOTE))" abstvalue = "%sysfunc(sasm
    sg(sashelp.dmine, rpt_absoluteTvalue_vlabel, NOQUOTE))" PVa
    lue = "%sysfunc(sasmsg(sashelp.dmine, rpt_pvalue_vlabel,
    NOQUOTE))";
391 11111  abstvalue = abs(tValue);
392 11112  if index(Effect, 'Intercept') then do;
393 11113  variable = 'Intercept';
394 11114  classLevel = scan(_LABEL_, 2, '=');
395 11115  end;

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396 11116  if ^indexc(variable, '*') then do;
397 11117  if length(effect)>length(variable) then classlevel =
      substr(Effect, length(variable)+1);
398 11118  end;
399 11119  if Effect eq '' then Effect = Variable;
400 11120  if coefficient < 0 then sign = '-';
401 11121  else sign = '+';
402 11122  abscoefficient = abs(coefficient);
403 11123  if _LABEL_ = '' then _LABEL_ = Effect;
404 11124  if coefficient ne . then output;
405 11125  run;
406
407 NOTE: Missing values were generated as a result of performi
      ng an operation on missing values.
408      Each place is given by: (Number of times) at (Line):(
      Column).
409      8 at 11111:13      8 at 11122:18
410 NOTE: There were 22 observations read from the data set WOR
      K.ESTIMATE.
411 NOTE: There were 21 observations read from the data set WOR
      K.MAP.
412 NOTE: The data set EMWS1.REG2_EFFECTS has 14 observations a
      nd 11 variables.
413 NOTE: DATA statement used (Total process time):
414      real time          0.09 seconds
415      cpu time           0.00 seconds
416
417
418 11126  proc sort data =EMWS1.Reg2_EFFECTS;
419 11127  by
420 11128  descending abstvalue;
421 11129  run;
422
423 NOTE: There were 14 observations read from the data set EMW
      S1.REG2_EFFECTS.
424 NOTE: The data set EMWS1.REG2_EFFECTS has 14 observations a

```

```

        nd 11 variables.
425 NOTE: PROCEDURE SORT used (Total process time):
426         real time             0.04 seconds
427         cpu time              0.00 seconds
428
429
430 11130  data EMWS1.Reg2_EFFECTS;
431 11131  set EMWS1.Reg2_EFFECTS;
432 11132  format TEffectNum 3.;
433 11133  label TEffectNum = "%sysfunc(sasmsg(sashelp.dmine, r
        pt_teffectnum_vlabel, NOQUOTE))";
434 11134  retain TEffectNum;
435 11135  TEffectNum = _N_;
436 11136  run;
437
438 NOTE: There were 14 observations read from the data set EMW
        S1.REG2_EFFECTS.
439 NOTE: The data set EMWS1.REG2_EFFECTS has 14 observations a
        nd 12 variables.
440 NOTE: DATA statement used (Total process time):
441         real time             0.01 seconds
442         cpu time              0.00 seconds
443
444
445 11137  proc sort data =EMWS1.Reg2_EFFECTS;
446 11138  by
447 11139  descending absCoefficient;
448 11140  run;
449
450 NOTE: There were 14 observations read from the data set EMW
        S1.REG2_EFFECTS.
451 NOTE: The data set EMWS1.REG2_EFFECTS has 14 observations a
        nd 12 variables.
452 NOTE: PROCEDURE SORT used (Total process time):
453         real time             0.01 seconds
454         cpu time              0.00 seconds

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```

455
456
457 11141 data EMWS1.Reg2_EFFECTS;
458 11142 set EMWS1.Reg2_EFFECTS;
459 11143 format EffectNum 3.;
460 11144 label EffectNum = "%sysfunc(sasmsg(sashelp.dmine, rp
      t_effectnum_vlabel, NOQUOTE))";
461 11145 retain EffectNum;
462 11146 EffectNum = _N_;
463 11147 run;
464
465 NOTE: There were 14 observations read from the data set EMW
      S1.REG2_EFFECTS.
466 NOTE: The data set EMWS1.REG2_EFFECTS has 14 observations a
      nd 13 variables.
467 NOTE: DATA statement used (Total process time):
468         real time          0.01 seconds
469         cpu time           0.00 seconds
470
471
472 11148 proc transpose data=EMWS1.Reg2_EMESTIMATE out=EMWS1.
      Reg2_ESTIMATEGRID(rename=(PARMS=Coefficient T=TValue _NAME_
      =Effect _LABEL_=EffectLabel));
473 11149 where _CHOSEN_ eq ' ' and _TYPE_ in('PARMS', 'T', 'P'
      );
474 11150 var 'appartments_per_1000_persons'n--'urbanization_r
      ate'n;
475 11151 by _STEP_;
476 11152 id _TYPE_;
477 11153 run;
478
479 WARNING: The variable _LABEL_ in the DROP, KEEP, or RENAME
      list has never been referenced.
480 NOTE: There were 42 observations read from the data set EMW
      S1.REG2_EMESTIMATE.
481         WHERE (_CHOSEN_=' ') and _TYPE_ in ('P', 'PARMS', 'T'

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```

);
482 NOTE: The data set EMWS1.REG2_ESTIMATEGRID has 294 observations and 5 variables.
483 NOTE: PROCEDURE TRANSPOSE used (Total process time):
484     real time           0.03 seconds
485     cpu time            0.00 seconds
486
487
488 11154 data EMWS1.Reg2_ESTIMATEGRID;
489 11155 set EMWS1.Reg2_ESTIMATEGRID;
490 11156 if EffectLabel eq '' then EffectLabel = Effect;
491 11157 label EffectLabel = "%sysfunc(sasmsg(sashelp.dmine,
    rpt_effectLabel_vlabel, NOQUOTE))" Effect = "%sysfunc(sasmsg(sashelp.dmine, rpt_effect_vlabel, NOQUOTE))" Abscoefficient = "%sysfunc(sasmsg(sashelp.dmine, rpt_abscoefficient_vlabel, NOQUOTE))"
492 11158 Coefficient = "%sysfunc(sasmsg(sashelp.dmine, rpt_coefficient_vlabel, NOQUOTE))" tvalue = "%sysfunc(sasmsg(sashelp.dmine, rpt_tvalue_vlabel, NOQUOTE))" abstvalue = "%sysfunc(sasmsg(sashelp.dmine, rpt_absoluteTvalue_vlabel, NOQUOTE))"
493 11158! PValue =
494 11159     "%sysfunc(sasmsg(sashelp.dmine, rpt_pvalue_vlabel, NOQUOTE))";
495 11160 AbsCoefficient = abs(Coefficient);
496 11161 AbsTValue = abs(TValue);
497 11162 where coefficient ne .;
498 11163 run;
499
500 NOTE: Variable PValue is uninitialized.
501 NOTE: There were 91 observations read from the data set EMWS1.REG2_ESTIMATEGRID.
502     WHERE coefficient not = .;
503 NOTE: The data set EMWS1.REG2_ESTIMATEGRID has 91 observations and 8 variables.
504 NOTE: DATA statement used (Total process time):

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505         real time             0.03 seconds
506         cpu time              0.00 seconds
507
508
509  *-----
    --*
510  * Score Log
511  Date:                May 11, 2024
512  Time:                18:45:32
513  *-----
    --*
514 11265  proc transpose data=EMWS1.Reg2_EMESTIMATE out=WORK.T
EMPREG;
515 11266  where _CHOSEN_ ne '' and _TYPE_='PARMS';
516 11267  run;
517
518 NOTE: There were 1 observations read from the data set EMWS
1.REG2_EMESTIMATE.
519         WHERE (_CHOSEN_ not = ' ') and (_TYPE_='PARMS');
520 NOTE: The data set WORK.TEMPREG has 53 observations and 3 v
ariables.
521 NOTE: PROCEDURE TRANSPOSE used (Total process time):
522         real time             0.05 seconds
523         cpu time              0.00 seconds
524
525
526 11268  proc transpose data=EMWS1.Reg2_MAPDS out=WORK.TEMPREG
G2(rename=(TARGET=_TARGET_));
527 11269  var "appartments_per_1000_persons"n--"urbanization_r
ate"n;
528 11270  run;
529
530 WARNING: The variable TARGET in the DROP, KEEP, or RENAME l
ist has never been referenced.
531 NOTE: There were 2 observations read from the data set EMWS
1.REG2_MAPDS.

```

```
532 NOTE: The data set WORK.TEMPREG2 has 21 observations and 3
    variables.
533 NOTE: PROCEDURE TRANSPOSE used (Total process time):
534     real time             0.01 seconds
535     cpu time              0.00 seconds
536
537
538 11271  proc sort data=WORK.TEMPREG NOTHREADS;
539 11272  by _NAME_;
540 11273  run;
541
542 NOTE: There were 53 observations read from the data set WOR
    K.TEMPREG.
543 NOTE: The data set WORK.TEMPREG has 53 observations and 3 v
    ariables.
544 NOTE: PROCEDURE SORT used (Total process time):
545     real time             0.01 seconds
546     cpu time              0.00 seconds
547
548
549 11274  proc sort data=WORK.TEMPREG2 NOTHREADS;
550 11275  by _NAME_;
551 11276  run;
552
553 NOTE: There were 21 observations read from the data set WOR
    K.TEMPREG2.
554 NOTE: The data set WORK.TEMPREG2 has 21 observations and 3
    variables.
555 NOTE: PROCEDURE SORT used (Total process time):
556     real time             0.00 seconds
557     cpu time              0.00 seconds
558
559
560 11277  data WORK.TEMPREG3;
561 11278  merge WORK.TEMPREG(in=ina) WORK.TEMPREG2(in=inb);
562 11279  by _NAME_;
```

```

563 11280  if (ina and inb) and percent_vaccinated ne . then ou
        tput;
564 11281  run;
565
566 NOTE: There were 53 observations read from the data set WOR
      K.TEMPREG.
567 NOTE: There were 21 observations read from the data set WOR
      K.TEMPREG2.
568 NOTE: The data set WORK.TEMPREG3 has 13 observations and 5
      variables.
569 NOTE: DATA statement used (Total process time):
570         real time             0.02 seconds
571         cpu time               0.00 seconds
572
573
574 11282  data WORK.TEMPREG3(KEEP=TERM);
575 11283  length term $32;
576 11284  set WORK.TEMPREG3;
577 11285  i=1;
578 11286  do while( scan(input , i, '*') ne ' ');
579 11287  term= scan(input , i, '*');
580 11288  i=i+1;
581 11289  output;
582 11290  end;
583 11291  run;
584
585 NOTE: There were 13 observations read from the data set WOR
      K.TEMPREG3.
586 NOTE: The data set WORK.TEMPREG3 has 13 observations and 1
      variables.
587 NOTE: DATA statement used (Total process time):
588         real time             0.01 seconds
589         cpu time               0.00 seconds
590
591
592 11292  proc sort data=WORK.TEMPREG3 nodupkey NOTHEADS;

```

```

593 11293 by TERM;
594 11294 run;
595
596 NOTE: There were 13 observations read from the data set WORK.
      TEMPREG3.
597 NOTE: 0 observations with duplicate key values were deleted
      .
598 NOTE: The data set WORK.TEMPREG3 has 13 observations and 1
      variables.
599 NOTE: PROCEDURE SORT used (Total process time):
600      real time          0.01 seconds
601      cpu time           0.00 seconds
602
603
604 11295 filename emflow "E:\Personal\WEC - UW\wec_covid19\Wo
      rkspaces\EMWS1\Reg2\EMFLOWSCORE.sas";
605 11296 *-----*
      -----*;
606 11297 * Reg2: Scoring DATA data;
607 11298 *-----*
      -----*;
608 11299 data EMWS1.Reg2_TRAIN
609 11300 / view=EMWS1.Reg2_TRAIN
610 11301 ;
611 11302 set EMWS1.Varsel_TRAIN
612 11303 ;
613 11304 %inc emflow;
614 11479 run;
615
616 NOTE: DATA STEP view saved on file EMWS1.REG2_TRAIN.
617 NOTE: A stored DATA STEP view cannot run under a different
      operating system.
618 NOTE: View EMWS1.VARSEL_TRAIN.VIEW used (Total process time
      ):
619      real time          0.01 seconds
620      cpu time           0.00 seconds

```

```

621
622 NOTE: DATA statement used (Total process time):
623     real time             0.04 seconds
624     cpu time              0.00 seconds
625
626
627 11480 quit;
628 11481 filename emflow;
629 NOTE: Fileref EMFLOW has been deassigned.
630
631 11482 filename emflow "E:\Personal\WEC - UW\wec_covid19\Wo
      rkspaces\EMWS1\Reg2\EMFLOWSCORE.sas";
632 11483 *-----*
      -----*;
633 11484 * Reg2: Scoring VALIDATE data;
634 11485 *-----*
      -----*;
635 11486 data EMWS1.Reg2_VALIDATE
636 11487 / view=EMWS1.Reg2_VALIDATE
637 11488 ;
638 11489 set EMWS1.Varsel_VALIDATE
639 11490 ;
640 11491 %inc emflow;
641 11666 run;
642
643 NOTE: DATA STEP view saved on file EMWS1.REG2_VALIDATE.
644 NOTE: A stored DATA STEP view cannot run under a different
      operating system.
645 NOTE: View EMWS1.VARSEL_VALIDATE.VIEW used (Total process t
      ime):
646     real time             0.03 seconds
647     cpu time              0.00 seconds
648
649 NOTE: DATA statement used (Total process time):
650     real time             0.03 seconds
651     cpu time              0.00 seconds

```

```

652
653
654 11667 quit;
655 11668 filename emflow;
656 NOTE: Fileref EMFLOW has been deassigned.
657
658 11669 filename emflow "E:\Personal\WEC - UW\wec_covid19\Wo
      rkspaces\EMWS1\Reg2\EMFLOWSCORE.sas";
659 11670 *-----
      -----*;
660 11671 * Reg2: Scoring TEST data;
661 11672 *-----
      -----*;
662 11673 data EMWS1.Reg2_TEST
663 11674 / view=EMWS1.Reg2_TEST
664 11675 ;
665 11676 set EMWS1.Varsel_TEST
666 11677 ;
667 11678 %inc emflow;
668 11853 run;
669
670 NOTE: DATA STEP view saved on file EMWS1.REG2_TEST.
671 NOTE: A stored DATA STEP view cannot run under a different
      operating system.
672 NOTE: View EMWS1.VARSEL_TEST.VIEW used (Total process time)
      :
673         real time             0.03 seconds
674         cpu time               0.00 seconds
675
676 NOTE: DATA statement used (Total process time):
677         real time             0.04 seconds
678         cpu time               0.00 seconds
679
680
681 11854 quit;
682 11855 filename emflow;

```



```

683 NOTE: Fileref EMFLOW has been deassigned.
684
685 11856 *-----
        -----*;
686 11857 * Reg2: Computing metadata for TRAIN data;
687 11858 *-----
        -----*;
688
689 NOTE: View EMWS1.REG2_TRAIN.VIEW used (Total process time):
690         real time             0.05 seconds
691         cpu time               0.03 seconds
692
693 12227 data WORK.MODELTEMP_INFO;
694 12228 set EMWS1.Reg2_EMINFO;
695 12229 where DATA='Reg2' and KEY ^in('DECDATA', 'DECMETA',
        'IMPORTANCE', 'MODEL');
696 12230 run;
697
698 NOTE: There were 0 observations read from the data set EMWS
        1.REG2_EMINFO.
699         WHERE (DATA='Reg2') and KEY not in ('DECDATA', 'DECME
        TA', 'IMPORTANCE', 'MODEL');
700 NOTE: The data set WORK.MODELTEMP_INFO has 0 observations a
        nd 3 variables.
701 NOTE: DATA statement used (Total process time):
702         real time             0.00 seconds
703         cpu time               0.00 seconds
704
705
706 12231 data EMWS1.Reg2_EMINFO;
707 12232 length TARGET KEY $32 DATA $43;
708 12233 input TARGET KEY DATA $;
709 12234 cards;
710
711 NOTE: The data set EMWS1.REG2_EMINFO has 3 observations and
        3 variables.

```

```
712 NOTE: DATA statement used (Total process time):
713         real time             0.00 seconds
714         cpu time               0.00 seconds
715
716
717 12238  run;
718 12239  data EMWS1.Reg2_EMINFO;
719 12240  set EMWS1.Reg2_EMINFO WORK.MODELTEMP_INFO;
720 12241  run;
721
722 NOTE: There were 3 observations read from the data set EMWS
      1.REG2_EMINFO.
723 NOTE: There were 0 observations read from the data set WORK
      .MODELTEMP_INFO.
724 NOTE: The data set EMWS1.REG2_EMINFO has 3 observations and
      3 variables.
725 NOTE: DATA statement used (Total process time):
726         real time             0.01 seconds
727         cpu time               0.00 seconds
728
729
730 12242  proc sort data = EMWS1.Reg2_EMINFO NOTHREADS;
731 12243  by TARGET KEY;
732 12244  run;
733
734 NOTE: There were 3 observations read from the data set EMWS
      1.REG2_EMINFO.
735 NOTE: The data set EMWS1.REG2_EMINFO has 3 observations and
      3 variables.
736 NOTE: PROCEDURE SORT used (Total process time):
737         real time             0.02 seconds
738         cpu time               0.00 seconds
739
740
741 NOTE: View EMWS1.REG2_TRAIN.VIEW used (Total process time):
742         real time             0.05 seconds
```

```

743         cpu time                0.00 seconds
744
745 NOTE: View EMWS1.REG2_VALIDATE.VIEW used (Total process tim
      e):
746         real time                0.03 seconds
747         cpu time                  0.00 seconds
748
749 NOTE: View EMWS1.REG2_TEST.VIEW used (Total process time):
750         real time                0.03 seconds
751         cpu time                  0.00 seconds
752
753 *-----
      --*
754 * Report Log
755 Date:                May 11, 2024
756 Time:                18:45:34
757 *-----
      --*
758 12268  data WORK.DMREGTEMP;
759 12269  set EMWS1.Reg2_EMESTIMATE;
760 12270  where _CHOSEN_ ne '';
761 12271  run;
762
763 NOTE: There were 3 observations read from the data set EMWS
      1.REG2_EMESTIMATE.
764         WHERE _CHOSEN_ not = ' ';
765 NOTE: The data set WORK.DMREGTEMP has 3 observations and 56
      variables.
766 NOTE: DATA statement used (Total process time):
767         real time                0.00 seconds
768         cpu time                  0.00 seconds
769
770
771 12272  data WORK.DMREGTEMP;
772 12273  merge WORK.DMREGTEMP EMWS1.Reg2_FITTEST;
773 12274  by _step_;

```

```

774 12275  if _CHOSEN_ ne '' then output;
775 12276  run;
776
777 NOTE: There were 3 observations read from the data set WORK
      .DMREGTEMP.
778 NOTE: There were 14 observations read from the data set EMW
      S1.REG2_FITTEST.
779 NOTE: The data set WORK.DMREGTEMP has 3 observations and 69
      variables.
780 NOTE: DATA statement used (Total process time):
781         real time           0.01 seconds
782         cpu time             0.00 seconds
783
784
785 12277  data EMWS1.Reg2_EMOUTFIT;
786 12278  length TARGET $32;
787 12279  set WORK.DMREGTEMP end=eof;
788 12280  where (_TYPE_='PARMS');
789 12281  drop _STEP_--urbanization_rate;
790 12282  if eof then do;
791 12283  TARGET = "percent_vaccinated";
792 12284  output;
793 12285  end;
794 12286  run;
795
796 NOTE: There were 1 observations read from the data set WORK
      .DMREGTEMP.
797         WHERE _TYPE_='PARMS';
798 NOTE: The data set EMWS1.REG2_EMOUTFIT has 1 observations a
      nd 44 variables.
799 NOTE: DATA statement used (Total process time):
800         real time           0.01 seconds
801         cpu time             0.00 seconds
802
803
804 12287  data EMWS1.Reg2_EMOUTFIT;

```

```

805 12288  set EMWS1.Reg2_EMOUTFIT;
806 12289  length TargetLabel $200;
807 12290  label targetLabel = "%sysfunc(sasmsg(sashelp.dmine,
      meta_targetlabel_vlabel, NOQUOTE))";
808 12291  run;
809
810 NOTE: Variable TargetLabel is uninitialized.
811 NOTE: There were 1 observations read from the data set EMWS
      1.REG2_EMOUTFIT.
812 NOTE: The data set EMWS1.REG2_EMOUTFIT has 1 observations a
      nd 45 variables.
813 NOTE: DATA statement used (Total process time):
814         real time          0.01 seconds
815         cpu time            0.00 seconds
816
817
818 12292  proc sort data=EMWS1.Reg2_EMREPORTFIT nothreads;
819 12293  by TARGET;
820 12294  run;
821
822 NOTE: There were 19 observations read from the data set EMW
      S1.REG2_EMREPORTFIT.
823 NOTE: The data set EMWS1.REG2_EMREPORTFIT has 19 observatio
      ns and 7 variables.
824 NOTE: PROCEDURE SORT used (Total process time):
825         real time          0.01 seconds
826         cpu time            0.00 seconds
827
828
829 12295  %let _EMwarndup = 0;
830 12296  %let _EMtargetdup =;
831 12297  %let _EMASEtargetdup =;
832 12298  data _null_;
833 12299  set EMWS1.Reg2_EMOUTFIT;
834 12300  if .<_ASE_<0.000001 then do;
835 12301  call symput('_EMwarndup', '1');

```

```
836 12302 call symput('_EMtargetdup', target);
837 12303 call symput('_EMASEtargetdup', put(_ASE_, best.));
838 12304 end;
839 12305 run;
840
841 NOTE: There were 1 observations read from the data set EMWS
      1.REG2_EMOUTFIT.
842 NOTE: DATA statement used (Total process time):
843         real time          0.00 seconds
844         cpu time            0.00 seconds
845
846
847 12306 proc sort data=EMWS1.Varsel_CMeta_TRAIN out=WORK.SUB
      SETINMETA;
848 12307 by NAME;
849 12308 run;
850
851 NOTE: There were 24 observations read from the data set EMW
      S1.VARSEL_CMETA_TRAIN.
852 NOTE: The data set WORK.SUBSETINMETA has 24 observations an
      d 20 variables.
853 NOTE: PROCEDURE SORT used (Total process time):
854         real time          0.00 seconds
855         cpu time            0.00 seconds
856
857
858 12309 proc sort data=EMWS1.Reg2_VariableSet out=WORK.SUBSE
      TVARSET(keep=NAME REPORT);
859 12310 by NAME;
860 12311 run;
861
862 NOTE: There were 22 observations read from the data set EMW
      S1.REG2_VARIABLESET.
863 NOTE: The data set WORK.SUBSETTVARSET has 22 observations an
      d 2 variables.
864 NOTE: PROCEDURE SORT used (Total process time):
```

```

865         real time           0.01 seconds
866         cpu time            0.00 seconds
867
868
869 12312  data WORK.ASSESS_META;
870 12313  merge WORK.SUBSETINMETA WORK.SUBSETVARSET;
871 12314  by NAME;
872 12315  run;
873
874 NOTE: There were 24 observations read from the data set WORK.SUBSETINMETA.
875 NOTE: There were 22 observations read from the data set WORK.SUBSETVARSET.
876 NOTE: The data set WORK.ASSESS_META has 24 observations and
      20 variables.
877 NOTE: DATA statement used (Total process time):
878         real time           0.01 seconds
879         cpu time            0.00 seconds
880
881
882 12316  data EM_temp_assessMeta;
883 12317  set EMWS1.Reg2_CMeta_TRAIN;
884 12318  where role in('DECISION', 'PREDICT', 'RESIDUAL', 'CLASSIFICATION', 'ASSESS', 'COST');
885 12319  run;
886
887 NOTE: There were 3 observations read from the data set EMWS1.REG2_CMETA_TRAIN.
888         WHERE role in ('ASSESS', 'CLASSIFICATION', 'COST', 'DECISION', 'PREDICT', 'RESIDUAL');
889 NOTE: The data set WORK.EM_TEMP_ASSESSMETA has 3 observations and 21 variables.
890 NOTE: DATA statement used (Total process time):
891         real time           0.00 seconds
892         cpu time            0.00 seconds
893

```

```
894
895 12320  data EM_temp_assessdata;
896 12321  set EMWS1.Reg2_TRAIN(keep=
897 12322  P_percent_vaccinated
898 12323  R_percent_vaccinated
899 12324  _WARN_
900 12325  percent_vaccinated
901 12326  );
902 12327  run;
903
904 NOTE: Variable _WARN_ is uninitialized.
905 NOTE: There were 991 observations read from the data set EM
      WS1.PART2_TRAIN.
906 NOTE: View EMWS1.REG2_TRAIN.VIEW used (Total process time):
907      real time          0.03 seconds
908      cpu time           0.00 seconds
909
910 NOTE: There were 991 observations read from the data set EM
      WS1.VARSEL_TRAIN.
911 NOTE: There were 991 observations read from the data set EM
      WS1.REG2_TRAIN.
912 NOTE: The data set WORK.EM_TEMP_ASSESSDATA has 991 observat
      ions and 4 variables.
913 NOTE: DATA statement used (Total process time):
914      real time          0.04 seconds
915      cpu time           0.00 seconds
916
917
918
919
920
921
922
923
924
925 16658  data EM_temp_assessMeta;
```



```

926 16659 set EMWS1.Reg2_CMeta_TRAIN;
927 16660 where role in('DECISION', 'PREDICT', 'RESIDUAL', 'CL
    ASSIFICATION', 'ASSESS', 'COST');
928 16661 run;
929
930 NOTE: There were 3 observations read from the data set EMWS
    1.REG2_CMETA_TRAIN.
931     WHERE role in ('ASSESS', 'CLASSIFICATION', 'COST', 'D
    ECISION', 'PREDICT', 'RESIDUAL');
932 NOTE: The data set WORK.EM_TEMP_ASSESSMETA has 3 observatio
    ns and 21 variables.
933 NOTE: DATA statement used (Total process time):
934     real time             0.00 seconds
935     cpu time              0.00 seconds
936
937
938 16662 data EM_temp_assessdata;
939 16663 set EMWS1.Reg2_VALIDATE(keep=
940 16664 P_percent_vaccinated
941 16665 R_percent_vaccinated
942 16666 _WARN_
943 16667 percent_vaccinated
944 16668 );
945 16669 run;
946
947 NOTE: Variable _WARN_ is uninitialized.
948 NOTE: There were 743 observations read from the data set EM
    WS1.PART2_VALIDATE.
949 NOTE: View EMWS1.REG2_VALIDATE.VIEW used (Total process tim
    e):
950     real time             0.04 seconds
951     cpu time              0.01 seconds
952
953 NOTE: There were 743 observations read from the data set EM
    WS1.VARSEL_VALIDATE.
954 NOTE: There were 743 observations read from the data set EM

```

```

WS1.REG2_VALIDATE.
955 NOTE: The data set WORK.EM_TEMP_ASSESSDATA has 743 observations and 4 variables.
956 NOTE: DATA statement used (Total process time):
957         real time             0.06 seconds
958         cpu time               0.01 seconds
959
960
961
962
963
964
965
966
967
968 21010 %let _cn = %sysfunc(getoption(CENTER));
969 21011 options nocenter;
970 21012 proc print data=EMWS1.Reg2_EMREPORTFIT noobs label;
971 21013 var STAT LABEL TRAIN
972 21014 VALIDATE
973 21015 TEST
974 21016 ;
975 21017 by TARGET TARGETLABEL;
976 21018 title9 ' ';
977 21019 title10 "%sysfunc(sasmsg(sashelp.dmine, rpt_fitstat_
          title , NOQUOTE))";
978 21020 run;
979
980 NOTE: There were 19 observations read from the data set EMW
      S1.REG2_EMREPORTFIT.
981 NOTE: The PROCEDURE PRINT printed page 4.
982 NOTE: PROCEDURE PRINT used (Total process time):
983         real time             0.00 seconds
984         cpu time               0.00 seconds
985
986

```

```

987 21021  title10;
988 21022  options &_cn;
989
990 21023  proc datasets library=EMWS1 nolist;
991 21024  modify Reg2_EMRank;
992 21025  label target = "%sysfunc(sasmsg(sashelp.dmine, rpt_t
      argetvar_vlabel ,    NOQUOTE))";
993 21026  label datarole = "%sysfunc(sasmsg(sashelp.dmine, rpt
      _datarole_vlabel ,    NOQUOTE))";
994 21027  run;
995
996 NOTE: MODIFY was successful for EMWS1.REG2_EMRank.DATA.
997 21028  quit;
998
999 NOTE: PROCEDURE DATASETS used (Total process time):
1000      real time          0.00 seconds
1001      cpu time           0.00 seconds
1002
1003
1004 21029  %let _cn = %sysfunc(getoption(CENTER));
1005 21030  options nocenter;
1006 21031  proc print data=EMWS1.Reg2_EMRank label noobs;
1007 21032  var
1008 21033  decile N _targetMean_ _meanP_;
1009 21034  by
1010 21035  notsorted DATAROLE
1011 21036  notsorted TARGET
1012 21037  notsorted TARGETLABEL
1013 21038  ;
1014 21039  title9 ' ';
1015 21040  title10 "%sysfunc(sasmsg(sashelp.dmine, rpt_scoreran
      king_title , NOQUOTE))";
1016 21041  run;
1017
1018 NOTE: There were 40 observations read from the data set EMW
      S1.REG2_EMRank.

```

```
1019 NOTE: The PROCEDURE PRINT printed page 5.
1020 NOTE: PROCEDURE PRINT used (Total process time):
1021     real time             0.00 seconds
1022     cpu time              0.00 seconds
1023
1024
1025 21042  title10;
1026 21043  options &_cn;
1027
1028 21044  proc datasets library=EMWS1 nolist;
1029 21045  modify Reg2_EMSCOREDIST;
1030 21046  label target = "%sysfunc(sasmsg(sashelp.dmine, rpt_t
      argetvar_vlabel ,      NOQUOTE))";
1031 21047  label datarole = "%sysfunc(sasmsg(sashelp.dmine, rpt
      _datarole_vlabel ,      NOQUOTE))";
1032 21048  run;
1033
1034 NOTE: MODIFY was successful for EMWS1.REG2_EMSCOREDIST.DATA
      .
1035 21049  quit;
1036
1037 NOTE: PROCEDURE DATASETS used (Total process time):
1038     real time             0.00 seconds
1039     cpu time              0.00 seconds
1040
1041
```