Mplus VERSION 8.8
MUTHEN & MUTHEN
08/14/2022   3:37 PM

INPUT INSTRUCTIONS

    TITLE: covid data cpa(2);
    DATA: FILE IS wave13.csv;
    VARIABLE: NAMES ARE prebike frebike intent wave educ age income hhveh bike prebzm white
di
      cov1-cov12 onl1-onl5 env1-env3 soc1-soc3 out1-out4 change;
            MISSING = .;
            USEVARIABLES ARE cov1-cov12 env1-env3 onl1-onl5 prebike bike frebike intent
            age educ hhveh income change; !soc1-soc3 out1-out4;
            CATEGORICAL = cov1-cov12 env1-env3 onl1-onl5 prebike bike change frebike; !soc
1-

    ANALYSIS: !TYPE = EFA 5 6;
            !ROTATION=VARIMAX;
            !ROTATION=GEOMIN (oblique);
            !ESTIMATOR=ML;
            !ROTATION=PROMAX;
             PARAMETERIZATION=THETA;
            !Bootstrap = 1000;
            !STARTS = 100;

    MODEL:
            f1 by cov1-cov4;
            f2 by cov11 cov12 cov3;
            f3 by cov5-cov10;
            f4 by env1-env3;
            f5 by onl1-onl5;
            f6 by prebike bike frebike;
            intent ON f1 f2 f3 f4 f5 f6 age educ hhveh income;
            change ON f6 intent age educ hhveh income;

        MODEL INDIRECT:
            change IND intent f1;
            change IND intent f2;
            change IND intent f3;
            change IND intent f4;
            change IND intent f5;
            change IND intent f6;

    OUTPUT: !STANDARDIZED;
            !STANDARDIZED CINTERVAL(bcbootstrap);
             STDYX;
            !MODINDICES;

*** WARNING
  Input line exceeded 90 characters. Some input may be truncated.
  VARIABLE: NAMES ARE prebike frebike intent wave educ age income hhveh bike prebzm white
dis
*** WARNING
  Input line exceeded 90 characters. Some input may be truncated.
            CATEGORICAL = cov1-cov12 env1-env3 onl1-onl5 prebike bike change frebike; !soc
1-s
*** WARNING
  Data set contains cases with missing on x-variables.
  These cases were not included in the analysis.
  Number of cases with missing on x-variables: 25

    3 WARNING(S) FOUND IN THE INPUT INSTRUCTIONS

covid data cpa(2);

SUMMARY OF ANALYSIS

Number of groups   1
Number of observations   2399

Number of dependent variables   25
Number of independent variables   4
Number of continuous latent variables   6

Observed dependent variables

  Continuous
   INTENT

  Binary and ordered categorical (ordinal)
   COV1   COV2   COV3   COV4   COV5   COV6
   COV7   COV8   COV9   COV10   COV11   COV12
   ENV1   ENV2   ENV3   ONL1   ONL2   ONL3
   ONL4   ONL5   PREBIKE   BIKE   FREBIKE   CHANGE

Observed independent variables
    AGE   EDUC   HHVEH   INCOME

Continuous latent variables
    F1   F2   F3   F4   F5   F6

Estimator   WLSMV
Maximum number of iterations   1000
Convergence criterion   0.500D-04
Maximum number of steepest descent iterations   20
Maximum number of iterations for H1   2000
Convergence criterion for H1   0.100D-03
Parameterization   THETA
Link   PROBIT

Input data file(s)
  wave13.csv

Input data format FREE

SUMMARY OF DATA

     Number of missing data patterns   36

COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value   0.100

     PROPORTION OF DATA PRESENT

          Covariance Coverage
                COV1   COV2   COV3   COV4   COV5
              _____   _____   _____   _____   _____

COV1	0.999				
COV2	0.999	1.000			
COV3	0.997	0.998	0.998		
COV4	0.999	1.000	0.998	1.000	
COV5	0.529	0.530	0.529	0.529	0.530
COV6	0.999	1.000	0.998	1.000	0.530
COV7	0.998	0.999	0.997	0.999	0.529
COV8	0.999	1.000	0.998	0.999	0.529
COV9	0.998	0.999	0.997	0.999	0.529
COV10	0.999	1.000	0.998	0.999	0.529
COV11	0.999	1.000	0.998	1.000	0.530
COV12	0.999	1.000	0.998	0.999	0.530
ENV1	0.999	1.000	0.998	1.000	0.530
ENV2	0.999	1.000	0.998	1.000	0.530
ENV3	0.999	1.000	0.998	1.000	0.530
ONL1	0.998	0.999	0.998	0.999	0.529
ONL2	0.994	0.995	0.993	0.995	0.529
ONL3	0.995	0.996	0.995	0.996	0.529
ONL4	0.996	0.997	0.995	0.996	0.529
ONL5	0.996	0.997	0.996	0.997	0.529
PREBIKE	0.997	0.997	0.996	0.997	0.529
BIKE	0.999	1.000	0.998	1.000	0.530
FREBIKE	0.990	0.991	0.990	0.990	0.524
INTENT	0.976	0.977	0.976	0.977	0.517
CHANGE	0.990	0.991	0.990	0.990	0.524

Covariance Coverage

	COV6	COV7	COV8	COV9	COV10
COV6	1.000				
COV7	0.999	0.999			
COV8	1.000	0.999	1.000		
COV9	0.999	0.998	0.999	0.999	
COV10	1.000	0.999	1.000	0.999	1.000
COV11	1.000	0.999	1.000	0.999	1.000
COV12	1.000	0.999	0.999	0.999	0.999
ENV1	1.000	0.999	1.000	0.999	1.000
ENV2	1.000	0.999	1.000	0.999	1.000
ENV3	1.000	0.999	1.000	0.999	1.000
ONL1	0.999	0.998	0.999	0.998	0.999
ONL2	0.995	0.994	0.995	0.994	0.995
ONL3	0.996	0.995	0.996	0.995	0.996
ONL4	0.997	0.996	0.996	0.996	0.996
ONL5	0.997	0.996	0.997	0.996	0.997
PREBIKE	0.997	0.997	0.997	0.997	0.997
BIKE	1.000	0.999	1.000	0.999	1.000
FREBIKE	0.991	0.990	0.990	0.990	0.990
INTENT	0.977	0.976	0.977	0.976	0.977
CHANGE	0.991	0.990	0.990	0.990	0.990

Covariance Coverage

	COV11	COV12	ENV1	ENV2	ENV3
COV11	1.000				
COV12	1.000	1.000			
ENV1	1.000	1.000	1.000		
ENV2	1.000	1.000	1.000	1.000	
ENV3	1.000	1.000	1.000	1.000	1.000
ONL1	0.999	0.999	0.999	0.999	0.999
ONL2	0.995	0.995	0.995	0.995	0.995
ONL3	0.996	0.996	0.996	0.996	0.996
ONL4	0.997	0.996	0.997	0.997	0.997

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ONL5         0.997       0.997       0.997       0.997       0.997
PREBIKE      0.997       0.997       0.997       0.997       0.997
BIKE         1.000       1.000       1.000       1.000       1.000
FREBIKE      0.991       0.990       0.991       0.991       0.991
INTENT       0.977       0.977       0.977       0.977       0.977
CHANGE       0.991       0.990       0.991       0.991       0.991
```

Covariance Coverage

	ONL1	ONL2	ONL3	ONL4	ONL5
ONL1	0.999				
ONL2	0.994	0.995			
ONL3	0.995	0.992	0.996		
ONL4	0.996	0.992	0.996	0.997	
ONL5	0.996	0.993	0.996	0.997	0.997
PREBIKE	0.997	0.992	0.994	0.994	0.995
BIKE	0.999	0.995	0.996	0.997	0.997
FREBIKE	0.990	0.986	0.987	0.987	0.988
INTENT	0.976	0.973	0.974	0.974	0.975
CHANGE	0.990	0.986	0.987	0.987	0.988

Covariance Coverage

	PREBIKE	BIKE	FREBIKE	INTENT	CHANGE
PREBIKE	0.997				
BIKE	0.997	1.000			
FREBIKE	0.989	0.991	0.991		
INTENT	0.975	0.977	0.969	0.977	
CHANGE	0.989	0.991	0.991	0.969	0.991

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

```
    COV1
      Category 1    0.078        187.000
      Category 2    0.141        338.000
      Category 3    0.143        343.000
      Category 4    0.311        745.000
      Category 5    0.327        784.000
    COV2
      Category 1    0.051        122.000
      Category 2    0.075        181.000
      Category 3    0.122        292.000
      Category 4    0.355        851.000
      Category 5    0.397        953.000
    COV3
      Category 1    0.063        150.000
      Category 2    0.077        184.000
      Category 3    0.096        229.000
      Category 4    0.289        691.000
      Category 5    0.476       1141.000
    COV4
      Category 1    0.105        251.000
      Category 2    0.161        385.000
      Category 3    0.241        578.000
      Category 4    0.284        682.000
      Category 5    0.209        502.000
    COV5
      Category 1    0.146        185.000
      Category 2    0.185        235.000
      Category 3    0.308        392.000
      Category 4    0.216        275.000
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```
        Category 5       0.145           184.000
     COV6
        Category 1       0.053           126.000
        Category 2       0.274           658.000
        Category 3       0.440          1055.000
        Category 4       0.173           414.000
        Category 5       0.061           146.000
     COV7
        Category 1       0.025            61.000
        Category 2       0.048           115.000
        Category 3       0.197           472.000
        Category 4       0.393           942.000
        Category 5       0.337           807.000
     COV8
        Category 1       0.523          1253.000
        Category 2       0.377           903.000
        Category 3       0.072           173.000
        Category 4       0.014            34.000
        Category 5       0.015            35.000
     COV9
        Category 1       0.030            73.000
        Category 2       0.135           323.000
        Category 3       0.373           894.000
        Category 4       0.301           722.000
        Category 5       0.161           385.000
     COV10
        Category 1       0.020            47.000
        Category 2       0.052           124.000
        Category 3       0.191           458.000
        Category 4       0.335           803.000
        Category 5       0.403           966.000
     COV11
        Category 1       0.556          1333.000
        Category 2       0.163           392.000
        Category 3       0.085           204.000
        Category 4       0.112           268.000
        Category 5       0.084           202.000
     COV12
        Category 1       0.364           873.000
        Category 2       0.227           544.000
        Category 3       0.145           348.000
        Category 4       0.142           340.000
        Category 5       0.122           293.000
     ENV1
        Category 1       0.038            92.000
        Category 2       0.068           164.000
        Category 3       0.238           572.000
        Category 4       0.442          1061.000
        Category 5       0.213           510.000
     ENV2
        Category 1       0.098           235.000
        Category 2       0.181           435.000
        Category 3       0.282           677.000
        Category 4       0.289           694.000
        Category 5       0.149           358.000
     ENV3
        Category 1       0.178           426.000
        Category 2       0.180           432.000
        Category 3       0.243           583.000
        Category 4       0.253           607.000
        Category 5       0.146           351.000
     ONL1
        Category 1       0.041            99.000
        Category 2       0.064           154.000
```

```
     Category 3      0.164             393.000
     Category 4      0.377             904.000
     Category 5      0.353             847.000
  ONL2
     Category 1      0.075             178.000
     Category 2      0.070             168.000
     Category 3      0.390             930.000
     Category 4      0.214             510.000
     Category 5      0.252             601.000
  ONL3
     Category 1      0.039              94.000
     Category 2      0.077             184.000
     Category 3      0.199             475.000
     Category 4      0.418            1000.000
     Category 5      0.267             637.000
  ONL4
     Category 1      0.136             326.000
     Category 2      0.191             456.000
     Category 3      0.164             393.000
     Category 4      0.336             803.000
     Category 5      0.173             413.000
  ONL5
     Category 1      0.136             325.000
     Category 2      0.196             469.000
     Category 3      0.214             511.000
     Category 4      0.305             729.000
     Category 5      0.150             358.000
  PREBIKE
     Category 1      0.686            1642.000
     Category 2      0.120             286.000
     Category 3      0.099             237.000
     Category 4      0.073             175.000
     Category 5      0.022              53.000
  BIKE
     Category 1      0.566            1359.000
     Category 2      0.434            1040.000
  FREBIKE
     Category 1      0.834            1982.000
     Category 2      0.064             152.000
     Category 3      0.042              99.000
     Category 4      0.025              59.000
     Category 5      0.011              25.000
     Category 6      0.012              29.000
     Category 7      0.005              13.000
     Category 8      0.008              18.000
  CHANGE
     Category 1      0.013              31.000
     Category 2      0.107             255.000
     Category 3      0.814            1936.000
     Category 4      0.054             129.000
     Category 5      0.011              26.000
```

UNIVARIATE SAMPLE STATISTICS

    UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

          Variable/   Mean/   Skewness/   Minimum/ % with   Percentile
s
          Sample Size   Variance   Kurtosis   Maximum   Min/Max   20%/60%   40%/80%
     Median

INTENT	3.075	0.679	1.000	1.19%	3.000	3.000
3.000						
	2344.000	0.207	9.732	5.000	1.79%	3.000	3.000
AGE	55.897	-0.436	18.000	0.29%	40.000	54.000
59.000						
	2399.000	240.646	-0.701	90.000	0.08%	63.000	70.000
EDUC	3.662	-0.262	1.000	0.92%	3.000	3.000
4.000						
	2399.000	0.988	-0.741	5.000	23.09%	4.000	5.000
HHVEH	2.687	0.531	1.000	6.42%	2.000	2.000
3.000						
	2399.000	0.843	0.229	5.000	4.79%	3.000	3.000
INCOME	6.400	-0.038	1.000	3.08%	4.000	6.000
6.000						
	2399.000	6.091	-0.434	11.000	6.59%	7.000	9.000

     THIS ANALYSIS MAY HAVE MULTIPLE SOLUTIONS. EXPLORE THIS USING RANDOM STARTS,
     FOR EXAMPLE, STARTS = 20. USE A LARGE ENOUGH NUMBER OF STARTS SO THAT THE
     BEST FIT FUNCTION VALUE IS REPLICATED SEVERAL TIMES.

THE MODEL ESTIMATION TERMINATED NORMALLY

MODEL FIT INFORMATION

Number of Free Parameters   153

Chi-Square Test of Model Fit

        Value   2552.838*
        Degrees of Freedom   345
        P-Value   0.0000

*   The chi-square value for MLM, MLMV, MLR, ULSMV, WLSM and WLSMV cannot be used
    for chi-square difference testing in the regular way. MLM, MLR and WLSM
    chi-square difference testing is described on the Mplus website. MLMV, WLSMV,
    and ULSMV difference testing is done using the DIFFTEST option.

RMSEA (Root Mean Square Error Of Approximation)

        Estimate   0.052
        90 Percent C.I.   0.050 0.054
        Probability RMSEA <= .05   0.073

CFI/TLI

        CFI   0.962
        TLI   0.956

Chi-Square Test of Model Fit for the Baseline Model

        Value   59204.966
        Degrees of Freedom   400
        P-Value   0.0000

SRMR (Standardized Root Mean Square Residual)

        Value   0.072

Optimum Function Value for Weighted Least-Squares Estimator

		Value	0.60625386D+00

MODEL RESULTS

		Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
F1	BY				
COV1		1.000	0.000	999.000	999.000
COV2		0.965	0.057	17.027	0.000
COV3		0.475	0.036	13.318	0.000
COV4		0.556	0.031	17.925	0.000
F2	BY				
COV11		1.000	0.000	999.000	999.000
COV12		0.292	0.080	3.634	0.000
COV3		−0.181	0.048	−3.762	0.000
F3	BY				
COV5		1.000	0.000	999.000	999.000
COV6		1.491	0.094	15.899	0.000
COV7		1.804	0.116	15.580	0.000
COV8		0.729	0.052	14.064	0.000
COV9		1.522	0.094	16.180	0.000
COV10		1.963	0.129	15.196	0.000
F4	BY				
ENV1		1.000	0.000	999.000	999.000
ENV2		0.851	0.064	13.299	0.000
ENV3		0.803	0.056	14.456	0.000
F5	BY				
ONL1		1.000	0.000	999.000	999.000
ONL2		1.052	0.119	8.834	0.000
ONL3		2.963	0.289	10.263	0.000
ONL4		2.910	0.292	9.967	0.000
ONL5		3.024	0.316	9.559	0.000
F6	BY				
PREBIKE		1.000	0.000	999.000	999.000
BIKE		1.193	0.126	9.466	0.000
FREBIKE		1.427	0.162	8.812	0.000
INTENT	ON				
F1		0.030	0.011	2.834	0.005
F2		−0.001	0.003	−0.203	0.839
F3		−0.026	0.019	−1.388	0.165
F4		0.004	0.008	0.558	0.577
F5		−0.069	0.033	−2.106	0.035
F6		0.035	0.004	9.332	0.000
CHANGE	ON				
F6		−0.211	0.012	−17.542	0.000
INTENT	ON				
AGE		−0.002	0.001	−4.117	0.000
EDUC		0.013	0.012	1.095	0.273
HHVEH		−0.017	0.011	−1.442	0.149
INCOME		0.005	0.005	1.132	0.258
CHANGE	ON				
INTENT		−0.208	0.035	−5.902	0.000

```
         AGE              0.002     0.002      0.897      0.370
         EDUC            -0.022     0.036     -0.622      0.534
         HHVEH            0.009     0.035      0.270      0.788
         INCOME          -0.011     0.015     -0.741      0.459

 F2       WITH
    F1                   -6.192     1.614     -3.836      0.000

 F3       WITH
    F1                    0.920     0.070     13.081      0.000
    F2                   -2.795     0.739     -3.781      0.000

 F4       WITH
    F1                    0.857     0.075     11.444      0.000
    F2                   -3.853     1.011     -3.813      0.000
    F3                    0.369     0.039      9.380      0.000

 F5       WITH
    F1                    0.239     0.026      9.015      0.000
    F2                   -0.789     0.217     -3.628      0.000
    F3                    0.105     0.013      7.939      0.000
    F4                    0.155     0.020      7.633      0.000

 F6       WITH
    F1                   -0.090     0.092     -0.975      0.329
    F2                    0.683     0.377      1.811      0.070
    F3                   -0.025     0.047     -0.535      0.592
    F4                    0.836     0.102      8.228      0.000
    F5                   -0.042     0.022     -1.873      0.061

 Intercepts
    INTENT                3.173     0.053     60.086      0.000

 Thresholds
    COV1$1               -2.058     0.247     -8.345      0.000
    COV1$2               -0.827     0.244     -3.391      0.001
    COV1$3               -0.017     0.243     -0.070      0.944
    COV1$4                1.514     0.247      6.141      0.000
    COV2$1               -3.176     0.252    -12.580      0.000
    COV2$2               -2.269     0.248     -9.131      0.000
    COV2$3               -1.415     0.245     -5.771      0.000
    COV2$4                0.320     0.243      1.320      0.187
    COV3$1               -3.907     0.277    -14.129      0.000
    COV3$2               -3.032     0.272    -11.150      0.000
    COV3$3               -2.332     0.266     -8.775      0.000
    COV3$4               -0.818     0.260     -3.144      0.002
    COV4$1               -1.678     0.177     -9.460      0.000
    COV4$2               -0.830     0.175     -4.736      0.000
    COV4$3                0.040     0.174      0.230      0.818
    COV4$4                1.112     0.175      6.343      0.000
    COV5$1               -2.335     0.245     -9.513      0.000
    COV5$2               -1.508     0.242     -6.241      0.000
    COV5$3               -0.449     0.238     -1.888      0.059
    COV5$4                0.478     0.238      2.005      0.045
    COV6$1               -4.252     0.226    -18.839      0.000
    COV6$2               -2.348     0.217    -10.820      0.000
    COV6$3               -0.425     0.210     -2.028      0.043
    COV6$4                0.916     0.208      4.398      0.000
    COV7$1               -3.107     0.259    -11.994      0.000
    COV7$2               -2.198     0.245     -8.969      0.000
    COV7$3               -0.671     0.241     -2.789      0.005
    COV7$4                1.207     0.241      5.007      0.000
    COV8$1               -1.277     0.166     -7.707      0.000
    COV8$2                0.194     0.162      1.199      0.231
```

COV8$3	0.944	0.171	5.531	0.000
COV8$4	1.281	0.177	7.230	0.000
COV9$1	-3.116	0.223	-13.955	0.000
COV9$2	-1.658	0.214	-7.767	0.000
COV9$3	0.081	0.214	0.382	0.703
COV9$4	1.545	0.212	7.273	0.000
COV10$1	-4.303	0.285	-15.075	0.000
COV10$2	-3.158	0.276	-11.432	0.000
COV10$3	-1.557	0.263	-5.919	0.000
COV10$4	0.149	0.257	0.581	0.561
COV11$1	-0.363	0.782	-0.465	0.642
COV11$2	2.174	0.934	2.328	0.020
COV11$3	3.764	1.188	3.168	0.002
COV11$4	6.760	1.789	3.779	0.000
COV12$1	-0.690	0.255	-2.708	0.007
COV12$2	0.429	0.255	1.686	0.092
COV12$3	1.208	0.258	4.690	0.000
COV12$4	2.244	0.262	8.562	0.000
ENV1$1	-2.117	0.241	-8.786	0.000
ENV1$2	-1.177	0.228	-5.170	0.000
ENV1$3	0.339	0.224	1.518	0.129
ENV1$4	2.484	0.238	10.446	0.000
ENV2$1	-2.517	0.215	-11.731	0.000
ENV2$2	-1.363	0.207	-6.595	0.000
ENV2$3	-0.150	0.203	-0.737	0.461
ENV2$4	1.300	0.205	6.332	0.000
ENV3$1	-2.052	0.203	-10.096	0.000
ENV3$2	-1.180	0.199	-5.922	0.000
ENV3$3	-0.216	0.198	-1.094	0.274
ENV3$4	1.023	0.198	5.155	0.000
ONL1$1	-2.685	0.146	-18.363	0.000
ONL1$2	-2.164	0.143	-15.102	0.000
ONL1$3	-1.478	0.143	-10.341	0.000
ONL1$4	-0.406	0.141	-2.885	0.004
ONL2$1	-1.671	0.142	-11.745	0.000
ONL2$2	-1.255	0.140	-8.951	0.000
ONL2$3	-0.002	0.138	-0.012	0.991
ONL2$4	0.641	0.138	4.652	0.000
ONL3$1	-3.070	0.203	-15.095	0.000
ONL3$2	-2.239	0.196	-11.427	0.000
ONL3$3	-1.189	0.188	-6.323	0.000
ONL3$4	0.444	0.186	2.395	0.017
ONL4$1	-2.337	0.193	-12.118	0.000
ONL4$2	-1.383	0.190	-7.297	0.000
ONL4$3	-0.757	0.188	-4.036	0.000
ONL4$4	0.657	0.186	3.528	0.000
ONL5$1	-3.126	0.207	-15.086	0.000
ONL5$2	-2.122	0.198	-10.732	0.000
ONL5$3	-1.295	0.192	-6.737	0.000
ONL5$4	0.094	0.188	0.501	0.616
PREBIKE$1	1.307	0.360	3.634	0.000
PREBIKE$2	2.234	0.365	6.113	0.000
PREBIKE$3	3.320	0.370	8.973	0.000
PREBIKE$4	5.020	0.400	12.539	0.000
BIKE$1	2.528	0.463	5.464	0.000
FREBIKE$1	2.750	0.599	4.590	0.000
FREBIKE$2	3.748	0.626	5.986	0.000
FREBIKE$3	4.678	0.661	7.075	0.000
FREBIKE$4	5.515	0.690	7.994	0.000
FREBIKE$5	6.022	0.706	8.532	0.000
FREBIKE$6	6.909	0.732	9.436	0.000
FREBIKE$7	7.579	0.743	10.200	0.000
CHANGE$1	-3.146	0.216	-14.556	0.000
CHANGE$2	-1.974	0.202	-9.796	0.000

```
     CHANGE$3              1.002      0.201      4.978      0.000
     CHANGE$4              1.860      0.208      8.940      0.000

 Variances
     F1                    2.562      0.196     13.079      0.000
     F2                   31.553     16.059      1.965      0.049
     F3                    0.704      0.078      9.006      0.000
     F4                    2.150      0.211     10.166      0.000
     F5                    0.131      0.023      5.810      0.000
     F6                    4.553      0.411     11.084      0.000

 Residual Variances
     INTENT                0.198      0.003     76.816      0.000
```

QUALITY OF NUMERICAL RESULTS

     Condition Number for the Information Matrix   0.114E-06
        (ratio of smallest to largest eigenvalue)

STANDARDIZED MODEL RESULTS

STDYX Standardization

		Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
F1	BY				
COV1		0.848	0.009	93.189	0.000
COV2		0.840	0.009	89.197	0.000
COV3		0.396	0.022	17.891	0.000
COV4		0.665	0.015	43.306	0.000
F2	BY				
COV11		0.985	0.008	127.925	0.000
COV12		0.854	0.008	102.076	0.000
COV3		−0.531	0.021	−25.659	0.000
F3	BY				
COV5		0.643	0.021	30.692	0.000
COV6		0.781	0.010	74.456	0.000
COV7		0.834	0.010	87.702	0.000
COV8		0.522	0.019	26.874	0.000
COV9		0.787	0.009	82.977	0.000
COV10		0.855	0.009	95.750	0.000
F4	BY				
ENV1		0.826	0.013	64.043	0.000
ENV2		0.780	0.013	58.670	0.000
ENV3		0.762	0.014	53.376	0.000
F5	BY				
ONL1		0.340	0.026	13.138	0.000
ONL2		0.355	0.025	14.281	0.000
ONL3		0.731	0.017	43.799	0.000
ONL4		0.725	0.017	42.359	0.000
ONL5		0.738	0.018	41.626	0.000
F6	BY				
PREBIKE		0.905	0.007	123.088	0.000
BIKE		0.931	0.009	98.091	0.000
FREBIKE		0.950	0.009	100.265	0.000

```
INTENT     ON
   F1                 0.106      0.037      2.847      0.004
   F2                -0.008      0.041     -0.203      0.839
   F3                -0.049      0.035     -1.393      0.164
   F4                 0.014      0.025      0.558      0.577
   F5                -0.055      0.026     -2.132      0.033
   F6                 0.162      0.015     10.823      0.000

CHANGE     ON
   F6                -0.407      0.012    -35.253      0.000

INTENT     ON
   AGE               -0.082      0.020     -4.127      0.000
   EDUC               0.028      0.025      1.096      0.273
   HHVEH             -0.033      0.023     -1.441      0.150
   INCOME             0.029      0.026      1.132      0.258

CHANGE     ON
   INTENT            -0.085      0.014     -5.957      0.000
   AGE                0.023      0.026      0.898      0.369
   EDUC              -0.020      0.032     -0.622      0.534
   HHVEH              0.008      0.029      0.270      0.788
   INCOME            -0.024      0.032     -0.741      0.459

F2         WITH
   F1                -0.689      0.015    -46.165      0.000

F3         WITH
   F1                 0.685      0.014     50.459      0.000
   F2                -0.593      0.016    -36.404      0.000

F4         WITH
   F1                 0.365      0.021     17.380      0.000
   F2                -0.468      0.020    -23.792      0.000
   F3                 0.300      0.021     14.110      0.000

F5         WITH
   F1                 0.412      0.022     19.165      0.000
   F2                -0.388      0.023    -17.206      0.000
   F3                 0.347      0.022     15.567      0.000
   F4                 0.291      0.023     12.413      0.000

F6         WITH
   F1                -0.026      0.027     -0.979      0.328
   F2                 0.057      0.028      2.043      0.041
   F3                -0.014      0.026     -0.536      0.592
   F4                 0.267      0.026     10.441      0.000
   F5                -0.054      0.028     -1.923      0.054

Intercepts
   INTENT             6.977      0.126     55.595      0.000

Thresholds
   COV1$1            -1.090      0.130     -8.406      0.000
   COV1$2            -0.438      0.129     -3.390      0.001
   COV1$3            -0.009      0.129     -0.070      0.944
   COV1$4             0.802      0.130      6.192      0.000
   COV2$1            -1.725      0.133    -12.930      0.000
   COV2$2            -1.233      0.133     -9.279      0.000
   COV2$3            -0.769      0.132     -5.816      0.000
   COV2$4             0.174      0.132      1.319      0.187
   COV3$1            -2.036      0.139    -14.646      0.000
   COV3$2            -1.580      0.138    -11.461      0.000
```

COV3$3	−1.215	0.135	−8.970	0.000
COV3$4	−0.426	0.135	−3.166	0.002
COV4$1	−1.253	0.132	−9.490	0.000
COV4$2	−0.620	0.131	−4.741	0.000
COV4$3	0.030	0.130	0.230	0.818
COV4$4	0.830	0.131	6.362	0.000
COV5$1	−1.788	0.185	−9.643	0.000
COV5$2	−1.155	0.184	−6.290	0.000
COV5$3	−0.344	0.182	−1.891	0.059
COV5$4	0.366	0.183	2.002	0.045
COV6$1	−2.656	0.134	−19.761	0.000
COV6$2	−1.466	0.133	−11.005	0.000
COV6$3	−0.265	0.131	−2.031	0.042
COV6$4	0.572	0.130	4.392	0.000
COV7$1	−1.713	0.140	−12.261	0.000
COV7$2	−1.212	0.133	−9.126	0.000
COV7$3	−0.370	0.132	−2.798	0.005
COV7$4	0.666	0.133	5.009	0.000
COV8$1	−1.089	0.141	−7.714	0.000
COV8$2	0.165	0.138	1.199	0.231
COV8$3	0.806	0.146	5.532	0.000
COV8$4	1.093	0.151	7.232	0.000
COV9$1	−1.921	0.136	−14.166	0.000
COV9$2	−1.023	0.131	−7.798	0.000
COV9$3	0.050	0.132	0.382	0.703
COV9$4	0.952	0.131	7.285	0.000
COV10$1	−2.233	0.138	−16.229	0.000
COV10$2	−1.639	0.136	−12.017	0.000
COV10$3	−0.808	0.134	−6.041	0.000
COV10$4	0.077	0.133	0.580	0.562
COV11$1	−0.064	0.136	−0.468	0.640
COV11$2	0.381	0.136	2.794	0.005
COV11$3	0.660	0.138	4.791	0.000
COV11$4	1.185	0.140	8.482	0.000
COV12$1	−0.359	0.132	−2.710	0.007
COV12$2	0.223	0.132	1.686	0.092
COV12$3	0.628	0.134	4.700	0.000
COV12$4	1.167	0.135	8.622	0.000
ENV1$1	−1.193	0.133	−8.964	0.000
ENV1$2	−0.663	0.128	−5.180	0.000
ENV1$3	0.191	0.126	1.522	0.128
ENV1$4	1.399	0.127	11.055	0.000
ENV2$1	−1.574	0.130	−12.136	0.000
ENV2$2	−0.852	0.128	−6.672	0.000
ENV2$3	−0.094	0.127	−0.737	0.461
ENV2$4	0.813	0.128	6.368	0.000
ENV3$1	−1.328	0.130	−10.205	0.000
ENV3$2	−0.764	0.129	−5.939	0.000
ENV3$3	−0.140	0.128	−1.094	0.274
ENV3$4	0.662	0.128	5.179	0.000
ONL1$1	−2.525	0.136	−18.530	0.000
ONL1$2	−2.035	0.134	−15.207	0.000
ONL1$3	−1.390	0.134	−10.381	0.000
ONL1$4	−0.382	0.132	−2.887	0.004
ONL2$1	−1.562	0.133	−11.775	0.000
ONL2$2	−1.173	0.131	−8.968	0.000
ONL2$3	−0.002	0.129	−0.012	0.991
ONL2$4	0.599	0.129	4.655	0.000
ONL3$1	−2.095	0.133	−15.730	0.000
ONL3$2	−1.528	0.130	−11.719	0.000
ONL3$3	−0.811	0.127	−6.379	0.000
ONL3$4	0.303	0.127	2.397	0.017
ONL4$1	−1.610	0.130	−12.374	0.000
ONL4$2	−0.953	0.130	−7.341	0.000

ONL4$3	-0.522	0.129	-4.041	0.000
ONL4$4	0.452	0.128	3.545	0.000
ONL5$1	-2.110	0.132	-16.035	0.000
ONL5$2	-1.432	0.130	-11.049	0.000
ONL5$3	-0.874	0.128	-6.818	0.000
ONL5$4	0.063	0.127	0.501	0.616
PREBIKE$1	0.555	0.150	3.706	0.000
PREBIKE$2	0.948	0.149	6.355	0.000
PREBIKE$3	1.409	0.148	9.508	0.000
PREBIKE$4	2.131	0.159	13.383	0.000
BIKE$1	0.925	0.157	5.883	0.000
FREBIKE$1	0.858	0.178	4.828	0.000
FREBIKE$2	1.170	0.178	6.571	0.000
FREBIKE$3	1.460	0.181	8.045	0.000
FREBIKE$4	1.721	0.185	9.290	0.000
FREBIKE$5	1.879	0.188	10.004	0.000
FREBIKE$6	2.156	0.193	11.189	0.000
FREBIKE$7	2.365	0.200	11.800	0.000
CHANGE$1	-2.838	0.193	-14.676	0.000
CHANGE$2	-1.780	0.181	-9.859	0.000
CHANGE$3	0.904	0.183	4.944	0.000
CHANGE$4	1.677	0.190	8.811	0.000

Variances

F1	1.000	0.000	999.000	999.000
F2	1.000	0.000	999.000	999.000
F3	1.000	0.000	999.000	999.000
F4	1.000	0.000	999.000	999.000
F5	1.000	0.000	999.000	999.000
F6	1.000	0.000	999.000	999.000

Residual Variances

INTENT	0.956	0.007	145.353	0.000

R-SQUARE

Observed Variable	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value	Scale Factors
COV1	0.719	0.015	46.595	0.000	0.530
COV2	0.705	0.016	44.598	0.000	0.543
COV3	0.728	0.015	49.262	0.000	0.521
COV4	0.442	0.020	21.653	0.000	0.747
COV5	0.413	0.027	15.346	0.000	0.766
COV6	0.610	0.016	37.228	0.000	0.624
COV7	0.696	0.016	43.851	0.000	0.551
COV8	0.272	0.020	13.437	0.000	0.853
COV9	0.620	0.015	41.488	0.000	0.617
COV10	0.731	0.015	47.875	0.000	0.519
COV11	0.969	0.015	63.963	0.000	0.175
COV12	0.729	0.014	51.038	0.000	0.520
ENV1	0.683	0.021	32.022	0.000	0.563
ENV2	0.609	0.021	29.335	0.000	0.625
ENV3	0.581	0.022	26.688	0.000	0.647
ONL1	0.116	0.018	6.569	0.000	0.940
ONL2	0.126	0.018	7.140	0.000	0.935
ONL3	0.534	0.024	21.900	0.000	0.682
ONL4	0.525	0.025	21.179	0.000	0.689
ONL5	0.545	0.026	20.813	0.000	0.675
PREBIKE	0.820	0.013	61.544	0.000	0.424
BIKE	0.866	0.018	49.046	0.000	0.366
FREBIKE	0.903	0.018	50.133	0.000	0.312
INTENT	0.044	0.007	6.672	0.000	

```
   CHANGE              0.187      0.010      18.165        0.000        0.903
```

TOTAL, TOTAL INDIRECT, SPECIFIC INDIRECT, AND DIRECT EFFECTS FOR LATENT RESPONSE VARIABLES

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
Effects from F1 to CHANGE				
Indirect	-0.006	0.002	-2.560	0.010
Direct effect	0.000	0.000	999.000	0.000
Effects from F2 to CHANGE				
Indirect	0.000	0.001	0.202	0.840
Direct effect	0.000	0.000	999.000	0.000
Effects from F3 to CHANGE				
Indirect	0.006	0.004	1.338	0.181
Direct effect	0.000	0.000	999.000	0.000
Effects from F4 to CHANGE				
Indirect	-0.001	0.002	-0.557	0.578
Direct effect	0.000	0.000	999.000	0.000
Effects from F5 to CHANGE				
Indirect	0.014	0.007	1.967	0.049
Direct effect	0.000	0.000	999.000	0.000
Effects from F6 to CHANGE				
Indirect	-0.007	0.001	-4.848	0.000
Direct effect	-0.211	0.012	-17.542	0.000

TOTAL, INDIRECT, AND DIRECT EFFECTS BASED ON COUNTERFACTUALS (CAUSALLY-DEFINED EFFECTS, CONDITIONAL ON ALL OTHER COVARIATES BEING ZERO)

Effects from F1 to CHANGE

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
Tot natural IE	-0.002	0.001	-2.539	0.011
Pure natural DE	0.000	0.000	0.000	1.000
Total effect	-0.002	0.001	-2.539	0.011
Other effects				
Pure natural IE	-0.002	0.001	-2.539	0.011
Tot natural DE	0.000	0.000	999.000	0.000
Total effect	-0.002	0.001	-2.539	0.011

Effects from F2 to CHANGE

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value

	Estimate	S.E.	Est./S.E.	P-Value
Tot natural IE	0.000	0.000	0.202	0.840
Pure natural DE	0.000	0.000	0.000	1.000
Total effect	0.000	0.000	0.202	0.840

 Other effects

	Estimate	S.E.	Est./S.E.	P-Value
Pure natural IE	0.000	0.000	0.202	0.840
Tot natural DE	0.000	0.000	999.000	0.000
Total effect	0.000	0.000	0.202	0.840

Effects from F3 to CHANGE

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
Tot natural IE	0.002	0.001	1.332	0.183
Pure natural DE	0.000	0.000	0.000	1.000
Total effect	0.002	0.001	1.332	0.183

 Other effects

	Estimate	S.E.	Est./S.E.	P-Value
Pure natural IE	0.002	0.001	1.332	0.183
Tot natural DE	0.000	0.000	0.000	1.000
Total effect	0.002	0.001	1.332	0.183

Effects from F4 to CHANGE

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
Tot natural IE	0.000	0.000	−0.557	0.577
Pure natural DE	0.000	0.000	0.000	1.000
Total effect	0.000	0.000	−0.557	0.577

 Other effects

	Estimate	S.E.	Est./S.E.	P-Value
Pure natural IE	0.000	0.000	−0.557	0.577
Tot natural DE	0.000	0.000	999.000	0.000
Total effect	0.000	0.000	−0.557	0.577

Effects from F5 to CHANGE

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
Tot natural IE	0.004	0.002	1.963	0.050
Pure natural DE	0.000	0.000	0.000	1.000
Total effect	0.004	0.002	1.963	0.050

 Other effects

	Estimate	S.E.	Est./S.E.	P-Value
Pure natural IE	0.004	0.002	1.963	0.050
Tot natural DE	0.000	0.000	999.000	0.000
Total effect	0.004	0.002	1.963	0.050

Effects from F6 to CHANGE

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
Tot natural IE	−0.002	0.001	−4.346	0.000
Pure natural DE	−0.067	0.006	−10.345	0.000
Total effect	−0.069	0.007	−10.252	0.000

 Other effects

  Pure natural IE   -0.002   0.000   -4.633   0.000

	Estimate	S.E.	Est./S.E.	P-Value
Pure natural IE	-0.002	0.000	-4.633	0.000
Tot natural DE	-0.067	0.007	-10.232	0.000
Total effect	-0.069	0.007	-10.252	0.000

STANDARDIZED TOTAL, TOTAL INDIRECT, SPECIFIC INDIRECT, AND DIRECT EFFECTS FOR LATENT RESPO
NSE VARIABLES

STDYX Standardization

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value

Effects from F1 to CHANGE

	Estimate	S.E.	Est./S.E.	P-Value
Indirect	-0.009	0.004	-2.575	0.010
Direct effect	0.000	0.000	0.000	1.000

Effects from F2 to CHANGE

	Estimate	S.E.	Est./S.E.	P-Value
Indirect	0.001	0.004	0.202	0.840
Direct effect	0.000	0.000	0.000	1.000

Effects from F3 to CHANGE

	Estimate	S.E.	Est./S.E.	P-Value
Indirect	0.004	0.003	1.343	0.179
Direct effect	0.000	0.000	0.000	1.000

Effects from F4 to CHANGE

	Estimate	S.E.	Est./S.E.	P-Value
Indirect	-0.001	0.002	-0.556	0.578
Direct effect	0.000	0.000	0.000	1.000

Effects from F5 to CHANGE

	Estimate	S.E.	Est./S.E.	P-Value
Indirect	0.005	0.002	1.990	0.047
Direct effect	0.000	0.000	0.000	1.000

Effects from F6 to CHANGE

	Estimate	S.E.	Est./S.E.	P-Value
Indirect	-0.014	0.003	-5.222	0.000
Direct effect	-0.407	0.012	-35.253	0.000

STANDARDIZED TOTAL, INDIRECT, AND DIRECT EFFECTS BASED ON COUNTERFACTUALS (CAUSALLY-DEFINE
D EFFECTS)

STDYX Standardization

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value

Effects from F1 to CHANGE

NOT AVAILABLE.

Effects from F2 to CHANGE

NOT AVAILABLE.

Effects from F3 to CHANGE

NOT AVAILABLE.

Effects from F4 to CHANGE

NOT AVAILABLE.

Effects from F5 to CHANGE

NOT AVAILABLE.

Effects from F6 to CHANGE

NOT AVAILABLE.

DIAGRAM INFORMATION

  Use View Diagram under the Diagram menu in the Mplus Editor to view the diagram.
  If running Mplus from the Mplus Diagrammer, the diagram opens automatically.

  Diagram output
    \\apporto.com\dfs\nthw\users\fys47_northwestern\desktop\data\factorsixwave13.dgm

     Beginning Time: 15:37:03
        Ending Time: 15:37:11
       Elapsed Time: 00:00:08

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