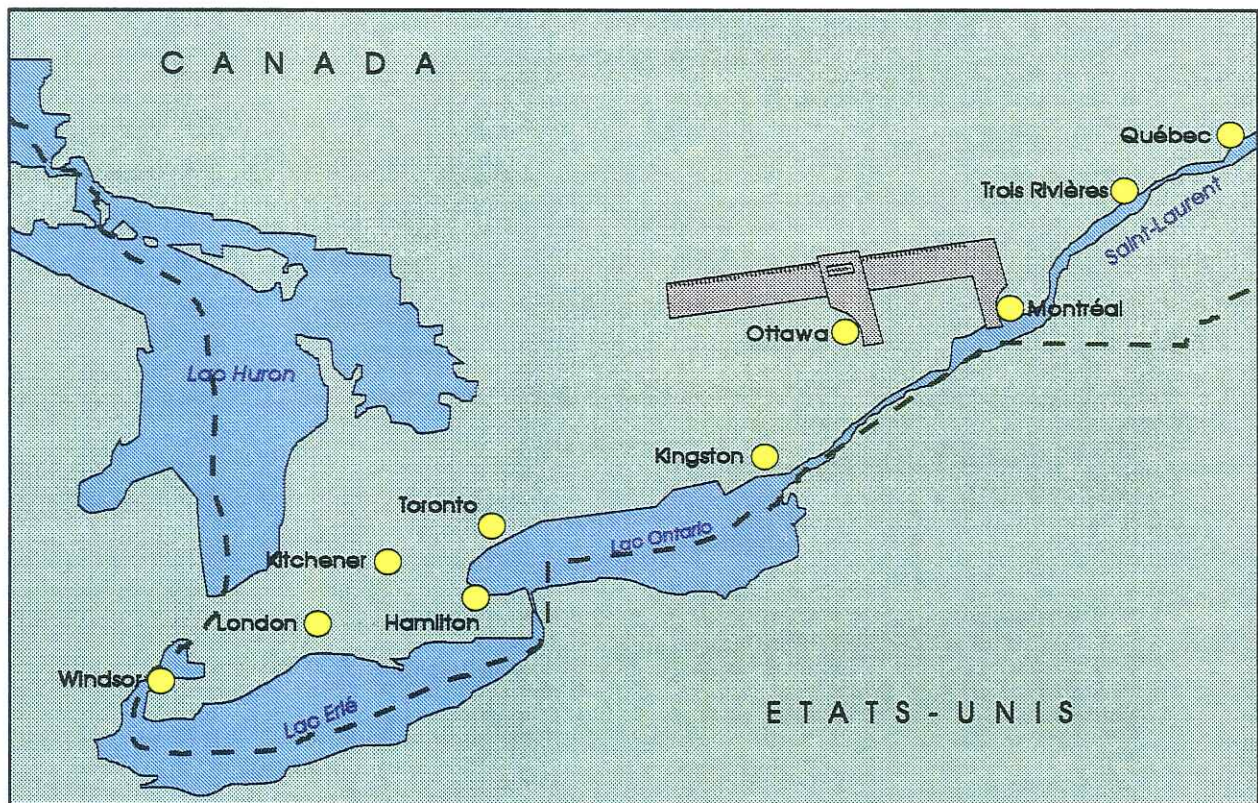


**Prévisions de trafic et de revenus  
pour une liaison à grande vitesse dans le corridor  
QUEBEC - MONTREAL - OTTAWA - TORONTO - WINDSOR**



**CALIBRAGE DES MODELES  
Volume 3**

Février 1994

Ce rapport contient les résultats des calibrages:

- du modèle de répartition de trafic,
- du modèle à utilité généralisée.

Ces calibrages ont été réalisés à partir des données harmonisées par IBI.

La méthodologie figure dans le volume 1 du rapport final (chapitre 5).

Les paramètres issus des calibrages ont servi à réaliser les prévisions finales de trafic et de revenus .

**CALIBRAGES DU MODELE DE REPARTITION DE TRAFIC**

**RESULTATS PAR ORIGINE-DESTINATION**

**ET PAR MOTIF**

**QUEBEC-MONTREAL  
Non-Business Purpose**

| Non-Linear Least Squares DUD Initialization |            |            |            | Dependent Variable VOY |
|---|------------|------------|------------|------------------------|
| DUD   | H          | W          | A          | Sum of Squares         |
|   | G          | CV         | CT         |                        |
|   | CP         | CB         |            |                        |
| -9  | 7.000000   | 1.600000   | 1.600000   | 872844                 |
|   | 2.600000   | -30.000000 | 149.000000 |                        |
|   | 790.000000 | 188.000000 |            |                        |
| -8  | 7.700000   | 1.600000   | 1.600000   | 1474135296             |
|   | 2.600000   | -30.000000 | 149.000000 |                        |
|   | 790.000000 | 188.000000 |            |                        |
| -7  | 7.000000   | 1.760000   | 1.600000   | 40846206               |
|   | 2.600000   | -30.000000 | 149.000000 |                        |
|   | 790.000000 | 188.000000 |            |                        |
| -6  | 7.000000   | 1.600000   | 1.760000   | 871491                 |
|   | 2.600000   | -30.000000 | 149.000000 |                        |
|   | 790.000000 | 188.000000 |            |                        |
| -5  | 7.000000   | 1.600000   | 1.600000   | 299514427              |
|   | 2.860000   | -30.000000 | 149.000000 |                        |
|   | 790.000000 | 188.000000 |            |                        |
| -4  | 7.000000   | 1.600000   | 1.600000   | 2976633935             |
|   | 2.600000   | -33.000000 | 149.000000 |                        |
|   | 790.000000 | 188.000000 |            |                        |
| -3  | 7.000000   | 1.600000   | 1.600000   | 870471                 |
|   | 2.600000   | -30.000000 | 163.900000 |                        |
|   | 790.000000 | 188.000000 |            |                        |
| -2  | 7.000000   | 1.600000   | 1.600000   | 872099                 |
|   | 2.600000   | -30.000000 | 149.000000 |                        |
|   | 869.000000 | 188.000000 |            |                        |
| -1  | 7.000000   | 1.600000   | 1.600000   | 858925                 |
|   | 2.600000   | -30.000000 | 149.000000 |                        |
|   | 790.000000 | 206.800000 |            |                        |

| Non-Linear Least Squares Iterative Phase |            |            |            | Dependent Variable VOY Method: DUD |
|--|------------|------------|------------|------------------------------------|
| Iter                                     | H          | W          | A          | Sum of Squares                     |
|  | G          | CV         | CT         |                                    |
|  | CP         | CB         |            |                                    |
| 0  | 7.000000   | 1.600000   | 1.600000   | 858925                             |
|  | 2.600000   | -30.000000 | 149.000000 |                                    |
|  | 790.000000 | 206.800000 |            |                                    |

WARNING: Step size shows no improvement.

NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |            |            |            | Dependent Variable VOY |
|---|------------|------------|------------|------------------------|
| DUD   | H          | W          | A          | Sum of Squares         |
|   | G          | CV         | CT         |                        |
|   | CP         | CB         |            |                        |
| -9  | 7.000000   | 1.600000   | 1.600000   | 858925                 |
|   | 2.600000   | -30.000000 | 149.000000 |                        |
|   | 790.000000 | 206.800000 |            |                        |
| -8  | 7.700000   | 1.600000   | 1.600000   | 1469880984             |
|   | 2.600000   | -30.000000 | 149.000000 |                        |
|   | 790.000000 | 206.800000 |            |                        |

**QUEBEC-MONTREAL  
Non-Business Purpose**

| Non-Linear Least Squares DUD Initialization |              |               | Dependent Variable VOY |                      |
|---|--------------|---------------|------------------------|----------------------|
| DUD   | H<br>G<br>CP | W<br>CV<br>CB | A                      | Sum of Squares<br>CT |
| -7  | 7.000000     | 1.760000      | 1.600000               | 41166195             |
|   | 2.600000     | -30.000000    | 149.000000             |                      |
|   | 790.000000   | 206.800000    |                        |                      |
| -6  | 7.000000     | 1.600000      | 1.760000               | 857599               |
|   | 2.600000     | -30.000000    | 149.000000             |                      |
|   | 790.000000   | 206.800000    |                        |                      |
| -5  | 7.000000     | 1.600000      | 1.600000               | 299920221            |
|   | 2.860000     | -30.000000    | 149.000000             |                      |
|   | 790.000000   | 206.800000    |                        |                      |
| -4  | 7.000000     | 1.600000      | 1.600000               | 2977053571           |
|   | 2.600000     | -33.000000    | 149.000000             |                      |
|   | 790.000000   | 206.800000    |                        |                      |
| -3  | 7.000000     | 1.600000      | 1.600000               | 855466               |
|   | 2.600000     | -30.000000    | 163.900000             |                      |
|   | 790.000000   | 206.800000    |                        |                      |
| -2  | 7.000000     | 1.600000      | 1.600000               | 857411               |
|   | 2.600000     | -30.000000    | 149.000000             |                      |
|   | 869.000000   | 206.800000    |                        |                      |
| -1  | 7.000000     | 1.600000      | 1.600000               | 851819               |
|   | 2.600000     | -30.000000    | 149.000000             |                      |
|   | 790.000000   | 227.480000    |                        |                      |

| Non-Linear Least Squares Iterative Phase |              |               | Dependent Variable VOY Method: DUD |                      |
|--|--------------|---------------|------------------------------------|----------------------|
| Iter                                     | H<br>G<br>CP | W<br>CV<br>CB | A                                  | Sum of Squares<br>CT |
| 0  | 7.000000     | 1.600000      | 1.600000                           | 851819               |
|  | 2.600000     | -30.000000    | 149.000000                         |                      |
|  | 790.000000   | 227.480000    |                                    |                      |

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |  |
|---|----|----------------|------------------------|--|
| Source                                      | DF | Sum of Squares | Mean Square            |  |
| Regression                                  | 8  | 87054885273    | 108818606909           |  |
| Residual                                    | 66 | 851819         | 12906                  |  |
| Uncorrected Total                           | 74 | 870549707092   |                        |  |
| (Corrected Total)                           | 73 | 769378342330   |                        |  |

**QUEBEC-MONTREAL  
Non-Business Purpose**

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
|           |             |                          | H                                      | 7.0000000    |
| W         | 1.6000000   | 0.7029882                | 0.1964368                              | 3.0035632    |
| A         | 1.6000000   | 8.2220201                | -14.8158161                            | 18.0158161   |
| G         | 2.6000000   | 0.0843459                | 2.4315977                              | 2.7684023    |
| CV        | -30.0000000 | 0.5833128                | -31.1646233                            | -28.8353767  |
| CT        | 149.0000000 | 197.1789741              | -244.6810805                           | 542.6810805  |
| CP        | 790.0000000 | 4015.7969024             | -7227.8085449                          | 8807.8085449 |
| CB        | 227.4800000 | 215.6091772              | -202.9982203                           | 657.9582203  |

**Asymptotic Correlation Matrix**

| Corr | H            | W            | A            | G            |
|------|--------------|--------------|--------------|--------------|
| H    | 1            | 0.9934853612 | -0.19509482  | 0.9400645739 |
| W    | 0.9934853612 | 1            | -0.216024332 | 0.8990079711 |
| A    | -0.19509482  | -0.216024332 | 1            | -0.067149724 |
| G    | 0.9400645739 | 0.8990079711 | -0.067149724 | 1            |
| CV   | 0.9844880897 | 0.9960961681 | -0.196640798 | 0.8882143014 |
| CT   | 0.6952676982 | 0.7082093296 | -0.548380376 | 0.5742609871 |
| CP   | 0.1011438021 | 0.1000856511 | -0.168053996 | 0.0874210432 |
| CB   | 0.8268315566 | 0.8457180061 | -0.566349815 | 0.6723391523 |

| Corr | CV           | CT           | CP           | CB           |
|------|--------------|--------------|--------------|--------------|
| H    | 0.9844880897 | 0.6952676982 | 0.1011438021 | 0.8268315566 |
| W    | 0.9960961681 | 0.7082093296 | 0.1000856511 | 0.8457180061 |
| A    | -0.196640798 | -0.548380376 | -0.168053996 | -0.566349815 |
| G    | 0.8882143014 | 0.5742609871 | 0.0874210432 | 0.6723391523 |
| CV   | 1            | 0.6937900554 | 0.0967808904 | 0.8291953012 |
| CT   | 0.6937900554 | 1            | -0.018687662 | 0.7509526019 |
| CP   | 0.0967808904 | -0.018687662 | 1            | -0.06218905  |
| CB   | 0.8291953012 | 0.7509526019 | -0.06218905  | 1            |

**QUEBEC-MONTREAL**  
**Non-Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 15.56                              | 0.999           |
| <b>w</b>          | 2.29                               |                 |
| <b>a</b>          | 0.19                               |                 |
| <b>g</b>          | 32.50                              |                 |
| <b>cv</b>         | -51.72                             |                 |
| <b>ct</b>         | 0.76                               |                 |
| <b>cp</b>         | 0.20                               |                 |
| <b>cb</b>         | 1.06                               |                 |

**QUEBEC-MONTREAL  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |            |             |            | Dependent Variable VOY |
|---|------------|-------------|------------|------------------------|
| DUD   | H          | W           | A          | Sum of Squares         |
|   | G          | CV          | CT         |                        |
|   | CP         | CB          |            |                        |
| -9  | 27.000000  | 1.800000    | 1.600000   | 99365422               |
|   | 4.500000   | -121.000000 | 104.000000 |                        |
|   | 122.000000 | 131.000000  |            |                        |
| -8  | 29.700000  | 1.800000    | 1.600000   | 237197047              |
|   | 4.500000   | -121.000000 | 104.000000 |                        |
|   | 122.000000 | 131.000000  |            |                        |
| -7  | 27.000000  | 1.980000    | 1.600000   | 65440608               |
|   | 4.500000   | -121.000000 | 104.000000 |                        |
|   | 122.000000 | 131.000000  |            |                        |
| -6  | 27.000000  | 1.800000    | 1.760000   | 99330293               |
|   | 4.500000   | -121.000000 | 104.000000 |                        |
|   | 122.000000 | 131.000000  |            |                        |
| -5  | 27.000000  | 1.800000    | 1.600000   | 41181434               |
|   | 4.950000   | -121.000000 | 104.000000 |                        |
|   | 122.000000 | 131.000000  |            |                        |
| -4  | 27.000000  | 1.800000    | 1.600000   | 1156761                |
|   | 4.500000   | -133.100000 | 104.000000 |                        |
|   | 122.000000 | 131.000000  |            |                        |
| -3  | 27.000000  | 1.800000    | 1.600000   | 99359217               |
|   | 4.500000   | -121.000000 | 114.400000 |                        |
|   | 122.000000 | 131.000000  |            |                        |
| -2  | 27.000000  | 1.800000    | 1.600000   | 99349896               |
|   | 4.500000   | -121.000000 | 104.000000 |                        |
|   | 134.200000 | 131.000000  |            |                        |
| -1  | 27.000000  | 1.800000    | 1.600000   | 99310417               |
|   | 4.500000   | -121.000000 | 104.000000 |                        |
|   | 122.000000 | 144.100000  |            |                        |

| Non-Linear Least Squares Iterative Phase |            |             |            | Dependent Variable VOY Method: DUD |
|--|------------|-------------|------------|------------------------------------|
| Iter                                     | H          | W           | A          | Sum of Squares                     |
|  | G          | CV          | CT         |                                    |
|  | CP         | CB          |            |                                    |
| 0  | 27.000000  | 1.800000    | 1.600000   | 1156761                            |
|  | 4.500000   | -133.100000 | 104.000000 |                                    |
|  | 122.000000 | 131.000000  |            |                                    |
| 1  | 26.996014  | 1.799699    | 1.599129   | 1151110                            |
|  | 4.499033   | -133.102418 | 103.624895 |                                    |
|  | 121.950795 | 131.052963  |            |                                    |
| 2  | 26.996548  | 1.797867    | 1.598494   | 1136034                            |
|  | 4.500715   | -133.117062 | 105.000000 |                                    |
|  | 122.254159 | 130.509301  |            |                                    |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |           |                    | Dependent Variable VOY |
|---|-----------|--------------------|------------------------|
| Source                                      | DF        | Sum of Squares     | Mean Square            |
| Regression                                  | 8         | 91693100195        | 11461637524            |
| Residual                                    | 66        | 1136034            | 17213                  |
| Uncorrected Total                           | 74        | 91694236229        |                        |
| <b>(Corrected Total)</b>                    | <b>73</b> | <b>78631308162</b> |                        |



**QUEBEC-MONTREAL  
Business Purpose**

| Parameter | Estimate     | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|--------------|--------------------------|--|--------------|
|           |              |                          | Lower                                  | Upper        |
| H         | 26.9965483   | 0.29644764               | 26.4046706                             | 27.5884259   |
| W         | 1.7978667    | 0.89784610               | 0.0052566                              | 3.5904768    |
| A         | 1.5984938    | 7.61202040               | -13.5994167                            | 16.7964044   |
| G         | 4.5007154    | 0.90645463               | 2.6909178                              | 6.3105131    |
| CV        | -133.1170618 | 5.46745284               | -144.0331990                           | -122.2009246 |
| CT        | 105.0000000  | 558.35422521             | -1009.7917554                          | 1219.7917554 |
| CP        | 122.2541591  | 508.09044039             | -892.1825701                           | 1136.6908882 |
| CB        | 130.5093005  | 462.16033655             | -792.2248879                           | 1053.2434889 |

**Asymptotic Correlation Matrix**

| Corr | H            | W            | A            | G            |
|------|--------------|--------------|--------------|--------------|
| H    | 1            | 0.1497593918 | 0.0633245106 | -0.015257117 |
| W    | 0.1497593918 | 1            | 0.1928470675 | -0.901834905 |
| A    | 0.0633245106 | 0.1928470675 | 1            | -0.186153554 |
| G    | -0.015257117 | -0.901834905 | -0.186153554 | 1            |
| CV   | 0.0248866731 | 0.6666157903 | 0.0735066384 | -0.307762495 |
| CT   | -0.309335543 | -0.45058914  | -0.320221072 | 0.4716590396 |
| CP   | 0.0564697606 | 0.0494460043 | -0.285263416 | -0.11425957  |
| CB   | 0.1667640679 | 0.2133557523 | -0.625150253 | -0.217132886 |

| Corr | CV           | CT           | CP           | CB           |
|------|--------------|--------------|--------------|--------------|
| H    | 0.0248866731 | -0.309335543 | 0.0564697606 | 0.1667640679 |
| W    | 0.6666157903 | -0.45058914  | 0.0494460043 | 0.2133557523 |
| A    | 0.0735066384 | -0.320221072 | -0.285263416 | -0.625150253 |
| G    | -0.307762495 | 0.4716590396 | -0.11425957  | -0.217132886 |
| CV   | 1            | -0.069990817 | -0.100362005 | 0.0657154398 |
| CT   | -0.069990817 | 1            | -0.561859549 | -0.184837345 |
| CP   | -0.100362005 | -0.561859549 | 1            | 0.0590028848 |
| CB   | 0.0657154398 | -0.184837345 | 0.0590028848 | 1            |

**QUEBEC-MONTREAL**  
**Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 93.07                              | 0.999           |
| <b>w</b>          | 2.01                               |                 |
| <b>a</b>          | 0.21                               |                 |
| <b>g</b>          | 5.00                               |                 |
| <b>cv</b>         | -24.38                             |                 |
| <b>ct</b>         | 0.19                               |                 |
| <b>cp</b>         | 0.24                               |                 |
| <b>cb</b>         | 0.28                               |                 |

**QUEBEC-OTTAWA  
Non Business Purpose**

| Non-Linear Least Squares DUD Initialization |                                    |                        | Dependent Variable VOY |                |
|---|------------------------------------|------------------------|------------------------|----------------|
| DUD   | H<br>G<br>CB                       | W<br>CT                | A<br>CP                | Sum of Squares |
| -8  | 9.000000<br>2.900000<br>280.000000 | 1.500000<br>210.000000 | 1.700000<br>600.000000 | 20782.000000   |
| -7  | 9.900000<br>2.900000<br>280.000000 | 1.500000<br>210.000000 | 1.700000<br>600.000000 | 7010081        |
| -6  | 9.000000<br>2.900000<br>280.000000 | 1.650000<br>210.000000 | 1.700000<br>600.000000 | 30260.000000   |
| -5  | 9.000000<br>2.900000<br>280.000000 | 1.500000<br>210.000000 | 1.870000<br>600.000000 | 20782.000000   |
| -4  | 9.000000<br>3.190000<br>280.000000 | 1.500000<br>210.000000 | 1.700000<br>600.000000 | 200619         |
| -3  | 9.000000<br>2.900000<br>280.000000 | 1.500000<br>231.000000 | 1.700000<br>600.000000 | 20735.000000   |
| -2  | 9.000000<br>2.900000<br>280.000000 | 1.500000<br>210.000000 | 1.700000<br>660.000000 | 20782.000000   |
| -1  | 9.000000<br>2.900000<br>308.000000 | 1.500000<br>210.000000 | 1.700000<br>600.000000 | 20717.000000   |

| Non-Linear Least Squares Iterative Phase |                                    |                        | Dependent Variable VOY Method: DUD |                |
|--|------------------------------------|------------------------|------------------------------------|----------------|
| Iter                                     | H<br>G<br>CB                       | W<br>CT                | A<br>CP                            | Sum of Squares |
| 0  | 9.000000<br>2.900000<br>308.000000 | 1.500000<br>210.000000 | 1.700000<br>600.000000             | 20717.000000   |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |                                    |                        | Dependent Variable VOY |                |
|---|------------------------------------|------------------------|------------------------|----------------|
| DUD   | H<br>G<br>CB                       | W<br>CT                | A<br>CP                | Sum of Squares |
| -8  | 9.000000<br>2.900000<br>308.000000 | 1.500000<br>210.000000 | 1.700000<br>600.000000 | 20717.000000   |
| -7  | 9.900000<br>2.900000<br>308.000000 | 1.500000<br>210.000000 | 1.700000<br>600.000000 | 7008337        |
| -6  | 9.000000<br>2.900000<br>308.000000 | 1.650000<br>210.000000 | 1.700000<br>600.000000 | 30256.000000   |

**QUEBEC-OTTAWA  
Non Business Purpose**

| Non-Linear Least Squares DUD Initialization |                                    |                        | Dependent Variable VOY |                |
|---|------------------------------------|------------------------|------------------------|----------------|
| DUD   | H<br>G<br>CB                       | W<br>CT                | A<br>CP                | Sum of Squares |
| -5  | 9.000000<br>2.900000<br>308.000000 | 1.500000<br>210.000000 | 1.870000<br>600.000000 | 20717.000000   |
| -4  | 9.000000<br>3.190000<br>308.000000 | 1.500000<br>210.000000 | 1.700000<br>600.000000 | 200619         |
| -3  | 9.000000<br>2.900000<br>308.000000 | 1.500000<br>231.000000 | 1.700000<br>600.000000 | 20717.000000   |
| -2  | 9.000000<br>2.900000<br>308.000000 | 1.500000<br>210.000000 | 1.700000<br>660.000000 | 20717.000000   |
| -1  | 9.000000<br>2.900000<br>338.800000 | 1.500000<br>210.000000 | 1.700000<br>600.000000 | 20772.000000   |

| Non-Linear Least Squares Iterative Phase |                                    |                        | Dependent Variable VOY Method: DUD |                |
|--|------------------------------------|------------------------|------------------------------------|----------------|
| Iter                                     | H<br>G<br>CB                       | W<br>CT                | A<br>CP                            | Sum of Squares |
| 0  | 9.000000<br>2.900000<br>308.000000 | 1.500000<br>210.000000 | 1.700000<br>600.000000             | 20717.000000   |

WARNING: Step size shows no improvement.  
WARNING: PROC NLIN failed to converge.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |  |
|---|----|----------------|------------------------|--|
| Source                                      | DF | Sum of Squares | Mean Square            |  |
| Regression                                  | 7  | 2948352010.0   | 421193144.3            |  |
| Residual                                    | 49 | 20717.0        | 422.8                  |  |
| Uncorrected Total                           | 56 | 2948372727.0   |                        |  |
| (Corrected Total)                           | 55 | 2531419726.6   |                        |  |

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
| H         | 9.0000000   | 0.06673377               | 8.8658938                              | 9.1341062    |
| W         | 1.5000000   | 0.45016146               | 0.5953687                              | 2.4046313    |
| A         | 1.7000000   | 0.00000000               | 1.7000000                              | 1.7000000    |
| G         | 2.9000000   | 0.07114645               | 2.7570262                              | 3.0429738    |
| CT        | 210.0000000 | 0.00000000               | 210.0000000                            | 210.0000000  |
| CP        | 600.0000000 | 0.00000000               | 600.0000000                            | 600.0000000  |
| CB        | 308.0000000 | 799.92632805             | -1299.5085968                          | 1915.5085968 |

**QUEBEC-OTTAWA  
Non Business Purpose**

Asymptotic Correlation Matrix

| Corr | H        | W        | A | G        | CT | CP | CB       |
|------|----------|----------|---|----------|----|----|----------|
| H    | 1        | 0.969376 | . | -0.79149 | .  | .  | 0.36115  |
| W    | 0.969376 | 1        | . | -0.90831 | .  | .  | 0.251929 |
| A    | .        | .        | . | .        | .  | .  | .        |
| G    | -0.79149 | -0.90831 | . | 1        | .  | .  | -0.11644 |
| CT   | .        | .        | . | .        | .  | .  | .        |
| CP   | .        | .        | . | .        | .  | .  | .        |
| CB   | 0.36115  | 0.251929 | . | -0.11644 | .  | .  | 1        |

Non-Linear Least Squares DUD Initialization      Dependent Variable VOY  
DUD      CV Sum of Squares  
-2      -40.300000      230433604  
-1      -44.330000      179849257

Non-Linear Least Squares Iterative Phase      Dependent Variable VOY Method: DUD  
Iter      CV Sum of Squares  
0      -44.330000      179849257  
1      -53.700000      63790576

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

Non-Linear Least Squares DUD Initialization      Dependent Variable VOY  
DUD      CV Sum of Squares  
-2      -53.700000      63790576  
-1      -59.070000      15455475

Non-Linear Least Squares Iterative Phase      Dependent Variable VOY Method: DUD  
Iter      CV Sum of Squares  
2      -59.070000      15455475

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

**QUEBEC-OTTAWA**  
**Non Business Purpose**

|                          |                    |                        |
|--------------------------|--------------------|------------------------|
| Non-Linear Least Squares | DUD Initialization | Dependent Variable VOY |
|                          | DUD                | CV Sum of Squares      |
|                          | -2                 | -59.070000 15455475    |
|                          | -1                 | -59.129070 15091184    |

|                          |                 |                                    |
|--------------------------|-----------------|------------------------------------|
| Non-Linear Least Squares | Iterative Phase | Dependent Variable VOY Method: DUD |
|                          | Iter            | CV Sum of Squares                  |
|                          | 2               | -59.129070 15091184                |

|   |    |                        |              |
|---|----|------------------------|--------------|
| Non-Linear Least Squares Summary Statistics |    | Dependent Variable VOY |              |
| Source                                      | DF | Sum of Squares         | Mean Square  |
| Regression                                  | 1  | 2933281543.0           | 2933281543.0 |
| Residual                                    | 55 | 15091184.0             | 274385.2     |
| Uncorrected Total                           | 56 | 2948372727.0           |              |
| (Corrected Total)                           | 55 | 2531419726.6           |              |

|           |              |                       |                                     |               |
|-----------|--------------|-----------------------|-------------------------------------|---------------|
| Parameter | Estimate     | Asymptotic Std. Error | Asymptotic 95 % Confidence Interval |               |
|           |              |                       | Lower                               | Upper         |
| CV        | -59.12907000 | 0.66164173489         | -60.455028610                       | -57.803111390 |

Asymptotic Correlation Matrix

|       |    |
|-------|----|
| Corr  | CV |
| ----- |    |
| CV    | 1  |

**QUEBEC-OTTAWA**  
**Non-Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 136.36                             | 0.999           |
| <b>w</b>          | 3.33                               |                 |
| <b>a</b>          | 17000.00                           |                 |
| <b>g</b>          | 41.43                              |                 |
| <b>cv</b>         | -89.39                             |                 |
| <b>ct</b>         | 21000.00                           |                 |
| <b>cp</b>         | 60000.00                           |                 |
| <b>cb</b>         | 0.39                               |                 |

**QUEBEC-OTTAWA  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |           |            | Dependent Variable VOY |                |
|---|-----------|------------|------------------------|----------------|
| DUD   | H         | W          | A                      | Sum of Squares |
|   | G         | CV         | CT                     |                |
|   | CP        | CB         |                        |                |
| -9  | 27.000000 | 1.400000   | 1.600000               | 4832.000000    |
|   | 3.000000  | -7.000000  | 450.000000             |                |
|   | 0         | 450.000000 |                        |                |
| -8  | 29.700000 | 1.400000   | 1.600000               | 18329.000000   |
|   | 3.000000  | -7.000000  | 450.000000             |                |
|   | 0         | 450.000000 |                        |                |
| -7  | 27.000000 | 1.540000   | 1.600000               | 10864.000000   |
|   | 3.000000  | -7.000000  | 450.000000             |                |
|   | 0         | 450.000000 |                        |                |
| -6  | 27.000000 | 1.400000   | 1.760000               | 10848.000000   |
|   | 3.000000  | -7.000000  | 450.000000             |                |
|   | 0         | 450.000000 |                        |                |
| -5  | 27.000000 | 1.400000   | 1.600000               | 76929.000000   |
|   | 3.300000  | -7.000000  | 450.000000             |                |
|   | 0         | 450.000000 |                        |                |
| -4  | 27.000000 | 1.400000   | 1.600000               | 5145.000000    |
|   | 3.000000  | -7.700000  | 450.000000             |                |
|   | 0         | 450.000000 |                        |                |
| -3  | 27.000000 | 1.400000   | 1.600000               | 5053.000000    |
|   | 3.000000  | -7.000000  | 495.000000             |                |
|   | 0         | 450.000000 |                        |                |
| -2  | 27.000000 | 1.400000   | 1.600000               | 4882.000000    |
|   | 3.000000  | -7.000000  | 450.000000             |                |
|   | 0.100000  | 450.000000 |                        |                |
| -1  | 27.000000 | 1.400000   | 1.600000               | 7650.000000    |
|   | 3.000000  | -7.000000  | 450.000000             |                |
|   | 0         | 495.000000 |                        |                |

| Non-Linear Least Squares Iterative Phase |           |            | Dependent Variable VOY Method: DUD |                |
|--|-----------|------------|------------------------------------|----------------|
| Iter                                     | H         | W          | A                                  | Sum of Squares |
|  | G         | CV         | CT                                 |                |
|  | CP        | CB         |                                    |                |
| 0  | 27.000000 | 1.400000   | 1.600000                           | 4832.000000    |
|  | 3.000000  | -7.000000  | 450.000000                         |                |
|  | 0         | 450.000000 |                                    |                |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |           |            | Dependent Variable VOY |                |
|---|-----------|------------|------------------------|----------------|
| DUD   | H         | W          | A                      | Sum of Squares |
|   | G         | CV         | CT                     |                |
|   | CP        | CB         |                        |                |
| -9  | 27.000000 | 1.400000   | 1.600000               | 4832.000000    |
|   | 3.000000  | -7.000000  | 450.000000             |                |
|   | 0         | 450.000000 |                        |                |
| -8  | 29.700000 | 1.400000   | 1.600000               | 18329.000000   |
|   | 3.000000  | -7.000000  | 450.000000             |                |
|   | 0         | 450.000000 |                        |                |



**QUEBEC-OTTAWA  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |           |            |            | Dependent Variable VOY |    |
|---|-----------|------------|------------|------------------------|----|
| DUD   | H         | W          | A          | Sum of Squares         | CT |
|   | G         | CV         |            |                        |    |
|   | CP        | CB         |            |                        |    |
| -7  | 27.000000 | 1.540000   | 1.600000   | 10864.000000           |    |
|   | 3.000000  | -7.000000  | 450.000000 |                        |    |
|   | 0         | 450.000000 |            |                        |    |
| -6  | 27.000000 | 1.400000   | 1.760000   | 10848.000000           |    |
|   | 3.000000  | -7.000000  | 450.000000 |                        |    |
|   | 0         | 450.000000 |            |                        |    |
| -5  | 27.000000 | 1.400000   | 1.600000   | 76929.000000           |    |
|   | 3.300000  | -7.000000  | 450.000000 |                        |    |
|   | 0         | 450.000000 |            |                        |    |
| -4  | 27.000000 | 1.400000   | 1.600000   | 5145.000000            |    |
|   | 3.000000  | -7.700000  | 450.000000 |                        |    |
|   | 0         | 450.000000 |            |                        |    |
| -3  | 27.000000 | 1.400000   | 1.600000   | 5053.000000            |    |
|   | 3.000000  | -7.000000  | 495.000000 |                        |    |
|   | 0         | 450.000000 |            |                        |    |
| -2  | 27.000000 | 1.400000   | 1.600000   | 4882.000000            |    |
|   | 3.000000  | -7.000000  | 450.000000 |                        |    |
|   | 0.100000  | 450.000000 |            |                        |    |
| -1  | 27.000000 | 1.400000   | 1.600000   | 7650.000000            |    |
|   | 3.000000  | -7.000000  | 450.000000 |                        |    |
|   | 0         | 495.000000 |            |                        |    |

| Non-Linear Least Squares Iterative Phase |           |            |            | Dependent Variable VOY Method: DUD |    |
|--|-----------|------------|------------|------------------------------------|----|
| Iter                                     | H         | W          | A          | Sum of Squares                     | CT |
|  | G         | CV         |            |                                    |    |
|  | CP        | CB         |            |                                    |    |
| 0  | 27.000000 | 1.400000   | 1.600000   | 4832.000000                        |    |
|  | 3.000000  | -7.000000  | 450.000000 |                                    |    |
|  | 0         | 450.000000 |            |                                    |    |

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 8  | 22406411.000   | 2800801.375            |
| Residual                                    | 48 | 4832.000       | 100.667                |
| Uncorrected Total                           | 56 | 22411243.000   |                        |
| (Corrected Total)                           | 55 | 9388563.982    |                        |

**QUEBEC-OTTAWA  
Business Purpose**

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
| H         | 27.0000000  | 3.526017363              | 19.91048432                            | 34.08951568  |
| W         | 1.4000000   | 0.140053309              | 1.11840464                             | 1.68159536   |
| A         | 1.6000000   | 0.429778584              | 0.73587436                             | 2.46412564   |
| G         | 3.0000000   | 0.136207964              | 2.72613620                             | 3.27386380   |
| CV        | -7.0000000  | 3.369338364              | -13.77449221                           | -0.22550779  |
| CT        | 450.0000000 | 53.737063434             | 341.95465752                           | 558.04534248 |
| CP        | 0.0000000   | 0.515185772              | -1.03584788                            | 1.03584788   |
| CB        | 450.0000000 | 41.828620962             | 365.89812713                           | 534.10187287 |

**Asymptotic Correlation Matrix**

| Corr | H            | W            | A            | G            |
|------|--------------|--------------|--------------|--------------|
| H    | 1            | -0.607663513 | 0.7546256789 | 0.230926905  |
| W    | -0.607663513 | 1            | 0.044759982  | -0.8868569   |
| A    | 0.7546256789 | 0.044759982  | 1            | -0.408367319 |
| G    | 0.230926905  | -0.8868569   | -0.408367319 | 1            |
| CV   | 0.2549696041 | 0.275432249  | 0.6481716675 | -0.30789611  |
| CT   | 0.3654562928 | 0.4063971714 | 0.7754314649 | -0.699905914 |
| CP   | -0.275882536 | -0.131919755 | -0.441950658 | 0.2869242506 |
| CB   | 0.3761370313 | 0.4777234128 | 0.8608048851 | -0.768897339 |

| Corr | CV           | CT           | CP           | CB           |
|------|--------------|--------------|--------------|--------------|
| H    | 0.2549696041 | 0.3654562928 | -0.275882536 | 0.3761370313 |
| W    | 0.275432249  | 0.4063971714 | -0.131919755 | 0.4777234128 |
| A    | 0.6481716675 | 0.7754314649 | -0.441950658 | 0.8608048851 |
| G    | -0.30789611  | -0.699905914 | 0.2869242506 | -0.768897339 |
| CV   | 1            | 0.4608550856 | -0.133973454 | 0.6130500016 |
| CT   | 0.4608550856 | 1            | -0.406528842 | 0.8525444917 |
| CP   | -0.133973454 | -0.406528842 | 1            | -0.390055732 |
| CB   | 0.6130500016 | 0.8525444917 | -0.390055732 | 1            |

**QUEBEC-OTTAWA**  
**Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 7.67                               | 0.999           |
| <b>w</b>          | 10.00                              |                 |
| <b>a</b>          | 3.73                               |                 |
| <b>g</b>          | 29.41                              |                 |
| <b>cv</b>         | -2.08                              |                 |
| <b>ct</b>         | 8.38                               |                 |
| <b>cp</b>         | 0.00                               |                 |
| <b>cb</b>         | 10.77                              |                 |

**QUEBEC-TORONTO  
Non-Business Purpose**

| Non-Linear Least Squares DUD Initialization |            |            | Dependent Variable VOY |                |
|---|------------|------------|------------------------|----------------|
| DUD   | H          | W          | A                      | Sum of Squares |
|   | G          | CV         | CT                     |                |
|   | CP         | CB         |                        |                |
| -9  | 12.000000  | 1.600000   | 1.600000               | 14852.000000   |
|   | 3.200000   | -85.000000 | 60.000000              |                |
|   | 300.000000 | 280.000000 |                        |                |
| -8  | 13.200000  | 1.600000   | 1.600000               | 89570.000000   |
|   | 3.200000   | -85.000000 | 60.000000              |                |
|   | 300.000000 | 280.000000 |                        |                |
| -7  | 12.000000  | 1.760000   | 1.600000               | 113702         |
|   | 3.200000   | -85.000000 | 60.000000              |                |
|   | 300.000000 | 280.000000 |                        |                |
| -6  | 12.000000  | 1.600000   | 1.760000               | 14782.000000   |
|   | 3.200000   | -85.000000 | 60.000000              |                |
|   | 300.000000 | 280.000000 |                        |                |
| -5  | 12.000000  | 1.600000   | 1.600000               | 289045         |
|   | 3.520000   | -85.000000 | 60.000000              |                |
|   | 300.000000 | 280.000000 |                        |                |
| -4  | 12.000000  | 1.600000   | 1.600000               | 322038         |
|   | 3.200000   | -93.500000 | 60.000000              |                |
|   | 300.000000 | 280.000000 |                        |                |
| -3  | 12.000000  | 1.600000   | 1.600000               | 14887.000000   |
|   | 3.200000   | -85.000000 | 66.000000              |                |
|   | 300.000000 | 280.000000 |                        |                |
| -2  | 12.000000  | 1.600000   | 1.600000               | 14773.000000   |
|   | 3.200000   | -85.000000 | 60.000000              |                |
|   | 330.000000 | 280.000000 |                        |                |
| -1  | 12.000000  | 1.600000   | 1.600000               | 14791.000000   |
|   | 3.200000   | -85.000000 | 60.000000              |                |
|   | 300.000000 | 308.000000 |                        |                |

| Non-Linear Least Squares Iterative Phase |            |            | Dependent Variable VOY Method: DUD |                |
|--|------------|------------|------------------------------------|----------------|
| Iter                                     | H          | W          | A                                  | Sum of Squares |
|  | G          | CV         | CT                                 |                |
|  | CP         | CB         |                                    |                |
| 0  | 12.000000  | 1.600000   | 1.600000                           | 14773.000000   |
|  | 3.200000   | -85.000000 | 60.000000                          |                |
|  | 330.000000 | 280.000000 |                                    |                |

WARNING: Step size shows no improvement.

NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |            |            | Dependent Variable VOY |                |
|---|------------|------------|------------------------|----------------|
| DUD   | H          | W          | A                      | Sum of Squares |
|   | G          | CV         | CT                     |                |
|   | CP         | CB         |                        |                |
| -9  | 12.000000  | 1.600000   | 1.600000               | 14773.000000   |
|   | 3.200000   | -85.000000 | 60.000000              |                |
|   | 330.000000 | 280.000000 |                        |                |
| -8  | 13.200000  | 1.600000   | 1.600000               | 88036.000000   |
|   | 3.200000   | -85.000000 | 60.000000              |                |
|   | 330.000000 | 280.000000 |                        |                |

**QUEBEC-TORONTO  
Non-Business Purpose**

| Non-Linear Least Squares DUD Initialization |            |            |           | Dependent Variable VOY |
|---|------------|------------|-----------|------------------------|
| DUD   | H          | W          | A         | Sum of Squares         |
|   | G          | CV         | CT        |                        |
|   | CP         | CB         |           |                        |
| -7  | 12.000000  | 1.760000   | 1.600000  | 114621                 |
|   | 3.200000   | -85.000000 | 60.000000 |                        |
|   | 330.000000 | 280.000000 |           |                        |
| -6  | 12.000000  | 1.600000   | 1.760000  | 14922.000000           |
|   | 3.200000   | -85.000000 | 60.000000 |                        |
|   | 330.000000 | 280.000000 |           |                        |
| -5  | 12.000000  | 1.600000   | 1.600000  | 290877                 |
|   | 3.520000   | -85.000000 | 60.000000 |                        |
|   | 330.000000 | 280.000000 |           |                        |
| -4  | 12.000000  | 1.600000   | 1.600000  | 323146                 |
|   | 3.200000   | -93.500000 | 60.000000 |                        |
|   | 330.000000 | 280.000000 |           |                        |
| -3  | 12.000000  | 1.600000   | 1.600000  | 14946.000000           |
|   | 3.200000   | -85.000000 | 66.000000 |                        |
|   | 330.000000 | 280.000000 |           |                        |
| -2  | 12.000000  | 1.600000   | 1.600000  | 14970.000000           |
|   | 3.200000   | -85.000000 | 60.000000 |                        |
|   | 363.000000 | 280.000000 |           |                        |
| -1  | 12.000000  | 1.600000   | 1.600000  | 14926.000000           |
|   | 3.200000   | -85.000000 | 60.000000 |                        |
|   | 330.000000 | 308.000000 |           |                        |

| Non-Linear Least Squares Iterative Phase |            |            |           | Dependent Variable VOY Method: DUD |
|--|------------|------------|-----------|------------------------------------|
| Iter                                     | H          | W          | A         | Sum of Squares                     |
|  | G          | CV         | CT        |                                    |
|  | CP         | CB         |           |                                    |
| 0  | 12.000000  | 1.600000   | 1.600000  | 14773.000000                       |
|  | 3.200000   | -85.000000 | 60.000000 |                                    |
|  | 330.000000 | 280.000000 |           |                                    |

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 8  | 140432142.00   | 17554017.75            |
| Residual                                    | 37 | 14773.00       | 399.27                 |
| Uncorrected Total                           | 45 | 140446915.00   |                        |
| (Corrected Total)                           | 44 | 99329354.44    |                        |

**QUEBEC-TORONTO  
Non-Business Purpose**

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
| H         | 12.0000000  | 6.10449245               | -0.36880992                            | 24.36880992  |
| W         | 1.6000000   | 0.94028050               | -0.30517899                            | 3.50517899   |
| A         | 1.6000000   | 1.94727744               | -2.34553760                            | 5.54553760   |
| G         | 3.2000000   | 0.65595435               | 1.87091741                             | 4.52908259   |
| CV        | -85.0000000 | 34.02176290              | -153.93426801                          | -16.06573199 |
| CT        | 60.0000000  | 53.94704616              | -49.30650915                           | 169.30650915 |
| CP        | 330.0000000 | 175.36784221             | -25.32708487                           | 685.32708487 |
| CB        | 280.0000000 | 181.01210408             | -86.76338408                           | 646.76338408 |

**Asymptotic Correlation Matrix**

| Corr | H            | W            | A            | G            |
|------|--------------|--------------|--------------|--------------|
| H    | 1            | -0.935757052 | 0.1017031105 | 0.9883564838 |
| W    | -0.935757052 | 1            | -0.112159383 | -0.942155699 |
| A    | 0.1017031105 | -0.112159383 | 1            | 0.1469157434 |
| G    | 0.9883564838 | -0.942155699 | 0.1469157434 | 1            |
| CV   | -0.960355187 | 0.9938493435 | -0.087262681 | -0.952493123 |
| CT   | -0.281028568 | 0.5411072092 | -0.517139746 | -0.345017386 |
| CP   | 0.2426888284 | -0.187298865 | -0.195130614 | 0.1937441449 |
| CB   | -0.063350876 | 0.1694766445 | -0.343698393 | -0.087582908 |

| Corr | CV           | CT           | CP           | CB           |
|------|--------------|--------------|--------------|--------------|
| H    | -0.960355187 | -0.281028568 | 0.2426888284 | -0.063350876 |
| W    | 0.9938493435 | 0.5411072092 | -0.187298865 | 0.1694766445 |
| A    | -0.087262681 | -0.517139746 | -0.195130614 | -0.343698393 |
| G    | -0.952493123 | -0.345017386 | 0.1937441449 | -0.087582908 |
| CV   | 1            | 0.4684425462 | -0.220292267 | 0.141899503  |
| CT   | 0.4684425462 | 1            | 0.0581058624 | 0.3899904727 |
| CP   | -0.220292267 | 0.0581058624 | 1            | -0.128147667 |
| CB   | 0.141899503  | 0.3899904727 | -0.128147667 | 1            |

**QUEBEC-TORONTO**  
**Non-Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 1.97                               | 0.999           |
| <b>w</b>          | 1.70                               |                 |
| <b>a</b>          | 0.82                               |                 |
| <b>g</b>          | 4.92                               |                 |
| <b>cv</b>         | -2.50                              |                 |
| <b>ct</b>         | 1.11                               |                 |
| <b>cp</b>         | 1.88                               |                 |
| <b>cb</b>         | 1.55                               |                 |

**QUEBEC-TORONTO  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |           |             |            | Dependent Variable VOY |
|---|-----------|-------------|------------|------------------------|
| DUD   | H         | W           | A          | Sum of Squares         |
|   | G         | CV          | CT         |                        |
|   | CP        | CB          |            |                        |
| -9  | 33.000000 | 1.800000    | 0.500000   | 7224.000000            |
|   | 3.000000  | -100.000000 | 800.000000 |                        |
|   | 0         | 670.000000  |            |                        |
| -8  | 36.300000 | 1.800000    | 0.500000   | 173134                 |
|   | 3.000000  | -100.000000 | 800.000000 |                        |
|   | 0         | 670.000000  |            |                        |
| -7  | 33.000000 | 1.980000    | 0.500000   | 27123.000000           |
|   | 3.000000  | -100.000000 | 800.000000 |                        |
|   | 0         | 670.000000  |            |                        |
| -6  | 33.000000 | 1.800000    | 0.550000   | 12351.000000           |
|   | 3.000000  | -100.000000 | 800.000000 |                        |
|   | 0         | 670.000000  |            |                        |
| -5  | 33.000000 | 1.800000    | 0.500000   | 77976.000000           |
|   | 3.300000  | -100.000000 | 800.000000 |                        |
|   | 0         | 670.000000  |            |                        |
| -4  | 33.000000 | 1.800000    | 0.500000   | 49227.000000           |
|   | 3.000000  | -110.000000 | 800.000000 |                        |
|   | 0         | 670.000000  |            |                        |
| -3  | 33.000000 | 1.800000    | 0.500000   | 7720.000000            |
|   | 3.000000  | -100.000000 | 880.000000 |                        |
|   | 0         | 670.000000  |            |                        |
| -2  | 33.000000 | 1.800000    | 0.500000   | 7313.000000            |
|   | 3.000000  | -100.000000 | 800.000000 |                        |
|   | 0.100000  | 670.000000  |            |                        |
| -1  | 33.000000 | 1.800000    | 0.500000   | 8102.000000            |
|   | 3.000000  | -100.000000 | 800.000000 |                        |
|   | 0         | 737.000000  |            |                        |

| Non-Linear Least Squares Iterative Phase |           |             |            | Dependent Variable VOY Method: DUD |
|--|-----------|-------------|------------|------------------------------------|
| Iter                                     | H         | W           | A          | Sum of Squares                     |
|  | G         | CV          | CT         |                                    |
|  | CP        | CB          |            |                                    |
| 0  | 33.000000 | 1.800000    | 0.500000   | 7224.000000                        |
|  | 3.000000  | -100.000000 | 800.000000 |                                    |
|  | 0         | 670.000000  |            |                                    |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |           |             |            | Dependent Variable VOY |
|---|-----------|-------------|------------|------------------------|
| DUD   | H         | W           | A          | Sum of Squares         |
|   | G         | CV          | CT         |                        |
|   | CP        | CB          |            |                        |
| -9  | 33.000000 | 1.800000    | 0.500000   | 7224.000000            |
|   | 3.000000  | -100.000000 | 800.000000 |                        |
|   | 0         | 670.000000  |            |                        |
| -8  | 36.300000 | 1.800000    | 0.500000   | 173134                 |
|   | 3.000000  | -100.000000 | 800.000000 |                        |
|   | 0         | 670.000000  |            |                        |



**QUEBEC-TORONTO  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |           |             | Dependent Variable VOY |                |
|---|-----------|-------------|------------------------|----------------|
| DUD   | H         | W           | A                      | Sum of Squares |
|   | G         | CV          | CT                     |                |
|   | CP        | CB          |                        |                |
| -7  | 33.000000 | 1.980000    | 0.500000               | 27123.000000   |
|   | 3.000000  | -100.000000 | 800.000000             |                |
|   | 0         | 670.000000  |                        |                |
| -6  | 33.000000 | 1.800000    | 0.550000               | 12351.000000   |
|   | 3.000000  | -100.000000 | 800.000000             |                |
|   | 0         | 670.000000  |                        |                |
| -5  | 33.000000 | 1.800000    | 0.500000               | 77976.000000   |
|   | 3.300000  | -100.000000 | 800.000000             |                |
|   | 0         | 670.000000  |                        |                |
| -4  | 33.000000 | 1.800000    | 0.500000               | 49227.000000   |
|   | 3.000000  | -110.000000 | 800.000000             |                |
|   | 0         | 670.000000  |                        |                |
| -3  | 33.000000 | 1.800000    | 0.500000               | 7720.000000    |
|   | 3.000000  | -100.000000 | 880.000000             |                |
|   | 0         | 670.000000  |                        |                |
| -2  | 33.000000 | 1.800000    | 0.500000               | 7313.000000    |
|   | 3.000000  | -100.000000 | 800.000000             |                |
|   | 0.100000  | 670.000000  |                        |                |
| -1  | 33.000000 | 1.800000    | 0.500000               | 8102.000000    |
|   | 3.000000  | -100.000000 | 800.000000             |                |
|   | 0         | 737.000000  |                        |                |

| Non-Linear Least Squares Iterative Phase |           |             | Dependent Variable VOY Method: DUD |                |
|--|-----------|-------------|------------------------------------|----------------|
| Iter                                     | H         | W           | A                                  | Sum of Squares |
|  | G         | CV          | CT                                 |                |
|  | CP        | CB          |                                    |                |
| 0  | 33.000000 | 1.800000    | 0.500000                           | 7224.000000    |
|  | 3.000000  | -100.000000 | 800.000000                         |                |
|  | 0         | 670.000000  |                                    |                |

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 8  | 49936807.000   | 6242100.875            |
| Residual                                    | 37 | 7224.000       | 195.243                |
| Uncorrected Total                           | 45 | 49944031.000   |                        |
| (Corrected Total)                           | 44 | 15431380.311   |                        |

**QUEBEC-TORONTO  
Business Purpose**

| Parameter | Estimate     | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|--------------|--------------------------|--|--------------|
|           |              |                          | Lower                                  | Upper        |
| H         | 33.0000000   | 2.696358696              | 27.53668778                            | 38.46331222  |
| W         | 1.8000000    | 0.071536238              | 1.65505460                             | 1.94494540   |
| A         | 0.5000000    | 0.322924260              | -0.15430318                            | 1.15430318   |
| G         | 3.0000000    | 0.158407793              | 2.67903705                             | 3.32096295   |
| CV        | -100.0000000 | 24.231084734             | -149.09657662                          | -50.90342338 |
| CT        | 800.0000000  | 95.262920724             | 606.98002843                           | 993.01997157 |
| CP        | 0.0000000    | 0.647607411              | -1.31217018                            | 1.31217018   |
| CB        | 670.0000000  | 62.733598889             | 542.89033989                           | 797.10966011 |

**Asymptotic Correlation Matrix**

| Corr | H            | W            | A            | G            |
|------|--------------|--------------|--------------|--------------|
| H    | 1            | -0.06111481  | 0.1993704406 | -0.680935231 |
| W    | -0.06111481  | 1            | 0.0743709649 | -0.344463588 |
| A    | 0.1993704406 | 0.0743709649 | 1            | 0.4269256302 |
| G    | -0.680935231 | -0.344463588 | 0.4269256302 | 1            |
| CV   | -0.60392568  | 0.0566642984 | 0.6581805059 | 0.89142364   |
| CT   | 0.7559965433 | 0.3574801231 | 0.2030542037 | -0.676968725 |
| CP   | -0.369831859 | -0.139326685 | -0.294420291 | 0.2222408166 |
| CB   | 0.707997783  | 0.4061656682 | 0.0987587845 | -0.727001413 |

| Corr | CV           | CT           | CP           | CB           |
|------|--------------|--------------|--------------|--------------|
| H    | -0.60392568  | 0.7559965433 | -0.369831859 | 0.707997783  |
| W    | 0.0566642984 | 0.3574801231 | -0.139326685 | 0.4061656682 |
| A    | 0.6581805059 | 0.2030542037 | -0.294420291 | 0.0987587845 |
| G    | 0.89142364   | -0.676968725 | 0.2222408166 | -0.727001413 |
| CV   | 1            | -0.435662388 | 0.0706810189 | -0.486450334 |
| CT   | -0.435662388 | 1            | -0.39270164  | 0.722981448  |
| CP   | 0.0706810189 | -0.39270164  | 1            | -0.370057516 |
| CB   | -0.486450334 | 0.722981448  | -0.370057516 | 1            |

**QUEBEC-TORONTO**  
**Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 12.27                              | 0.999           |
| <b>w</b>          | 25.35                              |                 |
| <b>a</b>          | 1.56                               |                 |
| <b>g</b>          | 20.00                              |                 |
| <b>ev</b>         | -4.13                              |                 |
| <b>ct</b>         | 8.40                               |                 |
| <b>cp</b>         | 0.00                               |                 |
| <b>cb</b>         | 10.69                              |                 |

**TROIS RIVIERES-MONTREAL  
Non-Business Purpose**

| Non-Linear Least Squares |                      | DUD Initialization     |                        | Dependent Variable VOY |          |
|--------------------------|----------------------|------------------------|------------------------|------------------------|----------|
| DUD                      | H<br>G               | W<br>CV                | A                      | Sum of Squares         | CB       |
| -7                       | 6.000000<br>2.500000 | 1.500000<br>-14.000000 | 1.800000<br>180.000000 |                        | 239718   |
| -6                       | 6.600000<br>2.500000 | 1.500000<br>-14.000000 | 1.800000<br>180.000000 |                        | 22993663 |
| -5                       | 6.000000<br>2.500000 | 1.650000<br>-14.000000 | 1.800000<br>180.000000 |                        | 1592096  |
| -4                       | 6.000000<br>2.500000 | 1.500000<br>-14.000000 | 1.980000<br>180.000000 |                        | 240377   |
| -3                       | 6.000000<br>2.750000 | 1.500000<br>-14.000000 | 1.800000<br>180.000000 |                        | 24092078 |
| -2                       | 6.000000<br>2.500000 | 1.500000<br>-15.400000 | 1.800000<br>180.000000 |                        | 74320456 |
| -1                       | 6.000000<br>2.500000 | 1.500000<br>-14.000000 | 1.800000<br>198.000000 |                        | 240442   |

| Non-Linear Least Squares |                      | Iterative Phase        |                        | Dependent Variable VOY Method: DUD |        |
|--------------------------|----------------------|------------------------|------------------------|------------------------------------|--------|
| Iter                     | H<br>G               | W<br>CV                | A                      | Sum of Squares                     | CB     |
| 0                        | 6.000000<br>2.500000 | 1.500000<br>-14.000000 | 1.800000<br>180.000000 |                                    | 239718 |
| 1                        | 5.997528<br>2.500009 | 1.495874<br>-14.001998 | 1.789176<br>179.294773 |                                    | 239665 |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 6  | 236256128490   | 39376021415            |
| Residual                                    | 24 | 239665         | 9986                   |
| Uncorrected Total                           | 30 | 236256368155   |                        |
| (Corrected Total)                           | 29 | 152105999667   |                        |

**TROIS RIVIERES-MONTREAL  
Non-Business Purpose**

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
| H         | 5.9975275   | 0.30609864               | 5.36577610                             | 6.62927900   |
| W         | 1.4958740   | 0.52659411               | 0.40904596                             | 2.58270210   |
| A         | 1.7891757   | 13.17862540              | -25.40995124                           | 28.98830270  |
| G         | 2.5000088   | 0.04457741               | 2.40800626                             | 2.59201127   |
| CV        | -14.0019981 | 0.21304164               | -14.44169088                           | -13.56230530 |
| CB        | 179.2947730 | 268.89502963             | -375.67282278                          | 734.26236876 |

**Asymptotic Correlation Matrix**

| Corr | H         | W         | A         | G         | CV        | CB        |
|------|-----------|-----------|-----------|-----------|-----------|-----------|
| H    | 1         | 0.9855205 | -0.08138  | -0.46849  | 0.9322113 | 0.5860687 |
| W    | 0.9855205 | 1         | -0.156697 | -0.580313 | 0.9289778 | 0.6367054 |
| A    | -0.08138  | -0.156697 | 1         | 0.3899444 | -0.091397 | -0.6696   |
| G    | -0.46849  | -0.580313 | 0.3899444 | 1         | -0.291798 | -0.60795  |
| CV   | 0.9322113 | 0.9289778 | -0.091397 | -0.291798 | 1         | 0.5303572 |
| CB   | 0.5860687 | 0.6367054 | -0.6696   | -0.60795  | 0.5303572 | 1         |

**TROIS RIVIERES-MONTREAL**  
**Non-Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 20.00                              | 0.999           |
| <b>w</b>          | 2.87                               |                 |
| <b>a</b>          | 0.14                               |                 |
| <b>g</b>          | 62.50                              |                 |
| <b>cv</b>         | -66.67                             |                 |
| <b>ct</b>         |                                    |                 |
| <b>cp</b>         |                                    |                 |
| <b>cb</b>         | 0.67                               |                 |

**TROIS RIVIERES-MONTREAL**  
**Business Purpose**

| Non-Linear<br>DUD | Least Squares<br>H<br>G | DUD Initialization<br>W<br>CV | Dependent Variable VOY<br>A Sum of Squares<br>CB |
|-------------------|-------------------------|-------------------------------|--|
| -7                | 27.000000<br>3.300000   | 1.500000<br>-60.000000        | 1.800000<br>300.000000<br>15928971               |
| -6                | 29.700000<br>3.300000   | 1.500000<br>-60.000000        | 1.800000<br>300.000000<br>22214499               |
| -5                | 27.000000<br>3.300000   | 1.650000<br>-60.000000        | 1.800000<br>300.000000<br>13375185               |
| -4                | 27.000000<br>3.300000   | 1.500000<br>-60.000000        | 1.980000<br>300.000000<br>15928971               |
| -3                | 27.000000<br>3.630000   | 1.500000<br>-60.000000        | 1.800000<br>300.000000<br>9139605                |
| -2                | 27.000000<br>3.300000   | 1.500000<br>-66.000000        | 1.800000<br>300.000000<br>5392769                |
| -1                | 27.000000<br>3.300000   | 1.500000<br>-60.000000        | 1.800000<br>330.000000<br>15921693               |

| Non-Linear<br>Iter | Least Squares<br>H<br>G | Iterative Phase<br>W<br>CV | Dependent Variable VOY Method: DUD<br>A Sum of Squares<br>CB |
|--------------------|-------------------------|----------------------------|--|
| 0                  | 27.000000<br>3.300000   | 1.500000<br>-66.000000     | 1.800000<br>300.000000<br>5392769                            |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear<br>DUD | Least Squares<br>H<br>G | DUD Initialization<br>W<br>CV | Dependent Variable VOY<br>A Sum of Squares<br>CB |
|-------------------|-------------------------|-------------------------------|--|
| -7                | 27.000000<br>3.300000   | 1.500000<br>-66.000000        | 1.800000<br>300.000000<br>5392769                |
| -6                | 29.700000<br>3.300000   | 1.500000<br>-66.000000        | 1.800000<br>300.000000<br>10815750               |
| -5                | 27.000000<br>3.300000   | 1.650000<br>-66.000000        | 1.800000<br>300.000000<br>4416935                |
| -4                | 27.000000<br>3.300000   | 1.500000<br>-66.000000        | 1.980000<br>300.000000<br>5392769                |

**TROIS RIVIERES-MONTREAL**  
**Business Purpose**

| Non-Linear Least Squares DUD Initialization |                       |                        |                        | Dependent Variable VOY |
|---|-----------------------|------------------------|------------------------|------------------------|
| DUD   | H<br>G                | W<br>CV                | A                      | Sum of Squares<br>CB   |
| -3  | 27.000000<br>3.630000 | 1.500000<br>-66.000000 | 1.800000<br>300.000000 | 2114231                |
| -2  | 27.000000<br>3.300000 | 1.500000<br>-72.600000 | 1.800000<br>300.000000 | 35793.000000           |
| -1  | 27.000000<br>3.300000 | 1.500000<br>-66.000000 | 1.800000<br>330.000000 | 5393937                |

| Non-Linear Least Squares Iterative Phase |                       |                        |                        | Dependent Variable VOY Method: DUD |
|--|-----------------------|------------------------|------------------------|------------------------------------|
| Iter                                     | H<br>G                | W<br>CV                | A                      | Sum of Squares<br>CB               |
| 0  | 27.000000<br>3.300000 | 1.500000<br>-72.600000 | 1.800000<br>300.000000 | 35793.000000                       |

WARNING: Step size shows no improvement.  
WARNING: PROC NLIN failed to converge.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 6  | 7465148347.0   | 1244191391.2           |
| Residual                                    | 24 | 35793.0        | 1491.4                 |
| Uncorrected Total                           | 30 | 7465184140.0   |                        |
| (Corrected Total)                           | 29 | 5236603785.9   |                        |

| Parameter | Estimate   | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|------------|--------------------------|--|--------------|
|           |            |                          | Lower                                  | Upper        |
|           |            |                          | H                                      | 27.000000    |
| W         | 1.500000   | 2.21745076               | -3.07655658                            | 6.0765566    |
| A         | 1.800000   | 2.15064202               | -2.63867124                            | 6.2386712    |
| G         | 3.300000   | 0.35303511               | 2.57137722                             | 4.0286228    |
| CV        | -72.600000 | 4.62906581               | -82.15384533                           | -63.0461547  |
| CB        | 300.000000 | 486.88163180             | -704.86620743                          | 1304.8662074 |

Asymptotic Correlation Matrix

| Corr | H         | W         | A         | G         | CV        | CB        |
|------|-----------|-----------|-----------|-----------|-----------|-----------|
| H    | 1         | 0.9382699 | -0.713336 | 0.1987317 | 0.9795079 | 0.1122224 |
| W    | 0.9382699 | 1         | -0.736482 | -0.144203 | 0.9707326 | 0.1192542 |
| A    | -0.713336 | -0.736482 | 1         | 0.0689912 | -0.710616 | -0.756434 |
| G    | 0.1987317 | -0.144203 | 0.0689912 | 1         | 0.0804676 | -0.055062 |
| CV   | 0.9795079 | 0.9707326 | -0.710616 | 0.0804676 | 1         | 0.089638  |
| CB   | 0.1122224 | 0.1192542 | -0.756434 | -0.055062 | 0.089638  | 1         |



**TROIS RIVIERES-MONTREAL**  
**Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 5.48                               | <b>0.999</b>    |
| <b>w</b>          | 0.68                               |                 |
| <b>a</b>          | 0.84                               |                 |
| <b>g</b>          | 9.43                               |                 |
| <b>cv</b>         | -15.71                             |                 |
| <b>ct</b>         |                                    |                 |
| <b>cp</b>         |                                    |                 |
| <b>cb</b>         | 0.62                               |                 |

**TROIS RIVIERES-OTTAWA  
Non-Business Purpose**

| Non-Linear Least Squares DUD Initialization |                      |                       | Dependent Variable VOY |                |
|---|----------------------|-----------------------|------------------------|----------------|
| DUD   | H<br>G               | W<br>CB               | A                      | Sum of Squares |
| -6  | 7.000000<br>2.500000 | 1.500000<br>80.000000 | 1.800000               | 19068.000000   |
| -5  | 7.700000<br>2.500000 | 1.500000<br>80.000000 | 1.800000               | 4147356        |
| -4  | 7.000000<br>2.500000 | 1.650000<br>80.000000 | 1.800000               | 16285.000000   |
| -3  | 7.000000<br>2.500000 | 1.500000<br>80.000000 | 1.980000               | 19068.000000   |
| -2  | 7.000000<br>2.750000 | 1.500000<br>80.000000 | 1.800000               | 15829.000000   |
| -1  | 7.000000<br>2.500000 | 1.500000<br>88.000000 | 1.800000               | 19068.000000   |

| Non-Linear Least Squares Iterative Phase |                      |                       | Dependent Variable VOY Method: DUD |                |
|--|----------------------|-----------------------|------------------------------------|----------------|
| Iter                                     | H<br>G               | W<br>CB               | A                                  | Sum of Squares |
| 0  | 7.000000<br>2.750000 | 1.500000<br>80.000000 | 1.800000                           | 15829.000000   |
| 1  | 7.000000<br>2.600000 | 1.500000<br>80.000000 | 1.800000                           | 15282.000000   |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |  |
|---|----|----------------|------------------------|--|
| Source                                      | DF | Sum of Squares | Mean Square            |  |
| Regression                                  | 5  | 865828842.00   | 173165768.40           |  |
| Residual                                    | 25 | 15282.00       | 611.28                 |  |
| Uncorrected Total                           | 30 | 865844124.00   |                        |  |
| (Corrected Total)                           | 29 | 713933121.87   |                        |  |

| Parameter | Estimate    | Asymptotic Std. Error | Asymptotic 95 % Confidence Interval |              |
|-----------|-------------|-----------------------|-------------------------------------|--------------|
|           |             |                       | Lower                               | Upper        |
| H         | 7.00000000  | 0.00000000            | 7.00000000                          | 7.00000000   |
| W         | 1.50000000  | 1.675868366           | -1.951487885                        | 4.95148789   |
| A         | 1.80000000  | 0.532112910           | 0.704101719                         | 2.89589828   |
| G         | 2.60000000  | 0.628579056           | 1.305427562                         | 3.89457244   |
| CB        | 80.00000000 | 23.649462661          | 31.293409726                        | 128.70659027 |

TROIS RIVIERES-OTTAWA  
Non-Business Purpose

Asymptotic Correlation Matrix

| Corr | H | W            | A            | G            | CB           |
|------|---|--------------|--------------|--------------|--------------|
| H    | . | .            | .            | .            | .            |
| W    | . | 1            | -0.671633928 | -0.92465697  | -0.671633928 |
| A    | . | -0.671633928 | 1            | 0.8896985296 | 1            |
| G    | . | -0.92465697  | 0.8896985296 | 1            | 0.8896985296 |
| CB   | . | -0.671633928 | 1            | 0.8896985296 | 1            |

**TROIS RIVIERES-OTTAWA  
Non-Business Purpose**

```

Non-Linear Least Squares DUD Initialization      Dependent Variable VOY
      DUD          CV Sum of Squares
      -2          -30.000000          77262005
      -1          -33.000000          40280340
  
```

```

Non-Linear Least Squares Iterative Phase        Dependent Variable VOY Method: DUD
      Iter          CV Sum of Squares
      0          -33.000000          40280340
      1          -36.000000          11106587
  
```

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

```

Non-Linear Least Squares DUD Initialization      Dependent Variable VOY
      DUD          CV Sum of Squares
      -2          -36.000000          11106587
      -1          -39.600000          51624.000000
  
```

```

Non-Linear Least Squares Iterative Phase        Dependent Variable VOY Method: DUD
      Iter          CV Sum of Squares
      2          -39.600000          51624.000000
  
```

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

```

Non-Linear Least Squares DUD Initialization      Dependent Variable VOY
      DUD          CV Sum of Squares
      -2          -39.600000          51624.000000
      -1          -39.639600          44561.000000
  
```

```

Non-Linear Least Squares Iterative Phase        Dependent Variable VOY Method: DUD
      Iter          CV Sum of Squares
      2          -39.639600          44561.000000
  
```

WARNING: Step size shows no improvement.  
WARNING: PROC NLIN failed to converge.

```

Non-Linear Least Squares Summary Statistics      Dependent Variable VOY

Source          DF Sum of Squares          Mean Square

Regression          1    865799563.00          865799563.00
Residual            29    44561.00          1536.59
Uncorrected Total   30    865844124.00

(Corrected Total)   29    713933121.87
  
```

```

Parameter      Estimate      Asymptotic          Asymptotic 95 %
                Estimate      Std. Error          Confidence Interval
                CV           0.08169962257     -39.806693252     -39.472506748
                Lower           Upper
  
```

Asymptotic Correlation Matrix

```

Corr          CV
-----
CV           1
  
```

**TROIS RIVIERES-OTTAWA**  
**Non-Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 109.38                             | 0.999           |
| <b>w</b>          | 0.90                               |                 |
| <b>a</b>          | 3.40                               |                 |
| <b>g</b>          | 4.19                               |                 |
| <b>cv</b>         | -495.00                            |                 |
| <b>ct</b>         |                                    |                 |
| <b>cp</b>         |                                    |                 |
| <b>cb</b>         | 3.39                               |                 |

**TROIS RIVIERES-OTTAWA  
Business Purpose**

| Non-Linear<br>DUD | Least Squares |  | DUD Initialization |  | Dependent Variable VOY |             |
|-------------------|---------------|--|--------------------|--|------------------------|-------------|
|                   | H<br>G        |  | W<br>CV            |  | A Sum of Squares<br>CB |             |
| -7                | 20.000000     |  | 1.500000           |  | 1.800000               | 267650      |
|                   | 3.000000      |  | -127.000000        |  | 20.000000              |             |
| -6                | 22.000000     |  | 1.500000           |  | 1.800000               | 513874      |
|                   | 3.000000      |  | -127.000000        |  | 20.000000              |             |
| -5                | 20.000000     |  | 1.650000           |  | 1.800000               | 184510      |
|                   | 3.000000      |  | -127.000000        |  | 20.000000              |             |
| -4                | 20.000000     |  | 1.500000           |  | 1.980000               | 267517      |
|                   | 3.000000      |  | -127.000000        |  | 20.000000              |             |
| -3                | 20.000000     |  | 1.500000           |  | 1.800000               | 132424      |
|                   | 3.300000      |  | -127.000000        |  | 20.000000              |             |
| -2                | 20.000000     |  | 1.500000           |  | 1.800000               | 2786.000000 |
|                   | 3.000000      |  | -139.700000        |  | 20.000000              |             |
| -1                | 20.000000     |  | 1.500000           |  | 1.800000               | 267517      |
|                   | 3.000000      |  | -127.000000        |  | 22.000000              |             |

| Non-Linear<br>Iter | Least Squares |  | Iterative Phase |  | Dependent Variable VOY Method: DUD |             |
|--------------------|---------------|--|-----------------|--|------------------------------------|-------------|
|                    | H<br>G        |  | W<br>CV         |  | A Sum of Squares<br>CB             |             |
| 0                  | 20.000000     |  | 1.500000        |  | 1.800000                           | 2786.000000 |
|                    | 3.000000      |  | -139.700000     |  | 20.000000                          |             |
| 1                  | 19.649815     |  | 1.527421        |  | 1.812814                           | 2689.000000 |
|                    | 2.937777      |  | -139.205395     |  | 20.142372                          |             |
| 2                  | 19.641847     |  | 1.544693        |  | 1.814224                           | 2683.000000 |
|                    | 2.930757      |  | -139.012833     |  | 20.158049                          |             |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 6  | 24149147.000   | 4024857.833            |
| Residual                                    | 24 | 2683.000       | 111.792                |
| Uncorrected Total                           | 30 | 24151830.000   |                        |
| (Corrected Total)                           | 29 | 19862285.467   |                        |

**TROIS RIVIERES-OTTAWA**  
**Business Purpose**

| Parameter | Estimate     | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |               |
|-----------|--------------|--------------------------|--|---------------|
|           |              |                          | Lower                                  | Upper         |
| H         | 19.6418472   | 2.3813868304             | 14.72694593                            | 24.55674848   |
| W         | 1.5446929    | 0.3615675113             | 0.79846020                             | 2.29092551    |
| A         | 1.8142244    | 0.1265534193             | 1.55303308                             | 2.07541571    |
| G         | 2.9307574    | 0.2578281955             | 2.39863043                             | 3.46288434    |
| CV        | -139.0128332 | 9.5512132215             | -158.72540966                          | -119.30025669 |
| CB        | 20.1580489   | 1.4061491036             | 17.25592311                            | 23.06017460   |

**Asymptotic Correlation Matrix**

| Corr | H         | W         | A         | G         | CV        | CB        |
|------|-----------|-----------|-----------|-----------|-----------|-----------|
| H    | 1         | -0.664055 | -0.520192 | 0.7494758 | -0.94776  | -0.520192 |
| W    | -0.664055 | 1         | -0.248931 | -0.799804 | 0.8269292 | -0.248931 |
| A    | -0.520192 | -0.248931 | 1         | -0.138001 | 0.2475238 | 1         |
| G    | 0.7494758 | -0.799804 | -0.138001 | 1         | -0.727917 | -0.138001 |
| CV   | -0.94776  | 0.8269292 | 0.2475238 | -0.727917 | 1         | 0.2475238 |
| CB   | -0.520192 | -0.248931 | 1         | -0.138001 | 0.2475238 | 1         |

**TROIS RIVIERES-OTTAWA**  
**Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 8.25                               | 0.999           |
| <b>w</b>          | 4.28                               |                 |
| <b>a</b>          | 15.08                              |                 |
| <b>g</b>          | 11.72                              |                 |
| <b>cv</b>         | -14.55                             |                 |
| <b>ct</b>         |                                    |                 |
| <b>cp</b>         |                                    |                 |
| <b>cb</b>         | 14.36                              |                 |



**TROIS RIVIERES-TORONTO  
Non-Business Purpose**

| Non-Linear Least Squares DUD Initialization |              |            | Dependent Variable VOY |              |
|---|--------------|------------|------------------------|--------------|
| DUD   | H<br>G<br>CB | W<br>CV    | A Sum of Squares       | CP           |
| -8  | 6.000000     | 1.500000   | 1.800000               | 9259.000000  |
|   | 2.500000     | -60.000000 | 400.000000             |              |
|   | 260.000000   |            |                        |              |
| -7  | 6.600000     | 1.500000   | 1.800000               | 241465       |
|   | 2.500000     | -60.000000 | 400.000000             |              |
|   | 260.000000   |            |                        |              |
| -6  | 6.000000     | 1.650000   | 1.800000               | 54397.000000 |
|   | 2.500000     | -60.000000 | 400.000000             |              |
|   | 260.000000   |            |                        |              |
| -5  | 6.000000     | 1.500000   | 1.980000               | 9259.000000  |
|   | 2.500000     | -60.000000 | 400.000000             |              |
|   | 260.000000   |            |                        |              |
| -4  | 6.000000     | 1.500000   | 1.800000               | 159966       |
|   | 2.750000     | -60.000000 | 400.000000             |              |
|   | 260.000000   |            |                        |              |
| -3  | 6.000000     | 1.500000   | 1.800000               | 1867560      |
|   | 2.500000     | -66.000000 | 400.000000             |              |
|   | 260.000000   |            |                        |              |
| -2  | 6.000000     | 1.500000   | 1.800000               | 9259.000000  |
|   | 2.500000     | -60.000000 | 440.000000             |              |
|   | 260.000000   |            |                        |              |
| -1  | 6.000000     | 1.500000   | 1.800000               | 9260.000000  |
|   | 2.500000     | -60.000000 | 400.000000             |              |
|   | 286.000000   |            |                        |              |

| Non-Linear Least Squares Iterative Phase |              |            | Dependent Variable VOY Method: DUD |             |
|--|--------------|------------|------------------------------------|-------------|
| Iter                                     | H<br>G<br>CB | W<br>CV    | A Sum of Squares                   | CP          |
| 0  | 6.000000     | 1.500000   | 1.800000                           | 9259.000000 |
|  | 2.500000     | -60.000000 | 400.000000                         |             |
|  | 260.000000   |            |                                    |             |
| 1  | 5.994112     | 1.496038   | 1.800000                           | 9257.000000 |
|  | 2.498444     | -60.009686 | 400.000000                         |             |
|  | 259.729299   |            |                                    |             |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 7  | 84401170.000   | 12057310.000           |
| Residual                                    | 35 | 9257.000       | 264.486                |
| Uncorrected Total                           | 42 | 84410427.000   |                        |
| (Corrected Total)                           | 41 | 60104084.119   |                        |

**TROIS RIVIERES-TORONTO**  
**Non-Business Purpose**

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
|           |             |                          | H                                      | 5.9941119    |
| W         | 1.4960381   | 0.37004872               | 0.74480374                             | 2.2472725    |
| A         | 1.8000000   | 1.14161455               | -0.51758700                            | 4.1175870    |
| G         | 2.4984445   | 0.23821109               | 2.01485310                             | 2.9820358    |
| CV        | -60.0096865 | 0.10815756               | -60.22925667                           | -59.7901163  |
| CP        | 400.0000000 | 253.69212278             | -115.01933279                          | 915.0193328  |
| CB        | 259.7292995 | 424.11215589             | -601.25904011                          | 1120.7176391 |

**Asymptotic Correlation Matrix**

| Corr | H        | W        | A        | G        | CV       | CP       | CB       |
|------|----------|----------|----------|----------|----------|----------|----------|
| H    | 1        | 0.95935  | -0.02455 | 0.94739  | 0.454414 | -0.02455 | 0.067243 |
| W    | 0.95935  | 1        | 0.06273  | 0.820982 | 0.599931 | 0.06273  | 0.075141 |
| A    | -0.02455 | 0.06273  | 1        | -0.09455 | 0.449219 | 1        | -0.84448 |
| G    | 0.94739  | 0.820982 | -0.09455 | 1        | 0.287945 | -0.09455 | 0.051421 |
| CV   | 0.454414 | 0.599931 | 0.449219 | 0.287945 | 1        | 0.449219 | 0.048965 |
| CP   | -0.02455 | 0.06273  | 1        | -0.09455 | 0.449219 | 1        | -0.84448 |
| CB   | 0.067243 | 0.075141 | -0.84448 | 0.051421 | 0.048965 | -0.84448 | 1        |

**TROIS RIVIERES TORONTO**  
**Non-Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 6.97                               | 0.999           |
| <b>w</b>          | 4.03                               |                 |
| <b>a</b>          | 1.58                               |                 |
| <b>g</b>          | 10.83                              |                 |
| <b>cv</b>         | -600.00                            |                 |
| <b>ct</b>         |                                    |                 |
| <b>cp</b>         | 1.58                               |                 |
| <b>cb</b>         | 0.61                               |                 |

**TROIS RIVIERES-TORONTO**  
**Business Purpose**

| Non-Linear Least Squares DUD Initialization |            |            | Dependent Variable VOY |                |
|---|------------|------------|------------------------|----------------|
| DUD   | H          | W          | A                      | Sum of Squares |
|   | G          | CV         | CP                     |                |
|   | CB         |            |                        |                |
| -8  | 25.000000  | 1.500000   | 1.800000               | 621.000000     |
|   | 2.000000   | -10.000000 | 0                      |                |
|   | 800.000000 |            |                        |                |
| -7  | 27.500000  | 1.500000   | 1.800000               | 842.000000     |
|   | 2.000000   | -10.000000 | 0                      |                |
|   | 800.000000 |            |                        |                |
| -6  | 25.000000  | 1.650000   | 1.800000               | 805.000000     |
|   | 2.000000   | -10.000000 | 0                      |                |
|   | 800.000000 |            |                        |                |
| -5  | 25.000000  | 1.500000   | 1.980000               | 1525.000000    |
|   | 2.000000   | -10.000000 | 0                      |                |
|   | 800.000000 |            |                        |                |
| -4  | 25.000000  | 1.500000   | 1.800000               | 1558.000000    |
|   | 2.200000   | -10.000000 | 0                      |                |
|   | 800.000000 |            |                        |                |
| -3  | 25.000000  | 1.500000   | 1.800000               | 653.000000     |
|   | 2.000000   | -11.000000 | 0                      |                |
|   | 800.000000 |            |                        |                |
| -2  | 25.000000  | 1.500000   | 1.800000               | 621.000000     |
|   | 2.000000   | -10.000000 | 0.100000               |                |
|   | 800.000000 |            |                        |                |
| -1  | 25.000000  | 1.500000   | 1.800000               | 666.000000     |
|   | 2.000000   | -10.000000 | 0                      |                |
|   | 880.000000 |            |                        |                |

| Non-Linear Least Squares Iterative Phase |            |            | Dependent Variable VOY Method: DUD |                |
|--|------------|------------|------------------------------------|----------------|
| Iter                                     | H          | W          | A                                  | Sum of Squares |
|  | G          | CV         | CP                                 |                |
|  | CB         |            |                                    |                |
| 0  | 25.000000  | 1.500000   | 1.800000                           | 621.000000     |
|  | 2.000000   | -10.000000 | 0                                  |                |
|  | 800.000000 |            |                                    |                |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |            |            | Dependent Variable VOY |                |
|---|------------|------------|------------------------|----------------|
| DUD   | H          | W          | A                      | Sum of Squares |
|   | G          | CV         | CP                     |                |
|   | CB         |            |                        |                |
| -8  | 25.000000  | 1.500000   | 1.800000               | 621.000000     |
|   | 2.000000   | -10.000000 | 0                      |                |
|   | 800.000000 |            |                        |                |
| -7  | 27.500000  | 1.500000   | 1.800000               | 842.000000     |
|   | 2.000000   | -10.000000 | 0                      |                |
|   | 800.000000 |            |                        |                |
| -6  | 25.000000  | 1.650000   | 1.800000               | 805.000000     |
|   | 2.000000   | -10.000000 | 0                      |                |
|   | 800.000000 |            |                        |                |

**TROIS RIVIERES-TORONTO**  
**Business Purpose**

| Non-Linear Least Squares DUD Initialization |                                     |                        | Dependent Variable VOY |                |
|---|-------------------------------------|------------------------|------------------------|----------------|
| DUD   | H<br>G<br>CB                        | W<br>CV                | A<br>CP                | Sum of Squares |
| -5  | 25.000000<br>2.000000<br>800.000000 | 1.500000<br>-10.000000 | 1.980000<br>0          | 1525.000000    |
| -4  | 25.000000<br>2.200000<br>800.000000 | 1.500000<br>-10.000000 | 1.800000<br>0          | 1558.000000    |
| -3  | 25.000000<br>2.000000<br>800.000000 | 1.500000<br>-11.000000 | 1.800000<br>0          | 653.000000     |
| -2  | 25.000000<br>2.000000<br>800.000000 | 1.500000<br>-10.000000 | 1.800000<br>0.100000   | 621.000000     |
| -1  | 25.000000<br>2.000000<br>880.000000 | 1.500000<br>-10.000000 | 1.800000<br>0          | 666.000000     |

| Non-Linear Least Squares Iterative Phase |                                     |                        | Dependent Variable VOY Method: DUD |                |
|--|-------------------------------------|------------------------|------------------------------------|----------------|
| Iter                                     | H<br>G<br>CB                        | W<br>CV                | A<br>CP                            | Sum of Squares |
| 0  | 25.000000<br>2.000000<br>800.000000 | 1.500000<br>-10.000000 | 1.800000<br>0                      | 621.000000     |

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |  |
|---|----|----------------|------------------------|--|
| Source                                      | DF | Sum of Squares | Mean Square            |  |
| Regression                                  | 7  | 1515927.0000   | 216561.0000            |  |
| Residual                                    | 35 | 621.0000       | 17.7429                |  |
| Uncorrected Total                           | 42 | 1516548.0000   |                        |  |
| (Corrected Total)                           | 41 | 167960.4762    |                        |  |

| Parameter | Estimate   | Asymptotic Std. Error | Asymptotic 95 % Confidence Interval |              |
|-----------|------------|-----------------------|-------------------------------------|--------------|
|           |            |                       | Lower                               | Upper        |
| H         | 25.000000  | 3.949400644           | 16.98233803                         | 33.01766197  |
| W         | 1.500000   | 0.222674305           | 1.04794981                          | 1.95205019   |
| A         | 1.800000   | 0.149697941           | 1.49609883                          | 2.10390117   |
| G         | 2.000000   | 0.135145263           | 1.72564216                          | 2.27435784   |
| CV        | -10.000000 | 2.213738844           | -14.49410210                        | -5.50589790  |
| CP        | 0.000000   | 0.000000000           | 0.00000000                          | 0.00000000   |
| CB        | 800.000000 | 92.307650531          | 612.60661913                        | 987.39338087 |

**TROIS RIVIERES-TORONTO  
Business Purpose**

Asymptotic Correlation Matrix

| Corr | H        | W        | A        | G        | CV       | CP         | CB |
|------|----------|----------|----------|----------|----------|------------|----|
| H    | 1        | -0.6829  | 0.432643 | 0.388122 | 0.347725 | . 0.041794 |    |
| W    | -0.6829  | 1        | 0.331084 | -0.90231 | 0.072826 | . 0.608112 |    |
| A    | 0.432643 | 0.331084 | 1        | -0.63475 | 0.636846 | . 0.805485 |    |
| G    | 0.388122 | -0.90231 | -0.63475 | 1        | -0.27065 | . -0.80724 |    |
| CV   | 0.347725 | 0.072826 | 0.636846 | -0.27065 | 1        | . 0.424639 |    |
| CP   | .        | .        | .        | .        | .        | .          | .  |
| CB   | 0.041794 | 0.608112 | 0.805485 | -0.80724 | 0.424639 | .          | 1  |

**TROIS RIVIERES TORONTO**  
**Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 6.35                               | 0.996           |
| <b>w</b>          | 6.82                               |                 |
| <b>a</b>          | 12.00                              |                 |
| <b>g</b>          | 14.81                              |                 |
| <b>cv</b>         | -4.52                              |                 |
| <b>ct</b>         |                                    |                 |
| <b>cp</b>         |                                    |                 |
| <b>cb</b>         | 8.67                               |                 |

**MONTREAL-OTTAWA  
Non-Business Purpose**

| Non-Linear Least Squares |           |            | DUD Initialization | Dependent Variable VOY |                |
|--------------------------|-----------|------------|--------------------|------------------------|----------------|
| DUD                      | H         | G          | W                  | A                      | Sum of Squares |
|                          | CP        | CV         | CB                 | CT                     |                |
| -9                       | 6.000000  | 1.600000   | 1.600000           | 348881                 |                |
|                          | 4.000000  | -10.000000 | 30.000000          |                        |                |
|                          | 30.000000 | 30.000000  |                    |                        |                |
| -8                       | 6.600000  | 1.600000   | 1.600000           | 1282212                |                |
|                          | 4.000000  | -10.000000 | 30.000000          |                        |                |
|                          | 30.000000 | 30.000000  |                    |                        |                |
| -7                       | 6.000000  | 1.760000   | 1.600000           | 51892063               |                |
|                          | 4.000000  | -10.000000 | 30.000000          |                        |                |
|                          | 30.000000 | 30.000000  |                    |                        |                |
| -6                       | 6.000000  | 1.600000   | 1.760000           | 370871                 |                |
|                          | 4.000000  | -10.000000 | 30.000000          |                        |                |
|                          | 30.000000 | 30.000000  |                    |                        |                |
| -5                       | 6.000000  | 1.600000   | 1.600000           | 149486575              |                |
|                          | 4.400000  | -10.000000 | 30.000000          |                        |                |
|                          | 30.000000 | 30.000000  |                    |                        |                |
| -4                       | 6.000000  | 1.600000   | 1.600000           | 38729789               |                |
|                          | 4.000000  | -11.000000 | 30.000000          |                        |                |
|                          | 30.000000 | 30.000000  |                    |                        |                |
| -3                       | 6.000000  | 1.600000   | 1.600000           | 361135                 |                |
|                          | 4.000000  | -10.000000 | 33.000000          |                        |                |
|                          | 30.000000 | 30.000000  |                    |                        |                |
| -2                       | 6.000000  | 1.600000   | 1.600000           | 349294                 |                |
|                          | 4.000000  | -10.000000 | 30.000000          |                        |                |
|                          | 33.000000 | 30.000000  |                    |                        |                |
| -1                       | 6.000000  | 1.600000   | 1.600000           | 420103                 |                |
|                          | 4.000000  | -10.000000 | 30.000000          |                        |                |
|                          | 30.000000 | 33.000000  |                    |                        |                |

| Non-Linear Least Squares |           |            | Iterative Phase | Dependent Variable VOY Method: DUD |                |
|--------------------------|-----------|------------|-----------------|------------------------------------|----------------|
| Iter                     | H         | G          | W               | A                                  | Sum of Squares |
|                          | CP        | CV         | CB              | CT                                 |                |
| 0                        | 6.000000  | 1.600000   | 1.600000        | 348881                             |                |
|                          | 4.000000  | -10.000000 | 30.000000       |                                    |                |
|                          | 30.000000 | 30.000000  |                 |                                    |                |
| 1                        | 6.059760  | 1.573317   | 1.614173        | 338097                             |                |
|                          | 3.999256  | -10.214255 | 29.284675       |                                    |                |
|                          | 29.000000 | 29.267575  |                 |                                    |                |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |  |
|---|----|----------------|------------------------|--|
| Source                                      | DF | Sum of Squares | Mean Square            |  |
| Regression                                  | 8  | 338379388491   | 42297423561            |  |
| Residual                                    | 56 | 338097         | 6037                   |  |
| Uncorrected Total                           | 64 | 338379726588   |                        |  |
| (Corrected Total)                           | 63 | 275324247816   |                        |  |



**MONTREAL-OTTAWA  
Non-Business Purpose**

| Parameter | Estimate     | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|--------------|--------------------------|--|--------------|
|           |              |                          | Lower                                  | Upper        |
| H         | 6.05975978   | 4.88107776               | -3.71820830                            | 15.83772787  |
| W         | 1.57331655   | 1.57456566               | -1.58091568                            | 4.72754878   |
| A         | 1.61417322   | 4.17378895               | -6.74692593                            | 9.97527237   |
| G         | 3.99925591   | 0.01862917               | 3.96193723                             | 4.03657460   |
| CV        | -10.21425523 | 13.07023798              | -36.39707304                           | 15.96856259  |
| CT        | 29.28467508  | 52.47645059              | -75.83822684                           | 134.40757701 |
| CP        | 29.00000000  | 121.39510854             | -214.18348414                          | 272.18348414 |
| CB        | 29.26757510  | 51.55575701              | -74.01095703                           | 132.54610722 |

**Asymptotic Correlation Matrix**

| Corr | H            | W            | A            | G            |
|------|--------------|--------------|--------------|--------------|
| H    | 1            | -0.74938079  | -0.073650088 | -0.516568135 |
| W    | -0.74938079  | 1            | 0.3288396711 | 0.8920517668 |
| A    | -0.073650088 | 0.3288396711 | 1            | 0.3164206185 |
| G    | -0.516568135 | 0.8920517668 | 0.3164206185 | 1            |
| CV   | -0.765681438 | 0.9994800601 | 0.3202000468 | 0.8936214745 |
| CT   | 0.0046247326 | 0.5405182828 | -0.174815491 | 0.6609394179 |
| CP   | 0.1858047296 | 0.4189625655 | 0.0329918484 | 0.5638952023 |
| CB   | -0.040862118 | 0.5658472259 | -0.194562836 | 0.6750886096 |

| Corr | CV           | CT           | CP           | CB           |
|------|--------------|--------------|--------------|--------------|
| H    | -0.765681438 | 0.0046247326 | 0.1858047296 | -0.040862118 |
| W    | 0.9994800601 | 0.5405182828 | 0.4189625655 | 0.5658472259 |
| A    | 0.3202000468 | -0.174815491 | 0.0329918484 | -0.194562836 |
| G    | 0.8936214745 | 0.6609394179 | 0.5638952023 | 0.6750886096 |
| CV   | 1            | 0.5265430343 | 0.4006546478 | 0.5529051919 |
| CT   | 0.5265430343 | 1            | 0.8781311891 | 0.9966758788 |
| CP   | 0.4006546478 | 0.8781311891 | 1            | 0.8650589101 |
| CB   | 0.5529051919 | 0.9966758788 | 0.8650589101 | 1            |

**MONTREAL-OTTAWA**  
**Non-Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 1.24                               | 0.999           |
| <b>w</b>          | 1.00                               |                 |
| <b>a</b>          | 0.39                               |                 |
| <b>g</b>          | 399.00                             |                 |
| <b>cv</b>         | -0.78                              |                 |
| <b>ct</b>         | 0.56                               |                 |
| <b>cp</b>         | 0.24                               |                 |
| <b>cb</b>         | 0.57                               |                 |

**MONTREAL-OTTAWA  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |            |            | Dependent Variable VOY |                |
|---|------------|------------|------------------------|----------------|
| DUD   | H          | A          | W                      | Sum of Squares |
|   | G          | CV         | CT                     |                |
|   | CP         | CB         |                        |                |
| -9  | 18.000000  | 1.700000   | 1.600000               | 35323839       |
|   | 2.900000   | -54.000000 | 30.000000              |                |
|   | 130.000000 | 180.000000 |                        |                |
| -8  | 19.800000  | 1.700000   | 1.600000               | 46472734       |
|   | 2.900000   | -54.000000 | 30.000000              |                |
|   | 130.000000 | 180.000000 |                        |                |
| -7  | 18.000000  | 1.870000   | 1.600000               | 34490519       |
|   | 2.900000   | -54.000000 | 30.000000              |                |
|   | 130.000000 | 180.000000 |                        |                |
| -6  | 18.000000  | 1.700000   | 1.760000               | 15154991       |
|   | 2.900000   | -54.000000 | 30.000000              |                |
|   | 130.000000 | 180.000000 |                        |                |
| -5  | 18.000000  | 1.700000   | 1.600000               | 3109070        |
|   | 3.190000   | -54.000000 | 30.000000              |                |
|   | 130.000000 | 180.000000 |                        |                |
| -4  | 18.000000  | 1.700000   | 1.600000               | 2890615        |
|   | 2.900000   | -59.400000 | 30.000000              |                |
|   | 130.000000 | 180.000000 |                        |                |
| -3  | 18.000000  | 1.700000   | 1.600000               | 34940546       |
|   | 2.900000   | -54.000000 | 33.000000              |                |
|   | 130.000000 | 180.000000 |                        |                |
| -2  | 18.000000  | 1.700000   | 1.600000               | 35092495       |
|   | 2.900000   | -54.000000 | 30.000000              |                |
|   | 143.000000 | 180.000000 |                        |                |
| -1  | 18.000000  | 1.700000   | 1.600000               | 34276870       |
|   | 2.900000   | -54.000000 | 30.000000              |                |
|   | 130.000000 | 198.000000 |                        |                |

| Non-Linear Least Squares Iterative Phase |            |            | Dependent Variable VOY Method: DUD |                |
|--|------------|------------|------------------------------------|----------------|
| Iter                                     | H          | A          | W                                  | Sum of Squares |
|  | G          | CV         | CT                                 |                |
|  | CP         | CB         |                                    |                |
| 0  | 18.000000  | 1.700000   | 1.600000                           | 2890615        |
|  | 2.900000   | -59.400000 | 30.000000                          |                |
|  | 130.000000 | 180.000000 |                                    |                |
| 1  | 17.944744  | 1.714331   | 1.612638                           | 2792032        |
|  | 2.898654   | -59.194263 | 30.372262                          |                |
|  | 131.000000 | 180.848670 |                                    |                |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |            |            | Dependent Variable VOY |                |
|---|------------|------------|------------------------|----------------|
| DUD   | H          | A          | W                      | Sum of Squares |
|   | G          | CV         | CT                     |                |
|   | CP         | CB         |                        |                |
| -9  | 17.944744  | 1.714331   | 1.612638               | 2792032        |
|   | 2.898654   | -59.194263 | 30.372262              |                |
|   | 131.000000 | 180.848670 |                        |                |

**MONTREAL-OTTAWA  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |            |            | Dependent Variable VOY |                |
|---|------------|------------|------------------------|----------------|
| DUD   | H          | A          | W                      | Sum of Squares |
|   | G          | CV         | CT                     |                |
|   | CP         | CB         |                        |                |
| -8  | 19.739218  | 1.714331   | 1.612638               | 8171762        |
|   | 2.898654   | -59.194263 | 30.372262              |                |
|   | 131.000000 | 180.848670 |                        |                |
| -7  | 17.944744  | 1.885764   | 1.612638               | 2690973        |
|   | 2.898654   | -59.194263 | 30.372262              |                |
|   | 131.000000 | 180.848670 |                        |                |
| -6  | 17.944744  | 1.714331   | 1.773902               | 229163         |
|   | 2.898654   | -59.194263 | 30.372262              |                |
|   | 131.000000 | 180.848670 |                        |                |
| -5  | 17.944744  | 1.714331   | 1.612638               | 8155911        |
|   | 3.188520   | -59.194263 | 30.372262              |                |
|   | 131.000000 | 180.848670 |                        |                |
| -4  | 17.944744  | 1.714331   | 1.612638               | 12756093       |
|   | 2.898654   | -65.113689 | 30.372262              |                |
|   | 131.000000 | 180.848670 |                        |                |
| -3  | 17.944744  | 1.714331   | 1.612638               | 2750113        |
|   | 2.898654   | -59.194263 | 33.409488              |                |
|   | 131.000000 | 180.848670 |                        |                |
| -2  | 17.944744  | 1.714331   | 1.612638               | 2752557        |
|   | 2.898654   | -59.194263 | 30.372262              |                |
|   | 144.100000 | 180.848670 |                        |                |
| -1  | 17.944744  | 1.714331   | 1.612638               | 2653975        |
|   | 2.898654   | -59.194263 | 30.372262              |                |
|   | 131.000000 | 198.933537 |                        |                |

| Non-Linear Least Squares Iterative Phase |            |            | Dependent Variable VOY Method: DUD |                |
|--|------------|------------|------------------------------------|----------------|
| Iter                                     | H          | A          | W                                  | Sum of Squares |
|  | G          | CV         | CT                                 |                |
|  | CP         | CB         |                                    |                |
| 2  | 17.944744  | 1.714331   | 1.773902                           | 229163         |
|  | 2.898654   | -59.194263 | 30.372262                          |                |
|  | 131.000000 | 180.848670 |                                    |                |

WARNING: Step size shows no improvement.

NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |            |            | Dependent Variable VOY |                |
|---|------------|------------|------------------------|----------------|
| DUD   | H          | A          | W                      | Sum of Squares |
|   | G          | CV         | CT                     |                |
|   | CP         | CB         |                        |                |
| -9  | 17.944744  | 1.714331   | 1.773902               | 229163         |
|   | 2.898654   | -59.194263 | 30.372262              |                |
|   | 131.000000 | 180.848670 |                        |                |
| -8  | 17.962689  | 1.714331   | 1.773902               | 221638         |
|   | 2.898654   | -59.194263 | 30.372262              |                |
|   | 131.000000 | 180.848670 |                        |                |
| -7  | 17.944744  | 1.716046   | 1.773902               | 229685         |
|   | 2.898654   | -59.194263 | 30.372262              |                |
|   | 131.000000 | 180.848670 |                        |                |

**MONTREAL-KITCHENER  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |            |             |            | Dependent Variable VOY |
|---|------------|-------------|------------|------------------------|
| DUD   | H          | W           | A          | Sum of Squares         |
|   | G          | CV          | CT         |                        |
|   | CB         |             |            |                        |
| -5  | 24.200000  | 1.600000    | 1.980000   | 16933.000000           |
|   | 2.500000   | -100.000000 | 100.000000 |                        |
|   | 500.000000 |             |            |                        |
| -4  | 24.200000  | 1.600000    | 1.800000   | 23987.000000           |
|   | 2.750000   | -100.000000 | 100.000000 |                        |
|   | 500.000000 |             |            |                        |
| -3  | 24.200000  | 1.600000    | 1.800000   | 18829.000000           |
|   | 2.500000   | -110.000000 | 100.000000 |                        |
|   | 500.000000 |             |            |                        |
| -2  | 24.200000  | 1.600000    | 1.800000   | 16877.000000           |
|   | 2.500000   | -100.000000 | 110.000000 |                        |
|   | 500.000000 |             |            |                        |
| -1  | 24.200000  | 1.600000    | 1.800000   | 17743.000000           |
|   | 2.500000   | -100.000000 | 100.000000 |                        |
|   | 550.000000 |             |            |                        |

| Non-Linear Least Squares Iterative Phase |            |             |            | Dependent Variable VOY Method: DUD |
|--|------------|-------------|------------|------------------------------------|
| Iter                                     | H          | W           | A          | Sum of Squares                     |
|  | G          | CV          | CT         |                                    |
|  | CB         |             |            |                                    |
| 0  | 26.620000  | 1.600000    | 1.800000   | 15152.000000                       |
|  | 2.500000   | -100.000000 | 100.000000 |                                    |
|  | 500.000000 |             |            |                                    |

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 7  | 1972036.0000   | 281719.4286            |
| Residual                                    | 22 | 15152.0000     | 688.7273               |
| Uncorrected Total                           | 29 | 1987188.0000   |                        |
| (Corrected Total)                           | 28 | 382371.3103    |                        |

| Parameter | Estimate     | Asymptotic Std. Error | Asymptotic 95 % Confidence Interval |              |
|-----------|--------------|-----------------------|-------------------------------------|--------------|
|           |              |                       | Lower                               | Upper        |
|           |              |                       | H                                   | 26.6200000   |
| W         | 1.6000000    | 1.48640856            | -1.48259813                         | 4.6825981    |
| A         | 1.8000000    | 6.65758817            | -12.00688282                        | 15.6068828   |
| G         | 2.5000000    | 1.51318908            | -0.63813708                         | 5.6381371    |
| CV        | -100.0000000 | 138.59229334          | -387.42053512                       | 187.4205351  |
| CT        | 100.0000000  | 263.56385778          | -446.59363243                       | 646.5936324  |
| CB        | 500.0000000  | 579.85945197          | -702.54532172                       | 1702.5453217 |

**MONTREAL-KITCHENER  
Business Purpose**

Asymptotic Correlation Matrix

| Corr | H        | W        | A        | G        | CV       | CT       | CB       |
|------|----------|----------|----------|----------|----------|----------|----------|
| H    | 1        | -0.94186 | 0.14265  | 0.680135 | 0.196993 | 0.01707  | 0.175751 |
| W    | -0.94186 | 1        | -0.20848 | -0.73905 | -0.18254 | 0.109958 | 0.040557 |
| A    | 0.14265  | -0.20848 | 1        | 0.000927 | -0.19314 | -0.85972 | -0.59803 |
| G    | 0.680135 | -0.73905 | 0.000927 | 1        | 0.775431 | 0.26068  | 0.080829 |
| CV   | 0.196993 | -0.18254 | -0.19314 | 0.775431 | 1        | 0.552496 | 0.3085   |
| CT   | 0.01707  | 0.109958 | -0.85972 | 0.26068  | 0.552496 | 1        | 0.750479 |
| CB   | 0.175751 | 0.040557 | -0.59803 | 0.080829 | 0.3085   | 0.750479 | 1        |

**MONTREAL-KITCHENER**  
**Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 0.78                               | 0.96            |
| <b>w</b>          | 1.08                               |                 |
| <b>a</b>          | 0.27                               |                 |
| <b>g</b>          | 1.66                               |                 |
| <b>cv</b>         | -0.72                              |                 |
| <b>ct</b>         | 0.38                               |                 |
| <b>cp</b>         |                                    |                 |
| <b>cb</b>         | 0.86                               |                 |

**MONTREAL-LONDON  
Non-Business Purpose**

| Non-Linear Least Squares DUD Initialization |            |            | Dependent Variable VOY |                |
|---|------------|------------|------------------------|----------------|
| DUD   | H          | W          | A                      | Sum of Squares |
|   | G          | CV         | CT                     |                |
|   | CP         | CB         |                        |                |
| -9  | 9.000000   | 1.700000   | 1.800000               | 585444         |
|   | 1.600000   | -70.000000 | 65.000000              |                |
|   | 217.000000 | 600.000000 |                        |                |
| -8  | 9.900000   | 1.700000   | 1.800000               | 935385         |
|   | 1.600000   | -70.000000 | 65.000000              |                |
|   | 217.000000 | 600.000000 |                        |                |
| -7  | 9.000000   | 1.870000   | 1.800000               | 414207         |
|   | 1.600000   | -70.000000 | 65.000000              |                |
|   | 217.000000 | 600.000000 |                        |                |
| -6  | 9.000000   | 1.700000   | 1.980000               | 582502         |
|   | 1.600000   | -70.000000 | 65.000000              |                |
|   | 217.000000 | 600.000000 |                        |                |
| -5  | 9.000000   | 1.700000   | 1.800000               | 187121         |
|   | 1.760000   | -70.000000 | 65.000000              |                |
|   | 217.000000 | 600.000000 |                        |                |
| -4  | 9.000000   | 1.700000   | 1.800000               | 139197         |
|   | 1.600000   | -77.000000 | 65.000000              |                |
|   | 217.000000 | 600.000000 |                        |                |
| -3  | 9.000000   | 1.700000   | 1.800000               | 578640         |
|   | 1.600000   | -70.000000 | 71.500000              |                |
|   | 217.000000 | 600.000000 |                        |                |
| -2  | 9.000000   | 1.700000   | 1.800000               | 579860         |
|   | 1.600000   | -70.000000 | 65.000000              |                |
|   | 238.700000 | 600.000000 |                        |                |
| -1  | 9.000000   | 1.700000   | 1.800000               | 583193         |
|   | 1.600000   | -70.000000 | 65.000000              |                |
|   | 217.000000 | 660.000000 |                        |                |

| Non-Linear Least Squares Iterative Phase |            |            | Dependent Variable VOY Method: DUD |                |
|--|------------|------------|------------------------------------|----------------|
| Iter                                     | H          | W          | A                                  | Sum of Squares |
|  | G          | CV         | CT                                 |                |
|  | CP         | CB         |                                    |                |
| 0  | 9.000000   | 1.700000   | 1.800000                           | 139197         |
|  | 1.600000   | -77.000000 | 65.000000                          |                |
|  | 217.000000 | 600.000000 |                                    |                |
| 1  | 8.983201   | 1.703264   | 1.806284                           | 133930         |
|  | 1.598160   | -77.045291 | 64.975196                          |                |
|  | 217.008956 | 601.000000 |                                    |                |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |            |            | Dependent Variable VOY |                |
|---|------------|------------|------------------------|----------------|
| DUD   | H          | W          | A                      | Sum of Squares |
|   | G          | CV         | CT                     |                |
|   | CP         | CB         |                        |                |
| -9  | 8.983201   | 1.703264   | 1.806284               | 133930         |
|   | 1.598160   | -77.045291 | 64.975196              |                |
|   | 217.008956 | 601.000000 |                        |                |



**MONTREAL-LONDON  
Non-Business Purpose**

| Non-Linear<br>DUD | Least Squares DUD Initialization |            |           | Dependent Variable VOY |  |
|-------------------|----------------------------------|------------|-----------|------------------------|--|
|                   | H                                |            | W         | A Sum of Squares       |  |
|                   | G                                | CV         | CT        |                        |  |
|                   | CP                               | CB         |           |                        |  |
| -8                | 9.881521                         | 1.703264   | 1.806284  | 424951                 |  |
|                   | 1.598160                         | -77.045291 | 64.975196 |                        |  |
|                   | 217.008956                       | 601.000000 |           |                        |  |
| -7                | 8.983201                         | 1.873591   | 1.806284  | 58976.000000           |  |
|                   | 1.598160                         | -77.045291 | 64.975196 |                        |  |
|                   | 217.008956                       | 601.000000 |           |                        |  |
| -6                | 8.983201                         | 1.703264   | 1.986912  | 132553                 |  |
|                   | 1.598160                         | -77.045291 | 64.975196 |                        |  |
|                   | 217.008956                       | 601.000000 |           |                        |  |
| -5                | 8.983201                         | 1.703264   | 1.806284  | 9748.000000            |  |
|                   | 1.757976                         | -77.045291 | 64.975196 |                        |  |
|                   | 217.008956                       | 601.000000 |           |                        |  |
| -4                | 8.983201                         | 1.703264   | 1.806284  | 67596.000000           |  |
|                   | 1.598160                         | -84.749820 | 64.975196 |                        |  |
|                   | 217.008956                       | 601.000000 |           |                        |  |
| -3                | 8.983201                         | 1.703264   | 1.806284  | 131158                 |  |
|                   | 1.598160                         | -77.045291 | 71.472716 |                        |  |
|                   | 217.008956                       | 601.000000 |           |                        |  |
| -2                | 8.983201                         | 1.703264   | 1.806284  | 131548                 |  |
|                   | 1.598160                         | -77.045291 | 64.975196 |                        |  |
|                   | 238.709852                       | 601.000000 |           |                        |  |
| -1                | 8.983201                         | 1.703264   | 1.806284  | 132802                 |  |
|                   | 1.598160                         | -77.045291 | 64.975196 |                        |  |
|                   | 217.008956                       | 661.100000 |           |                        |  |

| Non-Linear<br>Iter | Least Squares Iterative Phase |            |           | Dependent Variable VOY Method: DUD |  |
|--------------------|-------------------------------|------------|-----------|------------------------------------|--|
|                    | H                             |            | W         | A Sum of Squares                   |  |
|                    | G                             | CV         | CT        |                                    |  |
|                    | CP                            | CB         |           |                                    |  |
| 2                  | 8.983201                      | 1.703264   | 1.806284  | 9748.000000                        |  |
|                    | 1.757976                      | -77.045291 | 64.975196 |                                    |  |
|                    | 217.008956                    | 601.000000 |           |                                    |  |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear<br>DUD | Least Squares DUD Initialization |            |           | Dependent Variable VOY |  |
|-------------------|----------------------------------|------------|-----------|------------------------|--|
|                   | H                                |            | W         | A Sum of Squares       |  |
|                   | G                                | CV         | CT        |                        |  |
|                   | CP                               | CB         |           |                        |  |
| -9                | 8.983201                         | 1.703264   | 1.806284  | 9748.000000            |  |
|                   | 1.757976                         | -77.045291 | 64.975196 |                        |  |
|                   | 217.008956                       | 601.000000 |           |                        |  |
| -8                | 8.992184                         | 1.703264   | 1.806284  | 9625.000000            |  |
|                   | 1.757976                         | -77.045291 | 64.975196 |                        |  |
|                   | 217.008956                       | 601.000000 |           |                        |  |
| -7                | 8.983201                         | 1.704968   | 1.806284  | 9737.000000            |  |
|                   | 1.757976                         | -77.045291 | 64.975196 |                        |  |
|                   | 217.008956                       | 601.000000 |           |                        |  |

**MONTREAL-OTTAWA  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |            |            |           | Dependent Variable VOY |  |
|---|------------|------------|-----------|------------------------|--|
| DUD   | H          | A          | W         | Sum of Squares         |  |
|   | G          | CV         | CT        |                        |  |
|   | CP         | CB         |           |                        |  |
| -6  | 17.944744  | 1.714331   | 1.775676  | 246545                 |  |
|   | 2.898654   | -59.194263 | 30.372262 |                        |  |
|   | 131.000000 | 180.848670 |           |                        |  |
| -5  | 17.944744  | 1.714331   | 1.773902  | 263191                 |  |
|   | 2.901553   | -59.194263 | 30.372262 |                        |  |
|   | 131.000000 | 180.848670 |           |                        |  |
| -4  | 17.944744  | 1.714331   | 1.773902  | 266803                 |  |
|   | 2.898654   | -59.253457 | 30.372262 |                        |  |
|   | 131.000000 | 180.848670 |           |                        |  |
| -3  | 17.944744  | 1.714331   | 1.773902  | 228824                 |  |
|   | 2.898654   | -59.194263 | 30.402634 |                        |  |
|   | 131.000000 | 180.848670 |           |                        |  |
| -2  | 17.944744  | 1.714331   | 1.773902  | 229034                 |  |
|   | 2.898654   | -59.194263 | 30.372262 |                        |  |
|   | 131.131000 | 180.848670 |           |                        |  |
| -1  | 17.944744  | 1.714331   | 1.773902  | 229557                 |  |
|   | 2.898654   | -59.194263 | 30.372262 |                        |  |
|   | 131.000000 | 181.029519 |           |                        |  |

| Non-Linear Least Squares Iterative Phase |            |            |           | Dependent Variable VOY Method: DUD |  |
|--|------------|------------|-----------|------------------------------------|--|
| Iter                                     | H          | A          | W         | Sum of Squares                     |  |
|  | G          | CV         | CT        |                                    |  |
|  | CP         | CB         |           |                                    |  |
| 2  | 17.962689  | 1.714331   | 1.773902  | 221638                             |  |
|  | 2.898654   | -59.194263 | 30.372262 |                                    |  |
|  | 131.000000 | 180.848670 |           |                                    |  |

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |  |
|---|----|----------------|------------------------|--|
| Source                                      | DF | Sum of Squares | Mean Square            |  |
| Regression                                  | 8  | 15747886646    | 1968485831             |  |
| Residual                                    | 56 | 221638         | 3958                   |  |
| Uncorrected Total                           | 64 | 15748108284    |                        |  |
| (Corrected Total)                           | 63 | 12404377659    |                        |  |

| Parameter | Estimate    | Asymptotic Std. Error | Asymptotic 95 % Confidence Interval |              |
|-----------|-------------|-----------------------|-------------------------------------|--------------|
|           |             |                       | Lower                               | Upper        |
|           |             |                       | H                                   | 17.9626885   |
| A         | 1.7143313   | 0.082499407           | 1.54906518                          | 1.87959733   |
| W         | 1.7739019   | 0.028021710           | 1.71776768                          | 1.83003608   |
| G         | 2.8986542   | 0.025839857           | 2.84689077                          | 2.95041762   |
| CV        | -59.1942630 | 0.778121776           | -60.75302733                        | -57.63549867 |
| CT        | 30.3722621  | 1.897231975           | 26.57165197                         | 34.17287227  |
| CP        | 131.0000000 | 10.364768849          | 110.23688498                        | 151.76311502 |
| CB        | 180.8486698 | 5.247102072           | 170.33746737                        | 191.35987229 |

**MONTREAL-OTTAWA  
Business Purpose**

Asymptotic Correlation Matrix

| Corr | H            | A            | W            | G            |
|------|--------------|--------------|--------------|--------------|
| H    | 1            | 0.0406157082 | -0.565238223 | 0.3182945388 |
| A    | 0.0406157082 | 1            | 0.003156315  | -0.007348944 |
| W    | -0.565238223 | 0.003156315  | 1            | 0.2047489501 |
| G    | 0.3182945388 | -0.007348944 | 0.2047489501 | 1            |
| CV   | -0.395038588 | 0.0242829845 | 0.8333393249 | 0.658564476  |
| CT   | -0.074236887 | -0.630590775 | 0.1669343494 | -0.080985433 |
| CP   | 0.0208556407 | 0.0998874266 | -0.125629579 | -0.103320976 |
| CB   | -0.206023377 | -0.456219986 | 0.180492006  | -0.250279565 |

| Corr | CV           | CT           | CP           | CB           |
|------|--------------|--------------|--------------|--------------|
| H    | -0.395038588 | -0.074236887 | 0.0208556407 | -0.206023377 |
| A    | 0.0242829845 | -0.630590775 | 0.0998874266 | -0.456219986 |
| W    | 0.8333393249 | 0.1669343494 | -0.125629579 | 0.180492006  |
| G    | 0.658564476  | -0.080985433 | -0.103320976 | -0.250279565 |
| CV   | 1            | 0.0311985687 | -0.137461828 | 0.0147312131 |
| CT   | 0.0311985687 | 1            | -0.45527011  | 0.229582247  |
| CP   | -0.137461828 | -0.45527011  | 1            | -0.153894482 |
| CB   | 0.0147312131 | 0.229582247  | -0.153894482 | 1            |

**MONTREAL-OTTAWA**  
**Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 61.93                              | 0.999           |
| <b>w</b>          | 21.25                              |                 |
| <b>a</b>          | 88.50                              |                 |
| <b>g</b>          | 144.50                             |                 |
| <b>cv</b>         | -76.75                             |                 |
| <b>ct</b>         | 16.03                              |                 |
| <b>cp</b>         | 12.72                              |                 |
| <b>cb</b>         | 34.77                              |                 |

**MONTREAL-KINGSTON  
Non-Business Purpose**

| Non-Linear Least Squares |            |            | DUD Initialization |              | Dependent Variable VOY |    |
|--------------------------|------------|------------|--------------------|--------------|------------------------|----|
| DUD                      | H          | G          | W                  | A            | Sum of Squares         | CB |
|                          | CV         |            | CT                 |              |                        |    |
| -8                       | 8.000000   | 1.600000   | 1.800000           | 51132.000000 |                        |    |
|                          | 2.300000   | 100.000000 | 80.000000          |              |                        |    |
|                          | -34.000000 |            |                    |              |                        |    |
| -7                       | 8.800000   | 1.600000   | 1.800000           | 1587165      |                        |    |
|                          | 2.300000   | 100.000000 | 80.000000          |              |                        |    |
|                          | -34.000000 |            |                    |              |                        |    |
| -6                       | 8.000000   | 1.760000   | 1.800000           | 157414       |                        |    |
|                          | 2.300000   | 100.000000 | 80.000000          |              |                        |    |
|                          | -34.000000 |            |                    |              |                        |    |
| -5                       | 8.000000   | 1.600000   | 1.980000           | 51391.000000 |                        |    |
|                          | 2.300000   | 100.000000 | 80.000000          |              |                        |    |
|                          | -34.000000 |            |                    |              |                        |    |
| -4                       | 8.000000   | 1.600000   | 1.800000           | 676087       |                        |    |
|                          | 2.530000   | 100.000000 | 80.000000          |              |                        |    |
|                          | -34.000000 |            |                    |              |                        |    |
| -3                       | 8.000000   | 1.600000   | 1.800000           | 51789.000000 |                        |    |
|                          | 2.300000   | 110.000000 | 80.000000          |              |                        |    |
|                          | -34.000000 |            |                    |              |                        |    |
| -2                       | 8.000000   | 1.600000   | 1.800000           | 51590.000000 |                        |    |
|                          | 2.300000   | 100.000000 | 88.000000          |              |                        |    |
|                          | -34.000000 |            |                    |              |                        |    |
| -1                       | 8.000000   | 1.600000   | 1.800000           | 4084450      |                        |    |
|                          | 2.300000   | 100.000000 | 80.000000          |              |                        |    |
|                          | -37.400000 |            |                    |              |                        |    |

| Non-Linear Least Squares |            |            | Iterative Phase |              | Dependent Variable VOY Method: DUD |    |
|--------------------------|------------|------------|-----------------|--------------|------------------------------------|----|
| Iter                     | H          | G          | W               | A            | Sum of Squares                     | CB |
|                          | CV         |            | CT              |              |                                    |    |
| 0                        | 8.000000   | 1.600000   | 1.800000        | 51132.000000 |                                    |    |
|                          | 2.300000   | 100.000000 | 80.000000       |              |                                    |    |
|                          | -34.000000 |            |                 |              |                                    |    |
| 1                        | 7.999147   | 1.597966   | 1.794703        | 50978.000000 |                                    |    |
|                          | 2.299886   | 99.765546  | 79.860544       |              |                                    |    |
|                          | -34.006118 |            |                 |              |                                    |    |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |  |
|---|----|----------------|------------------------|--|
| Source                                      | DF | Sum of Squares | Mean Square            |  |
| Regression                                  | 7  | 971222878.00   | 138746125.43           |  |
| Residual                                    | 27 | 50978.00       | 1888.07                |  |
| Uncorrected Total                           | 34 | 971273856.00   |                        |  |
| (Corrected Total)                           | 33 | 587145164.12   |                        |  |

**MONTREAL-KINGSTON**  
**Non-Business Purpose**

| Parameter | Estimate     | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|--------------|--------------------------|--|--------------|
|           |              |                          | Lower                                  | Upper        |
| H         | 7.99914668   | 0.85077301               | 6.25351823                             | 9.74477513   |
| W         | 1.59796634   | 0.56717873               | 0.43422076                             | 2.76171192   |
| A         | 1.79470269   | 4.43337881               | -7.30176855                            | 10.89117392  |
| G         | 2.29988559   | 0.05871893               | 2.17940522                             | 2.42036595   |
| CT        | 99.76554563  | 110.49744950             | -126.95473146                          | 326.48582272 |
| CB        | 79.86054421  | 98.18947953              | -121.60606074                          | 281.32714915 |
| CV        | -34.00611759 | 0.24438083               | -34.50754173                           | -33.50469345 |

Asymptotic Correlation Matrix

| Corr | H        | W        | A        | G        | CT       | CB       | CV       |
|------|----------|----------|----------|----------|----------|----------|----------|
| H    | 1        | 0.984394 | -0.37841 | 0.52063  | 0.859831 | 0.817324 | 0.48731  |
| W    | 0.984394 | 1        | -0.34964 | 0.384456 | 0.871059 | 0.820531 | 0.583004 |
| A    | -0.37841 | -0.34964 | 1        | -0.18577 | -0.53823 | -0.68732 | 0.014578 |
| G    | 0.52063  | 0.384456 | -0.18577 | 1        | 0.278306 | 0.27525  | 0.074729 |
| CT   | 0.859831 | 0.871059 | -0.53823 | 0.278306 | 1        | 0.797048 | 0.441465 |
| CB   | 0.817324 | 0.820531 | -0.68732 | 0.27525  | 0.797048 | 1        | 0.360576 |
| CV   | 0.48731  | 0.583004 | 0.014578 | 0.074729 | 0.441465 | 0.360576 | 1        |

**MONTREAL-KINGSTON**  
**Non-Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 9.40                               | 0.999           |
| <b>w</b>          | 2.84                               |                 |
| <b>a</b>          | 0.40                               |                 |
| <b>g</b>          | 45.80                              |                 |
| <b>cv</b>         | 0.90                               |                 |
| <b>ct</b>         | 0.81                               |                 |
| <b>cp</b>         |                                    |                 |
| <b>cb</b>         | -141.67                            |                 |

**MONTREAL-KINSTON  
Business Purpose**

| Non-Linear Least Squares Iterative Phase | Dependent Variable VOY Method: DUD |                        |                      |
|--|------------------------------------|------------------------|----------------------|
| Iter                                     | H                                  | A                      | W Sum of Squares     |
|  | G                                  | CB                     |                      |
| 0  | 23.000000<br>1.100000              | 1.000000<br>600.000000 | 1.000000 2438.000000 |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization | Dependent Variable VOY |                        |                      |
|---|------------------------|------------------------|----------------------|
| DUD   | H                      | A                      | W Sum of Squares     |
|   | G                      | CB                     |                      |
| -6  | 23.000000<br>1.100000  | 1.000000<br>600.000000 | 1.000000 2438.000000 |
| -5  | 25.300000<br>1.100000  | 1.000000<br>600.000000 | 1.000000 2748.000000 |
| -4  | 23.000000<br>1.100000  | 1.100000<br>600.000000 | 1.000000 3207.000000 |
| -3  | 23.000000<br>1.100000  | 1.000000<br>600.000000 | 1.100000 2839.000000 |
| -2  | 23.000000<br>1.210000  | 1.000000<br>600.000000 | 1.000000 5147.000000 |
| -1  | 23.000000<br>1.100000  | 1.000000<br>660.000000 | 1.000000 2650.000000 |

| Non-Linear Least Squares Iterative Phase | Dependent Variable VOY Method: DUD |                        |                      |
|--|------------------------------------|------------------------|----------------------|
| Iter                                     | H                                  | A                      | W Sum of Squares     |
|  | G                                  | CB                     |                      |
| 0  | 23.000000<br>1.100000              | 1.000000<br>600.000000 | 1.000000 2438.000000 |

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 5  | 6155094.0000   | 1231018.8000           |
| Residual                                    | 29 | 2438.0000      | 84.0690                |
| Uncorrected Total                           | 34 | 6157532.0000   |                        |
| (Corrected Total)                           | 33 | 779753.0588    |                        |



**MONTREAL-KINSTON  
Business Purpose**

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
| H         | 23.0000000  | 8.54164827               | 5.53049721                             | 40.46950279  |
| A         | 1.0000000   | 0.08372877               | 0.82875670                             | 1.17124330   |
| W         | 1.0000000   | 0.28967021               | 0.40756230                             | 1.59243770   |
| G         | 1.1000000   | 0.12548639               | 0.84335341                             | 1.35664659   |
| CB        | 600.0000000 | 180.24737863             | 231.35544973                           | 968.64455027 |

**Asymptotic Correlation Matrix**

| Corr | H            | A            | W            | G            | CB           |
|------|--------------|--------------|--------------|--------------|--------------|
| H    | 1            | -0.509025236 | -0.709593458 | 0.2247888835 | 0.456231138  |
| A    | -0.509025236 | 1            | 0.0483502744 | 0.3541858592 | -0.652483877 |
| W    | -0.709593458 | 0.0483502744 | 1            | -0.835293607 | 0.287096926  |
| G    | 0.2247888835 | 0.3541858592 | -0.835293607 | 1            | -0.751257906 |
| CB   | 0.456231138  | -0.652483877 | 0.287096926  | -0.751257906 | 1            |

**MONTREAL-KINSTON**  
**Business Purpose**

| Non-Linear Least Squares DUD Initialization |          |          | Dependent Variable VOY |                |
|---|----------|----------|------------------------|----------------|
| DUD   | CP       | CV       | CT                     | Sum of Squares |
| -4  | 0        | 0        | 0                      | 2438.000000    |
| -3  | 0.100000 | 0        | 0                      | 2438.000000    |
| -2  | 0        | 0.100000 | 0                      | 2430.000000    |
| -1  | 0        | 0        | 0.100000               | 2507.000000    |

| Non-Linear Least Squares Iterative Phase |    |          | Dependent Variable VOY Method: DUD |                |
|--|----|----------|------------------------------------|----------------|
| Iter                                     | CP | CV       | CT                                 | Sum of Squares |
| 0  | 0  | 0.100000 | 0                                  | 2430.000000    |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |          |          | Dependent Variable VOY |                |
|---|----------|----------|------------------------|----------------|
| DUD   | CP       | CV       | CT                     | Sum of Squares |
| -4  | 0        | 0.100000 | 0                      | 2430.000000    |
| -3  | 0.100000 | 0.100000 | 0                      | 2430.000000    |
| -2  | 0        | 0.110000 | 0                      | 2453.000000    |
| -1  | 0        | 0.100000 | 0.100000               | 2497.000000    |

| Non-Linear Least Squares Iterative Phase |    |          | Dependent Variable VOY Method: DUD |                |
|--|----|----------|------------------------------------|----------------|
| Iter                                     | CP | CV       | CT                                 | Sum of Squares |
| 0  | 0  | 0.100000 | 0                                  | 2430.000000    |

WARNING: Step size shows no improvement.  
WARNING: PROC NLIN failed to converge.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |  |
|---|----|----------------|------------------------|--|
| Source                                      | DF | Sum of Squares | Mean Square            |  |
| Regression                                  | 3  | 6155102.0000   | 2051700.6667           |  |
| Residual                                    | 31 | 2430.0000      | 78.3871                |  |
| Uncorrected Total                           | 34 | 6157532.0000   |                        |  |
| (Corrected Total)                           | 33 | 779753.0588    |                        |  |

| Parameter | Estimate     | Asymptotic Std. Error | Asymptotic 95 % Confidence Interval |              |
|-----------|--------------|-----------------------|-------------------------------------|--------------|
|           |              |                       | Lower                               | Upper        |
| CP        | 0.0000000000 | 0.0000000000          | 0.0000000000                        | 0.0000000000 |
| CV        | 0.1000000000 | 0.08853648783         | -0.0805701000                       | 0.2805701000 |
| CT        | 0.0000000000 | 0.51116565082         | -1.0425219582                       | 1.0425219582 |

Asymptotic Correlation Matrix

| Corr | CP | CV | CT |
|------|----|----|----|
| CP   | .  | .  | .  |
| CV   | .  | 1  | 0  |
| CT   | .  | 0  | 1  |

## MONTREAL-KINGSTON

### Business Purpose

| Parameters | T for H0:<br>Parameter = 0 | R square |
|------------|----------------------------|----------|
| h          | 2.69                       | 0.996    |
| w          | 12.50                      |          |
| a          | 3.45                       |          |
| g          | 9.17                       |          |
| cv         | 1.25                       |          |
| ct         |                            |          |
| cp         |                            |          |
| cb         | 3.33                       |          |

**MONTREAL-TORONTO  
Non-Business Purpose**

| Non-Linear Least Squares DUD Initialization |            |            | Dependent Variable VOY |                |
|---|------------|------------|------------------------|----------------|
| DUD   | H          | A          | W                      | Sum of Squares |
|   | G          | CV         | CT                     |                |
|   | CP         | CB         |                        |                |
| -9  | 8.000000   | 1.800000   | 1.500000               | 31865442       |
|   | 3.200000   | -45.000000 | 36.000000              |                |
|   | 159.000000 | 115.000000 |                        |                |
| -8  | 8.800000   | 1.800000   | 1.500000               | 73695318       |
|   | 3.200000   | -45.000000 | 36.000000              |                |
|   | 159.000000 | 115.000000 |                        |                |
| -7  | 8.000000   | 1.980000   | 1.500000               | 31558694       |
|   | 3.200000   | -45.000000 | 36.000000              |                |
|   | 159.000000 | 115.000000 |                        |                |
| -6  | 8.000000   | 1.800000   | 1.650000               | 6796642        |
|   | 3.200000   | -45.000000 | 36.000000              |                |
|   | 159.000000 | 115.000000 |                        |                |
| -5  | 8.000000   | 1.800000   | 1.500000               | 3237571        |
|   | 3.520000   | -45.000000 | 36.000000              |                |
|   | 159.000000 | 115.000000 |                        |                |
| -4  | 8.000000   | 1.800000   | 1.500000               | 1667837        |
|   | 3.200000   | -49.500000 | 36.000000              |                |
|   | 159.000000 | 115.000000 |                        |                |
| -3  | 8.000000   | 1.800000   | 1.500000               | 31549774       |
|   | 3.200000   | -45.000000 | 39.600000              |                |
|   | 159.000000 | 115.000000 |                        |                |
| -2  | 8.000000   | 1.800000   | 1.500000               | 31435119       |
|   | 3.200000   | -45.000000 | 36.000000              |                |
|   | 174.900000 | 115.000000 |                        |                |
| -1  | 8.000000   | 1.800000   | 1.500000               | 31666539       |
|   | 3.200000   | -45.000000 | 36.000000              |                |
|   | 159.000000 | 126.500000 |                        |                |

| Non-Linear Least Squares Iterative Phase |            |            | Dependent Variable VOY Method: DUD |                |
|--|------------|------------|------------------------------------|----------------|
| Iter                                     | H          | A          | W                                  | Sum of Squares |
|  | G          | CV         | CT                                 |                |
|  | CP         | CB         |                                    |                |
| 0  | 8.000000   | 1.800000   | 1.500000                           | 1667837        |
|  | 3.200000   | -49.500000 | 36.000000                          |                |
|  | 159.000000 | 115.000000 |                                    |                |
| 1  | 7.935822   | 1.762552   | 1.537260                           | 1559749        |
|  | 3.188121   | -48.902311 | 37.881307                          |                |
|  | 162.445891 | 117.837437 |                                    |                |
| 2  | 7.971859   | 1.783731   | 1.557045                           | 1397567        |
|  | 3.180268   | -48.791092 | 39.105556                          |                |
|  | 166.010236 | 120.152651 |                                    |                |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |            |            | Dependent Variable VOY |                |
|---|------------|------------|------------------------|----------------|
| DUD   | H          | A          | W                      | Sum of Squares |
|   | G          | CV         | CT                     |                |
|   | CP         | CB         |                        |                |
| -9  | 7.971859   | 1.783731   | 1.557045               | 1397567        |
|   | 3.180268   | -48.791092 | 39.105556              |                |
|   | 166.010236 | 120.152651 |                        |                |

**MONTREAL-TORONTO  
Non-Business Purpose**

| Non-Linear Least Squares DUD Initialization |            |            | Dependent Variable VOY |                |
|---|------------|------------|------------------------|----------------|
| DUD   | H          | A          | W                      | Sum of Squares |
|   | G          | CV         | CT                     |                |
|   | CP         | CB         |                        |                |
| -8  | 8.769045   | 1.783731   | 1.557045               | 9802219        |
|   | 3.180268   | -48.791092 | 39.105556              |                |
|   | 166.010236 | 120.152651 |                        |                |
| -7  | 7.971859   | 1.962104   | 1.557045               | 1521839        |
|   | 3.180268   | -48.791092 | 39.105556              |                |
|   | 166.010236 | 120.152651 |                        |                |
| -6  | 7.971859   | 1.783731   | 1.712750               | 11722420       |
|   | 3.180268   | -48.791092 | 39.105556              |                |
|   | 166.010236 | 120.152651 |                        |                |
| -5  | 7.971859   | 1.783731   | 1.557045               | 40725819       |
|   | 3.498295   | -48.791092 | 39.105556              |                |
|   | 166.010236 | 120.152651 |                        |                |
| -4  | 7.971859   | 1.783731   | 1.557045               | 59836032       |
|   | 3.180268   | -53.670201 | 39.105556              |                |
|   | 166.010236 | 120.152651 |                        |                |
| -3  | 7.971859   | 1.783731   | 1.557045               | 1574327        |
|   | 3.180268   | -48.791092 | 43.016112              |                |
|   | 166.010236 | 120.152651 |                        |                |
| -2  | 7.971859   | 1.783731   | 1.557045               | 1508004        |
|   | 3.180268   | -48.791092 | 39.105556              |                |
|   | 182.611260 | 120.152651 |                        |                |
| -1  | 7.971859   | 1.783731   | 1.557045               | 1456323        |
|   | 3.180268   | -48.791092 | 39.105556              |                |
|   | 166.010236 | 132.167916 |                        |                |

| Non-Linear Least Squares Iterative Phase |            |            | Dependent Variable VOY Method: DUD |                |
|--|------------|------------|------------------------------------|----------------|
| Iter                                     | H          | A          | W                                  | Sum of Squares |
|  | G          | CV         | CT                                 |                |
|  | CP         | CB         |                                    |                |
| 3  | 7.971859   | 1.783731   | 1.557045                           | 1397567        |
|  | 3.180268   | -48.791092 | 39.105556                          |                |
|  | 166.010236 | 120.152651 |                                    |                |
| 4  | 7.965592   | 1.815272   | 1.562062                           | 1378879        |
|  | 3.178618   | -48.726921 | 38.751123                          |                |
|  | 165.513783 | 119.917044 |                                    |                |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 8  | 46364915362    | 5795614420             |
| Residual                                    | 56 | 1378879        | 24623                  |
| Uncorrected Total                           | 64 | 46366294241    |                        |
| (Corrected Total)                           | 63 | 35850381395    |                        |

**MONTREAL-TORONTO  
Non-Business Purpose**

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
| H         | 7.9655920   | 3.72342297               | 0.50668379                             | 15.42450021  |
| A         | 1.8152715   | 10.66287589              | -19.54502332                           | 23.17556634  |
| W         | 1.5620617   | 0.37350969               | 0.81383227                             | 2.31029103   |
| G         | 3.1786178   | 0.33760380               | 2.50231646                             | 3.85491905   |
| CV        | -48.7269213 | 3.48031898               | -55.69883395                           | -41.75500861 |
| CT        | 38.7511235  | 151.61918653             | -264.97842946                          | 342.48067636 |
| CP        | 165.5137827 | 301.44204772             | -438.34685311                          | 769.37441854 |
| CB        | 119.9170442 | 188.32124789             | -257.33553003                          | 497.16961848 |

**Asymptotic Correlation Matrix**

| Corr | H            | A            | W            | G            |
|------|--------------|--------------|--------------|--------------|
| H    | 1            | 0.220429643  | 0.8936928953 | 0.9734284846 |
| A    | 0.220429643  | 1            | 0.0989937556 | 0.2129328259 |
| W    | 0.8936928953 | 0.0989937556 | 1            | 0.8520297773 |
| G    | 0.9734284846 | 0.2129328259 | 0.8520297773 | 1            |
| CV   | -0.656792034 | -0.313115566 | -0.275899129 | -0.600857444 |
| CT   | 0.4951489887 | -0.723627173 | 0.5940913926 | 0.478191102  |
| CP   | 0.7219243296 | -0.479085019 | 0.7807415387 | 0.6886068359 |
| CB   | 0.7194517687 | -0.463007473 | 0.7769598171 | 0.6898529438 |

| Corr | CV           | CT           | CP           | CB           |
|------|--------------|--------------|--------------|--------------|
| H    | -0.656792034 | 0.4951489887 | 0.7219243296 | 0.7194517687 |
| A    | -0.313115566 | -0.723627173 | -0.479085019 | -0.463007473 |
| W    | -0.275899129 | 0.5940913926 | 0.7807415387 | 0.7769598171 |
| G    | -0.600857444 | 0.478191102  | 0.6886068359 | 0.6898529438 |
| CV   | 1            | -0.074837437 | -0.262875787 | -0.260099435 |
| CT   | -0.074837437 | 1            | 0.9378495597 | 0.923398921  |
| CP   | -0.262875787 | 0.9378495597 | 1            | 0.95360073   |
| CB   | -0.260099435 | 0.923398921  | 0.95360073   | 1            |

**MONTREAL-TORONTO**  
**Non-Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 2.14                               | 0.999           |
| <b>w</b>          | 0.17                               |                 |
| <b>a</b>          | 4.22                               |                 |
| <b>g</b>          | 9.61                               |                 |
| <b>cv</b>         | -13.99                             |                 |
| <b>ct</b>         | 0.26                               |                 |
| <b>cp</b>         | 0.55                               |                 |
| <b>cb</b>         | 0.64                               |                 |

**MONTREAL-TORONTO  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |                                   |  | Dependent Variable VOY |                      |
|---|-----------------------------------|--|------------------------|----------------------|
| DUD   | H<br>G<br>CP                      | W<br>CV<br>CB                          | A                      | Sum of Squares<br>CT |
| -9  | 33.000000<br>3.000000<br>0        | 1.900000<br>-138.000000<br>1100.000000 | 1.600000<br>183.000000 | 209858               |
| -8  | 36.300000<br>3.000000<br>0        | 1.900000<br>-138.000000<br>1100.000000 | 1.600000<br>183.000000 | 45959892             |
| -7  | 33.000000<br>3.000000<br>0        | 2.090000<br>-138.000000<br>1100.000000 | 1.600000<br>183.000000 | 2022213              |
| -6  | 33.000000<br>3.000000<br>0        | 1.900000<br>-138.000000<br>1100.000000 | 1.760000<br>183.000000 | 8342443              |
| -5  | 33.000000<br>3.300000<br>0        | 1.900000<br>-138.000000<br>1100.000000 | 1.600000<br>183.000000 | 73978369             |
| -4  | 33.000000<br>3.000000<br>0        | 1.900000<br>-151.800000<br>1100.000000 | 1.600000<br>183.000000 | 54912015             |
| -3  | 33.000000<br>3.000000<br>0        | 1.900000<br>-138.000000<br>1100.000000 | 1.600000<br>201.300000 | 743181               |
| -2  | 33.000000<br>3.000000<br>0.100000 | 1.900000<br>-138.000000<br>1100.000000 | 1.600000<br>183.000000 | 211175               |
| -1  | 33.000000<br>3.000000<br>0        | 1.900000<br>-138.000000<br>1210.000000 | 1.600000<br>183.000000 | 216544               |

| Non-Linear Least Squares Iterative Phase |                                    |  | Dependent Variable VOY Method: DUD |                      |
|--|------------------------------------|--|------------------------------------|----------------------|
| Iter                                     | H<br>G<br>CP                       | W<br>CV<br>CB                          | A                                  | Sum of Squares<br>CT |
| 0  | 33.000000<br>3.000000<br>0         | 1.900000<br>-138.000000<br>1100.000000 | 1.600000<br>183.000000             | 209858               |
| 1  | 33.332578<br>2.994485<br>-0.184784 | 1.896181<br>-139.000000<br>1112.973455 | 1.618926<br>183.681432             | 209141               |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 8  | 15981215286    | 1997651911             |
| Residual                                    | 56 | 209141         | 3735                   |
| Uncorrected Total                           | 64 | 15981424427    |                        |
| (Corrected Total)                           | 63 | 6918884220     |                        |



**MONTREAL-TORONTO  
Business Purpose**

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
|           |             |                          | H                                      | 33.332578    |
| W         | 1.896181    | 0.05526357               | 1.78547521                             | 2.0068876    |
| A         | 1.618926    | 0.72279603               | 0.17099257                             | 3.0668598    |
| G         | 2.994485    | 0.04284942               | 2.90864716                             | 3.0803225    |
| CV        | -139.000000 | 8.79297253               | -156.61443044                          | -121.3855696 |
| CT        | 183.681432  | 26.69886626              | 130.19720661                           | 237.1656570  |
| CP        | -0.184784   | 2.83807615               | -5.87013065                            | 5.5005622    |
| CB        | 1112.973455 | 264.06747466             | 583.98304294                           | 1641.9638678 |

**Asymptotic Correlation Matrix**

| Corr | H            | W            | A            | G            |
|------|--------------|--------------|--------------|--------------|
| H    | 1            | 0.1000149335 | 0.9717330624 | -0.555029091 |
| W    | 0.1000149335 | 1            | 0.3169421596 | 0.111061421  |
| A    | 0.9717330624 | 0.3169421596 | 1            | -0.449337634 |
| G    | -0.555029091 | 0.111061421  | -0.449337634 | 1            |
| CV   | -0.558948625 | 0.5915353731 | -0.36383458  | 0.8313663226 |
| CT   | 0.9657970491 | 0.333275342  | 0.9931751392 | -0.455776088 |
| CP   | -0.545137242 | -0.102786141 | -0.536016695 | 0.6973922674 |
| CB   | 0.9542820928 | 0.2239707    | 0.9555655734 | -0.525029251 |

| Corr | CV           | CT           | CP           | CB           |
|------|--------------|--------------|--------------|--------------|
| H    | -0.558948625 | 0.9657970491 | -0.545137242 | 0.9542820928 |
| W    | 0.5915353731 | 0.333275342  | -0.102786141 | 0.2239707    |
| A    | -0.36383458  | 0.9931751392 | -0.536016695 | 0.9555655734 |
| G    | 0.8313663226 | -0.455776088 | 0.6973922674 | -0.525029251 |
| CV   | 1            | -0.356101257 | 0.5265581127 | -0.456316154 |
| CT   | -0.356101257 | 1            | -0.476312748 | 0.9515799217 |
| CP   | 0.5265581127 | -0.476312748 | 1            | -0.537732386 |
| CB   | -0.456316154 | 0.9515799217 | -0.537732386 | 1            |

**MONTREAL-TORONTO**  
**Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 4.79                               | 0.999           |
| <b>w</b>          | 34.36                              |                 |
| <b>a</b>          | 2.24                               |                 |
| <b>g</b>          | 74.95                              |                 |
| <b>cv</b>         | -15.81                             |                 |
| <b>ct</b>         | 6.88                               |                 |
| <b>cp</b>         | -0.06                              |                 |
| <b>cb</b>         | 4.22                               |                 |

**MONTREAL-KITCHENER  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |                                     |                         | Dependent Variable VOY |                |
|---|-------------------------------------|-------------------------|------------------------|----------------|
| DUD   | H<br>G<br>CB                        | W<br>CV                 | A<br>CT                | Sum of Squares |
| -8  | 22.000000<br>2.500000<br>500.000000 | 1.600000<br>-100.000000 | 1.800000<br>100.000000 | 18033.000000   |
| -7  | 24.200000<br>2.500000<br>500.000000 | 1.600000<br>-100.000000 | 1.800000<br>100.000000 | 16686.000000   |
| -6  | 22.000000<br>2.500000<br>500.000000 | 1.760000<br>-100.000000 | 1.800000<br>100.000000 | 18730.000000   |
| -5  | 22.000000<br>2.500000<br>500.000000 | 1.600000<br>-100.000000 | 1.980000<br>100.000000 | 18330.000000   |
| -4  | 22.000000<br>2.750000<br>500.000000 | 1.600000<br>-100.000000 | 1.800000<br>100.000000 | 25402.000000   |
| -3  | 22.000000<br>2.500000<br>500.000000 | 1.600000<br>-110.000000 | 1.800000<br>100.000000 | 20670.000000   |
| -2  | 22.000000<br>2.500000<br>500.000000 | 1.600000<br>-100.000000 | 1.800000<br>110.000000 | 18558.000000   |
| -1  | 22.000000<br>2.500000<br>550.000000 | 1.600000<br>-100.000000 | 1.800000<br>100.000000 | 19208.000000   |

| Non-Linear Least Squares Iterative Phase |                                     |                         | Dependent Variable VOY Method: DUD |                |
|--|-------------------------------------|-------------------------|------------------------------------|----------------|
| Iter                                     | H<br>G<br>CB                        | W<br>CV                 | A<br>CT                            | Sum of Squares |
| 0  | 24.200000<br>2.500000<br>500.000000 | 1.600000<br>-100.000000 | 1.800000<br>100.000000             | 16686.000000   |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |                                     |                         | Dependent Variable VOY |                |
|---|-------------------------------------|-------------------------|------------------------|----------------|
| DUD   | H<br>G<br>CB                        | W<br>CV                 | A<br>CT                | Sum of Squares |
| -8  | 24.200000<br>2.500000<br>500.000000 | 1.600000<br>-100.000000 | 1.800000<br>100.000000 | 16686.000000   |
| -7  | 26.620000<br>2.500000<br>500.000000 | 1.600000<br>-100.000000 | 1.800000<br>100.000000 | 15152.000000   |
| -6  | 24.200000<br>2.500000<br>500.000000 | 1.760000<br>-100.000000 | 1.800000<br>100.000000 | 17108.000000   |

**MONTREAL-KITCHENER  
Non-Business Purpose**

| Non-Linear Least Squares DUD Initialization |                                    |                        | Dependent Variable VOY |              |
|---|------------------------------------|------------------------|------------------------|--------------|
| DUD   | H<br>G<br>CB                       | W<br>CV                | A Sum of Squares       | CT           |
| -8  | 7.000000<br>4.000000<br>300.000000 | 1.300000<br>-60.000000 | 1.800000<br>30.000000  | 15612.000000 |
| -7  | 7.700000<br>4.000000<br>300.000000 | 1.300000<br>-60.000000 | 1.800000<br>30.000000  | 925799       |
| -6  | 7.000000<br>4.000000<br>300.000000 | 1.430000<br>-60.000000 | 1.800000<br>30.000000  | 179765       |
| -5  | 7.000000<br>4.000000<br>300.000000 | 1.300000<br>-60.000000 | 1.980000<br>30.000000  | 15612.000000 |
| -4  | 7.000000<br>4.400000<br>300.000000 | 1.300000<br>-60.000000 | 1.800000<br>30.000000  | 437098       |
| -3  | 7.000000<br>4.000000<br>300.000000 | 1.300000<br>-66.000000 | 1.800000<br>30.000000  | 3640621      |
| -2  | 7.000000<br>4.000000<br>300.000000 | 1.300000<br>-60.000000 | 1.800000<br>33.000000  | 15613.000000 |
| -1  | 7.000000<br>4.000000<br>330.000000 | 1.300000<br>-60.000000 | 1.800000<br>30.000000  | 15612.000000 |

| Non-Linear Least Squares Iterative Phase |                                    |                        | Dependent Variable VOY Method: DUD |              |
|--|------------------------------------|------------------------|------------------------------------|--------------|
| Iter                                     | H<br>G<br>CB                       | W<br>CV                | A Sum of Squares                   | CT           |
| 0  | 7.000000<br>4.000000<br>300.000000 | 1.300000<br>-60.000000 | 1.800000<br>30.000000              | 15612.000000 |
| 1  | 7.072241<br>3.988942<br>300.000000 | 1.366929<br>-59.702142 | 1.800000<br>31.000000              | 15555.000000 |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 7  | 593107627.00   | 84729661.00            |
| Residual                                    | 22 | 15555.00       | 707.05                 |
| Uncorrected Total                           | 29 | 593123182.00   |                        |
| (Corrected Total)                           | 28 | 425073661.31   |                        |

**MONTREAL-KITCHENER  
Non-Business Purpose**

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
| H         | 7.0722406   | 1.21601324               | 4.55040357                             | 9.59407762   |
| W         | 1.3669286   | 0.98145131               | -0.66846062                            | 3.40231784   |
| A         | 1.8000000   | 1.84856194               | -2.03365228                            | 5.63365228   |
| G         | 3.9889417   | 0.26748974               | 3.43420636                             | 4.54367706   |
| CV        | -59.7021423 | 5.05257460               | -70.18045720                           | -49.22382734 |
| CT        | 31.0000000  | 81.19606935              | -137.38900013                          | 199.38900013 |
| CB        | 300.0000000 | 308.09365665             | -338.94204742                          | 938.94204742 |

Asymptotic Correlation Matrix

| Corr | H        | W        | A        | G        | CV       | CT       | CB       |
|------|----------|----------|----------|----------|----------|----------|----------|
| H    | 1        | 0.958317 | -0.49459 | 0.209439 | 0.937378 | 0.181523 | -0.49459 |
| W    | 0.958317 | 1        | -0.5031  | -0.05688 | 0.992743 | 0.186198 | -0.5031  |
| A    | -0.49459 | -0.5031  | 1        | -0.01562 | -0.49849 | -0.94203 | 1        |
| G    | 0.209439 | -0.05688 | -0.01562 | 1        | -0.06067 | -0.0016  | -0.01562 |
| CV   | 0.937378 | 0.992743 | -0.49849 | -0.06067 | 1        | 0.184055 | -0.49849 |
| CT   | 0.181523 | 0.186198 | -0.94203 | -0.0016  | 0.184055 | 1        | -0.94203 |
| CB   | -0.49459 | -0.5031  | 1        | -0.01562 | -0.49849 | -0.94203 | 1        |

**MONTREAL-KITCHENER  
Non-Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 5.84                               | 0.999           |
| <b>w</b>          | 1.39                               |                 |
| <b>a</b>          | 0.98                               |                 |
| <b>g</b>          | 15.31                              |                 |
| <b>cv</b>         | -11.82                             |                 |
| <b>ct</b>         | 0.38                               |                 |
| <b>cp</b>         |                                    |                 |
| <b>cb</b>         | 0.97                               |                 |

**MONTREAL-LONDON  
Non-Business Purpose**

| Non-Linear Least Squares DUD Initialization |                                    |                                      | Dependent Variable VOY |                      |
|---|------------------------------------|--------------------------------------|------------------------|----------------------|
| DUD   | H<br>G<br>CP                       | W<br>CV<br>CB                        | A                      | Sum of Squares<br>CT |
| -6  | 8.983201<br>1.757976<br>217.008956 | 1.703264<br>-77.045291<br>601.000000 | 1.808090<br>64.975196  | 9748.000000          |
| -5  | 8.983201<br>1.759734<br>217.008956 | 1.703264<br>-77.045291<br>601.000000 | 1.806284<br>64.975196  | 9799.000000          |
| -4  | 8.983201<br>1.757976<br>217.008956 | 1.703264<br>-77.122336<br>601.000000 | 1.806284<br>64.975196  | 9784.000000          |
| -3  | 8.983201<br>1.757976<br>217.008956 | 1.703264<br>-77.045291<br>601.000000 | 1.806284<br>65.040171  | 9759.000000          |
| -2  | 8.983201<br>1.757976<br>217.225965 | 1.703264<br>-77.045291<br>601.000000 | 1.806284<br>64.975196  | 9748.000000          |
| -1  | 8.983201<br>1.757976<br>217.008956 | 1.703264<br>-77.045291<br>601.601000 | 1.806284<br>64.975196  | 9748.000000          |

| Non-Linear Least Squares Iterative Phase |                                    |                                      | Dependent Variable VOY Method: DUD |                      |
|--|------------------------------------|--------------------------------------|------------------------------------|----------------------|
| Iter                                     | H<br>G<br>CP                       | W<br>CV<br>CB                        | A                                  | Sum of Squares<br>CT |
| 2  | 8.992184<br>1.757976<br>217.008956 | 1.703264<br>-77.045291<br>601.000000 | 1.806284<br>64.975196              | 9625.000000          |

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |  |
|---|----|----------------|------------------------|--|
| Source                                      | DF | Sum of Squares | Mean Square            |  |
| Regression                                  | 8  | 39017071.000   | 4877133.875            |  |
| Residual                                    | 30 | 9625.000       | 320.833                |  |
| Uncorrected Total                           | 38 | 39026696.000   |                        |  |
| (Corrected Total)                           | 37 | 23230643.368   |                        |  |

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
|           |             |                          | H                                      | 8.9921842    |
| W         | 1.7032642   | 0.0192964329             | 1.66385596                             | 1.74267254   |
| A         | 1.8062836   | 0.0100818719             | 1.78569382                             | 1.82687338   |
| G         | 1.7579757   | 0.0163535355             | 1.72457760                             | 1.79137387   |
| CV        | -77.0452906 | 0.5822826903             | -78.23446192                           | -75.85611923 |
| CT        | 64.9751960  | 1.2255643396             | 62.47227773                            | 67.47811431  |
| CP        | 217.0089562 | 1.2112475054             | 214.53527658                           | 219.48263582 |
| CB        | 601.0000000 | 3.3545147788             | 594.14921615                           | 607.85078385 |

**MONTREAL-LONDON  
Non-Business Purpose**

Asymptotic Correlation Matrix

| Corr | H            | W            | A            | G            |
|------|--------------|--------------|--------------|--------------|
| H    | 1            | 0.1152072505 | -0.319811159 | -0.180196834 |
| W    | 0.1152072505 | 1            | -0.537543783 | -0.221042069 |
| A    | -0.319811159 | -0.537543783 | 1            | 0.1592589486 |
| G    | -0.180196834 | -0.221042069 | 0.1592589486 | 1            |
| CV   | -0.402961745 | 0.249400533  | -0.021239895 | 0.7731414256 |
| CT   | -0.072588848 | 0.2089449086 | -0.848915621 | -0.183402014 |
| CP   | -0.319811159 | -0.537543783 | 1            | 0.1592589486 |
| CB   | -0.319811159 | -0.537543783 | 1            | 0.1592589486 |

| Corr | CV           | CT           | CP           | CB           |
|------|--------------|--------------|--------------|--------------|
| H    | -0.402961745 | -0.072588848 | -0.319811159 | -0.319811159 |
| W    | 0.249400533  | 0.2089449086 | -0.537543783 | -0.537543783 |
| A    | -0.021239895 | -0.848915621 | 1            | 1            |
| G    | 0.7731414256 | -0.183402014 | 0.1592589486 | 0.1592589486 |
| CV   | 1            | 0.0193793655 | -0.021239895 | -0.021239895 |
| CT   | 0.0193793655 | 1            | -0.848915621 | -0.848915621 |
| CP   | -0.021239895 | -0.848915621 | 1            | 1            |
| CB   | -0.021239895 | -0.848915621 | 1            | 1            |



**MONTREAL-LONDON**  
**Non-Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 172.88                             | 0.999           |
| <b>w</b>          | 89.47                              |                 |
| <b>a</b>          | 180.00                             |                 |
| <b>g</b>          | 109.38                             |                 |
| <b>cv</b>         | -132.90                            |                 |
| <b>ct</b>         | 53.20                              |                 |
| <b>cp</b>         | 179.34                             |                 |
| <b>cb</b>         | 179.40                             |                 |

**MONTREAL-LONDON  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |           |             | Dependent Variable VOY |                |
|---|-----------|-------------|------------------------|----------------|
| DUD   | H         | W           | A                      | Sum of Squares |
|   | G         | CV          | CT                     |                |
|   | CP        | CB          |                        |                |
| -9  | 24.000000 | 1.700000    | 1.800000               | 7114.000000    |
|   | 2.500000  | -100.000000 | 780.000000             |                |
|   | 20.000000 | 800.000000  |                        |                |
| -8  | 26.400000 | 1.700000    | 1.800000               | 16353.000000   |
|   | 2.500000  | -100.000000 | 780.000000             |                |
|   | 20.000000 | 800.000000  |                        |                |
| -7  | 24.000000 | 1.870000    | 1.800000               | 7167.000000    |
|   | 2.500000  | -100.000000 | 780.000000             |                |
|   | 20.000000 | 800.000000  |                        |                |
| -6  | 24.000000 | 1.700000    | 1.980000               | 5121.000000    |
|   | 2.500000  | -100.000000 | 780.000000             |                |
|   | 20.000000 | 800.000000  |                        |                |
| -5  | 24.000000 | 1.700000    | 1.800000               | 4625.000000    |
|   | 2.750000  | -100.000000 | 780.000000             |                |
|   | 20.000000 | 800.000000  |                        |                |
| -4  | 24.000000 | 1.700000    | 1.800000               | 2832.000000    |
|   | 2.500000  | -110.000000 | 780.000000             |                |
|   | 20.000000 | 800.000000  |                        |                |
| -3  | 24.000000 | 1.700000    | 1.800000               | 6958.000000    |
|   | 2.500000  | -100.000000 | 858.000000             |                |
|   | 20.000000 | 800.000000  |                        |                |
| -2  | 24.000000 | 1.700000    | 1.800000               | 6493.000000    |
|   | 2.500000  | -100.000000 | 780.000000             |                |
|   | 22.000000 | 800.000000  |                        |                |
| -1  | 24.000000 | 1.700000    | 1.800000               | 6977.000000    |
|   | 2.500000  | -100.000000 | 780.000000             |                |
|   | 20.000000 | 880.000000  |                        |                |

| Non-Linear Least Squares Iterative Phase |           |             | Dependent Variable VOY Method: DUD |                |
|--|-----------|-------------|------------------------------------|----------------|
| Iter                                     | H         | W           | A                                  | Sum of Squares |
|  | G         | CV          | CT                                 |                |
|  | CP        | CB          |                                    |                |
| 0  | 24.000000 | 1.700000    | 1.800000                           | 2832.000000    |
|  | 2.500000  | -110.000000 | 780.000000                         |                |
|  | 20.000000 | 800.000000  |                                    |                |
| 1  | 23.995115 | 1.699380    | 1.796100                           | 2820.000000    |
|  | 2.500674  | -109.971255 | 779.457401                         |                |
|  | 20.051434 | 799.295629  |                                    |                |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |           |             | Dependent Variable VOY |                |
|---|-----------|-------------|------------------------|----------------|
| DUD   | H         | W           | A                      | Sum of Squares |
|   | G         | CV          | CT                     |                |
|   | CP        | CB          |                        |                |
| -9  | 23.995115 | 1.699380    | 1.796100               | 2820.000000    |
|   | 2.500674  | -109.971255 | 779.457401             |                |
|   | 20.051434 | 799.295629  |                        |                |

**MONTREAL-LONDON  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |           |             | Dependent Variable VOY |                |
|---|-----------|-------------|------------------------|----------------|
| DUD   | H         | W           | A                      | Sum of Squares |
|   | G         | CV          | CT                     |                |
|   | CP        | CB          |                        |                |
| -8  | 26.394627 | 1.699380    | 1.796100               | 7978.000000    |
|   | 2.500674  | -109.971255 | 779.457401             |                |
|   | 20.051434 | 799.295629  |                        |                |
| -7  | 23.995115 | 1.869318    | 1.796100               | 4176.000000    |
|   | 2.500674  | -109.971255 | 779.457401             |                |
|   | 20.051434 | 799.295629  |                        |                |
| -6  | 23.995115 | 1.699380    | 1.975710               | 2381.000000    |
|   | 2.500674  | -109.971255 | 779.457401             |                |
|   | 20.051434 | 799.295629  |                        |                |
| -5  | 23.995115 | 1.699380    | 1.796100               | 8952.000000    |
|   | 2.750741  | -109.971255 | 779.457401             |                |
|   | 20.051434 | 799.295629  |                        |                |
| -4  | 23.995115 | 1.699380    | 1.796100               | 2933.000000    |
|   | 2.500674  | -120.968380 | 779.457401             |                |
|   | 20.051434 | 799.295629  |                        |                |
| -3  | 23.995115 | 1.699380    | 1.796100               | 2784.000000    |
|   | 2.500674  | -109.971255 | 857.403142             |                |
|   | 20.051434 | 799.295629  |                        |                |
| -2  | 23.995115 | 1.699380    | 1.796100               | 2637.000000    |
|   | 2.500674  | -109.971255 | 779.457401             |                |
|   | 22.056578 | 799.295629  |                        |                |
| -1  | 23.995115 | 1.699380    | 1.796100               | 2790.000000    |
|   | 2.500674  | -109.971255 | 779.457401             |                |
|   | 20.051434 | 879.225192  |                        |                |

| Non-Linear Least Squares Iterative Phase |           |             | Dependent Variable VOY Method: DUD |                |
|--|-----------|-------------|------------------------------------|----------------|
| Iter                                     | H         | W           | A                                  | Sum of Squares |
|  | G         | CV          | CT                                 |                |
|  | CP        | CB          |                                    |                |
| 2  | 23.995115 | 1.699380    | 1.975710                           | 2381.000000    |
|  | 2.500674  | -109.971255 | 779.457401                         |                |
|  | 20.051434 | 799.295629  |                                    |                |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |           |             | Dependent Variable VOY |                |
|---|-----------|-------------|------------------------|----------------|
| DUD   | H         | W           | A                      | Sum of Squares |
|   | G         | CV          | CT                     |                |
|   | CP        | CB          |                        |                |
| -9  | 23.995115 | 1.699380    | 1.975710               | 2381.000000    |
|   | 2.500674  | -109.971255 | 779.457401             |                |
|   | 20.051434 | 799.295629  |                        |                |
| -8  | 24.019110 | 1.699380    | 1.975710               | 2353.000000    |
|   | 2.500674  | -109.971255 | 779.457401             |                |
|   | 20.051434 | 799.295629  |                        |                |
| -7  | 23.995115 | 1.701079    | 1.975710               | 2402.000000    |
|   | 2.500674  | -109.971255 | 779.457401             |                |
|   | 20.051434 | 799.295629  |                        |                |

**MONTREAL-LONDON  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |           |             |            | Dependent Variable VOY |
|---|-----------|-------------|------------|------------------------|
| DUD   | H         | W           | A          | Sum of Squares         |
|   | G         | CV          | CT         |                        |
|   | CP        | CB          |            |                        |
| -6  | 23.995115 | 1.699380    | 1.977686   | 2381.000000            |
|   | 2.500674  | -109.971255 | 779.457401 |                        |
|   | 20.051434 | 799.295629  |            |                        |
| -5  | 23.995115 | 1.699380    | 1.975710   | 2347.000000            |
|   | 2.503174  | -109.971255 | 779.457401 |                        |
|   | 20.051434 | 799.295629  |            |                        |
| -4  | 23.995115 | 1.699380    | 1.975710   | 2371.000000            |
|   | 2.500674  | -110.081226 | 779.457401 |                        |
|   | 20.051434 | 799.295629  |            |                        |
| -3  | 23.995115 | 1.699380    | 1.975710   | 2377.000000            |
|   | 2.500674  | -109.971255 | 780.236859 |                        |
|   | 20.051434 | 799.295629  |            |                        |
| -2  | 23.995115 | 1.699380    | 1.975710   | 2381.000000            |
|   | 2.500674  | -109.971255 | 779.457401 |                        |
|   | 20.071486 | 799.295629  |            |                        |
| -1  | 23.995115 | 1.699380    | 1.975710   | 2381.000000            |
|   | 2.500674  | -109.971255 | 779.457401 |                        |
|   | 20.051434 | 800.094924  |            |                        |

| Non-Linear Least Squares Iterative Phase |           |             |            | Dependent Variable VOY Method: DUD |
|--|-----------|-------------|------------|------------------------------------|
| Iter                                     | H         | W           | A          | Sum of Squares                     |
|  | G         | CV          | CT         |                                    |
|  | CP        | CB          |            |                                    |
| 2  | 23.995115 | 1.699380    | 1.975710   | 2347.000000                        |
|  | 2.503174  | -109.971255 | 779.457401 |                                    |
|  | 20.051434 | 799.295629  |            |                                    |

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 8  | 5575273.0000   | 696909.1250            |
| Residual                                    | 30 | 2347.0000      | 78.2333                |
| Uncorrected Total                           | 38 | 5577620.0000   |                        |
| (Corrected Total)                           | 37 | 1965392.2105   |                        |

| Parameter | Estimate     | Asymptotic Std. Error | Asymptotic 95 % Confidence Interval |               |
|-----------|--------------|-----------------------|-------------------------------------|---------------|
|           |              |                       | Lower                               | Upper         |
|           |              |                       | H                                   | 23.9951153    |
| W         | 1.6993800    | 0.0212569729          | 1.65596779                          | 1.74279222    |
| A         | 1.9757099    | 0.0069076308          | 1.96160279                          | 1.98981711    |
| G         | 2.5031743    | 0.0156400428          | 2.47123332                          | 2.53511532    |
| CV        | -109.9712548 | 1.1912988632          | -112.40419412                       | -107.53831542 |
| CT        | 779.4574014  | 6.8942702393          | 765.37752451                        | 793.53727834  |
| CP        | 20.0514344   | 0.0701053846          | 19.90826114                         | 20.19460767   |
| CB        | 799.2956288  | 2.7945595486          | 793.58841783                        | 805.00283969  |

**MONTREAL-LONDON  
Business Purpose**

Asymptotic Correlation Matrix

| Corr | H            | W            | A            | G            |
|------|--------------|--------------|--------------|--------------|
| H    | 1            | -3.58646E-15 | -0.447213595 | -8.65799E-16 |
| W    | -3.58646E-15 | 1            | -0.447213595 | 4.915532E-15 |
| A    | -0.447213595 | -0.447213595 | 1            | 0.4472135955 |
| G    | -8.65799E-16 | 4.915532E-15 | 0.4472135955 | 1            |
| CV   | -3.33838E-15 | 0.5773502692 | 0.2581988897 | 0.5773502692 |
| CT   | 7.060741E-16 | -7.15325E-15 | -0.632455532 | -0.707106781 |
| CP   | -0.447213595 | -0.447213595 | 1            | 0.4472135955 |
| CB   | -0.447213595 | -0.447213595 | 1            | 0.4472135955 |

| Corr | CV           | CT           | CP           | CB           |
|------|--------------|--------------|--------------|--------------|
| H    | -3.33838E-15 | 7.060741E-16 | -0.447213595 | -0.447213595 |
| W    | 0.5773502692 | -7.15325E-15 | -0.447213595 | -0.447213595 |
| A    | 0.2581988897 | -0.632455532 | 1            | 1            |
| G    | 0.5773502692 | -0.707106781 | 0.4472135955 | 0.4472135955 |
| CV   | 1            | -0.40824829  | 0.2581988897 | 0.2581988897 |
| CT   | -0.40824829  | 1            | -0.632455532 | -0.632455532 |
| CP   | 0.2581988897 | -0.632455532 | 1            | 1            |
| CB   | 0.2581988897 | -0.632455532 | 1            | 1            |

**MONTREAL-LONDON**  
**Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 159.93                             | 0.998           |
| <b>w</b>          | 84.50                              |                 |
| <b>a</b>          | 285.51                             |                 |
| <b>g</b>          | 166.67                             |                 |
| <b>cv</b>         | -92.35                             |                 |
| <b>ct</b>         | 113.12                             |                 |
| <b>cp</b>         | 285.71                             |                 |
| <b>cb</b>         | 286.38                             |                 |

**OTTAWA-KINGSTON  
Non-Business Purpose**

| Non-Linear Least Squares DUD Initialization |           |           | Dependent Variable VOY |                |
|---|-----------|-----------|------------------------|----------------|
| DUD   | H         | W         | A                      | Sum of Squares |
|   | G         | CV        | CT                     |                |
|   | CB        |           |                        |                |
| -8  | 6.000000  | 1.800000  | 1.500000               | 2.286236       |
|   | 3.000000  | -6.000000 | 95.000000              |                |
|   | 42.000000 |           |                        |                |
| -7  | 6.600000  | 1.800000  | 1.500000               | 59319.445879   |
|   | 3.000000  | -6.000000 | 95.000000              |                |
|   | 42.000000 |           |                        |                |
| -6  | 6.000000  | 1.980000  | 1.500000               | 3096198        |
|   | 3.000000  | -6.000000 | 95.000000              |                |
|   | 42.000000 |           |                        |                |
| -5  | 6.000000  | 1.800000  | 1.650000               | 944.071054     |
|   | 3.000000  | -6.000000 | 95.000000              |                |
|   | 42.000000 |           |                        |                |
| -4  | 6.000000  | 1.800000  | 1.500000               | 11691508       |
|   | 3.300000  | -6.000000 | 95.000000              |                |
|   | 42.000000 |           |                        |                |
| -3  | 6.000000  | 1.800000  | 1.500000               | 441852         |
|   | 3.000000  | -6.600000 | 95.000000              |                |
|   | 42.000000 |           |                        |                |
| -2  | 6.000000  | 1.800000  | 1.500000               | 4011.012371    |
|   | 3.000000  | -6.000000 | 104.500000             |                |
|   | 42.000000 |           |                        |                |
| -1  | 6.000000  | 1.800000  | 1.500000               | 12483.131812   |
|   | 3.000000  | -6.000000 | 95.000000              |                |
|   | 46.200000 |           |                        |                |

| Non-Linear Least Squares Iterative Phase |           |           | Dependent Variable VOY Method: DUD |                |
|--|-----------|-----------|------------------------------------|----------------|
| Iter                                     | H         | W         | A                                  | Sum of Squares |
|  | G         | CV        | CT                                 |                |
|  | CB        |           |                                    |                |
| 0  | 6.000000  | 1.800000  | 1.500000                           | 2.286236       |
|  | 3.000000  | -6.000000 | 95.000000                          |                |
|  | 42.000000 |           |                                    |                |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |           |           | Dependent Variable VOY |                |
|---|-----------|-----------|------------------------|----------------|
| DUD   | H         | W         | A                      | Sum of Squares |
|   | G         | CV        | CT                     |                |
|   | CB        |           |                        |                |
| -8  | 6.000000  | 1.800000  | 1.500000               | 2.286236       |
|   | 3.000000  | -6.000000 | 95.000000              |                |
|   | 42.000000 |           |                        |                |
| -7  | 6.600000  | 1.800000  | 1.500000               | 59319.445879   |
|   | 3.000000  | -6.000000 | 95.000000              |                |
|   | 42.000000 |           |                        |                |
| -6  | 6.000000  | 1.980000  | 1.500000               | 3096198        |
|   | 3.000000  | -6.000000 | 95.000000              |                |
|   | 42.000000 |           |                        |                |

**OTTAWA-KINGSTON  
Non-Business Purpose**

| Non-Linear Least Squares DUD Initialization |           |           |            | Dependent Variable VOY |
|---|-----------|-----------|------------|------------------------|
| DUD   | H         | W         | A          | Sum of Squares         |
|   | G         | CV        | CT         |                        |
|   | CB        |           |            |                        |
| -5  | 6.000000  | 1.800000  | 1.650000   | 944.071054             |
|   | 3.000000  | -6.000000 | 95.000000  |                        |
|   | 42.000000 |           |            |                        |
| -4  | 6.000000  | 1.800000  | 1.500000   | 11691508               |
|   | 3.300000  | -6.000000 | 95.000000  |                        |
|   | 42.000000 |           |            |                        |
| -3  | 6.000000  | 1.800000  | 1.500000   | 441852                 |
|   | 3.000000  | -6.600000 | 95.000000  |                        |
|   | 42.000000 |           |            |                        |
| -2  | 6.000000  | 1.800000  | 1.500000   | 4011.012371            |
|   | 3.000000  | -6.000000 | 104.500000 |                        |
|   | 42.000000 |           |            |                        |
| -1  | 6.000000  | 1.800000  | 1.500000   | 12483.131812           |
|   | 3.000000  | -6.000000 | 95.000000  |                        |
|   | 46.200000 |           |            |                        |

| Non-Linear Least Squares Iterative Phase |           |           |           | Dependent Variable VOY Method: DUD |
|--|-----------|-----------|-----------|------------------------------------|
| Iter                                     | H         | W         | A         | Sum of Squares                     |
|  | G         | CV        | CT        |                                    |
|  | CB        |           |           |                                    |
| 0  | 6.000000  | 1.800000  | 1.500000  | 2.286236                           |
|  | 3.000000  | -6.000000 | 95.000000 |                                    |
|  | 42.000000 |           |           |                                    |

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 7  | 11118494451    | 1588356350             |
| Residual                                    | 25 | 2              | 0                      |
| Uncorrected Total                           | 32 | 11118494453    |                        |
| (Corrected Total)                           | 31 | 6623765672     |                        |

| Parameter | Estimate    | Asymptotic Std. Error | Asymptotic 95 % Confidence Interval |              |
|-----------|-------------|-----------------------|-------------------------------------|--------------|
|           |             |                       | Lower                               | Upper        |
|           |             |                       | H                                   | 6.00000000   |
| W         | 1.80000000  | 0.00534073932         | 1.789000630                         | 1.810999370  |
| A         | 1.50000000  | 0.02640455611         | 1.445619234                         | 1.554380766  |
| G         | 3.00000000  | 0.00069189956         | 2.998575018                         | 3.001424982  |
| CV        | -6.00000000 | 0.05164825008         | -6.106370711                        | -5.893629289 |
| CT        | 95.00000000 | 0.84010910518         | 93.269776757                        | 96.730223243 |
| CB        | 42.00000000 | 0.50320113572         | 40.963646156                        | 43.036353844 |



**OTTAWA-KINGSTON  
Non-Business Purpose**

Asymptotic Correlation Matrix

| Corr | H        | W        | A        | G        | CV       | CT       | CB       |
|------|----------|----------|----------|----------|----------|----------|----------|
| H    | 1        | -0.47204 | -0.43416 | -0.56124 | -0.32103 | 0.860451 | 0.788921 |
| W    | -0.47204 | 1        | 0.134852 | 0.918539 | 0.985303 | 0.005573 | 0.079049 |
| A    | -0.43416 | 0.134852 | 1        | 0.284621 | 0.077201 | -0.5856  | -0.6872  |
| G    | -0.56124 | 0.918539 | 0.284621 | 1        | 0.899533 | -0.16366 | -0.10253 |
| CV   | -0.32103 | 0.985303 | 0.077201 | 0.899533 | 1        | 0.162029 | 0.22595  |
| CT   | 0.860451 | 0.005573 | -0.5856  | -0.16366 | 0.162029 | 1        | 0.98394  |
| CB   | 0.788921 | 0.079049 | -0.6872  | -0.10253 | 0.22595  | 0.98394  | 1        |

**OTTAWA-KINGSTON**  
**Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 0.18                               | 0.995           |
| <b>w</b>          | 0.01                               |                 |
| <b>a</b>          | 0.01                               |                 |
| <b>g</b>          | 0.01                               |                 |
| <b>cv</b>         | 0.00                               |                 |
| <b>ct</b>         | 0.01                               |                 |
| <b>cp</b>         |                                    |                 |
| <b>cb</b>         | 0.00                               |                 |

**OTTAWA-KINGSTON  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |                       | Dependent Variable VOY |                        |                |
|---|-----------------------|------------------------|------------------------|----------------|
| DUD   | H<br>G                | W<br>CT                | A<br>CB                | Sum of Squares |
| -3  | 22.000000<br>2.860000 | 1.700000<br>90.000000  | 1.800000<br>182.000000 | 145696         |
| -2  | 22.000000<br>2.600000 | 1.700000<br>99.000000  | 1.800000<br>182.000000 | 37070.000000   |
| -1  | 22.000000<br>2.600000 | 1.700000<br>90.000000  | 1.800000<br>200.200000 | 37097.000000   |

| Non-Linear Least Squares Iterative Phase |                       | Dependent Variable VOY Method: DUD |                        |                |
|--|-----------------------|------------------------------------|------------------------|----------------|
| Iter                                     | H<br>G                | W<br>CT                            | A<br>CB                | Sum of Squares |
| 0  | 22.000000<br>2.600000 | 1.700000<br>90.000000              | 1.800000<br>182.000000 | 36955.000000   |

Non-Linear Least Squares Summary Statistics      Dependent Variable VOY

| Source            | DF | Sum of Squares | Mean Square |
|-------------------|----|----------------|-------------|
| Regression        | 6  | 1207498612.0   | 201249768.7 |
| Residual          | 26 | 36955.0        | 1421.3      |
| Uncorrected Total | 32 | 1207535567.0   |             |
| (Corrected Total) | 31 | 807380589.5    |             |

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
| H         | 22.0000000  | 0.90592837               | 20.13785230                            | 23.8621477   |
| W         | 1.7000000   | 1.40855006               | -1.19529323                            | 4.5952932    |
| A         | 1.8000000   | 8.50268869               | -15.67738872                           | 19.2773887   |
| G         | 2.6000000   | 0.26367090               | 2.05802100                             | 3.1419790    |
| CT        | 90.0000000  | 398.11231915             | -728.32512164                          | 908.3251216  |
| CB        | 182.0000000 | 520.37106556             | -887.62958704                          | 1251.6295870 |

**OTTAWA-KINGSTON  
Business Purpose**

| DUD | Non-Linear Least Squares |  | DUD Initialization |            | Dependent Variable VOY |
|-----|--------------------------|--|--------------------|------------|------------------------|
|     | H<br>G                   |  | W<br>CT            |            | A Sum of Squares<br>CB |
| -7  | 22.000000                |  | 1.700000           | 1.800000   | 36955.000000           |
|     | 2.600000                 |  | 90.000000          | 182.000000 |                        |
| -6  | 24.200000                |  | 1.700000           | 1.800000   | 615780                 |
|     | 2.600000                 |  | 90.000000          | 182.000000 |                        |
| -5  | 22.000000                |  | 1.870000           | 1.800000   | 37056.000000           |
|     | 2.600000                 |  | 90.000000          | 182.000000 |                        |
| -4  | 22.000000                |  | 1.700000           | 1.980000   | 37097.000000           |
|     | 2.600000                 |  | 90.000000          | 182.000000 |                        |
| -3  | 22.000000                |  | 1.700000           | 1.800000   | 145696                 |
|     | 2.860000                 |  | 90.000000          | 182.000000 |                        |
| -2  | 22.000000                |  | 1.700000           | 1.800000   | 37070.000000           |
|     | 2.600000                 |  | 99.000000          | 182.000000 |                        |
| -1  | 22.000000                |  | 1.700000           | 1.800000   | 37097.000000           |
|     | 2.600000                 |  | 90.000000          | 200.200000 |                        |

| Iter | Non-Linear Least Squares |  | Iterative Phase |            | Dependent Variable VOY Method: DUD |
|------|--------------------------|--|-----------------|------------|------------------------------------|
|      | H<br>G                   |  | W<br>CT         |            | A Sum of Squares<br>CB             |
| 0    | 22.000000                |  | 1.700000        | 1.800000   | 36955.000000                       |
|      | 2.600000                 |  | 90.000000       | 182.000000 |                                    |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| DUD | Non-Linear Least Squares |  | DUD Initialization |            | Dependent Variable VOY |
|-----|--------------------------|--|--------------------|------------|------------------------|
|     | H<br>G                   |  | W<br>CT            |            | A Sum of Squares<br>CB |
| -7  | 22.000000                |  | 1.700000           | 1.800000   | 36955.000000           |
|     | 2.600000                 |  | 90.000000          | 182.000000 |                        |
| -6  | 24.200000                |  | 1.700000           | 1.800000   | 615780                 |
|     | 2.600000                 |  | 90.000000          | 182.000000 |                        |
| -5  | 22.000000                |  | 1.870000           | 1.800000   | 37056.000000           |
|     | 2.600000                 |  | 90.000000          | 182.000000 |                        |
| -4  | 22.000000                |  | 1.700000           | 1.980000   | 37097.000000           |
|     | 2.600000                 |  | 90.000000          | 182.000000 |                        |

OTTAWA-KINGSTON  
Business Purpose

Asymptotic Correlation Matrix

| Corr | H         | W         | A         | G         | CT        | CB        |
|------|-----------|-----------|-----------|-----------|-----------|-----------|
| H    | 1         | -0.08716  | -0.422066 | 0.9688869 | 0.4510688 | 0.0544595 |
| W    | -0.08716  | 1         | -0.003853 | -0.302399 | 0.2215219 | 0.03347   |
| A    | -0.422066 | -0.003853 | 1         | -0.395983 | -0.882672 | -0.173321 |
| G    | 0.9688869 | -0.302399 | -0.395983 | 1         | 0.3751444 | 0.0495971 |
| CT   | 0.4510688 | 0.2215219 | -0.882672 | 0.3751444 | 1         | 0.0328128 |
| CB   | 0.0544595 | 0.03347   | -0.173321 | 0.0495971 | 0.0328128 | 1         |

**OTTAWA-KINGSTON  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |                   | Dependent Variable VOY |
|---|-------------------|------------------------|
| DUD   | CV Sum of Squares |                        |
| -2  | -74.300000        | 11362068               |
| -1  | -81.730000        | 5370751                |

| Non-Linear Least Squares Iterative Phase |                   | Dependent Variable VOY Method: DUD |
|--|-------------------|------------------------------------|
| Iter                                     | CV Sum of Squares |                                    |
| 0  | -81.730000        | 5370751                            |
| 1  | -90.000000        | 1547450                            |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |                   | Dependent Variable VOY |
|---|-------------------|------------------------|
| DUD   | CV Sum of Squares |                        |
| -2  | -90.000000        | 1547450                |
| -1  | -99.000000        | 36955.000000           |

| Non-Linear Least Squares Iterative Phase |                   | Dependent Variable VOY Method: DUD |
|--|-------------------|------------------------------------|
| Iter                                     | CV Sum of Squares |                                    |
| 2  | -99.000000        | 36955.000000                       |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |                   | Dependent Variable VOY |
|---|-------------------|------------------------|
| DUD   | CV Sum of Squares |                        |
| -2  | -99.000000        | 36955.000000           |
| -1  | -99.099000        | 37463.000000           |

| Non-Linear Least Squares Iterative Phase |                   | Dependent Variable VOY Method: DUD |
|--|-------------------|------------------------------------|
| Iter                                     | CV Sum of Squares |                                    |
| 2  | -99.000000        | 36955.000000                       |

WARNING: Step size shows no improvement.  
WARNING: PROC NLIN failed to converge.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 1  | 1207498612.0   | 1207498612.0           |
| Residual                                    | 31 | 36955.0        | 1192.1                 |
| Uncorrected Total                           | 32 | 1207535567.0   |                        |
| (Corrected Total)                           | 31 | 807380589.5    |                        |

**OTTAWA-KINGSTON  
Business Purpose**

| Parameter | Estimate     | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |               |
|-----------|--------------|--------------------------|--|---------------|
|           |              |                          | Lower                                  | Upper         |
| CV        | -99.00000000 | 0.21447372399            | -99.437418998                          | -98.562581002 |

Asymptotic Correlation Matrix

| Corr | CV |
|------|----|
| CV   | 1  |

**OTTAWA-KINGSTON**  
**Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 24.44                              | 0.999           |
| <b>w</b>          | 1.21                               |                 |
| <b>a</b>          | 0.21                               |                 |
| <b>g</b>          | 13.00                              |                 |
| <b>cv</b>         | -471.43                            |                 |
| <b>ct</b>         | 0.23                               |                 |
| <b>cp</b>         |                                    |                 |
| <b>cb</b>         | 0.35                               |                 |



**OTTAWA-TORONTO  
Non-Business Purpose**

| Non-Linear<br>DUD | Least Squares DUD Initialization |            |           | Dependent Variable VOY |  |
|-------------------|----------------------------------|------------|-----------|------------------------|--|
|                   | H                                | W          | A         | Sum of Squares         |  |
|                   | G                                | CV         | CT        |                        |  |
|                   | CP                               | CB         |           |                        |  |
| -9                | 8.000000                         | 1.500000   | 1.600000  | 80574.000000           |  |
|                   | 3.200000                         | -39.000000 | 81.000000 |                        |  |
|                   | 231.000000                       | 158.000000 |           |                        |  |
| -8                | 8.800000                         | 1.500000   | 1.600000  | 11320757               |  |
|                   | 3.200000                         | -39.000000 | 81.000000 |                        |  |
|                   | 231.000000                       | 158.000000 |           |                        |  |
| -7                | 8.000000                         | 1.650000   | 1.600000  | 12228634               |  |
|                   | 3.200000                         | -39.000000 | 81.000000 |                        |  |
|                   | 231.000000                       | 158.000000 |           |                        |  |
| -6                | 8.000000                         | 1.500000   | 1.760000  | 81330.000000           |  |
|                   | 3.200000                         | -39.000000 | 81.000000 |                        |  |
|                   | 231.000000                       | 158.000000 |           |                        |  |
| -5                | 8.000000                         | 1.500000   | 1.600000  | 46124377               |  |
|                   | 3.520000                         | -39.000000 | 81.000000 |                        |  |
|                   | 231.000000                       | 158.000000 |           |                        |  |
| -4                | 8.000000                         | 1.500000   | 1.600000  | 47082838               |  |
|                   | 3.200000                         | -42.900000 | 81.000000 |                        |  |
|                   | 231.000000                       | 158.000000 |           |                        |  |
| -3                | 8.000000                         | 1.500000   | 1.600000  | 85833.000000           |  |
|                   | 3.200000                         | -39.000000 | 89.100000 |                        |  |
|                   | 231.000000                       | 158.000000 |           |                        |  |
| -2                | 8.000000                         | 1.500000   | 1.600000  | 82497.000000           |  |
|                   | 3.200000                         | -39.000000 | 81.000000 |                        |  |
|                   | 254.100000                       | 158.000000 |           |                        |  |
| -1                | 8.000000                         | 1.500000   | 1.600000  | 84453.000000           |  |
|                   | 3.200000                         | -39.000000 | 81.000000 |                        |  |
|                   | 231.000000                       | 173.800000 |           |                        |  |

| Non-Linear<br>Iter | Least Squares Iterative Phase |            |           | Dependent Variable VOY Method: DUD |  |
|--------------------|-------------------------------|------------|-----------|------------------------------------|--|
|                    | H                             | W          | A         | Sum of Squares                     |  |
|                    | G                             | CV         | CT        |                                    |  |
|                    | CP                            | CB         |           |                                    |  |
| 0                  | 8.000000                      | 1.500000   | 1.600000  | 80574.000000                       |  |
|                    | 3.200000                      | -39.000000 | 81.000000 |                                    |  |
|                    | 231.000000                    | 158.000000 |           |                                    |  |
| 1                  | 8.005772                      | 1.499992   | 1.571720  | 80561.000000                       |  |
|                    | 3.200349                      | -39.008863 | 81.459125 |                                    |  |
|                    | 232.000000                    | 158.549762 |           |                                    |  |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                |             | Dependent Variable VOY |
|---|----|----------------|-------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square |                        |
| Regression                                  | 8  | 59289381306    | 7411172663  |                        |
| Residual                                    | 58 | 80561          | 1389        |                        |
| Uncorrected Total                           | 66 | 59289461867    |             |                        |
| (Corrected Total)                           | 65 | 47405971174    |             |                        |

**OTTAWA-TORONTO  
Non-Business Purpose**

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
| H         | 8.0057720   | 0.745451812              | 6.513588252                            | 9.49795566   |
| W         | 1.4999915   | 0.082269489              | 1.335311274                            | 1.66467177   |
| A         | 1.5717197   | 2.073232039              | -2.578304499                           | 5.72174391   |
| G         | 3.2003486   | 0.050490628              | 3.099280605                            | 3.30141652   |
| CV        | -39.0088630 | 0.123256173              | -39.255586969                          | -38.76213897 |
| CT        | 81.4591255  | 41.357705857             | -1.327305152                           | 164.24555608 |
| CP        | 232.0000000 | 93.517657089             | 44.804098544                           | 419.19590146 |
| CB        | 158.5497620 | 52.787456769             | 52.884202540                           | 264.21532145 |

**Asymptotic Correlation Matrix**

| Corr | H            | W            | A            | G            |
|------|--------------|--------------|--------------|--------------|
| H    | 1            | 0.9838262916 | -0.242944029 | 0.9426664289 |
| W    | 0.9838262916 | 1            | -0.219898651 | 0.8753073686 |
| A    | -0.242944029 | -0.219898651 | 1            | -0.203023992 |
| G    | 0.9426664289 | 0.8753073686 | -0.203023992 | 1            |
| CV   | -0.025974363 | 0.0268403934 | 0.3264626313 | 0.0409971255 |
| CT   | 0.8375532645 | 0.8253521794 | -0.716440209 | 0.7588729083 |
| CP   | 0.8687386209 | 0.8677849234 | -0.600803643 | 0.7747805006 |
| CB   | 0.8839066414 | 0.87397948   | -0.619336567 | 0.7977992582 |

| Corr | CV           | CT           | CP           | CB           |
|------|--------------|--------------|--------------|--------------|
| H    | -0.025974363 | 0.8375532645 | 0.8687386209 | 0.8839066414 |
| W    | 0.0268403934 | 0.8253521794 | 0.8677849234 | 0.87397948   |
| A    | 0.3264626313 | -0.716440209 | -0.600803643 | -0.619336567 |
| G    | 0.0409971255 | 0.7588729083 | 0.7747805006 | 0.7977992582 |
| CV   | 1            | -0.155710291 | -0.089329809 | -0.153605219 |
| CT   | -0.155710291 | 1            | 0.9422701862 | 0.9633405828 |
| CP   | -0.089329809 | 0.9422701862 | 1            | 0.925792869  |
| CB   | -0.153605219 | 0.9633405828 | 0.925792869  | 1            |

**OTTAWA-TORONTO**  
**Non-Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 10.81                              | 0.999           |
| <b>w</b>          | 18.75                              |                 |
| <b>a</b>          | 0.76                               |                 |
| <b>g</b>          | 64.00                              |                 |
| <b>cv</b>         | -325.00                            |                 |
| <b>ct</b>         | 1.97                               |                 |
| <b>cp</b>         | 2.48                               |                 |
| <b>cb</b>         | 2.99                               |                 |

**OTTAWA-TORONTO  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |           |             |            | Dependent Variable VOY |    |
|---|-----------|-------------|------------|------------------------|----|
| DUD   | H         | W           | A          | Sum of Squares         | CT |
|   | G         | CV          |            |                        |    |
|   | CP        | CB          |            |                        |    |
| -9  | 23.000000 | 1.900000    | 1.600000   | 74191.000000           |    |
|   | 2.400000  | -131.000000 | 106.000000 |                        |    |
|   | 1.000000  | 727.000000  |            |                        |    |
| -8  | 25.300000 | 1.900000    | 1.600000   | 17499637               |    |
|   | 2.400000  | -131.000000 | 106.000000 |                        |    |
|   | 1.000000  | 727.000000  |            |                        |    |
| -7  | 23.000000 | 2.090000    | 1.600000   | 960988                 |    |
|   | 2.400000  | -131.000000 | 106.000000 |                        |    |
|   | 1.000000  | 727.000000  |            |                        |    |
| -6  | 23.000000 | 1.900000    | 1.760000   | 706757                 |    |
|   | 2.400000  | -131.000000 | 106.000000 |                        |    |
|   | 1.000000  | 727.000000  |            |                        |    |
| -5  | 23.000000 | 1.900000    | 1.600000   | 41099132               |    |
|   | 2.640000  | -131.000000 | 106.000000 |                        |    |
|   | 1.000000  | 727.000000  |            |                        |    |
| -4  | 23.000000 | 1.900000    | 1.600000   | 32244752               |    |
|   | 2.400000  | -144.100000 | 106.000000 |                        |    |
|   | 1.000000  | 727.000000  |            |                        |    |
| -3  | 23.000000 | 1.900000    | 1.600000   | 177279                 |    |
|   | 2.400000  | -131.000000 | 116.600000 |                        |    |
|   | 1.000000  | 727.000000  |            |                        |    |
| -2  | 23.000000 | 1.900000    | 1.600000   | 74437.000000           |    |
|   | 2.400000  | -131.000000 | 106.000000 |                        |    |
|   | 1.100000  | 727.000000  |            |                        |    |
| -1  | 23.000000 | 1.900000    | 1.600000   | 99279                  |    |
|   | 2.400000  | -131.000000 | 106.000000 |                        |    |
|   | 1.000000  | 799.700000  |            |                        |    |

| Non-Linear Least Squares Iterative Phase |           |             |            | Dependent Variable VOY Method: DUD |    |
|--|-----------|-------------|------------|------------------------------------|----|
| Iter                                     | H         | W           | A          | Sum of Squares                     | CT |
|  | G         | CV          |            |                                    |    |
|  | CP        | CB          |            |                                    |    |
| 0  | 23.000000 | 1.900000    | 1.600000   | 74191.000000                       |    |
|  | 2.400000  | -131.000000 | 106.000000 |                                    |    |
|  | 1.000000  | 727.000000  |            |                                    |    |
| 1  | 23.007282 | 1.899805    | 1.601135   | 74183.000000                       |    |
|  | 2.399968  | -131.020196 | 105.988645 |                                    |    |
|  | 0.997525  | 727.129745  |            |                                    |    |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |  |
|---|----|----------------|------------------------|--|
| Source                                      | DF | Sum of Squares | Mean Square            |  |
| Regression                                  | 8  | 8973320031.0   | 1121665003.9           |  |
| Residual                                    | 58 | 74183.0        | 1279.0                 |  |
| Uncorrected Total                           | 66 | 8973394214.0   |                        |  |
| (Corrected Total)                           | 65 | 4954521480.7   |                        |  |

**OTTAWA-TORONTO  
Business Purpose**

| Parameter | Estimate     | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |               |
|-----------|--------------|--------------------------|--|---------------|
|           |              |                          | Lower                                  | Upper         |
| H         | 23.0072820   | 3.59516488               | 15.81077863                            | 30.20378531   |
| W         | 1.8998048    | 0.16438579               | 1.57075097                             | 2.22885870    |
| A         | 1.6011350    | 1.14991498               | -0.70066961                            | 3.90293956    |
| G         | 2.3999678    | 0.00077418               | 2.39841807                             | 2.40151743    |
| CV        | -131.0201963 | 7.98704032               | -147.00799212                          | -115.03240038 |
| CT        | 105.9886446  | 7.65171760               | 90.67206993                            | 121.30521919  |
| CP        | 0.9975247    | 1.24075850               | -1.48612289                            | 3.48117235    |
| CB        | 727.1297452  | 124.21093517             | 478.49458147                           | 975.76490887  |

**Asymptotic Correlation Matrix**

| Corr | H            | W            | A            | G            |
|------|--------------|--------------|--------------|--------------|
| H    | 1            | -0.041301538 | 0.8448186113 | 0.0982491348 |
| W    | -0.041301538 | 1            | 0.4985729389 | 0.0338038102 |
| A    | 0.8448186113 | 0.4985729389 | 1            | 0.0970740876 |
| G    | 0.0982491348 | 0.0338038102 | 0.0970740876 | 1            |
| CV   | -0.494896624 | 0.8876502861 | 0.0461073742 | 0.0003160697 |
| CT   | 0.2976436615 | 0.9141582875 | 0.7435781531 | 0.0371214375 |
| CP   | -0.384184244 | -0.198977904 | -0.462716492 | 0.3257328278 |
| CB   | 0.8775715667 | 0.4196679185 | 0.9847114198 | 0.1177285732 |

| Corr | CV           | CT           | CP           | CB           |
|------|--------------|--------------|--------------|--------------|
| H    | -0.494896624 | 0.2976436615 | -0.384184244 | 0.8775715667 |
| W    | 0.8876502861 | 0.9141582875 | -0.198977904 | 0.4196679185 |
| A    | 0.0461073742 | 0.7435781531 | -0.462716492 | 0.9847114198 |
| G    | 0.0003160697 | 0.0371214375 | 0.3257328278 | 0.1177285732 |
| CV   | 1            | 0.6582574187 | 0.0074167667 | -0.037055149 |
| CT   | 0.6582574187 | 1            | -0.210615896 | 0.6871616441 |
| CP   | 0.0074167667 | -0.210615896 | 1            | -0.41409673  |
| CB   | -0.037055149 | 0.6871616441 | -0.41409673  | 1            |

**OTTAWA-TORONTO**  
**Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 6.41                               | 0.999           |
| <b>w</b>          | 11.81                              |                 |
| <b>a</b>          | 1.40                               |                 |
| <b>g</b>          | 3087.86                            |                 |
| <b>cv</b>         | -16.40                             |                 |
| <b>ct</b>         | 13.73                              |                 |
| <b>cp</b>         |                                    |                 |
| <b>cb</b>         | 5.85                               |                 |

**OTTAWA-KITCHENER  
Non Business Purpose**

| Non-Linear Least Squares DUD Initialization |                       |                        |            | Dependent Variable VOY |
|---|-----------------------|------------------------|------------|------------------------|
| DUD   | H<br>CT               | G<br>CB                |            | CV Sum of Squares      |
| -6  | 7.000000<br>40.000000 | 3.200000<br>290.000000 | -42.000000 | 26106669               |
| -5  | 7.700000<br>40.000000 | 3.200000<br>290.000000 | -42.000000 | 31083947               |
| -4  | 7.000000<br>40.000000 | 3.520000<br>290.000000 | -42.000000 | 18739281               |
| -3  | 7.000000<br>40.000000 | 3.200000<br>290.000000 | -46.200000 | 15785934               |
| -2  | 7.000000<br>44.000000 | 3.200000<br>290.000000 | -42.000000 | 26107205               |
| -1  | 7.000000<br>40.000000 | 3.200000<br>319.000000 | -42.000000 | 26109419               |

| Non-Linear Least Squares Iterative Phase |                       |                        |            | Dependent Variable VOY Method: DUD |
|--|-----------------------|------------------------|------------|------------------------------------|
| Iter                                     | H<br>CT               | G<br>CB                |            | CV Sum of Squares                  |
| 0  | 7.000000<br>40.000000 | 3.200000<br>290.000000 | -46.200000 | 15785934                           |
| 1  | 6.990696<br>39.796739 | 3.199240<br>290.661371 | -46.180582 | 15767427                           |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 5  | 564068654.00   | 112813730.80           |
| Residual                                    | 27 | 15767427.00    | 583978.78              |
| Uncorrected Total                           | 32 | 579836081.00   |                        |
| (Corrected Total)                           | 31 | 418766241.97   |                        |

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
| H         | 6.9906961   | 6.811585                 | -6.985413                              | 20.966805    |
| G         | 3.1992398   | 3.389194                 | -3.754758                              | 10.153238    |
| CV        | -46.1805821 | 46.307902                | -141.195811                            | 48.834646    |
| CT        | 39.7967391  | 2504.062666              | -5098.075530                           | 5177.669008  |
| CB        | 290.6613705 | 22173.640886             | -45205.538122                          | 45786.860863 |

Asymptotic Correlation Matrix

| Corr | H            | G            | CV           | CT           | CB           |
|------|--------------|--------------|--------------|--------------|--------------|
| H    | 1            | -0.309438363 | -0.764593821 | -0.05513735  | 0.4361548311 |
| G    | -0.309438363 | 1            | 0.8467545102 | -0.003949529 | -0.476205532 |
| CV   | -0.764593821 | 0.8467545102 | 1            | 0.0313272363 | -0.571185321 |
| CT   | -0.05513735  | -0.003949529 | 0.0313272363 | 1            | -0.429571714 |
| CB   | 0.4361548311 | -0.476205532 | -0.571185321 | -0.429571714 | 1            |

**OTTAWA-KITCHENER  
Non Business Purpose**

| Non-Linear Least Squares DUD Initialization |          |          | Dependent Variable VOY |
|---|----------|----------|------------------------|
| DUD   | W        | A        | Sum of Squares         |
| -3  | 1.800000 | 1.800000 | 15767427               |
| -2  | 1.980000 | 1.800000 | 12449390               |
| -1  | 1.800000 | 1.980000 | 15767427               |

| Non-Linear Least Squares Iterative Phase |          |          | Dependent Variable VOY Method: DUD |
|--|----------|----------|------------------------------------|
| Iter                                     | W        | A        | Sum of Squares                     |
| 0  | 1.980000 | 1.800000 | 12449390                           |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |          |          | Dependent Variable VOY |
|---|----------|----------|------------------------|
| DUD   | W        | A        | Sum of Squares         |
| -3  | 1.980000 | 1.800000 | 12449390               |
| -2  | 2.178000 | 1.800000 | 9683920                |
| -1  | 1.980000 | 1.980000 | 12450353               |

| Non-Linear Least Squares Iterative Phase |          |          | Dependent Variable VOY Method: DUD |
|--|----------|----------|------------------------------------|
| Iter                                     | W        | A        | Sum of Squares                     |
| 0  | 2.178000 | 1.800000 | 9683920                            |

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 2  | 570152161.00   | 285076080.50           |
| Residual                                    | 30 | 9683920.00     | 322797.33              |
| Uncorrected Total                           | 32 | 579836081.00   |                        |
| (Corrected Total)                           | 31 | 418766241.97   |                        |

| Parameter | Estimate    | Asymptotic Std. Error | Asymptotic 95 % Confidence Interval |              |
|-----------|-------------|-----------------------|-------------------------------------|--------------|
|           |             |                       | Lower                               | Upper        |
| W         | 2.178000000 | 0.266743512           | 1.63324099                          | 2.72275901   |
| A         | 1.800000000 | 59.137081145          | -118.97316302                       | 122.57316302 |

**Asymptotic Correlation Matrix**

| Corr | W            | A            |
|------|--------------|--------------|
| W    | 1            | 0.0560407445 |
| A    | 0.0560407445 | 1            |



**OTTAWA-KITCHENER**  
**Non-Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 1.03                               | 0.962           |
| <b>w</b>          | 8.35                               |                 |
| <b>a</b>          | 0.03                               |                 |
| <b>g</b>          | 0.94                               |                 |
| <b>cv</b>         | -0.99                              |                 |
| <b>ct</b>         | 0.02                               |                 |
| <b>cp</b>         |                                    |                 |
| <b>cb</b>         | 0.01                               |                 |

**OTTAWA-KITCHENER  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |                                     |                         | Dependent Variable VOY |             |
|---|-------------------------------------|-------------------------|------------------------|-------------|
| DUD   | H<br>G<br>CB                        | W<br>CV                 | A Sum of Squares       | CT          |
| -8  | 25.000000<br>1.850000<br>380.000000 | 1.200000<br>-130.000000 | 1.600000<br>30.000000  | 4158.000000 |
| -7  | 27.500000<br>1.850000<br>380.000000 | 1.200000<br>-130.000000 | 1.600000<br>30.000000  | 5465.000000 |
| -6  | 25.000000<br>1.850000<br>380.000000 | 1.320000<br>-130.000000 | 1.600000<br>30.000000  | 2216.000000 |
| -5  | 25.000000<br>1.850000<br>380.000000 | 1.200000<br>-130.000000 | 1.760000<br>30.000000  | 3999.000000 |
| -4  | 25.000000<br>2.035000<br>380.000000 | 1.200000<br>-130.000000 | 1.600000<br>30.000000  | 968.000000  |
| -3  | 25.000000<br>1.850000<br>380.000000 | 1.200000<br>-143.000000 | 1.600000<br>30.000000  | 1317.000000 |
| -2  | 25.000000<br>1.850000<br>380.000000 | 1.200000<br>-130.000000 | 1.600000<br>33.000000  | 4188.000000 |
| -1  | 25.000000<br>1.850000<br>418.000000 | 1.200000<br>-130.000000 | 1.600000<br>30.000000  | 3736.000000 |

| Non-Linear Least Squares Iterative Phase |                                     |                         | Dependent Variable VOY Method: DUD |            |
|--|-------------------------------------|-------------------------|------------------------------------|------------|
| Iter                                     | H<br>G<br>CB                        | W<br>CV                 | A Sum of Squares                   | CT         |
| 0  | 25.000000<br>2.035000<br>380.000000 | 1.200000<br>-130.000000 | 1.600000<br>30.000000              | 968.000000 |
| 1  | 24.586316<br>2.000000<br>379.000000 | 1.214486<br>-131.142668 | 1.655725<br>29.007501              | 915.000000 |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |                                     |                         | Dependent Variable VOY |             |
|---|-------------------------------------|-------------------------|------------------------|-------------|
| DUD   | H<br>G<br>CB                        | W<br>CV                 | A Sum of Squares       | CT          |
| -8  | 24.586316<br>2.000000<br>379.000000 | 1.214486<br>-131.142668 | 1.655725<br>29.007501  | 915.000000  |
| -7  | 27.044947<br>2.000000<br>379.000000 | 1.214486<br>-131.142668 | 1.655725<br>29.007501  | 1075.000000 |

**OTTAWA-KITCHENER  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |                                     |                         | Dependent Variable VOY |             |
|---|-------------------------------------|-------------------------|------------------------|-------------|
| DUD   | H<br>G<br>CB                        | W<br>CV                 | A Sum of Squares       | CT          |
| -6  | 24.586316<br>2.000000<br>379.000000 | 1.335935<br>-131.142668 | 1.655725<br>29.007501  | 1738.000000 |
| -5  | 24.586316<br>2.000000<br>379.000000 | 1.214486<br>-131.142668 | 1.821297<br>29.007501  | 948.000000  |
| -4  | 24.586316<br>2.200000<br>379.000000 | 1.214486<br>-131.142668 | 1.655725<br>29.007501  | 4951.000000 |
| -3  | 24.586316<br>2.000000<br>379.000000 | 1.214486<br>-144.256935 | 1.655725<br>29.007501  | 2424.000000 |
| -2  | 24.586316<br>2.000000<br>379.000000 | 1.214486<br>-131.142668 | 1.655725<br>31.908252  | 950.000000  |
| -1  | 24.586316<br>2.000000<br>416.900000 | 1.214486<br>-131.142668 | 1.655725<br>29.007501  | 1009.000000 |

| Non-Linear Least Squares Iterative Phase |                                     |                         | Dependent Variable VOY Method: DUD |            |
|--|-------------------------------------|-------------------------|------------------------------------|------------|
| Iter                                     | H<br>G<br>CB                        | W<br>CV                 | A Sum of Squares                   | CT         |
| 2  | 24.586316<br>2.000000<br>379.000000 | 1.214486<br>-131.142668 | 1.655725<br>29.007501              | 915.000000 |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |                                     |                         | Dependent Variable VOY |            |
|---|-------------------------------------|-------------------------|------------------------|------------|
| DUD   | H<br>G<br>CB                        | W<br>CV                 | A Sum of Squares       | CT         |
| -8  | 24.586316<br>2.000000<br>379.000000 | 1.214486<br>-131.142668 | 1.655725<br>29.007501  | 915.000000 |
| -7  | 24.610902<br>2.000000<br>379.000000 | 1.214486<br>-131.142668 | 1.655725<br>29.007501  | 915.000000 |
| -6  | 24.586316<br>2.000000<br>379.000000 | 1.215701<br>-131.142668 | 1.655725<br>29.007501  | 934.000000 |
| -5  | 24.586316<br>2.000000<br>379.000000 | 1.214486<br>-131.142668 | 1.657381<br>29.007501  | 934.000000 |
| -4  | 24.586316<br>2.002000<br>379.000000 | 1.214486<br>-131.142668 | 1.655725<br>29.007501  | 938.000000 |

**OTTAWA-KITCHENER  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |                                     |                         | Dependent Variable VOY |                      |
|---|-------------------------------------|-------------------------|------------------------|----------------------|
| DUD   | H<br>G<br>CB                        | W<br>CV                 | A                      | Sum of Squares<br>CT |
| -3  | 24.586316<br>2.000000<br>379.000000 | 1.214486<br>-131.273811 | 1.655725<br>29.007501  | 953.000000           |
| -2  | 24.586316<br>2.000000<br>379.000000 | 1.214486<br>-131.142668 | 1.655725<br>29.036509  | 915.000000           |
| -1  | 24.586316<br>2.000000<br>379.379000 | 1.214486<br>-131.142668 | 1.655725<br>29.007501  | 934.000000           |

| Non-Linear Least Squares Iterative Phase |                                     |                         | Dependent Variable VOY Method: DUD |                      |
|--|-------------------------------------|-------------------------|------------------------------------|----------------------|
| Iter                                     | H<br>G<br>CB                        | W<br>CV                 | A                                  | Sum of Squares<br>CT |
| 2  | 24.586316<br>2.000000<br>379.000000 | 1.214486<br>-131.142668 | 1.655725<br>29.007501              | 915.000000           |

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |  |
|---|----|----------------|------------------------|--|
| Source                                      | DF | Sum of Squares | Mean Square            |  |
| Regression                                  | 7  | 2054272.0000   | 293467.4286            |  |
| Residual                                    | 25 | 915.0000       | 36.6000                |  |
| Uncorrected Total                           | 32 | 2055187.0000   |                        |  |
| (Corrected Total)                           | 31 | 742581.9688    |                        |  |

| Parameter | Estimate     | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |               |
|-----------|--------------|--------------------------|--|---------------|
|           |              |                          | Lower                                  | Upper         |
| H         | 24.5863156   | 0.000000000              | 24.58631562                            | 24.58631562   |
| W         | 1.2144864    | 0.0034635938             | 1.20735310                             | 1.22161980    |
| A         | 1.6557249    | 0.0047219617             | 1.64599989                             | 1.66544986    |
| G         | 2.0000000    | 0.0120995868             | 1.97508063                             | 2.02491937    |
| CV        | -131.1426680 | 1.1220173054             | -133.45348739                          | -128.83184859 |
| CT        | 29.0075014   | 0.0000000000             | 29.00750138                            | 29.00750138   |
| CB        | 379.0000000  | 1.0808700816             | 376.77392421                           | 381.22607579  |

**OTTAWA-KITCHENER  
Business Purpose**

Asymptotic Correlation Matrix

| Corr | H | W        | A        | G        | CV       | CT | CB       |
|------|---|----------|----------|----------|----------|----|----------|
| H    | . | .        | .        | .        | .        | .  | .        |
| W    | . | 1        | 1        | 1.68E-16 | 0.5      | .  | 1        |
| A    | . | 1        | 1        | 1.68E-16 | 0.5      | .  | 1        |
| G    | . | 1.68E-16 | 1.68E-16 | 1        | 0.707107 | .  | -171E-17 |
| CV   | . | 0.5      | 0.5      | 0.707107 | 1        | .  | 0.5      |
| CT   | . | .        | .        | .        | .        | .  | .        |
| CB   | . | 1        | 1        | -171E-17 | 0.5      | .  | 1        |

**OTTAWA-KITCHENER**  
**Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 2458000.00                         | 0.998           |
| <b>w</b>          | 403.33                             |                 |
| <b>a</b>          | 351.06                             |                 |
| <b>g</b>          | 232.50                             |                 |
| <b>cv</b>         | -127.68                            |                 |
| <b>ct</b>         | 290000.00                          |                 |
| <b>ep</b>         |                                    |                 |
| <b>cb</b>         | 350.93                             |                 |

**OTTAWA-LONDON  
Non-Business Purpose**

| DUD | Non-Linear Least Squares Initialization |                        |                        | Dependent Variable VOY |
|-----|---|------------------------|------------------------|------------------------|
|     | H<br>G<br>CB                            | W<br>CT                | A Sum of Squares<br>CP |                        |
| -8  | 8.000000<br>2.200000<br>200.000000      | 1.600000<br>100.000000 | 1.600000<br>400.000000 | 30019.000000           |
| -7  | 8.800000<br>2.200000<br>200.000000      | 1.600000<br>100.000000 | 1.600000<br>400.000000 | 2220322                |
| -6  | 8.000000<br>2.200000<br>200.000000      | 1.760000<br>100.000000 | 1.600000<br>400.000000 | 30737.000000           |
| -5  | 8.000000<br>2.200000<br>200.000000      | 1.600000<br>100.000000 | 1.760000<br>400.000000 | 30019.000000           |
| -4  | 8.000000<br>2.420000<br>200.000000      | 1.600000<br>100.000000 | 1.600000<br>400.000000 | 94364                  |
| -3  | 8.000000<br>2.200000<br>200.000000      | 1.600000<br>110.000000 | 1.600000<br>400.000000 | 30020.000000           |
| -2  | 8.000000<br>2.200000<br>200.000000      | 1.600000<br>100.000000 | 1.600000<br>440.000000 | 30025.000000           |
| -1  | 8.000000<br>2.200000<br>220.000000      | 1.600000<br>100.000000 | 1.600000<br>400.000000 | 30019.000000           |

| DUD | Non-Linear Least Squares Iterative Phase |                        |                        | Dependent Variable VOY Method: |
|-----|--|------------------------|------------------------|--------------------------------|
|     | Iter<br>H<br>G<br>CB                     | W<br>CT                | A Sum of Squares<br>CP |                                |
| 0   | 8.000000<br>2.200000<br>200.000000       | 1.600000<br>100.000000 | 1.600000<br>400.000000 | 30019.000000                   |
| 1   | 7.999923<br>2.194461<br>200.000000       | 1.619903<br>100.490970 | 1.600000<br>401.000000 | 29623.000000                   |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable |
|---|----|----------------|--------------------|
| Source                                      | DF | Sum of Squares | Mean Square        |
| Regression                                  | 7  | 288851318.00   | 41264474.00        |
| Residual                                    | 40 | 29623.00       | 740.58             |
| Uncorrected Total                           | 47 | 288880941.00   |                    |
| (Corrected Total)                           | 46 | 225709640.55   |                    |

**OTTAWA-LONDON  
Non-Business Purpose**

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
| H         | 7.9999226   | 0.00137254               | 7.99714861                             | 8.0026966    |
| W         | 1.6199033   | 0.41422482               | 0.78272748                             | 2.4570790    |
| A         | 1.6000000   | 1.73532793               | -1.90721256                            | 5.1072126    |
| G         | 2.1944610   | 0.11571556               | 1.96059217                             | 2.4283298    |
| CT        | 100.4909699 | 272.34122645             | -449.92866811                          | 650.9106079  |
| CP        | 401.0000000 | 444.89443524             | -498.16108985                          | 1300.1610898 |
| CB        | 200.0000000 | 216.91599084             | -238.40156963                          | 638.4015696  |

Asymptotic Correlation Matrix

| Corr<br>CB | H        | W        | A        | G        | CT       | CP       |
|------------|----------|----------|----------|----------|----------|----------|
| H          | 1        | 0.297699 | 0.415517 | -0.32647 | 0.013429 | 0.015722 |
| W          | 0.297699 | 1        | 0.022725 | -0.97743 | 0.037998 | 0.046307 |
| A          | 0.415517 | 0.022725 | 1        | -0.03673 | -0.83398 | -0.33921 |
| G          | -0.32647 | -0.97743 | -0.03673 | 1        | -0.03889 | -0.04738 |
| CT         | 0.013429 | 0.037998 | -0.83398 | -0.03889 | 1        | 0.001843 |
| CP         | 0.015722 | 0.046307 | -0.33921 | -0.04738 | 0.001843 | 1        |
| CB         | 0.415517 | 0.022725 | 1        | -0.03673 | -0.83398 | -0.33921 |



**OTTAWA-LONDON  
Non-Business Purpose**

| Non-Linear Least Squares DUD Initialization | Dependent Variable VOY |
|---|------------------------|
| DUD   | CV Sum of Squares      |
| -2  | -31.700000 47242746    |
| -1  | -34.870000 44242674    |

Non-Linear Least Squares Iterative Phase Dependent Variable VOY Method:  
DUD

| Iter | CV Sum of Squares   |
|------|---------------------|
| 0    | -34.870000 44242674 |
| 1    | -68.000000 4503404  |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization | Dependent Variable VOY  |
|---|-------------------------|
| DUD   | CV Sum of Squares       |
| -2  | -68.000000 4503404      |
| -1  | -74.800000 34865.000000 |

Non-Linear Least Squares Iterative Phase Dependent Variable VOY Method:  
DUD

| Iter | CV Sum of Squares       |
|------|-------------------------|
| 2    | -74.800000 34865.000000 |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization | Dependent Variable VOY  |
|---|-------------------------|
| DUD   | CV Sum of Squares       |
| -2  | -74.800000 34865.000000 |
| -1  | -74.874800 32020.000000 |

Non-Linear Least Squares Iterative Phase Dependent Variable VOY Method:  
DUD

| Iter | CV Sum of Squares       |
|------|-------------------------|
| 2    | -74.874800 32020.000000 |

WARNING: Step size shows no improvement.  
WARNING: PROC NLIN failed to converge.

Non-Linear Least Squares Summary Statistics Dependent Variable  
VOY

| Source            | DF | Sum of Squares | Mean Square  |
|-------------------|----|----------------|--------------|
| Regression        | 1  | 288848921.00   | 288848921.00 |
| Residual          | 46 | 32020.00       | 696.09       |
| Uncorrected Total | 47 | 288880941.00   |              |
| (Corrected Total) | 46 | 225709640.55   |              |

**OTTAWA-LONDON  
Non-Business Purpose**

| Parameter | Estimate     | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |               |
|-----------|--------------|--------------------------|--|---------------|
|           |              |                          | Lower                                  | Upper         |
| CV        | -74.87480000 | 0.09191425747            | -75.059813256                          | -74.689786744 |

Asymptotic Correlation Matrix

| Corr | CV |
|------|----|
|      | 1  |
| CV   |    |

**OTTAWA-LONDON  
Non-Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 6153.85                            | 0.999           |
| <b>w</b>          | 3.95                               |                 |
| <b>a</b>          | 0.92                               |                 |
| <b>g</b>          | 19.04                              |                 |
| <b>cv</b>         | -82.20                             |                 |
| <b>ct</b>         | 0.37                               |                 |
| <b>cp</b>         | 0.90                               |                 |
| <b>cb</b>         | 0.93                               |                 |

**OTTAWA-LONDON  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |           |            |            | Dependent Variable VOY |
|---|-----------|------------|------------|------------------------|
| DUD   | H         | W          | A          | Sum of Squares         |
|   | G         | CV         | CT         |                        |
|   | CP        | CB         |            |                        |
| -9  | 25.000000 | 1.600000   | 1.600000   | 1551.000000            |
|   | 3.000000  | 0          | 390.000000 |                        |
|   | 0         | 397.000000 |            |                        |
| -8  | 27.500000 | 1.600000   | 1.600000   | 4578.000000            |
|   | 3.000000  | 0          | 390.000000 |                        |
|   | 0         | 397.000000 |            |                        |
| -7  | 25.000000 | 1.760000   | 1.600000   | 2634.000000            |
|   | 3.000000  | 0          | 390.000000 |                        |
|   | 0         | 397.000000 |            |                        |
| -6  | 25.000000 | 1.600000   | 1.760000   | 2476.000000            |
|   | 3.000000  | 0          | 390.000000 |                        |
|   | 0         | 397.000000 |            |                        |
| -5  | 25.000000 | 1.600000   | 1.600000   | 7896.000000            |
|   | 3.300000  | 0          | 390.000000 |                        |
|   | 0         | 397.000000 |            |                        |
| -4  | 25.000000 | 1.600000   | 1.600000   | 1560.000000            |
|   | 3.000000  | 0.100000   | 390.000000 |                        |
|   | 0         | 397.000000 |            |                        |
| -3  | 25.000000 | 1.600000   | 1.600000   | 1742.000000            |
|   | 3.000000  | 0          | 429.000000 |                        |
|   | 0         | 397.000000 |            |                        |
| -2  | 25.000000 | 1.600000   | 1.600000   | 1529.000000            |
|   | 3.000000  | 0          | 390.000000 |                        |
|   | 0.100000  | 397.000000 |            |                        |
| -1  | 25.000000 | 1.600000   | 1.600000   | 1805.000000            |
|   | 3.000000  | 0          | 390.000000 |                        |
|   | 0         | 436.700000 |            |                        |

| Non-Linear Least Squares Iterative Phase |           |            |            | Dependent Variable VOY Method: DUD |
|--|-----------|------------|------------|------------------------------------|
| Iter                                     | H         | W          | A          | Sum of Squares                     |
|  | G         | CV         | CT         |                                    |
|  | CP        | CB         |            |                                    |
| 0  | 25.000000 | 1.600000   | 1.600000   | 1529.000000                        |
|  | 3.000000  | 0          | 390.000000 |                                    |
|  | 0.100000  | 397.000000 |            |                                    |
| 1  | 25.001673 | 1.601525   | 1.601958   | 1520.000000                        |
|  | 2.998262  | -0.012905  | 390.295555 |                                    |
|  | 0.112532  | 397.087632 |            |                                    |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 8  | 3818134.0000   | 477266.7500            |
| Residual                                    | 39 | 1520.0000      | 38.9744                |
| Uncorrected Total                           | 47 | 3819654.0000   |                        |
| (Corrected Total)                           | 46 | 900126.4255    |                        |

**OTTAWA-LONDON  
Business Purpose**

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
| H         | 25.0016732  | 2.891161999              | 19.15377438                            | 30.84957202  |
| W         | 1.6015248   | 0.086184593              | 1.42720090                             | 1.77584880   |
| A         | 1.6019576   | 0.252972370              | 1.09027512                             | 2.11363999   |
| G         | 2.9982621   | 0.011252190              | 2.97550254                             | 3.02102173   |
| CV        | -0.0129046  | 0.647601082              | -1.32279514                            | 1.29698584   |
| CT        | 390.2955549 | 23.616030220             | 342.52785619                           | 438.06325362 |
| CP        | 0.1125325   | 0.480180369              | -0.85871931                            | 1.08378423   |
| CB        | 397.0876322 | 18.902441961             | 358.85401947                           | 435.32124484 |

**Asymptotic Correlation Matrix**

| Corr | H            | W            | A            | G            |
|------|--------------|--------------|--------------|--------------|
| H    | 1            | -0.911981994 | 0.9924413595 | 0.1415609532 |
| W    | -0.911981994 | 1            | -0.896015998 | -0.272493698 |
| A    | 0.9924413595 | -0.896015998 | 1            | 0.1198052646 |
| G    | 0.1415609532 | -0.272493698 | 0.1198052646 | 1            |
| CV   | -0.127811688 | 0.0369589127 | -0.121933836 | 0.1375099824 |
| CT   | 0.6045141911 | -0.53606781  | 0.5949349188 | -0.004558225 |
| CP   | -0.161941274 | 0.234765723  | -0.18120027  | -0.248709798 |
| CB   | 0.2327078477 | -0.205756504 | 0.2219937672 | -0.01340955  |

| Corr | CV           | CT           | CP           | CB           |
|------|--------------|--------------|--------------|--------------|
| H    | -0.127811688 | 0.6045141911 | -0.161941274 | 0.2327078477 |
| W    | 0.0369589127 | -0.53606781  | 0.234765723  | -0.205756504 |
| A    | -0.121933836 | 0.5949349188 | -0.18120027  | 0.2219937672 |
| G    | 0.1375099824 | -0.004558225 | -0.248709798 | -0.01340955  |
| CV   | 1            | -0.097491194 | -0.056121    | -0.044248006 |
| CT   | -0.097491194 | 1            | -0.098363747 | 0.0707643066 |
| CP   | -0.056121    | -0.098363747 | 1            | -0.049629364 |
| CB   | -0.044248006 | 0.0707643066 | -0.049629364 | 1            |

**OTTAWA-LONDON**  
**Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 8.65                               | 0.998           |
| <b>w</b>          | 20.00                              |                 |
| <b>a</b>          | 6.35                               |                 |
| <b>g</b>          | 271.82                             |                 |
| <b>cv</b>         | -0.02                              |                 |
| <b>ct</b>         | 16.53                              |                 |
| <b>cp</b>         | 0.23                               |                 |
| <b>cb</b>         | 21.01                              |                 |

**KINGSTON-TORONTO  
Non-Business Purpose**

| Non-Linear Least Squares DUD Initialization |            |            | Dependent Variable VOY |                |
|---|------------|------------|------------------------|----------------|
| DUD   | H          | W          | A                      | Sum of Squares |
|   | G          | CV         | CT                     |                |
|   | CP         | CB         |                        |                |
| -9  | 6.000000   | 1.600000   | 1.600000               | 31178536       |
|   | 2.500000   | -15.000000 | 82.000000              |                |
|   | 300.000000 | 102.000000 |                        |                |
| -8  | 6.600000   | 1.600000   | 1.600000               | 66938129       |
|   | 2.500000   | -15.000000 | 82.000000              |                |
|   | 300.000000 | 102.000000 |                        |                |
| -7  | 6.000000   | 1.760000   | 1.600000               | 2916323        |
|   | 2.500000   | -15.000000 | 82.000000              |                |
|   | 300.000000 | 102.000000 |                        |                |
| -6  | 6.000000   | 1.600000   | 1.760000               | 30838291       |
|   | 2.500000   | -15.000000 | 82.000000              |                |
|   | 300.000000 | 102.000000 |                        |                |
| -5  | 6.000000   | 1.600000   | 1.600000               | 63845035       |
|   | 2.750000   | -15.000000 | 82.000000              |                |
|   | 300.000000 | 102.000000 |                        |                |
| -4  | 6.000000   | 1.600000   | 1.600000               | 6317878        |
|   | 2.500000   | -16.500000 | 82.000000              |                |
|   | 300.000000 | 102.000000 |                        |                |
| -3  | 6.000000   | 1.600000   | 1.600000               | 30071034       |
|   | 2.500000   | -15.000000 | 90.200000              |                |
|   | 300.000000 | 102.000000 |                        |                |
| -2  | 6.000000   | 1.600000   | 1.600000               | 31095361       |
|   | 2.500000   | -15.000000 | 82.000000              |                |
|   | 330.000000 | 102.000000 |                        |                |
| -1  | 6.000000   | 1.600000   | 1.600000               | 29996512       |
|   | 2.500000   | -15.000000 | 82.000000              |                |
|   | 300.000000 | 112.200000 |                        |                |

| Non-Linear Least Squares Iterative Phase |            |            | Dependent Variable VOY Method: DUD |                |
|--|------------|------------|------------------------------------|----------------|
| Iter                                     | H          | W          | A                                  | Sum of Squares |
|  | G          | CV         | CT                                 |                |
|  | CP         | CB         |                                    |                |
| 0  | 6.000000   | 1.760000   | 1.600000                           | 2916323        |
|  | 2.500000   | -15.000000 | 82.000000                          |                |
|  | 300.000000 | 102.000000 |                                    |                |
| 1  | 6.109840   | 1.700000   | 1.540831                           | 2619175        |
|  | 2.502548   | -15.546697 | 81.000000                          |                |
|  | 299.000000 | 101.000000 |                                    |                |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |            |            | Dependent Variable VOY |                |
|---|------------|------------|------------------------|----------------|
| DUD   | H          | W          | A                      | Sum of Squares |
|   | G          | CV         | CT                     |                |
|   | CP         | CB         |                        |                |
| -9  | 6.109840   | 1.700000   | 1.540831               | 2619175        |
|   | 2.502548   | -15.546697 | 81.000000              |                |
|   | 299.000000 | 101.000000 |                        |                |

**KINGSTON-TORONTO  
Non-Business Purpose**

| Non-Linear Least Squares DUD Initialization |            |            | Dependent Variable VOY |                |
|---|------------|------------|------------------------|----------------|
| DUD   | H          | W          | A                      | Sum of Squares |
|   | G          | CV         | CT                     |                |
|   | CP         | CB         |                        |                |
| -8  | 6.720824   | 1.700000   | 1.540831               | 6892090        |
|   | 2.502548   | -15.546697 | 81.000000              |                |
|   | 299.000000 | 101.000000 |                        |                |
| -7  | 6.109840   | 1.870000   | 1.540831               | 58795518       |
|   | 2.502548   | -15.546697 | 81.000000              |                |
|   | 299.000000 | 101.000000 |                        |                |
| -6  | 6.109840   | 1.700000   | 1.694914               | 2554482        |
|   | 2.502548   | -15.546697 | 81.000000              |                |
|   | 299.000000 | 101.000000 |                        |                |
| -5  | 6.109840   | 1.700000   | 1.540831               | 208011016      |
|   | 2.752803   | -15.546697 | 81.000000              |                |
|   | 299.000000 | 101.000000 |                        |                |
| -4  | 6.109840   | 1.700000   | 1.540831               | 86450642       |
|   | 2.502548   | -17.101366 | 81.000000              |                |
|   | 299.000000 | 101.000000 |                        |                |
| -3  | 6.109840   | 1.700000   | 1.540831               | 2416659        |
|   | 2.502548   | -15.546697 | 89.100000              |                |
|   | 299.000000 | 101.000000 |                        |                |
| -2  | 6.109840   | 1.700000   | 1.540831               | 2618214        |
|   | 2.502548   | -15.546697 | 81.000000              |                |
|   | 328.900000 | 101.000000 |                        |                |
| -1  | 6.109840   | 1.700000   | 1.540831               | 2449508        |
|   | 2.502548   | -15.546697 | 81.000000              |                |
|   | 299.000000 | 111.100000 |                        |                |

| Non-Linear Least Squares Iterative Phase |            |            | Dependent Variable VOY Method: DUD |                |
|--|------------|------------|------------------------------------|----------------|
| Iter                                     | H          | W          | A                                  | Sum of Squares |
|  | G          | CV         | CT                                 |                |
|  | CP         | CB         |                                    |                |
| 2  | 6.109840   | 1.700000   | 1.540831                           | 2416659        |
|  | 2.502548   | -15.546697 | 89.100000                          |                |
|  | 299.000000 | 101.000000 |                                    |                |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |            |            | Dependent Variable VOY |                |
|---|------------|------------|------------------------|----------------|
| DUD   | H          | W          | A                      | Sum of Squares |
|   | G          | CV         | CT                     |                |
|   | CP         | CB         |                        |                |
| -9  | 6.109840   | 1.700000   | 1.540831               | 2416659        |
|   | 2.502548   | -15.546697 | 89.100000              |                |
|   | 299.000000 | 101.000000 |                        |                |
| -8  | 6.115950   | 1.700000   | 1.540831               | 2361567        |
|   | 2.502548   | -15.546697 | 89.100000              |                |
|   | 299.000000 | 101.000000 |                        |                |
| -7  | 6.109840   | 1.701700   | 1.540831               | 2576464        |
|   | 2.502548   | -15.546697 | 89.100000              |                |
|   | 299.000000 | 101.000000 |                        |                |



**KINGSTON-TORONTO  
Non-Business Purpose**

| Non-Linear Least Squares DUD Initialization |            |            |           | Dependent Variable VOY |    |
|---|------------|------------|-----------|------------------------|----|
| DUD   | H          | W          | A         | Sum of Squares         | CT |
|   | G          | CV         |           |                        |    |
|   | CP         | CB         |           |                        |    |
| -6  | 6.109840   | 1.700000   | 1.542372  | 2416432                |    |
|   | 2.502548   | -15.546697 | 89.100000 |                        |    |
|   | 299.000000 | 101.000000 |           |                        |    |
| -5  | 6.109840   | 1.700000   | 1.540831  | 2706592                |    |
|   | 2.505051   | -15.546697 | 89.100000 |                        |    |
|   | 299.000000 | 101.000000 |           |                        |    |
| -4  | 6.109840   | 1.700000   | 1.540831  | 2586303                |    |
|   | 2.502548   | -15.562243 | 89.100000 |                        |    |
|   | 299.000000 | 101.000000 |           |                        |    |
| -3  | 6.109840   | 1.700000   | 1.540831  | 2413366                |    |
|   | 2.502548   | -15.546697 | 89.189100 |                        |    |
|   | 299.000000 | 101.000000 |           |                        |    |
| -2  | 6.109840   | 1.700000   | 1.540831  | 2416659                |    |
|   | 2.502548   | -15.546697 | 89.100000 |                        |    |
|   | 299.299000 | 101.000000 |           |                        |    |
| -1  | 6.109840   | 1.700000   | 1.540831  | 2411895                |    |
|   | 2.502548   | -15.546697 | 89.100000 |                        |    |
|   | 299.000000 | 101.101000 |           |                        |    |

| Non-Linear Least Squares Iterative Phase |            |            |           | Dependent Variable VOY Method: DUD |    |
|--|------------|------------|-----------|------------------------------------|----|
| Iter                                     | H          | W          | A         | Sum of Squares                     | CT |
|  | G          | CV         |           |                                    |    |
|  | CP         | CB         |           |                                    |    |
| 2  | 6.115950   | 1.700000   | 1.540831  | 2361567                            |    |
|  | 2.502548   | -15.546697 | 89.100000 |                                    |    |
|  | 299.000000 | 101.000000 |           |                                    |    |

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |  |
|---|----|----------------|------------------------|--|
| Source                                      | DF | Sum of Squares | Mean Square            |  |
| Regression                                  | 8  | 83385720724    | 10423215091            |  |
| Residual                                    | 34 | 2361567        | 69458                  |  |
| Uncorrected Total                           | 42 | 83388082291    |                        |  |
| (Corrected Total)                           | 41 | 59375125787    |                        |  |

| Parameter | Estimate    | Asymptotic Std. Error | Asymptotic 95 % Confidence Interval |              |
|-----------|-------------|-----------------------|-------------------------------------|--------------|
|           |             |                       | Lower                               | Upper        |
|           |             |                       | H                                   | 6.1159502    |
| W         | 1.7000000   | 0.131020820           | 1.43373531                          | 1.96626469   |
| A         | 1.5408313   | 0.441012025           | 0.64459255                          | 2.43706996   |
| G         | 2.5025481   | 0.032471882           | 2.43655766                          | 2.56853845   |
| CV        | -15.5466965 | 1.392434948           | -18.37644726                        | -12.71694581 |
| CT        | 89.1000000  | 9.483758535           | 69.82680335                         | 108.37319665 |
| CP        | 299.0000000 | 44.490093441          | 208.58581275                        | 389.41418725 |
| CB        | 101.0000000 | 10.677270495          | 79.30131027                         | 122.69868973 |

**KINGSTON-TORONTO  
Non-Business Purpose**

Asymptotic Correlation Matrix

| Corr | H            | W            | A            | G            |
|------|--------------|--------------|--------------|--------------|
| H    | 1            | -0.715966106 | -0.239161166 | 0.3927907782 |
| W    | -0.715966106 | 1            | 0.1617329998 | -0.211406152 |
| A    | -0.239161166 | 0.1617329998 | 1            | -0.047186795 |
| G    | 0.3927907782 | -0.211406152 | -0.047186795 | 1            |
| CV   | -0.800308502 | 0.9561709001 | 0.1962533852 | -0.041549139 |
| CT   | -0.146182445 | 0.3613466593 | 0.1308788358 | -0.169198187 |
| CP   | -0.004733367 | -0.208556575 | -0.842100026 | 0.0937880175 |
| CB   | -0.175162508 | 0.4500542921 | -0.228227732 | -0.275666722 |

| Corr | CV           | CT           | CP           | CB           |
|------|--------------|--------------|--------------|--------------|
| H    | -0.800308502 | -0.146182445 | -0.004733367 | -0.175162508 |
| W    | 0.9561709001 | 0.3613466593 | -0.208556575 | 0.4500542921 |
| A    | 0.1962533852 | 0.1308788358 | -0.842100026 | -0.228227732 |
| G    | -0.041549139 | -0.169198187 | 0.0937880175 | -0.275666722 |
| CV   | 1            | 0.2826096965 | -0.130894857 | 0.3311812087 |
| CT   | 0.2826096965 | 1            | -0.425557655 | -0.052608969 |
| CP   | -0.130894857 | -0.425557655 | 1            | -0.073312102 |
| CB   | 0.3311812087 | -0.052608969 | -0.073312102 | 1            |

**KINGSTON-TORONTO**  
**Non-Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 12.22                              | 0.999           |
| <b>w</b>          | 13.08                              |                 |
| <b>a</b>          | 3.50                               |                 |
| <b>g</b>          | 83.33                              |                 |
| <b>cv</b>         | -11.15                             |                 |
| <b>ct</b>         | 9.40                               |                 |
| <b>cp</b>         | 6.72                               |                 |
| <b>cb</b>         | 9.53                               |                 |

**KINGSTON-TORONTO  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |                                     |                       | Dependent Variable VOY |                |
|---|-------------------------------------|-----------------------|------------------------|----------------|
| DUD   | H<br>G<br>CB                        | W<br>CT               | A<br>CP                | Sum of Squares |
| -8  | 21.000000<br>2.900000<br>330.000000 | 1.700000<br>48.000000 | 1.800000<br>120.000000 | 13357.000000   |
| -7  | 23.100000<br>2.900000<br>330.000000 | 1.700000<br>48.000000 | 1.800000<br>120.000000 | 3515755        |
| -6  | 21.000000<br>2.900000<br>330.000000 | 1.870000<br>48.000000 | 1.800000<br>120.000000 | 22547.000000   |
| -5  | 21.000000<br>2.900000<br>330.000000 | 1.700000<br>48.000000 | 1.980000<br>120.000000 | 13359.000000   |
| -4  | 21.000000<br>3.190000<br>330.000000 | 1.700000<br>48.000000 | 1.800000<br>120.000000 | 241991         |
| -3  | 21.000000<br>2.900000<br>330.000000 | 1.700000<br>52.800000 | 1.800000<br>120.000000 | 13359.000000   |
| -2  | 21.000000<br>2.900000<br>330.000000 | 1.700000<br>48.000000 | 1.800000<br>132.000000 | 13357.000000   |
| -1  | 21.000000<br>2.900000<br>363.000000 | 1.700000<br>48.000000 | 1.800000<br>120.000000 | 13395.000000   |

| Non-Linear Least Squares Iterative Phase |                                     |                       | Dependent Variable VOY Method: DUD |                |
|--|-------------------------------------|-----------------------|------------------------------------|----------------|
| Iter                                     | H<br>G<br>CB                        | W<br>CT               | A<br>CP                            | Sum of Squares |
| 0  | 21.000000<br>2.900000<br>330.000000 | 1.700000<br>48.000000 | 1.800000<br>120.000000             | 13357.000000   |
| 1  | 20.998847<br>2.899170<br>330.965383 | 1.700606<br>47.979682 | 1.799238<br>120.000000             | 13351.000000   |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 7  | 4392459073.0   | 627494153.3            |
| Residual                                    | 35 | 13351.0        | 381.5                  |
| Uncorrected Total                           | 42 | 4392472424.0   |                        |
| (Corrected Total)                           | 41 | 3213730995.3   |                        |

**KINGSTON-TORONTO**  
**Business Purpose**

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
| H         | 20.9988474  | 0.01819795               | 20.96190383                            | 21.0357910   |
| W         | 1.7006058   | 0.37324372               | 0.94288525                             | 2.4583263    |
| A         | 1.7992381   | 0.96389183               | -0.15755478                            | 3.7560309    |
| G         | 2.8991704   | 0.12728084               | 2.64077807                             | 3.1575627    |
| CT        | 47.9796816  | 25.70378226              | -4.20146078                            | 100.1608241  |
| CP        | 120.0000000 | 109.72379035             | -102.74981453                          | 342.7498145  |
| CB        | 330.9653831 | 409.12813528             | -499.60395803                          | 1161.5347242 |

Asymptotic Correlation Matrix

| Corr | H        | W        | A        | G        | CT       | CP       | CB       |
|------|----------|----------|----------|----------|----------|----------|----------|
| H    | 1        | 0.061233 | 0.097089 | -0.03582 | 0.097089 | 0.774877 | 0.009732 |
| W    | 0.061233 | 1        | 0.309427 | -0.99513 | 0.309427 | -0.23818 | 0.018463 |
| A    | 0.097089 | 0.309427 | 1        | -0.31608 | 1        | -0.15397 | -0.55936 |
| G    | -0.03582 | -0.99513 | -0.31608 | 1        | -0.31608 | 0.267993 | -0.02607 |
| CT   | 0.097089 | 0.309427 | 1        | -0.31608 | 1        | -0.15397 | -0.55936 |
| CP   | 0.774877 | -0.23818 | -0.15397 | 0.267993 | -0.15397 | 1        | -0.34373 |
| CB   | 0.009732 | 0.018463 | -0.55936 | -0.02607 | -0.55936 | -0.34373 | 1        |

Non-Linear Least Squares DUD Initialization      Dependent Variable VOY

| DUD | CV         | Sum of Squares |
|-----|------------|----------------|
| -2  | -84.000000 | 179152953      |
| -1  | -92.400000 | 119129158      |

Non-Linear Least Squares Iterative Phase      Dependent Variable VOY Method: DUD

| Iter | CV          | Sum of Squares |
|------|-------------|----------------|
| 0    | -92.400000  | 119129158      |
| 1    | -111.800000 | 15106146       |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

Non-Linear Least Squares DUD Initialization      Dependent Variable VOY

| DUD | CV          | Sum of Squares |
|-----|-------------|----------------|
| -2  | -111.800000 | 15106146       |
| -1  | -122.980000 | 13385.000000   |

Non-Linear Least Squares Iterative Phase      Dependent Variable VOY Method: DUD

| Iter | CV          | Sum of Squares |
|------|-------------|----------------|
| 2    | -122.980000 | 13385.000000   |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

Non-Linear Least Squares DUD Initialization      Dependent Variable VOY

| DUD | CV          | Sum of Squares |
|-----|-------------|----------------|
| -2  | -122.980000 | 13385.000000   |
| -1  | -123.102980 | 14242.000000   |

Non-Linear Least Squares Iterative Phase      Dependent Variable VOY Method: DUD

| Iter | CV          | Sum of Squares |
|------|-------------|----------------|
| 2    | -122.980000 | 13385.000000   |

**KINGSTON-TORONTO  
Business Purpose**

Non-Linear Least Squares Summary Statistics      Dependent Variable VOY

| Source            | DF | Sum of Squares | Mean Square  |
|-------------------|----|----------------|--------------|
| Regression        | 1  | 4392459039.0   | 4392459039.0 |
| Residual          | 41 | 13385.0        | 326.5        |
| Uncorrected Total | 42 | 4392472424.0   |              |
| (Corrected Total) | 41 | 3213730995.3   |              |

| Parameter | Estimate     | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |               |
|-----------|--------------|--------------------------|--|---------------|
|           |              |                          | Lower                                  | Upper         |
| CV        | -122.9800000 | 0.06515712163            | -123.11158691                          | -122.84841309 |

Asymptotic Correlation Matrix

| Corr  | CV    |
|-------|-------|
| ----- | ----- |
| CV    | 1     |

**KINGSTON-TORONTO**  
**Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 1166.67                            | <b>0.999</b>    |
| <b>w</b>          | 4.59                               |                 |
| <b>a</b>          | 1.88                               |                 |
| <b>g</b>          | 24.17                              |                 |
| <b>cv</b>         | -1892.31                           |                 |
| <b>ct</b>         | 1.87                               |                 |
| <b>cp</b>         | 1.10                               |                 |
| <b>cb</b>         | 0.81                               |                 |

**KINGSTON-KITCHENER  
Non-Business Purpose**

| Non-Linear Least Squares DUD | Initialization H<br>G<br>CB        | W<br>CV                | Dependent Variable VOY<br>A Sum of Squares<br>CT |
|------------------------------|------------------------------------|------------------------|--|
| -8                           | 7.000000<br>3.800000<br>140.000000 | 2.000000<br>-37.000000 | 1.600000<br>0<br>104510                          |
| -7                           | 7.700000<br>3.800000<br>140.000000 | 2.000000<br>-37.000000 | 1.600000<br>0<br>313614                          |
| -6                           | 7.000000<br>3.800000<br>140.000000 | 2.200000<br>-37.000000 | 1.600000<br>0<br>80858.000000                    |
| -5                           | 7.000000<br>3.800000<br>140.000000 | 2.000000<br>-37.000000 | 1.760000<br>0<br>104510                          |
| -4                           | 7.000000<br>4.180000<br>140.000000 | 2.000000<br>-37.000000 | 1.600000<br>0<br>57352.000000                    |
| -3                           | 7.000000<br>3.800000<br>140.000000 | 2.000000<br>-40.700000 | 1.600000<br>0<br>17618.000000                    |
| -2                           | 7.000000<br>3.800000<br>140.000000 | 2.000000<br>-37.000000 | 1.600000<br>0.100000<br>104510                   |
| -1                           | 7.000000<br>3.800000<br>154.000000 | 2.000000<br>-37.000000 | 1.600000<br>0<br>104510                          |

| Non-Linear Least Squares Iter | Iterative Phase H<br>G<br>CB       | W<br>CV                | Dependent Variable VOY<br>A Sum of Squares<br>CT | Method: DUD |
|-------------------------------|------------------------------------|------------------------|--|-------------|
| 0                             | 7.000000<br>3.800000<br>140.000000 | 2.000000<br>-40.700000 | 1.600000<br>0<br>17618.000000                    |             |
| 1                             | 6.974663<br>3.787603<br>140.611305 | 1.980503<br>-40.669078 | 1.606986<br>0.004366<br>17469.000000             |             |
| 2                             | 6.972194<br>3.778897<br>141.000000 | 1.958839<br>-40.756789 | 1.611429<br>0.007143<br>17446.000000             |             |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 7  | 166441151.00   | 23777307.29            |
| Residual                                    | 24 | 17446.00       | 726.92                 |
| Uncorrected Total                           | 31 | 166458597.00   |                        |
| (Corrected Total)                           | 30 | 117356331.68   |                        |



**KINGSTON-KITCHENER  
Non-Business Purpose**

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
| H         | 6.9721939   | 0.740703231              | 5.443469845                            | 8.50091789   |
| W         | 1.9588387   | 1.463160567              | -1.060951986                           | 4.97862936   |
| A         | 1.6114286   | 0.373644372              | 0.840270699                            | 2.38258644   |
| G         | 3.7788975   | 2.628513945              | -1.646044980                           | 9.20383995   |
| CV        | -40.7567886 | 6.585992850              | -54.349500305                          | -27.16407689 |
| CT        | 0.0071429   | 0.233527733              | -0.474830813                           | 0.48911653   |
| CB        | 141.0000000 | 25.782045547             | 87.788901786                           | 194.21109821 |

Asymptotic Correlation Matrix

| Corr | H        | W        | A        | G        | CV       | CT       | CB       |
|------|----------|----------|----------|----------|----------|----------|----------|
| H    | 1        | 0.368617 | -0.76317 | 0.562353 | 0.29561  | -0.76317 | -0.96219 |
| W    | 0.368617 | 1        | -0.73528 | -0.22485 | 0.055432 | -0.73528 | -0.48907 |
| A    | -0.76317 | -0.73528 | 1        | -0.49014 | -0.59921 | 1        | 0.817026 |
| G    | 0.562353 | -0.22485 | -0.49014 | 1        | 0.841664 | -0.49014 | -0.50786 |
| CV   | 0.29561  | 0.055432 | -0.59921 | 0.841664 | 1        | -0.59921 | -0.30533 |
| CT   | -0.76317 | -0.73528 | 1        | -0.49014 | -0.59921 | 1        | 0.817026 |
| CB   | -0.96219 | -0.48907 | 0.817026 | -0.50786 | -0.30533 | 0.817026 | 1        |

**KINGSTON-KITCHENER**  
**Non-Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 9.42                               | 0.999           |
| <b>w</b>          | 1.34                               |                 |
| <b>a</b>          | 4.35                               |                 |
| <b>g</b>          | 1.44                               |                 |
| <b>cv</b>         | -6.19                              |                 |
| <b>ct</b>         | 0.03                               |                 |
| <b>ep</b>         |                                    |                 |
| <b>cb</b>         | 5.47                               |                 |

**KINGSTON-KITCHENER  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |            |             | Dependent Variable VOY |                |
|---|------------|-------------|------------------------|----------------|
| DUD   | H          | W           | A                      | Sum of Squares |
|   | G          | CV          | CT                     |                |
|   | CB         |             |                        |                |
| -8  | 21.000000  | 1.600000    | 1.600000               | 1815080        |
|   | 2.500000   | -110.000000 | 0                      |                |
|   | 210.000000 |             |                        |                |
| -7  | 23.100000  | 1.600000    | 1.600000               | 2280114        |
|   | 2.500000   | -110.000000 | 0                      |                |
|   | 210.000000 |             |                        |                |
| -6  | 21.000000  | 1.760000    | 1.600000               | 1214130        |
|   | 2.500000   | -110.000000 | 0                      |                |
|   | 210.000000 |             |                        |                |
| -5  | 21.000000  | 1.600000    | 1.760000               | 1811439        |
|   | 2.500000   | -110.000000 | 0                      |                |
|   | 210.000000 |             |                        |                |
| -4  | 21.000000  | 1.600000    | 1.600000               | 826318         |
|   | 2.750000   | -110.000000 | 0                      |                |
|   | 210.000000 |             |                        |                |
| -3  | 21.000000  | 1.600000    | 1.600000               | 491339         |
|   | 2.500000   | -121.000000 | 0                      |                |
|   | 210.000000 |             |                        |                |
| -2  | 21.000000  | 1.600000    | 1.600000               | 1815080        |
|   | 2.500000   | -110.000000 | 0.100000               |                |
|   | 210.000000 |             |                        |                |
| -1  | 21.000000  | 1.600000    | 1.600000               | 1805471        |
|   | 2.500000   | -110.000000 | 0                      |                |
|   | 231.000000 |             |                        |                |

| Non-Linear Least Squares Iterative Phase |            |             | Dependent Variable VOY Method: DUD |                |
|--|------------|-------------|------------------------------------|----------------|
| Iter                                     | H          | W           | A                                  | Sum of Squares |
|  | G          | CV          | CT                                 |                |
|  | CB         |             |                                    |                |
| 0  | 21.000000  | 1.600000    | 1.600000                           | 491339         |
|  | 2.500000   | -121.000000 | 0                                  |                |
|  | 210.000000 |             |                                    |                |
| 1  | 20.565404  | 1.623372    | 1.634678                           | 421762         |
|  | 2.479906   | -120.789038 | -0.000435                          |                |
|  | 209.000000 |             |                                    |                |
| 2  | 20.724263  | 1.603543    | 1.639240                           | 148042         |
|  | 2.400000   | -127.303891 | -0.013556                          |                |
|  | 209.201028 |             |                                    |                |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |            |             | Dependent Variable VOY |                |
|---|------------|-------------|------------------------|----------------|
| DUD   | H          | W           | A                      | Sum of Squares |
|   | G          | CV          | CT                     |                |
|   | CB         |             |                        |                |
| -8  | 20.724263  | 1.603543    | 1.639240               | 148042         |
|   | 2.400000   | -127.303891 | -0.013556              |                |
|   | 209.201028 |             |                        |                |

**KINGSTON-KITCHENER  
Business Purpose**

| Non-Linear<br>DUD | Least Squares<br>H<br>G<br>CB       | DUD Initialization<br>W<br>CV | Dependent Variable<br>A | VOY<br>Sum of Squares<br>CT |
|-------------------|-------------------------------------|-------------------------------|-------------------------|-----------------------------|
| -7                | 22.796689<br>2.400000<br>209.201028 | 1.603543<br>-127.303891       | 1.639240<br>-0.013556   | 560958                      |
| -6                | 20.724263<br>2.400000<br>209.201028 | 1.763897<br>-127.303891       | 1.639240<br>-0.013556   | 20294.000000                |
| -5                | 20.724263<br>2.400000<br>209.201028 | 1.603543<br>-127.303891       | 1.803164<br>-0.013556   | 147067                      |
| -4                | 20.724263<br>2.640000<br>209.201028 | 1.603543<br>-127.303891       | 1.639240<br>-0.013556   | 17675.000000                |
| -3                | 20.724263<br>2.400000<br>209.201028 | 1.603543<br>-140.034280       | 1.639240<br>-0.013556   | 747137                      |
| -2                | 20.724263<br>2.400000<br>209.201028 | 1.603543<br>-127.303891       | 1.639240<br>-0.014912   | 148042                      |
| -1                | 20.724263<br>2.400000<br>230.121131 | 1.603543<br>-127.303891       | 1.639240<br>-0.013556   | 146078                      |

| Non-Linear<br>Iter | Least Squares<br>H<br>G<br>CB       | Iterative Phase<br>W<br>CV | Dependent Variable<br>A | VOY Method: DUD<br>Sum of Squares<br>CT |
|--------------------|-------------------------------------|----------------------------|-------------------------|---|
| 3                  | 20.724263<br>2.640000<br>209.201028 | 1.603543<br>-127.303891    | 1.639240<br>-0.013556   | 17675.000000                            |
| 4                  | 20.667241<br>2.600000<br>209.000000 | 1.605944<br>-127.245401    | 1.639599<br>-0.013600   | 7764.000000                             |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear<br>DUD | Least Squares<br>H<br>G<br>CB       | DUD Initialization<br>W<br>CV | Dependent Variable<br>A | VOY<br>Sum of Squares<br>CT |
|-------------------|-------------------------------------|-------------------------------|-------------------------|-----------------------------|
| -8                | 20.667241<br>2.600000<br>209.000000 | 1.605944<br>-127.245401       | 1.639599<br>-0.013600   | 7764.000000                 |
| -7                | 22.733966<br>2.600000<br>209.000000 | 1.605944<br>-127.245401       | 1.639599<br>-0.013600   | 121181                      |
| -6                | 20.667241<br>2.600000<br>209.000000 | 1.766539<br>-127.245401       | 1.639599<br>-0.013600   | 89092.000000                |

**KINGSTON-KITCHENER  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |            |             |           | Dependent Variable VOY |
|---|------------|-------------|-----------|------------------------|
| DUD   | H          | W           | A         | Sum of Squares         |
|   | G          | CV          | CT        |                        |
|   | CB         |             |           |                        |
| -5  | 20.667241  | 1.605944    | 1.803559  | 7746.000000            |
|   | 2.600000   | -127.245401 | -0.013600 |                        |
|   | 209.000000 |             |           |                        |
| -4  | 20.667241  | 1.605944    | 1.639599  | 263570                 |
|   | 2.860000   | -127.245401 | -0.013600 |                        |
|   | 209.000000 |             |           |                        |
| -3  | 20.667241  | 1.605944    | 1.639599  | 1569832                |
|   | 2.600000   | -139.969941 | -0.013600 |                        |
|   | 209.000000 |             |           |                        |
| -2  | 20.667241  | 1.605944    | 1.639599  | 7764.000000            |
|   | 2.600000   | -127.245401 | -0.014960 |                        |
|   | 209.000000 |             |           |                        |
| -1  | 20.667241  | 1.605944    | 1.639599  | 7890.000000            |
|   | 2.600000   | -127.245401 | -0.013600 |                        |
|   | 229.900000 |             |           |                        |

| Non-Linear Least Squares Iterative Phase |            |             |           | Dependent Variable VOY Method: DUD |
|--|------------|-------------|-----------|------------------------------------|
| Iter                                     | H          | W           | A         | Sum of Squares                     |
|  | G          | CV          | CT        |                                    |
|  | CB         |             |           |                                    |
| 5  | 20.667241  | 1.605944    | 1.803559  | 7746.000000                        |
|  | 2.600000   | -127.245401 | -0.013600 |                                    |
|  | 209.000000 |             |           |                                    |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |            |             |           | Dependent Variable VOY |
|---|------------|-------------|-----------|------------------------|
| DUD   | H          | W           | A         | Sum of Squares         |
|   | G          | CV          | CT        |                        |
|   | CB         |             |           |                        |
| -8  | 20.667241  | 1.605944    | 1.803559  | 7746.000000            |
|   | 2.600000   | -127.245401 | -0.013600 |                        |
|   | 209.000000 |             |           |                        |
| -7  | 20.687909  | 1.605944    | 1.803559  | 7534.000000            |
|   | 2.600000   | -127.245401 | -0.013600 |                        |
|   | 209.000000 |             |           |                        |
| -6  | 20.667241  | 1.607550    | 1.803559  | 8080.000000            |
|   | 2.600000   | -127.245401 | -0.013600 |                        |
|   | 209.000000 |             |           |                        |
| -5  | 20.667241  | 1.605944    | 1.805362  | 7746.000000            |
|   | 2.600000   | -127.245401 | -0.013600 |                        |
|   | 209.000000 |             |           |                        |
| -4  | 20.667241  | 1.605944    | 1.803559  | 8342.000000            |
|   | 2.602600   | -127.245401 | -0.013600 |                        |
|   | 209.000000 |             |           |                        |
| -3  | 20.667241  | 1.605944    | 1.803559  | 8645.000000            |
|   | 2.600000   | -127.372646 | -0.013600 |                        |
|   | 209.000000 |             |           |                        |

**KINGSTON-KITCHENER  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |            |             |           | Dependent Variable VOY |
|---|------------|-------------|-----------|------------------------|
| DUD   | H          | W           | A         | Sum of Squares         |
|   | G          | CV          | CT        |                        |
|   | CB         |             |           |                        |
| -2  | 20.667241  | 1.605944    | 1.803559  | 7746.000000            |
|   | 2.600000   | -127.245401 | -0.013614 |                        |
|   | 209.000000 |             |           |                        |
| -1  | 20.667241  | 1.605944    | 1.803559  | 7746.000000            |
|   | 2.600000   | -127.245401 | -0.013600 |                        |
|   | 209.209000 |             |           |                        |

| Non-Linear Least Squares Iterative Phase |            |             |           | Dependent Variable VOY Method: DUD |
|--|------------|-------------|-----------|------------------------------------|
| Iter                                     | H          | W           | A         | Sum of Squares                     |
|  | G          | CV          | CT        |                                    |
|  | CB         |             |           |                                    |
| 5  | 20.687909  | 1.605944    | 1.803559  | 7534.000000                        |
|  | 2.600000   | -127.245401 | -0.013600 |                                    |
|  | 209.000000 |             |           |                                    |
| 6  | 20.684851  | 1.604635    | 1.700000  | 6997.000000                        |
|  | 2.587831   | -127.496166 | -0.013563 |                                    |
|  | 211.000000 |             |           |                                    |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 7  | 39965253.000   | 5709321.857            |
| Residual                                    | 24 | 6997.000       | 291.542                |
| Uncorrected Total                           | 31 | 39972250.000   |                        |
| (Corrected Total)                           | 30 | 33937163.419   |                        |

| Parameter | Estimate     | Asymptotic Std. Error | Asymptotic 95 % Confidence Interval |               |
|-----------|--------------|-----------------------|-------------------------------------|---------------|
|           |              |                       | Lower                               | Upper         |
| H         | 20.6848512   | 0.1185464885          | 20.44018523                         | 20.92951714   |
| W         | 1.6046354    | 0.0256978472          | 1.55159804                          | 1.65767268    |
| A         | 1.7000000    | 0.4770942253          | 0.71533384                          | 2.68466616    |
| G         | 2.5878312    | 0.0461677814          | 2.49254634                          | 2.68311604    |
| CV        | -127.4961660 | 1.1530679853          | -129.87596219                       | -125.11636981 |
| CT        | -0.0135633   | 0.0001799480          | -0.01393470                         | -0.01319192   |
| CB        | 211.0000000  | 9.1069791616          | 192.20427017                        | 229.79572983  |

**KINGSTON-KITCHENER  
Business Purpose**

Asymptotic Correlation Matrix

| Corr | H        | W        | A        | G        | CV       | CT       | CB       |
|------|----------|----------|----------|----------|----------|----------|----------|
| H    | 1        | -0.33615 | 0.033128 | 0.416294 | 0.039557 | 0.089597 | -0.07852 |
| W    | -0.33615 | 1        | 0.547897 | 0.069116 | 0.54992  | -0.50082 | -0.56123 |
| A    | 0.033128 | 0.547897 | 1        | 0.840745 | 0.999959 | -0.98506 | -0.99795 |
| G    | 0.416294 | 0.069116 | 0.840745 | 1        | 0.84179  | -0.80766 | -0.84665 |
| CV   | 0.039557 | 0.54992  | 0.999959 | 0.84179  | 1        | -0.98346 | -0.99849 |
| CT   | 0.089597 | -0.50082 | -0.98506 | -0.80766 | -0.98346 | 1        | 0.972014 |
| CB   | -0.07852 | -0.56123 | -0.99795 | -0.84665 | -0.99849 | 0.972014 | 1        |

**KINGSTON-KITCHENER**  
**Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 130.06                             | 0.999           |
| <b>w</b>          | 106.67                             |                 |
| <b>a</b>          | 170000.00                          |                 |
| <b>g</b>          | 43.73                              |                 |
| <b>cv</b>         | -151.91                            |                 |
| <b>ct</b>         | 100.00                             |                 |
| <b>cp</b>         |                                    |                 |
| <b>cb</b>         | 23.19                              |                 |



**KINGSTON-LONDON  
Non-Business Purpose**

| Non-Linear Least Squares |                      | DUD Initialization    |                        | Dependent Variable VOY |    |
|--------------------------|----------------------|-----------------------|------------------------|------------------------|----|
| DUD                      | H<br>G               | W<br>CT               | A                      | Sum of Squares         | CB |
| -7                       | 8.000000<br>2.600000 | 1.200000<br>50.000000 | 1.600000<br>150.000000 | 17930.000000           |    |
| -6                       | 8.800000<br>2.600000 | 1.200000<br>50.000000 | 1.600000<br>150.000000 | 1538041                |    |
| -5                       | 8.000000<br>2.600000 | 1.320000<br>50.000000 | 1.600000<br>150.000000 | 32378.000000           |    |
| -4                       | 8.000000<br>2.600000 | 1.200000<br>50.000000 | 1.760000<br>150.000000 | 17929.000000           |    |
| -3                       | 8.000000<br>2.860000 | 1.200000<br>50.000000 | 1.600000<br>150.000000 | 66283.000000           |    |
| -2                       | 8.000000<br>2.600000 | 1.200000<br>55.000000 | 1.600000<br>150.000000 | 17929.000000           |    |
| -1                       | 8.000000<br>2.600000 | 1.200000<br>50.000000 | 1.600000<br>165.000000 | 17930.000000           |    |

| Non-Linear Least Squares |                      | Iterative Phase       |                        | Dependent Variable VOY Method: DUD |    |
|--------------------------|----------------------|-----------------------|------------------------|------------------------------------|----|
| Iter                     | H<br>G               | W<br>CT               | A                      | Sum of Squares                     | CB |
| 0                        | 8.000000<br>2.600000 | 1.200000<br>50.000000 | 1.760000<br>150.000000 | 17929.000000                       |    |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares |                      | DUD Initialization    |                        | Dependent Variable VOY |    |
|--------------------------|----------------------|-----------------------|------------------------|------------------------|----|
| DUD                      | H<br>G               | W<br>CT               | A                      | Sum of Squares         | CB |
| -7                       | 8.000000<br>2.600000 | 1.200000<br>50.000000 | 1.760000<br>150.000000 | 17929.000000           |    |
| -6                       | 8.800000<br>2.600000 | 1.200000<br>50.000000 | 1.760000<br>150.000000 | 1538031                |    |
| -5                       | 8.000000<br>2.600000 | 1.320000<br>50.000000 | 1.760000<br>150.000000 | 32378.000000           |    |
| -4                       | 8.000000<br>2.600000 | 1.200000<br>50.000000 | 1.936000<br>150.000000 | 17929.000000           |    |

**KINGSTON-LONDON  
Non-Business Purpose**

| Non-Linear Least Squares DUD Initialization |                      |                       | Dependent Variable VOY |                |
|---|----------------------|-----------------------|------------------------|----------------|
| DUD   | H<br>G               | W<br>CT               | A<br>CB                | Sum of Squares |
| -3  | 8.000000<br>2.860000 | 1.200000<br>50.000000 | 1.760000<br>150.000000 | 66283.000000   |
| -2  | 8.000000<br>2.600000 | 1.200000<br>55.000000 | 1.760000<br>150.000000 | 17929.000000   |
| -1  | 8.000000<br>2.600000 | 1.200000<br>50.000000 | 1.760000<br>165.000000 | 17929.000000   |

| Non-Linear Least Squares Iterative Phase |                      |                       | Dependent Variable VOY Method: DUD |                |
|--|----------------------|-----------------------|------------------------------------|----------------|
| Iter                                     | H<br>G               | W<br>CT               | A<br>CB                            | Sum of Squares |
| 0  | 8.000000<br>2.600000 | 1.200000<br>50.000000 | 1.760000<br>150.000000             | 17929.000000   |
| 1  | 7.996939<br>2.641258 | 1.136196<br>50.056120 | 1.760000<br>150.168360             | 16806.000000   |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |  |
|---|----|----------------|------------------------|--|
| Source                                      | DF | Sum of Squares | Mean Square            |  |
| Regression                                  | 6  | 172036113.00   | 28672685.50            |  |
| Residual                                    | 27 | 16806.00       | 622.44                 |  |
| Uncorrected Total                           | 33 | 172052919.00   |                        |  |
| (Corrected Total)                           | 32 | 126576854.73   |                        |  |

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
| H         | 7.9969392   | 0.032106468              | 7.931062686                            | 8.06281572   |
| W         | 1.1361957   | 0.352275986              | 0.413390693                            | 1.85900070   |
| A         | 1.7600000   | 0.610189067              | 0.508005180                            | 3.01199482   |
| G         | 2.6412580   | 0.323732469              | 1.977018957                            | 3.30549695   |
| CT        | 50.0561199  | 16.750459692             | 15.687282574                           | 84.42495715  |
| CB        | 150.1683596 | 50.251379077             | 47.061847723                           | 253.27487146 |

**KINGSTON-LONDON  
Non-Business Purpose**

**Asymptotic Correlation Matrix**

| Corr | H         | W         | A         | G         | CT        | CB        |
|------|-----------|-----------|-----------|-----------|-----------|-----------|
| H    | 1         | 0.228693  | 0.9930788 | -0.032866 | 0.9925856 | 0.9925856 |
| W    | 0.228693  | 1         | 0.113241  | -0.973658 | 0.109155  | 0.109155  |
| A    | 0.9930788 | 0.113241  | 1         | 0.0821919 | 0.9999915 | 0.9999915 |
| G    | -0.032866 | -0.973658 | 0.0821919 | 1         | 0.0862148 | 0.0862148 |
| CT   | 0.9925856 | 0.109155  | 0.9999915 | 0.0862148 | 1         | 1         |
| CB   | 0.9925856 | 0.109155  | 0.9999915 | 0.0862148 | 1         | 1         |

| Non-Linear Least Squares DUD Initialization |            |    | Dependent Variable VOY |  |
|---|------------|----|------------------------|--|
| DUD   |            | CV | Sum of Squares         |  |
| -2  | -39.800000 |    | 15652464               |  |
| -1  | -43.780000 |    | 9880711                |  |

| Non-Linear Least Squares Iterative Phase |            |    | Dependent Variable VOY Method: DUD |  |
|--|------------|----|------------------------------------|--|
| Iter                                     |            | CV | Sum of Squares                     |  |
| 0  | -43.780000 |    | 9880711                            |  |
| 1  | -53.000000 |    | 16806.000000                       |  |
| 2  | -52.852799 |    | 14080.000000                       |  |

NOTE: Convergence criterion met.

**Non-Linear Least Squares Summary Statistics**      **Dependent Variable VOY**

| Source            | DF | Sum of Squares | Mean Square  |
|-------------------|----|----------------|--------------|
| Regression        | 1  | 172038839.00   | 172038839.00 |
| Residual          | 32 | 14080.00       | 440.00       |
| Uncorrected Total | 33 | 172052919.00   |              |
| (Corrected Total) | 32 | 126576854.73   |              |

| Parameter | Estimate     | Asymptotic Std. Error | Asymptotic 95 % Confidence Interval |               |
|-----------|--------------|-----------------------|-------------------------------------|---------------|
|           |              |                       | Lower                               | Upper         |
| CV        | -52.85279862 | 0.05960009778         | -52.974199228                       | -52.731398007 |

**Asymptotic Correlation Matrix**

| Corr | CV |
|------|----|
|      | 1  |

**KINGSTON-LONDON**  
**Non-Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 266.33                             | 0.999           |
| <b>w</b>          | 3.23                               |                 |
| <b>a</b>          | 2.89                               |                 |
| <b>g</b>          | 8.25                               |                 |
| <b>cv</b>         | -3.16                              |                 |
| <b>ct</b>         | 847.46                             |                 |
| <b>cp</b>         |                                    |                 |
| <b>cb</b>         | 2.99                               |                 |

**KINGSTON-LONDON  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |                                   |                      | Dependent Variable VOY |                |
|---|-----------------------------------|----------------------|------------------------|----------------|
| DUD   | H<br>G<br>CB                      | W<br>CV              | A<br>CT                | Sum of Squares |
| -8  | 20.000000<br>2.600000<br>0        | 1.200000<br>0        | 1.600000<br>0          | 151.000000     |
| -7  | 22.000000<br>2.600000<br>0        | 1.200000<br>0        | 1.600000<br>0          | 232.000000     |
| -6  | 20.000000<br>2.600000<br>0        | 1.320000<br>0        | 1.600000<br>0          | 274.000000     |
| -5  | 20.000000<br>2.600000<br>0        | 1.200000<br>0        | 1.760000<br>0          | 202.000000     |
| -4  | 20.000000<br>2.860000<br>0        | 1.200000<br>0        | 1.600000<br>0          | 567.000000     |
| -3  | 20.000000<br>2.600000<br>0        | 1.200000<br>0.100000 | 1.600000<br>0          | 151.000000     |
| -2  | 20.000000<br>2.600000<br>0        | 1.200000<br>0        | 1.600000<br>0.100000   | 168.000000     |
| -1  | 20.000000<br>2.600000<br>0.100000 | 1.200000<br>0        | 1.600000<br>0          | 161.000000     |

| Non-Linear Least Squares Iterative Phase |                                   |               | Dependent Variable VOY Method: DUD |                |
|--|-----------------------------------|---------------|------------------------------------|----------------|
| Iter                                     | H<br>G<br>CB                      | W<br>CV       | A<br>CT                            | Sum of Squares |
| 0  | 20.000000<br>2.600000<br>0        | 1.200000<br>0 | 1.600000<br>0                      | 151.000000     |
| 1  | 20.043174<br>2.572151<br>0.045384 | 1.219396<br>0 | 1.597779<br>0.072130               | 146.000000     |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 7  | 354034.00000   | 50576.28571            |
| Residual                                    | 26 | 146.00000      | 5.61538                |
| Uncorrected Total                           | 33 | 354180.00000   |                        |
| (Corrected Total)                           | 32 | 57683.51515    |                        |

**KINGSTON-LONDON**  
**Business Purpose**

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
| H         | 20.04317364 | 1.5142548901             | 16.930602748                           | 23.155744536 |
| W         | 1.21939573  | 0.0778891330             | 1.059293588                            | 1.379497868  |
| A         | 1.59777867  | 0.1509097877             | 1.287581608                            | 1.907975725  |
| G         | 2.57215082  | 0.0684424665             | 2.431466429                            | 2.712835213  |
| CV        | 0.00000000  | 0.1553112072             | -0.319244234                           | 0.319244234  |
| CT        | 0.07212970  | 0.2568850118             | -0.455900827                           | 0.600160231  |
| CB        | 0.04538428  | 0.2508446563             | -0.470230218                           | 0.560998780  |

Asymptotic Correlation Matrix

| Corr | H        | W        | A        | G        | CV       | CT       | CB       |
|------|----------|----------|----------|----------|----------|----------|----------|
| H    | 1        | -0.65765 | -0.9093  | 0.127804 | 0.172422 | 0.442334 | -0.49939 |
| W    | -0.65765 | 1        | 0.655299 | -0.75425 | -0.64437 | 0.121972 | 0.620917 |
| A    | -0.9093  | 0.655299 | 1        | -0.20788 | -0.14654 | -0.48032 | 0.472393 |
| G    | 0.127804 | -0.75425 | -0.20788 | 1        | 0.77727  | -0.5351  | -0.51725 |
| CV   | 0.172422 | -0.64437 | -0.14654 | 0.77727  | 1        | -0.58468 | -0.73208 |
| CT   | 0.442334 | 0.121972 | -0.48032 | -0.5351  | -0.58468 | 1        | -0.10395 |
| CB   | -0.49939 | 0.620917 | 0.472393 | -0.51725 | -0.73208 | -0.10395 | 1        |

**KINGSTON-LONDON**  
**Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 13.25                              | 0.997           |
| <b>w</b>          | 15.71                              |                 |
| <b>a</b>          | 10.60                              |                 |
| <b>g</b>          | 37.79                              |                 |
| <b>cv</b>         |                                    |                 |
| <b>ct</b>         | 0.28                               |                 |
| <b>cp</b>         |                                    |                 |
| <b>cb</b>         | 0.18                               |                 |

**TORONTO-KITCHENER  
Non-Business Purpose**

| Non-Linear<br>DUD | Least Squares        |  | DUD Initialization    |  | Dependent Variable VOY |
|-------------------|----------------------|--|-----------------------|--|------------------------|
|                   | H<br>G               |  | W<br>CT               |  | A Sum of Squares<br>CB |
| -7                | 6.000000<br>3.200000 |  | 1.600000<br>25.000000 |  | 2293505                |
| -6                | 6.600000<br>3.200000 |  | 1.600000<br>25.000000 |  | 149417021              |
| -5                | 6.000000<br>3.200000 |  | 1.760000<br>25.000000 |  | 2230719                |
| -4                | 6.000000<br>3.200000 |  | 1.600000<br>25.000000 |  | 2290004                |
| -3                | 6.000000<br>3.520000 |  | 1.600000<br>25.000000 |  | 95847480               |
| -2                | 6.000000<br>3.200000 |  | 1.600000<br>27.500000 |  | 2293680                |
| -1                | 6.000000<br>3.200000 |  | 1.600000<br>25.000000 |  | 2290302                |

| Non-Linear<br>Iter | Least Squares        |  | Iterative Phase       |  | Dependent Variable VOY Method: DUD |
|--------------------|----------------------|--|-----------------------|--|------------------------------------|
|                    | H<br>G               |  | W<br>CT               |  | A Sum of Squares<br>CB             |
| 0                  | 6.000000<br>3.200000 |  | 1.760000<br>25.000000 |  | 2230719                            |
| 1                  | 5.993224<br>3.197106 |  | 1.700000<br>24.000000 |  | 2078017                            |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 6  | 2292331458433  | 382055243072           |
| Residual                                    | 36 | 2078017        | 57722.6944444          |
| Uncorrected Total                           | 42 | 2292333536450  |                        |
| (Corrected Total)                           | 41 | 1743676161655  |                        |



**TORONTO-KITCHENER  
Non-Business Purpose**

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
|           |             |                          | H                                      | 5.99322411   |
| W         | 1.70000000  | 2.97425714               | -4.33203890                            | 7.73203890   |
| A         | 1.87383461  | 22.63637423              | -44.03460013                           | 47.78226935  |
| G         | 3.19710613  | 0.13990325               | 2.91337081                             | 3.48084146   |
| CT        | 24.00000000 | 229.71508872             | -441.88115455                          | 489.88115455 |
| CB        | 24.05457653 | 220.85721521             | -423.86207964                          | 471.97123269 |

**Asymptotic Correlation Matrix**

| Corr | H         | W         | A         | G         | CT        | CB        |
|------|-----------|-----------|-----------|-----------|-----------|-----------|
| H    | 1         | 0.9939858 | 0.0965244 | -0.897167 | 0.5237859 | 0.5279769 |
| W    | 0.9939858 | 1         | 0.079836  | -0.939674 | 0.5432999 | 0.5484408 |
| A    | 0.0965244 | 0.079836  | 1         | -0.014198 | -0.729325 | -0.787889 |
| G    | -0.897167 | -0.939674 | -0.014198 | 1         | -0.567088 | -0.576095 |
| CT   | 0.5237859 | 0.5432999 | -0.729325 | -0.567088 | 1         | 0.9427075 |
| CB   | 0.5279769 | 0.5484408 | -0.787889 | -0.576095 | 0.9427075 | 1         |

**TORONTO-KITCHENER  
Non-Business Purpose**

| Non-Linear Least Squares DUD Initialization |            | Dependent Variable VOY |
|---|------------|------------------------|
| DUD   | CV         | Sum of Squares         |
| -2  | -9.700000  | 2353142812             |
| -1  | -10.670000 | 1154475493             |

| Non-Linear Least Squares Iterative Phase |            | Dependent Variable VOY Method: DUD |
|--|------------|------------------------------------|
| Iter                                     | CV         | Sum of Squares                     |
| 0  | -10.670000 | 1154475493                         |
| 1  | -12.803690 | 10775193                           |
| 2  | -12.998211 | 2069617                            |
| 3  | -12.990843 | 2057872                            |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 1  | 2292331478578  | 2292331478578          |
| Residual                                    | 41 | 2057872        | 50192                  |
| Uncorrected Total                           | 42 | 2292333536450  |                        |
| (Corrected Total)                           | 41 | 1743676161655  |                        |

| Parameter | Estimate     | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |               |
|-----------|--------------|--------------------------|--|---------------|
|           |              |                          | Lower                                  | Upper         |
| CV        | -12.99084345 | 0.01400832655            | -13.019133718                          | -12.962553182 |

Asymptotic Correlation Matrix

| Corr  | CV |
|-------|----|
| ----- |    |
| CV    | 1  |

**TORONTO-KITCHENER**  
**Non-Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 10.70                              | 0.999           |
| <b>w</b>          | 0.57                               |                 |
| <b>a</b>          | 0.08                               |                 |
| <b>g</b>          | 24.54                              |                 |
| <b>cv</b>         | -928.57                            |                 |
| <b>ct</b>         | 0.10                               |                 |
| <b>cp</b>         |                                    |                 |
| <b>cb</b>         | 0.11                               |                 |

**TORONTO-KITCHENER  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |                                    |                        | Dependent Variable VOY |                |
|---|------------------------------------|------------------------|------------------------|----------------|
| DUD   | H<br>G<br>CB                       | W<br>CV                | A<br>CT                | Sum of Squares |
| -8  | 16.000000<br>3.500000<br>60.000000 | 1.600000<br>-43.000000 | 1.700000<br>10.000000  | 36609288       |
| -7  | 17.600000<br>3.500000<br>60.000000 | 1.600000<br>-43.000000 | 1.700000<br>10.000000  | 61649423       |
| -6  | 16.000000<br>3.500000<br>60.000000 | 1.760000<br>-43.000000 | 1.700000<br>10.000000  | 29840726       |
| -5  | 16.000000<br>3.500000<br>60.000000 | 1.600000<br>-43.000000 | 1.870000<br>10.000000  | 36543893       |
| -4  | 16.000000<br>3.850000<br>60.000000 | 1.600000<br>-43.000000 | 1.700000<br>10.000000  | 15402152       |
| -3  | 16.000000<br>3.500000<br>60.000000 | 1.600000<br>-47.300000 | 1.700000<br>10.000000  | 1078947        |
| -2  | 16.000000<br>3.500000<br>60.000000 | 1.600000<br>-43.000000 | 1.700000<br>11.000000  | 36616020       |
| -1  | 16.000000<br>3.500000<br>66.000000 | 1.600000<br>-43.000000 | 1.700000<br>10.000000  | 36510337       |

| Non-Linear Least Squares Iterative Phase |                                    |                        | Dependent Variable VOY Method: DUD |                |
|--|------------------------------------|------------------------|------------------------------------|----------------|
| Iter                                     | H<br>G<br>CB                       | W<br>CV                | A<br>CT                            | Sum of Squares |
| 0  | 16.000000<br>3.500000<br>60.000000 | 1.600000<br>-47.300000 | 1.700000<br>10.000000              | 1078947        |
| 1  | 15.998357<br>3.501198<br>59.561434 | 1.597033<br>-47.298333 | 1.705162<br>9.638756               | 1071705        |
| 2  | 15.998901<br>3.502099<br>59.255658 | 1.595901<br>-47.296540 | 1.712090<br>9.359712               | 1070967        |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 7  | 101766941471   | 14538134496            |
| Residual                                    | 35 | 1070967        | 30599                  |
| Uncorrected Total                           | 42 | 101768012438   |                        |
| (Corrected Total)                           | 41 | 74783038590    |                        |

**TORONTO-KITCHENER**  
**Business Purpose**

| Parameter | Estimate     | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|--------------|--------------------------|--|--------------|
|           |              |                          | Lower                                  | Upper        |
| H         | 15.99890111  | 0.24675126               | 15.49797239                            | 16.49982983  |
| W         | 1.59590134   | 1.72653728               | -1.90913488                            | 5.10093756   |
| A         | 1.71208990   | 5.28562743               | -9.01824057                            | 12.44242036  |
| G         | 3.50209884   | 0.55712809               | 2.37107540                             | 4.63312228   |
| CV        | -47.29654040 | 2.43109212               | -52.23189049                           | -42.36119031 |
| CT        | 9.35971217   | 85.30729942              | -163.82228477                          | 182.54170912 |
| CB        | 59.25565816  | 126.92551262             | -198.41530185                          | 316.92661817 |

Asymptotic Correlation Matrix

| Corr | H        | W        | A        | G        | CV       | CT       | CB       |
|------|----------|----------|----------|----------|----------|----------|----------|
| H    | 1        | 0.384848 | -0.09476 | -0.323   | -0.01279 | 0.635518 | 0.532174 |
| W    | 0.384848 | 1        | 0.6993   | -0.97707 | 0.85302  | 0.471072 | 0.750416 |
| A    | -0.09476 | 0.6993   | 1        | -0.70868 | 0.852037 | -0.1894  | 0.122008 |
| G    | -0.323   | -0.97707 | -0.70868 | 1        | -0.80171 | -0.44074 | -0.73784 |
| CV   | -0.01279 | 0.85302  | 0.852037 | -0.80171 | 1        | 0.022798 | 0.441074 |
| CT   | 0.635518 | 0.471072 | -0.1894  | -0.44074 | 0.022798 | 1        | 0.725338 |
| CB   | 0.532174 | 0.750416 | 0.122008 | -0.73784 | 0.441074 | 0.725338 | 1        |

**TORONTO-KITCHENER**  
**Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 66.67                              | 0.999           |
| <b>w</b>          | 0.93                               |                 |
| <b>a</b>          | 0.32                               |                 |
| <b>g</b>          | 6.36                               |                 |
| <b>cv</b>         | -19.42                             |                 |
| <b>ct</b>         | 0.11                               |                 |
| <b>cp</b>         |                                    |                 |
| <b>cb</b>         | 0.47                               |                 |

**TORONTO-LONDON  
Non-Business Purpose**

| Non-Linear Least Squares DUD Initialization |            |            | Dependent Variable VOY |                |
|---|------------|------------|------------------------|----------------|
| DUD   | H          | W          | A                      | Sum of Squares |
|   | G          | CV         | CT                     |                |
|   | CP         | CB         |                        |                |
| -9  | 7.000000   | 1.600000   | 1.800000               | 1411289409     |
|   | 2.300000   | -20.000000 | 54.000000              |                |
|   | 570.000000 | 93.000000  |                        |                |
| -8  | 7.700000   | 1.600000   | 1.800000               | 2729647033     |
|   | 2.300000   | -20.000000 | 54.000000              |                |
|   | 570.000000 | 93.000000  |                        |                |
| -7  | 7.000000   | 1.760000   | 1.800000               | 1104452837     |
|   | 2.300000   | -20.000000 | 54.000000              |                |
|   | 570.000000 | 93.000000  |                        |                |
| -6  | 7.000000   | 1.600000   | 1.980000               | 1410157984     |
|   | 2.300000   | -20.000000 | 54.000000              |                |
|   | 570.000000 | 93.000000  |                        |                |
| -5  | 7.000000   | 1.600000   | 1.800000               | 668586578      |
|   | 2.530000   | -20.000000 | 54.000000              |                |
|   | 570.000000 | 93.000000  |                        |                |
| -4  | 7.000000   | 1.600000   | 1.800000               | 126026410      |
|   | 2.300000   | -22.000000 | 54.000000              |                |
|   | 570.000000 | 93.000000  |                        |                |
| -3  | 7.000000   | 1.600000   | 1.800000               | 1408998116     |
|   | 2.300000   | -20.000000 | 59.400000              |                |
|   | 570.000000 | 93.000000  |                        |                |
| -2  | 7.000000   | 1.600000   | 1.800000               | 1410909867     |
|   | 2.300000   | -20.000000 | 54.000000              |                |
|   | 627.000000 | 93.000000  |                        |                |
| -1  | 7.000000   | 1.600000   | 1.800000               | 1408870915     |
|   | 2.300000   | -20.000000 | 54.000000              |                |
|   | 570.000000 | 102.300000 |                        |                |

| Non-Linear Least Squares Iterative Phase |            |            | Dependent Variable VOY Method: DUD |                |
|--|------------|------------|------------------------------------|----------------|
| Iter                                     | H          | W          | A                                  | Sum of Squares |
|  | G          | CV         | CT                                 |                |
|  | CP         | CB         |                                    |                |
| 0  | 7.000000   | 1.600000   | 1.800000                           | 126026410      |
|  | 2.300000   | -22.000000 | 54.000000                          |                |
|  | 570.000000 | 93.000000  |                                    |                |
| 1  | 7.007747   | 1.598841   | 1.707814                           | 125000079      |
|  | 2.300816   | -22.017964 | 54.898222                          |                |
|  | 570.095149 | 94.000000  |                                    |                |
| 2  | 7.007694   | 1.597922   | 1.700000                           | 124550613      |
|  | 2.300860   | -22.020308 | 54.903077                          |                |
|  | 569.646700 | 93.988056  |                                    |                |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 8  | 269199435434   | 33649929429            |
| Residual                                    | 49 | 124550613      | 2541849                |
| Uncorrected Total                           | 57 | 269323986047   |                        |
| (Corrected Total)                           | 56 | 219537790511   |                        |

**TORONTO-LONDON  
Non-Business Purpose**

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
| H         | 7.0076944   | 6.1689711                | -5.389290                              | 19.404679    |
| W         | 1.5979217   | 4.2772060                | -6.997427                              | 10.193270    |
| A         | 1.7000000   | 144.2493859              | -288.179355                            | 291.579355   |
| G         | 2.3008602   | 0.5208666                | 1.254142                               | 3.347579     |
| CV        | -22.0203085 | 8.4166962                | -38.934255                             | -5.106362    |
| CT        | 54.9030768  | 1631.9804613             | -3224.677216                           | 3334.483370  |
| CP        | 569.6466998 | 9589.5603864             | -18701.253907                          | 19840.547307 |
| CB        | 93.9880561  | 1887.5918386             | -3699.261399                           | 3887.237511  |

**Asymptotic Correlation Matrix**

| Corr | H            | W            | A            | G            |
|------|--------------|--------------|--------------|--------------|
| H    | 1            | 0.5992107475 | -0.835059617 | -0.013355428 |
| W    | 0.5992107475 | 1            | -0.798396287 | -0.734998372 |
| A    | -0.835059617 | -0.798396287 | 1            | 0.4006155846 |
| G    | -0.013355428 | -0.734998372 | 0.4006155846 | 1            |
| CV   | -0.744215003 | 0.0795268521 | 0.378192185  | -0.543101794 |
| CT   | 0.8249620989 | 0.8624732436 | -0.990766674 | -0.47724471  |
| CP   | 0.0955819185 | 0.2540380855 | -0.549491306 | -0.331646    |
| CB   | 0.8310352379 | 0.8716330213 | -0.984128384 | -0.485843545 |

| Corr | CV           | CT           | CP           | CB           |
|------|--------------|--------------|--------------|--------------|
| H    | -0.744215003 | 0.8249620989 | 0.0955819185 | 0.8310352379 |
| W    | 0.0795268521 | 0.8624732436 | 0.2540380855 | 0.8716330213 |
| A    | 0.378192185  | -0.990766674 | -0.549491306 | -0.984128384 |
| G    | -0.543101794 | -0.47724471  | -0.331646    | -0.485843545 |
| CV   | 1            | -0.31474167  | 0.0778904096 | -0.317062796 |
| CT   | -0.31474167  | 1            | 0.4871437539 | 0.9925696128 |
| CP   | 0.0778904096 | 0.4871437539 | 1            | 0.4563007211 |
| CB   | -0.317062796 | 0.9925696128 | 0.4563007211 | 1            |



**TORONTO-LONDON  
Non-Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 1.14                               | 0.999           |
| <b>w</b>          | 0.37                               |                 |
| <b>a</b>          | 0.01                               |                 |
| <b>g</b>          | 4.42                               |                 |
| <b>cv</b>         | -2.62                              |                 |
| <b>ct</b>         | 0.03                               |                 |
| <b>cp</b>         | 0.06                               |                 |
| <b>cb</b>         | 0.05                               |                 |

**TORONTO-LONDON  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |                                     |                       | Dependent Variable VOY |              |
|---|-------------------------------------|-----------------------|------------------------|--------------|
| DUD   | H<br>G<br>CB                        | W<br>CT               | A Sum of Squares       | CP           |
| -5  | 16.000000<br>2.800000<br>352.000000 | 1.870000<br>30.000000 | 1.980000<br>216.000000 | 38523.000000 |
| -4  | 16.000000<br>3.080000<br>352.000000 | 1.870000<br>30.000000 | 1.800000<br>216.000000 | 911352       |
| -3  | 16.000000<br>2.800000<br>352.000000 | 1.870000<br>33.000000 | 1.800000<br>216.000000 | 38614.000000 |
| -2  | 16.000000<br>2.800000<br>352.000000 | 1.870000<br>30.000000 | 1.800000<br>237.600000 | 38510.000000 |
| -1  | 16.000000<br>2.800000<br>387.200000 | 1.870000<br>30.000000 | 1.800000<br>216.000000 | 38880.000000 |

| Non-Linear Least Squares Iterative Phase |                                     |                       | Dependent Variable VOY Method: DUD |              |
|--|-------------------------------------|-----------------------|------------------------------------|--------------|
| Iter                                     | H<br>G<br>CB                        | W<br>CT               | A Sum of Squares                   | CP           |
| 0  | 16.000000<br>2.800000<br>352.000000 | 1.870000<br>30.000000 | 1.800000<br>237.600000             | 38510.000000 |
| 1  | 16.000446<br>2.800246<br>352.204497 | 1.869971<br>30.012159 | 1.798695<br>237.484554             | 38426.000000 |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |                                     |                       | Dependent Variable VOY |              |
|---|-------------------------------------|-----------------------|------------------------|--------------|
| DUD   | H<br>G<br>CB                        | W<br>CT               | A Sum of Squares       | CP           |
| -8  | 16.000446<br>2.800246<br>352.204497 | 1.869971<br>30.012159 | 1.798695<br>237.484554 | 38426.000000 |
| -7  | 17.600491<br>2.800246<br>352.204497 | 1.869971<br>30.012159 | 1.798695<br>237.484554 | 8751048      |
| -6  | 16.000446<br>2.800246<br>352.204497 | 2.056968<br>30.012159 | 1.798695<br>237.484554 | 40080.000000 |
| -5  | 16.000446<br>2.800246<br>352.204497 | 1.869971<br>30.012159 | 1.978565<br>237.484554 | 38670.000000 |
| -4  | 16.000446<br>3.080271<br>352.204497 | 1.869971<br>30.012159 | 1.798695<br>237.484554 | 911353       |

**TORONTO-LONDON  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |                                     |                       | Dependent Variable VOY |              |
|---|-------------------------------------|-----------------------|------------------------|--------------|
| DUD   | H<br>G<br>CB                        | W<br>CT               | A Sum of Squares       | CP           |
| -3  | 16.000446<br>2.800246<br>352.204497 | 1.869971<br>33.013375 | 1.798695<br>237.484554 | 38532.000000 |
| -2  | 16.000446<br>2.800246<br>352.204497 | 1.869971<br>30.012159 | 1.798695<br>261.233009 | 38663.000000 |
| -1  | 16.000446<br>2.800246<br>387.424947 | 1.869971<br>30.012159 | 1.798695<br>237.484554 | 38536.000000 |

| Non-Linear Least Squares Iterative Phase |                                     |                       | Dependent Variable VOY Method: DUD |              |
|--|-------------------------------------|-----------------------|------------------------------------|--------------|
| Iter                                     | H<br>G<br>CB                        | W<br>CT               | A Sum of Squares                   | CP           |
| 2  | 16.000446<br>2.800246<br>352.204497 | 1.869971<br>30.012159 | 1.798695<br>237.484554             | 38426.000000 |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |                                     |                       | Dependent Variable VOY |              |
|---|-------------------------------------|-----------------------|------------------------|--------------|
| DUD   | H<br>G<br>CB                        | W<br>CT               | A Sum of Squares       | CP           |
| -8  | 16.000446<br>2.800246<br>352.204497 | 1.869971<br>30.012159 | 1.798695<br>237.484554 | 38426.000000 |
| -7  | 16.016447<br>2.800246<br>352.204497 | 1.869971<br>30.012159 | 1.798695<br>237.484554 | 39873.000000 |
| -6  | 16.000446<br>2.800246<br>352.204497 | 1.871841<br>30.012159 | 1.798695<br>237.484554 | 38606.000000 |
| -5  | 16.000446<br>2.800246<br>352.204497 | 1.869971<br>30.012159 | 1.800494<br>237.484554 | 38426.000000 |
| -4  | 16.000446<br>2.803046<br>352.204497 | 1.869971<br>30.012159 | 1.798695<br>237.484554 | 38633.000000 |
| -3  | 16.000446<br>2.800246<br>352.204497 | 1.869971<br>30.042171 | 1.798695<br>237.484554 | 38426.000000 |
| -2  | 16.000446<br>2.800246<br>352.204497 | 1.869971<br>30.012159 | 1.798695<br>237.722039 | 38426.000000 |
| -1  | 16.000446<br>2.800246<br>352.556702 | 1.869971<br>30.012159 | 1.798695<br>237.484554 | 38426.000000 |

**TORONTO-LONDON  
Business Purpose**

|  |                        |           |            |                |
|--|------------------------|-----------|------------|----------------|
| Non-Linear Least Squares Iterative Phase | Dependent Variable VOY |           |            | Method: DUD    |
| Iter                                     | H                      | W         | A          | Sum of Squares |
|  | G                      | CT        | CP         |                |
|  | CB                     |           |            |                |
| 2  | 16.000446              | 1.869971  | 1.798695   | 38426.000000   |
|  | 2.800246               | 30.012159 | 237.484554 |                |
|  | 352.204497             |           |            |                |

WARNING: Step size shows no improvement.  
WARNING: PROC NLIN failed to converge.

Non-Linear Least Squares Summary Statistics      Dependent Variable VOY

| Source            | DF | Sum of Squares | Mean Square |
|-------------------|----|----------------|-------------|
| Regression        | 7  | 37497061391    | 5356723056  |
| Residual          | 50 | 38426          | 769         |
| Uncorrected Total | 57 | 37497099817    |             |
| (Corrected Total) | 56 | 30307833473    |             |

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
| H         | 16.0004463  | 0.06759567345            | 15.86467661                            | 16.13621589  |
| W         | 1.8699707   | 0.04303299637            | 1.78353657                             | 1.95640487   |
| A         | 1.7986950   | 0.00000000000            | 1.79869502                             | 1.79869502   |
| G         | 2.8002462   | 0.03099467114            | 2.73799170                             | 2.86250071   |
| CT        | 30.0121592  | 0.00000000000            | 30.01215920                            | 30.01215920  |
| CP        | 237.4845540 | 0.00000000000            | 237.48455401                           | 237.48455401 |
| CB        | 352.2044970 | 0.00000000000            | 352.20449705                           | 352.20449705 |

Asymptotic Correlation Matrix

| Corr | H        | W        | A | G        | CT | CP | CB |
|------|----------|----------|---|----------|----|----|----|
| H    | 1        | -0.39032 | . | 0.970244 | .  | .  | .  |
| W    | -0.39032 | 1        | . | -0.4633  | .  | .  | .  |
| A    | .        | .        | . | .        | .  | .  | .  |
| G    | 0.970244 | -0.4633  | . | 1        | .  | .  | .  |
| CT   | .        | .        | . | .        | .  | .  | .  |
| CP   | .        | .        | . | .        | .  | .  | .  |
| CB   | .        | .        | . | .        | .  | .  | .  |

**TORONTO-LONDON  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |            | Dependent Variable VOY |
|---|------------|------------------------|
| DUD   |            | CV Sum of Squares      |
| -2  | -52.000000 | 1176070950             |
| -1  | -57.200000 | 744314820              |

| Non-Linear Least Squares Iterative Phase |            | Dependent Variable VOY Method: DUD |
|--|------------|------------------------------------|
| Iter                                     |            | CV Sum of Squares                  |
| 0  | -57.200000 | 744314820                          |
| 1  | -76.686653 | 1285230                            |
| 2  | -77.494543 | 214981                             |
| 3  | -77.983756 | 39249.000000                       |
| 4  | -78.000000 | 38426.000000                       |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 1  | 37497061391    | 37497061391            |
| Residual                                    | 56 | 38426          | 686                    |
| Uncorrected Total                           | 57 | 37497099817    |                        |
| (Corrected Total)                           | 56 | 30307833473    |                        |

| Parameter | Estimate     | Asymptotic Std. Error | Asymptotic 95 % Confidence Interval |               |
|-----------|--------------|-----------------------|-------------------------------------|---------------|
|           |              |                       | Lower                               | Upper         |
| CV        | -78.00000000 | 0.03145383780         | -78.063009572                       | -77.936990428 |

Asymptotic Correlation Matrix

| Corr | CV |
|------|----|
|      | 1  |
| CV   |    |

**TORONTO-LONDON  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |                                     |                       | Dependent Variable VOY |                |
|---|-------------------------------------|-----------------------|------------------------|----------------|
| DUD   | H<br>G<br>CB                        | W<br>CT               | A<br>CP                | Sum of Squares |
| -8  | 16.000000<br>2.800000<br>352.000000 | 1.700000<br>30.000000 | 1.800000<br>216.000000 | 43066.000000   |
| -7  | 17.600000<br>2.800000<br>352.000000 | 1.700000<br>30.000000 | 1.800000<br>216.000000 | 11341313       |
| -6  | 16.000000<br>2.800000<br>352.000000 | 1.870000<br>30.000000 | 1.800000<br>216.000000 | 38823.000000   |
| -5  | 16.000000<br>2.800000<br>352.000000 | 1.700000<br>30.000000 | 1.980000<br>216.000000 | 42744.000000   |
| -4  | 16.000000<br>3.080000<br>352.000000 | 1.700000<br>30.000000 | 1.800000<br>216.000000 | 834126         |
| -3  | 16.000000<br>2.800000<br>352.000000 | 1.700000<br>33.000000 | 1.800000<br>216.000000 | 42743.000000   |
| -2  | 16.000000<br>2.800000<br>352.000000 | 1.700000<br>30.000000 | 1.800000<br>237.600000 | 42740.000000   |
| -1  | 16.000000<br>2.800000<br>387.200000 | 1.700000<br>30.000000 | 1.800000<br>216.000000 | 43071.000000   |

| Non-Linear Least Squares Iterative Phase |                                     |                       | Dependent Variable VOY Method: DUD |                |
|--|-------------------------------------|-----------------------|------------------------------------|----------------|
| Iter                                     | H<br>G<br>CB                        | W<br>CT               | A<br>CP                            | Sum of Squares |
| 0  | 16.000000<br>2.800000<br>352.000000 | 1.870000<br>30.000000 | 1.800000<br>216.000000             | 38823.000000   |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |                                     |                       | Dependent Variable VOY |                |
|---|-------------------------------------|-----------------------|------------------------|----------------|
| DUD   | H<br>G<br>CB                        | W<br>CT               | A<br>CP                | Sum of Squares |
| -8  | 16.000000<br>2.800000<br>352.000000 | 1.870000<br>30.000000 | 1.800000<br>216.000000 | 38823.000000   |
| -7  | 17.600000<br>2.800000<br>352.000000 | 1.870000<br>30.000000 | 1.800000<br>216.000000 | 8767932        |
| -6  | 16.000000<br>2.800000<br>352.000000 | 2.057000<br>30.000000 | 1.800000<br>216.000000 | 40437.000000   |

**TORONTO-LONDON**  
**Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 266.67                             | 0.999           |
| <b>w</b>          | 46.50                              |                 |
| <b>a</b>          | 161.26                             |                 |
| <b>g</b>          | 93.33                              |                 |
| <b>cv</b>         | -2484.08                           |                 |
| <b>ct</b>         | 3000.00                            |                 |
| <b>cp</b>         | 23700.00                           |                 |
| <b>cb</b>         | 35200.00                           |                 |

**TORONTO-WINDSOR  
Non-Business Purpose**

| Non-Linear Least Squares DUD Initialization |                                    |                       | Dependent Variable VOY |                |
|---|------------------------------------|-----------------------|------------------------|----------------|
| DUD   | H<br>G<br>CB                       | W<br>CT               | A<br>CP                | Sum of Squares |
| -8  | 7.000000<br>2.400000<br>280.000000 | 1.600000<br>85.000000 | 1.600000<br>340.000000 | 38423.000000   |
| -7  | 7.700000<br>2.400000<br>280.000000 | 1.600000<br>85.000000 | 1.600000<br>340.000000 | 53823032       |
| -6  | 7.000000<br>2.400000<br>280.000000 | 1.760000<br>85.000000 | 1.600000<br>340.000000 | 433451         |
| -5  | 7.000000<br>2.400000<br>280.000000 | 1.600000<br>85.000000 | 1.760000<br>340.000000 | 38235.000000   |
| -4  | 7.000000<br>2.640000<br>280.000000 | 1.600000<br>85.000000 | 1.600000<br>340.000000 | 4906990        |
| -3  | 7.000000<br>2.400000<br>280.000000 | 1.600000<br>93.500000 | 1.600000<br>340.000000 | 38606.000000   |
| -2  | 7.000000<br>2.400000<br>280.000000 | 1.600000<br>85.000000 | 1.600000<br>374.000000 | 38247.000000   |
| -1  | 7.000000<br>2.400000<br>308.000000 | 1.600000<br>85.000000 | 1.600000<br>340.000000 | 38137.000000   |

| Non-Linear Least Squares Iterative Phase |                                    |                       | Dependent Variable VOY Method: DUD |                |
|--|------------------------------------|-----------------------|------------------------------------|----------------|
| Iter                                     | H<br>G<br>CB                       | W<br>CT               | A<br>CP                            | Sum of Squares |
| 0  | 7.000000<br>2.400000<br>308.000000 | 1.600000<br>85.000000 | 1.600000<br>340.000000             | 38137.000000   |
| 1  | 7.003273<br>2.402725<br>281.000000 | 1.602439<br>84.000000 | 1.663380<br>339.559054             | 37554.000000   |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 7  | 27576993758    | 3939570537             |
| Residual                                    | 40 | 37554          | 939                    |
| Uncorrected Total                           | 47 | 27577031312    |                        |
| (Corrected Total)                           | 46 | 21056942515    |                        |



**TORONTO-WINDSOR  
Non-Business Purpose**

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
| H         | 7.0032733   | 0.04910424               | 6.90403036                             | 7.1025162    |
| W         | 1.6024394   | 0.18805211               | 1.22237362                             | 1.9825051    |
| A         | 1.6633798   | 2.76139368               | -3.91757954                            | 7.2443391    |
| G         | 2.4027249   | 0.02964117               | 2.34281809                             | 2.4626316    |
| CT        | 84.0000000  | 53.70371871              | -24.53876879                           | 192.5387688  |
| CP        | 339.5590539 | 337.60377364             | -342.76051001                          | 1021.8786178 |
| CB        | 281.0000000 | 262.74664816             | -250.02836043                          | 812.0283604  |

**Asymptotic Correlation Matrix**

| Corr | H        | W        | A        | G        | CT       | CP       | CB       |
|------|----------|----------|----------|----------|----------|----------|----------|
| H    | 1        | 0.952745 | 0.114896 | -0.62456 | 0.325839 | -0.00078 | 0.050345 |
| W    | 0.952745 | 1        | 0.124492 | -0.82942 | 0.378593 | 0.122916 | 0.150793 |
| A    | 0.114896 | 0.124492 | 1        | -0.0934  | -0.49243 | 0.099202 | -0.31143 |
| G    | -0.62456 | -0.82942 | -0.0934  | 1        | -0.4088  | -0.30961 | -0.30492 |
| CT   | 0.325839 | 0.378593 | -0.49243 | -0.4088  | 1        | -0.1341  | 0.195384 |
| CP   | -0.00078 | 0.122916 | 0.099202 | -0.30961 | -0.1341  | 1        | -0.11169 |
| CB   | 0.050345 | 0.150793 | -0.31143 | -0.30492 | 0.195384 | -0.11169 | 1        |

**TORONTO-WINDSOR  
Non-Business Purpose**

|   |            |                        |
|---|------------|------------------------|
| Non-Linear Least Squares DUD Initialization |            | Dependent Variable VOY |
| DUD   |            | CV Sum of Squares      |
| -2  | -31.500000 | 702514249              |
| -1  | -34.650000 | 396678255              |

|  |            |                                    |
|--|------------|------------------------------------|
| Non-Linear Least Squares Iterative Phase |            | Dependent Variable VOY Method: DUD |
| Iter                                     |            | CV Sum of Squares                  |
| 0  | -34.650000 | 396678255                          |
| 1  | -43.716301 | 19132802                           |
| 2  | -42.113780 | 171519                             |
| 3  | -41.966832 | 35346.000000                       |
| 4  | -41.978525 | 34270.000000                       |

NOTE: Convergence criterion met.

|   |                   |                        |
|---|-------------------|------------------------|
| Non-Linear Least Squares Summary Statistics |                   | Dependent Variable VOY |
| Source                                      | DF Sum of Squares | Mean Square            |
| Regression                                  | 1 27576997042     | 27576997042            |
| Residual                                    | 46 34270          | 745                    |
| Uncorrected Total                           | 47 27577031312    |                        |
| (Corrected Total)                           | 46 21056942515    |                        |

|           |              |                       |                                     |               |
|-----------|--------------|-----------------------|-------------------------------------|---------------|
| Parameter | Estimate     | Asymptotic Std. Error | Asymptotic 95 % Confidence Interval |               |
|           |              |                       | Lower                               | Upper         |
| CV        | -41.97852481 | 0.00986790713         | -41.998387818                       | -41.958661802 |

Asymptotic Correlation Matrix

|       |    |
|-------|----|
| Corr  | CV |
| ----- |    |
| CV    | 1  |

**TORONTO-WINDSOR**  
**Non-Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 142.86                             | 0.999           |
| <b>w</b>          | 8.51                               |                 |
| <b>a</b>          | 0.60                               |                 |
| <b>g</b>          | 120.00                             |                 |
| <b>cv</b>         | -4275.51                           |                 |
| <b>ct</b>         | 1.56                               |                 |
| <b>cp</b>         | 1.01                               |                 |
| <b>cb</b>         | 1.07                               |                 |

**TORONTO-WINDSOR  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |           |             | Dependent Variable VOY |                |
|---|-----------|-------------|------------------------|----------------|
| DUD   | H         | W           | A                      | Sum of Squares |
|   | G         | CV          | CT                     |                |
|   | CP        | CB          |                        |                |
| -9  | 24.000000 | 1.600000    | 1.600000               | 64735.000000   |
|   | 2.700000  | -141.000000 | 60.000000              |                |
|   | 20.000000 | 360.000000  |                        |                |
| -8  | 26.400000 | 1.600000    | 1.600000               | 822822         |
|   | 2.700000  | -141.000000 | 60.000000              |                |
|   | 20.000000 | 360.000000  |                        |                |
| -7  | 24.000000 | 1.760000    | 1.600000               | 419556         |
|   | 2.700000  | -141.000000 | 60.000000              |                |
|   | 20.000000 | 360.000000  |                        |                |
| -6  | 24.000000 | 1.600000    | 1.760000               | 67561.000000   |
|   | 2.700000  | -141.000000 | 60.000000              |                |
|   | 20.000000 | 360.000000  |                        |                |
| -5  | 24.000000 | 1.600000    | 1.600000               | 1648201        |
|   | 2.970000  | -141.000000 | 60.000000              |                |
|   | 20.000000 | 360.000000  |                        |                |
| -4  | 24.000000 | 1.600000    | 1.600000               | 6262344        |
|   | 2.700000  | -155.100000 | 60.000000              |                |
|   | 20.000000 | 360.000000  |                        |                |
| -3  | 24.000000 | 1.600000    | 1.600000               | 65691.000000   |
|   | 2.700000  | -141.000000 | 66.000000              |                |
|   | 20.000000 | 360.000000  |                        |                |
| -2  | 24.000000 | 1.600000    | 1.600000               | 65328.000000   |
|   | 2.700000  | -141.000000 | 60.000000              |                |
|   | 22.000000 | 360.000000  |                        |                |
| -1  | 24.000000 | 1.600000    | 1.600000               | 65326.000000   |
|   | 2.700000  | -141.000000 | 60.000000              |                |
|   | 20.000000 | 396.000000  |                        |                |

| Non-Linear Least Squares Iterative Phase |           |             | Dependent Variable VOY Method: DUD |                |
|--|-----------|-------------|------------------------------------|----------------|
| Iter                                     | H         | W           | A                                  | Sum of Squares |
|  | G         | CV          | CT                                 |                |
|  | CP        | CB          |                                    |                |
| 0  | 24.000000 | 1.600000    | 1.600000                           | 64735.000000   |
|  | 2.700000  | -141.000000 | 60.000000                          |                |
|  | 20.000000 | 360.000000  |                                    |                |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |           |             | Dependent Variable VOY |                |
|---|-----------|-------------|------------------------|----------------|
| DUD   | H         | W           | A                      | Sum of Squares |
|   | G         | CV          | CT                     |                |
|   | CP        | CB          |                        |                |
| -9  | 24.000000 | 1.600000    | 1.600000               | 64735.000000   |
|   | 2.700000  | -141.000000 | 60.000000              |                |
|   | 20.000000 | 360.000000  |                        |                |
| -8  | 26.400000 | 1.600000    | 1.600000               | 822822         |
|   | 2.700000  | -141.000000 | 60.000000              |                |
|   | 20.000000 | 360.000000  |                        |                |

**TORONTO-WINDSOR  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |           |             | Dependent Variable VOY |                |
|---|-----------|-------------|------------------------|----------------|
| DUD   | H         | W           | A                      | Sum of Squares |
|   | G         | CV          | CT                     |                |
|   | CP        | CB          |                        |                |
| -7  | 24.000000 | 1.760000    | 1.600000               | 419556         |
|   | 2.700000  | -141.000000 | 60.000000              |                |
|   | 20.000000 | 360.000000  |                        |                |
| -6  | 24.000000 | 1.600000    | 1.760000               | 67561.000000   |
|   | 2.700000  | -141.000000 | 60.000000              |                |
|   | 20.000000 | 360.000000  |                        |                |
| -5  | 24.000000 | 1.600000    | 1.600000               | 1648201        |
|   | 2.970000  | -141.000000 | 60.000000              |                |
|   | 20.000000 | 360.000000  |                        |                |
| -4  | 24.000000 | 1.600000    | 1.600000               | 6262344        |
|   | 2.700000  | -155.100000 | 60.000000              |                |
|   | 20.000000 | 360.000000  |                        |                |
| -3  | 24.000000 | 1.600000    | 1.600000               | 65691.000000   |
|   | 2.700000  | -141.000000 | 66.000000              |                |
|   | 20.000000 | 360.000000  |                        |                |
| -2  | 24.000000 | 1.600000    | 1.600000               | 65328.000000   |
|   | 2.700000  | -141.000000 | 60.000000              |                |
|   | 22.000000 | 360.000000  |                        |                |
| -1  | 24.000000 | 1.600000    | 1.600000               | 65326.000000   |
|   | 2.700000  | -141.000000 | 60.000000              |                |
|   | 20.000000 | 396.000000  |                        |                |

| Non-Linear Least Squares Iterative Phase |           |             | Dependent Variable VOY Method: DUD |                |
|--|-----------|-------------|------------------------------------|----------------|
| Iter                                     | H         | W           | A                                  | Sum of Squares |
|  | G         | CV          | CT                                 |                |
|  | CP        | CB          |                                    |                |
| 0  | 24.000000 | 1.600000    | 1.600000                           | 64735.000000   |
|  | 2.700000  | -141.000000 | 60.000000                          |                |
|  | 20.000000 | 360.000000  |                                    |                |

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 8  | 1023468720.0   | 127933590.0            |
| Residual                                    | 39 | 64735.0        | 1659.9                 |
| Uncorrected Total                           | 47 | 1023533455.0   |                        |
| (Corrected Total)                           | 46 | 673405477.1    |                        |

**TORONTO-WINDSOR  
Business Purpose**

| Parameter | Estimate     | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |               |
|-----------|--------------|--------------------------|--|---------------|
|           |              |                          | Lower                                  | Upper         |
|           |              |                          | H                                      | 24.0000000    |
| W         | 1.6000000    | 0.38957552               | 0.81201294                             | 2.38798706    |
| A         | 1.6000000    | 2.57832316               | -3.61512560                            | 6.81512560    |
| G         | 2.7000000    | 0.19930484               | 2.29686985                             | 3.10313015    |
| CV        | -141.0000000 | 7.94488987               | -157.06997883                          | -124.93002117 |
| CT        | 60.0000000   | 36.96626839              | -14.77097357                           | 134.77097357  |
| CP        | 20.0000000   | 32.62936247              | -45.99879578                           | 85.99879578   |
| CB        | 360.0000000  | 148.76772475             | 59.09033023                            | 660.90966977  |

**Asymptotic Correlation Matrix**

| Corr | H            | W            | A            | G            |
|------|--------------|--------------|--------------|--------------|
| H    | 1            | 0.0278324061 | 0.6357464248 | 0.8197898304 |
| W    | 0.0278324061 | 1            | 0.7285753793 | -0.468371511 |
| A    | 0.6357464248 | 0.7285753793 | 1            | 0.1476767364 |
| G    | 0.8197898304 | -0.468371511 | 0.1476767364 | 1            |
| CV   | -0.552157138 | 0.7997189537 | 0.2185821147 | -0.803216858 |
| CT   | -0.477144744 | -0.156067737 | -0.630372035 | -0.311048268 |
| CP   | -0.160629656 | -0.326240844 | -0.588750822 | 0.0342125334 |
| CB   | 0.3808417909 | 0.5603849511 | 0.5815907153 | -0.000372305 |

| Corr | CV           | CT           | CP           | CB           |
|------|--------------|--------------|--------------|--------------|
| H    | -0.552157138 | -0.477144744 | -0.160629656 | 0.3808417909 |
| W    | 0.7997189537 | -0.156067737 | -0.326240844 | 0.5603849511 |
| A    | 0.2185821147 | -0.630372035 | -0.588750822 | 0.5815907153 |
| G    | -0.803216858 | -0.311048268 | 0.0342125334 | -0.000372305 |
| CV   | 1            | 0.1461074949 | -0.178795663 | 0.2147207406 |
| CT   | 0.1461074949 | 1            | 0.7882208855 | -0.135156557 |
| CP   | -0.178795663 | 0.7882208855 | 1            | -0.088291685 |
| CB   | 0.2147207406 | -0.135156557 | -0.088291685 | 1            |

**TORONTO-WINDSOR**  
**Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 5.00                               | 0.999           |
| <b>w</b>          | 4.21                               |                 |
| <b>a</b>          | 0.62                               |                 |
| <b>g</b>          | 14.21                              |                 |
| <b>cv</b>         | -17.76                             |                 |
| <b>ct</b>         | 1.63                               |                 |
| <b>cp</b>         | 0.61                               |                 |
| <b>cb</b>         | 2.43                               |                 |

**KITCHENER-LONDON  
Non-Business Purpose**

| Non-Linear Least Squares DUD Initialization |          |           | Dependent Variable VOY |                |
|---|----------|-----------|------------------------|----------------|
| DUD   | H        | W         | A                      | Sum of Squares |
|   | G        | CV        | CT                     |                |
|   | CB       |           |                        |                |
| -8  | 5.000000 | 1.800000  | 1.500000               | 52007.000000   |
|   | 4.000000 | -5.000000 | 5.000000               |                |
|   | 5.000000 |           |                        |                |
| -7  | 5.500000 | 1.800000  | 1.500000               | 110794         |
|   | 4.000000 | -5.000000 | 5.000000               |                |
|   | 5.000000 |           |                        |                |
| -6  | 5.000000 | 1.980000  | 1.500000               | 2624067        |
|   | 4.000000 | -5.000000 | 5.000000               |                |
|   | 5.000000 |           |                        |                |
| -5  | 5.000000 | 1.800000  | 1.650000               | 48140.000000   |
|   | 4.000000 | -5.000000 | 5.000000               |                |
|   | 5.000000 |           |                        |                |
| -4  | 5.000000 | 1.800000  | 1.500000               | 8330662        |
|   | 4.400000 | -5.000000 | 5.000000               |                |
|   | 5.000000 |           |                        |                |
| -3  | 5.000000 | 1.800000  | 1.500000               | 2322994        |
|   | 4.000000 | -5.500000 | 5.000000               |                |
|   | 5.000000 |           |                        |                |
| -2  | 5.000000 | 1.800000  | 1.500000               | 51733.000000   |
|   | 4.000000 | -5.000000 | 5.500000               |                |
|   | 5.000000 |           |                        |                |
| -1  | 5.000000 | 1.800000  | 1.500000               | 49925.000000   |
|   | 4.000000 | -5.000000 | 5.000000               |                |
|   | 5.500000 |           |                        |                |

| Non-Linear Least Squares Iterative Phase |          |           | Dependent Variable VOY Method: DUD |                |
|--|----------|-----------|------------------------------------|----------------|
| Iter                                     | H        | W         | A                                  | Sum of Squares |
|  | G        | CV        | CT                                 |                |
|  | CB       |           |                                    |                |
| 0  | 5.000000 | 1.800000  | 1.650000                           | 48140.000000   |
|  | 4.000000 | -5.000000 | 5.000000                           |                |
|  | 5.000000 |           |                                    |                |

WARNING: Step size shows no improvement.

NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |          |           | Dependent Variable VOY |                |
|---|----------|-----------|------------------------|----------------|
| DUD   | H        | W         | A                      | Sum of Squares |
|   | G        | CV        | CT                     |                |
|   | CB       |           |                        |                |
| -8  | 5.000000 | 1.800000  | 1.650000               | 48140.000000   |
|   | 4.000000 | -5.000000 | 5.000000               |                |
|   | 5.000000 |           |                        |                |
| -7  | 5.500000 | 1.800000  | 1.650000               | 99808          |
|   | 4.000000 | -5.000000 | 5.000000               |                |
|   | 5.000000 |           |                        |                |
| -6  | 5.000000 | 1.980000  | 1.650000               | 2631002        |
|   | 4.000000 | -5.000000 | 5.000000               |                |
|   | 5.000000 |           |                        |                |



**LONDON-WINDSOR  
Business Purpose**

| Non-Linear DUD | Least Squares H<br>G<br>CB           | DUD Initialization W<br>CV | Dependent Variable VOY A<br>Sum of Squares CT |
|----------------|--------------------------------------|----------------------------|---|
| -8             | 26.000000<br>3.000000<br>1000.000000 | 1.600000<br>-95.000000     | 1.700000<br>150.000000<br>11525.000000        |
| -7             | 28.600000<br>3.000000<br>1000.000000 | 1.600000<br>-95.000000     | 1.700000<br>150.000000<br>2837827             |
| -6             | 26.000000<br>3.000000<br>1000.000000 | 1.760000<br>-95.000000     | 1.700000<br>150.000000<br>28073.000000        |
| -5             | 26.000000<br>3.000000<br>1000.000000 | 1.600000<br>-95.000000     | 1.870000<br>150.000000<br>11485.000000        |
| -4             | 26.000000<br>3.300000<br>1000.000000 | 1.600000<br>-95.000000     | 1.700000<br>150.000000<br>497903              |
| -3             | 26.000000<br>3.000000<br>1000.000000 | 1.600000<br>-104.500000    | 1.700000<br>150.000000<br>6741701             |
| -2             | 26.000000<br>3.000000<br>1000.000000 | 1.600000<br>-95.000000     | 1.700000<br>165.000000<br>11418.000000        |
| -1             | 26.000000<br>3.000000<br>1100.000000 | 1.600000<br>-95.000000     | 1.700000<br>150.000000<br>11525.000000        |

| Non-Linear Iter | Least Squares H<br>G<br>CB           | Iterative Phase W<br>CV | Dependent Variable VOY A<br>Sum of Squares CT | Method: DUD |
|-----------------|--------------------------------------|-------------------------|---|-------------|
| 0               | 26.000000<br>3.000000<br>1000.000000 | 1.600000<br>-95.000000  | 1.700000<br>165.000000<br>11418.000000        |             |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear DUD | Least Squares H<br>G<br>CB           | DUD Initialization W<br>CV | Dependent Variable VOY A<br>Sum of Squares CT |
|----------------|--------------------------------------|----------------------------|---|
| -8             | 26.000000<br>3.000000<br>1000.000000 | 1.600000<br>-95.000000     | 1.700000<br>165.000000<br>11418.000000        |
| -7             | 28.600000<br>3.000000<br>1000.000000 | 1.600000<br>-95.000000     | 1.700000<br>165.000000<br>2836247             |
| -6             | 26.000000<br>3.000000<br>1000.000000 | 1.760000<br>-95.000000     | 1.700000<br>165.000000<br>28092.000000        |

**LONDON-WINDSOR  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |                                      |                         |                        | Dependent Variable VOY |
|---|--------------------------------------|-------------------------|------------------------|------------------------|
| DUD   | H<br>G<br>CB                         | W<br>CV                 | A                      | Sum of Squares<br>CT   |
| -5  | 26.000000<br>3.000000<br>1000.000000 | 1.600000<br>-95.000000  | 1.870000<br>165.000000 | 11418.000000           |
| -4  | 26.000000<br>3.300000<br>1000.000000 | 1.600000<br>-95.000000  | 1.700000<br>165.000000 | 498168                 |
| -3  | 26.000000<br>3.000000<br>1000.000000 | 1.600000<br>-104.500000 | 1.700000<br>165.000000 | 6741701                |
| -2  | 26.000000<br>3.000000<br>1000.000000 | 1.600000<br>-95.000000  | 1.700000<br>181.500000 | 11442.000000           |
| -1  | 26.000000<br>3.000000<br>1100.000000 | 1.600000<br>-95.000000  | 1.700000<br>165.000000 | 11418.000000           |

| Non-Linear Least Squares Iterative Phase |                                      |                        |                        | Dependent Variable VOY Method: DUD |
|--|--------------------------------------|------------------------|------------------------|------------------------------------|
| Iter                                     | H<br>G<br>CB                         | W<br>CV                | A                      | Sum of Squares<br>CT               |
| 0  | 26.000000<br>3.000000<br>1000.000000 | 1.600000<br>-95.000000 | 1.700000<br>165.000000 | 11418.000000                       |

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 7  | 7315915248.0   | 1045130749.7           |
| Residual                                    | 27 | 11418.0        | 422.9                  |
| Uncorrected Total                           | 34 | 7315926666.0   |                        |
| (Corrected Total)                           | 33 | 5253757721.9   |                        |

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
| H         | 26.000000   | 0.78264105               | 24.3941657                             | 27.6058343   |
| W         | 1.600000    | 0.73039686               | 0.1013611                              | 3.0986389    |
| A         | 1.700000    | 0.00000000               | 1.7000000                              | 1.7000000    |
| G         | 3.000000    | 0.17411858               | 2.6427410                              | 3.3572590    |
| CV        | -95.000000  | 1.12622322               | -97.3108012                            | -92.6891988  |
| CT        | 165.000000  | 200.65784722             | -246.7126950                           | 576.7126950  |
| CB        | 1000.000000 | 0.00000000               | 1000.0000000                           | 1000.0000000 |

**LONDON-WINDSOR  
Business Purpose**

Asymptotic Correlation Matrix

| Corr | H        | W        | A | G        | CV       | CT       | CB |
|------|----------|----------|---|----------|----------|----------|----|
| H    | 1        | 0.676844 | . | 0.563066 | 0.656366 | 0.179139 | .  |
| W    | 0.676844 | 1        | . | -0.17978 | 0.89849  | 0.389076 | .  |
| A    | .        | .        | . | .        | .        | .        | .  |
| G    | 0.563066 | -0.17978 | . | 1        | 0.0366   | -0.26853 | .  |
| CV   | 0.656366 | 0.89849  | . | 0.0366   | 1        | 0.205383 | .  |
| CT   | 0.179139 | 0.389076 | . | -0.26853 | 0.205383 | 1        | .  |
| CB   | .        | .        | . | .        | .        | .        | .  |

**LONDON-WINDSOR**  
**Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 33.25                              | 0.999           |
| <b>w</b>          | 2.19                               |                 |
| <b>a</b>          | 17000.00                           |                 |
| <b>g</b>          | 17.65                              |                 |
| <b>cv</b>         | -84.82                             |                 |
| <b>ct</b>         | 0.83                               |                 |
| <b>cp</b>         |                                    |                 |
| <b>cb</b>         | 10000.00                           |                 |

**KITCHENER-LONDON  
Non-Business Purpose**

| Non-Linear Least Squares DUD Initialization |          |           |          | Dependent Variable VOY |  |
|---|----------|-----------|----------|------------------------|--|
| DUD   | H        | W         | A        | Sum of Squares         |  |
|   | G        | CV        | CT       |                        |  |
|   | CB       |           |          |                        |  |
| -5  | 5.000000 | 1.800000  | 1.815000 | 45270.000000           |  |
|   | 4.000000 | -5.000000 | 5.000000 |                        |  |
|   | 5.000000 |           |          |                        |  |
| -4  | 5.000000 | 1.800000  | 1.650000 | 8342287                |  |
|   | 4.400000 | -5.000000 | 5.000000 |                        |  |
|   | 5.000000 |           |          |                        |  |
| -3  | 5.000000 | 1.800000  | 1.650000 | 2330354                |  |
|   | 4.000000 | -5.500000 | 5.000000 |                        |  |
|   | 5.000000 |           |          |                        |  |
| -2  | 5.000000 | 1.800000  | 1.650000 | 47897.000000           |  |
|   | 4.000000 | -5.000000 | 5.500000 |                        |  |
|   | 5.000000 |           |          |                        |  |
| -1  | 5.000000 | 1.800000  | 1.650000 | 46411.000000           |  |
|   | 4.000000 | -5.000000 | 5.000000 |                        |  |
|   | 5.500000 |           |          |                        |  |

| Non-Linear Least Squares Iterative Phase |          |           |          | Dependent Variable VOY Method: DUD |  |
|--|----------|-----------|----------|------------------------------------|--|
| Iter                                     | H        | W         | A        | Sum of Squares                     |  |
|  | G        | CV        | CT       |                                    |  |
|  | CB       |           |          |                                    |  |
| 0  | 5.000000 | 1.800000  | 1.815000 | 45270.000000                       |  |
|  | 4.000000 | -5.000000 | 5.000000 |                                    |  |
|  | 5.000000 |           |          |                                    |  |
| 1  | 5.292891 | 1.708671  | 1.788643 | 39375.000000                       |  |
|  | 4.005567 | -5.311379 | 4.899882 |                                    |  |
|  | 4.979846 |           |          |                                    |  |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |  |
|---|----|----------------|------------------------|--|
| Source                                      | DF | Sum of Squares | Mean Square            |  |
| Regression                                  | 7  | 35532832856    | 5076118979             |  |
| Residual                                    | 23 | 39375          | 1712                   |  |
| Uncorrected Total                           | 30 | 35532872231    |                        |  |
| (Corrected Total)                           | 29 | 23192776089    |                        |  |

| Parameter | Estimate     | Asymptotic Std. Error | Asymptotic 95 % Confidence Interval |              |
|-----------|--------------|-----------------------|-------------------------------------|--------------|
|           |              |                       | Lower                               | Upper        |
|           |              |                       | H                                   | 5.292890751  |
| W         | 1.708671461  | 2.800316958           | -4.084178926                        | 7.501521849  |
| A         | 1.788643263  | 5.084019014           | -8.728366759                        | 12.305653286 |
| G         | 4.005567475  | 0.097021869           | 3.804864063                         | 4.206270888  |
| CV        | -5.311379487 | 10.578165434          | -27.193805887                       | 16.571046914 |
| CT        | 4.899882348  | 12.760100704          | -21.496184743                       | 31.295949440 |
| CB        | 4.979846468  | 11.455652610          | -18.717785855                       | 28.677478790 |

**KITCHENER-LONDON**  
**Non-Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 0.50                               | 0.999           |
| <b>w</b>          | 0.61                               |                 |
| <b>a</b>          | 0.36                               |                 |
| <b>g</b>          | 44.44                              |                 |
| <b>cv</b>         | -0.50                              |                 |
| <b>ct</b>         | 0.38                               |                 |
| <b>cp</b>         |                                    |                 |
| <b>cb</b>         | 0.44                               |                 |

**KITCHENER-LONDON  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |                                    |                        | Dependent Variable VOY |                |
|---|------------------------------------|------------------------|------------------------|----------------|
| DUD   | H<br>G<br>CB                       | W<br>CV                | A<br>CT                | Sum of Squares |
| -8  | 21.000000<br>3.300000<br>80.000000 | 1.600000<br>-42.000000 | 1.600000<br>45.000000  | 10987.000000   |
| -7  | 23.100000<br>3.300000<br>80.000000 | 1.600000<br>-42.000000 | 1.600000<br>45.000000  | 301450         |
| -6  | 21.000000<br>3.300000<br>80.000000 | 1.760000<br>-42.000000 | 1.600000<br>45.000000  | 51699.000000   |
| -5  | 21.000000<br>3.300000<br>80.000000 | 1.600000<br>-42.000000 | 1.760000<br>45.000000  | 11036.000000   |
| -4  | 21.000000<br>3.630000<br>80.000000 | 1.600000<br>-42.000000 | 1.600000<br>45.000000  | 506384         |
| -3  | 21.000000<br>3.300000<br>80.000000 | 1.600000<br>-46.200000 | 1.600000<br>45.000000  | 1367760        |
| -2  | 21.000000<br>3.300000<br>80.000000 | 1.600000<br>-42.000000 | 1.600000<br>49.500000  | 11047.000000   |
| -1  | 21.000000<br>3.300000<br>88.000000 | 1.600000<br>-42.000000 | 1.600000<br>45.000000  | 11102.000000   |

| Non-Linear Least Squares Iterative Phase |                                    |                        | Dependent Variable VOY Method: DUD |                |
|--|------------------------------------|------------------------|------------------------------------|----------------|
| Iter                                     | H<br>G<br>CB                       | W<br>CV                | A<br>CT                            | Sum of Squares |
| 0  | 21.000000<br>3.300000<br>80.000000 | 1.600000<br>-42.000000 | 1.600000<br>45.000000              | 10987.000000   |

WARNING: Step size shows no improvement.  
NOTE: Restarting DUD with smaller grid.

| Non-Linear Least Squares DUD Initialization |                                    |                        | Dependent Variable VOY |                |
|---|------------------------------------|------------------------|------------------------|----------------|
| DUD   | H<br>G<br>CB                       | W<br>CV                | A<br>CT                | Sum of Squares |
| -8  | 21.000000<br>3.300000<br>80.000000 | 1.600000<br>-42.000000 | 1.600000<br>45.000000  | 10987.000000   |
| -7  | 23.100000<br>3.300000<br>80.000000 | 1.600000<br>-42.000000 | 1.600000<br>45.000000  | 301450         |
| -6  | 21.000000<br>3.300000<br>80.000000 | 1.760000<br>-42.000000 | 1.600000<br>45.000000  | 51699.000000   |

**KITCHENER-LONDON  
Business Purpose**

| Non-Linear Least Squares DUD Initialization |                                    |                        |                       | Dependent Variable VOY |
|---|------------------------------------|------------------------|-----------------------|------------------------|
| DUD   | H<br>G<br>CB                       | W<br>CV                | A                     | Sum of Squares<br>CT   |
| -5  | 21.000000<br>3.300000<br>80.000000 | 1.600000<br>-42.000000 | 1.760000<br>45.000000 | 11036.000000           |
| -4  | 21.000000<br>3.630000<br>80.000000 | 1.600000<br>-42.000000 | 1.600000<br>45.000000 | 506384                 |
| -3  | 21.000000<br>3.300000<br>80.000000 | 1.600000<br>-46.200000 | 1.600000<br>45.000000 | 1367760                |
| -2  | 21.000000<br>3.300000<br>80.000000 | 1.600000<br>-42.000000 | 1.600000<br>49.500000 | 11047.000000           |
| -1  | 21.000000<br>3.300000<br>88.000000 | 1.600000<br>-42.000000 | 1.600000<br>45.000000 | 11102.000000           |

| Non-Linear Least Squares Iterative Phase |                                    |                        |                       | Dependent Variable VOY Method: DUD |
|--|------------------------------------|------------------------|-----------------------|------------------------------------|
| Iter                                     | H<br>G<br>CB                       | W<br>CV                | A                     | Sum of Squares<br>CT               |
| 0  | 21.000000<br>3.300000<br>80.000000 | 1.600000<br>-42.000000 | 1.600000<br>45.000000 | 10987.000000                       |

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 7  | 5732966389.0   | 818995198.4            |
| Residual                                    | 23 | 10987.0        | 477.7                  |
| Uncorrected Total                           | 30 | 5732977376.0   |                        |
| (Corrected Total)                           | 29 | 3778229567.9   |                        |

| Parameter | Estimate     | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|--------------|--------------------------|--|--------------|
|           |              |                          | Lower                                  | Upper        |
| H         | 21.00000000  | 2.29920137               | 16.24377785                            | 25.75622215  |
| W         | 1.60000000   | 0.39599873               | 0.78082080                             | 2.41917920   |
| A         | 1.60000000   | 2.86483904               | -4.32632341                            | 7.52632341   |
| G         | 3.30000000   | 0.19481959               | 2.89698821                             | 3.70301179   |
| CV        | -42.00000000 | 0.99683807               | -44.06210008                           | -39.93789992 |
| CT        | 45.00000000  | 105.35879219             | -172.94951403                          | 262.94951403 |
| CB        | 80.00000000  | 110.69972279             | -148.99798189                          | 308.99798189 |



**KITCHENER-LONDON  
Business Purpose**

Asymptotic Correlation Matrix

| Corr | H        | W        | A        | G        | CV       | CT       | CB       |
|------|----------|----------|----------|----------|----------|----------|----------|
| H    | 1        | 0.45211  | 0.125206 | 0.809693 | -0.07931 | 0.064839 | 0.254369 |
| W    | 0.45211  | 1        | -0.0791  | -0.08419 | 0.764351 | 0.368405 | 0.595502 |
| A    | 0.125206 | -0.0791  | 1        | 0.236642 | -0.06867 | -0.64111 | -0.68934 |
| G    | 0.809693 | -0.08419 | 0.236642 | 1        | -0.38974 | -0.21144 | -0.14651 |
| CV   | -0.07931 | 0.764351 | -0.06867 | -0.38974 | 1        | 0.249664 | 0.366771 |
| CT   | 0.064839 | 0.368405 | -0.64111 | -0.21144 | 0.249664 | 1        | 0.60566  |
| CB   | 0.254369 | 0.595502 | -0.68934 | -0.14651 | 0.366771 | 0.60566  | 1        |

**KITCHENER-LONDON**  
**Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 9.55                               | 0.999           |
| <b>w</b>          | 4.10                               |                 |
| <b>a</b>          | 0.56                               |                 |
| <b>g</b>          | 17.37                              |                 |
| <b>cv</b>         | -42.42                             |                 |
| <b>ct</b>         | 0.43                               |                 |
| <b>cp</b>         |                                    |                 |
| <b>cb</b>         | 0.72                               |                 |

**KITCHENER-WINDSOR  
Non-Business Purpose**

| DUD | Non-Linear Least Squares |  | DUD Initialization |  | Dependent Variable VOY |
|-----|--------------------------|--|--------------------|--|------------------------|
|     | H<br>G                   |  | W<br>CV            |  | A Sum of Squares<br>CT |
| -7  | 6.000000                 |  | 1.800000           |  | 60031.000000           |
|     | 3.000000                 |  | -8.000000          |  | 128.000000             |
| -6  | 6.600000                 |  | 1.800000           |  | 67678.000000           |
|     | 3.000000                 |  | -8.000000          |  | 128.000000             |
| -5  | 6.000000                 |  | 1.980000           |  | 453041                 |
|     | 3.000000                 |  | -8.000000          |  | 128.000000             |
| -4  | 6.000000                 |  | 1.800000           |  | 60010.000000           |
|     | 3.000000                 |  | -8.000000          |  | 128.000000             |
| -3  | 6.000000                 |  | 1.800000           |  | 1217105                |
|     | 3.300000                 |  | -8.000000          |  | 128.000000             |
| -2  | 6.000000                 |  | 1.800000           |  | 132273                 |
|     | 3.000000                 |  | -8.800000          |  | 128.000000             |
| -1  | 6.000000                 |  | 1.800000           |  | 60603.000000           |
|     | 3.000000                 |  | -8.000000          |  | 140.800000             |

| Non-Linear<br>Iter | Least Squares |  | Iterative Phase |  | Dependent Variable VOY Method: DUD |
|--------------------|---------------|--|-----------------|--|------------------------------------|
|                    | H<br>G        |  | W<br>CV         |  | A Sum of Squares<br>CT             |
| 0                  | 6.000000      |  | 1.800000        |  | 60010.000000                       |
|                    | 3.000000      |  | -8.000000       |  | 128.000000                         |
| 1                  | 5.999794      |  | 1.802300        |  | 59968.000000                       |
|                    | 3.000257      |  | -7.969835       |  | 128.423981                         |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 6  | 846609694.00   | 141101615.67           |
| Residual                                    | 20 | 59968.00       | 2998.40                |
| Uncorrected Total                           | 26 | 846669662.00   |                        |
| (Corrected Total)                           | 25 | 418355862.62   |                        |

**KITCHENER-WINDSOR  
Non-Business Purpose**

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
| H         | 5.9997938   | 8.62641899               | -11.99446527                           | 23.99405294  |
| W         | 1.8023004   | 1.20106082               | -0.70304968                            | 4.30765052   |
| A         | 1.8570736   | 10.70907766              | -20.48150266                           | 24.19564979  |
| G         | 3.0002569   | 0.01134429               | 2.97659328                             | 3.02392047   |
| CV        | -7.9698347  | 13.73541294              | -36.62118808                           | 20.68151876  |
| CT        | 128.4239813 | 299.37223008             | -496.05084218                          | 752.89880473 |

**Asymptotic Correlation Matrix**

| Corr | H         | W         | A         | G         | CV        | CT        |
|------|-----------|-----------|-----------|-----------|-----------|-----------|
| H    | 1         | -0.301357 | 0.1676967 | -0.014716 | -0.12234  | 0.6417354 |
| W    | -0.301357 | 1         | -0.353721 | 0.213824  | 0.9829517 | 0.3705695 |
| A    | 0.1676967 | -0.353721 | 1         | 0.1431962 | -0.328081 | -0.450777 |
| G    | -0.014716 | 0.213824  | 0.1431962 | 1         | 0.2364483 | 0.0330817 |
| CV   | -0.12234  | 0.9829517 | -0.328081 | 0.2364483 | 1         | 0.506094  |
| CT   | 0.6417354 | 0.3705695 | -0.450777 | 0.0330817 | 0.506094  | 1         |

**KITCHENER-WINDSOR**  
**Non-Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 0.70                               | 0.999           |
| <b>w</b>          | 1.50                               |                 |
| <b>a</b>          | 0.19                               |                 |
| <b>g</b>          | 300.00                             |                 |
| <b>cv</b>         | -0.58                              |                 |
| <b>ct</b>         | 0.43                               |                 |
| <b>cp</b>         |                                    |                 |
| <b>cb</b>         |                                    |                 |

**KITCHENER-WINDSOR  
Business Purpose**

| Non-Linear<br>DUD | Least Squares<br>H<br>G | DUD Initialization<br>W<br>CV | Dependent Variable<br>A<br>CT | VOY<br>Sum of Squares |
|-------------------|-------------------------|-------------------------------|-------------------------------|-----------------------|
| -7                | 24.000000<br>3.800000   | 1.600000<br>-60.000000        | 1.800000<br>200.000000        | 16914.000000          |
| -6                | 26.400000<br>3.800000   | 1.600000<br>-60.000000        | 1.800000<br>200.000000        | 16829.000000          |
| -5                | 24.000000<br>3.800000   | 1.760000<br>-60.000000        | 1.800000<br>200.000000        | 129042                |
| -4                | 24.000000<br>3.800000   | 1.600000<br>-60.000000        | 1.980000<br>200.000000        | 17034.000000          |
| -3                | 24.000000<br>4.180000   | 1.600000<br>-60.000000        | 1.800000<br>200.000000        | 302582                |
| -2                | 24.000000<br>3.800000   | 1.600000<br>-66.000000        | 1.800000<br>200.000000        | 81356.000000          |
| -1                | 24.000000<br>3.800000   | 1.600000<br>-60.000000        | 1.800000<br>220.000000        | 17099.000000          |

| Non-Linear<br>Iter | Least Squares<br>H<br>G | Iterative Phase<br>W<br>CV | Dependent Variable<br>A<br>CT | VOY Method: DUD<br>Sum of Squares |
|--------------------|-------------------------|----------------------------|-------------------------------|-----------------------------------|
| 0                  | 26.400000<br>3.800000   | 1.600000<br>-60.000000     | 1.800000<br>200.000000        | 16829.000000                      |
| 1                  | 26.381257<br>3.799728   | 1.599470<br>-60.034997     | 1.800086<br>199.734472        | 16710.000000                      |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 6  | 166105913.00   | 27684318.83            |
| Residual                                    | 20 | 16710.00       | 835.50                 |
| Uncorrected Total                           | 26 | 166122623.00   |                        |
| (Corrected Total)                           | 25 | 89996810.65    |                        |

**KITCHENER-WINDSOR  
Business Purpose**

| Parameter | Estimate    | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|-------------|--------------------------|--|--------------|
|           |             |                          | Lower                                  | Upper        |
| H         | 26.3812566  | 29.64586798              | -35.45847442                           | 88.2209876   |
| W         | 1.5994696   | 2.34095353               | -3.28363714                            | 6.4825763    |
| A         | 1.8000856   | 5.47820187               | -9.62715720                            | 13.2273283   |
| G         | 3.7997282   | 0.01084476               | 3.77710656                             | 3.8223498    |
| CV        | -60.0349968 | 112.40627523             | -294.50861134                          | 174.4386177  |
| CT        | 199.7344717 | 493.51506179             | -829.71215067                          | 1229.1810940 |

**Asymptotic Correlation Matrix**

| Corr | H         | W         | A         | G         | CV        | CT        |
|------|-----------|-----------|-----------|-----------|-----------|-----------|
| H    | 1         | -0.657824 | -0.034412 | -0.22283  | -0.654399 | -0.10735  |
| W    | -0.657824 | 1         | 0.0142693 | -0.03751  | 0.9999568 | 0.5833233 |
| A    | -0.034412 | 0.0142693 | 1         | -0.42149  | 0.011365  | -0.679032 |
| G    | -0.22283  | -0.03751  | -0.42149  | 1         | -0.033326 | 0.1026897 |
| CV   | -0.654399 | 0.9999568 | 0.011365  | -0.033326 | 1         | 0.5865919 |
| CT   | -0.10735  | 0.5833233 | -0.679032 | 0.1026897 | 0.5865919 | 1         |

**KITCHENER-WINDSOR**  
**Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 0.89                               | 0.999           |
| <b>w</b>          | 0.70                               |                 |
| <b>a</b>          | 0.33                               |                 |
| <b>g</b>          | 380.00                             |                 |
| <b>cv</b>         | -0.54                              |                 |
| <b>ct</b>         | 0.40                               |                 |
| <b>cp</b>         |                                    |                 |
| <b>cb</b>         |                                    |                 |



**LONDON-WINDSOR  
Non-Business Purpose**

| Non-Linear Least Squares DUD Initialization |                                   |                        | Dependent Variable VOY |                      |
|---|-----------------------------------|------------------------|------------------------|----------------------|
| DUD   | H<br>G<br>CB                      | W<br>CV                | A                      | Sum of Squares<br>CT |
| -8  | 7.000000<br>2.800000<br>70.000000 | 1.600000<br>-20.000000 | 1.700000<br>70.000000  | 61420.000000         |
| -7  | 7.700000<br>2.800000<br>70.000000 | 1.600000<br>-20.000000 | 1.700000<br>70.000000  | 25764423             |
| -6  | 7.000000<br>2.800000<br>70.000000 | 1.760000<br>-20.000000 | 1.700000<br>70.000000  | 1137522              |
| -5  | 7.000000<br>2.800000<br>70.000000 | 1.600000<br>-20.000000 | 1.870000<br>70.000000  | 61208.000000         |
| -4  | 7.000000<br>3.080000<br>70.000000 | 1.600000<br>-20.000000 | 1.700000<br>70.000000  | 10106209             |
| -3  | 7.000000<br>2.800000<br>70.000000 | 1.600000<br>-22.000000 | 1.700000<br>70.000000  | 56054808             |
| -2  | 7.000000<br>2.800000<br>70.000000 | 1.600000<br>-20.000000 | 1.700000<br>77.000000  | 61425.000000         |
| -1  | 7.000000<br>2.800000<br>77.000000 | 1.600000<br>-20.000000 | 1.700000<br>70.000000  | 61003.000000         |

| Non-Linear Least Squares Iterative Phase |                                   |                        | Dependent Variable VOY Method: DUD |                      |
|--|-----------------------------------|------------------------|------------------------------------|----------------------|
| Iter                                     | H<br>G<br>CB                      | W<br>CV                | A                                  | Sum of Squares<br>CT |
| 0  | 7.000000<br>2.800000<br>77.000000 | 1.600000<br>-20.000000 | 1.700000<br>70.000000              | 61003.000000         |
| 1  | 6.998198<br>2.799131<br>76.791353 | 1.599914<br>-19.999493 | 1.730367<br>69.630766              | 60754.000000         |

NOTE: Convergence criterion met.

| Non-Linear Least Squares Summary Statistics |    |                | Dependent Variable VOY |
|---|----|----------------|------------------------|
| Source                                      | DF | Sum of Squares | Mean Square            |
| Regression                                  | 7  | 40963051411    | 5851864487             |
| Residual                                    | 27 | 60754          | 2250                   |
| Uncorrected Total                           | 34 | 40963112165    |                        |
| (Corrected Total)                           | 33 | 29852047953    |                        |

**LONDON-WINDSOR  
Non-Business Purpose**

| Parameter | Estimate     | Asymptotic<br>Std. Error | Asymptotic 95 %<br>Confidence Interval |              |
|-----------|--------------|--------------------------|--|--------------|
|           |              |                          | Lower                                  | Upper        |
|           |              |                          | H                                      | 6.99819821   |
| W         | 1.59991440   | 0.164519126              | 1.262351664                            | 1.93747714   |
| A         | 1.73036670   | 5.170616979              | -8.878780561                           | 12.33951397  |
| G         | 2.79913097   | 0.096496729              | 2.601137571                            | 2.99712436   |
| CV        | -19.99949260 | 0.013173350              | -20.026521870                          | -19.97246333 |
| CT        | 69.63076581  | 77.347347910             | -89.071649764                          | 228.33318138 |
| CB        | 76.79135281  | 68.048669408             | -62.831898707                          | 216.41460433 |

**Asymptotic Correlation Matrix**

| Corr | H        | W        | A        | G        | CV       | CT       | CB       |
|------|----------|----------|----------|----------|----------|----------|----------|
| H    | 1        | 0.853327 | -0.06062 | 0.829162 | -0.24905 | 0.059208 | 0.206224 |
| W    | 0.853327 | 1        | -0.02662 | 0.418412 | -0.36579 | 0.141024 | 0.288033 |
| A    | -0.06062 | -0.02662 | 1        | -0.07919 | -0.07955 | -0.63653 | -0.7712  |
| G    | 0.829162 | 0.418412 | -0.07919 | 1        | 0.004766 | -0.0539  | 0.051836 |
| CV   | -0.24905 | -0.36579 | -0.07955 | 0.004766 | 1        | 0.030127 | 0.015592 |
| CT   | 0.059208 | 0.141024 | -0.63653 | -0.0539  | 0.030127 | 1        | 0.454931 |
| CB   | 0.206224 | 0.288033 | -0.7712  | 0.051836 | 0.015592 | 0.454931 | 1        |

**LONDON-WINDSOR**  
**Non-Business Purpose**

| <b>Parameters</b> | <b>T for H0:<br/>Parameter = 0</b> | <b>R square</b> |
|-------------------|------------------------------------|-----------------|
| <b>h</b>          | 26.92                              | 0.999           |
| <b>w</b>          | 10.00                              |                 |
| <b>a</b>          | 0.33                               |                 |
| <b>g</b>          | 29.06                              |                 |
| <b>cv</b>         | -1538.46                           |                 |
| <b>ct</b>         | 0.90                               |                 |
| <b>cp</b>         |                                    |                 |
| <b>cb</b>         | 1.13                               |                 |

## **CALBRAGES DU MODELE A UTILITE GENERALISEE**

### **RESULTATS PAR MOTIF**

MODELE A UTILITE GENERALISEE - MOTIF BUSINESS  
 RESULTATS ECONOMETRIQUES

Model: MODEL1  
 Dependent Variable: LTRAFB

Analysis of Variance

| Source   | DF | Sum of Squares | Mean Square | F Value | Prob>F |
|----------|----|----------------|-------------|---------|--------|
| Model    | 2  | 55.84311       | 27.92156    | 46.612  | 0.0001 |
| Error    | 17 | 10.18331       | 0.59902     |         |        |
| C Total  | 19 | 66.02642       |             |         |        |
| Root MSE |    | 0.77396        | R-square    | 0.8458  |        |
| Dep Mean |    | 11.35777       | Adj R-sq    | 0.8276  |        |
| C.V.     |    | 6.81439        |             |         |        |

Parameter Estimates

| Variable | DF | Parameter Estimate | Standard Error | T for H0:<br>Parameter=0 | Prob >  T |
|----------|----|--------------------|----------------|--------------------------|-----------|
| INTERCEP | 1  | -5.072570          | 3.23210610     | -1.569                   | 0.1350    |
| LPOP     | 1  | 0.907417           | 0.12066407     | 7.520                    | 0.0001    |
| LUTIL    | 1  | 1.286777           | 0.16806444     | 7.656                    | 0.0001    |

| Obs | Dep Var<br>LTRAFB | Predict Value | Std Err Predict | Lower95% Mean | Upper95% Mean | Lower95% Predict | Upper95% Predict |
|-----|-------------------|---------------|-----------------|---------------|---------------|------------------|------------------|
| 1   | 13.7986           | 12.6106       | 0.221           | 12.1440       | 13.0772       | 10.9123          | 14.3089          |
| 2   | 10.2026           | 10.1930       | 0.214           | 9.7424        | 10.6436       | 8.4991           | 11.8869          |
| 3   | 10.5815           | 11.1652       | 0.263           | 10.6112       | 11.7192       | 9.4409           | 12.8895          |
| 4   | 13.0449           | 13.6141       | 0.291           | 12.9998       | 14.2284       | 11.8695          | 15.3587          |
| 5   | 13.5428           | 13.0195       | 0.389           | 12.1993       | 13.8396       | 11.1921          | 14.8468          |
| 6   | 9.3691            | 10.5859       | 0.226           | 10.1099       | 11.0619       | 8.8850           | 12.2868          |
| 7   | 11.3762           | 10.7892       | 0.275           | 10.2097       | 11.3686       | 9.0565           | 12.5218          |
| 8   | 13.1522           | 12.1756       | 0.253           | 11.6411       | 12.7101       | 10.4574          | 13.8938          |
| 9   | 8.7765            | 10.0060       | 0.224           | 9.5343        | 10.4776       | 8.3063           | 11.7056          |
| 10  | 9.9644            | 9.4345        | 0.264           | 8.8776        | 9.9914        | 7.7092           | 11.1598          |
| 11  | 12.3128           | 11.8172       | 0.185           | 11.4261       | 12.2082       | 10.1381          | 13.4962          |
| 12  | 9.5237            | 9.3420        | 0.341           | 8.6223        | 10.0616       | 7.5575           | 11.1264          |
| 13  | 8.0475            | 8.7658        | 0.366           | 7.9933        | 9.5382        | 6.9594           | 10.5722          |
| 14  | 13.8781           | 14.1966       | 0.360           | 13.4381       | 14.9551       | 12.3961          | 15.9971          |
| 15  | 13.3694           | 13.2887       | 0.271           | 12.7170       | 13.8604       | 11.5586          | 15.0188          |
| 16  | 11.7621           | 11.7335       | 0.187           | 11.3392       | 12.1279       | 10.0537          | 13.4134          |
| 17  | 12.3975           | 11.8671       | 0.353           | 11.1215       | 12.6128       | 10.0720          | 13.6622          |
| 18  | 10.7031           | 10.1251       | 0.275           | 9.5458        | 10.7044       | 8.3925           | 11.8577          |
| 19  | 12.4785           | 13.7792       | 0.308           | 13.1303       | 14.4281       | 12.0221          | 15.5363          |
| 20  | 8.8739            | 8.6467        | 0.520           | 7.5499        | 9.7435        | 6.6797           | 10.6138          |

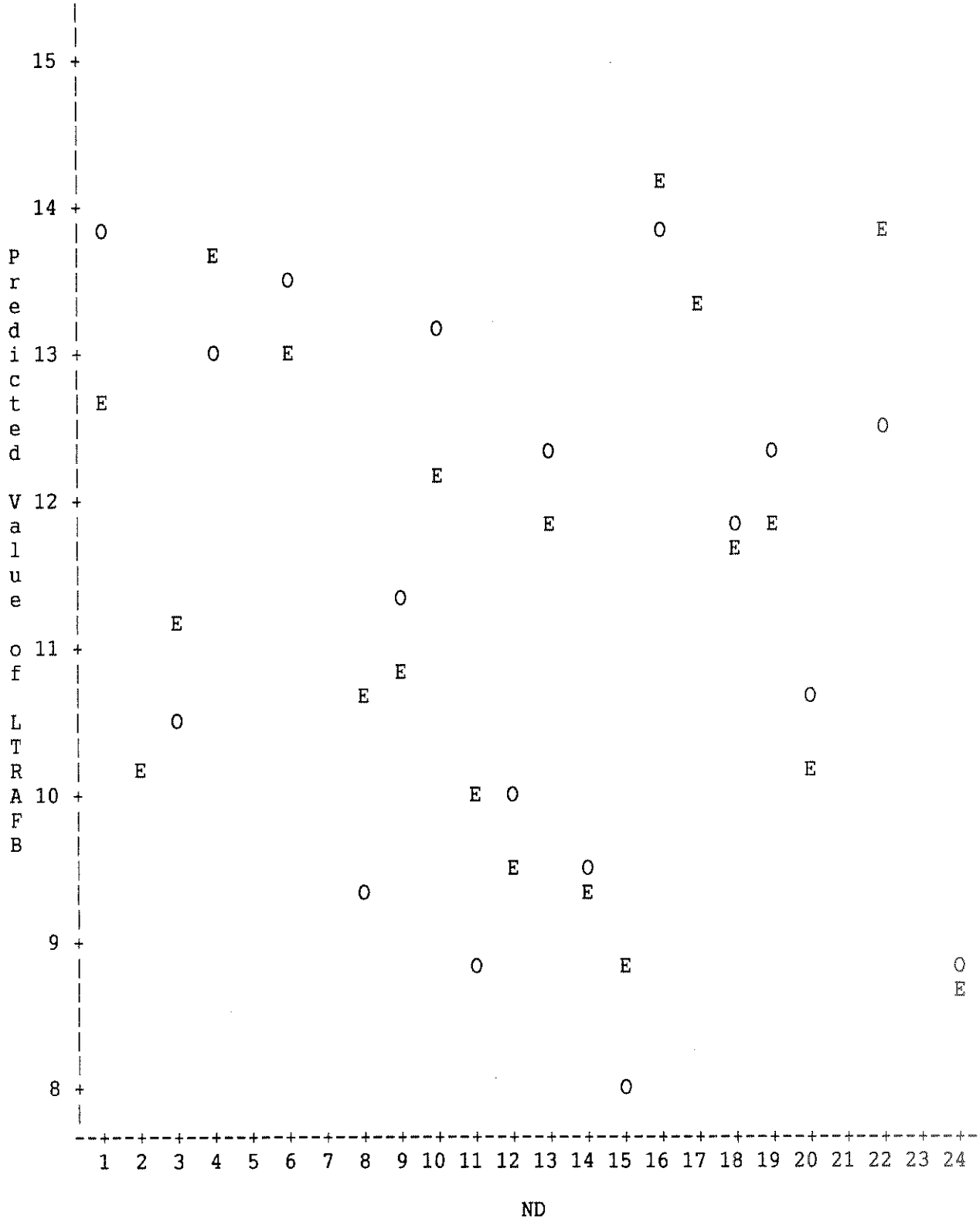
| Obs | Residual | Std Err Residual | Student Residual | -2 | -1 | 0   | 1 | 2 | Cook's D |
|-----|----------|------------------|------------------|----|----|-----|---|---|----------|
| 1   | 1.1880   | 0.742            | 1.602            |    |    | *** |   |   | 0.076    |
| 2   | 0.0096   | 0.744            | 0.013            |    |    |     |   |   | 0.000    |
| 3   | -0.5837  | 0.728            | -0.802           |    | *  |     |   |   | 0.028    |
| 4   | -0.5692  | 0.717            | -0.794           |    | *  |     |   |   | 0.035    |

|    |         |       |        |     |    |       |
|----|---------|-------|--------|-----|----|-------|
| 5  | 0.5233  | 0.669 | 0.782  |     | *  | 0.069 |
| 6  | -1.2169 | 0.740 | -1.644 | *** |    | 0.084 |
| 7  | 0.5870  | 0.724 | 0.811  |     | *  | 0.032 |
| 8  | 0.9766  | 0.731 | 1.335  |     | ** | 0.071 |
| 9  | -1.2295 | 0.741 | -1.659 | *** |    | 0.084 |
| 10 | 0.5299  | 0.728 | 0.728  |     | *  | 0.023 |
| 11 | 0.4956  | 0.751 | 0.660  |     | *  | 0.009 |
| 12 | 0.1817  | 0.695 | 0.262  |     |    | 0.005 |
| 13 | -0.7183 | 0.682 | -1.053 | **  |    | 0.107 |
| 14 | -0.3185 | 0.685 | -0.465 |     |    | 0.020 |
| 15 | 0.0807  | 0.725 | 0.111  |     |    | 0.001 |
| 16 | 0.0286  | 0.751 | 0.038  |     |    | 0.000 |
| 17 | 0.5304  | 0.689 | 0.770  |     | *  | 0.052 |
| 18 | 0.5780  | 0.724 | 0.799  |     | *  | 0.031 |
| 19 | -1.3006 | 0.710 | -1.831 | *** |    | 0.210 |
| 20 | 0.2272  | 0.573 | 0.396  |     |    | 0.043 |

Sum of Residuals 2.842171E-14  
Sum of Squared Residuals 10.1833  
Predicted Resid SS (Press) 13.4139

MODELE A UTILITE GENERALISEE - MOTIF BUSINESS  
 RESULTATS ECONOMETRIQUES

Plot of TRAFHAT\*ND. Symbol used is 'E'.  
 Plot of LTRAFB\*ND. Symbol used is 'O'.



NOTE: 2 obs hidden.

MODELE A UTILITE GENERALISEE - MOTIF NON-BUSINESS  
 RESULTATS ECONOMETRIQUES

Model: MODEL1  
 Dependent Variable: LTRAFN

Analysis of Variance

| Source   | DF | Sum of Squares | Mean Square | F Value | Prob>F |
|----------|----|----------------|-------------|---------|--------|
| Model    | 2  | 46.32699       | 23.16350    | 79.129  | 0.0001 |
| Error    | 17 | 4.97644        | 0.29273     |         |        |
| C Total  | 19 | 51.30344       |             |         |        |
| Root MSE |    | 0.54105        | R-square    | 0.9030  |        |
| Dep Mean |    | 12.48163       | Adj R-sq    | 0.8916  |        |
| C.V.     |    | 4.33475        |             |         |        |

Parameter Estimates

| Variable | DF | Parameter Estimate | Standard Error | T for H0:<br>Parameter=0 | Prob >  T |
|----------|----|--------------------|----------------|--------------------------|-----------|
| INTERCEP | 1  | 0.479896           | 2.30612328     | 0.208                    | 0.8376    |
| LPOP     | 1  | 0.744466           | 0.08580816     | 8.676                    | 0.0001    |
| LUTIL    | 1  | 1.597356           | 0.14860822     | 10.749                   | 0.0001    |

| Obs | Dep Var<br>LTRAFN | Predict Value | Std Err Predict | Lower95% Mean | Upper95% Mean | Lower95% Predict | Upper95% Predict |
|-----|-------------------|---------------|-----------------|---------------|---------------|------------------|------------------|
| 1   | 14.8220           | 13.9628       | 0.173           | 13.5986       | 14.3270       | 12.7646          | 15.1610          |
| 2   | 11.9380           | 11.3920       | 0.151           | 11.0740       | 11.7101       | 10.2071          | 12.5770          |
| 3   | 10.6700           | 10.8125       | 0.278           | 10.2268       | 11.3983       | 9.5295           | 12.0955          |
| 4   | 14.5131           | 14.9353       | 0.230           | 14.4490       | 15.4216       | 13.6945          | 16.1760          |
| 5   | 11.6471           | 12.4905       | 0.123           | 12.2320       | 12.7490       | 11.3201          | 13.6609          |
| 6   | 13.6174           | 13.4241       | 0.291           | 12.8101       | 14.0380       | 12.1279          | 14.7202          |
| 7   | 11.1547           | 11.9099       | 0.157           | 11.5780       | 12.2418       | 10.7211          | 13.0987          |
| 8   | 10.1066           | 10.7700       | 0.225           | 10.2944       | 11.2457       | 9.5334           | 12.0067          |
| 9   | 12.5824           | 12.6250       | 0.203           | 12.1976       | 13.0523       | 11.4061          | 13.8439          |
| 10  | 13.6940           | 12.9311       | 0.190           | 12.5312       | 13.3311       | 11.7216          | 14.1407          |
| 11  | 11.1816           | 11.2496       | 0.156           | 10.9198       | 11.5794       | 10.0614          | 12.4378          |
| 12  | 10.9051           | 10.5450       | 0.196           | 10.1316       | 10.9584       | 9.3310           | 11.7591          |
| 13  | 13.8197           | 13.6341       | 0.160           | 13.2962       | 13.9720       | 12.4436          | 14.8246          |
| 14  | 10.5716           | 10.8544       | 0.235           | 10.3590       | 11.3498       | 9.6101           | 12.0988          |
| 15  | 10.5662           | 10.1460       | 0.258           | 9.6020        | 10.6900       | 8.8815           | 11.4105          |
| 16  | 15.3842           | 15.7732       | 0.298           | 15.1455       | 16.4008       | 14.4705          | 17.0759          |
| 17  | 14.3371           | 14.4261       | 0.197           | 14.0098       | 14.8425       | 13.2111          | 15.6412          |
| 18  | 13.2243           | 13.0208       | 0.136           | 12.7347       | 13.3069       | 11.8440          | 14.1976          |
| 19  | 11.5686           | 12.1008       | 0.194           | 11.6908       | 12.5108       | 10.8879          | 13.3137          |
| 20  | 13.3288           | 12.6293       | 0.223           | 12.1597       | 13.0989       | 11.3949          | 13.8636          |

| Obs | Residual | Std Err Residual | Student Residual | -2 | -1  | 0 | 1 | 2 | Cook's D |
|-----|----------|------------------|------------------|----|-----|---|---|---|----------|
| 1   | 0.8592   | 0.513            | 1.676            |    |     |   |   |   | 0.106    |
| 2   | 0.5460   | 0.520            | 1.051            |    |     |   |   |   | 0.031    |
| 3   | -0.1426  | 0.464            | -0.307           |    |     |   |   |   | 0.011    |
| 4   | -0.4221  | 0.489            | -0.862           |    | *   |   |   |   | 0.055    |
| 5   | -0.8435  | 0.527            | -1.601           |    | *** |   |   |   | 0.046    |

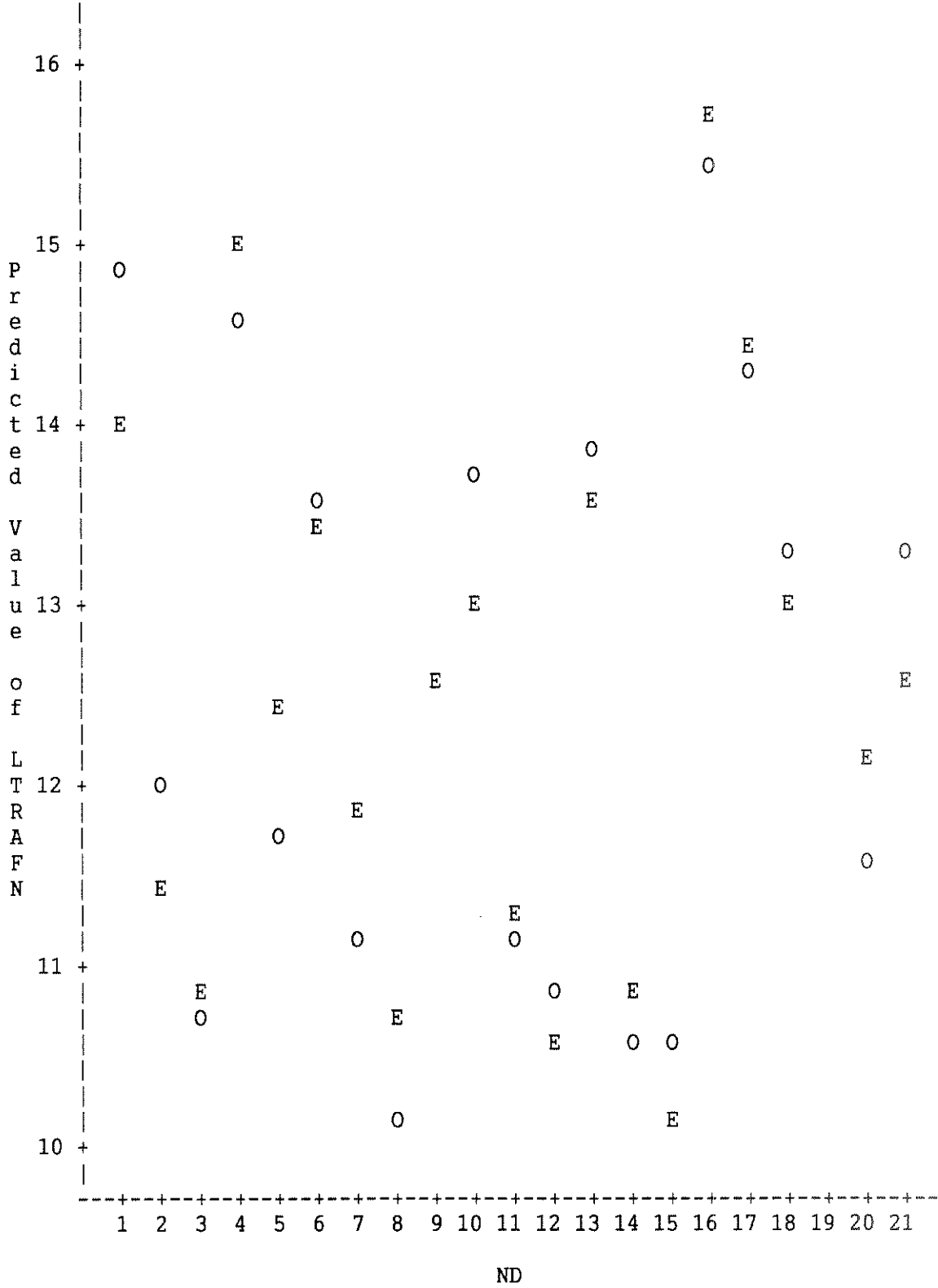


|    |         |       |        |    |     |       |
|----|---------|-------|--------|----|-----|-------|
| 6  | 0.1934  | 0.456 | 0.424  |    |     | 0.024 |
| 7  | -0.7552 | 0.518 | -1.459 | ** |     | 0.066 |
| 8  | -0.6634 | 0.492 | -1.349 | ** |     | 0.127 |
| 9  | -0.0425 | 0.502 | -0.085 |    |     | 0.000 |
| 10 | 0.7629  | 0.507 | 1.505  |    | *** | 0.106 |
| 11 | -0.0680 | 0.518 | -0.131 |    |     | 0.001 |
| 12 | 0.3601  | 0.504 | 0.714  |    | *   | 0.026 |
| 13 | 0.1856  | 0.517 | 0.359  |    |     | 0.004 |
| 14 | -0.2828 | 0.487 | -0.580 | *  |     | 0.026 |
| 15 | 0.4202  | 0.476 | 0.883  |    | *   | 0.076 |
| 16 | -0.3890 | 0.452 | -0.861 | *  |     | 0.107 |
| 17 | -0.0891 | 0.504 | -0.177 |    |     | 0.002 |
| 18 | 0.2035  | 0.524 | 0.388  |    |     | 0.003 |
| 19 | -0.5322 | 0.505 | -1.054 | ** |     | 0.055 |
| 20 | 0.6996  | 0.493 | 1.419  |    | **  | 0.137 |

Sum of Residuals 1.598721E-13  
Sum of Squared Residuals 4.9764  
Predicted Resid SS (Press) 6.6036

MODELE A UTILITE GENERALISEE - MOTIF NON-BUSINESS  
 RESULTATS ECONOMETRIQUES

Plot of TRAFHAT\*ND. Symbol used is 'E'.  
 Plot of LTRAFN\*ND. Symbol used is 'O'.



NOTE: 1 obs hidden.