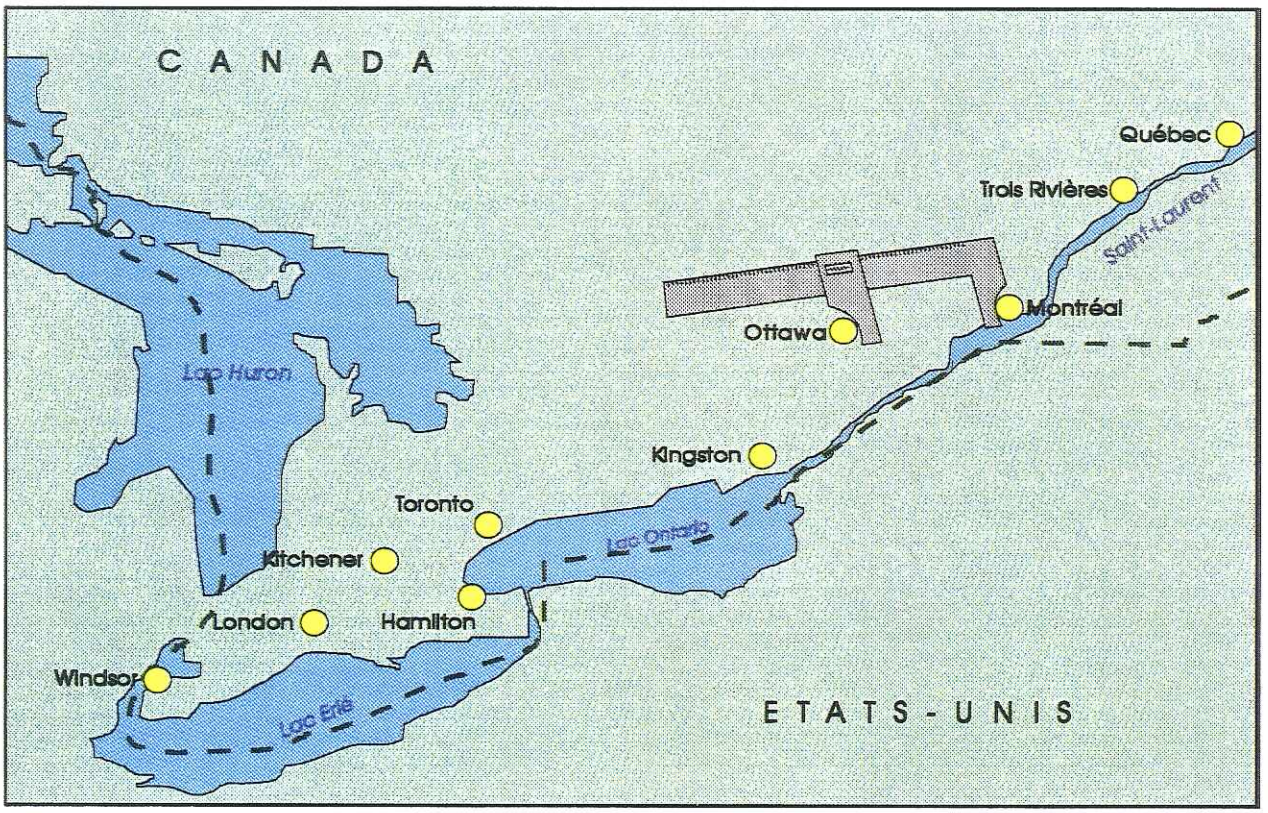
COMITE DIRECTEUR POUR LE PROJET DE TRAIN RAPIDE
QUEBEC - ONTARIO

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



CALIBRAGE DES MODELES

Juillet 1993

SOFRERAIL en association avec CANARAIL

EXEMPLAIRE N°9

NOTA:

SOFRERAIL considère que les éléments inclus dans ce rapport font partie de son know-how spécifique.

En conséquence, en dehors du client de l'étude du trafic dans le corridor Québec-Windsor, la diffusion et encore plus, la publication de ce rapport sont interdites. Ceci vise en particulier:

1. les firmes TEMS et CRA;
2. toute université et organisme assimilé.

Le rapport final donnera les grands résultats des calibrages.

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MODELISATION DU TRAFIC EN SITUATION DE PROJET

1. PRESENTATION THEORIQUE DES MODELES

1.1. Principes méthodologiques

Le modèle de répartition de trafic permet, pour une origine-destination donnée, d'affecter la demande de transport à l'offre. Plus précisément, la demande est définie par l'heure de départ (ou d'arrivée) souhaitée de chaque voyageur. Face à cette demande se présentent différents modes de transport, caractérisés chacun par un prix, un temps de parcours, une heure de départ et une heure d'arrivée, ainsi que par différents temps et modes d'accès. Le mot "accès" est pris ici au sens large et signifie l'accès au départ et le trajet terminal à l'arrivée, c'est-à-dire, en termes anglais "access+egress".

Le modèle affecte alors la demande à ces différents modes, selon le schéma micro-économique suivant:

- chaque voyageur est rationnel et calcule pour chaque mode de transport son coût généralisé;

- l'utilité d'un mode de transport est inversement proportionnelle à son coût généralisé;

- la probabilité pour un voyageur d'emprunter un mode de transport est proportionnelle à son utilité.

Le **coût généralisé** comprend le prix du voyage en lui-même, augmenté du coût de l'accès, du coût du "temps passé" pour voyager et du coût de son "attente". Ici, le temps passé pour voyager et l'attente sont entendus au sens large.

Le **temps passé** à voyager inclut le temps d'accès au terminal de départ, le temps de trajet avec le mode principal et le temps d'attente à la destination finale à partir du terminal d'arrivée. Il tient aussi compte des temps morts intermédiaires, tels que les correspondances. Les temps d'accès et autres temps morts sont des temps perçus et n'ont pas la même signification que le temps passé à bord du mode principal. Le voyageur les pondère donc par un coefficient qui lui est propre.

L'**attente** correspond au décalage entre les heures souhaitées de départ et l'heure possible de départ ou entre l'heure souhaitée d'arrivée et l'heure réelle d'arrivée. La voiture est supposée correspondre à une attente nulle en étant disponible à tout instant. Le temps d'attente est aussi une forme de temps perçu, c'est-à-dire pondéré par le consommateur par un coefficient différent de 1 en général.

1.2. Formulation mathématique du modèle de répartition de trafic

Une relation origine-destination donnée, définie par le zonage retenu dans l'étude, est caractérisée par une demande,c'est-à-dire un volume (Ni) de voyageurs i désirant partir (ou arriver) à une heure donnée, et une offre constituée de différents modes de transport j.
Les contraintes monétaires et horaires de chaque voyageur sont représentées par son heure de départ (ou d'arrivée) souhaitée, et sa valeur du temps .

Pour simuler le choix du voyageur i, on associe à chaque mode j un "coût généralisé CG_{ij} qui peut s'exprimer comme suit:

$$CG_{ij} = P_j + h*\left(Dj + a*AC_j + w*\left|H_j - HS_i\right|\right) + A_j$$

où:

.Pj est le prix du voyage par le mode j
.Dj est la durée du voyage par le mode j
.ACj est le temps d'accès (access+egress)

.Hj est l'heure de départ (ou d'arrivée du mode j)
.HSi est l'heure de départ (ou d'arrivée) souhaitée du voyageur i

.h est une pondération de la valeur du temps tenant compte de l'observation du marché
.a est un paramètre de valorisation du temps d'accès
.w est un paramètre de valorisation du temps d'attente

.Aj est un indice synthétique des attributs qualitatifs du mode j, par exemple:
confort pendant le voyage principal, pénibilité pendant l'access/egress, possibilité de travailler, facilités de formalité d'embarquement, sécurité, régularité, image, possibilités de restauration, téléphone, transport des bagages, etc.

Plus la valeur monétaire de cet indice est faible, meilleures sont les conditions de voyage par le mode en question. Ainsi, l'estimateur relatif à la voiture personnelle est généralement négatif, conférant en quelque sorte à cette dernière un "bonus" en termes de disponibilité notamment.
Le HSR a, par rapport aux attributs cités, un très bon positionnement et est considéré sur courtes et moyennes distances comme le "meilleur" des modes publics. Le coefficient relatif à ses attributs a pour valeur le minimum des coefficients des modes publics existants.

L'utilité du mode j pour le voyageur i peut s'exprimer comme une fonction inverse du coût généralisé:

$$U_{ij} = \frac{1}{CG_{ij}^{\lambda}}$$

avec $\lambda>0$

Ainsi, l'utilité du mode de transport j est maximale pour le voyageur i lorsque l'heure de départ de j coincide avec l'heure souhaitée de i.

La probabilité que le voyageur i emprunte le mode j est alors:

$$\Pr_{ij} = \frac{U_{ij}}{\sum_{j} U_{ij}}$$

Enfin, le volume total Vj de voyageurs empruntant le mode j devient:

$$V_j = \sum_{i} \Pr_{ij} * N_i$$

Le calibrage de ce modèle **non linéaire** fournit les estimateurs optimaux (c'est-à-dire convergents vers leur vraie valeur) et permet de reproduire le choix modal des différents voyageurs en situation actuelle.

Les résultats des calibrages pour chaque origine-destination et chaque motif figurent en annexe 1.

1.3. Induction de trafic et modèle à utilité généralisée

Le trafic induit est calculé par un modèle à utilité généralisée, modèle de type gravitaire de génération de trafic interurbain de voyageurs.

Ce modèle permet de calculer le trafic supplémentaire consécutif à une amélioration de l'offre de transport, notamment lors de la création de liaison ferroviaire à grande vitesse. Plus précisément, il détermine le nombre de voyages qui n'auraient pu être effectués en l'absence d'amélioration de la desserte, en fonction du gain d'utilité consécutif à l'amélioration de l'offre de transport entre deux villes.

L'élasticité de la mobilité à l'offre de transport et, plus précisément, à l'utilité généralisée est un paramètre essentiel de ce modèle.

Le principe du modèle gravitaire est l'analyse de la mobilité avec une loi analogue à celle de la gravitation de Newton. De même que deux masses exercent l'une sur l'autre une force d'attraction proportionnelle à chacune d'elles, et inversement proportionnelle au carré de la distance qui les sépare, de même deux agglomérations urbaines engendrent entre elles un flux de mobilité croissant avec la population des deux villes, et décroissant avec le coût généralisé (ou encore croissant avec l'utilité généralisée) de l'offre de transport qui les relie.

Il est clair que dans ce modèle, toute offre nouvelle induit un nouveau trafic, ce qui est logique. Néanmoins, le trafic sur une origine-destination donnée ne peut devenir infini car:

1. toute offre nouvelle opère un transfert de trafic à son profit, au détriment des offres anciennes. Ces dernières voyant leur fréquentation diminuer se trouvent éliminées par les opérateurs qui gèrent leur circulation. La suppression de ces offres désinduit alors du trafic;

2. l'utilité des offres nouvelles est décroissante car l'intervalle de temps entre deux offres consécutives se réduit.

Ainsi, la mobilité converge grâce à l'intéraction entre le modèle de répartition de trafic et le modèle à utilité généralisée.

Le volume de trafic entre deux villes x et y en situation initiale (avant amélioration de l'offre de transport) est exprimé par :

$$T_{xy} = k * (P_x + P_y)^{\alpha} * U_{xy}^{\rho}$$

avec

Txy: Trafic observé entre les villes x et y
Popx: Population de la ville x
Popy: Population de la ville y
Uxy: Coût généralisé de transport pour aller de x à y
α : élasticité du trafic à la somme des populations ($\alpha > 0$)
ρ: élasticité du trafic à l'utilité généralisée ($\rho>0$)

et

$$U_{xy} = 1 / C g_{xy}^{\lambda} \quad (\lambda>0)$$

L'augmentation de trafic résultant de l'accroissement du coût généralisé est donc :

$$\partial T / T = \rho * \partial U / U$$

Le modèle à utilité généralisée mis en oeuvre sur le corridor Québec - Ontario est multimodal. Ainsi, l'utilité globale est définie par la somme des utilités de chacun des modes pondérés par sa part de marché:

$$U_{xy} = \sum_{j=1}^{n} p_j * U_{xy,j} = \sum_{j=1}^{n} \frac{p_j}{CG_{xy,j}^{\lambda}}$$

avec $U_{xy,j}$:utilité totale du mode j entre les villes x et y
et $\sum_j p_j = 1$

Quatre modes de transport sont recensés: le train, l'avion, l'autocar et l'automobile.
Le volume du trafic peut donc s'écrire de la façon suivante :

$$T_{xy} = \left(Pop_x + Pop_y\right)^{\alpha} U_{xy}^{\rho}$$

$$\Leftrightarrow \sum_{j=1}^{n} T_{xy,j} = \left(Pop_x + Pop_y\right)^{\alpha} \sum_{j=1}^{n} p_j * U_{xy,j}^{\rho}$$

$$\Leftrightarrow T_{Fer} + T_{Bus} + T_{Air} + T_{Car} = \left(Pop_x + Pop_y\right)^{\alpha} \left(p_{Fer} * U_{xy,Fer} + p_{Bus} * U_{xy,Bus} + p_{Air} * U_{xy,Air} + p_{Air} * U_{xy,Car}\right)^{\rho}$$

$$\Leftrightarrow T_{Fer} + T_{Bus} + T_{Air} + T_{Car} = \left(Pop_x + Pop_y\right)^{\alpha} \left(\frac{p_{Fer}}{CG_{xy,Fer}^{\lambda}} + \frac{p_{Bus}}{CG_{xy,Bus}^{\lambda}} + \frac{p_{Air}}{CG_{xy,Air}^{\lambda}} + \frac{p_{Car}}{CG_{xy,Car}^{\lambda}}\right)^{\rho}$$

2. METHODE DE CALIBRAGE DU MODELE DE REPARTITION DE TRAFIC

Chaque origine-destination (x,y) fait l'objet d'une double série d'équations, l'une relative au motif business et l'autre au motif non-business.

Chaque série comprend j équations; j représentant le nombre de moyens de transport pour aller du point x au point y.

ex: pour aller de x à y, il y a 323 modes par jour (j=323):
20 avions, 5 trains, 10 autobus, 288 voitures (on considère dans chaque cas que la voiture est disponible toutes les 5 minutes pendant 24 heures)

Le nombre de passagers dans chacun de ces modes de transport est connu par enquêtes et représente **la variable expliquée** du modèle. Cette variable s'appelle Vj et se définit de la manière suivante:

$$V_j = \sum_i \Pr_{ij} * N_i$$

avec

$$\Pr_{ij} = \frac{1/CG_{ij}^{\lambda}}{\sum_j 1/CG_{ij}^{\lambda}}$$

et

$CG_{ij} = P_j + h * \left(Dj + a * AC_j + w * \left|H_j - HS_i\right|\right) + A_j$ (voir présentation du modèle au paragraphe précédent)

Ce modèle, de forme non linéaire a pour variables explicatives le Prix (Pj), la durée du voyage par le mode principal (Dj), le temps "Access+Egress" (ACj), l'heure de départ (ou d'arrivée) du mode j (Hj), l'heure souhaitée de départ (respectivement d'arrivée) du voyageur i.

Les paramètres à estimer sont:

*h: la valeur du temps (en $ Canadiens par heure)
*a: la valorisation du temps d'accès
*w: la valorisation du temps d'attente
*A_{fer}, A_{air}, A_{bus}, A_{car}: autres attributs des modes train, avion, bus et automobile
*λ: élasticité à l'utilité généralisée

2.1 Algorithmes et méthodes économétriques

La méthode non-linéaire consiste à minimiser la somme des carrés des résidus du modèle.

La procédure non-linéaire examine d'abord les valeurs initiales des paramètres; la somme des carrés des résidus est calculée pour différentes combinaisons de valeurs jusqu'à ce que la meilleure série de valeurs soit trouvée pour démarrer l'algorithme itératif.

2.1.1 Recherche des valeurs initiales des paramètres

Le principe de la procédure non-linéaire est de déterminer le vecteur de paramètres qui minimise la somme des carrés des résidus. La méthode consiste à trouver le vecteur de valeurs initiales qui permet au processus itératif de converger vers un minimum global et non local.

En raison du nombre élevé de paramètres, il existe de nombreuses combinaisons (h, a, w, λ, A_{fer}, A_{air}, A_{bus}, A_{car}) qui donnent, du point de vue de la qualité économétrique, des résultats satisfaisants.

Cependant, les paramètres doivent respecter deux autres conditions:

- avoir des valeurs cohérentes avec la logique du modèle et le contexte économique national;

- permettre au modèle une fois calibré, de réagir rationnellement, en termes de trafic et de recettes, aux changements apportés à l'offre de transport (changements dans les prix, le nombre de modes, la durée de transport, les temps d'accès etc...).

2.2.2 La métode itérative: "Multivariate secant" ou "False Position Method"

Le système d'équations du modèle non-linéaire est de la forme:

$$Y = F(\beta_0, \beta_1, ..., \beta_r, X_1, X_2, ..., X_n) + \varepsilon = F(\beta) + \varepsilon$$

où X représente la matrice des variables indépendantes, β le vecteur de paramètres, ε le vecteur des résidus et F, la fonction de ces variables indépendantes et de ces paramètres.

La méthode de résolution de ces équations permettant de minimiser les résidus consiste à résoudre l'ensemble des équations non linéaires "normales":

$$X' F(\beta) = X' e$$

où

$$X = \partial F / \partial \beta$$

L'algorithme utilise pour cela un processus itératif: à partir d'une valeur initiale pour β, il recherche par itérations successives la meilleure combinaison qui minimise la somme des carrés des résidus.

Le processus itératif commence au point β_0.
X et Y sont utilisés pour trouver Δ tel que

$$SSE(\beta_0 + k\Delta) < SSE(\beta_0)$$

La "Secant Method" utilise des séries de Taylor

$$F(\beta) = F(\beta_0) + X(\beta - \beta_0) + \ldots$$

où $X = \partial F / \partial \beta$ est estimé pour $\beta = \beta_0$

Substituant les deux premiers termes de ces séries dans les équations normales

$$X' F(\beta) = X' Y$$

$$X'(F(\beta_0) + X(\beta - \beta_0)) = X' Y$$
$$X' F(\beta_0) X(\beta - \beta_0)' Y$$
$$(X' X)(\beta - \beta_0) = X' Y - X' F(\beta_0)$$
$$(X' X)\Delta = X' e$$

et ainsi

$$\Delta = (X' X)^{-} X' e$$

Avec la "multivariate secant method", les dérivées sont estimées à partir des différentes itérations et non pas déterminées analytiquement auparavant. Si un seul paramètres est estimé, la dérivée à l'itération i+1 peut être estimée à partir des itérations antérieures:

$$der_{i+1} = \left(\hat{Y} - \hat{Y}_{i-1}\right) \Big/ \left(b_i - b_{i-1}\right)$$

Dans le cas de k paramètres, les k+1 dernières iterations sont utilisées pour estimer les dérivées. Le nombre k d'itérations est trouvé par processus dichotomique.

Si $SSE(\beta_0 + \Delta) > SSE(\ )$, l'algorithme calcule $SSE(\beta_0 + O.5\Delta), SSE(\beta_0 + O.25\Delta)\ldots$, jusqu'à ce que la somme des carrés des résidus soit minimale.

2.2 Résultats et fiabilité

A chaque origine-destination et à chaque motif (business et non-business) correspond une série de paramètres qui sont:

h: la valeur du temps
a: la valorisation du temps d'accès
w: la valorisation du temps d'attente
g: l'élasticité à l'élasticité généralisée
cv: les attributs de l'automobile
ct: les attributs du train
cb: les attributs du bus
cp: les attributs de l'avion

A chaque valeur des estimateurs sont attachés une erreur standard asymptotique et un intervalle de confiance asymptotique à 95%.

Deux indicateurs de fiabilité permettent de juger de la qualité économétrique des calibrages:

-le coefficient de détermination R^2 qui mesure la qualité du modèle pris dans son ensemble, c'est-à-dire la part de variance expliquée par le modèle;
-les t de Student qui mesurent la significativité des paramètres.

Les résultats relatifs à chaque origine-destination et à chaque motif figurent en annexe 1.

Les R^2 obtenus après calibrage sont proches de 1, ce qui signifie que le modèle reproduit de façon très satisfaisante le partage modal existant.

Quant à la significativité des paramètres, les résultats sont en général excellents puisque les t de Student sont pour la plupart supérieurs à 2.

Seuls certains attributs modaux sont peu significatifs, pour les origines-destinations où le mode est faiblement représenté.

Exemple : Ottawa-Kingston (motif business)
Les t de Student relatifs aux attributs du train et de l'autocar sont respectivement de 0.39 et 0.44. Inférieurs à 2, ils montrent que la variable "Attribut" n'est pas significative pour le train et le bus. Cela s'explique naturellement parce que ces deux modes publics sont peu utilisés pour le motif business.

3. CALIBRAGE DU MODELE A UTILITE GENERALISEE

Le modèle à utilité généralisée est calibré pour les principales origines-destinations pour les motifs "business" et "non-business". L'estimation des paramètres se fait par régression multiple avec balayage sur les paramètres non linéaires.

Après passage en logarithmes, le volume de trafic s'écrit de la façon suivante:

$$\ln(T_{Fer} + T_{Bus} + T_{Air} + T_{Car}) = \alpha \ln\left(Pop_x + Pop_y\right) + \rho \ln\left(\frac{p_{Fer}}{CG_{xy,\,Fer}{}^{\lambda}} + \frac{p_{Bus}}{CG_{xy,\,Bus}{}^{\lambda}} + \frac{p_{Air}}{CG_{xy,\,Air}{}^{\lambda}} + \frac{p_{Car}}{CG_{xy,\,Car}{}^{\lambda}}\right)$$

Les coefficients du modèle sont significatifs lorsque les tests de Student (repris entre parenthèses sous l'équation) sont supérieurs à 2.
On juge de la qualité d'ensemble du modèle par le coefficient de détermination empirique (R^2) qui mesure la part de variance expliquée par le modèle.

La régression multiple avec balayage sur les paramètres non linéaires donne des résultats équivalents (cf annexe 2):

Motif Non-Business

$$\ln(Txy) = \underset{(5.48)}{0.87}\ln(Popx + Popy) + \underset{(9.3)}{1.63}\ln(Uxy) + \underset{(2.84)}{6.69}$$

$R^2 = 0.81$

Motif Business

$$\ln(Txy) = \underset{(3.68)}{0.80}\ln(Popx + Popy) + \underset{(7.7)}{1.32}\ln(Uxy) + \underset{(3.56)}{11.75}$$

$R^2 = 0.76$

Pour les deux motifs, les t de Student supérieurs à 2 prouvent la significativité des paramètres.
Quant à la valeur même des paramètres, notons que l'élasticité à l'utilité est légèrement inférieure aux élasticités observées en France ou en Europe. Cela révèle une mobilité un peu plus faible au Canada par rapport aux pays européens; l'estimation du trafic induit en conséquence n'en sera que plus prudente.

Exemplaire n°9

ANNEXE 1

ESTIMATEURS STATISTIQUES

DU MODELE DE REPARTITION DE TRAFIC

par ORIGINE-DESTINATION

et par MOTIF DE VOYAGE

MONTREAL-LONDON

Motif Non-Business

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 776308
	1.600000	-70.000000	105.000000
	125.000000	1800.000000	
-8	9.900000	1.700000	1.800000 1197149
	1.600000	-70.000000	105.000000
	125.000000	1800.000000	
-7	9.000000	1.870000	1.800000 552941
	1.600000	-70.000000	105.000000
	125.000000	1800.000000	
-6	9.000000	1.700000	1.980000 773437
	1.600000	-70.000000	105.000000
	125.000000	1800.000000	
-5	9.000000	1.700000	1.800000 283363
	1.760000	-70.000000	105.000000
	125.000000	1800.000000	
-4	9.000000	1.700000	1.800000 188236
	1.600000	-77.000000	105.000000
	125.000000	1800.000000	
-3	9.000000	1.700000	1.800000 764181
	1.600000	-70.000000	115.500000
	125.000000	1800.000000	
-2	9.000000	1.700000	1.800000 771717
	1.600000	-70.000000	105.000000
	137.500000	1800.000000	
-1	9.000000	1.700000	1.800000 774660
	1.600000	-70.000000	105.000000
	125.000000	1980.000000	

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 188236
	1.600000	-77.000000	105.000000
	125.000000	1800.000000	
1	8.992792	1.700827	1.802230 186032
	1.599499	-76.996527	104.934097
	124.846018	1801.000000	

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	8.992792	1.700827	1.802230 186032
	1.599499	-76.996527	104.934097
	124.846018	1801.000000	

MONTREAL-LONDON

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares	
	G	CV	CT	
	CP	CB		
-8	9.892071	1.700827	1.802230	555641
	1.599499	-76.996527	104.934097	
	124.846018	1801.000000		
-7	8.992792	1.870909	1.802230	81928.000000
	1.599499	-76.996527	104.934097	
	124.846018	1801.000000		
-6	8.992792	1.700827	1.982453	185101
	1.599499	-76.996527	104.934097	
	124.846018	1801.000000		
-5	8.992792	1.700827	1.802230	10708.000000
	1.759449	-76.996527	104.934097	
	124.846018	1801.000000		
-4	8.992792	1.700827	1.802230	96366
	1.599499	-84.696179	104.934097	
	124.846018	1801.000000		
-3	8.992792	1.700827	1.802230	181958
	1.599499	-76.996527	115.427506	
	124.846018	1801.000000		
-2	8.992792	1.700827	1.802230	184040
	1.599499	-76.996527	104.934097	
	137.330619	1801.000000		
-1	8.992792	1.700827	1.802230	185559
	1.599499	-76.996527	104.934097	
	124.846018	1981.100000		

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

Iter	H	W	A Sum of Squares	
	G	CV	CT	
	CP	CB		
2	8.992792	1.700827	1.802230	10708.000000
	1.759449	-76.996527	104.934097	
	124.846018	1801.000000		

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	8.992792	1.700827	1.802230	10708.000000
	1.759449	-76.996527	104.934097	
	124.846018	1801.000000		
-8	9.001784	1.700827	1.802230	10936.000000
	1.759449	-76.996527	104.934097	
	124.846018	1801.000000		
-7	8.992792	1.702527	1.802230	10464.000000
	1.759449	-76.996527	104.934097	
	124.846018	1801.000000		

MONTREAL-LONDON

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares
	G	CV	CT
	CP	CB	
-6	8.992792	1.700827	1.804032 10708.000000
	1.759449	-76.996527	104.934097
	124.846018	1801.000000	
-5	8.992792	1.700827	1.802230 10375.000000
	1.761208	-76.996527	104.934097
	124.846018	1801.000000	
-4	8.992792	1.700827	1.802230 10242.000000
	1.759449	-77.073523	104.934097
	124.846018	1801.000000	
-3	8.992792	1.700827	1.802230 10603.000000
	1.759449	-76.996527	105.039031
	124.846018	1801.000000	
-2	8.992792	1.700827	1.802230 10708.000000
	1.759449	-76.996527	104.934097
	124.970864	1801.000000	
-1	8.992792	1.700827	1.802230 10708.000000
	1.759449	-76.996527	104.934097
	124.846018	1802.801000	

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

Iter	H	W	A Sum of Squares
	G	CV	CT
	CP	CB	
2	8.992792	1.700827	1.802230 10242.000000
	1.759449	-77.073523	104.934097
	124.846018	1801.000000	
3	8.993603	1.702550	1.800065 10138.000000
	1.758786	-77.077279	105.104528
	124.810556	1800.481341	
4	8.993804	1.704564	1.798582 9999.000000
	1.757914	-77.084246	105.303344
	124.736210	1799.407091	

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	8	41131739.000	5141467.375
Residual	30	9999.000	333.300
Uncorrected Total	38	41141738.000	
(Corrected Total)	37	25332788.000	

MONTREAL-LONDON

Motif Non-Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	8.993804	0.008197250	8.9770632	9.0105450
W	1.704564	0.027875776	1.6476341	1.7614932
A	1.798582	0.025773212	1.7459461	1.8512171
G	1.757914	0.021509530	1.7139865	1.8018425
CV	-77.084246	0.653129049	-78.4181041	-75.7503883
CT	105.303344	3.190602452	98.7873118	111.8193771
CP	124.736210	1.098168781	122.4934666	126.9789541
CB	1799.407091	10.587590307	1777.7845021	1821.0296791

Asymptotic Correlation Matrix

Corr	H	W	A	G
H	1	0.4742068958	-0.803674202	-0.347258526
W	0.4742068958	1	-0.659805485	-0.503856995
A	-0.803674202	-0.659805485	1	0.3797685333
G	-0.347258526	-0.503856995	0.3797685333	1
CV	-0.253726875	-0.083874363	0.1003127719	0.8479964593
CT	0.554533793	0.4318664577	-0.904348925	-0.330363172
CP	-0.25303476	-0.573094215	0.7790618283	0.2515623082
CB	-0.687239598	-0.568656588	0.7585982453	0.4298671002

Corr	CV	CT	CP	CB
H	-0.253726875	0.554533793	-0.25303476	-0.687239598
W	-0.083874363	0.4318664577	-0.573094215	-0.568656588
A	0.1003127719	-0.904348925	0.7790618283	0.7585982453
G	0.8479964593	-0.330363172	0.2515623082	0.4298671002
CV	1	-0.072142212	-0.10423154	0.2440447027
CT	-0.072142212	1	-0.886040142	-0.700774532
CP	-0.10423154	-0.886040142	1	0.5092655944
CB	0.2440447027	-0.700774532	0.5092655944	1

MONTREAL-LONDON
Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	1109.88	
w	62.96	
a	69.65	0.999
g	83.33	
cv	-118.58	
ct	33.01	
cp	114.40	
cb	170.08	

MONTREAL-LONDON

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CV	CT	
	CP	CB		
-9	16.000000	1.700000	1.800000	4840.000000
	1.600000	-150.000000	1000.000000	
	0	1000.000000		
-8	17.600000	1.700000	1.800000	10393.000000
	1.600000	-150.000000	1000.000000	
	0	1000.000000		
-7	16.000000	1.870000	1.800000	4768.000000
	1.600000	-150.000000	1000.000000	
	0	1000.000000		
-6	16.000000	1.700000	1.980000	4098.000000
	1.600000	-150.000000	1000.000000	
	0	1000.000000		
-5	16.000000	1.700000	1.800000	4155.000000
	1.760000	-150.000000	1000.000000	
	0	1000.000000		
-4	16.000000	1.700000	1.800000	2936.000000
	1.600000	-165.000000	1000.000000	
	0	1000.000000		
-3	16.000000	1.700000	1.800000	4807.000000
	1.600000	-150.000000	1100.000000	
	0	1000.000000		
-2	16.000000	1.700000	1.800000	4840.000000
	1.600000	-150.000000	1000.000000	
	0.100000	1000.000000		
-1	16.000000	1.700000	1.800000	4757.000000
	1.600000	-150.000000	1000.000000	
	0	1100.000000		

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

Iter	H	W	A	Sum of Squares
	G	CV	CT	
	CP	CB		
0	16.000000	1.700000	1.800000	2936.000000
	1.600000	-165.000000	1000.000000	
	0	1000.000000		

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	16.000000	1.700000	1.800000	2936.000000
	1.600000	-165.000000	1000.000000	
	0	1000.000000		
-8	17.600000	1.700000	1.800000	2884.000000
	1.600000	-165.000000	1000.000000	
	0	1000.000000		

MONTREAL-LONDON

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CV	CT	
	CP	CB		
-7	16.000000	1.870000	1.800000	5308.000000
	1.600000	-165.000000	1000.000000	
	0	1000.000000		
-6	16.000000	1.700000	1.980000	3453.000000
	1.600000	-165.000000	1000.000000	
	0	1000.000000		
-5	16.000000	1.700000	1.800000	17615.000000
	1.760000	-165.000000	1000.000000	
	0	1000.000000		
-4	16.000000	1.700000	1.800000	17382.000000
	1.600000	-181.500000	1000.000000	
	0	1000.000000		
-3	16.000000	1.700000	1.800000	3085.000000
	1.600000	-165.000000	1100.000000	
	0	1000.000000		
-2	16.000000	1.700000	1.800000	2921.000000
	1.600000	-165.000000	1000.000000	
	0.100000	1000.000000		
-1	16.000000	1.700000	1.800000	3031.000000
	1.600000	-165.000000	1000.000000	
	0	1100.000000		

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

Iter	H	W	A	Sum of Squares
	G	CV	CT	
	CP	CB		
0	17.600000	1.700000	1.800000	2884.000000
	1.600000	-165.000000	1000.000000	
	0	1000.000000		

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	8	5332711.0000	666588.8750
Residual	30	2884.0000	96.1333
Uncorrected Total	38	5335595.0000	
(Corrected Total)	37	1723983.8158	

MONTREAL-LONDON

Motif Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	17.600000	5.26722741	6.84296394	28.3570361
W	1.700000	0.48112001	0.71742892	2.6825711
A	1.800000	0.69365963	0.38336825	3.2166318
G	1.600000	0.15802915	1.27726374	1.9227363
CV	-165.000000	33.68858567	-233.80077558	-96.1992244
CT	1000.000000	185.53838054	621.08280212	1378.9171979
CP	0.000000	1.02562104	-2.09458253	2.0945825
CB	1000.000000	202.06096270	587.33943043	1412.6605696

Asymptotic Correlation Matrix

Corr	H	W	A	G
H	1	-0.974212163	-0.198933153	0.1907437531
W	-0.974212163	1	0.3636484324	-0.19598209
A	-0.198933153	0.3636484324	1	0.3971607239
G	0.1907437531	-0.19598209	0.3971607239	1
CV	-0.825138385	0.8407990313	0.5692791845	0.3589987926
CT	0.1193710186	-0.053409674	-0.009900776	-0.428922009
CP	0.1904535272	-0.201108903	-0.122552537	0.0321211238
CB	-0.060054017	0.0991391679	-0.041926881	-0.470054026

Corr	CV	CT	CP	CB
H	-0.825138385	0.1193710186	0.1904535272	-0.060054017
W	0.8407990313	-0.053409674	-0.201108903	0.0991391679
A	0.5692791845	-0.009900776	-0.122552537	-0.041926881
G	0.3589987926	-0.428922009	0.0321211238	-0.470054026
CV	1	-0.278186086	-0.176200745	-0.153268796
CT	-0.278186086	1	-0.08460982	0.1406996108
CP	-0.176200745	-0.08460982	1	-0.139786385
CB	-0.153268796	0.1406996108	-0.139786385	1

MONTREAL-LONDON
Motif Business

Parameters	T for H0: Parameter = 0	R square
h	3.35	
w	3.54	
a	2.61	0.998
g	10.67	
cv	-4.90	
ct	5.39	
cp	0.00	
cb	4.95	

MONTREAL-TORONTO
Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G CP	A CV CB	W CT	Sum of Squares
-9	6.000000	1.600000	1.600000	168902
	1.800000	-45.000000	69.000000	
	270.000000	215.000000		
-8	6.600000	1.600000	1.600000	42889605
	1.800000	-45.000000	69.000000	
	270.000000	215.000000		
-7	6.000000	1.760000	1.600000	155592
	1.800000	-45.000000	69.000000	
	270.000000	215.000000		
-6	6.000000	1.600000	1.760000	7946702
	1.800000	-45.000000	69.000000	
	270.000000	215.000000		
-5	6.000000	1.600000	1.600000	78359654
	1.980000	-45.000000	69.000000	
	270.000000	215.000000		
-4	6.000000	1.600000	1.600000	251813862
	1.800000	-49.500000	69.000000	
	270.000000	215.000000		
-3	6.000000	1.600000	1.600000	177507
	1.800000	-45.000000	75.900000	
	270.000000	215.000000		
-2	6.000000	1.600000	1.600000	194348
	1.800000	-45.000000	69.000000	
	297.000000	215.000000		
-1	6.000000	1.600000	1.600000	176906
	1.800000	-45.000000	69.000000	
	270.000000	236.500000		

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

Iter	H G CP	A CV CB	W CT	Sum of Squares
0	6.000000	1.760000	1.600000	155592
	1.800000	-45.000000	69.000000	
	270.000000	215.000000		
1	5.994347	1.700000	1.604359	154091
	1.798808	-44.975506	69.725626	
	271.633828	216.157426		

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	8	39111666276	4888958285
Residual	48	154091	3210
Uncorrected Total	56	39111820367	
(Corrected Total)	55	27097267081	

MONTREAL-TORONTO
Motif Non-Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
H	5.9943468	0.66824961	4.650744204	7.33794941
A	1.7000000	3.60056407	-5.539401500	8.93940150
W	1.6043588	0.20329317	1.195611506	2.01310612
G	1.7988078	0.04331199	1.711723367	1.88589214
CV	-44.9755062	0.62697862	-46.236128062	-43.71488425
CT	69.7256258	52.07821681	-34.984390226	174.43564174
CP	271.6338282	124.93956022	20.426622003	522.84103435
CB	216.1574263	88.78557570	37.642499694	394.67235288

Asymptotic Correlation Matrix

Corr	H	A	W	G
H	1	-0.286794476	0.9730036098	0.924786463
A	-0.286794476	1	-0.277748684	-0.225298766
W	0.9730036098	-0.277748684	1	0.9384978634
G	0.924786463	-0.225298766	0.9384978634	1
CV	-0.270578754	0.1343116229	-0.066690012	0.0449610493
CT	0.8707882592	-0.709176157	0.8706317397	0.8001090242
CP	0.9262977549	-0.597856043	0.9315942355	0.8592169823
CB	0.9364208199	-0.567220979	0.9396824357	0.8670671646

Corr	CV	CT	CP	CB
H	-0.270578754	0.8707882592	0.9262977549	0.9364208199
A	0.1343116229	-0.709176157	-0.597856043	-0.567220979
W	-0.066690012	0.8706317397	0.9315942355	0.9396824357
G	0.0449610493	0.8001090242	0.8592169823	0.8670671646
CV	1	-0.178408976	-0.163466067	-0.173114809
CT	-0.178408976	1	0.9866485856	0.9779790052
CP	-0.163466067	0.9866485856	1	0.9913660505
CB	-0.173114809	0.9779790052	0.9913660505	1

MONTREAL-TORONTO
Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	9.08	
a	0.47	
w	8.00	0.999
g	44.75	
cv	-72.42	
ct	1.34	
cp	2.19	
cb	2.44	

MONTREAL-TORONTO

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares
	G	CV	CT
	CP	CB	
-9	33.000000	1.900000	1.600000 64125.000000
	3.000000	-100.000000	260.000000
	-15.000000	1100.000000	
-8	36.300000	1.900000	1.600000 27318667
	3.000000	-100.000000	260.000000
	-15.000000	1100.000000	
-7	33.000000	2.090000	1.600000 2085004
	3.000000	-100.000000	260.000000
	-15.000000	1100.000000	
-6	33.000000	1.900000	1.760000 13378293
	3.000000	-100.000000	260.000000
	-15.000000	1100.000000	
-5	33.000000	1.900000	1.600000 45768929
	3.300000	-100.000000	260.000000
	-15.000000	1100.000000	
-4	33.000000	1.900000	1.600000 32000216
	3.000000	-110.000000	260.000000
	-15.000000	1100.000000	
-3	33.000000	1.900000	1.600000 790718
	3.000000	-100.000000	286.000000
	-15.000000	1100.000000	
-2	33.000000	1.900000	1.600000 372572
	3.000000	-100.000000	260.000000
	-16.500000	1100.000000	
-1	33.000000	1.900000	1.600000 72031.000000
	3.000000	-100.000000	260.000000
	-15.000000	1210.000000	

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	1.900000	1.600000 64125.000000
	3.000000	-100.000000	260.000000
	-15.000000	1100.000000	
1	33.017272	1.902284	1.614943 63605.000000
	2.998789	-99.897813	260.090427
	-15.627931	1102.842761	

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	8	16115038613	2014379827
Residual	48	63605	1325
Uncorrected Total	56	16115102218	
(Corrected Total)	55	5759191735	

MONTREAL–TORONTO

Motif Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	33.017272	5.17734613	22.60754570	43.4269988
W	1.902284	0.07753772	1.74638395	2.0581832
A	1.614943	0.39029796	0.83019785	2.3996873
G	2.998789	0.01540698	2.96781100	3.0297664
CV	-99.897813	7.24006847	-114.45491069	-85.3407155
CT	260.090427	46.79994969	165.99305243	354.1878018
CP	-15.627931	20.42095762	-56.68691752	25.4310554
CB	1102.842761	203.06183508	694.56057893	1511.1249430

Asymptotic Correlation Matrix

Corr	H	W	A	G
H	1	-0.225651591	0.5255879229	-0.409914108
W	-0.225651591	1	0.2368072638	-0.139284525
A	0.5255879229	0.2368072638	1	-0.31884157
G	-0.409914108	-0.139284525	-0.31884157	1
CV	-0.027578286	0.9621751655	0.3421811071	-0.065051873
CT	0.8984217837	0.1289182598	0.3855487832	-0.434674997
CP	0.4185054184	-0.000546501	-0.436062643	-0.109659211
CB	0.9360887374	0.0661421263	0.5456806378	-0.503375073

Corr	CV	CT	CP	CB
H	-0.027578286	0.8984217837	0.4185054184	0.9360887374
W	0.9621751655	0.1289182598	-0.000546501	0.0661421263
A	0.3421811071	0.3855487832	-0.436062643	0.5456806378
G	-0.065051873	-0.434674997	-0.109659211	-0.503375073
CV	1	0.3135998165	0.1001558423	0.2451203181
CT	0.3135998165	1	0.6573417065	0.9557643063
CP	0.1001558423	0.6573417065	1	0.4744903196
CB	0.2451203181	0.9557643063	0.4744903196	1

MONTREAL-TORONTO
Motif Business

Parameters	T for H0: Parameter = 0	R square
h	6.38	
w	24.68	
a	4.13	0.999
g	199.87	
cv	-13.80	
ct	5.56	
cp	-0.76	
cb	5.43	

MONTREAL-HAMILTON

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CV	CT	
	CP	CB		
-9	8.000000	1.500000	1.800000	574510
	2.200000	-30.000000	100.000000	
	3000.000000	400.000000		
-8	8.800000	1.500000	1.800000	607642
	2.200000	-30.000000	100.000000	
	3000.000000	400.000000		
-7	8.000000	1.650000	1.800000	363946
	2.200000	-30.000000	100.000000	
	3000.000000	400.000000		
-6	8.000000	1.500000	1.980000	573811
	2.200000	-30.000000	100.000000	
	3000.000000	400.000000		
-5	8.000000	1.500000	1.800000	224611
	2.420000	-30.000000	100.000000	
	3000.000000	400.000000		
-4	8.000000	1.500000	1.800000	428110
	2.200000	-33.000000	100.000000	
	3000.000000	400.000000		
-3	8.000000	1.500000	1.800000	571469
	2.200000	-30.000000	110.000000	
	3000.000000	400.000000		
-2	8.000000	1.500000	1.800000	573893
	2.200000	-30.000000	100.000000	
	3300.000000	400.000000		
-1	8.000000	1.500000	1.800000	573141
	2.200000	-30.000000	100.000000	
	3000.000000	440.000000		

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

Iter	H	W	A	Sum of Squares
	G	CV	CT	
	CP	CB		
0	8.000000	1.500000	1.800000	224611
	2.420000	-30.000000	100.000000	
	3000.000000	400.000000		
1	7.997449	1.500413	1.801601	224452
	2.419660	-30.005047	99.975954	
	3000.340583	399.956036		

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	7.997449	1.500413	1.801601	224452
	2.419660	-30.005047	99.975954	
	3000.340583	399.956036		

MONTREAL-HAMILTON

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares	
	G	CV	CT	
	CP	CB		
-8	8.797194	1.500413	1.801601	245147
	2.419660	-30.005047	99.975954	
	3000.340583	399.956036		
-7	7.997449	1.650455	1.801601	98614
	2.419660	-30.005047	99.975954	
	3000.340583	399.956036		
-6	7.997449	1.500413	1.981761	224361
	2.419660	-30.005047	99.975954	
	3000.340583	399.956036		
-5	7.997449	1.500413	1.801601	39314.000000
	2.661626	-30.005047	99.975954	
	3000.340583	399.956036		
-4	7.997449	1.500413	1.801601	135266
	2.419660	-33.005551	99.975954	
	3000.340583	399.956036		
-3	7.997449	1.500413	1.801601	223457
	2.419660	-30.005047	109.973550	
	3000.340583	399.956036		
-2	7.997449	1.500413	1.801601	224452
	2.419660	-30.005047	99.975954	
	3300.374642	399.956036		
-1	7.997449	1.500413	1.801601	224041
	2.419660	-30.005047	99.975954	
	3000.340583	439.951640		

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

Iter	H	W	A Sum of Squares	
	G	CV	CT	
	CP	CB		
2	7.997449	1.500413	1.801601	39314.000000
	2.661626	-30.005047	99.975954	
	3000.340583	399.956036		

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	7.997449	1.500413	1.801601	39314.000000
	2.661626	-30.005047	99.975954	
	3000.340583	399.956036		
-8	8.005446	1.500413	1.801601	39375.000000
	2.661626	-30.005047	99.975954	
	3000.340583	399.956036		
-7	7.997449	1.501914	1.801601	38733.000000
	2.661626	-30.005047	99.975954	
	3000.340583	399.956036		

MONTREAL-HAMILTON

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CV	CT	
	CP	CB		
-6	7.997449	1.500413	1.803403	39314.000000
	2.661626	-30.005047	99.975954	
	3000.340583	399.956036		
-5	7.997449	1.500413	1.801601	38471.000000
	2.664288	-30.005047	99.975954	
	3000.340583	399.956036		
-4	7.997449	1.500413	1.801601	38978.000000
	2.661626	-30.035052	99.975954	
	3000.340583	399.956036		
-3	7.997449	1.500413	1.801601	39314.000000
	2.661626	-30.005047	100.075930	
	3000.340583	399.956036		
-2	7.997449	1.500413	1.801601	39314.000000
	2.661626	-30.005047	99.975954	
	3003.340924	399.956036		
-1	7.997449	1.500413	1.801601	39314.000000
	2.661626	-30.005047	99.975954	
	3000.340583	400.355992		

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

Iter	H	W	A	Sum of Squares
	G	CV	CT	
	CP	CB		
2	7.997449	1.500413	1.801601	38471.000000
	2.664288	-30.005047	99.975954	
	3000.340583	399.956036		

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	8	50745079.000	6343134.875
Residual	26	38471.000	1479.654
Uncorrected Total	34	50783550.000	
(Corrected Total)	33	27364269.882	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
H	7.997449	0.177611430	7.6323663	8.3625315
W	1.500413	0.044080794	1.4098048	1.5910221
A	1.801601	0.010585883	1.7798417	1.8233605
G	2.664288	0.051191417	2.5590633	2.7695126
CV	-30.005047	0.881521215	-31.8170252	-28.1930683
CT	99.975954	0.587440675	98.7684621	101.1834462
CP	3000.340583	17.629460118	2964.1029956	3036.5781711
CB	399.956036	2.350069532	395.1254374	404.7866352

MONTREAL-HAMILTON

Motif Non-Business

Asymptotic Correlation Matrix

Corr	H	W	A	G
H	1	-7.41503E-15	-0.755928946	5.481536E-15
W	-7.41503E-15	1	4.82392E-15	-0.654653671
A	-0.755928946	4.82392E-15	1	-2.77315E-15
G	5.481536E-15	-0.654653671	-2.77315E-15	1
CV	-2.43911E-15	0.5714285714	0.4285714286	-7.89566E-17
CT	-0.755928946	1.189497E-14	1	-7.88978E-15
CP	-0.755928946	-5.47512E-16	1	6.546223E-16
CB	-0.755928946	9.888316E-15	1	-8.46052E-15

Corr	CV	CT	CP	CB
H	-2.43911E-15	-0.755928946	-0.755928946	-0.755928946
W	0.5714285714	1.189497E-14	-5.47512E-16	9.888316E-15
A	0.4285714286	1	1	1
G	-7.89566E-17	-7.88978E-15	6.546223E-16	-8.46052E-15
CV	1	0.4285714286	0.4285714286	0.4285714286
CT	0.4285714286	1	1	1
CP	0.4285714286	1	1	1
CB	0.4285714286	1	1	1

MONTREAL-HAMILTON
Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	47.00	
w	34.09	
a	171.43	0.998
g	52.16	
cv	-34.09	
ct	172.36	
cp	170.26	
cb	170.19	

MONTREAL-HAMILTON

Motif Business

Non-Linear Least Squares DUD Initialization				Dependent Variable VOY
DUD	H	W	A Sum of Squares	
	G	CV	CT	
	CP	CB		
-9	22.000000	1.500000	1.000000	3313.000000
	1.800000	0	-100.000000	
	-100.000000	600.000000		
-8	24.200000	1.500000	1.000000	9363.000000
	1.800000	0	-100.000000	
	-100.000000	600.000000		
-7	22.000000	1.650000	1.000000	5162.000000
	1.800000	0	-100.000000	
	-100.000000	600.000000		
-6	22.000000	1.500000	1.100000	5207.000000
	1.800000	0	-100.000000	
	-100.000000	600.000000		
-5	22.000000	1.500000	1.000000	25884.000000
	1.980000	0	-100.000000	
	-100.000000	600.000000		
-4	22.000000	1.500000	1.000000	3350.000000
	1.800000	0.100000	-100.000000	
	-100.000000	600.000000		
-3	22.000000	1.500000	1.000000	14560.000000
	1.800000	0	-110.000000	
	-100.000000	600.000000		
-2	22.000000	1.500000	1.000000	11557.000000
	1.800000	0	-100.000000	
	-110.000000	600.000000		
-1	22.000000	1.500000	1.000000	3627.000000
	1.800000	0	-100.000000	
	-100.000000	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	22.000000	1.500000	1.000000	3313.000000
	1.800000	0	-100.000000	
	-100.000000	600.000000		

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	22.000000	1.500000	1.000000	3313.000000
	1.800000	0	-100.000000	
	-100.000000	600.000000		
-8	24.200000	1.500000	1.000000	9363.000000
	1.800000	0	-100.000000	
	-100.000000	600.000000		

MONTREAL-HAMILTON

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares
	G	CV	CT
	CP	CB	
-7	22.000000	1.650000	1.000000 5162.000000
	1.800000	0	-100.000000
	-100.000000	600.000000	
-6	22.000000	1.500000	1.100000 5207.000000
	1.800000	0	-100.000000
	-100.000000	600.000000	
-5	22.000000	1.500000	1.000000 25884.000000
	1.980000	0	-100.000000
	-100.000000	600.000000	
-4	22.000000	1.500000	1.000000 3350.000000
	1.800000	0.100000	-100.000000
	-100.000000	600.000000	
-3	22.000000	1.500000	1.000000 14560.000000
	1.800000	0	-110.000000
	-100.000000	600.000000	
-2	22.000000	1.500000	1.000000 11557.000000
	1.800000	0	-100.000000
	-110.000000	600.000000	
-1	22.000000	1.500000	1.000000 3627.000000
	1.800000	0	-100.000000
	-100.000000	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	22.000000	1.500000	1.000000 3313.000000
	1.800000	0	-100.000000
	-100.000000	600.000000	

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	8	9394951.0000	1174368.8750
Residual	26	3313.0000	127.4231
Uncorrected Total	34	9398264.0000	
(Corrected Total)	33	2007502.1176	

MONTREAL-HAMILTON

Motif Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
H	22.0000000	12.00452606	-2.67546161	46.6754616
W	1.5000000	0.49865062	0.47501708	2.5249829
A	1.0000000	0.62292673	-0.28043410	2.2804341
G	1.8000000	0.24397589	1.29850435	2.3014957
CV	0.0000000	1.54232319	-3.17026565	3.1702657
CT	-100.0000000	29.97927100	-161.62278686	-38.3772131
CP	-100.0000000	41.58989199	-185.48857140	-14.5114286
CB	600.0000000	229.99253803	127.24730533	1072.7526947

Asymptotic Correlation Matrix

Corr	H	W	A	G
H	1	-0.809012502	-0.40002583	0.2036418217
W	-0.809012502	1	-0.073299395	-0.733756527
A	-0.40002583	-0.073299395	1	0.5801724933
G	0.2036418217	-0.733756527	0.5801724933	1
CV	-0.057159986	-0.159580062	0.0547629164	0.2962302534
CT	-0.911026285	0.5554012222	0.4133205484	0.1218949241
CP	0.8439874569	-0.524456802	-0.805210907	-0.089492999
CB	0.5454539695	0.0240422413	-0.828499977	-0.670446897

Corr	CV	CT	CP	CB
H	-0.057159986	-0.911026285	0.8439874569	0.5454539695
W	-0.159580062	0.5554012222	-0.524456802	0.0240422413
A	0.0547629164	0.4133205484	-0.805210907	-0.828499977
G	0.2962302534	0.1218949241	-0.089492999	-0.670446897
CV	1	0.2335738645	0.017832598	-0.269323405
CT	0.2335738645	1	-0.729952274	-0.716143212
CP	0.017832598	-0.729952274	1	0.7272339616
CB	-0.269323405	-0.716143212	0.7272339616	1

MONTREAL-HAMILTON
Motif Business

Parameters	T for H0: Parameter = 0	R square
h	1.83	
w	3.06	
a	1.61	0.998
g	7.50	
cv	0.00	
ct	-3.34	
cp	-2.41	
cb	2.61	

MONTREAL-KITCHENER

Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G	W CT	A Sum of Squares CB	
-7	6.000000 3.450000	1.300000 10.000000	2.000000 250.000000	13288.000000
-6	6.600000 3.450000	1.300000 10.000000	2.000000 250.000000	3635487
-5	6.000000 3.450000	1.430000 10.000000	2.000000 250.000000	11343.000000
-4	6.000000 3.450000	1.300000 10.000000	2.200000 250.000000	13288.000000
-3	6.000000 3.795000	1.300000 10.000000	2.000000 250.000000	37410.000000
-2	6.000000 3.450000	1.300000 11.000000	2.000000 250.000000	13288.000000
-1	6.000000 3.450000	1.300000 10.000000	2.000000 275.000000	13288.000000

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

Iter	H G	W CT	A Sum of Squares CB	
0	6.000000 3.450000	1.430000 10.000000	2.000000 250.000000	11343.000000
1	6.007875 3.500000	1.400000 10.011456	2.002291 250.286403	10997.000000

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	6	692237338.00	115372889.67
Residual	22	10997.00	499.86
Uncorrected Total	28	692248335.00	
(Corrected Total)	27	517363316.11	

MONTREAL-KITCHENER

Non-Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	6.0078751	0.073095394	5.856285754	6.15946448
W	1.4000000	2.058753241	-2.869558891	5.66955889
A	2.0022912	0.770081631	0.405252389	3.59933006
G	3.5000000	0.376608113	2.718968799	4.28103120
CT	10.0114561	3.850408154	2.026261945	17.99665028
CB	250.2864028	96.260203860	50.656548633	449.91625692

Asymptotic Correlation Matrix

Corr	H	W	A	G	CT	CB
H	1	0.679651	-0.729477	0.0919392	-0.729477	-0.729477
W	0.679651	1	-0.997509	-0.664826	-0.997509	-0.997509
A	-0.729477	-0.997509	1	0.6105059	1	1
G	0.0919392	-0.664826	0.6105059	1	0.6105059	0.6105059
CT	-0.729477	-0.997509	1	0.6105059	1	1
CB	-0.729477	-0.997509	1	0.6105059	1	1

MONTREAL-KITCHENER

Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	CV	Sum of Squares
-2	-54.500000	28224509
-1	-59.950000	12466473

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

Iter	CV	Sum of Squares
0	-59.950000	12466473
1	-62.700000	6626153

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	-62.700000	6626153
-1	-68.970000	12435.000000

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

Iter	CV	Sum of Squares
2	-68.970000	12435.000000

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	-68.970000	12435.000000
-1	-69.038970	10038.000000

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

Iter	CV	Sum of Squares
2	-69.038970	10038.000000

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	1	692238297.00	692238297.00
Residual	27	10038.00	371.78
Uncorrected Total	28	692248335.00	
(Corrected Total)	27	517363316.11	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
CV	-69.03897000	0.03692597332	-69.114735250	-68.963204750

Asymptotic Correlation Matrix

Corr	CV
CV	1

MONTREAL-KITCHENER
Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	82.29	
w	0.68	
a	2.60	0.999
g	9.29	
cv	-1870.97	
ct	2.60	
cp		
cb	2.60	

MONTREAL-KITCHENER

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G CB	W CV	A Sum of Squares CT	
-8	16.000000 3.450000 300.000000	1.300000 -60.000000	2.000000 0	3732.000000
-7	17.600000 3.450000 300.000000	1.300000 -60.000000	2.000000 0	2632.000000
-6	16.000000 3.450000 300.000000	1.430000 -60.000000	2.000000 0	3644.000000
-5	16.000000 3.450000 300.000000	1.300000 -60.000000	2.200000 0	2341.000000
-4	16.000000 3.795000 300.000000	1.300000 -60.000000	2.000000 0	2514.000000
-3	16.000000 3.450000 300.000000	1.300000 -66.000000	2.000000 0	1717.000000
-2	16.000000 3.450000 300.000000	1.300000 -60.000000	2.000000 0.100000	3646.000000
-1	16.000000 3.450000 330.000000	1.300000 -60.000000	2.000000 0	3543.000000

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

Iter	H G CB	W CV	A Sum of Squares CT	
0	16.000000 3.450000 300.000000	1.300000 -66.000000	2.000000 0	1717.000000

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

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G CB	W CV	A Sum of Squares CT	
-8	16.000000 3.450000 300.000000	1.300000 -66.000000	2.000000 0	1717.000000
-7	17.600000 3.450000 300.000000	1.300000 -66.000000	2.000000 0	1260.000000
-6	16.000000 3.450000 300.000000	1.430000 -66.000000	2.000000 0	1726.000000

MONTREAL-KITCHENER

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CV	CT	
	CB			
-5	16.000000	1.300000	2.200000	1138.000000
	3.450000	-66.000000	0	
	300.000000			
-4	16.000000	1.300000	2.000000	1395.000000
	3.795000	-66.000000	0	
	300.000000			
-3	16.000000	1.300000	2.000000	874.000000
	3.450000	-72.600000	0	
	300.000000			
-2	16.000000	1.300000	2.000000	1717.000000
	3.450000	-66.000000	0.100000	
	300.000000			
-1	16.000000	1.300000	2.000000	1712.000000
	3.450000	-66.000000	0	
	330.000000			

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

Iter	H	W	A	Sum of Squares
	G	CV	CT	
	CB			
0	16.000000	1.300000	2.000000	874.000000
	3.450000	-72.600000	0	
	300.000000			
1	15.571085	1.332698	1.998688	867.000000
	3.400000	-74.098517	0.008648	
	299.021485			

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	15.571085	1.332698	1.998688	867.000000
	3.400000	-74.098517	0.008648	
	299.021485			
-7	17.128194	1.332698	1.998688	843.000000
	3.400000	-74.098517	0.008648	
	299.021485			
-6	15.571085	1.465968	1.998688	1033.000000
	3.400000	-74.098517	0.008648	
	299.021485			
-5	15.571085	1.332698	2.198557	941.000000
	3.400000	-74.098517	0.008648	
	299.021485			
-4	15.571085	1.332698	1.998688	1665.000000
	3.740000	-74.098517	0.008648	
	299.021485			

MONTREAL-KITCHENER

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CV	CT	
	CB			
-3	15.571085	1.332698	1.998688	1283.000000
	3.400000	-81.508369	0.008648	
	299.021485			
-2	15.571085	1.332698	1.998688	867.000000
	3.400000	-74.098517	0.009513	
	299.021485			
-1	15.571085	1.332698	1.998688	854.000000
	3.400000	-74.098517	0.008648	
	328.923633			

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

Iter	H	W	A	Sum of Squares
	G	CV	CT	
	CB			
2	17.128194	1.332698	1.998688	843.000000
	3.400000	-74.098517	0.008648	
	299.021485			
3	16.500000	1.332698	1.998688	797.000000
	3.400000	-74.098517	0.008648	
	299.021485			

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	7	2093612.0000	299087.4286
Residual	21	797.0000	37.9524
Uncorrected Total	28	2094409.0000	
(Corrected Total)	27	429840.1071	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
H	16.5000000	3.870462298	8.45099582	24.54900418
W	1.3326980	0.168112380	0.98309189	1.68230411
A	1.9986878	0.708505708	0.52528105	3.47209462
G	3.4000000	0.000000000	3.40000000	3.40000000
CV	-74.0985172	12.011016062	-99.07659758	-49.12043674
CT	0.0086478	0.001207895	0.00613586	0.01115973
CB	299.0214846	57.490062995	179.46528637	418.57768276

MONTREAL-KITCHENER

Motif Business

Asymptotic Correlation Matrix

Corr	H	W	A	G	CV	CT	CB
H	1	-0.80139	-0.50324	.	-0.14447	-0.45711	0.826656
W	-0.80139	1	0.873419	.	0.655926	0.023488	-0.52984
A	-0.50324	0.873419	1	.	0.917575	-0.28456	-0.1857
G	.	.	.	.	.	.	.
CV	-0.14447	0.655926	0.917575	.	1	-0.53089	0.149287
CT	-0.45711	0.023488	-0.28456	.	-0.53089	1	-0.69927
CB	0.826656	-0.52984	-0.1857	.	0.149287	-0.69927	1

MONTREAL-KITCHENER
Motif Business

Parameters	T for H0: Parameter = 0	R square
h	4.26	
w	7.92	
a	2.85	0.998
g	3400.00	
cv	-6.17	
ct	0.00	
cp		
cb	5.20	

MONTREAL-OTTAWA

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G CB	W CT	A Sum of Squares CP	
-8	6.000000 2.200000 95.000000	1.600000 65.000000	1.600000 475.000000	152114454
-7	6.600000 2.200000 95.000000	1.600000 65.000000	1.600000 475.000000	280395551
-6	6.000000 2.200000 95.000000	1.760000 65.000000	1.600000 475.000000	155810219
-5	6.000000 2.200000 95.000000	1.600000 65.000000	1.760000 475.000000	152126965
-4	6.000000 2.420000 95.000000	1.600000 65.000000	1.600000 475.000000	173309169
-3	6.000000 2.200000 95.000000	1.600000 71.500000	1.600000 475.000000	152137060
-2	6.000000 2.200000 95.000000	1.600000 65.000000	1.600000 522.500000	152097948
-1	6.000000 2.200000 104.500000	1.600000 65.000000	1.600000 475.000000	152158215

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

Iter	H G CB	W CT	A Sum of Squares CP	
0	6.000000 2.200000 95.000000	1.600000 65.000000	1.600000 522.500000	152097948
1	5.999319 2.199024 94.776597	1.599538 64.992846	1.681976 476.000000	152081215

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	7	378672307050	54096043864
Residual	59	152081215	2577648
Uncorrected Total	66	378824388265	
(Corrected Total)	65	317836455285	

MONTREAL-OTTAWA

Motif Non-Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	5.9993195	0.493477	5.011874	6.986765
W	1.5995378	7.155938	-12.719462	15.918538
A	1.6819756	126.624733	-251.693545	255.057496
G	2.1990239	2.196288	-2.195739	6.593786
CT	64.9928465	1330.994363	-2598.320882	2728.306574
CP	476.0000000	38060.290034	-75682.469002	76634.469002
CB	94.7765970	1495.457086	-2897.626300	3087.179494

Asymptotic Correlation Matrix

Corr	H	W	A	G	CT	CP	CB
H	1	0.490092	-0.30341	-0.30056	0.297414	0.16274	0.363673
W	0.490092	1	-0.08986	-0.97673	0.472464	0.463704	0.567824
A	-0.30341	-0.08986	1	0.038123	-0.56459	-0.10544	-0.68117
G	-0.30056	-0.97673	0.038123	1	-0.45778	-0.4608	-0.55587
CT	0.297414	0.472464	-0.56459	-0.45778	1	0.109181	0.550046
CP	0.16274	0.463704	-0.10544	-0.4608	0.109181	1	0.096538
CB	0.363673	0.567824	-0.68117	-0.55587	0.550046	0.096538	1

MONTREAL-OTTAWA

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	CV	Sum of Squares
-2	-10.000000	21056356374
-1	-11.000000	18018373455

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

Iter	CV	Sum of Squares
0	-11.000000	18018373455
1	-20.000000	152081215
2	-19.862406	147120690

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	1	378677267575	378677267575
Residual	65	147120690	2263395
Uncorrected Total	66	378824388265	
(Corrected Total)	65	317836455285	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
CV	-19.86240627	0.14340919044	-20.148814553	-19.575997986

Asymptotic Correlation Matrix

Corr	CV
CV	1

MONTREAL-OTTAWA
Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	12.24	
w	0.22	
a	0.01	0.999
g	1.00	
cv	-138.88	
ct	0.05	
cp	0.01	
cb	0.06	

MONTREAL-OTTAWA

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	A	W Sum of Squares
	G	CV	CT
	CP	CB	
-9	16.000000	1.700000	1.600000 85780.000000
	2.000000	-76.000000	23.000000
	300.000000	240.000000	
-8	17.600000	1.700000	1.600000 30088368
	2.000000	-76.000000	23.000000
	300.000000	240.000000	
-7	16.000000	1.870000	1.600000 85453.000000
	2.000000	-76.000000	23.000000
	300.000000	240.000000	
-6	16.000000	1.700000	1.760000 112090
	2.000000	-76.000000	23.000000
	300.000000	240.000000	
-5	16.000000	1.700000	1.600000 770530
	2.200000	-76.000000	23.000000
	300.000000	240.000000	
-4	16.000000	1.700000	1.600000 234034207
	2.000000	-83.600000	23.000000
	300.000000	240.000000	
-3	16.000000	1.700000	1.600000 86101.000000
	2.000000	-76.000000	25.300000
	300.000000	240.000000	
-2	16.000000	1.700000	1.600000 85594.000000
	2.000000	-76.000000	23.000000
	330.000000	240.000000	
-1	16.000000	1.700000	1.600000 86579.000000
	2.000000	-76.000000	23.000000
	300.000000	264.000000	

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

Iter	H	A	W Sum of Squares
	G	CV	CT
	CP	CB	
0	16.000000	1.870000	1.600000 85453.000000
	2.000000	-76.000000	23.000000
	300.000000	240.000000	
1	16.042028	1.700000	1.534543 69154.000000
	2.026057	-75.954200	23.043568
	300.267706	246.145548	
2	16.035523	1.636437	1.528038 68761.000000
	2.020481	-75.957314	23.617177
	300.798521	249.867424	

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	8	20065820478	2508227560
Residual	58	68761	1186
Uncorrected Total	66	20065889239	
(Corrected Total)	65	16822880975	

MONTREAL–OTTAWA

Motif Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	16.0355232	0.14032754	15.75462717	16.3164193
A	1.6364369	2.77992225	-3.92818126	7.2010550
W	1.5280382	0.49252716	0.54213806	2.5139382
G	2.0204810	0.11794646	1.78438551	2.2565764
CV	-75.9573144	0.15651434	-76.27061180	-75.6440169
CT	23.6171772	41.75860772	-59.97174553	107.2061000
CP	300.7985207	351.08066532	-401.96568103	1003.5627224
CB	249.8674240	161.60567162	-73.62142634	573.3562744

Asymptotic Correlation Matrix

Corr	H	A	W	G
H	1	-0.188291229	0.6257614752	0.7772299251
A	-0.188291229	1	0.0331932768	-0.321844606
W	0.6257614752	0.0331932768	1	0.0764201181
G	0.7772299251	-0.321844606	0.0764201181	1
CV	0.9416182481	-0.300292293	0.5606852404	0.8613796998
CT	0.329173183	-0.499299836	0.550031246	0.0862246142
CP	-0.374553488	-0.125199919	-0.129322172	-0.339380275
CB	0.1167288889	-0.444124861	0.4064451863	-0.177655044

Corr	CV	CT	CP	CB
H	0.9416182481	0.329173183	-0.374553488	0.1167288889
A	-0.300292293	-0.499299836	-0.125199919	-0.444124861
W	0.5606852404	0.550031246	-0.129322172	0.4064451863
G	0.8613796998	0.0862246142	-0.339380275	-0.177655044
CV	1	0.3960153157	-0.337228485	0.1003321966
CT	0.3960153157	1	-0.112253023	0.4457232262
CP	-0.337228485	-0.112253023	1	-0.118352305
CB	0.1003321966	0.4457232262	-0.118352305	1

MONTREAL-OTTAWA
Motif Business

Parameters	T for H0: Parameter = 0	R square
h	114.50	
w	0.59	
a	3.10	0.999
g	18.36	
cv	-506.33	
ct	0.57	
cp	0.86	
cb	1.55	

MONTREAL-KINGSTON

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G	W CT	A Sum of Squares CB	
-3	6.000000 1.980000	1.600000 115.000000	1.800000 85.000000	275690
-2	6.000000 1.800000	1.600000 126.500000	1.800000 85.000000	42611.000000
-1	6.000000 1.800000	1.600000 115.000000	1.800000 93.500000	42631.000000

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

Iter	H G	W CT	A Sum of Squares CB	
0	6.000000 1.800000	1.600000 115.000000	1.800000 85.000000	42418.000000

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	6	1106280283.0	184380047.2
Residual	28	42418.0	1514.9
Uncorrected Total	34	1106322701.0	
(Corrected Total)	33	722899544.3	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
H	6.0000000	0.10808680	5.77859590	6.22140410
W	1.6000000	0.65043518	0.26765406	2.93234594
A	1.8000000	7.97163879	-14.52903769	18.12903769
G	1.8000000	0.09059343	1.61442918	1.98557082
CT	115.0000000	125.93153030	-142.95708480	372.95708480
CB	85.0000000	127.62701507	-176.43010151	346.43010151

Asymptotic Correlation Matrix

Corr	H	W	A	G	CT	CB
H	1	0.9161548	0.0084972	-0.326198	0.3917416	0.3853083
W	0.9161548	1	0.1325868	-0.671178	0.478519	0.5286499
A	0.0084972	0.1325868	1	-0.25221	-0.057399	-0.061349
G	-0.326198	-0.671178	-0.25221	1	-0.445114	-0.565269
CT	0.3917416	0.478519	-0.057399	-0.445114	1	0.1099043
CB	0.3853083	0.5286499	-0.061349	-0.565269	0.1099043	1

MONTREAL-KINGSTON

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G	W CT	A CB	Sum of Squares
-7	6.000000 1.800000	1.600000 115.000000	1.800000 85.000000	42418.000000
-6	6.600000 1.800000	1.600000 115.000000	1.800000 85.000000	6127205
-5	6.000000 1.800000	1.760000 115.000000	1.800000 85.000000	57847.000000
-4	6.000000 1.800000	1.600000 115.000000	1.980000 85.000000	42537.000000
-3	6.000000 1.980000	1.600000 115.000000	1.800000 85.000000	275690
-2	6.000000 1.800000	1.600000 126.500000	1.800000 85.000000	42611.000000
-1	6.000000 1.800000	1.600000 115.000000	1.800000 93.500000	42631.000000

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

Iter	H G	W CT	A CB	Sum of Squares
0	6.000000 1.800000	1.600000 115.000000	1.800000 85.000000	42418.000000

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

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G	W CT	A CB	Sum of Squares
-7	6.000000 1.800000	1.600000 115.000000	1.800000 85.000000	42418.000000
-6	6.600000 1.800000	1.600000 115.000000	1.800000 85.000000	6127205
-5	6.000000 1.800000	1.760000 115.000000	1.800000 85.000000	57847.000000
-4	6.000000 1.800000	1.600000 115.000000	1.980000 85.000000	42537.000000

MONTREAL-KINGSTON

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD		CV Sum of Squares
-2	-20.000000	94968821
-1	-22.000000	71306601

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

Iter		CV Sum of Squares
0	-22.000000	71306601
1	-23.900000	46881805

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	-23.900000	46881805
-1	-26.290000	16831507

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

Iter		CV Sum of Squares
2	-26.290000	16831507

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	-26.290000	16831507
-1	-26.316290	16539497

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

Iter		CV Sum of Squares
2	-26.316290	16539497

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	1	1089783204.0	1089783204.0
Residual	33	16539497.0	501196.9
Uncorrected Total	34	1106322701.0	
(Corrected Total)	33	722899544.3	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
CV	-26.31629000	0.51820298442	-27.370575083	-25.262004917

Asymptotic Correlation Matrix

Corr	CV
CV	1

MONTREAL-KINGSTON
Motif Non-Business

Parameter:	T for H0: Parameter = 0	R square
h	60.00	
w	2.46	
a	0.23	0.999
g	20.00	
cv	-50.77	
ct	0.92	
cp		
cb	0.67	

MONTREAL-KINGSTON

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G CP	A CV CB	W Sum of Squares CT	
-9	23.000000 1.450000 0	1.500000 -40.000000 0	1.500000 -80.000000	2253.000000
-8	25.300000 1.450000 0	1.500000 -40.000000 0	1.500000 -80.000000	17921.000000
-7	23.000000 1.450000 0	1.650000 -40.000000 0	1.500000 -80.000000	7171.000000
-6	23.000000 1.450000 0	1.500000 -40.000000 0	1.650000 -80.000000	3634.000000
-5	23.000000 1.595000 0	1.500000 -40.000000 0	1.500000 -80.000000	24205.000000
-4	23.000000 1.450000 0	1.500000 -44.000000 0	1.500000 -80.000000	6487.000000
-3	23.000000 1.450000 0	1.500000 -40.000000 0	1.500000 -88.000000	45902.000000
-2	23.000000 1.450000 0.100000	1.500000 -40.000000 0	1.500000 -80.000000	2253.000000
-1	23.000000 1.450000 0	1.500000 -40.000000 0.100000	1.500000 -80.000000	2229.000000

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

Iter	H G CP	A CV CB	W Sum of Squares CT	
0	23.000000 1.450000 0	1.500000 -40.000000 0.100000	1.500000 -80.000000	2229.000000
1	22.750738 1.451478 0.016891	1.428205 -40.656429 0.129485	1.488702 -78.842782	2049.000000

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	8	7452927.0000	931615.8750
Residual	26	2049.0000	78.8077
Uncorrected Total	34	7454976.0000	
(Corrected Total)	33	2080378.2353	

MONTREAL-KINGSTON

Motif Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	22.75073816	3.2995275698	15.968515732	29.532960589
A	1.42820546	0.4920007798	0.416891371	2.439519552
W	1.48870196	0.1788605285	1.121051780	1.856352130
G	1.45147755	0.0897312154	1.267033854	1.635921247
CV	-40.65642879	7.6190684876	-56.317524532	-24.995333044
CT	-78.84278249	4.2301834713	-87.537980394	-70.147584582
CP	0.01689146	0.4183486822	-0.843029776	0.876812690
CB	0.12948511	0.8423247170	-1.601924451	1.860894675

Asymptotic Correlation Matrix

Corr	H	A	W	G
H	1	-0.036898174	-0.790563884	0.7574397584
A	-0.036898174	1	0.3394758114	0.3794572071
W	-0.790563884	0.3394758114	1	-0.693553796
G	0.7574397584	0.3794572071	-0.693553796	1
CV	0.3240557483	0.8773707181	-0.020584665	0.7091363859
CT	-0.323118045	-0.594702371	-0.205663676	-0.1391606
CP	-0.191446134	-0.147744821	-0.085653758	-0.145634889
CB	0.1434848795	-0.151222493	-0.020640571	0.0442360512

Corr	CV	CT	CP	CB
H	0.3240557483	-0.323118045	-0.191446134	0.1434848795
A	0.8773707181	-0.594702371	-0.147744821	-0.151222493
W	-0.020584665	-0.205663676	-0.085653758	-0.020640571
G	0.7091363859	-0.1391606	-0.145634889	0.0442360512
CV	1	-0.457801107	-0.323024676	0.0722376827
CT	-0.457801107	1	0.123432781	0.1625888341
CP	-0.323024676	0.123432781	1	-0.945655085
CB	0.0722376827	0.1625888341	-0.945655085	1

MONTREAL-KINGSTON
Motif Business

Parameters	T for H0: Parameter = 0	R square
h	6.91	
w	2.90	
a	8.71	0.999
g	18.13	
cv	-5.34	
ct	-18.64	
cp	0.02	
cb	0.14	

OTTAWA-KINGSTON

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G	W CT	A CB	Sum of Squares
-7	6.000000 1.500000	1.600000 300.000000	1.600000 100.000000	8059.000000
-6	6.600000 1.500000	1.600000 300.000000	1.600000 100.000000	65152202
-5	6.000000 1.500000	1.760000 300.000000	1.600000 100.000000	533243
-4	6.000000 1.500000	1.600000 300.000000	1.760000 100.000000	8168.000000
-3	6.000000 1.650000	1.600000 300.000000	1.600000 100.000000	13171074
-2	6.000000 1.500000	1.600000 330.000000	1.600000 100.000000	9557.000000
-1	6.000000 1.500000	1.600000 300.000000	1.600000 110.000000	9661.000000

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

Iter	H G	W CT	A CB	Sum of Squares
0	6.000000 1.500000	1.600000 300.000000	1.600000 100.000000	8059.000000

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

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G	W CT	A CB	Sum of Squares
-7	6.000000 1.500000	1.600000 300.000000	1.600000 100.000000	8059.000000
-6	6.600000 1.500000	1.600000 300.000000	1.600000 100.000000	65152202
-5	6.000000 1.500000	1.760000 300.000000	1.600000 100.000000	533243
-4	6.000000 1.500000	1.600000 300.000000	1.760000 100.000000	8168.000000

OTTAWA-KINGSTON

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G	W CT	A CB	Sum of Squares
-3	6.000000 1.650000	1.600000 300.000000	1.600000 100.000000	13171074
-2	6.000000 1.500000	1.600000 330.000000	1.600000 100.000000	9557.000000
-1	6.000000 1.500000	1.600000 300.000000	1.600000 110.000000	9661.000000

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

Iter	H G	W CT	A CB	Sum of Squares
0	6.000000 1.500000	1.600000 300.000000	1.600000 100.000000	8059.000000

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	6	12792197142	2132032857
Residual	28	8059	288
Uncorrected Total	34	12792205201	
(Corrected Total)	33	8563656753	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
H	6.0000000	0.097486826	5.80030881	6.19969119
W	1.6000000	0.238383747	1.11169674	2.08830326
A	1.6000000	2.098194686	-2.69792430	5.89792430
G	1.5000000	0.011382578	1.47668402	1.52331598
CT	300.0000000	68.782054420	159.10741970	440.89258030
CB	100.0000000	34.681634213	28.95843292	171.04156708

Asymptotic Correlation Matrix

Corr	H	W	A	G	CT	CB
H	1	0.9920395	-0.569784	0.8594736	0.9395398	0.9250532
W	0.9920395	1	-0.613453	0.7889037	0.95653	0.9496102
A	-0.569784	-0.613453	1	-0.302815	-0.610354	-0.797755
G	0.8594736	0.7889037	-0.302815	1	0.7016908	0.6660468
CT	0.9395398	0.95653	-0.610354	0.7016908	1	0.9124764
CB	0.9250532	0.9496102	-0.797755	0.6660468	0.9124764	1

OTTAWA-KINGSTON

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD		CV Sum of Squares
-2	-13.600000	724111510
-1	-14.960000	509845156

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

Iter		CV Sum of Squares
0	-14.960000	509845156
1	-17.200000	154029250

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	-17.200000	154029250
-1	-18.920000	380269

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

Iter		CV Sum of Squares
2	-18.920000	380269

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	-18.920000	380269
-1	-18.938920	220020

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

Iter		CV Sum of Squares
2	-18.938920	220020

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	1	12791985181	12791985181
Residual	33	220020	6667
Uncorrected Total	34	12792205201	
(Corrected Total)	33	8563656753	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
CV	-18.93892000	0.01032978717	-18.959935974	-18.917904026

Asymptotic Correlation Matrix

Corr	CV
CV	1

OTTAWA-KINGSTON
Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	61.86	
w	1.29	
a	0.76	0.999
g	132.74	
cv	-183.27	
ct	4.36	
cp		
cb	2.88	

OTTAWA-KINGSTON

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G CB	W CV	A Sum of Squares CT	
-8	20.000000 2.100000 190.000000	1.700000 -70.000000	1.800000 120.000000	8833448
-7	22.000000 2.100000 190.000000	1.700000 -70.000000	1.800000 120.000000	16691607
-6	20.000000 2.100000 190.000000	1.870000 -70.000000	1.800000 120.000000	7052830
-5	20.000000 2.100000 190.000000	1.700000 -70.000000	1.980000 120.000000	8821211
-4	20.000000 2.310000 190.000000	1.700000 -70.000000	1.800000 120.000000	4222611
-3	20.000000 2.100000 190.000000	1.700000 -77.000000	1.800000 120.000000	299719
-2	20.000000 2.100000 190.000000	1.700000 -70.000000	1.800000 132.000000	8777549
-1	20.000000 2.100000 209.000000	1.700000 -70.000000	1.800000 120.000000	8819553

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

Iter	H G CB	W CV	A Sum of Squares CT	
0	20.000000 2.100000 190.000000	1.700000 -77.000000	1.800000 120.000000	299719
1	19.984943 2.099358 189.000000	1.695709 -77.016340	1.799273 119.322420	289278
2	19.984929 2.099360 189.003399	1.695732 -77.016058	1.799368 119.323316	289233

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	7	1299541580.0	185648797.1
Residual	27	289233.0	10712.3
Uncorrected Total	34	1299830813.0	
(Corrected Total)	33	922415170.6	

OTTAWA-KINGSTON

Motif Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	19.9849286	0.73428068	18.47832080	21.4915364
W	1.6957319	1.41584457	-1.20931860	4.6007824
A	1.7993682	8.98981488	-16.64606502	20.2448013
G	2.0993597	0.23198872	1.62336189	2.5753575
CV	-77.0160580	6.20671977	-89.75109606	-64.2810199
CT	119.3233164	304.75143855	-505.97012616	744.6167589
CB	189.0033987	430.64347429	-694.59715735	1072.6039547

Asymptotic Correlation Matrix

Corr	H	W	A	G	CV	CT	CB
H	1	0.309193	-0.26259	-0.35434	-0.11187	0.371499	0.358892
W	0.309193	1	-0.92012	-0.69476	0.859807	0.9457	0.760007
A	-0.26259	-0.92012	1	0.749288	-0.75567	-0.96292	-0.93055
G	-0.35434	-0.69476	0.749288	1	-0.31626	-0.80224	-0.66278
CV	-0.11187	0.859807	-0.75567	-0.31626	1	0.72617	0.557311
CT	0.371499	0.9457	-0.96292	-0.80224	0.72617	1	0.831685
CB	0.358892	0.760007	-0.93055	-0.66278	0.557311	0.831685	1

OTTAWA-KINGSTON
Motif Business

Parameters	T for H0: Parameter = 0	R square
h	27.37	
w	1.20	
a	0.20	0.999
g	9.09	
cv	-12.42	
ct	0.39	
cp		
cb	0.44	

OTTAWA-TORONTO

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares
	G	CT	CP
	CB		
-8	8.000000	1.800000	1.600000 93700.000000
	2.200000	108.000000	250.000000
	220.000000		
-7	8.800000	1.800000	1.600000 99668263
	2.200000	108.000000	250.000000
	220.000000		
-6	8.000000	1.980000	1.600000 93755.000000
	2.200000	108.000000	250.000000
	220.000000		
-5	8.000000	1.800000	1.760000 93461.000000
	2.200000	108.000000	250.000000
	220.000000		
-4	8.000000	1.800000	1.600000 6662979
	2.420000	108.000000	250.000000
	220.000000		
-3	8.000000	1.800000	1.600000 93694.000000
	2.200000	118.800000	250.000000
	220.000000		
-2	8.000000	1.800000	1.600000 93630.000000
	2.200000	108.000000	275.000000
	220.000000		
-1	8.000000	1.800000	1.600000 93756.000000
	2.200000	108.000000	250.000000
	242.000000		

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

Iter	H	W	A Sum of Squares
	G	CT	CP
	CB		
0	8.000000	1.800000	1.760000 93461.000000
	2.200000	108.000000	250.000000
	220.000000		

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	CT	CP
	CB		
-8	8.000000	1.800000	1.760000 93461.000000
	2.200000	108.000000	250.000000
	220.000000		
-7	8.800000	1.800000	1.760000 99559711
	2.200000	108.000000	250.000000
	220.000000		
-6	8.000000	1.980000	1.760000 93884.000000
	2.200000	108.000000	250.000000
	220.000000		

OTTAWA-TORONTO

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CT	CP	
	CB			
-5	8.000000	1.800000	1.936000	93337.000000
	2.200000	108.000000	250.000000	
	220.000000			
-4	8.000000	1.800000	1.760000	6669347
	2.420000	108.000000	250.000000	
	220.000000			
-3	8.000000	1.800000	1.760000	93483.000000
	2.200000	118.800000	250.000000	
	220.000000			
-2	8.000000	1.800000	1.760000	93649.000000
	2.200000	108.000000	275.000000	
	220.000000			
-1	8.000000	1.800000	1.760000	93938.000000
	2.200000	108.000000	250.000000	
	242.000000			

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

Iter	H	W	A	Sum of Squares
	G	CT	CP	
	CB			
0	8.000000	1.800000	1.936000	93337.000000
	2.200000	108.000000	250.000000	
	220.000000			

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	7	72999522253	10428503179
Residual	43	93337	2171
Uncorrected Total	50	72999615590	
(Corrected Total)	49	57310467502	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
H	8.0000000	0.02403822	7.95152249	8.04847751
W	1.8000000	0.55669360	0.67732456	2.92267544
A	1.9360000	3.24324831	-4.60460904	8.47660904
G	2.2000000	0.02991419	2.13967251	2.26032749
CT	108.0000000	99.17152864	-91.99769804	307.99769804
CP	250.0000000	216.71662591	-187.04908961	687.04908961
CB	220.0000000	174.31182745	-131.53198412	571.53198412

OTTAWA-TORONTO

Motif Non-Business

Asymptotic Correlation Matrix

Corr	H	W	A	G	CT	CP	CB
H	1	0.144719	-0.0791	0.770199	0.10271	0.047401	0.037828
W	0.144719	1	-0.24458	-0.50058	0.864702	0.784287	0.787839
A	-0.0791	-0.24458	1	0.110261	-0.48664	-0.52732	-0.47177
G	0.770199	-0.50058	0.110261	1	-0.47059	-0.4804	-0.48453
CT	0.10271	0.864702	-0.48664	-0.47059	1	0.741694	0.735147
CP	0.047401	0.784287	-0.52732	-0.4804	0.741694	1	0.643509
CB	0.037828	0.787839	-0.47177	-0.48453	0.735147	0.643509	1

OTTAWA-TORONTO

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	CV	Sum of Squares
-2	-45.000000	427042448
-1	-49.500000	17324872

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

Iter	CV	Sum of Squares
0	-49.500000	17324872
1	-50.604853	1115164
2	-50.953988	114175
3	-51.000000	93337.000000

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	1	72999522253	72999522253
Residual	49	93337	1905
Uncorrected Total	50	72999615590	
(Corrected Total)	49	57310467502	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
CV	-51.00000000	0.01830454841	-51.036784286	-50.963215714

Asymptotic Correlation Matrix

Corr	CV
CV	1

OTTAWA-TORONTO
Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	333.33	
w	3.27	
a	0.60	0.999
g	75.86	
cv	-2833.33	
ct	1.09	
cp	1.16	
cb	1.26	

OTTAWA-TORONTO

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares
	G	CV	CT
	CP	CB	
-9	21.000000	1.900000	1.600000 97491
	2.000000	-63.000000	370.000000
	0	1600.000000	
-8	23.100000	1.900000	1.600000 4140160
	2.000000	-63.000000	370.000000
	0	1600.000000	
-7	21.000000	2.090000	1.600000 1349310
	2.000000	-63.000000	370.000000
	0	1600.000000	
-6	21.000000	1.900000	1.760000 703996
	2.000000	-63.000000	370.000000
	0	1600.000000	
-5	21.000000	1.900000	1.600000 24800597
	2.200000	-63.000000	370.000000
	0	1600.000000	
-4	21.000000	1.900000	1.600000 4142868
	2.000000	-69.300000	370.000000
	0	1600.000000	
-3	21.000000	1.900000	1.600000 282193
	2.000000	-63.000000	407.000000
	0	1600.000000	
-2	21.000000	1.900000	1.600000 97944
	2.000000	-63.000000	370.000000
	0.100000	1600.000000	
-1	21.000000	1.900000	1.600000 114439
	2.000000	-63.000000	370.000000
	0	1760.000000	

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

Iter	H	W	A Sum of Squares
	G	CV	CT
	CP	CB	
0	21.000000	1.900000	1.600000 97491
	2.000000	-63.000000	370.000000
	0	1600.000000	
1	20.982930	1.902045	1.602984 97130
	2.000007	-62.903604	370.179771
	0.011095	1600.417671	

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	8	9176455475.0	1147056934.4
Residual	42	97130.0	2312.6
Uncorrected Total	50	9176552605.0	
(Corrected Total)	49	3869023972.8	

OTTAWA-TORONTO

Motif Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	20.982930	10.04170347	0.71803324	41.2478264
W	1.902045	0.41672320	1.06106692	2.7430231
A	1.602984	1.89579682	-2.22287337	5.4288416
G	2.000007	0.00017042	1.99966304	2.0003509
CV	-62.903604	18.47643140	-100.19040189	-25.6168054
CT	370.179771	130.65386061	106.51066534	633.8488765
CP	0.011095	2.30717390	-4.64495191	4.6671415
CB	1600.417671	618.36940237	352.50271117	2848.3326312

Asymptotic Correlation Matrix

Corr	H	W	A	G
H	1	-0.636279655	0.7809154683	-0.392742447
W	-0.636279655	1	-0.015796768	0.2241058714
A	0.7809154683	-0.015796768	1	-0.311716889
G	-0.392742447	0.2241058714	-0.311716889	1
CV	-0.312623977	0.9313230069	0.3485656022	0.1073559457
CT	0.8424669763	-0.121237403	0.9932089235	-0.348538236
CP	-0.402946643	0.1906631668	-0.396456509	-0.106196376
CB	0.8899582149	-0.22331203	0.972108798	-0.363213825

Corr	CV	CT	CP	CB
H	-0.312623977	0.8424669763	-0.402946643	0.8899582149
W	0.9313230069	-0.121237403	0.1906631668	-0.22331203
A	0.3485656022	0.9932089235	-0.396456509	0.972108798
G	0.1073559457	-0.348538236	-0.106196376	-0.363213825
CV	1	0.2474319086	0.0402242445	0.1443219406
CT	0.2474319086	1	-0.380260638	0.9887641722
CP	0.0402242445	-0.380260638	1	-0.387755502
CB	0.1443219406	0.9887641722	-0.387755502	1

OTTAWA-TORONTO
Motif Business

Parameters	T for H0: Parameter = 0	R square
h	2.10	
w	4.63	
a	0.85	0.999
g	20000.00	
cv	-3.37	
ct	2.85	
cp		
cb	2.59	

OTTAWA-HAMILTON

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CV	CT	
	CP	CB		
-9	7.000000	1.500000	1.800000	13605803
	2.400000	-20.000000	0	
	5000.000000	150.000000		
-8	7.700000	1.500000	1.800000	13832415
	2.400000	-20.000000	0	
	5000.000000	150.000000		
-7	7.000000	1.650000	1.800000	10248930
	2.400000	-20.000000	0	
	5000.000000	150.000000		
-6	7.000000	1.500000	1.980000	13588256
	2.400000	-20.000000	0	
	5000.000000	150.000000		
-5	7.000000	1.500000	1.800000	7921278
	2.640000	-20.000000	0	
	5000.000000	150.000000		
-4	7.000000	1.500000	1.800000	11514438
	2.400000	-22.000000	0	
	5000.000000	150.000000		
-3	7.000000	1.500000	1.800000	13605803
	2.400000	-20.000000	0.100000	
	5000.000000	150.000000		
-2	7.000000	1.500000	1.800000	13605803
	2.400000	-20.000000	0	
	5500.000000	150.000000		
-1	7.000000	1.500000	1.800000	13566387
	2.400000	-20.000000	0	
	5000.000000	165.000000		

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

Iter	H	W	A	Sum of Squares
	G	CV	CT	
	CP	CB		
0	7.000000	1.500000	1.800000	7921278
	2.640000	-20.000000	0	
	5000.000000	150.000000		

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	7.000000	1.500000	1.800000	7921278
	2.640000	-20.000000	0	
	5000.000000	150.000000		
-8	7.700000	1.500000	1.800000	8083652
	2.640000	-20.000000	0	
	5000.000000	150.000000		

OTTAWA-HAMILTON

Motif Non-Business

Non-Linear Least Squares DUD Initialization — Dependent Variable VOY

DUD	H / G / CP	W / CV / CB	A / CT	Sum of Squares
-7	7.000000	1.650000	1.800000	5258682
	2.640000	-20.000000	0	
	5000.000000	150.000000		
-6	7.000000	1.500000	1.980000	7908817
	2.640000	-20.000000	0	
	5000.000000	150.000000		
-5	7.000000	1.500000	1.800000	3691632
	2.904000	-20.000000	0	
	5000.000000	150.000000		
-4	7.000000	1.500000	1.800000	6258276
	2.640000	-22.000000	0	
	5000.000000	150.000000		
-3	7.000000	1.500000	1.800000	7921278
	2.640000	-20.000000	0.100000	
	5000.000000	150.000000		
-2	7.000000	1.500000	1.800000	7921278
	2.640000	-20.000000	0	
	5500.000000	150.000000		
-1	7.000000	1.500000	1.800000	7897375
	2.640000	-20.000000	0	
	5000.000000	165.000000		

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

Iter	H / G / CP	W / CV / CB	A / CT	Sum of Squares
0	7.000000	1.500000	1.800000	3691632
	2.904000	-20.000000	0	
	5000.000000	150.000000		

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics — Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	8	327381650.00	40922706.25
Residual	23	3691632.00	160505.74
Uncorrected Total	31	331073282.00	
(Corrected Total)	30	211442107.68	

OTTAWA-HAMILTON

Motif Non-Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	7.000000	95.766930	-191.107395	205.107395
W	1.500000	13.679339	-26.797640	29.797640
A	1.800000	46.712720	-94.831847	98.431847
G	2.904000	1.645366	-0.499670	6.307670
CV	-20.000000	354.960378	-754.285581	714.285581
CT	0.000000	8.317525	-17.205972	17.205972
CP	5000.000000	41587.623006	-81029.860776	91029.860776
CB	150.000000	1094.799238	-2114.746558	2414.746558

Asymptotic Correlation Matrix

Corr	H	W	A	G
H	1	-0.95298103	-0.518526898	-0.670202623
W	-0.95298103	1	0.7449948805	0.6865846047
A	-0.518526898	0.7449948805	1	0.4737918034
G	-0.670202623	0.6865846047	0.4737918034	1
CV	-0.955751135	0.9970350921	0.7309650641	0.7394035656
CT	-0.587932822	0.3236463199	-0.378018313	0.31784186
CP	-0.587932822	0.3236463195	-0.378018313	0.3178418597
CB	0.9031493366	-0.852745268	-0.485178154	-0.660284788

Corr	CV	CT	CP	CB
H	-0.955751135	-0.587932822	-0.587932822	0.9031493366
W	0.9970350921	0.3236463199	0.3236463195	-0.852745268
A	0.7309650641	-0.378018313	-0.378018313	-0.485178154
G	0.7394035656	0.31784186	0.3178418597	-0.660284788
CV	1	0.3440910391	0.3440910388	-0.86115981
CT	0.3440910391	1	1	-0.567445803
CP	0.3440910388	1	1	-0.567445803
CB	-0.86115981	-0.567445803	-0.567445803	1

OTTAWA-HAMILTON
Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	0.07	
w	0.12	
a	0.04	0.982
g	1.81	
cv	-0.06	
ct	0.00	
cp	0.12	
cb	0.14	

OTTAWA-HAMILTON

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares
	G	CV	CT
	CP	CB	
-9	22.000000	1.500000	1.800000 3900.000000
	1.930000	-10.000000	250.000000
	-95.000000	1000.000000	
-8	24.200000	1.500000	1.800000 3688.000000
	1.930000	-10.000000	250.000000
	-95.000000	1000.000000	
-7	22.000000	1.650000	1.800000 3669.000000
	1.930000	-10.000000	250.000000
	-95.000000	1000.000000	
-6	22.000000	1.500000	1.980000 3074.000000
	1.930000	-10.000000	250.000000
	-95.000000	1000.000000	
-5	22.000000	1.500000	1.800000 5799.000000
	2.123000	-10.000000	250.000000
	-95.000000	1000.000000	
-4	22.000000	1.500000	1.800000 3628.000000
	1.930000	-11.000000	250.000000
	-95.000000	1000.000000	
-3	22.000000	1.500000	1.800000 3668.000000
	1.930000	-10.000000	275.000000
	-95.000000	1000.000000	
-2	22.000000	1.500000	1.800000 6317.000000
	1.930000	-10.000000	250.000000
	-104.500000	1000.000000	
-1	22.000000	1.500000	1.800000 3801.000000
	1.930000	-10.000000	250.000000
	-95.000000	1100.000000	

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

Iter	H	W	A Sum of Squares
	G	CV	CT
	CP	CB	
0	22.000000	1.500000	1.980000 3074.000000
	1.930000	-10.000000	250.000000
	-95.000000	1000.000000	

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	22.000000	1.500000	1.980000 3074.000000
	1.930000	-10.000000	250.000000
	-95.000000	1000.000000	
-8	24.200000	1.500000	1.980000 2743.000000
	1.930000	-10.000000	250.000000
	-95.000000	1000.000000	

OTTAWA-HAMILTON

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares
	G	CV	CT
	CP	CB	
-7	22.000000	1.650000	1.980000 3087.000000
	1.930000	-10.000000	250.000000
	-95.000000	1000.000000	
-6	22.000000	1.500000	2.178000 3750.000000
	1.930000	-10.000000	250.000000
	-95.000000	1000.000000	
-5	22.000000	1.500000	1.980000 6310.000000
	2.123000	-10.000000	250.000000
	-95.000000	1000.000000	
-4	22.000000	1.500000	1.980000 3015.000000
	1.930000	-11.000000	250.000000
	-95.000000	1000.000000	
-3	22.000000	1.500000	1.980000 3037.000000
	1.930000	-10.000000	275.000000
	-95.000000	1000.000000	
-2	22.000000	1.500000	1.980000 3923.000000
	1.930000	-10.000000	250.000000
	-104.500000	1000.000000	
-1	22.000000	1.500000	1.980000 3134.000000
	1.930000	-10.000000	250.000000
	-95.000000	1100.000000	

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

Iter	H	W	A Sum of Squares
	G	CV	CT
	CP	CB	
0	24.200000	1.500000	1.980000 2743.000000
	1.930000	-10.000000	250.000000
	-95.000000	1000.000000	

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	8	6086276.0000	760784.5000
Residual	23	2743.0000	119.2609
Uncorrected Total	31	6089019.0000	
(Corrected Total)	30	1524792.3871	

OTTAWA-HAMILTON

Motif Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	24.200000	8.99954163	5.58317948	42.8168205
W	1.500000	0.36990760	0.73479399	2.2652060
A	1.980000	1.07870208	-0.25144731	4.2114473
G	1.930000	0.16390476	1.59093990	2.2690601
CV	-10.000000	7.55855491	-25.63593636	5.6359364
CT	250.000000	85.25060932	73.64709688	426.3529031
CP	-95.000000	50.32625969	-199.10696265	9.1069626
CB	1000.000000	277.89653000	425.13185275	1574.8681472

Asymptotic Correlation Matrix

Corr	H	W	A	G
H	1	-0.838686848	-0.29823363	0.3333107752
W	-0.838686848	1	0.1313063954	-0.765730886
A	-0.29823363	0.1313063954	1	0.2907359287
G	0.3333107752	-0.765730886	0.2907359287	1
CV	0.1681085343	-0.061324191	0.5038410364	0.1714508585
CT	0.4346868164	0.0420659007	-0.59006345	-0.605097488
CP	0.4170826033	-0.154618494	-0.970021393	-0.34381511
CB	0.4568282402	-0.005973464	-0.443648347	-0.523338195

Corr	CV	CT	CP	CB
H	0.1681085343	0.4346868164	0.4170826033	0.4568282402
W	-0.061324191	0.0420659007	-0.154618494	-0.005973464
A	0.5038410364	-0.59006345	-0.970021393	-0.443648347
G	0.1714508585	-0.605097488	-0.34381511	-0.523338195
CV	1	-0.044472772	-0.3268402	0.0531762759
CT	-0.044472772	1	0.7135297516	0.7827882532
CP	-0.3268402	0.7135297516	1	0.5822414574
CB	0.0531762759	0.7827882532	0.5822414574	1

OTTAWA-HAMILTON
Motif Business

Parameters	T for H0: Parameter = 0	R square
h	2.72	
w	4.17	
a	1.85	0.998
g	12.06	
cv	-1.32	
ct	2.93	
cp	-1.89	
cb	3.60	

OTTAWA-KITCHENER

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G	W CT	A Sum of Squares CB	
-7	7.000000 2.800000	1.200000 -30.000000	1.600000 400.000000	29448.000000
-6	7.700000 2.800000	1.200000 -30.000000	1.600000 400.000000	3569377
-5	7.000000 2.800000	1.320000 -30.000000	1.600000 400.000000	48402.000000
-4	7.000000 2.800000	1.200000 -30.000000	1.760000 400.000000	29448.000000
-3	7.000000 3.080000	1.200000 -30.000000	1.600000 400.000000	187825
-2	7.000000 2.800000	1.200000 -33.000000	1.600000 400.000000	29448.000000
-1	7.000000 2.800000	1.200000 -30.000000	1.600000 440.000000	29448.000000

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

Iter	H G	W CT	A Sum of Squares CB	
0	7.000000 2.800000	1.200000 -30.000000	1.600000 400.000000	29448.000000
1	7.006757 2.894271	1.100000 -30.000000	1.600000 400.000000	28580.000000

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	6	550064424.00	91677404.00
Residual	26	28580.00	1099.23
Uncorrected Total	32	550093004.00	
(Corrected Total)	31	389009703.50	

OTTAWA-KITCHENER

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	CV	Sum of Squares
-2	-41.000000	50608636
-1	-45.100000	34447137

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

Iter	CV	Sum of Squares
0	-45.100000	34447137
1	-46.000000	30789803

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	1	519303201.00	519303201.00
Residual	31	30789803.00	993219.45
Uncorrected Total	32	550093004.00	
(Corrected Total)	31	389009703.50	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
CV	-46.00000000	2.7334663225	-51.574902497	-40.425097503

Asymptotic Correlation Matrix

Corr	CV
CV	1

OTTAWA-KITCHENER

Motif Non-Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	7.0067571	0.035592061	6.93359715	7.07991706
W	1.1000000	0.219207261	0.64941658	1.55058342
A	1.6000000	0.338740228	0.90371499	2.29628501
G	2.8942707	0.184023597	2.51600780	3.27253366
CT	-30.0000000	6.351379278	-43.05534386	-16.94465614
CB	400.0000000	84.685057035	225.92874858	574.07125142

Asymptotic Correlation Matrix

Corr	H	W	A	G	CT	CB
H	1	0.1603167	-0.99011	0.3172439	0.99011	-0.99011
W	0.1603167	1	-0.29688	-0.877079	0.2968796	-0.29688
A	-0.99011	-0.29688	1	-0.18374	-1	1
G	0.3172439	-0.877079	-0.18374	1	0.1837398	-0.18374
CT	0.99011	0.2968796	-1	0.1837398	1	-1
CB	-0.99011	-0.29688	1	-0.18374	-1	1

OTTAWA-KITCHENER
Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	200.17	
w	5.02	
a	4.73	0.92
g	15.71	
cv	-16.83	
ct	-4.72	
cp		
cb	4.72	

OTTAWA-KITCHENER

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares
	G	CV	CT
	CB		
-8	20.000000	1.200000	1.600000 15895.000000
	2.800000	-130.000000	0
	400.000000		
-7	22.000000	1.200000	1.600000 19203.000000
	2.800000	-130.000000	0
	400.000000		
-6	20.000000	1.320000	1.600000 8052.000000
	2.800000	-130.000000	0
	400.000000		
-5	20.000000	1.200000	1.760000 15856.000000
	2.800000	-130.000000	0
	400.000000		
-4	20.000000	1.200000	1.600000 4380.000000
	3.080000	-130.000000	0
	400.000000		
-3	20.000000	1.200000	1.600000 3933.000000
	2.800000	-143.000000	0
	400.000000		
-2	20.000000	1.200000	1.600000 15824.000000
	2.800000	-130.000000	0.100000
	400.000000		
-1	20.000000	1.200000	1.600000 15750.000000
	2.800000	-130.000000	0
	440.000000		

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

Iter	H	W	A Sum of Squares
	G	CV	CT
	CB		
0	20.000000	1.200000	1.600000 3933.000000
	2.800000	-143.000000	0
	400.000000		
1	20.004695	1.199925	1.597325 3851.000000
	2.796836	-143.205977	0.007813
	401.000000		

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	20.004695	1.199925	1.597325 3851.000000
	2.796836	-143.205977	0.007813
	401.000000		
-7	22.005164	1.199925	1.597325 6502.000000
	2.796836	-143.205977	0.007813
	401.000000		

OTTAWA-KITCHENER

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares	
	G	CV	CT	
	CB			
-6	20.004695	1.319917	1.597325	1217.000000
	2.796836	-143.205977	0.007813	
	401.000000			
-5	20.004695	1.199925	1.757058	3844.000000
	2.796836	-143.205977	0.007813	
	401.000000			
-4	20.004695	1.199925	1.597325	1714.000000
	3.076519	-143.205977	0.007813	
	401.000000			
-3	20.004695	1.199925	1.597325	2721.000000
	2.796836	-157.526574	0.007813	
	401.000000			
-2	20.004695	1.199925	1.597325	3851.000000
	2.796836	-143.205977	0.008595	
	401.000000			
-1	20.004695	1.199925	1.597325	3848.000000
	2.796836	-143.205977	0.007813	
	441.100000			

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

Iter	H	W	A Sum of Squares	
	G	CV	CT	
	CB			
2	20.004695	1.319917	1.597325	1217.000000
	2.796836	-143.205977	0.007813	
	401.000000			

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	20.004695	1.319917	1.597325	1217.000000
	2.796836	-143.205977	0.007813	
	401.000000			
-7	20.024699	1.319917	1.597325	1212.000000
	2.796836	-143.205977	0.007813	
	401.000000			
-6	20.004695	1.321237	1.597325	1186.000000
	2.796836	-143.205977	0.007813	
	401.000000			
-5	20.004695	1.319917	1.598923	1217.000000
	2.796836	-143.205977	0.007813	
	401.000000			
-4	20.004695	1.319917	1.597325	1207.000000
	2.799633	-143.205977	0.007813	
	401.000000			

OTTAWA-KITCHENER

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G CB	W CV	A Sum of Squares CT	
-3	20.004695 2.796836 401.000000	1.319917 -143.349183	1.597325 0.007813	1207.000000
-2	20.004695 2.796836 401.000000	1.319917 -143.205977	1.597325 0.007821	1217.000000
-1	20.004695 2.796836 401.401000	1.319917 -143.205977	1.597325 0.007813	1217.000000

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

Iter	H G CB	W CV	A Sum of Squares CT	
2	20.004695 2.796836 401.000000	1.321237 -143.205977	1.597325 0.007813	1186.000000

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	2814363.0000	402051.8571
Residual	25	1186.0000	47.4400
Uncorrected Total	32	2815549.0000	
(Corrected Total)	31	1501323.2187	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
H	20.0046948	0.13778573897	19.72092201	20.28846755
W	1.3212373	0.01285683526	1.29475834	1.34771621
A	1.5973253	0.00388974129	1.58931429	1.60533631
G	2.7968358	0.00963184119	2.77699880	2.81667278
CV	-143.2059766	0.49317776460	-144.22168707	-142.19026609
CT	0.0078134	0.00001902691	0.00777423	0.00785260
CB	401.0000000	0.97649881208	398.98887915	403.01112085

OTTAWA-KITCHENER

Motif Business

Asymptotic Correlation Matrix

Corr	H	W	A	G	CV	CT	CB
H	1	-862E-20	-0.70711	0	0	-0.70711	-0.70711
W	-862E-20	1	-0.5	-0.70711	0.707107	-0.5	-0.5
A	-0.70711	-0.5	1	0	0	1	1
G	0	-0.70711	0	1	-1	0	0
CV	0	0.707107	0	-1	1	0	0
CT	-0.70711	-0.5	1	0	0	1	1
CB	-0.70711	-0.5	1	0	0	1	1

OTTAWA-KITCHENER
Motif Business

Parameters	T for H0: Parameter = 0	R square
h	153.85	
w	132.00	
a	420.26	0.999
g	290.63	
cv	-290.06	
ct		
cp		
cb	410.86	

OTTAWA-LONDON

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares	
	G	CV	CT	
	CP	CB		
-9	9.000000	1.600000	1.600000	258141
	3.000000	-30.000000	120.000000	
	0	300.000000		
-8	9.900000	1.600000	1.600000	321460
	3.000000	-30.000000	120.000000	
	0	300.000000		
-7	9.000000	1.760000	1.600000	44095.000000
	3.000000	-30.000000	120.000000	
	0	300.000000		
-6	9.000000	1.600000	1.760000	257264
	3.000000	-30.000000	120.000000	
	0	300.000000		
-5	9.000000	1.600000	1.600000	40507.000000
	3.300000	-30.000000	120.000000	
	0	300.000000		
-4	9.000000	1.600000	1.600000	87742.000000
	3.000000	-33.000000	120.000000	
	0	300.000000		
-3	9.000000	1.600000	1.600000	256381
	3.000000	-30.000000	132.000000	
	0	300.000000		
-2	9.000000	1.600000	1.600000	258122
	3.000000	-30.000000	120.000000	
	0.100000	300.000000		
-1	9.000000	1.600000	1.600000	255976
	3.000000	-30.000000	120.000000	
	0	330.000000		

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	1.600000	1.600000	40507.000000
	3.300000	-30.000000	120.000000	
	0	300.000000		

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	9.000000	1.600000	1.600000	40507.000000
	3.300000	-30.000000	120.000000	
	0	300.000000		
-8	9.900000	1.600000	1.600000	31088.000000
	3.300000	-30.000000	120.000000	
	0	300.000000		

OTTAWA-LONDON

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares
	G	CV	CT
	CP	CB	
-7	9.000000	1.760000	1.600000	228504
	3.300000	-30.000000	120.000000	
	0	300.000000		
-6	9.000000	1.600000	1.760000	40749.000000
	3.300000	-30.000000	120.000000	
	0	300.000000		
-5	9.000000	1.600000	1.600000	506118
	3.630000	-30.000000	120.000000	
	0	300.000000		
-4	9.000000	1.600000	1.600000	141012
	3.300000	-33.000000	120.000000	
	0	300.000000		
-3	9.000000	1.600000	1.600000	41012.000000
	3.300000	-30.000000	132.000000	
	0	300.000000		
-2	9.000000	1.600000	1.600000	40507.000000
	3.300000	-30.000000	120.000000	
	0.100000	300.000000		
-1	9.000000	1.600000	1.600000	40959.000000
	3.300000	-30.000000	120.000000	
	0	330.000000		

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

Iter	H	W	A Sum of Squares
	G	CV	CT
	CP	CB	
0	9.900000	1.600000	1.600000	31088.000000
	3.300000	-30.000000	120.000000	
	0	300.000000		

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	8	207671797.00	25958974.62
Residual	25	31088.00	1243.52
Uncorrected Total	33	207702885.00	
(Corrected Total)	32	117830682.55	

OTTAWA-LONDON

Motif Non-Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	9.9000000	8.39969895	-7.39936535	27.19936535
W	1.6000000	1.57681588	-1.64748710	4.84748710
A	1.6000000	3.49094234	-5.58967278	8.78967278
G	3.3000000	0.24280039	2.79994724	3.80005276
CV	-30.0000000	52.59299904	-138.31644220	78.31644220
CT	120.0000000	84.87718647	-54.80643870	294.80643870
CP	0.0000000	1.15387237	-2.37642561	2.37642561
CB	300.0000000	235.95766163	-185.96001149	785.96001149

Asymptotic Correlation Matrix

Corr	H	W	A	G
H	1	-0.963376934	-0.272781939	-0.231920329
W	-0.963376934	1	0.4288970877	0.2606697203
A	-0.272781939	0.4288970877	1	-0.081458958
G	-0.231920329	0.2606697203	-0.081458958	1
CV	-0.965203466	0.9945782962	0.3883021319	0.3538445614
CT	-0.249484972	0.3241188975	-0.052369727	0.1245752498
CP	-0.345248505	0.1448897267	-0.696563839	0.2523050828
CB	-0.115116301	0.1762440576	-0.02374356	0.0173788763

Corr	CV	CT	CP	CB
H	-0.965203466	-0.249484972	-0.345248505	-0.115116301
W	0.9945782962	0.3241188975	0.1448897267	0.1762440576
A	0.3883021319	-0.052369727	-0.696563839	-0.02374356
G	0.3538445614	0.1245752498	0.2523050828	0.0173788763
CV	1	0.3203126156	0.1916572774	0.167386776
CT	0.3203126156	1	-0.110760638	0.1631935685
CP	0.1916572774	-0.110760638	1	-0.270495468
CB	0.167386776	0.1631935685	-0.270495468	1

OTTAWA-LONDON
Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	1.18	
w	1.02	
a	0.46	0.999
g	13.75	
cv	-0.57	
ct	1.42	
cp	0.00	
cb	1.28	

OTTAWA-LONDON

Motif Business

Non-Linear Least Squares DUD Initialization			Dependent Variable VOY	
DUD	H	W	A Sum of Squares	
	G	CV	CT	
	CP	CB		
-9	21.000000	1.600000	1.600000	34685.000000
	3.000000	-60.000000	0	
	-230.000000	300.000000		
-8	23.100000	1.600000	1.600000	66432.000000
	3.000000	-60.000000	0	
	-230.000000	300.000000		
-7	21.000000	1.760000	1.600000	35740.000000
	3.000000	-60.000000	0	
	-230.000000	300.000000		
-6	21.000000	1.600000	1.760000	138741
	3.000000	-60.000000	0	
	-230.000000	300.000000		
-5	21.000000	1.600000	1.600000	11101.000000
	3.300000	-60.000000	0	
	-230.000000	300.000000		
-4	21.000000	1.600000	1.600000	83772.000000
	3.000000	-66.000000	0	
	-230.000000	300.000000		
-3	21.000000	1.600000	1.600000	34685.000000
	3.000000	-60.000000	0.100000	
	-230.000000	300.000000		
-2	21.000000	1.600000	1.600000	436574
	3.000000	-60.000000	0	
	-253.000000	300.000000		
-1	21.000000	1.600000	1.600000	33497.000000
	3.000000	-60.000000	0	
	-230.000000	330.000000		

Non-Linear Least Squares Iterative Phase			Dependent Variable VOY Method: DUD	
Iter	H	W	A Sum of Squares	
	G	CV	CT	
	CP	CB		
0	21.000000	1.600000	1.600000	11101.000000
	3.300000	-60.000000	0	
	-230.000000	300.000000		
1	21.000000	1.600000	1.600000	9110.000000
	3.100000	-60.000000	0	
	-230.000000	300.000000		
2	20.557036	1.593695	1.500000	2646.000000
	3.089610	-64.692347	0.081896	
	-230.000000	300.794912		

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	20.557036	1.593695	1.500000	2646.000000
	3.089610	-64.692347	0.081896	
	-230.000000	300.794912		

OTTAWA-LONDON

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CV	CT	
	CP	CB		
-8	22.612740	1.593695	1.500000	13338.000000
	3.089610	-64.692347	0.081896	
	-230.000000	300.794912		
-7	20.557036	1.753065	1.500000	4366.000000
	3.089610	-64.692347	0.081896	
	-230.000000	300.794912		
-6	20.557036	1.593695	1.650000	54851.000000
	3.089610	-64.692347	0.081896	
	-230.000000	300.794912		
-5	20.557036	1.593695	1.500000	67032.000000
	3.398571	-64.692347	0.081896	
	-230.000000	300.794912		
-4	20.557036	1.593695	1.500000	28683.000000
	3.089610	-71.161581	0.081896	
	-230.000000	300.794912		
-3	20.557036	1.593695	1.500000	2646.000000
	3.089610	-64.692347	0.090086	
	-230.000000	300.794912		
-2	20.557036	1.593695	1.500000	768408
	3.089610	-64.692347	0.081896	
	-253.000000	300.794912		
-1	20.557036	1.593695	1.500000	2517.000000
	3.089610	-64.692347	0.081896	
	-230.000000	330.874404		

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

Iter	H	W	A	Sum of Squares
	G	CV	CT	
	CP	CB		
3	20.557036	1.593695	1.500000	2517.000000
	3.089610	-64.692347	0.081896	
	-230.000000	330.874404		
4	21.273819	1.570257	1.537546	2129.000000
	3.100000	-65.405586	0.040099	
	-232.472483	301.000000		

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	8	9583864.0000	1197983.0000
Residual	25	2129.0000	85.1600
Uncorrected Total	33	9585993.0000	
(Corrected Total)	32	5390166.0606	

OTTAWA-LONDON

Motif Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	21.2738194	3.926837901	13.18641012	29.36122876
W	1.5702571	0.142619619	1.27652883	1.86398534
A	1.5375455	0.452330912	0.60596001	2.46913100
G	3.1000000	0.272111321	2.53958073	3.66041927
CV	-65.4055863	13.721097287	-93.66448893	-37.14668358
CT	0.0400995	0.177080102	-0.32460089	0.40479986
CP	-232.4724834	9.658153442	-252.36366351	-212.58130319
CB	301.0000000	55.822610440	186.03210184	415.96789816

Asymptotic Correlation Matrix

Corr	H	W	A	G
H	1	-0.733479492	0.4331666112	0.5826436342
W	-0.733479492	1	-0.478842395	-0.858013095
A	0.4331666112	-0.478842395	1	0.7632734007
G	0.5826436342	-0.858013095	0.7632734007	1
CV	0.7552853228	-0.767096624	0.839492729	0.9125997632
CT	-0.154225116	-0.117211807	-0.702050694	-0.09701554
CP	-0.094641452	-0.160325081	-0.680249372	-0.062262637
CB	0.6885001036	-0.266013892	-0.06727225	0.0130951865

Corr	CV	CT	CP	CB
H	0.7552853228	-0.154225116	-0.094641452	0.6885001036
W	-0.767096624	-0.117211807	-0.160325081	-0.266013892
A	0.839492729	-0.702050694	-0.680249372	-0.06727225
G	0.9125997632	-0.09701554	-0.062262637	0.0130951865
CV	1	-0.311896121	-0.266595877	0.2553085455
CT	-0.311896121	1	0.9979264873	0.0182709927
CP	-0.266595877	0.9979264873	1	0.0721860673
CB	0.2553085455	0.0182709927	0.0721860673	1

OTTAWA-LONDON
Motif Business

Parameters	T for H0: Parameter = 0	R square
h	5.43	
w	11.21	
a	3.40	0.999
g	11.48	
cv	-4.77	
ct	0.24	
cp	-24.04	
cb	5.39	

KINGSTON-TORONTO

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G	W CT	A CB	Sum of Squares
-7	6.000000 1.500000	1.600000 420.000000	1.600000 350.000000	114407
-6	6.600000 1.500000	1.600000 420.000000	1.600000 350.000000	1281782718
-5	6.000000 1.500000	1.760000 420.000000	1.600000 350.000000	977219
-4	6.000000 1.500000	1.600000 420.000000	1.760000 350.000000	114525
-3	6.000000 1.650000	1.600000 420.000000	1.600000 350.000000	63916992
-2	6.000000 1.500000	1.600000 462.000000	1.600000 350.000000	120250
-1	6.000000 1.500000	1.600000 420.000000	1.600000 385.000000	118842

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

Iter	H G	W CT	A CB	Sum of Squares
0	6.000000 1.500000	1.600000 420.000000	1.600000 350.000000	114407
1	5.999799 1.500007	1.597590 419.000000	1.623994 349.134269	114239

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	6	109882331835	18313721973
Residual	34	114239	3360
Uncorrected Total	40	109882446074	
(Corrected Total)	39	84673109682	

KINGSTON-TORONTO

Motif Non-Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	5.9997990	0.008085432	5.98336754	6.01623049
W	1.5975900	0.119771257	1.35418706	1.84099300
A	1.6239943	4.859937042	-8.25252478	11.50051343
G	1.5000066	0.009441697	1.48081891	1.51919435
CT	419.0000000	87.265244421	241.65678629	596.34321371
CB	349.1342694	78.144460049	190.32660470	507.94193416

Asymptotic Correlation Matrix

Corr	H	W	A	G	CT	CB
H	1	0.6688949	0.1319257	0.0934532	0.1299098	0.0088755
W	0.6688949	1	0.0269324	-0.66938	0.5275507	0.4086668
A	0.1319257	0.0269324	1	0.0636924	-0.177503	-0.349928
G	0.0934532	-0.66938	0.0636924	1	-0.612331	-0.558701
CT	0.1299098	0.5275507	-0.177503	-0.612331	1	0.2100106
CB	0.0088755	0.4086668	-0.349928	-0.558701	0.2100106	1

KINGSTON-TORONTO

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	CV	Sum of Squares
-2	-15.000000	18414202517
-1	-16.500000	16598848945

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

Iter	CV	Sum of Squares
0	-16.500000	16598848945
1	-27.000000	114239
2	-26.991291	103167

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	1	109882342907	109882342907
Residual	39	103167	2645
Uncorrected Total	40	109882446074	
(Corrected Total)	39	84673109682	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
CV	-26.99129147	0.00218642183	-26.995713908	-26.986869040

Asymptotic Correlation Matrix

Corr	CV
CV	1

KINGSTON-TORONTO
Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	750.00	
w	13.36	
a	0.33	0.999
g	166.67	
cv	-13495.00	
ct	4.81	
cp		
cb	4.47	

KINGSTON-TORONTO

Motif Business

Non-Linear Least Squares DUD Initialization				Dependent Variable VOY
DUD	H	W	A	Sum of Squares
	G	CT	CB	
-7	18.000000	1.700000	1.800000	14852.000000
	2.500000	130.000000	400.000000	
-6	19.800000	1.700000	1.800000	4898245
	2.500000	130.000000	400.000000	
-5	18.000000	1.870000	1.800000	73641.000000
	2.500000	130.000000	400.000000	
-4	18.000000	1.700000	1.980000	14809.000000
	2.500000	130.000000	400.000000	
-3	18.000000	1.700000	1.800000	603750
	2.750000	130.000000	400.000000	
-2	18.000000	1.700000	1.800000	15079.000000
	2.500000	143.000000	400.000000	
-1	18.000000	1.700000	1.800000	14783.000000
	2.500000	130.000000	440.000000	

Non-Linear Least Squares Iterative Phase				Dependent Variable VOY Method: DUD
Iter	H	W	A	Sum of Squares
	G	CT	CB	
0	18.000000	1.700000	1.800000	14783.000000
	2.500000	130.000000	440.000000	

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	CT	CB	
-7	18.000000	1.700000	1.800000	14783.000000
	2.500000	130.000000	440.000000	
-6	19.800000	1.700000	1.800000	4891652
	2.500000	130.000000	440.000000	
-5	18.000000	1.870000	1.800000	73353.000000
	2.500000	130.000000	440.000000	
-4	18.000000	1.700000	1.980000	14824.000000
	2.500000	130.000000	440.000000	

KINGSTON-TORONTO

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G	W CT	A Sum of Squares CB
-3	18.000000 2.750000	1.700000 130.000000	1.800000 440.000000	604198
-2	18.000000 2.500000	1.700000 143.000000	1.800000 440.000000	15018.000000
-1	18.000000 2.500000	1.700000 130.000000	1.800000 484.000000	14826.000000

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

Iter	H G	W CT	A Sum of Squares CB	
0	18.000000 2.500000	1.700000 130.000000	1.800000 440.000000	14783.000000

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	6	4321463818.0	720243969.7
Residual	34	14783.0	434.8
Uncorrected Total	40	4321478601.0	
(Corrected Total)	39	3083722224.0	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
H	18.0000000	0.33916856	17.31073083	18.6892692
W	1.7000000	0.27907996	1.13284479	2.2671552
A	1.8000000	2.29843529	-2.87095352	6.4709535
G	2.5000000	0.09390472	2.30916383	2.6908362
CT	130.0000000	82.78996233	-38.24840267	298.2484027
CB	440.0000000	471.97309084	-519.15877242	1399.1587724

Asymptotic Correlation Matrix

Corr	H	W	A	G	CT	CB
H	1	0.7561158	-0.158444	0.3881403	0.5506544	0.1430291
W	0.7561158	1	-0.233434	-0.307375	0.7625993	0.2224833
A	-0.158444	-0.233434	1	0.1001865	-0.608579	-0.53665
G	0.3881403	-0.307375	0.1001865	1	-0.282228	-0.122067
CT	0.5506544	0.7625993	-0.608579	-0.282228	1	0.2549357
CB	0.1430291	0.2224833	-0.53665	-0.122067	0.2549357	1

KINGSTON-TORONTO

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD		CV Sum of Squares
-2	-77.000000	139807772
-1	-84.700000	69622572

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

Iter	CV	Sum of Squares
0	-84.700000	69622572
1	-90.000000	30686369

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	30686369
-1	-99.000000	262905

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

Iter	CV	Sum of Squares
2	-99.000000	262905

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	262905
-1	-99.099000	214361

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

Iter	CV	Sum of Squares
2	-99.099000	214361

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	1	4321264240.0	4321264240.0
Residual	39	214361.0	5496.4
Uncorrected Total	40	4321478601.0	
(Corrected Total)	39	3083722224.0	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
CV	-99.09900000	0.14263193954	-99.387498933	-98.810501067

Asymptotic Correlation Matrix

Corr	CV
CV	1

KINGSTON-TORONTO
Motif Business

Parameters	T for H0: Parameter = 0	R square
h	53.10	
w	6.09	
a	0.78	0.999
g	26.62	
cv	-678.76	
ct	1.57	
cp		
cb	0.93	

KINGSTON-HAMILTON

Tous Motifs

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G	W CT	A CB	Sum of Squares
-7	8.000000 2.200000	1.500000 150.000000	1.800000 1000.000000	48488.000000
-6	8.800000 2.200000	1.500000 150.000000	1.800000 1000.000000	1777937
-5	8.000000 2.200000	1.650000 150.000000	1.800000 1000.000000	49508.000000
-4	8.000000 2.200000	1.500000 150.000000	1.980000 1000.000000	48488.000000
-3	8.000000 2.420000	1.500000 150.000000	1.800000 1000.000000	97141
-2	8.000000 2.200000	1.500000 165.000000	1.800000 1000.000000	48488.000000
-1	8.000000 2.200000	1.500000 150.000000	1.800000 1100.000000	48488.000000

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

Iter	H G	W CT	A CB	Sum of Squares
0	8.000000 2.200000	1.500000 150.000000	1.800000 1000.000000	48488.000000
1	7.995377 2.209402	1.422245 150.000000	1.800000 1000.000000	48414.000000

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	6	314942949.00	52490491.50
Residual	22	48414.00	2200.64
Uncorrected Total	28	314991363.00	
(Corrected Total)	27	242570257.25	

KINGSTON-HAMILTON

Tous Motifs

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	7.995377	0.2113002	7.5571702	8.4335829
W	1.422245	2.8421726	-4.4720129	7.3165037
A	1.800000	2.4329483	-3.2455858	6.8455858
G	2.209402	0.4072208	1.3648841	3.0539193
CT	150.000000	202.7456932	-270.4654835	570.4654835
CB	1000.000000	1351.6379546	-1803.1032235	3803.1032235

Asymptotic Correlation Matrix

Corr	H	W	A	G	CT	CB
H	1	0.7979927	0.9834619	-0.460505	0.9834619	0.9834619
W	0.7979927	1	0.6756688	-0.898006	0.6756688	0.6756688
A	0.9834619	0.6756688	1	-0.293936	1	1
G	-0.460505	-0.898006	-0.293936	1	-0.293936	-0.293936
CT	0.9834619	0.6756688	1	-0.293936	1	1
CB	0.9834619	0.6756688	1	-0.293936	1	1

KINGSTON-HAMILTON

Tous Motifs

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	CV	Sum of Squares
-2	-33.000000	24936116
-1	-36.300000	12631533

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

Iter	CV	Sum of Squares
0	-36.300000	12631533
1	-39.000000	4524676

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	-39.000000	4524676
-1	-42.900000	50211.000000

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

Iter	CV	Sum of Squares
2	-42.900000	50211.000000

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	-42.900000	50211.000000
-1	-42.942900	49036.000000

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

Iter	CV	Sum of Squares
2	-42.942900	49036.000000

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	1	314942327.00	314942327.00
Residual	27	49036.00	1816.15
Uncorrected Total	28	314991363.00	
(Corrected Total)	27	242570257.25	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
CV	-42.94290000	0.09440984713	-43.136611500	-42.749188500

Asymptotic Correlation Matrix

Corr	CV
CV	1

KINGSTON-HAMILTON
Tous Motifs

Parameters	T for H0: Parameter = 0	R square
h	37.89	
w	0.50	
a	0.74	0.999
g	5.43	
cv	-454.90	
ct	-0.74	
cp		
cb	0.74	

KINGSTON-KITCHENER

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CV	CT	
	CB			
-8	6.000000	2.000000	1.600000	1053640
	4.000000	-30.000000	-21.000000	
	8.000000			
-7	6.600000	2.000000	1.600000	1600868
	4.000000	-30.000000	-21.000000	
	8.000000			
-6	6.000000	2.200000	1.600000	802030
	4.000000	-30.000000	-21.000000	
	8.000000			
-5	6.000000	2.000000	1.760000	1053627
	4.000000	-30.000000	-21.000000	
	8.000000			
-4	6.000000	2.000000	1.600000	645248
	4.400000	-30.000000	-21.000000	
	8.000000			
-3	6.000000	2.000000	1.600000	320284
	4.000000	-33.000000	-21.000000	
	8.000000			
-2	6.000000	2.000000	1.600000	1053655
	4.000000	-30.000000	-23.100000	
	8.000000			
-1	6.000000	2.000000	1.600000	1053640
	4.000000	-30.000000	-21.000000	
	8.800000			

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	2.000000	1.600000	320284
	4.000000	-33.000000	-21.000000	
	8.000000			

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	2.000000	1.600000	320284
	4.000000	-33.000000	-21.000000	
	8.000000			
-7	6.600000	2.000000	1.600000	678060
	4.000000	-33.000000	-21.000000	
	8.000000			
-6	6.000000	2.200000	1.600000	242204
	4.000000	-33.000000	-21.000000	
	8.000000			

KINGSTON-KITCHENER

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G CB	W CV	A Sum of Squares CT	
-5	6.000000 4.000000 8.000000	2.000000 -33.000000	1.760000 -21.000000	320284
-4	6.000000 4.400000 8.000000	2.000000 -33.000000	1.600000 -21.000000	178344
-3	6.000000 4.000000 8.000000	2.000000 -36.300000	1.600000 -21.000000	40309.000000
-2	6.000000 4.000000 8.000000	2.000000 -33.000000	1.600000 -23.100000	320255
-1	6.000000 4.000000 8.800000	2.000000 -33.000000	1.600000 -21.000000	320284

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

Iter	H G CB	W CV	A Sum of Squares CT	
0	6.000000 4.000000 8.000000	2.000000 -36.300000	1.600000 -21.000000	40309.000000

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	7	166205353.00	23743621.86
Residual	22	40309.00	1832.23
Uncorrected Total	29	166245662.00	
(Corrected Total)	28	113754342.83	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
H	6.00000000	1.92381072	2.01029253	9.98970747
W	2.00000000	3.56838604	-5.40032075	9.40032075
A	1.60000000	2.87654513	-4.36554196	7.56554196
G	4.00000000	2.01494259	-0.17870188	8.17870188
CV	-36.30000000	7.07526511	-50.97308487	-21.62691513
CT	-21.00000000	123.04215893	-276.17178705	234.17178705
CB	8.00000000	14.38272565	-21.82770978	37.82770978

KINGSTON-KITCHENER

Motif Non-Business

Asymptotic Correlation Matrix

Corr	H	W	A	G	CV	CT	CB
H	1	0.933816	0.200447	0.100114	0.601885	0.510184	0.200447
W	0.933816	1	-0.00717	-0.06328	0.629673	0.320536	-0.00717
A	0.200447	-0.00717	1	0.102651	-0.11353	0.942296	1
G	0.100114	-0.06328	0.102651	1	0.669151	0.14219	0.102651
CV	0.601885	0.629673	-0.11353	0.669151	1	0.141107	-0.11353
CT	0.510184	0.320536	0.942296	0.14219	0.141107	1	0.942296
CB	0.200447	-0.00717	1	0.102651	-0.11353	0.942296	1

KINGSTON-KITCHENER
Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	3.13	
w	0.56	
a	0.56	0.999
g	1.99	
cv	-5.13	
ct	-0.17	
cp		
cb	0.56	

KINGSTON-KITCHENER

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares
	G	CV	CT
	CB		
-8	21.000000	1.000000	2.000000	2111164
	3.950000	-110.000000	200.000000	
	200.000000			
-7	23.100000	1.000000	2.000000	2680316
	3.950000	-110.000000	200.000000	
	200.000000			
-6	21.000000	1.100000	2.000000	1376950
	3.950000	-110.000000	200.000000	
	200.000000			
-5	21.000000	1.000000	2.200000	2111161
	3.950000	-110.000000	200.000000	
	200.000000			
-4	21.000000	1.000000	2.000000	1120754
	4.345000	-110.000000	200.000000	
	200.000000			
-3	21.000000	1.000000	2.000000	548591
	3.950000	-121.000000	200.000000	
	200.000000			
-2	21.000000	1.000000	2.000000	2111164
	3.950000	-110.000000	220.000000	
	200.000000			
-1	21.000000	1.000000	2.000000	2111270
	3.950000	-110.000000	200.000000	
	220.000000			

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	1.000000	2.000000	548591
	3.950000	-121.000000	200.000000	
	200.000000			
1	20.919827	1.003744	2.018154	528726
	3.935238	-121.073884	199.906197	
	199.000000			

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	20.919827	1.003744	2.018154	528726
	3.935238	-121.073884	199.906197	
	199.000000			
-7	23.011810	1.003744	2.018154	1062563
	3.935238	-121.073884	199.906197	
	199.000000			

KINGSTON–KITCHENER

Motif Business

Non-Linear Least Squares DUD Initialization				Dependent Variable VOY
DUD	H	W	A Sum of Squares	
	G	CV	CT	
	CB			
-6	20.919827	1.104119	2.018154	206184
	3.935238	-121.073884	199.906197	
	199.000000			
-5	20.919827	1.003744	2.219970	528726
	3.935238	-121.073884	199.906197	
	199.000000			
-4	20.919827	1.003744	2.018154	113768
	4.328762	-121.073884	199.906197	
	199.000000			
-3	20.919827	1.003744	2.018154	90005.000000
	3.935238	-133.181272	199.906197	
	199.000000			
-2	20.919827	1.003744	2.018154	528726
	3.935238	-121.073884	219.896817	
	199.000000			
-1	20.919827	1.003744	2.018154	528726
	3.935238	-121.073884	199.906197	
	218.900000			

Non-Linear Least Squares Iterative Phase			Dependent Variable VOY Method: DUD	
Iter	H	W	A Sum of Squares	
	G	CV	CT	
	CB			
2	20.919827	1.003744	2.018154	90005.000000
	3.935238	-133.181272	199.906197	
	199.000000			
3	20.919827	1.003744	2.018154	4957.000000
	3.935238	-130.000000	199.906197	
	199.000000			

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	20.919827	1.003744	2.018154	4957.000000
	3.935238	-130.000000	199.906197	
	199.000000			
-7	23.011810	1.003744	2.018154	192405
	3.935238	-130.000000	199.906197	
	199.000000			
-6	20.919827	1.104119	2.018154	69842.000000
	3.935238	-130.000000	199.906197	
	199.000000			
-5	20.919827	1.003744	2.219970	4957.000000
	3.935238	-130.000000	199.906197	
	199.000000			

KINGSTON-KITCHENER

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares
	G	CV	CT
	CB		
-4	20.919827	1.003744	2.018154 151336
	4.328762	-130.000000	199.906197
	199.000000		
-3	20.919827	1.003744	2.018154 1605344
	3.935238	-143.000000	199.906197
	199.000000		
-2	20.919827	1.003744	2.018154 4957.000000
	3.935238	-130.000000	219.896817
	199.000000		
-1	20.919827	1.003744	2.018154 4957.000000
	3.935238	-130.000000	199.906197
	218.900000		

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

Iter	H	W	A Sum of Squares
	G	CV	CT
	CB		
4	20.919827	1.003744	2.018154 4957.000000
	3.935238	-130.000000	199.906197
	199.000000		

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	20.919827	1.003744	2.018154 4957.000000
	3.935238	-130.000000	199.906197
	199.000000		
-7	20.940747	1.003744	2.018154 5117.000000
	3.935238	-130.000000	199.906197
	199.000000		
-6	20.919827	1.004748	2.018154 5045.000000
	3.935238	-130.000000	199.906197
	199.000000		
-5	20.919827	1.003744	2.020172 4957.000000
	3.935238	-130.000000	199.906197
	199.000000		
-4	20.919827	1.003744	2.018154 5133.000000
	3.939173	-130.000000	199.906197
	199.000000		
-3	20.919827	1.003744	2.018154 5291.000000
	3.935238	-130.130000	199.906197
	199.000000		
-2	20.919827	1.003744	2.018154 4957.000000
	3.935238	-130.000000	200.106104
	199.000000		

KINGSTON-KITCHENER

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares
	G	CV	CT
	CB		
-1	20.919827	1.003744	2.018154 4957.000000
	3.935238	-130.000000	199.906197
	199.199000		

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

Iter	H	W	A Sum of Squares
	G	CV	CT
	CB		
4	20.919827	1.003744	2.018154 4957.000000
	3.935238	-130.000000	199.906197
	199.000000		

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	7	49301939.000	7043134.143
Residual	22	4957.000	225.318
Uncorrected Total	29	49306896.000	
(Corrected Total)	28	42853709.793	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
H	20.9198271	0.15954510000	20.58895341	21.25070071
W	1.0037443	0.01548156641	0.97163773	1.03585083
A	2.0181541	0.00000000000	2.01815414	2.01815414
G	3.9352379	0.05968526784	3.81145925	4.05901662
CV	-130.0000000	0.83641302881	-131.73460064	-128.26539936
CT	199.9061974	0.00000000000	199.90619741	199.90619741
CB	199.0000000	0.00000000000	199.00000000	199.00000000

Asymptotic Correlation Matrix

Corr	H	W	A	G	CV	CT	CB
H	1	-0.12027	.	-0.26274	-0.77956	.	.
W	-0.12027	1	.	-0.58015	0.216492	.	.
A	.	.	.	.	.	.	.
G	-0.26274	-0.58015	.	1	0.558454	.	.
CV	-0.77956	0.216492	.	0.558454	1	.	.
CT	.	.	.	.	.	.	.
CB	.	.	.	.	.	.	.

KINGSTON-KITCHENER
Motif Business

Parameters	T for H0: Parameter = 0	R square
h	131.51	
w	66.67	
a	201000.00	0.999
g	66.61	
cv	-155.50	
ct	19990000.00	
cp		
cb	19900000.00	

QUEBEC-MONTREAL

Motif Non Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares
	G	CV	CT
	CP	CB	
-9	6.000000	1.800000	1.600000 852269
	2.000000	-26.000000	210.000000
	1760.000000	315.000000	
-8	6.600000	1.800000	1.600000 1576152273
	2.000000	-26.000000	210.000000
	1760.000000	315.000000	
-7	6.000000	1.980000	1.600000 4383485
	2.000000	-26.000000	210.000000
	1760.000000	315.000000	
-6	6.000000	1.800000	1.760000 852756
	2.000000	-26.000000	210.000000
	1760.000000	315.000000	
-5	6.000000	1.800000	1.600000 266329351
	2.200000	-26.000000	210.000000
	1760.000000	315.000000	
-4	6.000000	1.800000	1.600000 1452736202
	2.000000	-28.600000	210.000000
	1760.000000	315.000000	
-3	6.000000	1.800000	1.600000 861777
	2.000000	-26.000000	231.000000
	1760.000000	315.000000	
-2	6.000000	1.800000	1.600000 854124
	2.000000	-26.000000	210.000000
	1936.000000	315.000000	
-1	6.000000	1.800000	1.600000 889678
	2.000000	-26.000000	210.000000
	1760.000000	346.500000	

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	1.800000	1.600000 852269
	2.000000	-26.000000	210.000000
	1760.000000	315.000000	
1	5.989225	1.715718	1.700000 849731
	1.998989	-26.007327	194.751026
	1597.759567	293.342155	

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	8	847001742149	105875217769
Residual	59	849731	14402
Uncorrected Total	67	847002591880	
(Corrected Total)	66	735307308940	

QUEBEC-MONTREAL

Motif Non Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	5.989225	0.2872097	5.414520	6.563930
W	1.715718	2.5772511	-3.441350	6.872786
A	1.700000	8.0632091	-14.434445	17.834445
G	1.998989	0.0165057	1.965961	2.032017
CV	-26.007327	0.1953669	-26.398256	-25.616399
CT	194.751026	395.4158076	-596.474225	985.976277
CP	1597.759567	6963.7764700	-12336.725797	15532.244931
CB	293.342155	538.2734844	-783.740663	1370.424974

Asymptotic Correlation Matrix

Corr	H	W	A	G
H	1	0.9991668424	-0.16774344	-0.753625267
W	0.9991668424	1	-0.164159062	-0.777838984
A	-0.16774344	-0.164159062	1	0.122916954
G	-0.753625267	-0.777838984	0.122916954	1
CV	0.9933337091	0.9949041532	-0.154745923	-0.7626596
CT	0.9807715314	0.9819819321	-0.238008812	-0.774586182
CP	0.4940135527	0.5010142507	-0.184594833	-0.569532474
CB	0.988604311	0.9902056462	-0.245035828	-0.789225156

Corr	CV	CT	CP	CB
H	0.9933337091	0.9807715314	0.4940135527	0.988604311
W	0.9949041532	0.9819819321	0.5010142507	0.9902056462
A	-0.154745923	-0.238008812	-0.184594833	-0.245035828
G	-0.7626596	-0.774586182	-0.569532474	-0.789225156
CV	1	0.9764353111	0.4760414171	0.9842884776
CT	0.9764353111	1	0.475967651	0.9767601204
CP	0.4760414171	0.475967651	1	0.4656799342
CB	0.9842884776	0.9767601204	0.4656799342	1

QUEBEC-MONTREAL
Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	21.36	
w	0.67	
a	0.21	0.999
g	199.00	
cv	-136.84	
ct	0.49	
cp	0.23	
cb	0.54	

QUEBEC-MONTREAL

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares
	G	CV	CT
	CP	CB	
-9	20.000000	1.800000	1.600000 4682055938
	2.500000	-80.000000	220.000000
	450.000000	320.000000	
-8	22.000000	1.800000	1.600000 5256702077
	2.500000	-80.000000	220.000000
	450.000000	320.000000	
-7	20.000000	1.980000	1.600000 4060959360
	2.500000	-80.000000	220.000000
	450.000000	320.000000	
-6	20.000000	1.800000	1.760000 4679482350
	2.500000	-80.000000	220.000000
	450.000000	320.000000	
-5	20.000000	1.800000	1.600000 3476965576
	2.750000	-80.000000	220.000000
	450.000000	320.000000	
-4	20.000000	1.800000	1.600000 2743247230
	2.500000	-88.000000	220.000000
	450.000000	320.000000	
-3	20.000000	1.800000	1.600000 4678348726
	2.500000	-80.000000	242.000000
	450.000000	320.000000	
-2	20.000000	1.800000	1.600000 4676261596
	2.500000	-80.000000	220.000000
	495.000000	320.000000	
-1	20.000000	1.800000	1.600000 4665997252
	2.500000	-80.000000	220.000000
	450.000000	352.000000	

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

Iter	H	W	A Sum of Squares
	G	CV	CT
	CP	CB	
0	20.000000	1.800000	1.600000 2743247230
	2.500000	-88.000000	220.000000
	450.000000	320.000000	
1	20.022699	1.795206	1.599398 2742216083
	2.500444	-88.089626	219.492406
	449.000000	319.386779	

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	8	82238851890	10279856486
Residual	59	2742216083	46478239
Uncorrected Total	67	84981067973	
(Corrected Total)	66	70557406236	

QUEBEC-MONTREAL

Motif Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	20.0226990	48.801449	-77.628781	117.674179
W	1.7952063	35.728125	-69.696611	73.287024
A	1.5993976	412.093686	-822.998212	826.197008
G	2.5004437	4.503689	-6.511417	11.512305
CV	-88.0896261	426.114445	-940.742712	764.563460
CT	219.4924061	10819.066843	-21429.411636	21868.396448
CP	449.0000000	24135.242813	-47845.512207	48743.512207
CB	319.3867791	11881.797270	-23456.036063	24094.809622

Asymptotic Correlation Matrix

Corr	H	W	A	G
H	1	-0.152213667	0.0978635163	-0.038714717
W	-0.152213667	1	-0.250921914	-0.94781822
A	0.0978635163	-0.250921914	1	0.1983719277
G	-0.038714717	-0.94781822	0.1983719277	1
CV	-0.322140525	0.9833841403	-0.260297973	-0.886976382
CT	-0.099411735	0.7797457561	-0.791991182	-0.730476208
CP	-0.087499674	0.7989584434	-0.765285242	-0.760184664
CB	-0.089189081	0.8509579816	-0.7129573	-0.807179536

Corr	CV	CT	CP	CB
H	-0.322140525	-0.099411735	-0.087499674	-0.089189081
W	0.9833841403	0.7797457561	0.7989584434	0.8509579816
A	-0.260297973	-0.791991182	-0.765285242	-0.7129573
G	-0.886976382	-0.730476208	-0.760184664	-0.807179536
CV	1	0.7642511532	0.779071507	0.829833458
CT	0.7642511532	1	0.985870487	0.9857235576
CP	0.779071507	0.985870487	1	0.9847242694
CB	0.829833458	0.9857235576	0.9847242694	1

QUEBEC-MONTREAL
Motif Business

Parameters	T for H0: Parameter = 0	R square
h	0.42	
w	0.05	
a	0.00	0.961
g	0.56	
cv	-0.21	
ct	0.02	
cp	0.02	
cb	0.03	

QUEBEC-OTTAWA

Motif Non-Business

Non-Linear Least Squares DUD Initialization — Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CV	CT	
	CP	CB		
-9	6.000000	1.400000	1.600000	35899.000000
	2.000000	-40.000000	170.000000	
	700.000000	500.000000		
-8	6.600000	1.400000	1.600000	8785730
	2.000000	-40.000000	170.000000	
	700.000000	500.000000		
-7	6.000000	1.540000	1.600000	1384656
	2.000000	-40.000000	170.000000	
	700.000000	500.000000		
-6	6.000000	1.400000	1.760000	35898.000000
	2.000000	-40.000000	170.000000	
	700.000000	500.000000		
-5	6.000000	1.400000	1.600000	6672757
	2.200000	-40.000000	170.000000	
	700.000000	500.000000		
-4	6.000000	1.400000	1.600000	85867928
	2.000000	-44.000000	170.000000	
	700.000000	500.000000		
-3	6.000000	1.400000	1.600000	36243.000000
	2.000000	-40.000000	187.000000	
	700.000000	500.000000		
-2	6.000000	1.400000	1.600000	35904.000000
	2.000000	-40.000000	170.000000	
	770.000000	500.000000		
-1	6.000000	1.400000	1.600000	36469.000000
	2.000000	-40.000000	170.000000	
	700.000000	550.000000		

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

Iter	H	W	A	Sum of Squares
	G	CV	CT	
	CP	CB		
0	6.000000	1.400000	1.760000	35898.000000
	2.000000	-40.000000	170.000000	
	700.000000	500.000000		

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	6.000000	1.400000	1.760000	35898.000000
	2.000000	-40.000000	170.000000	
	700.000000	500.000000		
-8	6.600000	1.400000	1.760000	8781493
	2.000000	-40.000000	170.000000	
	700.000000	500.000000		

QUEBEC-OTTAWA

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H / G / CP	W / CV / CB	A / CT	Sum of Squares
-7	6.000000	1.540000	1.760000	1385955
	2.000000	-40.000000	170.000000	
	700.000000	500.000000		
-6	6.000000	1.400000	1.936000	35897.000000
	2.000000	-40.000000	170.000000	
	700.000000	500.000000		
-5	6.000000	1.400000	1.760000	6673092
	2.200000	-40.000000	170.000000	
	700.000000	500.000000		
-4	6.000000	1.400000	1.760000	85877825
	2.000000	-44.000000	170.000000	
	700.000000	500.000000		
-3	6.000000	1.400000	1.760000	36206.000000
	2.000000	-40.000000	187.000000	
	700.000000	500.000000		
-2	6.000000	1.400000	1.760000	35993.000000
	2.000000	-40.000000	170.000000	
	770.000000	500.000000		
-1	6.000000	1.400000	1.760000	36687.000000
	2.000000	-40.000000	170.000000	
	700.000000	550.000000		

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

Iter	H / G / CP	W / CV / CB	A / CT	Sum of Squares
0	6.000000	1.400000	1.936000	35897.000000
	2.000000	-40.000000	170.000000	
	700.000000	500.000000		

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	8	2142530899.0	267816362.4
Residual	38	35897.0	944.7
Uncorrected Total	46	2142566796.0	
(Corrected Total)	45	1634699410.9	

QUEBEC-OTTAWA

Motif Non-Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	6.0000000	0.87842394	4.2217328	7.7782672
W	1.4000000	0.55561746	0.2752170	2.5247830
A	1.9360000	5.59739790	-9.3952817	13.2672817
G	2.0000000	0.09952516	1.7985229	2.2014771
CV	-40.0000000	0.67906464	-41.3746875	-38.6253125
CT	170.0000000	174.11881524	-182.4833104	522.4833104
CP	700.0000000	886.08526448	-1093.7766630	2493.7766630
CB	500.0000000	364.72010177	-238.3334689	1238.3334689

Asymptotic Correlation Matrix

Corr	H	W	A	G
H	1	0.9122615764	-0.09460695	0.7960646017
W	0.9122615764	1	-0.116491316	0.4817877204
A	-0.09460695	-0.116491316	1	-0.022467011
G	0.7960646017	0.4817877204	-0.022467011	1
CV	0.6537627111	0.9047275665	-0.112518005	0.0787520176
CT	0.8587470765	0.9087699787	-0.088833801	0.4927818541
CP	0.2516234404	0.2078362822	-0.005524839	0.2100728876
CB	0.7795018722	0.8639788434	-0.215539156	0.3767542933

Corr	CV	CT	CP	CB
H	0.6537627111	0.8587470765	0.2516234404	0.7795018722
W	0.9047275665	0.9087699787	0.2078362822	0.8639788434
A	-0.112518005	-0.088833801	-0.005524839	-0.215539156
G	0.0787520176	0.4927818541	0.2100728876	0.3767542933
CV	1	0.785942117	0.1064229424	0.7788303714
CT	0.785942117	1	0.180845952	0.7524099159
CP	0.1064229424	0.180845952	1	0.1485514679
CB	0.7788303714	0.7524099159	0.1485514679	1

QUEBEC-OTTAWA
Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	6.90	
w	2.55	
a	0.35	0.999
g	22.22	
cv	-58.91	
ct	0.98	
cp	0.79	
cb	1.37	

QUEBEC-OTTAWA

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CV	CT	
	CP	CB		
-9	24.000000	1.400000	1.600000	5234.000000
	1.700000	-20.000000	850.000000	
	-130.000000	950.000000		
-8	26.400000	1.400000	1.600000	7071.000000
	1.700000	-20.000000	850.000000	
	-130.000000	950.000000		
-7	24.000000	1.540000	1.600000	9848.000000
	1.700000	-20.000000	850.000000	
	-130.000000	950.000000		
-6	24.000000	1.400000	1.760000	14130.000000
	1.700000	-20.000000	850.000000	
	-130.000000	950.000000		
-5	24.000000	1.400000	1.600000	39593.000000
	1.870000	-20.000000	850.000000	
	-130.000000	950.000000		
-4	24.000000	1.400000	1.600000	5565.000000
	1.700000	-22.000000	850.000000	
	-130.000000	950.000000		
-3	24.000000	1.400000	1.600000	5350.000000
	1.700000	-20.000000	935.000000	
	-130.000000	950.000000		
-2	24.000000	1.400000	1.600000	57705.000000
	1.700000	-20.000000	850.000000	
	-143.000000	950.000000		
-1	24.000000	1.400000	1.600000	7449.000000
	1.700000	-20.000000	850.000000	
	-130.000000	1045.000000		

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	1.400000	1.600000	5234.000000
	1.700000	-20.000000	850.000000	
	-130.000000	950.000000		

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	1.400000	1.600000	5234.000000
	1.700000	-20.000000	850.000000	
	-130.000000	950.000000		
-8	26.400000	1.400000	1.600000	7071.000000
	1.700000	-20.000000	850.000000	
	-130.000000	950.000000		

QUEBEC-OTTAWA

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares
	G	CV	CT
	CP	CB	
-7	24.000000	1.540000	1.600000 9848.000000
	1.700000	-20.000000	850.000000
	-130.000000	950.000000	
-6	24.000000	1.400000	1.760000 14130.000000
	1.700000	-20.000000	850.000000
	-130.000000	950.000000	
-5	24.000000	1.400000	1.600000 39593.000000
	1.870000	-20.000000	850.000000
	-130.000000	950.000000	
-4	24.000000	1.400000	1.600000 5565.000000
	1.700000	-22.000000	850.000000
	-130.000000	950.000000	
-3	24.000000	1.400000	1.600000 5350.000000
	1.700000	-20.000000	935.000000
	-130.000000	950.000000	
-2	24.000000	1.400000	1.600000 57705.000000
	1.700000	-20.000000	850.000000
	-143.000000	950.000000	
-1	24.000000	1.400000	1.600000 7449.000000
	1.700000	-20.000000	850.000000
	-130.000000	1045.000000	

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	1.400000	1.600000 5234.000000
	1.700000	-20.000000	850.000000
	-130.000000	950.000000	

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	8	24783629.000	3097953.625
Residual	38	5234.000	137.737
Uncorrected Total	46	24788863.000	
(Corrected Total)	45	8977407.326	

QUEBEC-OTTAWA

Motif Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	24.0000000	9.27715962	5.21946826	42.7805317
W	1.4000000	0.33993955	0.71183188	2.0881681
A	1.6000000	0.70852729	0.16566882	3.0343312
G	1.7000000	0.15925691	1.37760289	2.0223971
CV	-20.0000000	11.32835029	-42.93292892	2.9329289
CT	850.0000000	318.73043470	204.76726849	1495.2327315
CP	-130.0000000	27.38528683	-185.43833126	-74.5616687
CB	950.0000000	346.28369231	248.98889989	1651.0111001

Asymptotic Correlation Matrix

Corr	H	W	A	G
H	1	-0.627615487	-0.394341367	0.1498352321
W	-0.627615487	1	0.0574582654	-0.825413845
A	-0.394341367	0.0574582654	1	0.3107297814
G	0.1498352321	-0.825413845	0.3107297814	1
CV	0.3470298351	0.1992876473	0.0939940569	-0.231221123
CT	0.6190909006	0.1869648515	-0.512452189	-0.629854942
CP	0.584942708	-0.13159656	-0.93489078	-0.249595715
CB	0.6435370745	0.1852650823	-0.485846557	-0.632425892

Corr	CV	CT	CP	CB
H	0.3470298351	0.6190909006	0.584942708	0.6435370745
W	0.1992876473	0.1869648515	-0.13159656	0.1852650823
A	0.0939940569	-0.512452189	-0.93489078	-0.485846557
G	-0.231221123	-0.629854942	-0.249595715	-0.632425892
CV	1	0.55979413	0.2333499545	0.6026074756
CT	0.55979413	1	0.6514592232	0.9658356858
CP	0.2333499545	0.6514592232	1	0.6408356864
CB	0.6026074756	0.9658356858	0.6408356864	1

QUEBEC-OTTAWA
Motif Business

Parameters	T for H0: Parameter = 0	R square
h	2.59	
w	4.12	
a	2.26	0.999
g	10.69	
cv	-1.77	
ct	2.67	
cp	-4.75	
cb	2.74	

QUEBEC-TORONTO

Motif Non-Business

Non-Linear Least Squares DUD Initialization — Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CT	CP	
	CB			
-8	20.000000	1.600000	1.600000	23183.000000
	2.500000	30.000000	150.000000	
	700.000000			
-7	22.000000	1.600000	1.600000	4014406
	2.500000	30.000000	150.000000	
	700.000000			
-6	20.000000	1.760000	1.600000	22316.000000
	2.500000	30.000000	150.000000	
	700.000000			
-5	20.000000	1.600000	1.760000	23183.000000
	2.500000	30.000000	150.000000	
	700.000000			
-4	20.000000	1.600000	1.600000	22460.000000
	2.750000	30.000000	150.000000	
	700.000000			
-3	20.000000	1.600000	1.600000	23183.000000
	2.500000	33.000000	150.000000	
	700.000000			
-2	20.000000	1.600000	1.600000	23183.000000
	2.500000	30.000000	165.000000	
	700.000000			
-1	20.000000	1.600000	1.600000	23183.000000
	2.500000	30.000000	150.000000	
	770.000000			

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

Iter	H	W	A	Sum of Squares
	G	CT	CP	
	CB			
0	20.000000	1.760000	1.600000	22316.000000
	2.500000	30.000000	150.000000	
	700.000000			
1	20.012823	1.700000	1.600296	22150.000000
	2.589836	30.005546	150.027731	
	700.129410			

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics — Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	7	226826406.00	32403772.29
Residual	25	22150.00	886.00
Uncorrected Total	32	226848556.00	
(Corrected Total)	31	168728184.87	

QUEBEC-TORONTO

Motif Non-Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	20.0128229	0.25219636	19.49341894	20.53222687
W	1.7000000	2.35848888	-3.15735989	6.55735989
A	1.6002958	0.27528725	1.03333563	2.16725596
G	2.5898362	1.60696452	-0.71974265	5.89941514
CT	30.0055462	5.16163589	19.37504313	40.63604917
CP	150.0277308	25.80817944	96.87521564	203.18024586
CB	700.1294102	120.43817070	452.08433966	948.17448068

Asymptotic Correlation Matrix

Corr	H	W	A	G	CT	CP	CB
H	1	0.024636	-0.1837	0.169736	-0.1837	-0.1837	-0.1837
W	0.024636	1	-0.98448	-0.97613	-0.98448	-0.98448	-0.98448
A	-0.1837	-0.98448	1	0.922898	1	1	1
G	0.169736	-0.97613	0.922898	1	0.922898	0.922898	0.922898
CT	-0.1837	-0.98448	1	0.922898	1	1	1
CP	-0.1837	-0.98448	1	0.922898	1	1	1
CB	-0.1837	-0.98448	1	0.922898	1	1	1

QUEBEC-TORONTO

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	CV	Sum of Squares
-2	-180.000000	9394073
-1	-198.000000	885197

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

Iter	CV	Sum of Squares
0	-198.000000	885197
1	-205.671300	42987.000000
2	-207.060285	25380.000000

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	1	226823176.00	226823176.00
Residual	31	25380.00	818.71
Uncorrected Total	32	226848556.00	
(Corrected Total)	31	168728184.87	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
CV	-207.0602846	0.44700398639	-207.97194886	-206.14862027

Asymptotic Correlation Matrix

Corr	CV
CV	1

QUEBEC-TORONTO
Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	80.04	
w	0.72	
a	5.93	0.999
g	1.61	
cv	-463.09	
ct	5.81	
cp	5.81	
cb	5.81	

QUEBEC-TORONTO

Motif Business

Non-Linear Least Squares DUD Initialization — Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CV	CT	
	CP	CB		
-9	40.000000	1.800000	0.500000	10758.000000
	2.500000	-100.000000	600.000000	
	-150.000000	700.000000		
-8	44.000000	1.800000	0.500000	143506
	2.500000	-100.000000	600.000000	
	-150.000000	700.000000		
-7	40.000000	1.980000	0.500000	12888.000000
	2.500000	-100.000000	600.000000	
	-150.000000	700.000000		
-6	40.000000	1.800000	0.550000	47609.000000
	2.500000	-100.000000	600.000000	
	-150.000000	700.000000		
-5	40.000000	1.800000	0.500000	679922
	2.750000	-100.000000	600.000000	
	-150.000000	700.000000		
-4	40.000000	1.800000	0.500000	67406.000000
	2.500000	-110.000000	600.000000	
	-150.000000	700.000000		
-3	40.000000	1.800000	0.500000	11027.000000
	2.500000	-100.000000	660.000000	
	-150.000000	700.000000		
-2	40.000000	1.800000	0.500000	335941
	2.500000	-100.000000	600.000000	
	-165.000000	700.000000		
-1	40.000000	1.800000	0.500000	11492.000000
	2.500000	-100.000000	600.000000	
	-150.000000	770.000000		

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

Iter	H	W	A	Sum of Squares
	G	CV	CT	
	CP	CB		
0	40.000000	1.800000	0.500000	10758.000000
	2.500000	-100.000000	600.000000	
	-150.000000	700.000000		

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	40.000000	1.800000	0.500000	10758.000000
	2.500000	-100.000000	600.000000	
	-150.000000	700.000000		
-8	44.000000	1.800000	0.500000	143506
	2.500000	-100.000000	600.000000	
	-150.000000	700.000000		

QUEBEC-TORONTO

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares
	G	CV	CT
	CP	CB	
-7	40.000000	1.980000	0.500000 12888.000000
	2.500000	-100.000000	600.000000
	-150.000000	700.000000	
-6	40.000000	1.800000	0.550000 47609.000000
	2.500000	-100.000000	600.000000
	-150.000000	700.000000	
-5	40.000000	1.800000	0.500000 679922
	2.750000	-100.000000	600.000000
	-150.000000	700.000000	
-4	40.000000	1.800000	0.500000 67406.000000
	2.500000	-110.000000	600.000000
	-150.000000	700.000000	
-3	40.000000	1.800000	0.500000 11027.000000
	2.500000	-100.000000	660.000000
	-150.000000	700.000000	
-2	40.000000	1.800000	0.500000 335941
	2.500000	-100.000000	600.000000
	-165.000000	700.000000	
-1	40.000000	1.800000	0.500000 11492.000000
	2.500000	-100.000000	600.000000
	-150.000000	770.000000	

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

Iter	H	W	A Sum of Squares
	G	CV	CT
	CP	CB	
0	40.000000	1.800000	0.500000 10758.000000
	2.500000	-100.000000	600.000000
	-150.000000	700.000000	

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	8	91941688.000	11492711.000
Residual	24	10758.000	448.250
Uncorrected Total	32	91952446.000	
(Corrected Total)	31	43313061.500	

QUEBEC-TORONTO

Motif Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	40.0000000	23.50395032	-8.50937861	88.5093786
W	1.8000000	0.53877912	0.68802350	2.9119765
A	0.5000000	0.53245632	-0.59892699	1.5989270
G	2.5000000	0.13445483	2.22250110	2.7774989
CV	-100.0000000	112.51663547	-332.22105205	132.2210521
CT	600.0000000	455.59618424	-340.29673718	1540.2967372
CP	-150.0000000	97.09338505	-350.38928402	50.3892840
CB	700.0000000	530.17689070	-394.22251041	1794.2225104

Asymptotic Correlation Matrix

Corr	H	W	A	G
H	1	-0.301139391	-0.519130256	-0.137104385
W	-0.301139391	1	0.3345899723	-0.201071528
A	-0.519130256	0.3345899723	1	0.4426361075
G	-0.137104385	-0.201071528	0.4426361075	1
CV	-0.0346424	0.930525506	0.3042409881	0.0012876567
CT	0.7276283671	0.4293366531	-0.260111462	-0.25018306
CP	0.7877160487	0.2662416623	-0.496115352	-0.172663023
CB	0.7158985659	0.442387798	-0.276736701	-0.273700946

Corr	CV	CT	CP	CB
H	-0.0346424	0.7276283671	0.7877160487	0.7158985659
W	0.930525506	0.4293366531	0.2662416623	0.442387798
A	0.3042409881	-0.260111462	-0.496115352	-0.276736701
G	0.0012876567	-0.25018306	-0.172663023	-0.273700946
CV	1	0.639609985	0.5048844594	0.6438679421
CT	0.639609985	1	0.9440489458	0.9928823943
CP	0.5048844594	0.9440489458	1	0.9445712046
CB	0.6438679421	0.9928823943	0.9445712046	1

QUEBEC-TORONTO
Motif Business

Parameters	T for H0: Parameter = 0	R square
h	1.70	
w	3.40	
a	0.94	0.999
g	19.23	
cv	-0.89	
ct	1.32	
cp	-1.55	
cb	1.32	

TROIS RIVIERES-MONTREAL

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CB		
-6	7.000000	1.500000	1.800000	240837
	2.400000	250.000000		
-5	7.700000	1.500000	1.800000	20431145
	2.400000	250.000000		
-4	7.000000	1.650000	1.800000	365862
	2.400000	250.000000		
-3	7.000000	1.500000	1.980000	240583
	2.400000	250.000000		
-2	7.000000	1.500000	1.800000	15424054
	2.640000	250.000000		
-1	7.000000	1.500000	1.800000	240582
	2.400000	275.000000		

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

Iter	H	W	A	Sum of Squares
	G	CB		
0	7.000000	1.500000	1.800000	240582
	2.400000	275.000000		

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	CB		
-6	7.000000	1.500000	1.800000	240582
	2.400000	275.000000		
-5	7.700000	1.500000	1.800000	20381117
	2.400000	275.000000		
-4	7.000000	1.650000	1.800000	368452
	2.400000	275.000000		
-3	7.000000	1.500000	1.980000	240589
	2.400000	275.000000		
-2	7.000000	1.500000	1.800000	15432685
	2.640000	275.000000		
-1	7.000000	1.500000	1.800000	240519
	2.400000	302.500000		

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

Iter	H	W	A	Sum of Squares
	G	CB		
0	7.000000	1.500000	1.800000	240519
	2.400000	302.500000		

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	5	238922579244	47784515849
Residual	24	240519	10022
Uncorrected Total	29	238922819763	
(Corrected Total)	28	151870933585	

TROIS RIVIERES-MONTREAL

Motif Non-Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	7.0000000	0.06240049	6.87121276	7.1287872
W	1.5000000	0.42771208	0.61725276	2.3827472
A	1.8000000	20.87465476	-41.28282299	44.8828230
G	2.4000000	0.05599285	2.28443736	2.5155626
CB	302.5000000	435.52623407	-596.37472945	1201.3747295

Asymptotic Correlation Matrix

Corr	H	W	A	G	CB
H	1	0.2713523759	-0.035478281	0.1526110233	0.1153909595
W	0.2713523759	1	-0.161301604	-0.902875402	0.4792738714
A	-0.035478281	-0.161301604	1	0.1686295549	-0.497141641
G	0.1526110233	-0.902875402	0.1686295549	1	-0.475274883
CB	0.1153909595	0.4792738714	-0.497141641	-0.475274883	1

TROIS RIVIERES-MONTREAL

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD		CV Sum of Squares
-2	-10.000000	1412072411
-1	-11.000000	933817805

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

Iter		CV Sum of Squares
0	-11.000000	933817805
1	-13.000000	279014164

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	-13.000000	279014164
-1	-14.300000	74278047

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

Iter		CV Sum of Squares
2	-14.300000	74278047

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	-14.300000	74278047
-1	-14.314300	72872220

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

Iter		CV Sum of Squares
2	-14.314300	72872220

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	1	238849947543	238849947543
Residual	28	72872220	2602579
Uncorrected Total	29	238922819763	
(Corrected Total)	28	151870933585	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
CV	-14.31430000	0.27422902786	-14.876028428	-13.752571572

Asymptotic Correlation Matrix

Corr	CV
CV	1

TROIS RIVIERES-MONTREAL

Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	112.18	
w	3.51	
a	0.09	0.999
g	42.93	
cv	-52.19	
ct		
cp		
cb	0.69	

TROIS RIVIERES-MONTREAL

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CV	CB	
-7	20.000000	1.500000	1.800000	63755859
	3.000000	-40.000000	200.000000	
-6	22.000000	1.500000	1.800000	71530589
	3.000000	-40.000000	200.000000	
-5	20.000000	1.650000	1.800000	49382585
	3.000000	-40.000000	200.000000	
-4	20.000000	1.500000	1.980000	63720504
	3.000000	-40.000000	200.000000	
-3	20.000000	1.500000	1.800000	34674199
	3.300000	-40.000000	200.000000	
-2	20.000000	1.500000	1.800000	36360021
	3.000000	-44.000000	200.000000	
-1	20.000000	1.500000	1.800000	63658825
	3.000000	-40.000000	220.000000	

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

Iter	H	W	A	Sum of Squares
	G	CV	CB	
0	20.000000	1.500000	1.800000	34674199
	3.300000	-40.000000	200.000000	

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	CB	
-7	20.000000	1.500000	1.800000	34674199
	3.300000	-40.000000	200.000000	
-6	22.000000	1.500000	1.800000	39474749
	3.300000	-40.000000	200.000000	
-5	20.000000	1.650000	1.800000	25918119
	3.300000	-40.000000	200.000000	
-4	20.000000	1.500000	1.980000	34661261
	3.300000	-40.000000	200.000000	

TROIS RIVIERES-MONTREAL

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CV	CB	
-3	20.000000	1.500000	1.800000	17550726
	3.630000	-40.000000	200.000000	
-2	20.000000	1.500000	1.800000	18333004
	3.300000	-44.000000	200.000000	
-1	20.000000	1.500000	1.800000	34631541
	3.300000	-40.000000	220.000000	

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

Iter	H	W	A	Sum of Squares
	G	CV	CB	
0	20.000000	1.500000	1.800000	17550726
	3.630000	-40.000000	200.000000	

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	6	7404347312.0	1234057885.3
Residual	23	17550726.0	763075.0
Uncorrected Total	29	7421898038.0	
(Corrected Total)	28	5114044258.1	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
H	20.0000000	262.4213387	-522.855533	562.855533
W	1.5000000	21.3474913	-42.660295	45.660295
A	1.8000000	131.3231687	-269.860487	273.460487
G	3.6300000	1.8214391	-0.137904	7.397904
CV	-40.0000000	178.8005041	-409.874048	329.874048
CB	200.0000000	9226.7319121	-18886.795649	19286.795649

Asymptotic Correlation Matrix

Corr	H	W	A	G	CV	CB
H	1	0.9347769	-0.094807	0.0769046	0.7868362	0.8692753
W	0.9347769	1	-0.228775	0.1960542	0.9506582	0.9133417
A	-0.094807	-0.228775	1	-0.292842	-0.329806	-0.518379
G	0.0769046	0.1960542	-0.292842	1	0.3824687	0.1693024
CV	0.7868362	0.9506582	-0.329806	0.3824687	1	0.8560207
CB	0.8692753	0.9133417	-0.518379	0.1693024	0.8560207	1

TROIS RIVIERES-MONTREAL
Motif Business

Parameters	T for H0: Parameter = 0	R square
h	0.08	
w	0.07	
a	0.01	0.996
g	2.02	
cv	-0.22	
ct		
cp		
cb	0.02	

TROIS RIVIERES-OTTAWA

Motif Non-Business

Non-Linear Least Squares DUD Initialization — Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CB		
-6	7.000000	1.500000	1.800000	16054.000000
	2.000000	120.000000		
-5	7.700000	1.500000	1.800000	7411943
	2.000000	120.000000		
-4	7.000000	1.650000	1.800000	17921.000000
	2.000000	120.000000		
-3	7.000000	1.500000	1.980000	16193.000000
	2.000000	120.000000		
-2	7.000000	1.500000	1.800000	885988
	2.200000	120.000000		
-1	7.000000	1.500000	1.800000	16196.000000
	2.000000	132.000000		

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

Iter	H	W	A	Sum of Squares
	G	CB		
0	7.000000	1.500000	1.800000	16054.000000
	2.000000	120.000000		
1	7.000033	1.503415	1.738975	15887.000000
	1.999548	121.000000		

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics — Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	5	675332743.00	135066548.60
Residual	25	15887.00	635.48
Uncorrected Total	30	675348630.00	
(Corrected Total)	29	523383616.67	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
H	7.0000325	0.00110810	6.99775038	7.00231471
W	1.5034150	0.14859211	1.19738631	1.80944378
A	1.7389747	5.86086262	-10.33160125	13.80955058
G	1.9995479	0.02322120	1.95172333	2.04737248
CB	121.0000000	151.35705272	-190.72319040	432.72319040

Asymptotic Correlation Matrix

Corr	H	W	A	G	CB
H	1	-0.115656578	-0.498014008	0.2133933322	-0.116170984
W	-0.115656578	1	0.2217520461	-0.966252192	0.3661130104
A	-0.498014008	0.2217520461	1	-0.245593112	-0.21113311
G	0.2133933322	-0.966252192	-0.245593112	1	-0.420009405
CB	-0.116170984	0.3661130104	-0.21113311	-0.420009405	1

TROIS RIVIERES-OTTAWA

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	CV	Sum of Squares
-2	-30.000000	53540151
-1	-33.000000	27825243

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

Iter	CV	Sum of Squares
0	-33.000000	27825243
1	-34.500000	15756115

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	-34.500000	15756115
-1	-37.950000	26564.000000

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

Iter	CV	Sum of Squares
2	-37.950000	26564.000000

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	-37.950000	26564.000000
-1	-37.987950	17717.000000

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

Iter	CV	Sum of Squares
2	-37.987950	17717.000000

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	1	675330913.00	675330913.00
Residual	29	17717.00	610.93
Uncorrected Total	30	675348630.00	
(Corrected Total)	29	523383616.67	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
CV	-37.98795000	0.01868191755	-38.026158528	-37.949741472

Asymptotic Correlation Matrix

Corr	CV
CV	1

TROIS RIVIERES-OTTAWA
Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	70000.00	
w	10.16	
a	0.30	0.999
g	99.95	
cv	-2041.94	
ct		
cp		
cb	0.80	

TROIS RIVIERES-OTTAWA

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CV	CB	
-7	20.000000	1.500000	1.800000	1092682
	3.000000	-110.000000	9.000000	
-6	22.000000	1.500000	1.800000	1342095
	3.000000	-110.000000	9.000000	
-5	20.000000	1.650000	1.800000	916750
	3.000000	-110.000000	9.000000	
-4	20.000000	1.500000	1.980000	1090320
	3.000000	-110.000000	9.000000	
-3	20.000000	1.500000	1.800000	771453
	3.300000	-110.000000	9.000000	
-2	20.000000	1.500000	1.800000	513074
	3.000000	-121.000000	9.000000	
-1	20.000000	1.500000	1.800000	1092590
	3.000000	-110.000000	9.900000	

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

Iter	H	W	A	Sum of Squares
	G	CV	CB	
0	20.000000	1.500000	1.800000	513074
	3.000000	-121.000000	9.000000	
1	19.716436	1.519155	1.821787	507922
	2.983552	-120.392550	9.195805	
2	19.560292	1.431092	1.700000	485259
	2.995103	-121.561057	8.026978	

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	6	24167080.000	4027846.667
Residual	24	485259.000	20219.125
Uncorrected Total	30	24652339.000	
(Corrected Total)	29	20371109.367	

TROIS RIVIERES-OTTAWA

Motif Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	19.5602916	27.06550933	-36.29972432	75.42030757
W	1.4310921	3.33781589	-5.45776587	8.31994999
A	1.7000000	12.58267219	-24.26914991	27.66914991
G	2.9951029	1.35812588	0.19209147	5.79811442
CV	-121.5610567	80.67756002	-288.07001590	44.94790247
CB	8.0269776	103.62482106	-205.84241926	221.89637446

Asymptotic Correlation Matrix

Corr	H	W	A	G	CV	CB
H	1	0.042299	-0.225891	0.3462032	-0.784966	0.1446827
W	0.042299	1	0.6061574	-0.24174	0.4680977	0.2745359
A	-0.225891	0.6061574	1	-0.517553	0.408602	-0.15668
G	0.3462032	-0.24174	-0.517553	1	-0.145364	0.005354
CV	-0.784966	0.4680977	0.408602	-0.145364	1	-0.169218
CB	0.1446827	0.2745359	-0.15668	0.005354	-0.169218	1

TROIS RIVIERES-OTTAWA
Motif Business

Parameters	T for H0: Parameter = 0	R square
h	0.72	
w	0.43	
a	0.14	0.976
g	2.21	
cv	-1.51	
ct		
cp		
cb	0.08	

TROIS RIVIERES-TORONTO

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CV	CP	
	CB			
-8	8.000000	1.500000	1.800000	2505564
	2.250000	-60.000000	300.000000	
	250.000000			
-7	8.800000	1.500000	1.800000	3055278
	2.250000	-60.000000	300.000000	
	250.000000			
-6	8.000000	1.650000	1.800000	1991603
	2.250000	-60.000000	300.000000	
	250.000000			
-5	8.000000	1.500000	1.980000	2504637
	2.250000	-60.000000	300.000000	
	250.000000			
-4	8.000000	1.500000	1.800000	1551927
	2.475000	-60.000000	300.000000	
	250.000000			
-3	8.000000	1.500000	1.800000	1472317
	2.250000	-66.000000	300.000000	
	250.000000			
-2	8.000000	1.500000	1.800000	2496741
	2.250000	-60.000000	330.000000	
	250.000000			
-1	8.000000	1.500000	1.800000	2501077
	2.250000	-60.000000	300.000000	
	275.000000			

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

Iter	H	W	A	Sum of Squares
	G	CV	CP	
	CB			
0	8.000000	1.500000	1.800000	1472317
	2.250000	-66.000000	300.000000	
	250.000000			
1	8.046520	1.484924	1.790691	1450621
	2.244955	-66.741610	299.073818	
	249.000000			

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	7	76838842.000	10976977.429
Residual	35	1450621.000	41446.314
Uncorrected Total	42	78289463.000	
(Corrected Total)	41	53952681.071	

TROIS RIVIERES-TORONTO

Motif Non-Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	8.0465201	4.2549929	-0.5915234	16.6845635
W	1.4849240	4.5088851	-7.6685450	10.6383931
A	1.7906908	23.4184256	-45.7509584	49.3323400
G	2.2449547	0.9766939	0.2621724	4.2277370
CV	-66.7416103	92.7817788	-255.0975171	121.6142965
CP	299.0738182	1628.4364483	-3006.8083035	3604.9559399
CB	249.0000000	1328.9208408	-2448.8367215	2946.8367215

Asymptotic Correlation Matrix

Corr	H	W	A	G	CV	CP	CB
H	1	-0.13169	-0.10295	0.191705	-0.25598	0.02386	0.067282
W	-0.13169	1	-0.03987	-0.00379	0.957819	0.83612	0.734504
A	-0.10295	-0.03987	1	0.093294	0.006664	-0.24938	-0.06589
G	0.191705	-0.00379	0.093294	1	0.219255	-0.15307	-0.04584
CV	-0.25598	0.957819	0.006664	0.219255	1	0.743324	0.667352
CP	0.02386	0.83612	-0.24938	-0.15307	0.743324	1	0.617211
CB	0.067282	0.734504	-0.06589	-0.04584	0.667352	0.617211	1

TROIS RIVIERES TORONTO
Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	1.89	
w	0.33	
a	0.08	0.973
g	2.31	
cv	-0.72	
ct		
cp	0.18	
cb	0.19	

TROIS RIVIERES-TORONTO

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares
	G	CP	CB	
-7	21.000000	1.500000	1.200000	627.000000
	3.000000	-10.000000	500.000000	
-6	23.100000	1.500000	1.200000	1467.000000
	3.000000	-10.000000	500.000000	
-5	21.000000	1.650000	1.200000	811.000000
	3.000000	-10.000000	500.000000	
-4	21.000000	1.500000	1.320000	2039.000000
	3.000000	-10.000000	500.000000	
-3	21.000000	1.500000	1.200000	1256.000000
	3.300000	-10.000000	500.000000	
-2	21.000000	1.500000	1.200000	638.000000
	3.000000	-11.000000	500.000000	
-1	21.000000	1.500000	1.200000	658.000000
	3.000000	-10.000000	550.000000	

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

Iter	H	W	A Sum of Squares
	G	CP	CB	
0	21.000000	1.500000	1.200000	627.000000
	3.000000	-10.000000	500.000000	

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	CP	CB	
-7	21.000000	1.500000	1.200000	627.000000
	3.000000	-10.000000	500.000000	
-6	23.100000	1.500000	1.200000	1467.000000
	3.000000	-10.000000	500.000000	
-5	21.000000	1.650000	1.200000	811.000000
	3.000000	-10.000000	500.000000	
-4	21.000000	1.500000	1.320000	2039.000000
	3.000000	-10.000000	500.000000	

TROIS RIVIERES-TORONTO

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G	W CP	A Sum of Squares CB	
-3	21.000000 3.300000	1.500000 -10.000000	1.200000 500.000000	1256.000000
-2	21.000000 3.000000	1.500000 -11.000000	1.200000 500.000000	638.000000
-1	21.000000 3.000000	1.500000 -10.000000	1.200000 550.000000	658.000000

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

Iter	H G	W CP	A Sum of Squares CB	
0	21.000000 3.000000	1.500000 -10.000000	1.200000 500.000000	627.000000

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	6	1572325.0000	262054.1667
Residual	36	627.0000	17.4167
Uncorrected Total	42	1572952.0000	
(Corrected Total)	41	223647.6190	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
H	21.0000000	3.058026023	14.79807090	27.20192910
W	1.5000000	0.205259818	1.08371615	1.91628385
A	1.2000000	0.143425097	0.90912207	1.49087793
G	3.0000000	0.238381778	2.51654208	3.48345792
CP	-10.0000000	2.116795994	-14.29303694	-5.70696306
CB	500.0000000	69.312201939	359.42913527	640.57086473

Asymptotic Correlation Matrix

Corr	H	W	A	G	CP	CB
H	1	-0.705753	0.9318129	0.3113711	0.4385385	-0.040071
W	-0.705753	1	-0.832488	-0.868485	-0.153115	0.6290953
A	0.9318129	-0.832488	1	0.5497841	0.146421	-0.303525
G	0.3113711	-0.868485	0.5497841	1	-0.12771	-0.843228
CP	0.4385385	-0.153115	0.146421	-0.12771	1	0.3463549
CB	-0.040071	0.6290953	-0.303525	-0.843228	0.3463549	1

TROIS RIVIERES TORONTO
Motif Business

Parameters	T for H0: Parameter = 0	R square
h	6.89	
w	7.32	
a	8.39	0.997
g	12.61	
cv	0.00	
ct		
cp	-4.74	
cb	7.22	

TORONTO-HAMILTON

Tous Motifs

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CV	CT	
	CB			
-8	8.000000	1.500000	1.600000	37398532
	2.000000	0	5.000000	
	200.000000			
-7	8.800000	1.500000	1.600000	34261791
	2.000000	0	5.000000	
	200.000000			
-6	8.000000	1.650000	1.600000	24518479
	2.000000	0	5.000000	
	200.000000			
-5	8.000000	1.500000	1.760000	37122175
	2.000000	0	5.000000	
	200.000000			
-4	8.000000	1.500000	1.600000	14833415
	2.200000	0	5.000000	
	200.000000			
-3	8.000000	1.500000	1.600000	38875517
	2.000000	0.100000	5.000000	
	200.000000			
-2	8.000000	1.500000	1.600000	37302607
	2.000000	0	5.500000	
	200.000000			
-1	8.000000	1.500000	1.600000	37281599
	2.000000	0	5.000000	
	220.000000			

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

Iter	H	W	A	Sum of Squares
	G	CV	CT	
	CB			
0	8.000000	1.500000	1.600000	14833415
	2.200000	0	5.000000	
	200.000000			
1	7.931426	1.510622	1.614500	14554507
	2.197187	-0.000722	4.952036	
	199.643008			
2	7.858233	1.521611	1.629976	14288601
	2.194354	-0.000677	4.893696	
	199.160531			

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	7	579352356.00	82764622.29
Residual	24	14288601.00	595358.38
Uncorrected Total	31	593640957.00	
(Corrected Total)	30	549343497.35	

TORONTO-HAMILTON

Tous Motifs

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	7.8582331	94.4921008	-187.1623074	202.8787737
W	1.5216111	4.6837758	-8.1451493	11.1883714
A	1.6299757	41.1915902	-83.3846034	86.6445548
G	2.1943538	1.1095651	-0.0956576	4.4843652
CV	-0.0006766	0.3411839	-0.7048398	0.7034867
CT	4.8936957	212.8265905	-434.3552611	444.1426524
CB	199.1605314	1877.8663760	-3676.5339702	4074.8550330

Asymptotic Correlation Matrix

Corr	H	W	A	G	CV	CT	CB
H	1	-0.90655	0.962756	-0.09662	0.076077	-0.95341	0.68993
W	-0.90655	1	-0.79977	-0.32234	0.254492	0.844428	-0.58681
A	0.962756	-0.79977	1	-0.29411	0.173338	-0.98434	0.794139
G	-0.09662	-0.32234	-0.29411	1	-0.66351	0.187714	-0.24267
CV	0.076077	0.254492	0.173338	-0.66351	1	-0.04631	-0.02315
CT	-0.95341	0.844428	-0.98434	0.187714	-0.04631	1	-0.85694
CB	0.68993	-0.58681	0.794139	-0.24267	-0.02315	-0.85694	1

TORONTO-HAMILTON
Tous Motifs

Parameters	T for H0: Parameter = 0	R square
h	0.08	
w	0.32	
a	0.04	0.973
g	1.99	
cv		
ct	0.02	
cp		
cb	0.11	

TORONTO-KITCHENER

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G	W CT	A Sum of Squares CB	
-7	6.000000 3.900000	1.600000 2.000000	1.700000 8.000000	2351896
-6	6.600000 3.900000	1.600000 2.000000	1.700000 8.000000	98199370
-5	6.000000 3.900000	1.760000 2.000000	1.700000 8.000000	10051643
-4	6.000000 3.900000	1.600000 2.000000	1.870000 8.000000	2340710
-3	6.000000 4.290000	1.600000 2.000000	1.700000 8.000000	121386945
-2	6.000000 3.900000	1.600000 2.200000	1.700000 8.000000	2351159
-1	6.000000 3.900000	1.600000 2.000000	1.700000 8.800000	2342532

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

Iter	H G	W CT	A Sum of Squares CB	
0	6.000000 3.900000	1.600000 2.000000	1.870000 8.000000	2340710
1	5.916844 3.862349	1.593553 2.713888	1.600000 8.850846	2217075

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	6	2344520828304	390753471384
Residual	36	2217075	61585.4166667
Uncorrected Total	42	2344523045379	
(Corrected Total)	41	1795838010926	

TORONTO-KITCHENER

Motif Non-Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	5.916844194	2.137437671	1.581944230	10.251744158
W	1.593552751	1.121067825	-0.680065301	3.867170803
A	1.600000000	12.098937735	-22.937644054	26.137644054
G	3.862349082	0.289191045	3.275845781	4.448852383
CT	2.713888150	39.294498130	-76.978596389	82.406372688
CB	8.850846155	40.635470337	-73.561240668	91.262932979

Asymptotic Correlation Matrix

Corr	H	W	A	G	CT	CB
H	1	0.9971976	0.8089926	0.9738354	-0.446606	-0.265802
W	0.9971976	1	0.8204308	0.954308	-0.462394	-0.275284
A	0.8089926	0.8204308	1	0.7496987	-0.84181	-0.762657
G	0.9738354	0.954308	0.7496987	1	-0.389943	-0.236325
CT	-0.446606	-0.462394	-0.84181	-0.389943	1	0.8775283
CB	-0.265802	-0.275284	-0.762657	-0.236325	0.8775283	1

TORONTO-KITCHENER

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	CV	Sum of Squares
-2	-7.000000	2771808486
-1	-7.700000	1656815663

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

Iter	CV	Sum of Squares
0	-7.700000	1656815663
1	-9.000000	335222952

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	-9.000000	335222952
-1	-9.900000	7345480

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

Iter	CV	Sum of Squares
2	-9.900000	7345480

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	-9.900000	7345480
-1	-9.909900	6549408

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

Iter	CV	Sum of Squares
2	-9.909900	6549408

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	1	2344516495971	2344516495971
Residual	41	6549408	159741.658537
Uncorrected Total	42	2344523045379	
(Corrected Total)	41	1795838010926	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
CV	-9.909900000	0.02225381968	-9.9548423077	-9.8649576923

Asymptotic Correlation Matrix

Corr	CV
CV	1

TORONTO-KITCHENER
Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	2.78	
w	1.42	
a	0.13	0.999
g	13.36	
cv	-445.39	
ct	0.07	
cp		
cb	0.22	

TORONTO-KITCHENER

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G	W CT	A CB	Sum of Squares
-7	16.000000 3.900000	1.600000 0	1.700000 40.000000	108836
-6	17.600000 3.900000	1.600000 0	1.700000 40.000000	7203307
-5	16.000000 3.900000	1.760000 0	1.700000 40.000000	105555
-4	16.000000 3.900000	1.600000 0	1.870000 40.000000	109121
-3	16.000000 4.290000	1.600000 0	1.700000 40.000000	2177169
-2	16.000000 3.900000	1.600000 0.100000	1.700000 40.000000	108836
-1	16.000000 3.900000	1.600000 0	1.700000 44.000000	108604

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

Iter	H G	W CT	A CB	Sum of Squares
0	16.000000 3.900000	1.760000 0	1.700000 40.000000	105555
1	16.001440 3.900938	1.755690 0.005279	1.672823 40.311691	105163

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	6	105568086263	17594681044
Residual	36	105163	2921
Uncorrected Total	42	105568191426	
(Corrected Total)	41	78582102274	

TORONTO-KITCHENER

Motif Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	16.00144045	0.04620823	15.90772636	16.09515455
W	1.75568960	1.28898591	-0.85848018	4.36985938
A	1.67282287	5.26879372	-9.01272554	12.35837128
G	3.90093808	0.10114196	3.69581383	4.10606232
CT	0.00527886	1.54401068	-3.12610220	3.13665991
CB	40.31169113	100.98554781	-164.49533252	245.11871478

Asymptotic Correlation Matrix

Corr	H	W	A	G	CT	CB
H	1	-0.224204	-0.098949	0.3312643	0.2251064	-0.086871
W	-0.224204	1	0.4598197	-0.982366	-0.825723	0.1367494
A	-0.098949	0.4598197	1	-0.452746	-0.607458	-0.626568
G	0.3312643	-0.982366	-0.452746	1	0.8427075	-0.172139
CT	0.2251064	-0.825723	-0.607458	0.8427075	1	-0.222853
CB	-0.086871	0.1367494	-0.626568	-0.172139	-0.222853	1

TORONTO-KITCHENER

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	CV	Sum of Squares
-2	-34.500000	113794443
-1	-37.950000	40176833

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

Iter	CV	Sum of Squares
0	-37.950000	40176833
1	-39.000000	25240971

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	-39.000000	25240971
-1	-42.900000	125416

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

Iter	CV	Sum of Squares
2	-42.900000	125416

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	-42.900000	125416
-1	-42.942900	112926

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

Iter	CV	Sum of Squares
2	-42.942900	112926

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	1	105568078500	105568078500
Residual	41	112926	2754
Uncorrected Total	42	105568191426	
(Corrected Total)	41	78582102274	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
CV	-42.94290000	0.04250289411	-43.028735968	-42.857064032

Asymptotic Correlation Matrix

Corr	CV
CV	1

TORONTO-KITCHENER
Motif Business

Parameters	T for H0: Parameter = 0	R square
h	347.85	
w	1.36	
a	0.32	0.999
g	38.61	
cv	-1010.40	
ct	0.00	
cp		
cb	0.40	

TORONTO-LONDON

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares
	G	CT	CP
	CB		
-8	6.000000	1.600000	1.600000	283128
	2.200000	65.000000	410.000000	
	75.000000			
-7	6.600000	1.600000	1.600000	223406954
	2.200000	65.000000	410.000000	
	75.000000			
-6	6.000000	1.760000	1.600000	961561
	2.200000	65.000000	410.000000	
	75.000000			
-5	6.000000	1.600000	1.760000	282827
	2.200000	65.000000	410.000000	
	75.000000			
-4	6.000000	1.600000	1.600000	11062070
	2.420000	65.000000	410.000000	
	75.000000			
-3	6.000000	1.600000	1.600000	281419
	2.200000	71.500000	410.000000	
	75.000000			
-2	6.000000	1.600000	1.600000	282604
	2.200000	65.000000	451.000000	
	75.000000			
-1	6.000000	1.600000	1.600000	282188
	2.200000	65.000000	410.000000	
	82.500000			

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

Iter	H	W	A Sum of Squares
	G	CT	CP
	CB		
0	6.000000	1.600000	1.600000	281419
	2.200000	71.500000	410.000000	
	75.000000			

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	CT	CP
	CB		
-8	6.000000	1.600000	1.600000	281419
	2.200000	71.500000	410.000000	
	75.000000			
-7	6.600000	1.600000	1.600000	222830719
	2.200000	71.500000	410.000000	
	75.000000			
-6	6.000000	1.760000	1.600000	969680
	2.200000	71.500000	410.000000	
	75.000000			

TORONTO-LONDON

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G CB	W CT	A Sum of Squares CP	
-5	6.000000 2.200000 75.000000	1.600000 71.500000	1.760000 410.000000	281599
-4	6.000000 2.420000 75.000000	1.600000 71.500000	1.600000 410.000000	11076745
-3	6.000000 2.200000 75.000000	1.600000 78.650000	1.600000 410.000000	280764
-2	6.000000 2.200000 75.000000	1.600000 71.500000	1.600000 451.000000	281859
-1	6.000000 2.200000 82.500000	1.600000 71.500000	1.600000 410.000000	281530

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

Iter	H G CB	W CT	A Sum of Squares CP	
0	6.000000 2.200000 75.000000	1.600000 78.650000	1.600000 410.000000	280764
1	5.999977 2.199994 74.975972	1.599914 78.624068	1.602296 410.477606	280424

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	7	274498836383	39214119483
Residual	37	280424	7579
Uncorrected Total	44	274499116807	
(Corrected Total)	43	209992489836	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
H	5.9999770	0.0014859	5.9969664	6.0029876
W	1.5999139	0.2525189	1.0882649	2.1115630
A	1.6022964	8.0410230	-14.6902759	17.8948687
G	2.1999939	0.0951478	2.0072071	2.3927807
CT	78.6240684	83.8653812	-91.3024190	248.5505557
CP	410.4776062	1480.9871698	-2590.2712606	3411.2264730
CB	74.9759721	84.7981031	-96.8403792	246.7923233

TORONTO-LONDON

Motif Non-Business

Asymptotic Correlation Matrix

Corr	H	W	A	G	CT	CP	CB
H	1	0.012329	0.11109	0.015643	-0.0984	0.00782	-0.20367
W	0.012329	1	0.005312	-0.99711	0.440705	0.045256	0.403203
A	0.11109	0.005312	1	0.016061	-0.64545	-0.0291	-0.71136
G	0.015643	-0.99711	0.016061	1	-0.465	-0.054	-0.43046
CT	-0.0984	0.440705	-0.64545	-0.465	1	0.027634	0.535873
CP	0.00782	0.045256	-0.0291	-0.054	0.027634	1	0.016502
CB	-0.20367	0.403203	-0.71136	-0.43046	0.535873	0.016502	1

TORONTO-LONDON

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	CV	Sum of Squares
-2	-1.000000	37123441711
-1	-1.100000	36933538038

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

Iter	CV	Sum of Squares
0	-1.100000	36933538038
1	-17.000000	961414948

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	-17.000000	961414948
-1	-18.700000	13987791

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

Iter	CV	Sum of Squares
2	-18.700000	13987791

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	-18.700000	13987791
-1	-18.718700	12242548

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

Iter	CV	Sum of Squares
2	-18.718700	12242548

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	1	274486874259	274486874259
Residual	43	12242548	284710
Uncorrected Total	44	274499116807	
(Corrected Total)	43	209992489836	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
CV	-18.71870000	0.04095020729	-18.801283654	-18.636116346

Asymptotic Correlation Matrix

Corr	CV
CV	1

TORONTO-LONDON
Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	6000.00	
w	6.36	
a	0.20	0.999
g	23.16	
cv	-456.90	
ct	0.94	
cp	0.28	
cb	0.88	

TORONTO–LONDON

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares
	G	CT	CP	
	CB		
-8	16.000000	1.700000	1.800000	43207.000000
	2.800000	55.000000	80.000000	
	350.000000			
-7	17.600000	1.700000	1.800000	1035360
	2.800000	55.000000	80.000000	
	350.000000			
-6	16.000000	1.870000	1.800000	43859.000000
	2.800000	55.000000	80.000000	
	350.000000			
-5	16.000000	1.700000	1.980000	43207.000000
	2.800000	55.000000	80.000000	
	350.000000			
-4	16.000000	1.700000	1.800000	59573.000000
	3.080000	55.000000	80.000000	
	350.000000			
-3	16.000000	1.700000	1.800000	43207.000000
	2.800000	60.500000	80.000000	
	350.000000			
-2	16.000000	1.700000	1.800000	43207.000000
	2.800000	55.000000	88.000000	
	350.000000			
-1	16.000000	1.700000	1.800000	43207.000000
	2.800000	55.000000	80.000000	
	385.000000			

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

Iter	H	W	A Sum of Squares
	G	CT	CP	
	CB		
0	16.000000	1.700000	1.800000	43207.000000
	2.800000	55.000000	80.000000	
	350.000000			
1	15.994055	1.733529	1.800000	42820.000000
	2.783868	55.000000	80.000000	
	350.000000			

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	7	38000930112	5428704302
Residual	37	42820	1157
Uncorrected Total	44	38000972932	
(Corrected Total)	43	28689612794	

TORONTO–LONDON

Motif Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	15.9940554	0.13346444	15.723632238	16.26447861
W	1.7335294	3.47205630	-5.301487006	8.76854578
A	1.8000000	0.86935690	0.038525102	3.56147490
G	2.7838680	0.21868720	2.340768037	3.22696798
CT	55.0000000	26.56368296	1.177155901	108.82284410
CP	80.0000000	38.63808431	1.712226765	158.28777324
CB	350.0000000	169.04161887	7.490992097	692.50900790

Asymptotic Correlation Matrix

Corr	H	W	A	G	CT	CP	CB
H	1	0.231588	0.60364	0.012469	0.60364	0.60364	0.60364
W	0.231588	1	-0.63555	-0.77137	-0.63555	-0.63555	-0.63555
A	0.60364	-0.63555	1	0.630017	1	1	1
G	0.012469	-0.77137	0.630017	1	0.630017	0.630017	0.630017
CT	0.60364	-0.63555	1	0.630017	1	1	1
CP	0.60364	-0.63555	1	0.630017	1	1	1
CB	0.60364	-0.63555	1	0.630017	1	1	1

TORONTO-LONDON

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	CV	Sum of Squares
-2	-65.000000	20907336
-1	-71.500000	37569.000000

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

Iter	CV	Sum of Squares
0	-71.500000	37569.000000
1	-71.513848	37330.000000
2	-71.531788	37260.000000

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	1	38000935672	38000935672
Residual	43	37260	867
Uncorrected Total	44	38000972932	
(Corrected Total)	43	28689612794	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
CV	-71.53178847	0.15244728802	-71.839226575	-71.224350368

Asymptotic Correlation Matrix

Corr	CV
CV	1

TORONTO-LONDON
Motif Business

Parameters	T for H0: Parameter = 0	R square
h	123.00	
w	0.50	
a	2.09	0.999
g	13.24	
cv	-470.39	
ct	2.07	
cp	2.07	
cb	2.07	

TORONTO-WINDSOR

Motif Non-Business

Non-Linear Least Squares DUD Initialization — Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CT	CP	
	CB			
-8	6.000000	1.600000	1.600000	38958.000000
	1.600000	260.000000	720.000000	
	850.000000			
-7	6.600000	1.600000	1.600000	317189228
	1.600000	260.000000	720.000000	
	850.000000			
-6	6.000000	1.760000	1.600000	294500
	1.600000	260.000000	720.000000	
	850.000000			
-5	6.000000	1.600000	1.760000	39008.000000
	1.600000	260.000000	720.000000	
	850.000000			
-4	6.000000	1.600000	1.600000	3099105
	1.760000	260.000000	720.000000	
	850.000000			
-3	6.000000	1.600000	1.600000	38452.000000
	1.600000	286.000000	720.000000	
	850.000000			
-2	6.000000	1.600000	1.600000	38772.000000
	1.600000	260.000000	792.000000	
	850.000000			
-1	6.000000	1.600000	1.600000	38775.000000
	1.600000	260.000000	720.000000	
	935.000000			

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

Iter	H	W	A	Sum of Squares
	G	CT	CP	
	CB			
0	6.000000	1.600000	1.600000	38452.000000
	1.600000	286.000000	720.000000	
	850.000000			

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	CT	CP	
	CB			
-8	6.000000	1.600000	1.600000	38452.000000
	1.600000	286.000000	720.000000	
	850.000000			
-7	6.600000	1.600000	1.600000	316585358
	1.600000	286.000000	720.000000	
	850.000000			
-6	6.000000	1.760000	1.600000	297092
	1.600000	286.000000	720.000000	
	850.000000			

TORONTO-WINDSOR

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares
	G	CT	CP	
	CB		
-5	6.000000	1.600000	1.760000	38603.000000
	1.600000	286.000000	720.000000	
	850.000000			
-4	6.000000	1.600000	1.600000	3102928
	1.760000	286.000000	720.000000	
	850.000000			
-3	6.000000	1.600000	1.600000	38478.000000
	1.600000	314.600000	720.000000	
	850.000000			
-2	6.000000	1.600000	1.600000	38769.000000
	1.600000	286.000000	792.000000	
	850.000000			
-1	6.000000	1.600000	1.600000	38655.000000
	1.600000	286.000000	720.000000	
	935.000000			

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

Iter	H	W	A Sum of Squares
	G	CT	CP	
	CB		
0	6.000000	1.600000	1.600000	38452.000000
	1.600000	286.000000	720.000000	
	850.000000			

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	7	28498454525	4071207789
Residual	35	38452	1099
Uncorrected Total	42	28498492977	
(Corrected Total)	41	21198433070	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
H	6.0000000	0.1224729	5.7513683	6.2486317
W	1.6000000	0.3907613	0.8067171	2.3932829
A	1.6000000	6.5787392	-11.7554714	14.9554714
G	1.6000000	0.2070928	1.1795818	2.0204182
CT	286.0000000	191.9439290	-103.6645791	675.6645791
CP	720.0000000	1242.3277892	-1802.0445243	3242.0445243
CB	850.0000000	1179.5147700	-1544.5280730	3244.5280730

TORONTO-WINDSOR

Motif Non-Business

Asymptotic Correlation Matrix

Corr	H	W	A	G	CT	CP	CB
H	1	0.966943	-0.03922	0.988142	0.47091	0.054714	0.043659
W	0.966943	1	-0.01417	0.916553	0.529172	0.074041	0.049572
A	-0.03922	-0.01417	1	-0.05765	-0.0644	-0.28226	-0.26167
G	0.988142	0.916553	-0.05765	1	0.416802	0.04015	0.039774
CT	0.47091	0.529172	-0.0644	0.416802	1	-0.04677	-0.01378
CP	0.054714	0.074041	-0.28226	0.04015	-0.04677	1	-0.1946
CB	0.043659	0.049572	-0.26167	0.039774	-0.01378	-0.1946	1

TORONTO-WINDSOR

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	CV	Sum of Squares
-2	-27.000000	2904499655
-1	-29.700000	2220180133

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

Iter	CV	Sum of Squares
0	-29.700000	2220180133
1	-31.400000	1731085176

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	1	26767407801	26767407801
Residual	41	1731085176	42221590
Uncorrected Total	42	28498492977	
(Corrected Total)	41	21198433070	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
CV	-31.40000000	1.9597060546	-35.357689683	-27.442310317

Asymptotic Correlation Matrix

Corr	CV
CV	1

TORONTO-WINDSOR
Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	50.00	
w	4.10	
a	0.24	0.918
g	8.00	
cv	-16.02	
ct	1.50	
cp	0.58	
cb	0.72	

TORONTO-WINDSOR

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A Sum of Squares
	G	CV	CT
	CP	CB	
-9	21.000000	1.600000	1.600000 64309.000000
	2.100000	-136.000000	130.000000
	-20.000000	600.000000	
-8	23.100000	1.600000	1.600000 2757970
	2.100000	-136.000000	130.000000
	-20.000000	600.000000	
-7	21.000000	1.760000	1.600000 547390
	2.100000	-136.000000	130.000000
	-20.000000	600.000000	
-6	21.000000	1.600000	1.760000 65368.000000
	2.100000	-136.000000	130.000000
	-20.000000	600.000000	
-5	21.000000	1.600000	1.600000 2495001
	2.310000	-136.000000	130.000000
	-20.000000	600.000000	
-4	21.000000	1.600000	1.600000 29088412
	2.100000	-149.600000	130.000000
	-20.000000	600.000000	
-3	21.000000	1.600000	1.600000 64991.000000
	2.100000	-136.000000	143.000000
	-20.000000	600.000000	
-2	21.000000	1.600000	1.600000 64480.000000
	2.100000	-136.000000	130.000000
	-22.000000	600.000000	
-1	21.000000	1.600000	1.600000 64062.000000
	2.100000	-136.000000	130.000000
	-20.000000	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	21.000000	1.600000	1.600000 64062.000000
	2.100000	-136.000000	130.000000
	-20.000000	660.000000	

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	21.000000	1.600000	1.600000 64062.000000
	2.100000	-136.000000	130.000000
	-20.000000	660.000000	
-8	23.100000	1.600000	1.600000 2735292
	2.100000	-136.000000	130.000000
	-20.000000	660.000000	

TORONTO-WINDSOR

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CV	CT	
	CP	CB		
-7	21.000000	1.760000	1.600000	552236
	2.100000	-136.000000	130.000000	
	-20.000000	660.000000		
-6	21.000000	1.600000	1.760000	65948.000000
	2.100000	-136.000000	130.000000	
	-20.000000	660.000000		
-5	21.000000	1.600000	1.600000	2503029
	2.310000	-136.000000	130.000000	
	-20.000000	660.000000		
-4	21.000000	1.600000	1.600000	29111532
	2.100000	-149.600000	130.000000	
	-20.000000	660.000000		
-3	21.000000	1.600000	1.600000	65150.000000
	2.100000	-136.000000	143.000000	
	-20.000000	660.000000		
-2	21.000000	1.600000	1.600000	64544.000000
	2.100000	-136.000000	130.000000	
	-22.000000	660.000000		
-1	21.000000	1.600000	1.600000	64380.000000
	2.100000	-136.000000	130.000000	
	-20.000000	726.000000		

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

Iter	H	W	A	Sum of Squares
	G	CV	CT	
	CP	CB		
0	21.000000	1.600000	1.600000	64062.000000
	2.100000	-136.000000	130.000000	
	-20.000000	660.000000		

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	8	1045209987.0	130651248.4
Residual	34	64062.0	1884.2
Uncorrected Total	42	1045274049.0	
(Corrected Total)	41	653219786.1	

TORONTO-WINDSOR

Motif Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	21.0000000	4.84297528	11.15795114	30.8420489
W	1.6000000	0.41671754	0.75313333	2.4468667
A	1.6000000	1.70783316	-1.87071304	5.0707130
G	2.1000000	0.26220709	1.56713440	2.6328656
CV	-136.0000000	4.57997432	-145.30756992	-126.6924301
CT	130.0000000	76.72776495	-25.92861175	285.9286117
CP	-20.0000000	46.66771393	-114.83961708	74.8396171
CB	660.0000000	408.43885915	-170.04247988	1490.0424799

Asymptotic Correlation Matrix

Corr	H	W	A	G
H	1	0.2431865175	0.6171617775	0.9353828981
W	0.2431865175	1	0.7151690729	-0.087472832
A	0.6171617775	0.7151690729	1	0.386635004
G	0.9353828981	-0.087472832	0.386635004	1
CV	-0.673833971	0.5406540141	0.0090543846	-0.847514471
CT	0.7972237998	0.6707574294	0.6343708176	0.5726715345
CP	0.6608526012	0.4792170197	0.2619409758	0.4942741415
CB	0.5560504672	0.6656554399	0.5882901411	0.3181466287

Corr	CV	CT	CP	CB
H	-0.673833971	0.7972237998	0.6608526012	0.5560504672
W	0.5406540141	0.6707574294	0.4792170197	0.6656554399
A	0.0090543846	0.6343708176	0.2619409758	0.5882901411
G	-0.847514471	0.5726715345	0.4942741415	0.3181466287
CV	1	-0.193167676	-0.22595315	0.001476155
CT	-0.193167676	1	0.8723777406	0.7496296858
CP	-0.22595315	0.8723777406	1	0.6437044946
CB	0.001476155	0.7496296858	0.6437044946	1

TORONTO-WINDSOR

Motif Business

Mode	Heure de départ	Heure arrivée	Nombre de voyageurs	Estimation par le modèle	Résidu
P	7.0000	8.1667	246	241	5
B	8.5000	13.7500	41	37	4
P	8.8333	10.0000	289	283	6
T	13.0833	13.5667	340	347	-7
B	10.5000	17.0000	42	36	6
P	10.9167	12.0833	308	314	-6
B	12.5000	17.4167	45	38	7
T	13.0833	17.4833	210	215	-5
P	13.5000	14.6667	333	327	6
B	14.5000	19.7500	40	35	5
P	15.0000	16.1667	318	312	6
T	16.4167	20.6333	167	170	-3
T	17.2500	21.5500	158	155	3
P	18.0000	19.1667	252	257	-5
B	18.5000	23.5833	34	30	4
T	19.3333	23.7000	123	126	-3
P	20.5000	21.6667	197	193	4
B	23.8333	29.1667	23	21	2
C	0.0000	4.0000	337	330	7
C	1.0000	5.0000	431	440	-9
C	2.0000	6.0000	642	630	12
C	3.0000	7.0000	1031	1041	-10
C	4.0000	8.0000	2747	2720	27
C	5.0000	9.0000	5889	5950	-61
C	6.0000	10.0000	6457	6395	62
C	7.0000	11.0000	7965	8047	-82
C	8.0000	12.0000	8692	8607	85
C	9.0000	13.0000	7581	7659	-78
C	10.0000	14.0000	9833	9738	95
C	11.0000	15.0000	7193	7267	-74
C	12.0000	16.0000	11594	11585	9
C	13.0000	17.0000	16792	16813	-21
C	14.0000	18.0000	6395	6334	61
C	15.0000	19.0000	6578	6646	-68
C	16.0000	20.0000	7132	7063	69
C	17.0000	21.0000	4156	4199	-43
C	18.0000	22.0000	3830	3793	37
C	19.0000	23.0000	4636	4684	-48
C	20.0000	24.0000	2471	2447	24
C	21.0000	25.0000	1304	1318	-14
C	22.0000	26.0000	1015	995	20
C	23.0000	27.0000	454	463	-9
			=========		
			128321		

TORONTO-WINDSOR
Motif Business

Parameters	T for H0: Parameter = 0	R square
h	4.34	
w	3.90	
a	0.94	0.999
g	8.08	
cv	-29.76	
ct	1.69	
cp	-0.43	
cb	1.62	

KITCHENER-LONDON

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G	W CT	A Sum of Squares CB	
-7	6.000000 3.000000	1.600000 -4.000000	1.700000 26.000000	39704.000000
-6	6.600000 3.000000	1.600000 -4.000000	1.700000 26.000000	4072577
-5	6.000000 3.000000	1.760000 -4.000000	1.700000 26.000000	394986
-4	6.000000 3.000000	1.600000 -4.000000	1.870000 26.000000	39543.000000
-3	6.000000 3.300000	1.600000 -4.000000	1.700000 26.000000	4088860
-2	6.000000 3.000000	1.600000 -4.400000	1.700000 26.000000	39707.000000
-1	6.000000 3.000000	1.600000 -4.000000	1.700000 28.600000	39978.000000

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

Iter	H G	W CT	A Sum of Squares CB	
0	6.000000 3.000000	1.600000 -4.000000	1.870000 26.000000	39543.000000
1	5.972758 2.992467	1.585530 -4.000000	1.800000 25.830842	38947.000000

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	6	38093361096	6348893516
Residual	24	38947	1623
Uncorrected Total	30	38093400043	
(Corrected Total)	29	25754115145	

KITCHENER-LONDON

Motif Non-Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	5.97275831	0.677132775	4.575236200	7.370280411
W	1.58552977	0.612351422	0.321708724	2.849350808
A	1.80000000	2.717255795	-3.808095165	7.408095165
G	2.99246663	0.084898001	2.817247175	3.167686078
CT	-4.00000000	10.291274567	-25.239975733	17.239975733
CB	25.83084188	26.207656797	-28.258667708	79.920351467

Asymptotic Correlation Matrix

Corr	H	W	A	G	CT	CB
H	1	0.9848903	0.6781316	0.8360167	0.4363742	0.5252298
W	0.9848903	1	0.6678226	0.729227	0.4769056	0.5763692
A	0.6781316	0.6678226	1	0.5867525	-0.282869	0.017787
G	0.8360167	0.729227	0.5867525	1	0.1896954	0.2337669
CT	0.4363742	0.4769056	-0.282869	0.1896954	1	0.6746067
CB	0.5252298	0.5763692	0.017787	0.2337669	0.6746067	1

KITCHENER-LONDON

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	CV	Sum of Squares
-2	-7.000000	172545855
-1	-7.700000	96965572

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

Iter	CV	Sum of Squares
0	-7.700000	96965572
1	-9.782686	552962
2	-9.947602	34525.000000
3	-9.970554	26795.000000

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	1	38093373248	38093373248
Residual	29	26795	924
Uncorrected Total	30	38093400043	
(Corrected Total)	29	25754115145	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
CV	-9.970554336	0.00799224711	-9.9869001952	-9.9542084760

Asymptotic Correlation Matrix

Corr	CV
CV	1

KITCHENER-LONDON
Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	8.82	
w	2.58	
a	0.66	0.999
g	35.60	
cv	-1247.57	
ct	-0.39	
cp		
cb	0.99	

KITCHENER-LONDON

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CV	CT	
	CB			
-8	24.000000	1.600000	1.700000	15422296
	3.000000	-30.000000	5000.000000	
	80.000000			
-7	26.400000	1.600000	1.700000	18101374
	3.000000	-30.000000	5000.000000	
	80.000000			
-6	24.000000	1.760000	1.700000	10375494
	3.000000	-30.000000	5000.000000	
	80.000000			
-5	24.000000	1.600000	1.870000	15387983
	3.000000	-30.000000	5000.000000	
	80.000000			
-4	24.000000	1.600000	1.700000	5701422
	3.300000	-30.000000	5000.000000	
	80.000000			
-3	24.000000	1.600000	1.700000	7785158
	3.000000	-33.000000	5000.000000	
	80.000000			
-2	24.000000	1.600000	1.700000	15422296
	3.000000	-30.000000	5500.000000	
	80.000000			
-1	24.000000	1.600000	1.700000	15347732
	3.000000	-30.000000	5000.000000	
	88.000000			

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

Iter	H	W	A	Sum of Squares
	G	CV	CT	
	CB			
0	24.000000	1.600000	1.700000	5701422
	3.300000	-30.000000	5000.000000	
	80.000000			

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	24.000000	1.600000	1.700000	5701422
	3.300000	-30.000000	5000.000000	
	80.000000			
-7	26.400000	1.600000	1.700000	7073666
	3.300000	-30.000000	5000.000000	
	80.000000			
-6	24.000000	1.760000	1.700000	3221981
	3.300000	-30.000000	5000.000000	
	80.000000			

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Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CV	CT	
	CB			
-5	24.000000	1.600000	1.870000	5691904
	3.300000	-30.000000	5000.000000	
	80.000000			
-4	24.000000	1.600000	1.700000	1356378
	3.630000	-30.000000	5000.000000	
	80.000000			
-3	24.000000	1.600000	1.700000	2091846
	3.300000	-33.000000	5000.000000	
	80.000000			
-2	24.000000	1.600000	1.700000	5701422
	3.300000	-30.000000	5500.000000	
	80.000000			
-1	24.000000	1.600000	1.700000	5679354
	3.300000	-30.000000	5000.000000	
	88.000000			

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

Iter	H	W	A	Sum of Squares
	G	CV	CT	
	CB			
0	24.000000	1.600000	1.700000	1356378
	3.630000	-30.000000	5000.000000	
	80.000000			

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	7	5819242384.0	831320340.6
Residual	23	1356378.0	58973.0
Uncorrected Total	30	5820598762.0	
(Corrected Total)	29	3867109993.5	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
H	24.000000	123.412458	-231.296067	279.29607
W	1.600000	10.883703	-20.914473	24.11447
A	1.700000	28.684280	-57.637477	61.03748
G	3.630000	1.978903	-0.463640	7.72364
CV	-30.000000	136.760325	-312.908010	252.90801
CT	5000.000000	46522.557774	-91238.469020	101238.46902
CB	80.000000	1117.893844	-2232.521005	2392.52101

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Asymptotic Correlation Matrix

Corr	H	W	A	G	CV	CT	CB
H	1	-0.50158	-0.1457	0.823202	-0.65208	-0.21315	0.087899
W	-0.50158	1	0.173239	-0.76372	0.980236	-0.62525	0.673808
A	-0.1457	0.173239	1	-0.16509	0.182199	-0.54155	-0.45049
G	0.823202	-0.76372	-0.16509	1	-0.81566	0.178096	-0.278
CV	-0.65208	0.980236	0.182199	-0.81566	1	-0.49802	0.567243
CT	-0.21315	-0.62525	-0.54155	0.178096	-0.49802	1	-0.46512
CB	0.087899	0.673808	-0.45049	-0.278	0.567243	-0.46512	1

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Parameters	T for H0: Parameter = 0	R square
h	0.19	
w	0.15	
a	0.06	0.999
g	1.84	
cv	-0.22	
ct	0.11	
cp		
cb	0.07	

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Non-Linear Least Squares DUD Initialization				Dependent Variable VOY
DUD	H	W	A	Sum of Squares
	G	CV	CT	
-7	6.000000	1.500000	1.700000	20761939
	3.450000	-13.000000	60.000000	
-6	6.600000	1.500000	1.700000	21251458
	3.450000	-13.000000	60.000000	
-5	6.000000	1.650000	1.700000	15709377
	3.450000	-13.000000	60.000000	
-4	6.000000	1.500000	1.870000	20761822
	3.450000	-13.000000	60.000000	
-3	6.000000	1.500000	1.700000	13204853
	3.795000	-13.000000	60.000000	
-2	6.000000	1.500000	1.700000	16795709
	3.450000	-14.300000	60.000000	
-1	6.000000	1.500000	1.700000	20746010
	3.450000	-13.000000	66.000000	

Non-Linear Least Squares Iterative Phase				Dependent Variable VOY Method: DUD
Iter	H	W	A	Sum of Squares
	G	CV	CT	
0	6.000000	1.500000	1.700000	13204853
	3.795000	-13.000000	60.000000	
1	6.000000	5.500000	5.500000	5396305
	5.500000	5.500000	6.500000	
2	6.000000	1.600000	1.600000	216357
	3.500000	-23.000000	59.000000	

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	
-7	6.000000	1.600000	1.600000	216357
	3.500000	-23.000000	59.000000	
-6	6.600000	1.600000	1.600000	73452.000000
	3.500000	-23.000000	59.000000	

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Non-Linear Least Squares DUD Initialization				Dependent Variable VOY
DUD	H	W	A Sum of Squares	
	G	CV	CT	
-5	6.000000	1.760000	1.600000	734585
	3.500000	-23.000000	59.000000	
-4	6.000000	1.600000	1.760000	216357
	3.500000	-23.000000	59.000000	
-3	6.000000	1.600000	1.600000	1371569
	3.850000	-23.000000	59.000000	
-2	6.000000	1.600000	1.600000	2903898
	3.500000	-25.300000	59.000000	
-1	6.000000	1.600000	1.600000	216361
	3.500000	-23.000000	64.900000	

Non-Linear Least Squares Iterative Phase				Dependent Variable VOY Method: DUD
Iter	H	W	A Sum of Squares	
	G	CV	CT	
3	6.600000	1.600000	1.600000	73452.000000
	3.500000	-23.000000	59.000000	
4	6.500000	1.600000	1.600000	54048.000000
	3.500000	-23.000000	59.000000	

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	
-7	6.500000	1.600000	1.600000	54048.000000
	3.500000	-23.000000	59.000000	
-6	7.150000	1.600000	1.600000	382934
	3.500000	-23.000000	59.000000	
-5	6.500000	1.760000	1.600000	194724
	3.500000	-23.000000	59.000000	
-4	6.500000	1.600000	1.760000	54027.000000
	3.500000	-23.000000	59.000000	
-3	6.500000	1.600000	1.600000	565399
	3.850000	-23.000000	59.000000	

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Non-Linear Least Squares DUD Initialization				Dependent Variable VOY
DUD	H	W	A	Sum of Squares
	G	CV	CT	
-2	6.500000	1.600000	1.600000	1234012
	3.500000	-25.300000	59.000000	
-1	6.500000	1.600000	1.600000	54067.000000
	3.500000	-23.000000	64.900000	

Non-Linear Least Squares Iterative Phase				Dependent Variable VOY Method: DUD
Iter	H	W	A	Sum of Squares
	G	CV	CT	
5	6.500000	1.600000	1.760000	54027.000000
	3.500000	-23.000000	59.000000	

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	
-7	6.500000	1.600000	1.760000	54027.000000
	3.500000	-23.000000	59.000000	
-6	6.506500	1.600000	1.760000	54687.000000
	3.500000	-23.000000	59.000000	
-5	6.500000	1.601600	1.760000	53384.000000
	3.500000	-23.000000	59.000000	
-4	6.500000	1.600000	1.761760	54027.000000
	3.500000	-23.000000	59.000000	
-3	6.500000	1.600000	1.760000	53288.000000
	3.503500	-23.000000	59.000000	
-2	6.500000	1.600000	1.760000	52769.000000
	3.500000	-23.023000	59.000000	
-1	6.500000	1.600000	1.760000	54027.000000
	3.500000	-23.000000	59.059000	

Non-Linear Least Squares Iterative Phase				Dependent Variable VOY Method: DUD
Iter	H	W	A	Sum of Squares
	G	CV	CT	
5	6.500000	1.600000	1.760000	52769.000000
	3.500000	-23.023000	59.000000	

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Motif Non-Business

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	6	1053299543.0	175549923.8
Residual	20	52769.0	2638.5
Uncorrected Total	26	1053352312.0	
(Corrected Total)	25	624405110.6	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
H	6.50000000	0.13501309801	6.218369735	6.781630265
W	1.60000000	0.05422602012	1.486887356	1.713112644
A	1.76000000	0.02013707834	1.717995107	1.802004893
G	3.50000000	0.11132624533	3.267779271	3.732220729
CV	-23.02300000	0.64146704325	-24.361066722	-21.684933278
CT	59.00000000	0.67504978513	57.591881434	60.408118566

Asymptotic Correlation Matrix

Corr	H	W	A	G	CV	CT
H	1	0.0235723	-0.861164	-0.125583	-0.429669	-0.861164
W	0.0235723	1	-0.456467	-0.279486	0.3522107	-0.456467
A	-0.861164	-0.456467	1	0.0151991	0.0520022	1
G	-0.125583	-0.279486	0.0151991	1	0.7260179	0.0151991
CV	-0.429669	0.3522107	0.0520022	0.7260179	1	0.0520022
CT	-0.861164	-0.456467	1	0.0151991	0.0520022	1

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Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	50.00	
w	32.00	
a	88.00	0.999
g	31.82	
cv	-35.94	
ct	87.41	
cp		
cb		

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Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G	W CV	A Sum of Squares CT
-3	15.000000 4.510000	1.200000 -99.000000	1.800000 0	209039
-2	15.000000 4.100000	1.200000 -108.900000	1.800000 0	409915
-1	15.000000 4.100000	1.200000 -99.000000	1.800000 0.100000	502685

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

Iter	H G	W CV	A Sum of Squares CT
0	15.000000 4.510000	1.200000 -99.000000	1.800000 0	209039

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	6	251017607.00	41836267.83
Residual	20	209039.00	10451.95
Uncorrected Total	26	251226646.00	
(Corrected Total)	25	175008405.38	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
H	15.00000000	20.637143434	-28.04800248	58.048002478
W	1.20000000	5.558235286	-10.39418827	12.794188271
A	1.80000000	9.596224158	-18.21722199	21.817221989
G	4.51000000	6.535465984	-9.12264043	18.142640427
CV	-99.00000000	14.089146030	-128.38922216	-69.610777836
CT	0.00000000	5.331235643	-11.12067888	11.120678883

Asymptotic Correlation Matrix

Corr	H	W	A	G	CV	CT
H	1	0.8515127	0.1953825	0.7635362	0.9134902	0.1953825
W	0.8515127	1	0.2739606	0.3149119	0.9614581	0.2739606
A	0.1953825	0.2739606	1	0.0162548	0.2466512	1
G	0.7635362	0.3149119	0.0162548	1	0.4916506	0.0162548
CV	0.9134902	0.9614581	0.2466512	0.4916506	1	0.2466512
CT	0.1953825	0.2739606	1	0.0162548	0.2466512	1

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Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G	W CV	A Sum of Squares CT	
-7	15.000000 4.100000	1.200000 -90.000000	1.800000 0	3922040
-6	16.500000 4.100000	1.200000 -90.000000	1.800000 0	5587138
-5	15.000000 4.100000	1.320000 -90.000000	1.800000 0	2972514
-4	15.000000 4.100000	1.200000 -90.000000	1.980000 0	3922371
-3	15.000000 4.510000	1.200000 -90.000000	1.800000 0	2459618
-2	15.000000 4.100000	1.200000 -99.000000	1.800000 0	502690
-1	15.000000 4.100000	1.200000 -90.000000	1.800000 0.100000	3922040

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

Iter	H G	W CV	A Sum of Squares CT	
0	15.000000 4.100000	1.200000 -99.000000	1.800000 0	502690

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

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G	W CV	A Sum of Squares CT	
-7	15.000000 4.100000	1.200000 -99.000000	1.800000 0	502690
-6	16.500000 4.100000	1.200000 -99.000000	1.800000 0	1450082
-5	15.000000 4.100000	1.320000 -99.000000	1.800000 0	332954
-4	15.000000 4.100000	1.200000 -99.000000	1.980000 0	502685

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Motif Business

Parameters	T for H0: Parameter = 0	R square
h	0.73	
w	0.22	
a	0.19	0.998
g	0.69	
cv	-7.03	
ct		
cp		
cb		

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Non-Linear Least Squares DUD Initialization — Dependent Variable VOY

DUD	H / G	W / CB	A	Sum of Squares
-6	7.000000 / 2.100000	1.500000 / 20.000000	1.500000	10206.000000
-5	7.700000 / 2.100000	1.500000 / 20.000000	1.500000	4847731
-4	7.000000 / 2.100000	1.650000 / 20.000000	1.500000	17067.000000
-3	7.000000 / 2.100000	1.500000 / 20.000000	1.650000	10329.000000
-2	7.000000 / 2.310000	1.500000 / 20.000000	1.500000	2036815
-1	7.000000 / 2.100000	1.500000 / 22.000000	1.500000	10532.000000

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

Iter	H / G	W / CB	A	Sum of Squares
0	7.000000 / 2.100000	1.500000 / 20.000000	1.500000	10206.000000
1	7.001430 / 2.100276	1.505012 / 20.159350	1.507318	10178.000000

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics — Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	5	4069324737.0	813864947.4
Residual	23	10178.0	442.5
Uncorrected Total	28	4069334915.0	
(Corrected Total)	27	3239201105.0	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
H	7.00142990	0.021328135	6.957309646	7.045550152
W	1.50501238	0.277358064	0.931258126	2.078766637
A	1.50731846	2.005229760	-2.640781970	5.655418898
G	2.10027609	0.021221281	2.056376875	2.144175299
CB	20.15935025	22.799292624	-27.004200553	67.322901047

Asymptotic Correlation Matrix

Corr	H	W	A	G	CB
H	1	0.2951594949	0.0442340018	0.1558536706	0.1357610179
W	0.2951594949	1	-0.11454065	-0.882777383	0.6884383451
A	0.0442340018	-0.11454065	1	0.1534817403	-0.75779291
G	0.1558536706	-0.882777383	0.1534817403	1	-0.67222796
CB	0.1357610179	0.6884383451	-0.75779291	-0.67222796	1

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Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD		CV Sum of Squares
-2	-9.000000	215759870
-1	-9.900000	149510948

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

Iter		CV Sum of Squares
0	-9.900000	149510948
1	-11.500000	54617007

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	-11.500000	54617007
-1	-12.650000	14268756

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

Iter		CV Sum of Squares
2	-12.650000	14268756

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	-12.650000	14268756
-1	-12.662650	13982101

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

Iter		CV Sum of Squares
2	-12.662650	13982101

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	1	4055352814.0	4055352814.0
Residual	27	13982101.0	517855.6
Uncorrected Total	28	4069334915.0	
(Corrected Total)	27	3239201105.0	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
CV	-12.66265000	0.23799766590	-13.150977079	-12.174322921

Asymptotic Correlation Matrix

Corr	CV
CV	1

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Parameters	T for H0: Parameter = 0	R square
h	328.64	
w	5.43	
a	0.75	0.995
g	99.06	
cv	-53.20	
ct		
cp		
cb	0.88	

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Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G	W CV	A Sum of Squares CB	
-7	20.000000 3.200000	1.600000 -30.000000	1.800000 100.000000	50048011
-6	22.000000 3.200000	1.600000 -30.000000	1.800000 100.000000	52527478
-5	20.000000 3.200000	1.760000 -30.000000	1.800000 100.000000	36601592
-4	20.000000 3.200000	1.600000 -30.000000	1.980000 100.000000	50027349
-3	20.000000 3.520000	1.600000 -30.000000	1.800000 100.000000	27032038
-2	20.000000 3.200000	1.600000 -33.000000	1.800000 100.000000	31142697
-1	20.000000 3.200000	1.600000 -30.000000	1.800000 110.000000	49975908

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

Iter	H G	W CV	A Sum of Squares CB	
0	20.000000 3.520000	1.600000 -30.000000	1.800000 100.000000	27032038
1	20.323734 3.513321	1.573303 -30.560571	1.795164 99.149477	26871632

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	6	2554245494.0	425707582.3
Residual	22	26871632.0	1221437.8
Uncorrected Total	28	2581117126.0	
(Corrected Total)	27	2015753943.0	

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Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	20.32373351	221.5880810	-439.218159	479.865626
W	1.57330343	53.2211620	-108.799752	111.946359
A	1.79516404	160.1596156	-330.352904	333.943232
G	3.51332122	3.2783660	-3.285540	10.312182
CV	-30.56057059	702.2934337	-1487.016407	1425.895266
CB	99.14947653	7019.2086781	-14457.682406	14655.981360

Asymptotic Correlation Matrix

Corr	H	W	A	G	CV	CB
H	1	-0.553603	-0.096031	0.4144045	-0.623702	-0.270531
W	-0.553603	1	-0.179707	-0.799674	0.9956578	0.8395501
A	-0.096031	-0.179707	1	0.1913526	-0.157497	-0.653924
G	0.4144045	-0.799674	0.1913526	1	-0.773611	-0.726026
CV	-0.623702	0.9956578	-0.157497	-0.773611	1	0.8138166
CB	-0.270531	0.8395501	-0.653924	-0.726026	0.8138166	1

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Parameters	T for H0: Parameter = 0	R square
h	0.09	
w	0.03	
a	0.01	0.986
g	1.07	
cv	-0.04	
ct		
cp		
cb	0.01	

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Motif Non-Business

Non-Linear Least Squares DUD Initialization — Dependent Variable VOY

DUD	H G	W CV	A CB	Sum of Squares
-7	7.000000 2.200000	1.500000 -20.000000	1.800000 140.000000	115940380
-6	7.700000 2.200000	1.500000 -20.000000	1.800000 140.000000	120847748
-5	7.000000 2.200000	1.650000 -20.000000	1.800000 140.000000	104850680
-4	7.000000 2.200000	1.500000 -20.000000	1.980000 140.000000	115923200
-3	7.000000 2.420000	1.500000 -20.000000	1.800000 140.000000	97598579
-2	7.000000 2.200000	1.500000 -22.000000	1.800000 140.000000	100612450
-1	7.000000 2.200000	1.500000 -20.000000	1.800000 154.000000	115871323

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

Iter	H G	W CV	A CB	Sum of Squares
0	7.000000 2.420000	1.500000 -20.000000	1.800000 140.000000	97598579
1	6.500000 2.300000	1.600000 -20.000000	1.900000 141.000000	95421490

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics — Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	6	649468775.00	108244795.83
Residual	21	95421490.00	4543880.48
Uncorrected Total	27	744890265.00	
(Corrected Total)	26	482367136.07	

HAMILTON-WINDSOR

Motif Non-Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	6.5000000	345.822899	-712.672478	725.672478
W	1.6000000	133.367436	-275.750603	278.950603
A	1.9000000	242.191461	-501.760786	505.560786
G	2.3000000	4.496397	-7.050696	11.650696
CV	-20.0000000	1606.131958	-3360.108197	3320.108197
CB	141.0000000	16119.222609	-33380.496979	33662.496979

Asymptotic Correlation Matrix

Corr	H	W	A	G	CV	CB
H	1	-0.639045	-0.079713	-0.445454	-0.805608	-0.194874
W	-0.639045	1	0.0182086	-0.294795	0.9703526	0.8668673
A	-0.079713	0.0182086	1	-0.054219	0.0363112	-0.137539
G	-0.445454	-0.294795	-0.054219	1	-0.079914	-0.6441
CV	-0.805608	0.9703526	0.0363112	-0.079914	1	0.728438
CB	-0.194874	0.8668673	-0.137539	-0.6441	0.728438	1

HAMILTON-WINDSOR
Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	0.02	
w	0.01	
a	0.01	0.802
g	0.51	
cv	-0.01	
ct		
cp		
cb	0.01	

HAMILTON-WINDSOR

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H	W	A	Sum of Squares
	G	CB		
-6	21.000000	1.500000	1.800000	3429.000000
	3.200000	200.000000		
-5	23.100000	1.500000	1.800000	48737.000000
	3.200000	200.000000		
-4	21.000000	1.650000	1.800000	3826.000000
	3.200000	200.000000		
-3	21.000000	1.500000	1.980000	3429.000000
	3.200000	200.000000		
-2	21.000000	1.500000	1.800000	14373.000000
	3.520000	200.000000		
-1	21.000000	1.500000	1.800000	3429.000000
	3.200000	220.000000		

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

Iter	H	W	A	Sum of Squares
	G	CB		
0	21.000000	1.500000	1.800000	3429.000000
	3.200000	200.000000		
1	21.237438	1.438095	1.800000	3169.000000
	3.300000	200.000000		

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	5	27478699.000	5495739.800
Residual	22	3169.000	144.045
Uncorrected Total	27	27481868.000	
(Corrected Total)	26	20783767.852	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
H	21.2374380	0.651459832	19.886403794	22.58847227
W	1.4380952	0.997790399	-0.631178967	3.50736934
A	1.8000000	0.545142543	0.669452568	2.93054743
G	3.3000000	0.287591783	2.703575898	3.89642410
CB	200.0000000	60.571393646	74.383618631	325.61638137

Asymptotic Correlation Matrix

Corr	H	W	A	G	CB
H	1	0.5895304825	-0.844243808	0.812723242	-0.844243808
W	0.5895304825	1	-0.930455414	0.0248601469	-0.930455414
A	-0.844243808	-0.930455414	1	-0.387134938	1
G	0.812723242	0.0248601469	-0.387134938	1	-0.387134938
CB	-0.844243808	-0.930455414	1	-0.387134938	1

HAMILTON-WINDSOR

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD		CV Sum of Squares
-2	-109.000000	654095
-1	-119.900000	221128

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

Iter		CV Sum of Squares
0	-119.900000	221128
1	-122.000000	167689

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	-122.000000	167689
-1	-134.200000	3323.000000

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

Iter		CV Sum of Squares
2	-134.200000	3323.000000

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	-134.200000	3323.000000
-1	-134.334200	3132.000000

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

Iter		CV Sum of Squares
2	-134.334200	3132.000000
3	-134.316746	3130.000000
4	-134.316746	3130.000000

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	1	27478738.000	27478738.000
Residual	26	3130.000	120.385
Uncorrected Total	27	27481868.000	
(Corrected Total)	26	20783767.852	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
CV	-134.3167463	0.13541215273	-134.59508778	-134.03840485

Asymptotic Correlation Matrix

Corr	CV
CV	1

HAMILTON-WINDSOR
Motif Business

Parameters	T for H0: Parameter = 0	R square
h	32.61	
w	1.44	
a	3.30	0.999
g	11.50	
cv	-991.95	
ct		
cp		
cb	3.30	

LONDON-WINDSOR

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G	W CT	A Sum of Squares CB	
-7	6.000000 3.000000	1.600000 30.000000	1.700000 40.000000	55375.000000
-6	6.600000 3.000000	1.600000 30.000000	1.700000 40.000000	794280
-5	6.000000 3.000000	1.760000 30.000000	1.700000 40.000000	54112.000000
-4	6.000000 3.000000	1.600000 30.000000	1.870000 40.000000	55375.000000
-3	6.000000 3.300000	1.600000 30.000000	1.700000 40.000000	52674.000000
-2	6.000000 3.000000	1.600000 33.000000	1.700000 40.000000	55375.000000
-1	6.000000 3.000000	1.600000 30.000000	1.700000 44.000000	55375.000000

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

Iter	H G	W CT	A Sum of Squares CB	
0	6.000000 3.300000	1.600000 30.000000	1.700000 40.000000	52674.000000
1	5.998354 3.321933	1.550000 30.181600	1.710291 40.242133	52653.000000

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	6	44275094882	7379182480
Residual	28	52653	1880
Uncorrected Total	34	44275147535	
(Corrected Total)	33	33164227942	

LONDON-WINDSOR

Motif Non-Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	5.99835413	0.046079028	5.9039662381	6.092742023
W	1.55000000	5.446166672	-9.6058818889	12.705881889
A	1.71029067	0.885879677	-0.1043377895	3.524919131
G	3.32193291	4.005635243	-4.8831765503	11.527042363
CT	30.18160007	15.633170768	-1.8412551088	62.204455252
CB	40.24213343	20.844227690	-2.4550068117	82.939273669

Asymptotic Correlation Matrix

Corr	H	W	A	G	CT	CB
H	1	0.1788735	-0.216357	-0.123995	-0.216357	-0.216357
W	0.1788735	1	-0.997223	-0.993546	-0.997223	-0.997223
A	-0.216357	-0.997223	1	0.9823462	1	1
G	-0.123995	-0.993546	0.9823462	1	0.9823462	0.9823462
CT	-0.216357	-0.997223	1	0.9823462	1	1
CB	-0.216357	-0.997223	1	0.9823462	1	1

LONDON-WINDSOR

Motif Non-Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	CV	Sum of Squares
-2	-13.000000	211121467
-1	-14.300000	88166612

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

Iter	CV	Sum of Squares
0	-14.300000	88166612
1	-16.662956	5581859
2	-17.200000	1971423

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	-17.200000	1971423
-1	-18.920000	53304.000000

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

Iter	CV	Sum of Squares
3	-18.920000	53304.000000

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	-18.920000	53304.000000
-1	-18.938920	53074.000000

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

Iter	CV	Sum of Squares
3	-18.938920	53074.000000

WARNING: Step size shows no improvement.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	1	44275094461	44275094461
Residual	33	53074	1608
Uncorrected Total	34	44275147535	
(Corrected Total)	33	33164227942	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
CV	-18.93892000	0.23994133572	-19.427081162	-18.450758838

Asymptotic Correlation Matrix

Corr	CV
CV	1

LONDON-WINDSOR
Motif Non-Business

Parameters	T for H0: Parameter = 0	R square
h	130.39	
w	0.28	
a	1.93	0.999
g	0.83	
cv	-78.91	
ct	1.93	
cp		
cb	1.93	

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Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	H G	W CT	A Sum of Squares CB	
-7	16.000000 2.100000	1.600000 290.000000	1.700000 4000.000000	11087.000000
-6	17.600000 2.100000	1.600000 290.000000	1.700000 4000.000000	4678707
-5	16.000000 2.100000	1.760000 290.000000	1.700000 4000.000000	15054.000000
-4	16.000000 2.100000	1.600000 290.000000	1.870000 4000.000000	11087.000000
-3	16.000000 2.310000	1.600000 290.000000	1.700000 4000.000000	57748.000000
-2	16.000000 2.100000	1.600000 319.000000	1.700000 4000.000000	11089.000000
-1	16.000000 2.100000	1.600000 290.000000	1.700000 4400.000000	11087.000000

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

Iter	H G	W CT	A Sum of Squares CB	
0	16.000000 2.100000	1.600000 290.000000	1.700000 4000.000000	11087.000000
1	16.021797 2.124328	1.601851 289.601985	1.700000 4000.000000	10900.000000

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	6	7507206365.0	1251201060.8
Residual	28	10900.0	389.3
Uncorrected Total	34	7507217265.0	
(Corrected Total)	33	5445063896.7	

LONDON-WINDSOR

Motif Business

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval	
			Lower	Upper
H	16.021797	0.2056322	15.60058192	16.4430125
W	1.601851	0.8427013	-0.12433122	3.3280334
A	1.700000	0.8980219	-0.13950040	3.5395004
G	2.124328	0.3316602	1.44495812	2.8036982
CT	289.601985	443.2590205	-618.36605475	1197.5700252
CB	4000.000000	2112.9926096	-328.23624450	8328.2362445

Asymptotic Correlation Matrix

Corr	H	W	A	G	CT	CB
H	1	0.7103433	-0.352521	-0.54549	-0.369945	-0.352521
W	0.7103433	1	-0.473732	-0.976202	-0.141127	-0.473732
A	-0.352521	-0.473732	1	0.4579605	-0.72805	1
G	-0.54549	-0.976202	0.4579605	1	0.0566384	0.4579605
CT	-0.369945	-0.141127	-0.72805	0.0566384	1	-0.72805
CB	-0.352521	-0.473732	1	0.4579605	-0.72805	1

LONDON-WINDSOR

Motif Business

Non-Linear Least Squares DUD Initialization Dependent Variable VOY

DUD	CV	Sum of Squares
-2	-60.000000	107069352
-1	-66.000000	11203486

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

Iter	CV	Sum of Squares
0	-66.000000	11203486
1	-68.852856	500535
2	-69.606421	54821.000000
3	-69.928935	12198.000000
4	-69.996169	10843.000000

NOTE: Convergence criterion met.

Non-Linear Least Squares Summary Statistics Dependent Variable VOY

Source	DF	Sum of Squares	Mean Square
Regression	1	7507206422.0	7507206422.0
Residual	33	10843.0	328.6
Uncorrected Total	34	7507217265.0	
(Corrected Total)	33	5445063896.7	

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
CV	-69.99616909	0.03601696722	-70.069445684	-69.922892490

Asymptotic Correlation Matrix

Corr	CV
CV	1

LONDON-WINDSOR
Motif Business

Parameters	T for H0: Parameter = 0	R square
h	78.15	
w	1.90	
a	1.89	0.999
g	6.42	
cv	-1941.67	
ct	0.65	
cp		
cb	1.89	

Exemplaire n°9

ANNEXE 2

ESTIMATEURS STATISTIQUES

DU MODELE A UTILITE GENERALISEE

par MOTIF DE VOYAGE

MODELE A UTILITE GENERALISEE
Motif Non-Business

Résultats économétriques par régression linéaire

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	2	57.62257	28.81129	53.969	0.0001
Error	26	13.88017	0.53385		
C Total	28	71.50274			

Root MSE	0.73065	R-square	0.8059
Dep Mean	12.20270	Adj R-sq	0.7909
C.V.	5.98763		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > |T|
INTERCEP	1	6.694746	2.35793637	2.839	0.0087
lpop	1	0.867026	0.15835043	5.475	0.0001
LUTIL	1	1.634763	0.17556816	9.311	0.0001

Obs	Dep Var LTRAFNB	Predict Value	Std Err Predict	Residual	Std Err Residual	Student Residual
1	14.8220	13.6459	0.201	1.1761	0.703	1.674
2	11.9380	11.6661	0.149	0.2719	0.715	0.380
3	10.6700	10.0921	0.354	0.5778	0.639	0.904
4	14.5131	14.1834	0.237	0.3297	0.691	0.477
5	11.6471	13.3488	0.180	-1.7017	0.708	-2.403
6	13.6174	12.8575	0.252	0.7599	0.686	1.108
7	10.2478	11.4752	0.212	-1.2275	0.699	-1.755
8	11.1547	11.8278	0.189	-0.6731	0.706	-0.954
9	10.1066	11.1071	0.234	-1.0005	0.692	-1.445
10	12.5824	12.9591	0.221	-0.3766	0.696	-0.541
11	13.6940	12.6223	0.202	1.0717	0.702	1.526
12	11.0172	11.1029	0.174	-0.0858	0.710	-0.121
13	11.1816	10.8085	0.192	0.3731	0.705	0.529
14	10.9051	10.4818	0.214	0.4233	0.698	0.606
15	13.8197	13.6096	0.205	0.2101	0.701	0.300
16	10.7116	10.3744	0.253	0.3372	0.685	0.492
17	10.5716	11.1834	0.246	-0.6118	0.688	-0.889
18	10.5662	10.1317	0.281	0.4345	0.674	0.644
19	15.3842	15.1625	0.316	0.2217	0.659	0.336
20	14.3371	14.3604	0.252	-0.0234	0.686	-0.034
21	13.2243	13.0203	0.189	0.2039	0.706	0.289
22	11.9305	13.0060	0.257	-1.0756	0.684	-1.572
23	11.3311	11.0336	0.209	0.2976	0.700	0.425

MODELE A UTILITE GENERALISEE
Motif Non-Business

Résultats économétriques par régression linéaire

Obs	Dep Var LTRAFNB	Predict Value	Std Err Predict	Residual	Std Err Residual	Student Residual
24	13.3188	13.6691	0.319	-0.3503	0.657	-0.533
25	11.5587	10.8331	0.224	0.7256	0.696	1.043
26	13.3288	12.6478	0.260	0.6810	0.683	0.997
27	14.2785	14.1098	0.230	0.1687	0.693	0.243
28	11.1197	11.4837	0.154	-0.3640	0.714	-0.510
29	10.3004	11.0741	0.272	-0.7737	0.678	-1.141

Obs	-2-1-0 1 2	Cook's D
1	|***|	0.076
2	| |	0.002
3	|* |	0.083
4	| |	0.009
5	****| |	0.125
6	|** |	0.055
7	***| |	0.094
8	*| |	0.022
9	**| |	0.080
10	*| |	0.010
11	|*** |	0.064
12	| |	0.000
13	|* |	0.007
14	|* |	0.012
15	| |	0.003
16	| |	0.011
17	*| |	0.034
18	|* |	0.024
19	| |	0.009
20	| |	0.000
21	| |	0.002
22	***| |	0.116
23	| |	0.005
24	*| |	0.022
25	|** |	0.038
26	|* |	0.048
27	| |	0.002
28	*| |	0.004
29	**| |	0.070

Sum of Residuals	-9.23706E-14
Sum of Squared Residuals	13.8802
Predicted Resid SS (Press)	16.9828

MODELE A UTILITE GENERALISEE
Motif Business

Résultats économétriques par régression linéaire

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	2	48.85304	24.42652	32.928	0.0001
Error	21	15.57836	0.74183		
C Total	23	64.43140			

Root MSE	0.86129	R-square	0.7582
Dep Mean	10.72740	Adj R-sq	0.7352
C.V.	8.02891		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > |T|
INTERCEP	1	11.751624	3.30321672	3.558	0.0019
LPOP	1	0.796824	0.21655788	3.679	0.0014
LUTIL	1	1.318802	0.17118930	7.704	0.0001

Obs	Dep Var LTRAFB	Predict Value	Std Err Predict	Residual	Std Err Residual	Student Residual
1	13.7986	12.1665	0.276	1.6321	0.816	2.000
2	10.2026	9.6836	0.218	0.5190	0.833	0.623
3	10.5815	8.8832	0.414	1.6983	0.756	2.248
4	13.0449	13.0875	0.352	-0.0426	0.786	-0.054
5	9.6717	9.9794	0.280	-0.3077	0.815	-0.378
6	8.8278	10.4414	0.250	-1.6136	0.824	-1.958
7	9.3691	10.3746	0.251	-1.0055	0.824	-1.221
8	11.3762	11.7946	0.282	-0.4184	0.814	-0.514
9	9.3828	9.2120	0.257	0.1707	0.822	0.208
10	8.7765	9.2313	0.256	-0.4549	0.822	-0.553
11	9.9644	9.3012	0.252	0.6632	0.824	0.805
12	12.3128	12.3745	0.300	-0.0617	0.807	-0.076
13	9.5237	9.4226	0.323	0.1011	0.799	0.127
14	8.0475	9.4119	0.336	-1.3644	0.793	-1.720
15	13.3694	13.4030	0.387	-0.0336	0.770	-0.044
16	11.7621	11.3099	0.265	0.4523	0.819	0.552
17	11.7403	11.9240	0.331	-0.1837	0.795	-0.231
18	9.4845	9.4600	0.274	0.0245	0.816	0.030
19	12.3975	12.2318	0.373	0.1657	0.777	0.213
20	10.7031	9.4799	0.285	1.2231	0.813	1.505
21	12.4869	11.8417	0.353	0.6452	0.786	0.821
22	12.4632	12.8820	0.331	-0.4187	0.795	-0.527
23	9.2959	9.9662	0.200	-0.6703	0.838	-0.800
24	8.8747	9.5948	0.351	-0.7201	0.787	-0.915

MODELE A UTILITE GENERALISEE
Motif Business

Résultats économétriques par régression linéaire

Obs	-2-1-0 1 2	Cook's D
1	|**** |	0.152
2	|* |	0.009
3	|**** |	0.505
4	| |	0.000
5	| |	0.006
6	***| |	0.118
7	**| |	0.046
8	*| |	0.011
9	| |	0.001
10	*| |	0.010
11	|* |	0.020
12	| |	0.000
13	| |	0.001
14	***| |	0.177
15	| |	0.000
16	|* |	0.011
17	| |	0.003
18	| |	0.000
19	| |	0.003
20	|*** |	0.093
21	|* |	0.045
22	*| |	0.016
23	*| |	0.012
24	*| |	0.055

Sum of Residuals	1.065814E-14
Sum of Squared Residuals	15.5784
Predicted Resid SS (Press)	20.8730