US MICROPOLITAN AREA ECONOMIES IN THE 1990'S

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Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF PHILOSOPHY
July, 2012

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CHAPTER I

INTRODUCTION

The 1990's were a period of prosperity in the U.S. and a period of the longest peacetime economic expansion in U.S. history. This period also marked the beginning of the "new economy" with advances in Internet, information, telecommunications and other production technology that set the stage for a decade that was characterized by robust economic growth. Economic growth and the ensuing prosperity affected every corner of the U.S., with private non-farm employment growth remarkably even across the nation; employment growth was 22 percent for metropolitan counties, and 21.7 percent for non-metropolitan counties.

Many studies in the economic literature noticed a significant trend in migration to non-metropolitan counties during the decade. The potential advantages that non-metropolitan counties have over metropolitan counties for people are higher levels of natural amenities, and less urban dis-amenities, such as traffic congestion and crime. Non-metropolitan counties offer lower production costs and wages for firms and when the cost of distance is less than the savings in production costs and wages and the business operations do not require face time with consumers, then a non-metropolitan county can be a good business location.

This trend in non-metropolitan county growth prompted the Census Bureau to put forth a new classification of an urban area, called *micropolitan* area, which is based on the concept of urban clusters. Micropolitan statistical areas were first defined by the Office of Management and Budget (OMB) in 2000 as: "having at least one urban cluster with a population of at least 10,000 but less than 50,000. Under the standards, the county (or counties) in which at least 50 percent of the population resides within urban areas of 10,000 or more population, or that it contains at least 5,000 people residing within a single urban area of 10,000 or more population, is identified as a 'central county' (counties)[1]. Additional 'outlying counties' are included in the CBSA if they meet specified requirements of commuting to or from the central counties.

Since the definition of micropolitan areas is fairly new, there are relatively few studies in the economic literature on the growth of micropolitan areas in the 1990's. Therefore this study will analyze the sources of growth of micropolitan areas in the 1990's.

Economic Performance of Micropolitan Counties in the 1990's

There are 3,087 counties and county equivalents in the continental US and of those 662 are classified as micropolitan counties. Approximately 10.6 percent of the continental population lived in these micropolitan counties in 1990, in which 13.6 percent of the population 25 years "old and over" had Bachelor's, Master's or Professional degrees (compared to 20.3 percent nationwide). The population increased overall by 9.8 percent in micropolitan areas in the continental US during the decade, compared to 13.2 percent population growth nationwide. The population increased much faster in

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[1] http://www.census.gov/population/www/metroareas/aboutmetro.html

micropolitan areas located in the west and south, than in micropolitan areas located in the east and north portion of the country. The center of gravity for the micropolitan population steadily drifted from northeast to southwest in the 1990's (Mulligan & Vias, 2006).

The economic performance of micropolitan counties was good during the decade, with private non-farm employment increasing 22 percent (same as nationwide, but slightly more than the continental US). Furthermore, the employment/population ratio increased 3.2 percent points in micropolitan counties but declined 0.4 percent nationwide, which indicates that employment growth kept better pace with population growth in micropolitan areas. The manufacturing industries were moving out of metropolitan and rural counties into micropolitan counties during the decade, with manufacturing employment increasing 2.2 percent in micropolitan areas, but declining 2.9 percent nationwide.

Average wages in micropolitan areas increased 40 percent (versus 51.1 percent nationwide), but rent (includes imputed rent[2]) increased 54 percent (versus 46.6 percent nationwide). This could indicate that the migration to micropolitan areas was amenity-oriented since migrants to micropolitan areas were willing to accept less than national average growth in real wages and higher than the national average growth in rent in order to enjoy micropolitan amenities.

Purpose of the Study

Micropolitan areas are neither rural nor urban but can be thought of as emerging

[2] See section 5.1 for methodology

metropolitan areas. So far the economic literature has focused mostly on the general determinants of growth of micropolitan areas, which explains the growth of the average micropolitan area. Some micropolitan areas with average level independent variables experienced growth well above the typical micropolitan area in the 1990's.

The purpose of this study is to analyze population growth that can be explained by regression analysis and unexplained outliers of population growth of micropolitan areas nationwide. Explained growth refers to the portion of the population growth that is explained by the independent variables in the population regression. Unexplained population growth refers to the portion that is not explained by the independent variables and becomes part of the residual error of the population regression. An unexplained outlier of population growth is a micropolitan area with exceptional (or extremely poor) population growth that cannot be explained by the variables in the population regression.

The analysis in this study has two parts. The first part is an econometric study of micropolitan areas nationwide to identify the determinants of population growth of micropolitan areas overall (population growth explained by the regressions). The second part of the study will focus on examining the unexplained outliers of population growth of micropolitan areas nationwide. Systematic analysis will be applied in order to identify the factors that can explain the outlier performance. It is possible that the performance of micropolitan areas with outlier growth is due to factors such as economic policies not utilized elsewhere. This understanding is important in order for local governments to have effective policies that are conducive for economic growth.

Contribution

Economic research on micropolitan areas has not been as extensive as it has been for metropolitan areas since the definition of micropolitan areas is fairly recent. Furthermore, most of the economic literature has focused on the on the average micropolitan area. This study attempts to analyze both the explained and residual sources of economic growth of micropolitan areas. The contribution of this paper to economic literature is to increase understanding of micropolitan growth and to bridge the gap in the economic literature of the knowledge of the determinants of growth between the average micropolitan area and micropolitan areas with outlier performance.

CHAPTER II

REVIEW OF THE LITERATURE

Urban & Natural Amenities

Regional growth in the United States has historically been characterized by stark differences in growth between regions (Barro and Sala-i-Martin, 1991; Blanchard and Katz 1992). It is important for economic developers to understand the reasons for these differences in growth in order to have policies that are conducive to economic growth.

The growth in jobs and incomes in rural areas has lagged behind, partly because of a decline in economic opportunities in traditional rural industries (McGranahan and Beale, 2002). There is a significant body of literature that states that historically an important factor in interregional labor migration was asymmetric regional demand shocks and lengthy adjustments in wage differentials across regions, meaning that the migration was driven by demand shocks and economic opportunities (Blanchard and Katz 1992). Many studies therefore used local wages and employment growth as the major determinant of migration (Greenwood and Hunt, 1989).

Historically, regional growth and migration were thus labor demand driven. Migration was characterized by a step migration up the urban hierarchy with people moving to a bigger city/urban area for jobs (Plane et al, 2005).

This means that economic growth was driven by productivity. However, amenities gradually became more important in the migration decision as incomes increased-especially urban amenities (Graves, 1983). Bigger cities have more urban amenities than small cities and towns because urban amenities are usually scale dependent. Amenities can affect both quality of life and productivity. The household utility function includes amenities and amenities are therefore capitalized into factor prices (Roback, 1988 & 1982).

Many studies have found that “scale dependent” urban amenities are a normal good (Glaeser et al, 2000 and Roback, 1988) and important in migration of high skilled and educated people because these groups consume more of “scale dependent” urban amenities. Migration is therefore more likely to reflect the utility of the educated and highly skilled, rather than the low skilled (Bound and Holzer, 2000; Bartik, 1996 & 2001). This also means that cities with plentiful urban amenities are likely to have a larger portion of their labor force skilled and educated (Adamson et al, 2004).

It stands to reason that changes in the household evaluation of amenities can be a catalyst for supply sided migration. Starting in the 1970’s, empirical studies began to show an increase in migration to non-metropolitan areas (Wardwell & Brown, 1980). Improvements in the transportation infrastructure, environmental awareness, urban disamenities (crimes, congestion, etc), and increasing affluence were some of the factors that were the catalysts for this change (Chi and Marcouiller, 2011). This indicates that natural amenities became more important in the utility function for some households (especially for higher income households) and therefore the relative utility increased in high amenity areas for those households (Graves, 1979), resulting in non-metropolitan high amenity areas to become more attractive for migration.

This trend continued into the 1990's. Almost all the migration during the end of the 1990's was down the urban hierarchy and the most significant migration flows were from the top of urban hierarchy to the bottom of the hierarchy (Plane et al, 2005). This is consistent with supply side migration for natural amenities.

Supply side natural amenity migration analysis focuses on interregional differences in amenities and other specific location-based attributes. Numerous studies using amenity models and hedonic pricing models have found that amenities affect regional growth significantly (Chen and Rosenthal, 2008; Gabriel and Rosenthal, 2004; Clark et al, 2003; Deller et al, 2001; Gyourko and Tracy, 1991; Roback, 1982). The demand for natural amenities in the south have also possibly increased because of the invention of air conditioning and other technological advances (Mueser & Graves, 1995). One can calculate the implicit value of natural amenities, if the amenities are fully capitalized into the labor market and the housing market (Gabriel et al, 2003; Beeson and Ebberts, 1989; Roback, 1980;).

Distance can also affect the household amenity evaluation. Areas high in natural amenities tend to be further away from big cities and areas further away from big cities have less urban "scale dependent" household and production amenities. Two areas with the similar amenity variables can also have a different household amenity evaluation just because they differ in distance from a big city. There is evidence that preferences for more distant natural amenities are increasing. Partridge, et al. (2010) relate household amenities to distance in a study of counties in the 1990's in order to understand how distance of counties from cities across the urban hierarchy contributes to agglomeration and they found that preferences for natural amenities in rural, remote urban, and more remote metropolitan areas were increasing. Although natural amenities are important in population growth and migration, they are not all the same; a right mix of natural amenities (open land, water, forest and various type of topography) is most conducive to migration (McGranahan, 2007).

Some studies on non-metropolitan counties/areas have found that in order to increase economic growth in rural and micropolitan areas it is more important to attract people and increase the labor force rather than attract new firms and new jobs. That is because jobs follow people more than people follow jobs (Vias, 1999; Mulligan and Vias, 2006). The possible reason for that is that more workers usually mean higher density of skills which results in better labor matching, and better labor matching reduces training costs.

The question about how important natural amenities are in regional economic growth and migration is still debated. Some studies continue to find that population growth in some regions was due to rising productivity (Caselli and Coleman, 2001). Furthermore, rents are seldom included in regional migration studies (Mueser and Graves, 1995). Recently however, there is new research emerging supporting the hypothesis that rents and flexible housing supply can be more important for growth of regions than amenities or productivity (Glaeser, Gyourko, and Saks, 2006).

Outlier Studies

Loveridge et al. (2007) argue that in order to get a deeper understanding of economic phenomena, it is of value for economic researchers to study outliers. It is a standard practice in econometrics to accept models that explain only 20 to 30 percent of the total variance in the data and the results from these models are used to explain the determinants of growth in the respective areas. Therefore, a lot of variability remains unexplained in the data and the models are therefore susceptible to omitted variable bias, especially for outliers. They say that if a place is advancing more rapidly than other places with similar socio-demographics, geographic and industry characteristics, we ought to know why.

Their research supplements a study by Anderson, et al. (2007) in which they used 1990 and 2000 county data in a cross-sectional study to estimate the determinants of the growth in the proportion of working poor in the counties of the states in the North Central region of the U.S. In order to explain the performance of the outliers they systematically analyze the areas using economic, geographic and qualitative data (telephone surveys and interviews). They use the data to look for a group of factors that can explain the outlier performance.

They are successful to explain the difference in many outliers. For example they find Michigan’s Upper Peninsula they find that the difference between the above and underperformance outliers are mostly in attitudes and policy. The above performance outliers are poised to grow within, but the underperformance outliers are counting on external growth and quick fix options for local growth.

CHAPTER III

METHODOLOGY

The Roback Model

Charles Mills Tiebout (1956) observed and popularized the notion that people vote with their feet, relating migration to utilities. Sherwin Rosen (1979) expanded on this notion and related it to amenities and wages; and a few years later Jennifer Roback (1982) extended Rosen's analysis and came out with a comprehensive model that has been widely accepted and used in the economic literature for studies on quality of life and migration. This model, now usually called the "Roback model" shows the effect of interregional differences in amenities and productivity on wages and rents.

The Roback model assumes perfect competition. The regional value and cost functions are functions of wages, rents and amenities, which is a shifter: $V(w,r;,s)= k_v$ and $C(w,r;s)=k_c$. This means that there are interregional utility and unit cost equilibriums that have to be maintained in the long run.

The Roback model also assumes that people and firms sort themselves according to their preferences for amenities and other specific locational attributes. If amenities change then they will generate compensated variations in wages and rents through migration that will calibrate the region back into the interregional utility and cost equilibrium. Amenities are therefore a significant factor in explaining growth of regions.

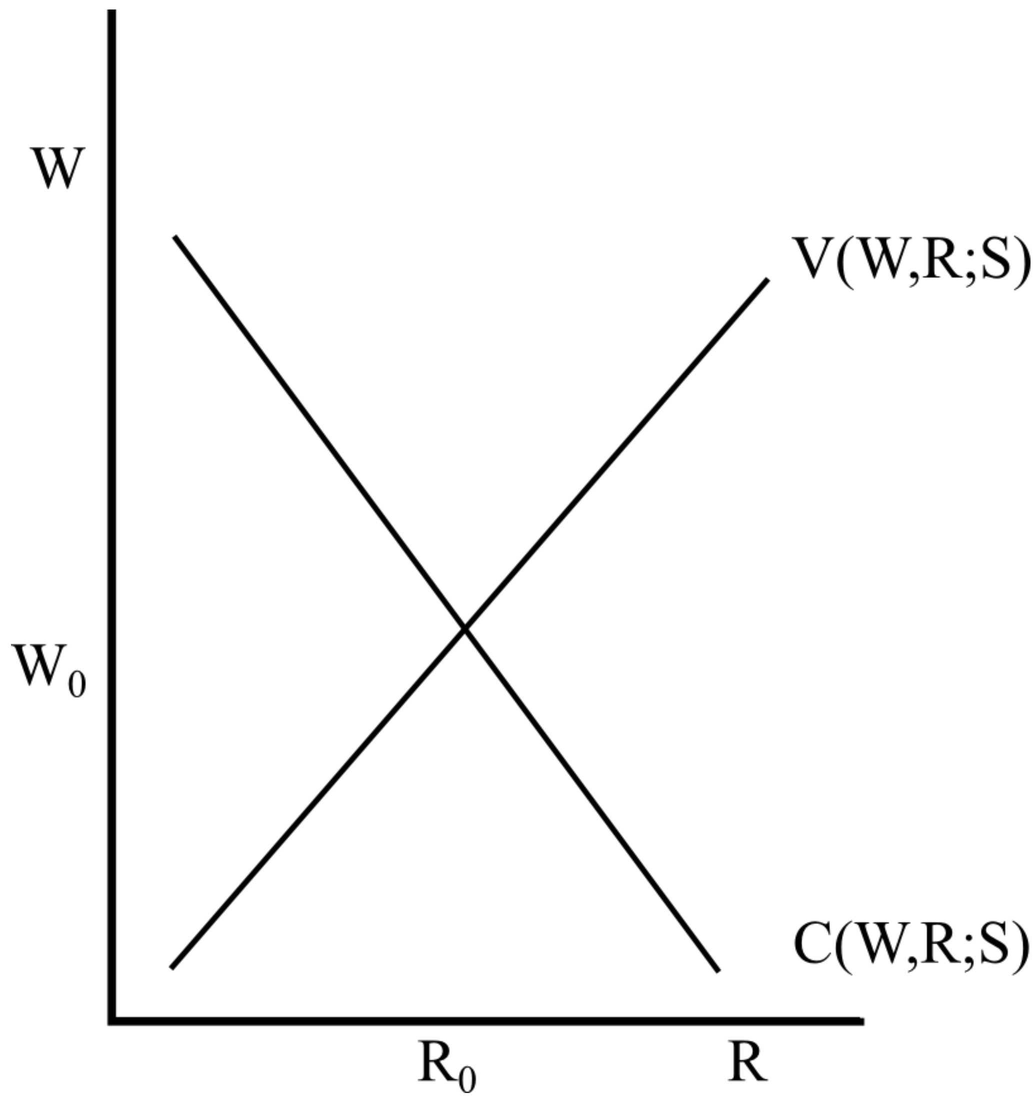
In the Roback model each individual maximizes his/her utility given the income constrains: max $U(w,l^c;s)$ subject to $(w+l = p*x+r*l^c)$ and firms produce a composite good X with a production function $x=f(n,l_p;s)$ where x=composite good, l^c is land used by households, p=price of the composite good, r=rental costs, l^p is land used in production and s = amenity. The utility function is increasing in wages, but declining in rents. The cost function is increasing in both wages and rents.

The assumptions for the model are[3]:

1. Workers have identical tastes and are completely mobile between regions.
2. Capital is identical, completely mobile between regions
3. Production technologies are the same between regions
4. Cities are characterized as bundles of attributes, which can affect household utility and costs of production.
5. Household utility is the same in each region
6. Unit costs of production are the same in all regions.

[3] Beeson & Ebberts (1989)

Figure 1. The Roback Model



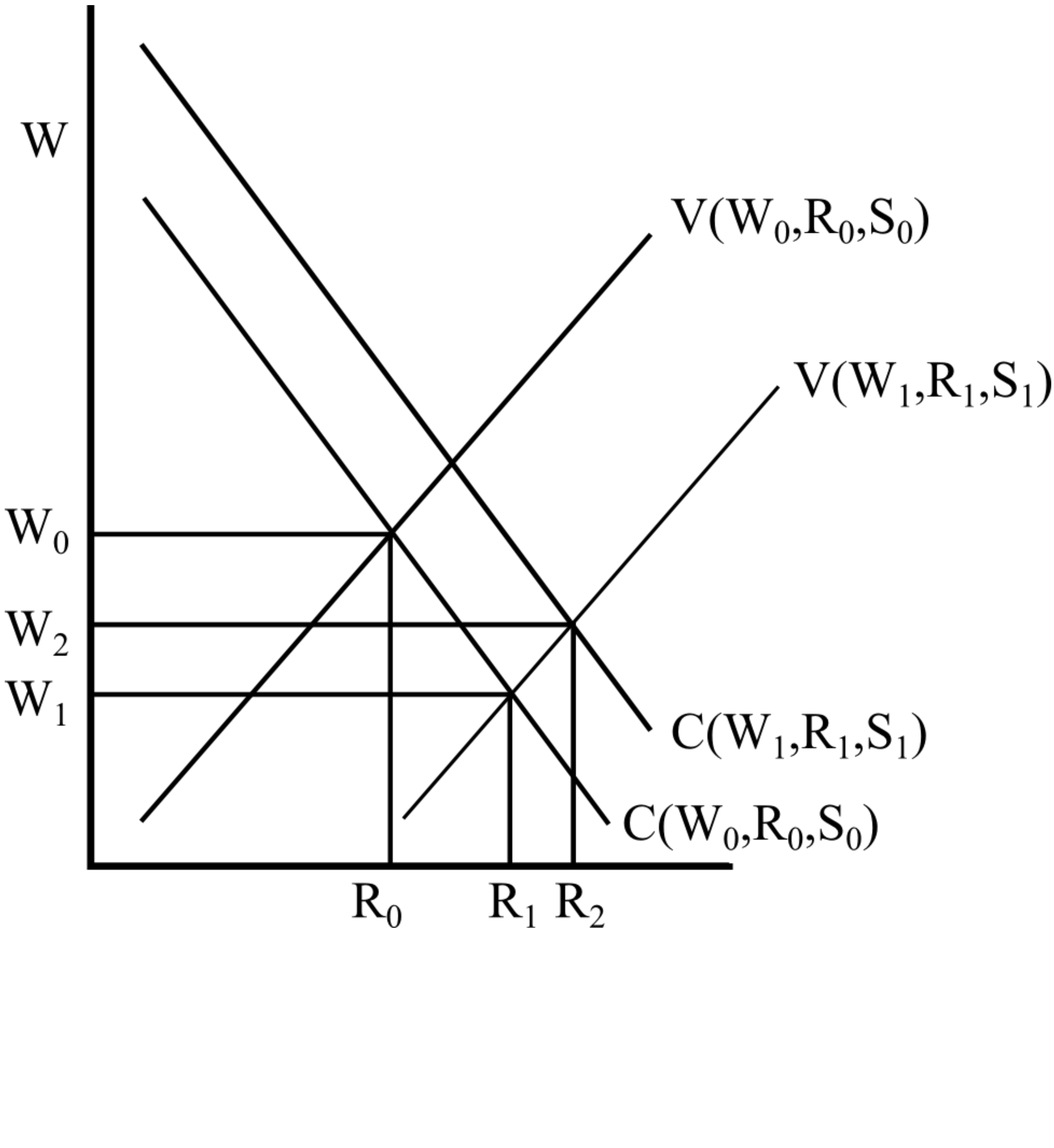
The value function (indirect utility function) for the region is V(w,r;s)=k, where k is the interregional utility equilibrium. The value function is upward sloping (Figure 1) because the function is written for a fixed utility k and therefore if wages increase, rents have to increase also to offset the increase in utility from increasing wages in order to stay on the same utility curve. If amenities increase then the utility curve shifts to the right representing that when the labor supply increases in the region, *ceterus paribus*, it will cause wages to decline and rents to increase.

The cost function for firms is C(w,r;s)=1 in which the interregional production cost equilibrium is normalized to 1. The cost function is downward sloping (Figure 1) because if wages increase then rents have to decrease to compensate in order to stay on the same cost curve. If productivity increases in the region then it will cause the cost function to shift right because now firms in the region can afford to pay both higher wages and higher rents.

Amenity and Productivity Differences Between Regions

Regions that have higher amenity than the region in Figure 1 will have their utility curves to the right of V(w,r;s) because they have lower wages and higher rents and regions that have less amenity will be on the left because they have higher wages and lower rents. Likewise, the cost curves for regions that are more productive than the region in the Figure I will be on the right of C(w,r;s) because firms in those regions can afford to pay higher wages and higher rents and regions that are less productive will be on the left.

Figure 2. Changes in the Level of Amenities or Productivity in the Roback Model



Changes in the Level of Amenity and/or Productivity

Say that the Region in Figure II has the value function $V(W_0, R_0; S_0)$. Now amenities increase in the region and the utility curve shifts to the right to $V(W_1, R_1; S_1)$. Now wages are less and rents are higher, but the utility is restored to the same level it was before. Likewise, say that the cost function for firms in the region is $C(W_0, R_0; S_0)$. Now productivity increases in the region and the curve shifts to the right to $C(W_1, R_1; S_1)$. Firms in the region are now paying higher wages and rents, but the per unit costs are the same. The equilibrium wages increased from W1 to W3 and rents increased from R0 to R3. The total change in each variable is the sum of the impact from the change in both amenities and productivity.

$$\frac{dw}{ds} = \left(\frac{dw}{ds}\right)^v + \left(\frac{dw}{ds}\right)^c = (w_0 - w_1) + (w_1 - w_2)$$

$$\frac{dr}{ds} = \left(\frac{dr}{ds}\right)^v + \left(\frac{dr}{ds}\right)^c = (r_0 - r_1) + (r_1 - wr_2)$$

The Roback model shows that amenities generate compensated variations in wages and rents through migration, largely because people sort themselves according to their preferences for amenities and other specific location-based attributes. Amenities are therefore a significant factor in explaining population growth of regions.

The Glaeser & Tobio Model

Glaeser & Tobio (2008), in a study on the population growth in the sunbelt states during the second half of the 20th century, noticed enormous growth in the housing supply since 1980 in the sunbelt but a slow pace of growth in housing prices relative to the rest of the country. This prompted them to hypothesize that the differences in local land use regulations between regions could have resulted in important differences in housing supply, which could have important consequences for population and employment growth.

Their model is based on the Roback model, in which growth of regions can be explained by differences in amenity and productivity. In the two sector Roback model, labor markets and housing markets always adjust perfectly so that if amenities change then wages and rents change to preserve the interregional utility equilibrium. Glaeser & Tobio expand the model by adding the "housing sector" to the model which was embedded into the Roback model but not modeled especially with equations describing the behavior of housing prices. Therefore the Glaeser & Tobio model also incorporates innovations in land and land prices in regional adjustment to an amenity shock and the model shows that the overall growth of regions can be explained by three effects on growth: Amenity growth effect; Productivity growth effect; and "Housing Supply" growth effect.

Regional output is produced subject to the following production function:

$$Y = AN^{\beta}K^{\gamma}Z^{1-\beta-\gamma} \tag{1}$$

in which "A" is an index on regional productivity," N" is the number of workers," K" is traded capital and "Z" is non traded capital (infrastructure, natural capital, etc). Maximizing the production function with respect to the firm's budget gives the following inverse labor demand function:

$$W = \beta\gamma^{\gamma/(1-\gamma)} A^{1/(1-\gamma)} N^{(\beta+\gamma-1)/(1-\gamma)} Z^{(1-\beta-\gamma)/(1-\gamma)} \tag{2}$$

in which "W" is wages, γ is the share of mobile capital inputs, and β is the share of labor inputs.

Regional households derive utility from the consumption of a traded good "C" (numeraire) and non-traded housing "H" according to the following utility function:

$$U = \phi C^{1-\alpha} H^{\alpha} \tag{3}$$

in which "ϕ" represents a utility shifter and α is the budget share of housing. Maximizing the utility function with respect to the household budget constraint gives the following indirect utility function:

$$V = \phi W Ph^{-\alpha} \alpha^{\alpha} (1-\alpha)^{(1-\alpha)} \tag{4}$$

in which W is wages and Ph is price of housing.

Housing suppliers use a fixed level of land "L" and structure on the land "h" in the production of housing. Housing suppliers maximize profits according to the profit function:

$$\pi = Ph(hL) - (\xi h^{\delta} L + P_L L) \tag{5}$$

in which Ph is the selling price of housing, "ξh^{δ}" is the cost of the housing structure (δ is the elasticity of the housing supply), and" P_L" is the price of land. Maximizing the profit function to find the indirect housing supply function (assuming that land is fixed) and setting it equal to housing demand gives the inverse housing supply function at the equilibrium:

$$Ph = \delta^{(1/\delta)} \xi h^{(1/\delta)} \left\{ \frac{\alpha N W}{L} \right\}^{(\delta-1)/\delta} \tag{6}$$

Taking the natural logs of the labor demand function, the indirect value function and the inverse housing supply function and solving simultaneously for static equilibrium gives us the static equilibrium equations:

$$\log N = K_N + \left\{ \frac{(\delta + \alpha - \delta\alpha) Log(A) + (1-\gamma)(\delta Log(\phi) + \alpha(\delta - 1)\log(L)}{(\delta(1-\beta-\gamma) + \alpha\beta(\delta - 1))} \right\} \tag{7}$$

$$\log W = K_W + \left\{ \frac{(\delta - 1)\alpha Log(A) - (1-\beta-\gamma)(\delta Log(\phi) + \alpha(\delta - 1)\log(L)}{(\delta(1-\beta-\gamma) + \alpha\beta(\delta - 1))} \right\} \tag{8}$$

$$\log Ph = K_P + \left\{ \frac{(\delta - 1) Log(A) + \beta Log(\phi) - (1-\beta-\gamma)\log(L)}{(\delta(1-\beta-\gamma) + \alpha\beta(\delta - 1))} \right\} \tag{9}$$

Glaeser and Tobio assume that the evolution in amenities, productivity and housing supply are governed by the following growth equations:

$$\log\left\{ \frac{A_{t+1}}{A_t} \right\} = K_A + \lambda_A S + \mu_A \tag{10}$$

$$\log\left\{ \frac{\phi_{t+1}}{\phi_t} \right\} = K_\phi + \lambda_\phi S + \mu_{A\phi} \tag{11}$$

$$\log\left\{ \frac{L_{t+1}}{L_t} \right\} = K_L + \lambda_L S + \mu_L \tag{12}$$

in which the variable S defines status.

If equations 7,8, and 9 are made into a dynamic system in which equations 10,11, and 12 describe the dynamic process, then it implies the following evolution of labor, wages and housing prices:

$$\log\left\{ \frac{N_{t+1}}{N_t} \right\} = K_{\Delta N} + \left\{ \frac{(\delta + \alpha - \delta\alpha)\lambda_A S + (1-\gamma)\delta\lambda_\phi S + (1-\gamma)\alpha(\delta - 1)\lambda_L S}{(\delta(1-\beta-\gamma) + \alpha\beta(\delta - 1))} \right\} + \mu_N \tag{13}$$

$$\log\left\{ \frac{W_{t+1}}{W_t} \right\} = K_{\Delta W} + \left\{ \frac{(\delta - 1)\alpha\lambda_A S + (1-\beta-\gamma)\delta\lambda_\phi S + (1-\beta-\gamma)\alpha(\delta - 1)\lambda_L S}{(\delta(1-\beta-\gamma) + \alpha\beta(\delta - 1))} \right\} + \mu_W \tag{14}$$

$$\log\left\{ \frac{Ph_{t+1}}{Ph_t} \right\} = K_{\Delta Ph} + \left\{ \frac{(\delta - 1)\lambda_A S + (\delta - 1)\beta\lambda_\phi S - (\delta - 1)(1-\beta-\gamma)\lambda_L S}{(\delta(1-\beta-\gamma) + \alpha\beta(\delta - 1))} \right\} + \mu_{Ph} \tag{15}$$

Where "$K_{\vartriangle N}$", "$K_{\vartriangle W}$", and "$K_{\vartriangle Ph}$" are regional specific constants, the terms in the bracket are regional specific coefficients (that can be estimated by regressions) and "μ_N"," μ_W", and " μ_{Ph} "are error terms.

If we define the estimated regression coefficients on the S (status) variables as:

$$b_N = \frac{(\delta + \alpha - \delta\alpha)\lambda_A + (1-\gamma)\delta\lambda_\phi + (1-\gamma)\alpha(\delta-1)\lambda_L}{(\delta(1-\beta-\gamma) + \alpha\beta(\delta-1))} \tag{16}$$

$$b_W = \frac{(\delta-1)\alpha\lambda_A + (1-\beta-\gamma)\delta\lambda_\phi + (1-\beta-\gamma)\alpha(\delta-1)\lambda_L}{(\delta(1-\beta-\gamma) + \alpha\beta(\delta-1))} \tag{17}$$

$$b_{Ph} = \frac{(\delta-1)\lambda_A + (\delta-1)\beta\lambda_\phi - (\delta-1)(1-\beta-\gamma)\lambda_L}{(\delta(1-\beta-\gamma) + \alpha\beta(\delta-1))} \tag{18}$$

then we can solve the system and define the Amenity, the Productivity and the "Housing Supply" effects λ_A, λ_ϕ and λ_L in terms of the regression coefficients (b_N , b_W , and b_{Ph}) .

$$\lambda_A = (1-\beta-\gamma)b_N + (1-\gamma)b_W \tag{19}$$

$$\lambda_\phi = \alpha b_{Ph} - b_W \tag{20}$$

$$\lambda_L = b_N + b_W - \left(\frac{\delta b_{Ph}}{\delta - 1}\right) \tag{21}$$

b_N , b_W , and b_{Ph} are regression coefficients which represent the Productivity, Amenity and "Housing Supply" effect that is explained by the population, wages and rent regressions.

Since this study sets out to also analyze the residual effects (unexplained by the regressions) - the unexplained Productivity, Amenity, and "Housing Supply" effects

" λ_A^U "," λ_ϕ^U "and " λ_L^U " are estimated with the following equations for the residuals:

$$\lambda_A^U = (1-\beta-\gamma)e_N + (1-\gamma)e_W \tag{22}$$

$$\lambda_\phi^U = \alpha e_{Ph} - e_W \tag{23}$$

$$\lambda_L^U = e_N + e_W - \left(\frac{\delta e_{Ph}}{\delta - 1}\right) \tag{24}$$

In summary the theoretical model is used to identify the incentive behind the explained and unexplained growth of micropolitan areas. The regression estimates ($\hat{b}$'s) are used to calculate the explained growth estimates (ŷ 's) for each micropolitan area. The (ŷ 's) are then decomposed into explained Amenity, Productivity and "Housing Supply" growth effects. The error terms are used like the (ŷ 's) in the model to explain the residual Amenity, Productivity and "Housing Supply effects.

The Empirical Model

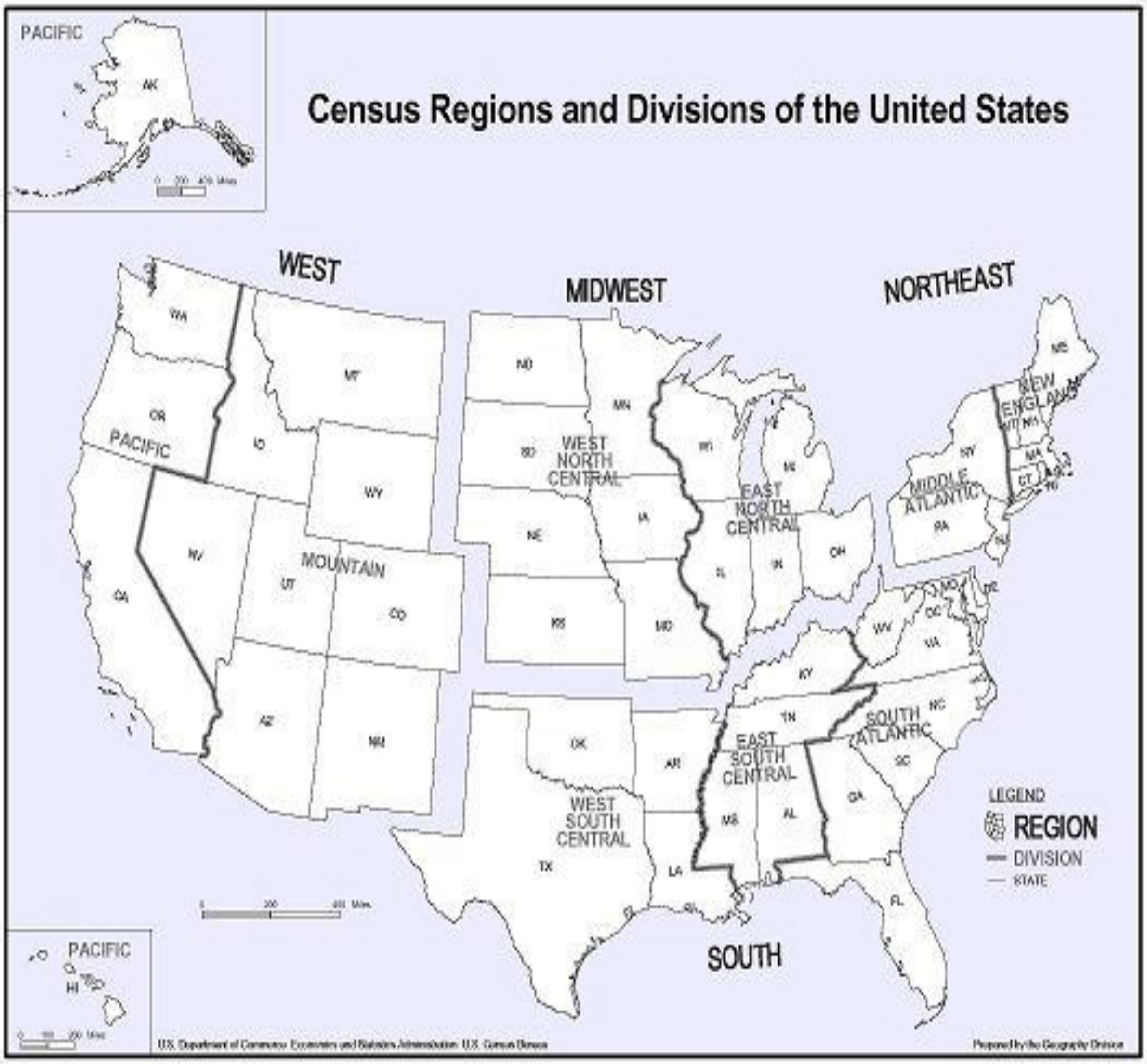
Three Hedonic Cross Sectional Regressions

In accordance with the economic literature (Glaeser & Tobio, 2008; Rickman & Rickman, 2011), three hedonic cross sectional regressions are run in order to obtain the regional specific estimates for the Amenity growth effect, Productivity growth effect and the "Housing Supply" growth effect: population growth regression; rent growth regression and wage growth regression. This paper uses the following vectors for each cross sectional regression using 1990 data to explain the growth of micropolitan areas in the 1990-2000 period:

$$Growth = \begin{bmatrix} Vector \\ of \\ Amenity \\ Variables \end{bmatrix} + \begin{bmatrix} Vector \\ of \\ Census \\ District \\ Variables \end{bmatrix} + \begin{bmatrix} Vector \\ of \\ Demographic \\ Variables \end{bmatrix} + \begin{bmatrix} Vector \\ of \\ Education \\ Variables \end{bmatrix} + \begin{bmatrix} Vector \\ of \\ Fiscal / Policy \\ Variables \end{bmatrix} + \begin{bmatrix} Vector \\ of \\ Economic \\ Variables \end{bmatrix} + \begin{bmatrix} Vector \\ of \\ Urbanization \\ Variables \end{bmatrix} + \varepsilon \quad (25)$$

The same variables were used for each regression except for the control variables (see Table II for complete data description). In the wage regression, the beginning rent is excluded; however, the beginning wages and population density are included. In the population regression, the beginning rent and beginning wages are excluded and the population density is included. In the rent regression, the beginning wages and population density are excluded, but beginning rent is included. The explained effects on the dependent variables not accounted for in the first six groups are accounted for by the Census division group, which measures the fixed effect that is attributed to the Census divisions. A map of the Census divisions can be seen in Figure III

Figure 3



Census Regions and Divisions of the United States
PACIFIC
AK
WEST
MIDWEST
NORTHEAST
SOUTH
PACIFIC
MOUNTAIN
WEST NORTH CENTRAL
EAST NORTH CENTRAL
NEW ENGLAND
MIDDLE ATLANTIC
SOUTH ATLANTIC
EAST SOUTH CENTRAL
WEST SOUTH CENTRAL
WA
OR
CA
NV
ID
MT
WY
UT
CO
AZ
NM
ND
SD
NE
KS
MN
IA
MO
WI
IL
MI
IN
OH
NY
PA
ME
NH
VT
MA
CT
RI
NJ
DE
MD
DC
WV
VA
KY
TN
NC
SC
GA
FL
AL
MS
AR
LA
OK
TX
PACIFIC
HI
LEGEND
REGION
DIVISION
STATE

Figure III Cont.

U.S. Census Bureau

Census Bureau Regions and Divisions with State FIPS Codes

Region I: Northeast

Division I: New England

Connecticut (09)
Maine (23)
Massachusetts (25)
New Hampshire (33)
Rhode Island (44)
Vermont (50)

Division 2: Middle Atlantic

New Jersey (34)
New York (36)
Pennsylvania (42)

Region 2: Midwest*

Division 3: East North Central

Indiana (18)
Illinois (17)
Michigan (26)
Ohio (39)
Wisconsin (55)

Division 4: West North Central

Iowa (19)
Kansas (20)
Minnesota (27)
Missouri (29)
Nebraska (31)
North Dakota (38)
South Dakota (46)

Region 3: South

Division 5: South Atlantic

Delaware (10)
District of Columbia (11)
Florida (12)
Georgia (13)
Maryland (24)
North Carolina (37)
South Carolina (45)
Virginia (51)
West Virginia (54)

Division 6: East South Central

Alabama (01)
Kentucky (21)
Mississippi (28)
Tennessee (47)

Division 7: West South Central

Arkansas (05)
Louisiana (22)
Oklahoma (40)
Texas (48)

Region 4: West

Division 8: Mountain

Arizona (04)
Colorado (08)
Idaho (16)
New Mexico (35)
Montana (30)
Utah (49)
Nevada (32)
Wyoming (56)

Division 9: Pacific

Alaska (02)
California (06)
Hawaii (15)
Oregon (41)
Washington (53)

**Prior to June 1984, the Midwest Region was designated as the North Central Region.*

Econometric Issues

Heteroskedasticity is often a problem in cross sectional data. Cross sectional data involves economic units of different sizes and it is likely that areas with larger economic units such as large firms or households have larger variation in the data because they have more members. This means that the variance (σ^2) in the variance-covariance matrix is not constant due to structural/spatial instability. If micropolitan areas close to larger metropolitan areas tend to have larger population, it could result in a larger variation in their economic units and the overall data.

This research study uses Ordinary Least Squares (OLS) model regressions and the consequences of spatial heteroskedasticity on the OLS estimates are incorrect standard errors and the variance-covariance matrix for the estimators is incorrect. The estimators are still unbiased but are not the best linear unbiased estimators (BLUE). In order to correct this problem, all the regressions in this study are ran using the White's adjusted variance in the variance-covariance matrix which has been widely accepted and used in economic literature.

Serial correlation can also be a problem in cross sectional data; although, unusual and typically not worrisome (Schmidt, 2005 P.225). If a data set includes both metropolitan and non-metropolitan county data then a situation can occur where unexplained population (wage or rent) growth in metropolitan counties can cause unexplained population (wage or rent) growth in adjacent non-metropolitan counties. Therefore, $cov(e_i e_j) \neq 0$ indicating spatial dependence and autocorrelation, which means that the estimators are not BLUE. However, the data in this study includes only micropolitan areas that are fairly well scattered across the nation and are not adjacent to each other.

In order to analyze the extent of the problem with autocorrelation, the error terms for all the micropolitan areas in this study were regressed on the Census divisions for all three regressions (population growth, rent growth and wage growth) in order to determine if the Census divisions were able to explain the distribution of the error terms. The results show that there is no significant spatial dependency in the error terms (see Table I).

Table I

Population-Group Regression

Dependent Variable: ehat Residual

Number of Observations Read 511

Analysis of Variance

F Value Pr > F <.0001

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	3.60E-13	0.88368	0	1
Division	1	-5.62E-14	0.16465	0	1

Table I Continued

Rent-Group Regression With

Dependent Variable: ehat Residual

Number of Observations Read 511

Analysis of Variance

F Value Pr > F <.0001

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-5.97E-13	1.20417	0	1
Division	1	8.45E-14	0.22437	0	1

Wages-Group Regression

The REG Procedure

Model: white

Dependent Variable: ehat Residual

Number of Observations Read 511

Analysis of Variance

F Value Pr > F <.0001

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-3.82E-13	1.02181	0	1
Division	1	6.68E-14	0.19039	0	1

Data Discussion and Description

A decision was made to focus on the micropolitan areas that are located in the 48 contiguous continental states using the definition that was set out by the Office of Management and Budget in December of 2003. Going by that classification and after adjustments, the study started out with 554 micropolitan areas that encompass 662 counties in the lower 48 states. The study used 1990 and 2000 Census data for micropolitan areas (as defined by the Office of Management and Budget as of June 6, 2003 - PHC-T-29). Due to the paucity of data collected for micropolitan areas, the study uses county level data that is aggregated into the Census micropolitan area definitions.

The median gross rent is a weighted average of the median gross monthly rent for rental housing (complete count) and imputed rent for owner occupied housing (complete count), with the shares of renter and owner occupied houses as the weights. The median gross rent for rental housing is defined as contract rent plus the estimated average monthly cost of utilities (utilities are included, because they are sometimes included in the rental payment and therefore the median contract rent would be a biased estimator on median rent). The median imputed rent for owner occupied housing is calculated by converting the median value of owner occupied housing (complete count) using a discount rate of 7.85% (Peiser & Smith, 1985; Blomquist et al., 1988; Gabriel et al., 2003). The median gross rent does not control for differences in housing quality between regions. Average wages were calculated by dividing private non-farm payroll by the private non-farm employment.

Dividing the independent variables into groups enables broader analysis of the causational importance and better understanding of the growth effects. The data were therefore divided into seven groups (see Table II):

1. Amenity variable group (includes only natural amenities);
2. Demographics variable group;
3. Education variable group;
4. Fiscal and Other Policy variable group;
5. Economic variable group;
6. Urbanization variable group;
7. Census Division variable group.

The Amenity variable group includes only natural amenities. The Amenity variable group includes: January and July temperatures; humidity; water area; and typography.

The Demographic variable group includes: births per 1000 population; percent of married households; percent of African, Hispanic and Asian Americans; and percent of people in the 25-49, 50-64 and 65 plus age groups.

The Educational variable group includes: percent of people with high school and “Bachelor’s, Master’s or Professional” degrees and the presence of a land-grant university to assess the education and accumulated knowledge in the area.

The Fiscal and Other Policy variable group includes: county and state property and sales taxes; county and state government spending on highway and safety; county spending on education; state spending on health and hospitals; state personal and corporation income taxes; and finally, right to work laws. All the state tax and spending variables are divided by the respective state personal income and all the county tax and spending variables are divided by the respective county personal income in order to access the effective burden of the policies to assure comparability between the different micropolitan areas.

The Economic variable group includes: percent jobs in farming; ag-service, forestry & fishing {from now on called ag-services&ff}; mining; construction; manufacturing; services; government and the unemployment rate to control for the business cycle. Median gross rent is added in the rent regression and the average wage in the wage regression to control for beginning rents and wages in these regressions.

The Urbanization variable group includes: the distance to nearest metropolitan area; and the incremental distance to the next metropolitan area with a population of 250 thousands, 500 thousands, and 1.5 million; and population density was included in the population and wage regressions to isolate the impact from industrial structure because industrial structure and population density can be correlated (Mueser & Graves, 1995).

The Census division variable group includes Census divisions 2-9.

Table II.
Description of Data and Data Groups

Amenity Variables	**Obs**	**Mean**	**Std Dev**	**Minimum**	**Maximum**	**Data Source**
Humidity	*511*	57.10	13.69	18	79	USDA
Land Surface Form Typography codes:	511	8.49	6.67	1	21	USDA
Mean January Temperature	511	33.08	11.69	3.1	63.4	USDA
Mean July Temperature	511	75.79	5.38	55.9	86.7	USDA
Water Sq. Miles	511	3.87	8.95	0.01	66.13	USA Counties Program: US Census

Demographic Variables	**Obs**	**Mean**	**Std Dev**	**Minimum**	**Maximum**	**Data Source**
Births per 1,000 population 1990	511	14.88	2.40	9.1	26.4	USA Counties Program: US Census
Percent African American 1990	511	8.71	13.87	0	64.6	USA Counties Program: US Census
Percent Asian American 1990	511	0.52	0.48	0.04	3.57	USA Counties Program: US Census
Percent Hispanic American 1990	511	4.31	10.94	0.2	84.4	USA Counties Program: US Census
Percent of Married Households 1990	511	59.39	4.68	42.5	73.3	USA Counties Program: US Census
Percent of Population in over 65 or Older 1990	511	14.51	2.88	5.1347	31.3137	USA Counties Program: US Census
Percent of Population in the 25-49 Age Group 1990	511	34.51	2.35	26.1	46.7	USA Counties Program: US Census
Percent of Population in the 50-64 Age Group 1990	511	13.66	1.57	7.8099	20.9226	USA Counties Program: US Census

Education Variables	Obs	Mean	Std Dev	Minimum	Maximum	Data Source
Educational attainment - persons 25 years and over - Bachelor’s, Master’s, or Professional degree 1990	511	13.27	4.50	5.5	36.3	USA Counties Program: US Census
Educational attainment - persons 25 years and over - percent high school graduate or higher 1990	511	69.75	8.68	42.9	89.1	USA Counties Program: US Census
Pretense of a Land Grant University	511	0.03	0.17	0	1	Association of Public and Land Grant Universities
Fiscal and Other Policy Variables	**Obs**	**Mean**	**Std Dev**	**Minimum**	**Maximum**	**Data Source**
Local Per Capita Sales Tax Revenues 1992	511	0.00	0.00	0	0.023533	USA Counties Program: US Census
Local Per Capita Spending on Health Care 1992	511	0.01	0.00	0.00435	0.015885	Economic Census 1992
Local Per Capita Spending on Highway Infrastructure 1992	511	0.01	0.00	0.000622	0.024515	Economic Census 1992
Local Per Capita Spending on Public Education 1992	511	0.05	0.01	0.02926	0.13888	Economic Census 1992
Local Per Capita Spending on Public Safety 1992	511	0.01	0.00	0.000804	0.021972	Economic Census 1992
Local Per Captia Property Tax Revenues 1992	511	0.03	0.01	0.00371	0.09937	USA Counties Program: US Census
Right to Work State	511	-	-	0	1	Dr Rickman
State Per Capita Spending on Highway Infrastructure 1992	511	0.01	0.00	0.007904	0.039311	Economic Census 1992
State Per Capita Spending on Public Safety 1992	511	0.01	0.00	0.007207	0.021361	Economic Census 1992

State Per Captia Corporate Income Tax Revenues 1992	511	0.00	0.00	0	0.0097879	Economic Census 1992
State Per Captia Income Tax Revenues 1992	511	0.02	0.01	0	0.039943	Economic Census 1992
State Per Captia Property Tax Revenues 1992	511	0.03	0.01	0.010091	0.060725	Economic Census 1992
State Per Captia Sales Tax Revenues 1992	511	0.02	0.01	0	0.051105	Economic Census 1992
Economic Variables	**Obs**	**Mean**	**Std Dev**	**Minimum**	**Maximum**	**Data Source**
Average Wages 1990	511	16.88	2.38	10.4361	29.0493	USA Counties Program: US Census
Employment in Ag-Service: Percent of Total Jobs	511	1.20	1.11	0	12.6	USA Counties Program: US Census
Employment in Farming: Percent of Total Jobs	511	6.26	3.64	0.4	20.8	USA Counties Program: US Census
Jobs in Construction: Percent of Total Private Non Farm Jobs	511	4.77	1.78	0	14.9	USA Counties Program: US Census
Jobs in Government: Percent of Total Employment	511	16.87	7.46	6.9	60.8	USA Counties Program: US Census
Jobs in Manufacturing: Percent of Total Private Non Farm Jobs	511	18.35	10.25	1.3	47.6	USA Counties Program: US Census
Jobs in Manufacturing: Percent of Total Private Non Farm Jobs	511	21.08	5.33	0	37.2	USA Counties Program: US Census
Jobs in Mining: Percent of Total Private Non Farm Jobs	511	1.54	3.35	0	25.2	USA Counties Program: US Census
Mean Gross Rent 1990	511	325.60	86.99	176.915	906.013	USA Counties Program: US

						Census
The Unemployment Rate	511	7.07	2.39	1.9	15.7	USA Counties Program: US Census
Urbanization Variables	**Obs**	**Mean**	**Std Dev**	**Minimum**	**Maximum**	**Data Source**
Distance to Next Metropolitan area	511	78.42	45.92	17.011	334.945	Partridge et al, 2010
Incremental Distance to the Next Metropolitan Area with a Population of 1.5 million or less	511	98.86	117.95	0	532.302	Partridge et al, 2010
Incremental Distance to the Next Metropolitan Area with a Population of 500,000 or less	511	34.42	55.11	0	362.772	Partridge et al, 2010
Incremental Distance to the Next Metropolitan Area with a Population of 250,000 or less	511	47.16	79.87	0	601.043	Partridge et al, 2010
Population Density 1990	511	62.38	41.68	1.787	265.301	USA Counties Program: US Census
Census Division Variables	**Obs**	**Mean**	**Std Dev**	**Minimum**	**Maximum**	**Data Source**
Census Divisions 2-9	511	-	-	0	1	US Census

A micropolitan area can be an outlier of growth because of two reasons:

1. Micropolitan areas with average level independent variables experiencing growth well above/below the typical micropolitan area.
2. Micropolitan areas with outlier independent variables

The scope of this study includes the first reason, but not the second. Therefore the data were also purged of micropolitan areas with extreme outliers in the independent variables in order to be able to focus on outliers of micropolitan growth with average level independent variables.

<u>Purging of the Outliers using the Method of the Hat Matrix</u>

Analysis on the raw data revealed a significant variation in the data for the independent variables. A decision was made to purge the areas with disproportionate values of the independent variables, using the method of the Hat Matrix, in order to be able to focus on micropolitan areas that had outlier growth in the dependent variables, but more average level independent variables.

The regression estimator b is based on both the X variables and the Y variable

$$b=(x^T x)^{-1} x^T y \qquad (26)$$

and the hat matrix is defined as

h = $(x^T x)^{-1} x^T$

(27)

$$b=h*y \qquad (28)$$

Therefore, the X variables in the hat matrix multiplied with dependent variable yield the regression estimate. On way to purge the disproportionate X variables is based on leverage analysis on the Hat Diagonal Matrix (Belsley, Kuh, and Welsch, 1980). This method measures the influence of each observation on the regression estimates. The proposed cutoff for the influence statistic is:

$$2*\left(\frac{p}{n}\right) \tag{29}$$

where "p" is number of parameters and "n" is the number of observations.

Purging of the Outliers using the Method of k-Means Clustering

The method of "k-means" clustering was also used to identify outliers of micropolitan growth in the independent variables. The "k-means" clustering method allocates all the data points in a set into k clusters in a way that minimizes the Euclidean distance between the average in the cluster (cluster center) and each point in the cluster[4]. This is an evolutionary algorithm which initially selects the k cluster means randomly from the data points and then it selects the closest points from the data to the k-cluster means based on the Euclidean distance and then the cluster mean is recomputed. These steps are repeated until all the data points are allocated to clusters and reallocation of data between clusters is not going make any significant difference. The Fastclus procedure in SAS was used to do "five centroid" cluster analysis and micropolitan areas with extreme above and below growth performance in the dependent variables were identified for each dependent variable. Most of the outliers identified corresponded to outliers that were identified by the "Hat matrix" method.

[4] http://support.sas.com/documentation/cdl/en/statugcluster/61777/PDF/default/statugcluster.pdf

Final Data and Variance Analysis

The study started out with 554 micropolitan areas. After analyzing the data, there were four observations with data problems that were removed. The "Hat Matrix" method resulted in the purging of 40 observations and an additional three areas of observations were purged due to being extreme outliers in the cluster analysis.

Therefore, data from 511 micropolitan areas were used for the study. This purging of disproportionate "X" variables resulted in a reduction of total variance of 25.2 percent in the population growth regression, 9.1 percent in the rent growth regression, and 20.3 percent in the wages growth regression.

The data still show significant variation in the dependent variables as shown in Table III: population growth ranged from negative 17.1 percent to 73.6 percent during the period; negative 2.8 percent to 133.7 percent for rent (mean gross rent); and negative 2.9 percent to 97.9 percent for wages.

Table III.

Variance Analysis of the Dependent Variables

Dependent Variables	N	Min	Max	Mean	STD
Pop Growth	511	-17.1%	73.6%	9.3%	11.2%
Rent Growth	511	-2.8%	133.7%	54.6%	19.2%
Wages Growth	511	-2.9%	97.9%	40.7%	11.1%

Variance Decomposition of the R^2 - Dominance Analysis

It is of value to know the usefulness of the different variable groups for the dependent values and to find out which group is most important, the second most important, etc. Analyzing bivariate correlations between the dependent variables and the independent variables is not going to suffice because the bivariate correlation ignores other variables in the regression.

In order to assess the contribution of the different variable groups to the explained behavior in the dependent variable it is possible to use some type of variance decomposition method to find out how big a portion of the total explained variation in the population, rent and the wage regressions is explained by the different variable groups. One way to do that is with dominance analysis based on the explained variance. The ideal method should meet three criteria: importance of a predictor should be defined in terms of a variance reduction error; the method should allow for direct comparison, rather than inferred measures; and importance of a predictor should reflect the direct effect (when considered by itself), total effect (conditional on all other variables) and the partial effect (conditional on a subset of predictors). Dominance analysis satisfies all these requirements and the results are transitive relationships and are not affected by any elimination of a subset of predictors from the model (Budescu, 1993).

However, complete dominance cannot always be established between every pair of predictors. Complete dominance cannot be established if an additional contribution of a predictor to the R^2 is greater than other predictors for some but not all of the subset models (X1 might dominate X2 independently, but X2 might contribute more when you add it to X1 than if you add X1 to X2). In that case, one can use "conditional dominance" or "general dominance." Conditional dominance analysis focus on dominance between the different groups of the subset models and general dominance is based on the averaging of these conditional values. General dominance is therefore found by adding and averaging the conditional values and then the additional average contribution can be compared and it can be ordered. A predictor will generally dominate another predictor when it has a higher averaged additional contribution to the R^2 and therefore accounts for a bigger portion of average explained variation of the dependent variable (Azen and Budescu, 2003).

Complete dominance and conditional dominance analysis are outside the scope of this study and therefore general dominance analysis was undertaken to analyze the contribution of the different variable groups to explained variance in the data. With seven variable groups there are (2^7-1) = 127 possible different statistical combinations possible for the variable group regressions {combination (7,0)….combination (7, 6)}, which are the base regressions that have to be run to compare to. Furthermore, there are 63 additional regressions that have to be run for each group to find out the additional contributions to R^2 when the respective variable group is added to the base regressions or a total 441 additional contribution regressions. Therefore, a total of 1450 regressions were run for all three models (population, wages and rent) for the general dominance analysis.

Tables IV, V, & VI show the regression algorithm used for the variance decomposition to determine the order of general dominance for the variable groups in the population regression. Table IV shows a generic example of the calculations necessary to determine contributions for the X1 group (the Amenity variable group) for each line in the possible 64 variable group combinations (tables with complete results for all groups in all regressions are listed in Appendix A). The variables in Table IV refer to: X1 = the Amenity variable group; X2 = the Demographics variable group; X3 = the Education variable group; X4 = the Fiscal and Other Policy variable group; X5 = the Economic variable group; the X6 = Urbanization variable group; and the X7 = Census division variable group (see Table II for description of the data).   Table V shows how the average contribution was found for each of the seven combination sub-groups (k=0..k=6) which then are also summed up and averaged. The average contribution to the R^2 by the X1 group is {(0.120+ 0.097+ 0.074+ 0.056+ 0.044+ 0.035+ 0.027)/7}= 0.065.

Similar regressions and calculations were run to get the contribution of each of the groups. Table VI shows how the average contribution to the R^2 by each variable group is then summed up and equals 0.514 in the table. The relative contribution/general dominance for each variable group is then found by dividing the average R^2 of each sub group into the total sum of R^2 for all groups (Budescu, 1993). We can see that the X1 variable group has an average contribution to the explained variation in the population regression of 0.065 points, accounting for 12.6 percent of explained variation in the population data. The results from the dominance analysis will be analyised in detail the next section.

Finally, this study used the adjusted R^2 for the general dominance analysis rather than R^2. That is because the adjusted R^2 is preferable for decomposition when you have many variables and different number of variables in some groups between the models that are being compared. The adjusted R^2 is a better estimate of the population R^2, and that is what the R^2 should be estimating (Wooldridge, 2005 p. 207).

Table IV. Generic Variance Decomposition Stage I – Regression Algorithm
Generic Example **Regressions and Calculations to Find the Average Contribution to the R^2 by the X1 Group**
X1
X2 - X2 X1
X3 - X3 X1
X4 - X4 X1
X5 - X5 X1
X6 - X6 X1
X7 - X7 X1
X2 X3 - X2 X3 X1
X2 X4 - X2 X4 X1
X2 X5 - X2 X5 X1
X2 X6 - X2 X6 X1
X2 X7 - X2 X7 X1
X3 X4 - X3 X4 X1
X3 X5 - X3 X5 X1
X3 X6 - X3 X6 X1
X3 X7 - X3 X7 X1
X4 X5 - X4 X5 X1
X4 X6 - X4 X6 X1
X4 X7 - X4 X7 X1
X5 X6 - X5 X6 X1
X5 X7 - X5 X7 X1
X6 X7 - X6 X7 X1
X2 X3 X4 - X2 X3 X4 X1
X2 X3 X5 - X2 X3 X5 X1
X2 X3 X6 - X2 X3 X6 X1
X2 X3 X7 - X2 X3 X7 X1
X2 X4 X5 - X2 X4 X5 X1
X2 X4 X6 - X2 X4 X6 X1
X2 X4 X7 - X2 X4 X7 X1
X2 X5 X6 - X2 X5 X6 X1
X2 X5 X7 - X2 X5 X7 X1
X2 X6 X7 - X2 X6 X7 X1
X3 X4 X5 - X3 X4 X5 X1
X3 X4 X6 - X3 X4 X6 X1
X3 X4 X7 - X3 X4 X7 X1
X3 X5 X6 - X3 X5 X6 X1
X3 X5 X7 - X3 X5 X7 X1
X3 X6 X7 - X3 X6 X7 X1
X4 X5 X6 - X4 X5 X6 X1
X4 X5 X7 - X4 X5 X7 X1
X4 X6 X7 - X4 X6 X7 X1
X5 X6 X7 - X5 X6 X7 X1
X2 X3 X4 X5 - X2 X3 X4 X5 X1
X2 X3 X4 X6 - X2 X3 X4 X6 X1
X2 X3 X4 X7 - X2 X3 X4 X7 X1
X2 X3 X5 X6 - X2 X3 X5 X6 X1
X2 X3 X5 X7 - X2 X3 X5 X7 X1
X2 X3 X6 X7 - X2 X3 X6 X7 X1
X2 X4 X5 X6 - X2 X4 X5 X6 X1
X2 X4 X5 X7 - X2 X4 X5 X7 X1
X2 X4 X6 X7 - X2 X4 X6 X7 X1
X2 X5 X6 X7 - X2 X5 X6 X7 X1
X3 X4 X5 X6 - X3 X4 X5 X6 X1
X3 X4 X5 X7 - X3 X4 X5 X7 X1
X3 X4 X6 X7 - X3 X4 X6 X7 X1
X3 X5 X6 X7 - X3 X5 X6 X7 X1
X4 X5 X6 X7 - X4 X5 X6 X7 X1
X2 X3 X4 X5 X6 - X2 X3 X4 X5 X6 X1
X2 X3 X4 X5 X7 - X2 X3 X4 X5 X7 X1
X2 X3 X4 X6 X7 - X2 X3 X4 X6 X7 X1
X2 X3 X5 X6 X7 - X2 X3 X5 X6 X7 X1
X2 X4 X5 X6 X7 - X2 X4 X5 X6 X7 X1
X3 X4 X5 X6 X7 - X3 X4 X5 X6 X7 X1
X2 X3 X4 X5 X6 X7 - X2 X3 X4 X5 X6 X7 X1
Total of 64 Lines

Table V.
Generic Variance Decomposition Stage II –
Average Contribution to the R^2 Calculations by Each Variable Group

Combination	Number Regr	Base Regr	Adj. R2	Contribution Regression	Adj R2	Additional Contribution Economic
K=0	1		0	X1	0.120	0.120
K=1		X2 :	0.100 :	X2 X1 :	0.192 :	0.092 :
K=1 Avg. (sum/6)	6					0.097
K=2		X2 X3 :	0.212 :	X2 X3 X1 :	0.295 :	0.084 :
K=2 Avg. (sum/15)	15					0.074
K=3		X2 X3 X4 :	0.342 :	X2 X3 X4 X1 :	0.36 :	0.36 :
K=3 Avg. (sum/20)	20					0.056
K=4		X2 X3 X4 X5 :	0.394 :	X2 X3 X4 X5 X1 :	0.435 :	0.435 :
K=4 Avg. (sum/15)	15					0.044
K=5		X2 X3 X4 X5 X6 :	0.407 :	X2 X3 X4 X5 X6 X1 :	0.443 :	0.443 :
K=5 Avg. (sum/6)	6					0.035
K=6	1	X2 X3 X4 X5 X6 X7	0.483	X2 X3 X4 X5 X6 X7 X1	0.51	0.027
Total/Overall Avg	64	(0.120+0.097+0.074+0.056+0.044+0.035+0.027)/7				0.065

Table VI **Generic Variance Decomposition Stage III**		
Avg. Contribution	Simple Average R^2	Percent
X_1	0.065	12.6%
X_2	0.086	16.8%
X_3	0.035	6.7%
X_4	0.087	17.0%
X_5	0.114	22.2%
X_6	0.022	4.3%
X_7	0.105	20.4%
Sum	0.514	100%

Beta Coefficient Analysis

Dominance analysis on the variable groups only tells us the relative importance of the respective variable groups. It is also of value to access the size and statistical significance of the coefficients to compare their relative importance within the respective variable groups.

Achen (1982) states that " β_j ,, measures the potential influence of the variable and is independent of the sample; " $\beta \bar{X}$ "(where $\bar{X}_j$ is the mean of the jth variable) measures the level importance and is dependent on the sample; and $\frac{\beta_j \sigma_j}{\sigma_y}$ (the Beta coefficient) measures the dispersion/relative importance because it is adjusted for the scale of the data.

The regular OLS/GLS regression coefficients are sensitive to scale of the data and the standardized "Beta" coefficients were therefore used to analyze the relative importance of the different coefficients within each variable group. The impact is measured in terms of standard units rather than the original units of the independent and dependent variables. By doing that, all the variables are in the same equivalent standard deviation units and it brings out their relative importance (Achen, 1982). All the Beta coefficients from the 64 possible combinations for each variable in each group were added up and averaged to get the average standardized impact from each variable within the groups (The calculation of all the average Beta coefficients are listed in Appendix B).

There are mostly two types of problems that have been discussed with the Beta coefficients (from now on they are sometimes referred to as BC) in the economic literature.

Firstly, some variables do not change a whole lot over time, while others do[5]. That is not a major obstacle here because this study uses cross-sectional data. Secondly, some economic literature suggests that if there are positive and negative coefficients that are averaged, then there can be problems with the average impact and perhaps the directional effect (Azen and Budescu, 2009 p.304). Analyses were undertaken to find out the extent of alternate signs in all three models and to evaluate if there was a problem with averaging due to alternating positive/negative coefficients. The problem was found to be trivial because the alternating positive/negative coefficients were mostly in groups with little relative importance in the respective models and overall alternating signs only happened about 12.2 percent of the time.

[5] Beta coefficients have been criticized because some variables are not possible to change while others are easy to change (Larry D. Schroeder, David L. Sjoquist, Paula E. Stephan. Understanding regression analysis, Sage Publications, 1986, ISBN 0-8039-2758-4, p.31-32.

CHAPTER IV

FINDINGS

Regression Results

This chapter reviews the findings and analyses the viability of the regression results. The findings are also analysed in detail in the context of general dominance analysis and the Glaeser-Tobio model.

The Population Regression

The population growth regression included 50 variables and had an R^2 of 55.8 percent. A total of 23 variables were significant at the 5 percent level and an additional 3 at the 10 percent level (see Table VII). The following variables induced population growth in micropolitan areas during the period: January temperatures, percent Bachelor's degrees, birth rates, percent of 50-64 age group, percent married households, per capita county highway spending, per capita spending on public education and Census divisions 3-6 & 8, (East North Central, West North Central, South Atlantic, East South Central and Mountain divisions) which are all significant at the 5 percent level. Typography (1=flat plains, the higher number the more hills and mountains), percent of farm jobs and Census division 7 (West South Central division) are significant at the 10 percent level).

The fiscal variables should be interpreted cautiously. Taxes and government spending should be considered together because everything else being equal then taxes can be expected to have a negative impact on the attractiveness of an area wheras government spending is expected to have an positive impact. All the fiscal variables in the model should also be interpreted relative to the fiscal variables that are not in the model. Positive coefficients of the fiscal variables in the population regression in the context of the Glaeser-Tobio model framework contribute to local amenities, only if it also has the impact to increase rents and reduce wages (causing a decline in real wages).

These variables decreased population growth: July temperatures, humidity, distance to next metropolitan area regardless of size, incremental distance to the next metropolitan area with a population of 250,000 or less, percent of agservice jobs, mining and manufacturing jobs, percent of Hispanics, county spending on safety, state spending on hospitals and the state income tax burden.

TABLE VII

Results for Population Regression

Dependent Variable: GrPop90-00

Number of Observations Read 511

Analysis of Variance

F Value Pr > F <.0001

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-36.47122	25.51977	-1.43	0.1536
TempJan	1	0.5659	0.11155	5.07	<.0001
TempJuly	1	-0.64762	0.19694	-3.29	0.0011
Humidity	1	-0.20592	0.08001	-2.57	0.0104
Water	1	0.06641	0.04978	1.33	0.1829
Typography	1	0.16507	0.08574	1.93	0.0548
Dist to next Metro	1	-0.02659	0.01065	-2.5	0.0129
incmetgt250k	1	-0.01723	0.00645	-2.67	0.0078
incmetgt500k	1	-0.00336	0.00769	-0.44	0.6623
incmetgt1500k	1	-0.00123	0.00471	-0.26	0.7939
D2	1	5.04378	3.79443	1.33	0.1844
D3	1	9.93344	3.50554	2.83	0.0048
D4	1	10.57837	3.83796	2.76	0.0061
D5	1	18.05848	3.94865	4.57	<.0001
D6	1	10.92284	4.12424	2.65	0.0084
D7	1	7.95805	4.29385	1.85	0.0645
D8	1	14.78795	5.3179	2.78	0.0056
D9	1	1.9461	5.67182	0.34	0.7317
PopDens90	1	-0.00095755	0.01442	-0.07	0.9471
LandGrantU	1	0.54496	2.234	0.24	0.8074
PcFarmJobs90	1	0.3111	0.17017	1.83	0.0682
PcAgServ&ffJobs90	1	-1.2743	0.44447	-2.87	0.0043
PcMinJobs90	1	-0.95969	0.16074	-5.97	<.0001
PcConstJobs90	1	0.39792	0.2578	1.54	0.1234
PcMfgJobs90	1	-0.19688	0.07875	-2.5	0.0128
PcServsJobs90	1	0.11551	0.10111	1.14	0.2538
PcGovJobs90	1	-0.1347	0.09807	-1.37	0.1703
PcBA90	1	0.88382	0.19945	4.43	<.0001
PrcntHsch	1	-0.03016	0.11761	-0.26	0.7977
PcUnempl90	1	-0.28651	0.27988	-1.02	0.3065
Births90	1	0.72105	0.24772	2.91	0.0038
PcPopBlack90	1	0.01306	0.0658	0.2	0.8428
PcPopHisp90	1	-0.13504	0.0566	-2.39	0.0174
PcPopAsian90	1	-0.40852	1.10754	-0.37	0.7124
PcAge2549	1	0.24725	0.26248	0.94	0.3467
PcAge5064	1	1.20285	0.50468	2.38	0.0176
PcAge65plus	1	-0.23504	0.29608	-0.79	0.4277
PCMrdHH90	1	0.72772	0.16284	4.47	<.0001

cty92property	1	-48.96037	53.11723	-0.92	0.3571
cty92sales	1	196.10321	133.7142	1.47	0.1432
cty92highway	1	558.957	150.79019	3.71	0.0002
cty92safety	1	-520.9902	227.21944	-2.29	0.0223
cty92education	1	92.60638	45.06497	2.05	0.0404
stl92property	1	1.08845	96.87452	0.01	0.991
stl92sales	1	-46.00734	86.19853	-0.53	0.5938
stl92inctax	1	-218.52629	67.00757	-3.26	0.0012
stl92corptax	1	-9.13939	292.02945	-0.03	0.975
stl92hosp	1	-604.83367	307.36527	-1.97	0.0497
stl92highway	1	-93.30443	143.22857	-0.65	0.5151
stl92pblsfty	1	438.0431	324.02459	1.35	0.1771
Right to Work	1	0.06422	1.58681	0.04	0.9677

The Rent Regression

The rent growth regression included 50 variables (see Table VIII) and had R^2 of 71.77 percent. A total of 29 of the variables were significant at the 5 percent level and an additional 3 were significant at the 10 percent level. Thereof, 19 were also significant in the population regression. Interestingly, 18 of those had the same sign in both regressions.

The significant variables common to both regressions with a positive sign were: Census divisions 3-8 (Census division 7 was significant at the 10 % level in the population regression), percent Bachelor's degrees, percent of 50-64 age group, percent married households, per capita county spending on highways and public education. The significant variables common to both regressions with a negative sign were: July temperatures, distance to next metropolitan area regardless of size, incremental distance to the next metropolitan area with a population of 250,000 or less, percent of mining jobs, percent of agservice jobs and manufacturing jobs (at 10 percent significance), and percent Hispanics. The only variable significant in both regressions with opposite sign to the population regression was the birth rate, which had a negative sign in the rent regression.

The following variables with positive sign were significant in the rent regression, but not the population regression: water area, Census division 2 and 9 (the Middle Atlantic and Pacific Census divisons), county sales tax, and the right to work.

TABLE VIII

Results for Rent Regression

Dependent Variable: GrRent90-00

Number of Observations Read 511

Analysis of Variance

F Value Pr > F <.0001

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	126.47013	34.58933	3.66	0.0003
TempJan	1	0.12653	0.1517	0.83	0.4047
TempJuly	1	-1.20862	0.27016	-4.47	<.0001
Humidity	1	-0.14783	0.10979	-1.35	0.1788
Water	1	0.33217	0.06614	5.02	<.0001
Typography	1	0.15657	0.11703	1.34	0.1816
Dist to next Metro	1	-0.08026	0.01428	-5.62	<.0001
incmetgt250k	1	-0.0606	0.00882	-6.87	<.0001
incmetgt500k	1	-0.03601	0.01044	-3.45	0.0006
incmetgt1500k	1	-0.00394	0.00658	-0.6	0.5498
D2	1	23.74669	5.65662	4.2	<.0001
D3	1	51.50236	5.38473	9.56	<.0001
D4	1	42.94197	5.73542	7.49	<.0001
D5	1	40.96864	5.84281	7.01	<.0001
D6	1	38.67004	6.08033	6.36	<.0001
D7	1	32.39297	6.3042	5.14	<.0001
D8	1	62.27736	7.61715	8.18	<.0001
D9	1	67.32323	7.9478	8.47	<.0001
MGR90	1	-0.0923	0.01279	-7.22	<.0001
LandGrantU	1	-0.05374	3.04394	-0.02	0.9859
PcFarmJobs90	1	0.30076	0.22947	1.31	0.1906
PcAgServJobs90	1	-1.14988	0.60717	-1.89	0.0589
PcMinJobs90	1	-1.16698	0.22352	-5.22	<.0001
PcConstJobs90	1	0.27303	0.3534	0.77	0.4402
PcMfgJobs90	1	-0.19112	0.11024	-1.73	0.0836
PcAgServ&ffJobs90	1	0.07885	0.13827	0.57	0.5688
PcGovJobs90	1	-0.30236	0.13486	-2.24	0.0254
PcBA90	1	1.10344	0.28983	3.81	0.0002
PrcntHsch	1	-0.13439	0.1598	-0.84	0.4008
PcUnempl90	1	-0.88648	0.3922	-2.26	0.0243
Births90	1	-0.86789	0.33957	-2.56	0.0109
PcPopBlack90	1	0.14546	0.09353	1.56	0.1206
PcPopHisp90	1	-0.16669	0.07706	-2.16	0.031
PcPopAsian90	1	-3.59393	1.50481	-2.39	0.0173
PcAge2549	1	0.5035	0.36879	1.37	0.1728
PcAge5064	1	1.81365	0.69043	2.63	0.0089
PcAge65plus	1	-1.21424	0.40455	-3	0.0028

PCMrdHH90	1	0.55723	0.23489	2.37	0.0181
cty92property	1	-84.39263	73.3082	-1.15	0.2502
cty92sales	1	394.74195	182.38784	2.16	0.031
cty92highway	1	455.18353	203.01268	2.24	0.0254
cty92safety	1	-157.88553	308.85868	-0.51	0.6095
cty92education	1	135.94803	61.35159	2.22	0.0272
stl92property	1	-26.56184	135.47593	-0.2	0.8446
stl92sales	1	-204.71917	117.45434	-1.74	0.082
stl92inctax	1	-134.7349	91.23756	-1.48	0.1404
stl92corptax	1	-175.14744	405.41684	-0.43	0.6659
stl92hosp	1	-89.08006	415.72019	-0.21	0.8304
stl92highway	1	95.77941	195.23795	0.49	0.624
stl92pblsfty	1	-1337.89128	458.40038	-2.92	0.0037
Right to Work	1	4.94588	2.16231	2.29	0.0226

The following variables with negative sign were significant in the rent regression, but not the population regression: incremental distance to the next metropolitan area with a population of 500,000 or less, average rent, percent of government jobs, percent of unemployment, percent of Asian population, percent of people over 65, spending on public safety, and state sales tax (at 10 percent significance).

The Wage Regression

The wage growth regression included 51 variables (see Table IX) and had R^2 of 39.23 percent. A total of 12 variables were significant at the 5 percent level and an additional 5 variables were significant at the 10 percent level. Six of those variables were also significant in the population and the rent regressions. Percent of Bachelor's degree and Census division 8 (Mountain division) has a positive coefficient in all three regressions and incremental distance to the next metropolitan area with a population of 250,000 or less and percent ag-services&ff jobs had negative coefficent in all three regressions.

July temperatures and percent of manufacturing jobs (at 10 % significance for both) had positive coefficient in the wage regressions, but negative in the other regressions. This makes sense because wages are overall lower in the south and manfacturing firms with standardized product seek out places with low wages to reduce unit costs. At the same time, very high July temperatures makes it more difficult to enjoy local natural amenities and reduce migration and rent.

January temperatures was significant in the wage regression and the population regression. It had a negative sign in the wage regression, but a positive sign in the population regression. Four coefficients were significant in the wage regression and the rent regression. Water area and Census division 9 (the Pacific division) had positive coefficients in both regressions and percent unemployment and incremental distance to the next metropolitan area with 500,000 or less (10% significance) had negative coefficients.

Six variables were significant only in the wage regression. Incremental distance to the next metropolitan area with 1.5 million or less, average wages and state highway spending (10 percent significance) had negative impact on wages. However, percent of construction jobs, percent of black population and percent of 25-49 age group (at 10 percent significance) had a positive impact on wages.

TABLE IX

Wage-Regression

Dependent Variable: Grwage90-00

Number of Observations Read 511

Analysis of Variance

F Value Pr > F <.0001

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	22.3544	29.58206	0.76	0.4502
TempJan	1	-0.47141	0.12939	-3.64	0.0003
TempJuly	1	0.43192	0.22799	1.89	0.0588
Humidity	1	0.07688	0.09262	0.83	0.407
Water	1	0.12748	0.05767	2.21	0.0276
Typography	1	-0.02333	0.09949	-0.23	0.8147
Dist to next Metro	1	-0.01688	0.01233	-1.37	0.1716
incmetgt250k	1	-0.01811	0.00748	-2.42	0.0159
incmetgt500k	1	-0.01568	0.0089	-1.76	0.0787
incmetgt1500k	1	-0.01153	0.00546	-2.11	0.0351
D2	1	-0.55476	4.39495	-0.13	0.8996
D3	1	4.74925	4.0582	1.17	0.2425
D4	1	2.34333	4.44419	0.53	0.5983
D5	1	1.02669	4.57362	0.22	0.8225
D6	1	3.79214	4.78308	0.79	0.4283
D7	1	5.52136	4.97295	1.11	0.2675
D8	1	16.24993	6.15748	2.64	0.0086
D9	1	13.44462	6.5658	2.05	0.0412
AvgWage90	1	-2.86843	0.26085	-11	<.0001
PopDens90	1	0.01009	0.0167	0.6	0.5463
LandGrantU	1	-0.2277	2.58838	-0.09	0.9299
PcFarmJobs90	1	0.16661	0.19785	0.84	0.4002
PcAgServ&ffJobs90	1	-1.03119	0.51572	-2	0.0461
PcMinJobs90	1	-0.06999	0.19257	-0.36	0.7164
PcConstJobs90	1	0.85484	0.30091	2.84	0.0047
PcMfgJobs90	1	0.1832	0.09455	1.94	0.0533
PcServsJobs90	1	0.09622	0.11709	0.82	0.4116
PcGovJobs90	1	-0.13944	0.11455	-1.22	0.2241
PcBA90	1	0.47593	0.23112	2.06	0.04
PrcntHsch	1	-0.11461	0.13979	-0.82	0.4127
PcUnempl90	1	-0.68748	0.32809	-2.1	0.0367
Births90	1	-0.03462	0.28678	-0.12	0.904
PcPopBlack90	1	0.1736	0.07644	2.27	0.0236
PcPopHisp90	1	0.03317	0.0656	0.51	0.6133
PcPopAsian90	1	1.29629	1.28328	1.01	0.313
PcAge2549	1	0.57519	0.30498	1.89	0.0599
PcAge5064	1	0.78115	0.58451	1.34	0.1821
PcAge65plus	1	-0.28774	0.3428	-0.84	0.4017
PCMrdHH90	1	0.22655	0.19092	1.19	0.236

cty92property	1	-23.55257	61.519	-0.38	0.702
cty92sales	1	-69.01308	155.05052	-0.45	0.6565
cty92highway	1	33.81344	174.90351	0.19	0.8468
cty92safety	1	36.95562	265.18802	0.14	0.8892
cty92education	1	76.33809	52.32938	1.46	0.1453
stl92property	1	60.63414	112.72005	0.54	0.5909
stl92sales	1	7.69884	100.15981	0.08	0.9388
stl92inctax	1	-28.91794	77.56926	-0.37	0.7095
stl92corptax	1	169.91916	338.04747	0.5	0.6155
stl92hosp	1	47.75289	355.83419	0.13	0.8933
stl92highway	1	-289.30196	166.14442	-1.74	0.0823
stl92pblsfty	1	-109.43551	375.12284	-0.29	0.7706
Right to Work	1	2.54241	1.85205	1.37	0.1705

Analysis

Almost 56 percent of the total variance in the population data is explained by the regression, 72 percent in the rent regression and 39 perecent in the wage regression.

The fact that the explained variation in the rent regression is almost two times that of the wage regression is not unusual. That is because rent regressions explain one way impacts from both population migration and firm migration on rents. Rent increases in both cases. Wage regressions usually have a lower R^2 because they explain two way (offsetting) impacts from firm migration and population migration on wages. When companies move to an area it results in higher wages due to increased labor demand, *ceterus paribus*. Higher wages then induce people to move to the area and the labor supply increases in the area resulting in lower wages, *ceteris paribus*. To a certain degree these opposite effects cancel each other out resulting in a lower R^2.

All of the variables in all the three regressions had plausible or expected signs. The fact that 19 of the significant coefficients in the population regression were also significant in the rent regression with only one having different signs (local birth rates increased population growth, but decreased rents) is good because higher/lower population growth, ceterus paribus, usually results in higher/lower rent.

General Dominance Analysis

General dominance for the different variable groups in the regressions is established in the next three sections and followed by identificiation and analysis of the factors that induced migration and economic growth to micropolitan areas.

General Dominance – Population Growth

The average contribution to the explained population growth by the different variable groups is shown in Table X.

The Economic variable group had the highest contribution to the explained variation in the population regression with an average contribution of 11.4 percent points to the average adjusted R^2, accounting for 22.2 percent of explained variation in the population data. As mentioned in the section about data discussion and description, then the Beta coefficients from the 64 possible combinations for each variable in each group for all three regressions were added up and averaged to get the average standardized impact from each variable within each group in order indicate the relative importance of the respective variable within the group (see Appendix B).

The relative size of the average standardized Beta coefficients show that concentration of employment in the mining industry (BC = -0.299), and the manufacturing industry (BC = -0.201) are significant detriment in migration in micropolitan areas (see Table XI). Farming had a positive impact but was only significant at 10 percent level (BC= 0.056) and ag-services&ff (BC = -0.08) reduced migration .

TABLE X.
General Dominance - Population Growth Regressions

Combinations	**Amenity**	**Demographics**	**Education**	**Fiscal**	**Economic**	**Urbanization**	**Census Division**
K=0	0.120	0.100	0.012	0.165	0.139	0.035	0.159
K=1	0.097	0.104	0.040	0.157	0.146	0.030	0.138
K=2	0.074	0.099	0.045	0.096	0.138	0.027	0.116
K=3	0.056	0.091	0.045	0.068	0.122	0.023	0.097
K=4	0.044	0.082	0.041	0.050	0.104	0.018	0.083
K=5	0.035	0.071	0.034	0.040	0.085	0.013	0.073
K=6	0.027	0.057	0.025	0.035	0.064	0.008	0.067
Simple Avg.	0.065	0.086	0.035	0.087	0.114	0.022	0.105
Percent of Explained Variation	12.6%	16.8%	6.7%	17.0%	22.2%	4.3%	20.4%

TABLE XI.
Significant Beta Coefficients- Population Regression

	Amenity		Demographics		Education
TempJan	0.482	PCMrdHH90	0.266	PcBA90	0.257
CCTypogC	0.113	PcAge5064	0.205		
Humidity	-0.196	Births90	0.151		
TempJuly	-0.236	PcPopHisp90	-0.113		
	Fiscal		Economic		Urbanization
cty92highway	0.130	PcFarmJobs90	0.056	CDist	-0.131
cty92education	0.053	PcAgServJobs90	-0.083	incmetgt250k	-0.143
cty92safety	-0.141	PcMfgJobs90	-0.201		
stl92inctax	-0.143	PcMinJobs90	-0.299		
stl92hosp	-0.211				
	Census Division				
D5	0.464				
D8	0.340				
D6	0.293				
D7	***0.210***				
D4	0.194				
D3	0.170				

The Census division variable group accounts for 20.4 percent of the average explained variation; contributing 10.5 percent points to the average adjusted R^2. Although, there is no variation in the fixed effect, a higher Beta coefficient shows higher importance within the group. The South Atlantic Census (D5) division (BC = 0.464) seems to have (by far) the most region specific characteristics that are conducive to inmigration and explained by the regression, followed by: the Mountain (D8) division (BC = 0.34); the East South Central (D6) division (BC = 0.293); the West South Central (D7) division (BC = 0.210 at 10 percent significance); the West North Central (D4) division (BC = 0.194); and the East North Central (D3) division (BC = 0.17).

It is interesting that the Middle Atlantic division which includes high population density cities such as New York and Philadelphia did not have a significant impact on population growth of micropolitan areas. Perhaps there are spillover effects from these megacities on their own region that people who move to micropolitan areas do not like.

The Fiscal and Other Policy variable group explains 17.0 percent of variation in population growth that is explained by the regression adding 8.7 percentage points to the average adjusted R^2. As explained in section 4.1, all the spending and tax variables are divided by the local personal income to estimate the effective burden from these policies in order to be able to compare between micropolitan areas in the same state and different states. The county spending on highway infrastructure (BC = 0.13) was the most conducive for inmigration, followed by county spending on education (BC = 0.053). All the other significant state and local tax variables reduced the attractiveness of micropolitan areas: county spending on safety (BC = -0.141); state income tax (BC = -0.143) and the state spending on health and hospitals (BC = -0.21)

The Demographics variable group contributes about 16.8 percent to the explained variation in data with average adjusted R^2 being 8.6 percent. The percentage of married households (BC = 0.266) is the most significant factor that is conducive to population growth/migration to micropolitan areas in the demographic group, followed by the percent of people in the 50-64 age group (BC = 0.204); and the birth rate (BC = 0.151). The least conducive local demographic characteristics for migration is the percent of Hispanic population (BC = -.011).

The Amenity variable group contributed 6.5 percentage points to the average adjusted R^2 and the group explained 12.6 percent of the explained variation in population growth. Mild January temperatures stand out as being the natural amenity that is conducive to migration to micropolitan areas (BC = 0.482) followed by topography (BC = 0.113 at 10 percent significance). High July temperatures reduce inmigration significantly (BC =- 0.236) as well high humidity (BC = -0.196).

The Education variable group accounted for 6.7 percent of all explained variation in the data, adding 3.5 percent to the average adjusted R^2. The percent of the population with Bachelor's degree or higher (BC = 0.257) seems to be the only variable within the group of real importance in making the micropolitan area more attractive for migration. Finally, the Urbanization group explained only 4.3 percent of total explained variation, contributing 2.2 percentage points to the average adjusted R^2. Interestingly, all the coefficents showed that being further away from a metropolitan area reduced the attractiveness of the micropolitan area for migration. Incremental distance to a metropolitan area with 250,000 people (BC = -0.143) reduced attractiveness of microplitan areas more than any other distance variable, followed by the distance to the next metropolitan area (BC = -0.131). The other distance variables were not significant. It is especially noteworthy that the population density variable was not significant.

General Dominance – Rent Growth

The general dominance analysis on the rental regressions shows that the most important factor contributing to the explained behaviour in the rental data is the Census division group, which accounts for 40.8 percent of the explained variation of the rental data and adds 28.0 percentage points to the average adjusted R^2 (see Table XII). All the Census divisions have relatively large Beta coefficents, indicating that the fixed effects are very important in explaining growth in rent for all regions (see Table XIII). It is difficult to say why the Census divisons fixed effect are so significant, but the analysis of the explained and residual (unexplained) growth effects later will help us understand that.

Not surprisingly the Economic variable group ranks number two in explanatory importance, contributing 16.5 percent to the overall average explained variation, adding 11.3 percentage points to the average adjusted R^2. All the significant variables in the group had a negative impact on rent growth. The most significant variables within the group are the median gross contract rent in 1990 (BC = -0.373) followed by the percent of jobs in mining (BC = -0.262); the percent of jobs in government (BC = -0.165); the unemployment rate (BC = -0.1); percent agservice jobs (BC = -0.067 at 10 percent

Table XII.
General Dominance - Rent Growth Regressions

Combinations	Amenity	Demographics	Education	Fiscal	Economic	Urbanization	Census Division
K=0	0.104	0.130	0.076	0.153	0.164	0.024	0.405
K=1	0.107	0.100	0.039	0.122	0.151	0.020	0.365
K=2	0.105	0.079	0.021	0.099	0.136	0.027	0.327
K=3	0.095	0.064	0.011	0.077	0.116	0.036	0.285
K=4	0.079	0.050	0.007	0.056	0.096	0.044	0.240
K=5	0.060	0.039	0.007	0.035	0.075	0.049	0.193
K=6	0.040	0.027	0.009	0.017	0.054	0.049	0.146
Simple Avg.	0.085	0.070	0.024	0.080	0.113	0.035	0.280
Percent of Explained Variation	12.3%	10.2%	3.5%	11.6%	16.5%	5.2%	40.8%

Table XIII
Significant Beta Coefficients - Rent Regression

	Amenity		**Demographics**		**Education**
Water	0.102	PcAge5064	0.161	PcBA90	0.004
TempJuly	-0.365	PCMrdHH90	0.059		
		PcPopAsian90	-0.071		
		Births90	-0.141		
		PcPopHisp90	-0.177		
		PcAge65plus	-0.283		
	Fiscal		**Economic**		**Urbanization**
cty92highway	0.133	PcMfgJobs90	-0.066	incmetgt500k	-0.025
RTW	0.132	PcAgServJobs90	-0.067	CDist	-0.127
cty92education	0.034	PcUnempl90	-0.100	incmetgt250k	-0.189
cty92sales	0.024	PcGovJobs90	-0.165		
stl92sales	-0.064	PcMinJobs90	-0.262		
stl92pblsfty	-0.111	MGR90	-0.373		
	Census Division				
D3	1.202				
D4	0.981				
D5	0.885				
D8	0.884				
D9	0.837				
D6	0.836				
D7	0.742				
D2	0.380				

significance); and the percent of jobs in manufacturing (BC = -0.066 at 10 percent significance).

The Amenity variable group accounted for 12.3 percent of the variation in the rent data, with the average adjusted R^2 equal to 8.5 percent (which is close to the impact it had on population growth). The water area variable (BC = 0.102) is the most important variable in the group that explains increases in rent and the July temperatures (BC = -0.365) was the most important explaining lack of growth in rent. The other amenity variables do not seem to have much impact.

The Fiscal and Other Policy variable group contributed 11.6 percentage points to the explained variation, adding 8.0 percentage points to the avarage adjusted R^2. County spending on highway infrstructure (BC = 0.133) was the most important variable contributing to growth in rent, followed by right to work (BC = 0.132); county spending on education (BC = 0.034), and county sales taxes (0.024). State spending on public safety seems to reduce rent (BC = -0.11) as well as state sales taxes (BC = - 0.064 at 10 percent significance).

The Demographics variable group accounted for 10.2 percent of explained variation in the data, contributing 7.0 percentage points to the average adjusted R^2. Percent of people over 65 (BC = -0.283) had the largest impact to reduce rent, followed by the percent of Hispanics (BC = -0.177), the birth rate (BC = -0.14) and the percent of the Asian population (BC -0.071). Two variables increased rent. The “percent of people in the 50-64 age group” variable (BC = 0.161), which had a relatively large impact on rent growth and the percent of married households (BC = 0.059).

The Urbanization and the Education variable groups did not seem very important in explaining the variation in the rent data, contributing 5.2 and 3.5 percentage points to the explained variation in rent growth and adding average adjusted R^2 of 3.5 percent and 2.4 respectively. All of the variables, except incremental distance to a metropolitan area with 1.5 million or less, were significant with negative coefficients in the Urbanization group, but only the percent of the population with Bachelor's degree or higher was significant in the Education group and it had the impact of increasing rent.

General Dominance – Wage Growth

Factors that affect productivity, such as industry structure, affect wage increases significantly. There is, therefore, no surprise that the Economic Group is ranked on top in explaining wage growth in micropolitan areas (see Table XIV). However, what is a surprise is that the Economic Group accounts for 77.4 percent of all explainied variation in the wage data, contributing 25.1 percent to the R^2 (far more than any other group).

The most important variables in the group conducive to increase in producivity and wages (see Table VX) are the percent of jobs in manufacturing (BC = 0.201 p-value = 5.3 percent) and construction (BC = 0.16). Average wages in 1990 (BC = -0.579) had the largest negative impact on wage growth followed by the unemployment rate (-0.152) and the percent of jobs in ag-services&ff (BC = -0.106).

Table XIV General Dominance - Wages Growth Regressions							
Combinations	**Amenity**	**Demographics**	**Education**	**Fiscal**	**Economic**	**Urbanization**	**Census Division**
K=0	0.019	-0.009	0.013	0.007	0.256	-0.002	0.011
K=1	0.025	-0.003	0.015	0.012	0.262	0.001	0.015
K=2	0.028	0.004	0.015	0.014	0.263	0.005	0.018
K=3	0.030	0.009	0.014	0.014	0.259	0.008	0.019
K=4	0.030	0.013	0.011	0.011	0.251	0.010	0.018
K=5	0.028	0.014	0.007	0.006	0.240	0.011	0.015
K=6	0.025	0.014	0.002	-0.002	0.229	0.012	0.011
Simple Avg.	0.026	0.006	0.011	0.009	0.251	0.006	0.015
Percent of Explained Variation	8.1%	1.9%	3.3%	2.7%	77.4%	1.9%	4.7%

Table XV Significant Beta Coefficients - Wage regression					
	Amenity		**Demographics**		**Education**
TempJuly	0.178	PcPopBlack90	0.119	PcBA90	0.194
Water	0.099	PcAge2549	0.080		
TempJan	-0.399				
	Fiscal		**Economic**		**Urbanization**
stl92highway	-0.117	PcMfgJobs90	0.201	incmetgt500k	***-0.074***
		PcConstJobs90	0.160	incmetgt1500k	-0.093
		PcAgServJobs90	-0.106	incmetgt250k	-0.096
		PcUnempl90	-0.152		
		AvgWage90	-0.579		
	Census Division				
D8	0.218				
D9	0.101				

Analysis in the earlier section on the “Economic Performance of Micropolitan Counties in the 1990's” indicated that the Manufacturing industries were moving out of metropolitan areas and rural areas to micropolitan areas. It is likely that the type of manufacturing that is moving into micropolitan areas is mature with a standardized product and therefore not affected much by urbanization economies. The Manufacturing industry is therefore likely moving out of metropolitan areas to areas with low wages (Vias, 1999) and it might be moving out of rural areas due to cost of distance.

The second most important group is the Amenity group which contributes 8.1 percentage points to average explained variation and adds 2.6 percent to the average adjusted R^2. It is interesting that “the percent water area” variable (BC = 0.100) has the largest significant positive impact on wage growth (perhaps because of access to navigable water transportation systems which is a firm amenity). July temperatures (BC = 0.178) also increased wages at the 10 percent significance level. High January temperatures (BC = -0.399) reduced the growth in wages. Other groups have negligible contribution to the average explained variation in the data.

Analysis

These results indicate that the migration to micropolitan areas was related to amenities. That is not a surprise because other studies have found natural amenities important in non-metropolitan migration in the 1990s (Rappaport 2003 , Deller et al 2001, McGranahan 2007).

The Economics Group is very important explaining the growth of population and rent (most important explaining population growth and the second most important explaining rent growth). If the migration was demand sided and driven by job opportunities then relatively high percent of employment in manufacturing would be expected to affect inmigration and rent in a positive way because high levels of manufacturing employment may serve as an indicator of economic health (Gunderson et al, 2008). Relatively high wages also induce demand sided migration (Blanchard and Katz, 1992).

However, all the significant employment variables in both regressions reduced migration and rent, except for farming employment in the population regression. Both manufacturing and mining have strong negative impact on migration and rent, which is consistent with amenity oriented migration. Both of these industries are often associated with pollution and environmental degradation and have a negative public perception - one that brings to mind pollution, low wages, assembly-line work and lay-offs[6].

The average population growth was furthermore 10.8 percent in the 317 micropolitan areas that had less than average wage of all the 511 micropolitan areas in the study in 1990, well above the 7.2 percent growth of the 194 micropolitan areas that had higher than the average wage. Furthermore, these 317 locations have higher average amenity scale[7] which is consistent with the Glaeser-Tobio model which clearly shows that locations high in amenities have lower wages than areas with low level of amenities in order to maintain the regional utility equilibrium.

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6 See negative perception of manufacturing work at http://wtnnews.com/articles/2464

7 See USDA Natural Amenity Index at http://www.ers.usda.gov/Browse/view.aspx?subject=NaturalResourcesEnvironment

The percent of farm jobs had a positive coefficient in the population growth regression.   Numerous studies have determined that farming is an amenity and some of these studies estimated the amenity value of farmland by calculating the implicit value of amenities associated with farming or with contingent studies (Bergstrom and Ready, 2009). The percent of ag-services&ff jobs variable had a negative coefficient. If farming is generally located in areas high in amenities then one would expect the same for ag-services&ff, but it had a negative coefficient in both the population and rent (at 10 percent significance) growth regressions. Most of the micropolitan areas in the study with a significant concentration of jobs in ag-services&ff would be expected to have majority of the jobs in the ag-services sub industry but not forestry and fishing.

It is of therefore of value to analyze ag-services employment better. It includes: soil preparation services, crop services, veterinary services, animal services (except veterinary), farm labor and management services, landscape and horticultural services. Employment in the ag-services sub-industries declined 13.9 percent nationwide during the 1990's and one would therefore expect that micropolitan areas with a large concentration of ag-services employment to be declining too. Therefore it is plausible that the the negative coefficient had something to do with labor demand.

The Fiscal and Other Policy group was relatively important in explaining the behavior in both the population and rent data. All the significant variables in the population regression (except county spending on education and highways) reduced migration, including state spending on health and hospitals, which had the largest impact (by far) of all the significant fiscal variables on population growth. That perhaps reflects the Medicaid burden for states. Medicaid accounted for 19.2 percent of the average state budget in the US in the 1995 fiscal year, with the share of budget allocated to Medicaid ranging from a low of 5.1 percent in Alaska to a high of 38.2 percent in New Hampshire[8]. States with heavy Medicaid burdens can be expected to compensate with policy actions that make them less attractive, and that could explain the negative coefficient. High spending on health and hospitals could also reflect a relatively sickly population, which makes the area less attractive and deters migration.

This indicates that high effective local tax burden is a drag on population growth and economic development. This is supported by some studies in the literature. Bartik (1992) finds that high local effective tax rates on average reduce economic growth. However, both the county government spending on highways and education had a positive impact on migration, which is also supported somewhat by the economic literature. Fisher (1997) found that that local government spending can have a positive impact on population and economic growth, especially spending on highway infrastructure and to a lesser degree on education. Both local and state spending on public safety reduced migration and rent. That could indicate that micropolitan areas with relatively high spending on public safety also had more crimes.

The Demographic group was also relatively important explaining migration and rent growth. A high concentration of people in the 50-64 age group increased both inmigration and rent, implying that this age group was most likely to migrate to

[8]The National Association of State Budget Officers 1995 State Expenditure Report: http://www.nasbo.org/Publications/StateExpenditureReport/tabid/79/Default.aspx

micropolitan areas during the 1990's. This is supported by Plane et al (2005) who found that there was a substantial migration in the latter parts of the 1990's by people in the 50-64 age group from large metropolitan areas to micropolitan and rural areas. Stability as measured by the percent of married households locally was also attractive local characteristic for micropolitan migration, showing significant positive impact on the growth of both population and rent.

Approximately 59.3 percent of all households in 1990 were married in the 511 micropolitan areas in the study, compared to 55.1 percent nationwide. It is reasonable to surmise that micropolitan areas are relatively safe, which is an attractive local characteristic for migration. Crime rates decline with higher household incomes and crime rates are in general higher in non-family households (householder not married)[9]. If micropolitan areas with less concentration of married households have higher crime rates resulting in relatively high spending on public safety then it would explain the negative relationship between local spending on public safety and migration that we discovered earlier when we analysed the fiscal and policy variables.

A high concentration of Hispanics reduced both population and rent. The Hispanic population is one of the youngest populations in the US and two in five are foreign born[10]. Hispanics are furthermore one of the most nomadic populations in the US with 14.1 percent of all Hispanics in 2000 reporting they lived in a different county five years earlier, compared to 8.4 percent overall US average[11]. If stability is attractive locational characteristic for migration then a high concentration of Hispanics in a location

[9] The Bureau of Justice Statistics report: http://bjs.ojp.usdoj.gov/index.cfm?ty=tp&tid=92
[10] US Census Report: http://www.census.gov/prod/2003pubs/p20-545.pdf
[11] USCensus

would have negative effect on inmigration. The Hispanic population is also overall relatively unskilled and if areas with high concentration of unskilled people are unattractive for migration then that could as well explain why a concentration of Hispanics had a negative impact on both population and rent. However, the explanation could also include things like culture or funic avoidance behavior.

The Amenity group was the fourth important group in explaining the behavior in both the population growth and rent data. High January temperatures were the natural amenity that stood out as being the most condusive for migration. An elevated, but generally level region was favored (at 10 percent significance). Humidity and high July temperatures had significant negative impact on migration and rents.

The Education and the Urbanization groups were the least important variable groups explaining the behavior of the population and rent data, but still important. In general higher concentration of people with higher education increased migration and rent, and locations further away from metropolitan areas (especially small metropolitan areas) reduced migration and rent. That could indicate that being close to urban amenities was somewhat important.

The fixed effect was very important explaining both population and rent growth. The Census division group was the second most important explaining the population data and the most important by far explaining the behavior in the rent data. All the Census divisions in the population growth regression, except the Pacific division (D9) and the Middle Atlantic division (D2) had significant fixed effects relative to the control division (New England) and that indicates there is something about the south and the west that is attracting people. It is possible that the Census division group is picking up amenities not captured in the model. This is consistent with the findings in other studies in the economic literature (Mulligan and Vias, 2007).

Manufacturing and average wages were the most important variables explaining growth in wages. Vias (1999) says that manufacturing was moving to areas in the 1990's with low wages and the data in this study supported his findings. Therefore, it is of value to analyze manufacturing employment further.

The 1990 average wage was 2.3 percent higher in the 218 micropolitan areas in the study that lost manufacturing jobs during the period than in the 293 micropolitan areas that added manufacturing jobs. Wages furthermore increased more in areas that added manufacturing jobs. Average wages increased 41 percent during the period in micropolitan areas that added manufacturing jobs, well above the 38.7 percent growth in micropolitan areas that lost manufacturing jobs. This explains partly the importance of average wages and manufacturing in wage growth. However, despite the higher growth of wages in micropolitan areas that added manufacturing jobs it was not enough to catch up to the wage differential. The average wage in micropolitan areas that added manufacturing jobs was still slightly below the average 2000 wage of micropolitan areas that lost manufacturing jobs.

The Amenity group explained 8.1 percent of the increase in wages, with the mean July temperatures (at 10 percent significance) and square miles of water being most conducive to wage growth, but high mean January temperatures tend to reduce wage growth. It is interesting that a significant portion of the new manufacturing jobs added in micropolitan areas during the period went to Census division 3 (East North Central), posting an increase in manufacturing jobs of 11.4 percent (well above the micropolitan average of 2.4 percent). Most of the states in that division have relatively low average January temperatures and all the states have access to navigable water ways through the Great Lakes,

The other variable groups were much less important in explaining the data. Only the Mountain (D8) division and the Pacific division (D9) had significant fixed effects on wage growth relative to the control division (New England). The percent of people with Bachelor's degree or higher, the percent of people in the 25-49 age group (at 10 percent significance) and the percent of black population were all conducive to wage growth, but state spending on highways and all the incremental distance variables to the metropolitan hierarchy reduced growth in wages. The fact that all the incremental distance variables were significant and reduced wage growth (incremental distance to the next metropolitan area with 500,000 or less at 10 percent significance) indicates that one of the costs of distance for micropolitan areas is less productivity, which is consistent to findings in other studies in the economic literature (Partridge, et al 2010).

Growth Effects & Analysis

The evolution of the explained and residual growth effects that induced growth of micropolitan areas during the period are analysed in next sections, with aid of the the Glaeser-Tobio growth model.

The Amenity Growth Effect

The evolution of the Amenity Growth effect (λ_ϕ) is governed by the growth of expenditure on housing minus the growth of wages, given by $\lambda_\phi = \alpha b_{Ph} - b_W$, where α is the share of expenditure that goes toward housing and b_{Ph}, b_W are regression coefficients from the rent and wage regressions. There have been different values for α used in the literature, but a decision was made to use α = 0.23[12] because it is a conservative value. The results show that micropolitan amenities were relatively attractive compare to the rest of the nation during the 1990's ($\lambda_\phi^{511micros} = -0.27$ vs $\lambda_\phi^{US} = -0.40$) [13].

The regression estimates ($\hat{b}$'s) were then used to calculate the explained growth estimates ($\hat{y}$'s) for population, rent and wage growth for each micropolitan area. The ($\hat{y}$'s) were put into the growth model to estimate the explained Amenity (Productivity, Housing Supply) growth effect. The explained Amenity (Productivity, Housing Supply) growth effect was regressed on the total Amenity (Productivity, Housing Supply) effect and the adjusted R^2 was analyzed. The results show that approximately 37.7 percent of

[12] Rickman & Rickman (2011)

[13] The average population, rent and wage growth for the 511 micropolitan areas, as well as nationwide, were put into the Glaeser-Tobio model to calculate the total amenity, productivity and housing supply effects. See Chapter 3 for detailed explanations of the model.

the total variation in the amenity effect between the 511 micropolitan areas is explained by the regression.

Next, the growth effects were calculated for each variable group[14] and regressed on the total Amenity growth effect (one group at a time) in order to find out how important each group was in explaining the growth effects. Approximately 24.7 percent (see Table XVI) of the variation in the Amenity effect regression can be explained by the Economic variable group, 6.6 percent by the fixed effect (Census division variable group variables); 4.8 percent by the Education group variables; 4.4 percent by the Amenity group variables; 3.9 percent by the Fiscal and Other Policy group variables; 2.6 percent by the Demographic group variables; and only 0.6 percent by the Urbanization group variables.

Table XVI Group: Specific Amenity Growth Effect Dependent Var : Total Amenity Effect Independent Var: Group Specific Amenity Effect	R_A^2
Amenity Variable Group	0.044
Census Division Variable Group	0.066
Demographic Variable Group	0.026
Education Variable Group	0.048
Fiscal and Other Policy Variable Group	0.039
Economic Variable Group	0.247
Urbanization Variables Group	0.006

[14] Only the variables belonging to the respective variable group are regressed on the dependent variables in each regression and the estimates ($\hat{b}$'s) are used to calculate the explained variable group growth estimates ($\hat{y}$'s) for each micropolitan area. The ($\hat{y}$'s) are then put into the growth model to estimate the explained group amenity (productivity/housing supply) effect. The group amenity effect is then regressed on the total amenity effect (the group productivity effect is regressed on the total productivity effect and the group housing supply effect is regressed on the total housing supply effect) and the R^2 is analyzed.

It is apparent that the Economic variable group is mostly important for the variation in the Amenity growth effect, explaining four times the variation in the Amenity effect compared to the second most important group. The Beta coefficients were analyzed in order to find out why that was the case. The Beta coefficients were adjusted by the coefficients that define the respective growth effects in the relevant regressions[15] in order to assess their relative importance within each group.

The average wage (in the Economic variable group in the wage regression) was by far the most important variable contributing to the variation in the Amenity growth effect, meaning that migrants were willing to accept relatively low wages to enjoy micropolitan amenities. The fact that the relative Amenity growth effect was favorable (compared to the US average) also indicates that migrants were willing to accept less than average nationwide growth in wages and higher than average growth in rental payments in order to enjoy micropolitan amenities.

The Productivity Growth Effect

The Glaeser and Tobio model indicates that strong growth of population and wages reflects increases in productivity. Thus, the growth of the productivity effect (λ_A) is a weighted growth of population and wages. It is characterized by the following equation $(1-\beta-\gamma)b_N + (1-\gamma)b_W$, in which β = share of labor in production, γ is the

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See the methodology section

$\lambda_A = (1-\beta-\gamma)b_N + (1-\gamma)b_W$

$\lambda_\phi = \alpha b_{Ph} - b_W$

$\lambda_L = b_N + b_W - \left(\dfrac{\delta b_{Ph}}{\delta - 1}\right)$

share of capital and b_N , b_W are regression coefficients from the population and wage regressions. Productivity is an important factor in explaining demand sided migration. An increase in productivity in a given micropolitan area results in higher wages and that induces people to migrate to that micropolitan area.

The model shows that productivity increased in micropolitan areas during the period, corroborating our earlier findings that the real wage increased. However, productivity increased significantly less in micropolitan areas than nationwide ($\lambda_A^{511micros} = 0.29$ vs $\lambda_A^{US} = 0.37$). It is therefore unlikely that the migration to micropolitan areas was motivated by micropolitan productivity and by spatial differences in economic opportunity. Approximately 42.5 percent of the variation in the Productivity growth effect is explained by the regression (the explained Productivity growth effect regressed on the total Productivity growth effect). Table XVII shows that the Economic variable group explains 29.1 percent of the total variation in the

Table XVII: Group Specific Productivity Growth Effect

Dependent Var : Total Productivity Effect Independent Var: Group Specific Productivity Effect	R_A^2
Amenity Variable Group	0.017
Census Division Variable Group	0.030
Demographic Variable Group	0.005
Education Variable Group	0.020
Fiscal and Other Policy Variable Group	0.035
Economic Variable Group	0.291
Urbanization Variable Group	0.008

Productivity growth effect; Fiscal and Other Policy variable group, 3.5 percent; Census division variable group, 3.0 percent; Education variable group, 2.0 percent; Amenity variable group, 1.7 percent; Urbanization variable group, 0.8 percent; and the Demographic variable group, 0.5 percent.

As expected then all the top factors that contribute to growth in wages (from the wage regression) were the most significant forces contributing to the positive and negative evolution of the Productivity growth effect during the period. The most important variable explaining the Productivity growth effect (by far) was average wages (Economic variable group), followed by; January temperatures (Amenity variable group); the Mountain division (Census division variable group); the percent of manufacturing jobs (Economic variable group – p value = 0.053); the percent of population with Baccalaureate degree or higher (Education variable group); July temperatures (Amenity variable group - p value = 0.059); percent jobs in construction (Economic variable group); and the percent of blacks in the local population (Demographic variable group).

It is interesting how important the Mountain division is in explaining the growth in productivity. There must be some fixed factors in that division which are very conducive to growth in wages or perhaps the region is attracting productive firms.

Housing Supply Growth Effect

Glaeser (2007) finds in a study on urban mega-regions that differences in housing supply due to differences in land use regulations was an important determinant of regional population growth. Therefore, the Housing Supply growth effect is important in explaining the growth of regions. The Housing Supply growth effect (λ_L) is defined by the model to be equal to $b_N + b_W - \left(\frac{\delta b_{Ph}}{\delta - 1}\right)$, where δ is the elasticity of housing supply. A robust growth in population and wages associated with relatively less growth in rents indicates a growth in the housing supply effect.

An increase in population growth in a given area (ceterus paribus) will always increase housing prices and rents somewhat if land supply is limited. If housing supply is overly restricted because of some reason, then housing prices and rents will be even higher. That in turn could deter inmigration of people. That is because "housing costs"/rents are usually the single largest component of spending for households. This could also deter inmigration of firms because an increase in rents means higher unit cost of production and less profits.

Table XVIII

Group Specific Housing Supply Growth Effect

Dependent Var : Total HS Effect Independent Var: Group Specific HS Effect	R_A^2
Amenity Variable Group	0.139
Census Division Variable Group	0.436
Demographic Variable Group	0.159
Education Variable Group	0.114
Fiscal and Other Policy Variable Group	0.202
Economic Variable Group	0.210
Urbanization Variable Group	0.024

Many studies in the economic literature (McGranahan, 2007) have found that high "housing prices"/rents deter interregional migration. Other studies have found that job related migration is greatly affected by the state of housing markets. Most recently Valetta and Kuang (2010) find that part of the reason why people are not migrating for jobs is due to the state of housing markets. The state of housing markets has important implications for economic growth.

Housing supply was significantly less flexible in the 511 micropolitan areas than on average nationwide as indicated by the Housing Supply growth effect ($\lambda_L^{511micros} = -1.12$ vs $\lambda_A^{US} = -0.75$). Approximately, 72.7 percent of the total variation in the Housing Supply growth effect is explained by the model regression (the explained Housing Supply growth effect regressed on the total Housing Supply growth effect). The

Table XIX
Net Contribution to the Housing Supply Effect

Rent Regression **Census Division Group**	**Adj Beta Coef**
East North Central (D3)	-3.6
West North Central (D4)	-2.9
South Atlantic (D5)	-2.7
Mountain (D8)	-2.7
Pacific (D9)	-2.5
East South Central (D6)	-2.5
West South Central (D7)	-2.2
Middle Atlantic (D2)	-1.1

Census division variable group explains 43.6 percent of total variation in the housing supply effect (see Table XVIII); the Economic variable group, 21 percent; Fiscal and Other Policy variable group, 20.2 percent; Demographic variable group, 15.9 percent; Amenity variable group, 13.9 percent; Education variable group 11.4 percent; and the Urbanization variable group, 2.4 percent.

The adjusted Beta coefficients (see table XIX) show that all the eight Census division variables in the rent regression were the most significant by far contributing to the negative Housing Supply growth effect, indicating that a significant portion of the impact that contributed to the unfavorable Housing Supply growth effect is unexplained by the variables in the regression. Interestingly, the Census divisions that contribute most to the negative Housing Supply growth effect (East North Central, West North Central and the South Atlantic divisions) also have the top three largest micropolitan populations and account for more than 51 percent of the population in micropolitan areas in the study.

Analysis

The growth effects model indicates that micropolitan areas benefitted from relatively attractive natural amenities that induced inmigration and population growth.

Table XX

Micropolitan Areas	CD 3	CD 4	Avg. All Micros
Wage90-00	40.00%	42.50%	39.90%
Pop90-00	5.90%	6.00%	9.20%

The model shows that productivity increased in micropolitan areas, but well below the overall nationwide productivity growth, implying that productivity was not a significant catalyst for migration. Further analysis corroborates the results from the growth effect model. The micropolitan areas in both the East and West North Central divisions (Census divisions 3&4) had one of most robust growth in wages of all micropolitan areas in the study (see Table XX). Yet both divisions had population growth well below the micropolitan average.

The model also indicated that the housing supply in micropolitan areas was significantly less flexible than the housing supply nationwide, which could be a major deterrent to micropolitan migration. The Census division group in the rent regression is by far the most important variable group contributing to the variation in the explained Housing Supply growth effect. The Census division group must be capturing regional attributes that affect the local housing supply.

Next we will apply the Glaeser-Tobio model on the variation in the data that is not explained by the regressions in order to in order to understand better the overall sources of micropolitan growth.

Unexplained Growth Effects, the Role of the Housing Supply and Unexplained Outliers

Unexplained Growth Effects

In order to get a deeper understanding on micropolitan growth in the 1990s the focus shifts now to the residual (unexplained) growth effects. Whereas the explained growth effects were obtained using $\hat{y}$, the residual growth effects are obtained using $\hat{e}$ (see the methodology section). The regression variables did not explain all the variation in the data. By analyzing the residual growth effects we get a more complete picture of the forces that contributed to the growth of the micropolitan areas in the 1990s. The residual growth effects will also help us to identify factors that help explain the growth of outliers.

The residuals ($\hat{e}$'s) from each (population, wage and rent) regression were put into the growth effect model[16] to calculate the residual Amenity (Productivity, Housing Supply) growth effect. The residual Amenity (Productivity, Housing Supply) growth effect was regressed on the total Amenity (Productivity, Housing Supply) effect and the adjusted R^2 was analyzed. The residual Amenity growth effect explains 59 percent of the total Amenity growth effect in micropolitan growth during the period, the residual Productivity growth effect 59.3 percent and the residual Housing Supply growth effect 27.3 percent.

It is important to find out how much unexplained population growth (errors in the population regression) is impacted by the three types of unexplained growth effects in order to identify important factors that contributed to the unexplained population growth. The residual population growth was therefore regressed on the residual innovations[17] in

[16] See the methodology section

$$\lambda_A^U = (1-\beta-\gamma)e_N + (1-\gamma)e_W$$

$$\lambda_\phi^U = \alpha e_{Ph} - e_W$$

$$\lambda_L^U = e_N + e_W - \left(\frac{\delta e_{Ph}}{\delta - 1}\right)$$

[17] $error^{pop} = f(\lambda^U_\phi, \lambda^U_A, \lambda^U_L)$, where $error^{pop}$ = the error terms from the population regression, λ^U_ϕ, = the residual (unexplained) Amenity growth effect, λ^U_A = the residual Productivity growth effect and λ^U_L= the residual Housing Supply growth effect

order to analyze residual population growth, but the degree of collinearity between the different growth effects made any inference impossible.

Bivariate Pearson correlation analyses were therefore applied for analysis. The Pearson correlation matrix (see Table XXI) revealed that the errors in the population regression were significantly correlated with the residual (unexplained) Housing Supply growth effect (r = - 0.20, p<0.0001), considerable less correlated with the residual Productivity growth effect and (r = - 0.175, p<0.0001) and not significantly correlated with the residual Amenity growth effect (p=0.1319).

In order to find out how much residual Productivity growth effect affected residual population growth we have to look better at residual wage growth. The correlation between the residual Productivity growth effect and residual wage growth (errors in the wage regression) is 0.99, however, the correlation between residual population growth and residual wage growth is not statistically significant which indicates that it is unlikely that the residual Productivity growth effect was an important factor explaining unexplained population growth.

Table XXI

Correlation	Residual Population Growth	P Value	Residual Productivity Effect	P Value
Residual Amenity Effect	0.067	0.132		
Residual Productivity Effect	0.175	<.0001		
Residual l Housing Supply Effect	-0.202	<.0001		
Residual Wage Growth	0.054	0.222	0.993	<.0001

Next we look at the unexplained Housing Supply growth effect. Table XXII shows that the “residual population growth regressed on the residual Housing Supply growth effect" regression is statistically significant and has an R^2 of 0.041. It is not a surprise because there is a significant 44.7 percent correlation between the residual population growth and the residual rent growth (which is the most significant contributor to the residual Housing Supply growth effect).

Table XXII also shows that when the residual Housing Supply growth effect data is divided into groups of micropolitan areas with smaller and larger residual housing supply effects than the average for all the 511 micropolitan areas in the study, then both regressions are significant. It is interesting though that the R^2 increases for the below average housing supply growth effect but declines for the above average, despite the fact that the correlation between the unexplained population growth and unexplained rent growth increases for both groups. This could indicate that residual increases in rent affect residual population growth differently between the groups (above or below the average) or perhaps the dynamics/causal relationship is different in each group (correlation between residual population growth and residual rent cannot be interpreted to indicate any type of causal relationship).

Table XXII

Residual Housing Supply Effect	Correlation Residual Pop Growth Residual Rent Growth	P Value	R2 Residual Pop Growth Residual HSE	P Value
All 511 Micros	0.447	<.0001	0.041	<.0001
Micros < Avg Residual HSE	0.554	<0.0001	0.069	0.020
Micros > Avg Residual HSE	0.468	<0.0001	0.022	0.015

Table XXIII shows the correlation when the residual Housing Supply growth effect data is broken down into ranges based on the number of standard deviations around the mean residual Housing Supply effect (for the 511 micropolitan areas in the study). Micropolitan areas in each of the standard deviation ranges below the average residual Housing Supply effect have higher correlation between the residual population growth and the residual rent growth than the overall average for the 511 micropolitan areas.

However, the correlation between the residual population growth and the residual Housing Supply growth effect does not always have the same sign. Micropolitan areas with above average unexplained housing supply effect exhibit similar pattern. This indicates that although the residual Housing Supply growth effect has an important contribution to explaining residual population growth then there are factors that have to do with rent that have to be better understood.

Table XXIII

Micropolitan Areas	Correlation Residual Pop Growth Residual Rent Growth	P Value	Correlation Residual Pop Growth Residual Housing Supply Effect	P Value
All 511 Micros	0.447	<.0001	-20.153	0.000
0-1 Std < Avg Residual HSE	0.610	<.0001	-0.154	0.048
1-2 Std <Avg Residual HSE	0.585	<.0001	0.229	0.102
2+ Std < Avg Residual HSE	0.713	0.004	-0.516	0.020
0-1 Std > Avg Residual HSE	0.541	<.0001	0.072	0.315
1-2 Std > Avg Residual HSE	0.899	<.0001	-0.827	<.0001
2+ Std > Avg Residual HSE	0.684	0.203	-0.793	0.110

The data shows that there was a positive relationship between increases in population growth and rent growth for 326 micropolitan areas in the study (63.8 percent of the micropolitan areas in the study) as Table XXIV shows. A total of 185 micropolitan areas (36.2 percent of micropolitan areas) had a negative relationship between population growth and rent. Approximately 91 of these micropolitan areas had positive rent growth but negative population growth and 94 had negative rent growth but positive population growth. This shows that there is a considerable inconsistency in the relationship between growth in rent and growth in population in the data which, which also explains the low R^2 in the "residual population growth regressed on the residual Housing Supply growth effect" regression.

In order to understand this behavior it is of value to look better at the relationship between population growth and rent in micropolitan areas that belong to the groups that are extreme outliers in terms of the residual (unexplained) Housing Supply growth effect.

Table XXIV

Positive relationship Residual Rent Growth Residual Pop Growth	326
Negative Relationship Residual Rent Growth>0 Residua Pop Growth <0	91
Negative Relationship Residual Rent Growth<0 Residua Pop Growth >0	94
Total	511

Table XXV shows the micropolitan areas with Housing Supply growth effect that is two standard deviations or more below the average residual Housing Supply growth effect of all the 511 micropolitan areas. It shows that all the micropolitan areas in this subset have higher rent growth than the average of the 54 percent overall micropolitan growth during the period. It also shows in general that the higher the population growth the higher is the growth in rent, but there are inconsistencies. For example the population growth in the Villages (FL) was 69 percent and rent increased 92.3 percent but the population growth was less than one percent in New Castle (IN) despite rent increasing 107.4 percent. Furthermore, rent increased 64.5 percent in Sunbury (PA), despite a population decline of 2.3 percent.

Table XXVI shows similar trends for the micropolitan areas with residual Housing Supply growth effect that is two standard deviations or more above the average residual Housing Supply growth effect of all the 511 micropolitan areas. For example the population increased 44.9 percent in East Stroudsburg (PA) and rent increased 11.6 percent, but the rent increased 39.4 percent in Winfield (KS) despite losing population during the period.

It is of value to analyze local housing markets to understand this behavior. Local regulations as it relates to housing markets are not consistent between regions or micropolitan areas within the same region. In a given region, some micropolitan areas might have regulations that have a negative effect on the housing supply while other micropolitan areas in the same region have regulations that have a positive effect on the housing supply.

Table XXV		
Micropolitan Area	**Pop 90-00**	**Rent 90-00**
The Villages, FL	68.9%	92.3%
Jackson, WY-ID	66.0%	133.7%
Hilton Head Island-Beaufort, SC	39.0%	84.6%
Taos, NM	29.7%	96.7%
Brainerd, MN	24.5%	91.1%
Georgetown, SC	20.5%	73.8%
Del Rio, TX	15.8%	29.3%
Walla Walla, WA	13.9%	87.4%
Albany-Lebanon, OR	13.0%	111.0%
Starkville, MS	11.8%	60.8%
Coldwater, MI	10.3%	88.7%
Merrill, WI	9.8%	87.7%
Watertown-Fort Atkinson, WI	9.2%	91.4%
Adrian, MI	8.1%	86.8%
Houghton, MI	3.1%	69.4%
Pierre Part, LA	2.8%	68.3%
Owosso, MI	2.7%	86.5%
Lock Haven, PA	2.0%	60.7%
New Castle, IN	0.8%	107.4%
Sunbury, PA	-2.3%	64.5%

Table XXVI		
Micropolitan Area	**Pop 90-00**	**Rent 90-00**
East Stroudsburg, PA	44.9%	11.6%
Midland, MI	9.5%	52.7%
Safford, AZ	21.6%	50.7%
Ukiah, CA	7.4%	34.2%
Winfield, KS	-1.7%	39.4%

The fixed effect will only pick up the average effect in each Census division and the portion of the variation that is cancelled out becomes part of the residual Housing Supply growth effect. This indicates that the Census division group is an important source of the unexplained housing supply effect.

Earlier variance decomposition and explained growth effects analysis indicated that the Census division group was the most important variable group explaining the behavior of rent and the explained Housing Supply effect.   Therefore, we can state that regional housing markets were important explaining both explained and residual population growth. In order to gauge the full impact from the conditions of local housing markets on micropolitan growth we have to find a proxy for the conditions in local housing markets. One way to estimate the relative conditions in regional housing markets and housing supply is to look at the "$\frac{\text{growth in the median gross rent}}{\text{growth in the housing supply}}$" ratio[18] during the period (from now on referred to as R/HS ratio).

Say that there are two cities with similar population, employment and income growth. If one city has much higher R/HS ratio than the other, then it is safe to surmise that the housing supply was more rigid in that city. Therefore the R/HS ratio is a gauge on the relative flexibility of the local housing supply and local housing market conditions. One would expect the efficiency of housing markets to differ between cities and regions.

[18] Due to paucity of Census data for rent in micropolitan areas, the median gross rent was estimated for the micropolitan areas by summing up the county population weighted median gross rent for the counties in each micropolitan area. The increase in the number of occupied housing units during the period was summed up for the counties in each micropolitan area and used as a proxy for the housing supply.

Indeed, the study found a considerable difference in the performance of housing markets between the micropolitan areas in the same region and between regions as revealed in the differences in the R/HS ratio.

Some Census divisions had also a significant difference in the R/HS ratio between micropolitan areas in the same Census division. The percentage of micropolitan areas with R/HS ratio below the average in a given Census division ranged from 19 percent to 73 percent and the percentage of micropolitan areas with R/HS above the average in the same Census division ranged from 27 percent to 81 percent.

This shows clearly that the explained effect is only going to represent the net impact of the R/HS ratio in each Census division on overall growth and some portion of the impact is going to be unexplained and part of the residual. This could also help explain the performance of micropolitan areas with unexplained outlier growth performance.

We stated earlier that the scope of the study included an attempt to understand the growth of micropolitan areas with unexplained outlier growth, i.e., micropolitan areas with average level independent variables which had growth well above the typical micropolitan area. A method based on the "hat matrix" (see the methodology section) was used to purge the areas with disproportionate values in the independent variables (growth outliers because of extreme independent variables) in order to be able to analyze the determinants of growth of micropolitan areas with average level independent variables that had outlier growth in the dependent variables (population, rent and wage).

Loveridge et al (2007) says that if there are two areas with similar economic, social and geographic variables and one is growing much faster than the other one, then we ought to know why. They also say that the economic performance of areas with outlier growth can be due to variables that are difficult to measure, such as economic policy of the local economic development organization, local leadership, organizational structure, etc.

It is likely that areas with effective leadership, effective organizational structure and pro growth attitude will have a local regulatory environment that has a positive impact on the housing supply and vice versa. Therefore the efficiency and the overall state of local housing markets is a symptom or a reflection of local regulatory environments. This study therefore argues that the R/HS ratio can be used as proxy for the local regulatory environment.

The Role of the Housing Supply in Economic Growth

The study discovered that rigid local housing markets and rigid regulatory environment have a significant impact on the overall economic performance of micropolitan areas. Micropolitan areas with R/HS below the average did far better as can be seen in Table XXVII. The population increased on average 9.2 percent in the 511 micropolitan areas during the period, employment 21.5 percent and average wage 39.9 percent. Micropolitan areas with below average R/HS ratios performed significantly better, especially when it came to population and employment growth.

The micropolitan areas with below average R/HS ratio saw population increase 15.2 percent (compared to 3.9 percent for the micropolitan areas with above average

R/HS ratio), employment increased 25.7 percent (compared to 17.7 percent) and average wage increased 42 percent (compared to 38.1 percent).

Table XXVII			
Micropolitan	511 Micros	R/HS Ratio	R/HS Ratio
Areas	Avg	Below Avg	Above Avg
Rent 90-00	54.00%	49.00%	58.40%
Pop 90-00	9.20%	15.20%	3.90%
Empl 90-00	21.50%	25.70%	17.70%
Wages 90-00	39.90%	42.00%	38.10%

Table XXVIII shows furthermore that micropolitan areas in each Census division with R/HS ratio below the average R/HS ratio have higher population, employment and average wage growth than micropolitan areas in the same Census division with R/HS above the average. Interestingly, some of the micropolitan areas with R/HS ratio below the average had very high growth in "median gross rent," but robust increase in housing supply resulted in a low R/HS ratio, indicating how important the regulatory environment is.

Table XXVIII

Performance Table for Census Division With R/HS Below Average

CD	R/HS	Pop90-00	MGR90-00	Empl90-00	Wage90-00
1	0.6	6.30%	6.40%	11.80%	41.20%
2	2.7	8.30%	29.40%	10.30%	41.50%
3	3.8	14.00%	69.70%	33.70%	43.10%
4	4.1	12.40%	61.60%	33.40%	47.10%
5	2.3	19.80%	56.00%	22.50%	45.00%
6	2.8	16.50%	63.20%	29.30%	41.50%
7	3	11.60%	41.80%	29.90%	38.10%
8	2.6	21.70%	67.20%	37.60%	39.40%
9	2.3	18.40%	45.20%	25.20%	37.80%

Performance Table for Census Division With R/HS Above Average

CD	R/HS	Pop90-00	MGR90-00	Empl90-00	Wage90-00
2	9.1	0.10%	43.00%	5.60%	35.10%
3	8.2	4.10%	66.70%	19.60%	38.80%
4	8.6	4.00%	60.40%	25.30%	41.50%
5	6.3	3.90%	50.20%	9.40%	38.70%
6	6.5	3.50%	51.10%	18.70%	36.50%
7	7.5	3.40%	40.70%	17.90%	36.10%
8	8.4	4.10%	55.60%	16.00%	34.90%
9	6.8	9.80%	76.50%	17.20%	35.50%

For example the micropolitan areas with R/HS ratio below the average in Census division 8 (the Mountain division) had the average "median gross rent," increase 67.2 percent during the period, but because of robust housing supply the average R/HS ratio was 2.6. These micropolitan areas had very robust economic growth and saw population increase 21.7 percent, employment 37.6 percent and average wage 39.4 percent.

Other micropolitan areas in the same Census division (The Mountain division) had average R/HS ratio of 8.5 (well above the average R/HS ratio), despite having much lower increase in the "median gross rent," of 55.6 percent. That is because of rigid housing supply. These micropolitan areas had much less economic growth, with population increasing only 4.1 percent, employment 16 percent and wages 34.9 percent. This confirms our earlier theory that what matters is not the increase in nominal rent but the increase in nominal rent relative to overall economic activity.

Unexplained Outliers

This illustrates the significant overall impact of the regulatory environment on economic growth and it goes a long way explaining the economic performance of outliers. It is safe to surmise that many micropolitan areas did not achieve their potential population growth in the 1990's because of inefficient regulatory environment as well and to a lesser extent growth of employment and wages. This study does not mean to imply that this is the only explanation for unexplained (above or below) outlier economic growth. There are other reasons that could be important also and that should be a topic for another study.

For example, we found out earlier in the study that a significant majority of new manufacturing jobs added in micropolitan areas went to two Census divisions, which turn out to have very high overall average R/HS ratios: Census division 3 (East North Central) and Census division 4 (West North Central). Approximately 78 percent of the micropolitan areas in these two Census divisions had R/HS ratio above the average. The manufacturing industry was already significant in the micropolitan areas in these Census divisions at the beginning of the period (accounting for 37.4 percent of all manufacturing jobs in micropolitan areas in the 48 contiguous United States in 1990). All the states in these Census divisions have access to the Great Lakes as well as relatively established rail road system. The significant number of manufacturing firms and the well as established transportation infrastructure could mean a presence of significant relative localization economics in manufacturing and that might explain why they had higher growth in manufacturing jobs than all the other Census divisions.

Both of these Census divisions (East North Central & West North Central) had population growth well below the 9.2 percent average (5.9 percent and 6 percent respectively) but both of them had higher growth in employment and wages than the average. The new manufacturing jobs were fueled by a decline in unemployment and an increase in labor force participation due to lack of inmigration which muted population growth. Both of them also ended up with significantly higher growth in the employment/population ratio (15.7 percent and 19.9 percent respectively) than the average of 3.3 percent for all the 511 micropolitan areas in the study, indicating productivity and economic wellbeing.

CHAPTER V

CONCLUSION

Summary & Conclusions

Empirical studies began to pick up increasing non-metropolitan migration during the early 1970's. This migration trend has continued through the following two decades; by the end of the 1990's almost all the migration was down the urban hierarchy, with the most significant migration flows from the very top of the urban hierarchy to the very bottom of the urban hierarchy. The Census Bureau responded to these significant migration flows to non-metropolitan areas by defining a new type of urban areas after the 2000 census, called micropolitan areas.

Micropolitan areas have been described as "emerging metropolitan areas" and are therefore important for the economic future of regions. Since the definition of micropolitan areas is fairly recent then there is not much research that has been done on the determinants of micropolitan growth compared to metropolitan areas. However, we do know that the economic performance of micropolitan areas varied widely during the 1990's. It is the purpose of this study to analyze the determinants of growth of micropolitan areas nationwide and to increase the knowledge of determinants of growth between the average micropolitan area and micropolitan areas with outlier economic performance.

In order to understand better the different incentives behind economic growth and migration to micropolitan areas during the 1990’s, all the variables were divided into seven groups: Amenity variable group that includes only natural amenities, Demographic variable group, Educational variable group, Fiscal and Other Policy variable group, Economic variable group, Urbanization variable group, and Census division variable group (to measure the fixed effect).

Two methods/models were used in the analysis. Firstly, method of general dominance analysis was used, which is based on the variance decomposition of the R^2. It examines the average explained contribution of each variable group (to economic growth and migration) in all possible combinations with the other variable groups to the regression. Average Beta coefficients were used to assess the relative importance of the significant variables within each variable group. Secondly, the three sector dynamic growth effects model, developed by Glaeser and Tobio, was used in order to analyze the sources of economic growth and migration. This study uses the Glaeser and Tobio model to analyze both explained and residual growth effects. The model breaks down sources of growth into three effects that affect growth: the Amenity effect, the Productivity effect, and the Housing Supply effect.

Three hedonic cross section regressions were run for three dependent variables: population growth, wage growth, and rent growth. All the significant variables in the three regressions had plausible or expected signs.

The general dominance analysis on the population growth regression showed the migration to micropolitan areas was mostly amenity oriented. The Economic variable group was most important explaining the variations in the data, followed by the Census division variable group; the Fiscal and Other Policy variable group; the Demographics variable group; the Amenity variable group; the Education variable group and the Urbanization variable group.

The Beta coefficients showed that the manufacturing, mining and farming industries were the most important variables in the Economic variable group. Both manufacturing and mining have strong negative impact on migration and rent, which is consistent with amenity oriented migration. Both of these industries are often associated with pollution and environmental degradation and have a negative impact on natural amenities. The percent of farm jobs had a positive coefficient in the population growth regression.

The Beta coefficients in the Fiscal and Other Policy variable group indicated that high effective local tax burden is a drag on population growth and the Beta coefficients in the Demographics variable group showed that the variables most conducive to migration were percentage of married households and the percent of people in the 50-64 age group. Other variable groups indicated that areas characterized by stability (relatively large percentage of married households), high relative concentration of people with higher education degrees, mild January temperatures, access to water and highways and micropolitan areas closer to metropolitan areas were preferred.

Further analysis show that there were 317 locations with higher than average amenity scale of the 511 micropolitan areas in the study and these areas had lower than the average wage. This is consistent with the Glaeser-Tobio model, which clearly shows that locations high in amenities have lower wages than areas with low level of amenities in order to maintain the regional utility equilibrium.

The general dominance analysis on the rent regression showed the Census variable group was by far the most important variable group explaining the behavior of the rental data, accounting for 2.5 times more variation in the rental data than the next important group (the Economic variable group). This indicates that a big portion of the variation in the rent data is unexplained.

The Economic variable group accounted for almost 80 percent of the total variation in the wage data, almost ten times more than the next variable group. Manufacturing and average wages were the most important variables explaining growth in wages. Vias (1999) says that manufacturing was moving to areas in the 1990's with low wages and the data in this study supported his findings. The 1990 average wage was 2.3 percent higher in the 218 micropolitan areas in the study that lost manufacturing jobs during the period than in the 293 micropolitan areas that added manufacturing jobs. Wages furthermore increased more in areas that added manufacturing jobs.

In order to analyze the sources of growth further, the study next focused on the explained growth effects (the Amenity, Productivity and Housing Supply effects). The relative contribution of the variable groups to the different growth effects was assessed by first calculating the growth effect for each variable group and then regress it on the respective total growth effect.

The Amenity Growth effect shows that micropolitan areas benefitted from amenities that were relatively attractive compare to the rest of the nation during the 1990's. The Economic variable group contributed most to the explanation of the variation in the data and the Beta coefficients showed that average wage was by far the most important variable within the group. This indicates that migrants were willing to accept less than average nationwide growth in wages and higher than average growth in rental payments in order to enjoy micropolitan amenities.

This is reinforced by the explained Productivity growth effect, which shows that although productivity increased in micropolitan areas during the period of the study, then the growth in productivity was considerably less than the nationwide growth in productivity. As expected then the Economic variable group contributed most, by far, to the explanation of the variation in productivity growth in micropolitan areas.

Interestingly, the explained Housing Supply growth effect shows that micropolitan growth suffered due to a relatively inflexible housing supply. The model shows that housing supply in micropolitan areas was significantly less flexible than housing supply nationwide and that the Census division variable group in the rent regression contributed by far most to the inflexible micropolitan housing supply. This indicates that the Census division variable group is capturing regional attributes not explained by the variables in the model that are affecting the flexibility of the local housing supply.

By analyzing the residual growth effects we get a more a complete picture of the forces that contributed to the growth of the micropolitan areas in the 1990's and it is helpful to identify factors that explain the growth of outliers. The residual population growth was regressed on the residual growth effects in order to find the relative importance of the different growth effects, but a problem with collinearity made relative comparison impossible. Bivariate Pearson correlation analyses were therefore applied for analysis. The Pearson correlation analysis indicated that the residual Housing Supply effect had the most direct relationship with the residual population growth. Further analysis showed that there was considerable inconsistency in the relationship between the residual population growth and the residual Housing Supply effect, which was related to the relative robustness of the residual population growth.

Additional analysis on specific micropolitan areas revealed that some micropolitan areas with significant above performance unexplained (residual) population growth could have considerable less increase in rent than other micropolitan areas with significant below performance unexplained population growth. This evidence of inconsistency in local housing market performance commanded further analysis on the conditions of local housing markets. A proxy was defined as "$\frac{\text{growth in the median gross rent}}{\text{growth in the housing supply}}$" to gauge the relative conditions in regional housing markets and from now on referred to as R/HS ratio.

Further analysis revealed that micropolitan areas with relatively low R/HS ratio had much better economic performance during the period of the study. Population growth in micropolitan areas with R/HS ratio below the average for the 511 micropolitan areas in the study increased 15.2 percent and employment growth increased 25.7 percent, well above the 3.9 percent population growth and 17.7 percent employment growth in micropolitan areas with R/HS ratio above the average. Importantly, there was also a significant relationship between the R/HS ratio and economic performance in micropolitan areas within the same Census division. For example micropolitan areas in the Mountain division (CD 8) with R/HS ratio below the average had population growth of 21.7 percent and employment growth of 37.6 percent compared to a population growth of 4.1 percent and employment growth of 16 percent for micropolitan areas in the same Census division with R/HS ratio above the average.

It is likely that areas with effective leadership, effective organizational structure and pro growth attitude will have a local regulatory environment that has a positive impact on the housing supply and vice versa. Therefore the efficiency and the overall state of local housing markets is a symptom or a reflection of local regulatory environments. This study therefore argues that the R/HS ratio can be used as proxy for the local regulatory environment.

The overall conclusion of the study is that the migration to micropolitan areas during the 1990's was mostly a supply side amenity migration. Micropolitan areas characterized by stability (high percentage of marriage households), high concentration of people in the "50-64" year old age group, high relative concentration of people with higher education degrees, mild January temperatures and access to water and highways were preferred. However, local housing markets and the state of the local regulatory environment were also very important determinants of migration and economic growth.

Relatively inflexible local housing markets and difficult local regulatory environment significantly retarded overall migration and economic growth, even in micropolitan areas with relatively high level of natural amenities. Most of the outliers' performance could be explained by the by the state of the local regulatory environment. This indicates that if economic developers in micropolitan areas want to increase inmigration and local economic growth they should concentrate on increasing amenities and foster a benign regulatory environment that is conducive to economic growth.

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APPENDIX A

In this Appendix:

X1 = the Amenity Group
X2 = the Demographics group
X3 = the Education group
X4 = the Fiscal and Other Policy group
X5 = the Economic group
X6 = Urbanization group
X7 = Census district group

GENERAL DOMINANCE ANALYSIS FOR THE POPULATION REGRESSION

Regr	Adj R2	Regr	Adj R2	Contribution X1
		X1	0.120	0.120
X2	0.100	X2 X1	0.193	0.092
X3	0.012	X3 X1	0.147	0.147
X4	0.165	X4 X1	0.197	0.033
X5	0.139	X5 X1	0.318	0.318
X6	0.035	X6 X1	0.133	0.098
X7	0.159	X7 X1	0.202	0.202
X2 X3	0.212	X2 X3 X1	0.295	0.084
X2 X4	0.228	X2 X4 X1	0.255	0.255
X2 X5	0.248	X2 X5 X1	0.386	0.139
X2 X6	0.129	X2 X6 X1	0.198	0.198
X2 X7	0.246	X2 X7 X1	0.279	0.032
X3 X4	0.200	X3 X4 X1	0.228	0.028
X3 X5	0.142	X3 X5 X1	0.316	0.316
X3 X6	0.057	X3 X6 X1	0.161	0.104
X3 X7	0.186	X3 X7 X1	0.243	0.243
X4 X5	0.284	X4 X5 X1	0.341	0.341
X4 X6	0.178	X4 X6 X1	0.219	0.041
X4 X7	0.257	X4 X7 X1	0.278	0.278
X5 X6	0.174	X5 X6 X1	0.323	0.323
X5 X7	0.305	X5 X7 X1	0.390	0.085
X6 X7	0.205	X6 X7 X1	0.247	0.042
X2 X3 X4	0.342	X2 X3 X4 X1	0.360	0.360
X2 X3 X5	0.289	X2 X3 X5 X1	0.410	0.121
X2 X3 X6	0.253	X2 X3 X6 X1	0.312	0.312
X2 X3 X7	0.322	X2 X3 X7 X1	0.360	0.038

X2 X4 X5	0.353	X2 X4 X5 X1	0.409	0.056
X2 X4 X6	0.241	X2 X4 X6 X1	0.267	0.267
X2 X4 X7	0.315	X2 X4 X7 X1	0.332	0.017
X2 X5 X6	0.276	X2 X5 X6 X1	0.390	0.114
X2 X5 X7	0.383	X2 X5 X7 X1	0.439	0.439
X2 X6 X7	0.281	X2 X6 X7 X1	0.304	0.304
X3 X4 X5	0.288	X3 X4 X5 X1	0.342	0.342
X3 X4 X6	0.220	X3 X4 X6 X1	0.248	0.028
X3 X4 X7	0.296	X3 X4 X7 X1	0.323	0.323
X3 X5 X6	0.178	X3 X5 X6 X1	0.321	0.321
X3 X5 X7	0.304	X3 X5 X7 X1	0.400	0.096
X3 X6 X7	0.243	X3 X6 X7 X1	0.287	0.044
X4 X5 X6	0.298	X4 X5 X6 X1	0.355	0.058
X4 X5 X7	0.373	X4 X5 X7 X1	0.423	0.423
X4 X6 X7	0.286	X4 X6 X7 X1	0.314	0.314
X5 X6 X7	0.341	X5 X6 X7 X1	0.409	0.068
X2 X3 X4 X5	0.394	X2 X3 X4 X5 X1	0.435	0.435
X2 X3 X4 X6	0.358	X2 X3 X4 X6 X1	0.372	0.014
X2 X3 X4 X7	0.406	X2 X3 X4 X7 X1	0.429	0.429
X2 X3 X5 X6	0.320	X2 X3 X5 X6 X1	0.416	0.416
X2 X3 X5 X7	0.405	X2 X3 X5 X7 X1	0.463	0.059
X2 X3 X6 X7	0.368	X2 X3 X6 X7 X1	0.389	0.021
X2 X4 X5 X6	0.368	X2 X4 X5 X6 X1	0.418	0.050
X2 X4 X5 X7	0.433	X2 X4 X5 X7 X1	0.470	0.470
X2 X4 X6 X7	0.342	X2 X4 X6 X7 X1	0.357	0.357
X2 X5 X6 X7	0.412	X2 X5 X6 X7 X1	0.454	0.042
X3 X4 X5 X6	0.300	X3 X4 X5 X6 X1	0.354	0.054
X3 X4 X5 X7	0.382	X3 X4 X5 X7 X1	0.440	0.440
X3 X4 X6 X7	0.325	X3 X4 X6 X7 X1	0.352	0.352
X3 X5 X6 X7	0.340	X3 X5 X6 X7 X1	0.415	0.075
X4 X5 X6 X7	0.394	X4 X5 X6 X7 X1	0.443	0.049
X2 X3 X4 X5 X6	0.407	X2 X3 X4 X5 X6 X1	0.443	0.443
X2 X3 X4 X5 X7	0.465	X2 X3 X4 X5 X7 X1	0.502	0.037
X2 X3 X4 X6 X7	0.432	X2 X3 X4 X6 X7 X1	0.445	0.013
X2 X3 X5 X6 X7	0.434	X2 X3 X5 X6 X7 X1	0.475	0.475
X2 X4 X5 X6 X7	0.453	X2 X4 X5 X6 X7 X1	0.484	0.484
X3 X4 X5 X6 X7	0.399	X3 X4 X5 X6 X7 X1	0.452	0.053
X2 X3 X4 X5 X6 X7	0.483	X2 X3 X4 X5 X6 X7 X1	0.510	0.510

Regr	Adj R2	Regr	Adj R2	Contribution X2
		X2	0.100	0.100
X1	0.120	X1 X2	0.193	0.072
X3	0.012	X3 X2	0.212	0.212
X4	0.165	X4 X2	0.228	0.063
X5	0.139	X5 X2	0.248	0.248
X6	0.035	X6 X2	0.129	0.094
X7	0.159	X7 X2	0.246	0.246
X1 X3	0.147	X1 X3 X2	0.295	0.148
X1 X4	0.197	X1 X4 X2	0.255	0.255
X1 X5	0.318	X1 X5 X2	0.386	0.069
X1 X6	0.133	X1 X6 X2	0.198	0.198
X1 X7	0.202	X1 X7 X2	0.279	0.077
X3 X4	0.200	X3 X4 X2	0.342	0.141
X3 X5	0.142	X3 X5 X2	0.289	0.289
X3 X6	0.057	X3 X6 X2	0.253	0.197
X3 X7	0.186	X3 X7 X2	0.322	0.322
X4 X5	0.284	X4 X5 X2	0.353	0.353
X4 X6	0.178	X4 X6 X2	0.241	0.063
X4 X7	0.257	X4 X7 X2	0.315	0.315
X5 X6	0.174	X5 X6 X2	0.276	0.276
X5 X7	0.305	X5 X7 X2	0.383	0.079
X6 X7	0.205	X6 X7 X2	0.281	0.075
X1 X3 X4	0.228	X1 X3 X4 X2	0.360	0.360
X1 X3 X5	0.316	X1 X3 X5 X2	0.410	0.094
X1 X3 X6	0.161	X1 X3 X6 X2	0.312	0.312
X1 X3 X7	0.243	X1 X3 X7 X2	0.360	0.117
X1 X4 X5	0.341	X1 X4 X5 X2	0.409	0.068
X1 X4 X6	0.219	X1 X4 X6 X2	0.267	0.267
X1 X4 X7	0.278	X1 X4 X7 X2	0.332	0.054
X1 X5 X6	0.323	X1 X5 X6 X2	0.390	0.067
X1 X5 X7	0.390	X1 X5 X7 X2	0.439	0.439
X1 X6 X7	0.247	X1 X6 X7 X2	0.304	0.304
X3 X4 X5	0.288	X3 X4 X5 X2	0.394	0.394
X3 X4 X6	0.220	X3 X4 X6 X2	0.358	0.139
X3 X4 X7	0.296	X3 X4 X7 X2	0.406	0.406
X3 X5 X6	0.178	X3 X5 X6 X2	0.320	0.320
X3 X5 X7	0.304	X3 X5 X7 X2	0.405	0.100
X3 X6 X7	0.243	X3 X6 X7 X2	0.368	0.125
X4 X5 X6	0.298	X4 X5 X6 X2	0.368	0.070
X4 X5 X7	0.373	X4 X5 X7 X2	0.433	0.433

X4 X6 X7	0.286	X4 X6 X7 X2	0.342	0.342
X5 X6 X7	0.341	X5 X6 X7 X2	0.412	0.071
X1 X3 X4 X5	0.342	X1 X3 X4 X5 X2	0.435	0.435
X1 X3 X4 X6	0.248	X1 X3 X4 X6 X2	0.372	0.124
X1 X3 X4 X7	0.323	X1 X3 X4 X7 X2	0.429	0.429
X1 X3 X5 X6	0.321	X1 X3 X5 X6 X2	0.416	0.416
X1 X3 X5 X7	0.400	X1 X3 X5 X7 X2	0.463	0.063
X1 X3 X6 X7	0.287	X1 X3 X6 X7 X2	0.389	0.103
X1 X4 X5 X6	0.355	X1 X4 X5 X6 X2	0.418	0.063
X1 X4 X5 X7	0.423	X1 X4 X5 X7 X2	0.470	0.470
X1 X4 X6 X7	0.314	X1 X4 X6 X7 X2	0.357	0.357
X1 X5 X6 X7	0.409	X1 X5 X6 X7 X2	0.454	0.045
X3 X4 X5 X6	0.300	X3 X4 X5 X6 X2	0.407	0.106
X3 X4 X5 X7	0.382	X3 X4 X5 X7 X2	0.465	0.465
X3 X4 X6 X7	0.325	X3 X4 X6 X7 X2	0.432	0.432
X3 X5 X6 X7	0.340	X3 X5 X6 X7 X2	0.434	0.095
X4 X5 X6 X7	0.394	X4 X5 X6 X7 X2	0.453	0.059
X1 X3 X4 X5 X6	0.354	X1 X3 X4 X5 X6 X2	0.443	0.443
X1 X3 X4 X5 X7	0.440	X1 X3 X4 X5 X7 X2	0.502	0.062
X1 X3 X4 X6 X7	0.352	X1 X3 X4 X6 X7 X2	0.445	0.093
X1 X3 X5 X6 X7	0.415	X1 X3 X5 X6 X7 X2	0.475	0.475
X1 X4 X5 X6 X7	0.443	X1 X4 X5 X6 X7 X2	0.484	0.484
X3 X4 X5 X6 X7	0.399	X3 X4 X5 X6 X7 X2	0.483	0.083
X1 X3 X4 X5 X6 X7	0.452	X1 X3 X4 X5 X6 X7 X2	0.510	0.510

Regr	Adj R2	Regr	Adj R2	Contribution X3
		X2	0.100	0.100
X1	0.120	X1 X2	0.193	0.072
X3	0.012	X3 X2	0.212	0.212
X4	0.165	X4 X2	0.228	0.063
X5	0.139	X5 X2	0.248	0.248
X6	0.035	X6 X2	0.129	0.094
X7	0.159	X7 X2	0.246	0.246
X1 X3	0.147	X1 X3 X2	0.295	0.148
X1 X4	0.197	X1 X4 X2	0.255	0.255
X1 X5	0.318	X1 X5 X2	0.386	0.069
X1 X6	0.133	X1 X6 X2	0.198	0.198
X1 X7	0.202	X1 X7 X2	0.279	0.077
X3 X4	0.200	X3 X4 X2	0.342	0.141
X3 X5	0.142	X3 X5 X2	0.289	0.289
X3 X6	0.057	X3 X6 X2	0.253	0.197

X3 X7	0.186	X3 X7 X2	0.322	0.322
X4 X5	0.284	X4 X5 X2	0.353	0.353
X4 X6	0.178	X4 X6 X2	0.241	0.063
X4 X7	0.257	X4 X7 X2	0.315	0.315
X5 X6	0.174	X5 X6 X2	0.276	0.276
X5 X7	0.305	X5 X7 X2	0.383	0.079
X6 X7	0.205	X6 X7 X2	0.281	0.075
X1 X3 X4	0.228	X1 X3 X4 X2	0.360	0.360
X1 X3 X5	0.316	X1 X3 X5 X2	0.410	0.094
X1 X3 X6	0.161	X1 X3 X6 X2	0.312	0.312
X1 X3 X7	0.243	X1 X3 X7 X2	0.360	0.117
X1 X4 X5	0.341	X1 X4 X5 X2	0.409	0.068
X1 X4 X6	0.219	X1 X4 X6 X2	0.267	0.267
X1 X4 X7	0.278	X1 X4 X7 X2	0.332	0.054
X1 X5 X6	0.323	X1 X5 X6 X2	0.390	0.067
X1 X5 X7	0.390	X1 X5 X7 X2	0.439	0.439
X1 X6 X7	0.247	X1 X6 X7 X2	0.304	0.304
X3 X4 X5	0.288	X3 X4 X5 X2	0.394	0.394
X3 X4 X6	0.220	X3 X4 X6 X2	0.358	0.139
X3 X4 X7	0.296	X3 X4 X7 X2	0.406	0.406
X3 X5 X6	0.178	X3 X5 X6 X2	0.320	0.320
X3 X5 X7	0.304	X3 X5 X7 X2	0.405	0.100
X3 X6 X7	0.243	X3 X6 X7 X2	0.368	0.125
X4 X5 X6	0.298	X4 X5 X6 X2	0.368	0.070
X4 X5 X7	0.373	X4 X5 X7 X2	0.433	0.433
X4 X6 X7	0.286	X4 X6 X7 X2	0.342	0.342
X5 X6 X7	0.341	X5 X6 X7 X2	0.412	0.071
X1 X3 X4 X5	0.342	X1 X3 X4 X5 X2	0.435	0.435
X1 X3 X4 X6	0.248	X1 X3 X4 X6 X2	0.372	0.124
X1 X3 X4 X7	0.323	X1 X3 X4 X7 X2	0.429	0.429
X1 X3 X5 X6	0.321	X1 X3 X5 X6 X2	0.416	0.416
X1 X3 X5 X7	0.400	X1 X3 X5 X7 X2	0.463	0.063
X1 X3 X6 X7	0.287	X1 X3 X6 X7 X2	0.389	0.103
X1 X4 X5 X6	0.355	X1 X4 X5 X6 X2	0.418	0.063
X1 X4 X5 X7	0.423	X1 X4 X5 X7 X2	0.470	0.470
X1 X4 X6 X7	0.314	X1 X4 X6 X7 X2	0.357	0.357
X1 X5 X6 X7	0.409	X1 X5 X6 X7 X2	0.454	0.045
X3 X4 X5 X6	0.300	X3 X4 X5 X6 X2	0.407	0.106
X3 X4 X5 X7	0.382	X3 X4 X5 X7 X2	0.465	0.465
X3 X4 X6 X7	0.325	X3 X4 X6 X7 X2	0.432	0.432
X3 X5 X6 X7	0.340	X3 X5 X6 X7 X2	0.434	0.095
X4 X5 X6 X7	0.394	X4 X5 X6 X7 X2	0.453	0.059
X1 X3 X4 X5 X6	0.354	X1 X3 X4 X5 X6 X2	0.443	0.443

X1 X3 X4 X5 X7	0.440	X1 X3 X4 X5 X7 X2	0.502	0.062
X1 X3 X4 X6 X7	0.352	X1 X3 X4 X6 X7 X2	0.445	0.093
X1 X3 X5 X6 X7	0.415	X1 X3 X5 X6 X7 X2	0.475	0.475
X1 X4 X5 X6 X7	0.443	X1 X4 X5 X6 X7 X2	0.484	0.484
X3 X4 X5 X6 X7	0.399	X3 X4 X5 X6 X7 X2	0.483	0.083
X1 X3 X4 X5 X6 X7	0.452	X1 X3 X4 X5 X6 X7 X2	0.510	0.510

Regr	Adj R2	Regr	Adj R2	Contribution X4
		X4	0.165	0.165
X1	0.120	X1 X4	0.197	0.077
X2	0.100	X2 X4	0.228	0.228
X3	0.012	X3 X4	0.200	0.188
X5	0.139	X5 X4	0.284	0.284
X6	0.035	X6 X4	0.178	0.143
X7	0.159	X7 X4	0.257	0.257
X1 X2	0.193	X1 X2 X4	0.255	0.063
X1 X3	0.147	X1 X3 X4	0.228	0.228
X1 X5	0.318	X1 X5 X4	0.341	0.024
X1 X6	0.133	X1 X6 X4	0.219	0.219
X1 X7	0.202	X1 X7 X4	0.278	0.076
X2 X3	0.212	X2 X3 X4	0.342	0.130
X2 X5	0.248	X2 X5 X4	0.353	0.353
X2 X6	0.129	X2 X6 X4	0.241	0.112
X2 X7	0.246	X2 X7 X4	0.315	0.315
X3 X5	0.142	X3 X5 X4	0.288	0.288
X3 X6	0.057	X3 X6 X4	0.220	0.163
X3 X7	0.186	X3 X7 X4	0.296	0.296
X5 X6	0.174	X5 X6 X4	0.298	0.298
X5 X7	0.305	X5 X7 X4	0.373	0.069
X6 X7	0.205	X6 X7 X4	0.286	0.081
X1 X2 X3	0.295	X1 X2 X3 X4	0.360	0.360
X1 X2 X5	0.386	X1 X2 X5 X4	0.409	0.023
X1 X2 X6	0.198	X1 X2 X6 X4	0.267	0.267
X1 X2 X7	0.279	X1 X2 X7 X4	0.332	0.053
X1 X3 X5	0.316	X1 X3 X5 X4	0.342	0.026
X1 X3 X6	0.161	X1 X3 X6 X4	0.248	0.248
X1 X3 X7	0.243	X1 X3 X7 X4	0.323	0.081
X1 X5 X6	0.323	X1 X5 X6 X4	0.355	0.032
X1 X5 X7	0.390	X1 X5 X7 X4	0.423	0.423
X1 X6 X7	0.247	X1 X6 X7 X4	0.314	0.314
X2 X3 X5	0.289	X2 X3 X5 X4	0.394	0.394

X2 X3 X6	0.253	X2 X3 X6 X4	0.358	0.105
X2 X3 X7	0.322	X2 X3 X7 X4	0.406	0.406
X2 X5 X6	0.276	X2 X5 X6 X4	0.368	0.368
X2 X5 X7	0.383	X2 X5 X7 X4	0.433	0.050
X2 X6 X7	0.281	X2 X6 X7 X4	0.342	0.061
X3 X5 X6	0.178	X3 X5 X6 X4	0.300	0.123
X3 X5 X7	0.304	X3 X5 X7 X4	0.382	0.382
X3 X6 X7	0.243	X3 X6 X7 X4	0.325	0.325
X5 X6 X7	0.341	X5 X6 X7 X4	0.394	0.053
X1 X2 X3 X5	0.410	X1 X2 X3 X5 X4	0.435	0.435
X1 X2 X3 X6	0.312	X1 X2 X3 X6 X4	0.372	0.060
X1 X2 X3 X7	0.360	X1 X2 X3 X7 X4	0.429	0.429
X1 X2 X5 X6	0.390	X1 X2 X5 X6 X4	0.418	0.418
X1 X2 X5 X7	0.439	X1 X2 X5 X7 X4	0.470	0.031
X1 X2 X6 X7	0.304	X1 X2 X6 X7 X4	0.357	0.053
X1 X3 X5 X6	0.321	X1 X3 X5 X6 X4	0.354	0.033
X1 X3 X5 X7	0.400	X1 X3 X5 X7 X4	0.440	0.440
X1 X3 X6 X7	0.287	X1 X3 X6 X7 X4	0.352	0.352
X1 X5 X6 X7	0.409	X1 X5 X6 X7 X4	0.443	0.034
X2 X3 X5 X6	0.320	X2 X3 X5 X6 X4	0.407	0.087
X2 X3 X5 X7	0.405	X2 X3 X5 X7 X4	0.465	0.465
X2 X3 X6 X7	0.368	X2 X3 X6 X7 X4	0.432	0.432
X2 X5 X6 X7	0.412	X2 X5 X6 X7 X4	0.453	0.041
X3 X5 X6 X7	0.340	X3 X5 X6 X7 X4	0.399	0.060
X1 X2 X3 X5 X6	0.416	X1 X2 X3 X5 X6 X4	0.443	0.443
X1 X2 X3 X5 X7	0.463	X1 X2 X3 X5 X7 X4	0.502	0.039
X1 X2 X3 X6 X7	0.389	X1 X2 X3 X6 X7 X4	0.445	0.056
X1 X2 X5 X6 X7	0.454	X1 X2 X5 X6 X7 X4	0.484	0.484
X1 X3 X5 X6 X7	0.415	X1 X3 X5 X6 X7 X4	0.452	0.452
X2 X3 X5 X6 X7	0.434	X2 X3 X5 X6 X7 X4	0.483	0.048
X1 X2 X3 X5 X6 X7	0.475	X1 X2 X3 X5 X6 X7 X4	0.510	0.510

Regr	Adj R2	Regr	Adj R2	Contribution X5
		X5	0.139	0.139
X1	0.120	X1 X5	0.318	0.197
X2	0.100	X2 X5	0.248	0.248
X3	0.012	X3 X5	0.142	0.129
X4	0.165	X4 X5	0.284	0.284
X6	0.035	X6 X5	0.174	0.139
X7	0.159	X7 X5	0.305	0.305
X1 X2	0.193	X1 X2 X5	0.386	0.194
X1 X3	0.147	X1 X3 X5	0.316	0.316

X1 X4	0.197	X1 X4 X5	0.341	0.144
X1 X6	0.133	X1 X6 X5	0.323	0.323
X1 X7	0.202	X1 X7 X5	0.390	0.187
X2 X3	0.212	X2 X3 X5	0.289	0.077
X2 X4	0.228	X2 X4 X5	0.353	0.353
X2 X6	0.129	X2 X6 X5	0.276	0.146
X2 X7	0.246	X2 X7 X5	0.383	0.383
X3 X4	0.200	X3 X4 X5	0.288	0.288
X3 X6	0.057	X3 X6 X5	0.178	0.121
X3 X7	0.186	X3 X7 X5	0.304	0.304
X4 X6	0.178	X4 X6 X5	0.298	0.298
X4 X7	0.257	X4 X7 X5	0.373	0.117
X6 X7	0.205	X6 X7 X5	0.341	0.136
X1 X2 X3	0.295	X1 X2 X3 X5	0.410	0.410
X1 X2 X4	0.255	X1 X2 X4 X5	0.409	0.154
X1 X2 X6	0.198	X1 X2 X6 X5	0.390	0.390
X1 X2 X7	0.279	X1 X2 X7 X5	0.439	0.160
X1 X3 X4	0.228	X1 X3 X4 X5	0.342	0.114
X1 X3 X6	0.161	X1 X3 X6 X5	0.321	0.321
X1 X3 X7	0.243	X1 X3 X7 X5	0.400	0.158
X1 X4 X6	0.219	X1 X4 X6 X5	0.355	0.136
X1 X4 X7	0.278	X1 X4 X7 X5	0.423	0.423
X1 X6 X7	0.247	X1 X6 X7 X5	0.409	0.409
X2 X3 X4	0.342	X2 X3 X4 X5	0.394	0.394
X2 X3 X6	0.253	X2 X3 X6 X5	0.320	0.066
X2 X3 X7	0.322	X2 X3 X7 X5	0.405	0.405
X2 X4 X6	0.241	X2 X4 X6 X5	0.368	0.368
X2 X4 X7	0.315	X2 X4 X7 X5	0.433	0.118
X2 X6 X7	0.281	X2 X6 X7 X5	0.412	0.132
X3 X4 X6	0.220	X3 X4 X6 X5	0.300	0.081
X3 X4 X7	0.296	X3 X4 X7 X5	0.382	0.382
X3 X6 X7	0.243	X3 X6 X7 X5	0.340	0.340
X4 X6 X7	0.286	X4 X6 X7 X5	0.394	0.108
X1 X2 X3 X4	0.360	X1 X2 X3 X4 X5	0.435	0.435
X1 X2 X3 X6	0.312	X1 X2 X3 X6 X5	0.416	0.104
X1 X2 X3 X7	0.360	X1 X2 X3 X7 X5	0.463	0.463
X1 X2 X4 X6	0.267	X1 X2 X4 X6 X5	0.418	0.418
X1 X2 X4 X7	0.332	X1 X2 X4 X7 X5	0.470	0.138
X1 X2 X6 X7	0.304	X1 X2 X6 X7 X5	0.454	0.150
X1 X3 X4 X6	0.248	X1 X3 X4 X6 X5	0.354	0.106
X1 X3 X4 X7	0.323	X1 X3 X4 X7 X5	0.440	0.440
X1 X3 X6 X7	0.287	X1 X3 X6 X7 X5	0.415	0.415
X1 X4 X6 X7	0.314	X1 X4 X6 X7 X5	0.443	0.129

X2 X3 X4 X6	0.358	X2 X3 X4 X6 X5	0.407	0.048
X2 X3 X4 X7	0.406	X2 X3 X4 X7 X5	0.465	0.465
X2 X3 X6 X7	0.368	X2 X3 X6 X7 X5	0.434	0.434
X2 X4 X6 X7	0.342	X2 X4 X6 X7 X5	0.453	0.112
X3 X4 X6 X7	0.325	X3 X4 X6 X7 X5	0.399	0.074
X1 X2 X3 X4 X6	0.372	X1 X2 X3 X4 X6 X5	0.443	0.443
X1 X2 X3 X4 X7	0.429	X1 X2 X3 X4 X7 X5	0.502	0.072
X1 X2 X3 X6 X7	0.389	X1 X2 X3 X6 X7 X5	0.475	0.086
X1 X2 X4 X6 X7	0.357	X1 X2 X4 X6 X7 X5	0.484	0.484
X1 X3 X4 X6 X7	0.352	X1 X3 X4 X6 X7 X5	0.452	0.452
X2 X3 X4 X6 X7	0.432	X2 X3 X4 X6 X7 X5	0.483	0.051
X1 X2 X3 X4 X6 X7	0.445	X1 X2 X3 X4 X6 X7 X5	0.510	0.510

Regr	Adj R2	Regr	Adj R2	Contribution X6
		X6	0.035	0.035
X1	0.120	X1 X6	0.133	0.013
X2	0.100	X2 X6	0.129	0.129
X3	0.012	X3 X6	0.057	0.044
X4	0.165	X4 X6	0.178	0.178
X5	0.139	X5 X6	0.174	0.035
X7	0.159	X7 X6	0.205	0.205
X1 X2	0.193	X1 X2 X6	0.198	0.006
X1 X3	0.147	X1 X3 X6	0.161	0.161
X1 X4	0.197	X1 X4 X6	0.219	0.022
X1 X5	0.318	X1 X5 X6	0.323	0.323
X1 X7	0.202	X1 X7 X6	0.247	0.045
X2 X3	0.212	X2 X3 X6	0.253	0.042
X2 X4	0.228	X2 X4 X6	0.241	0.241
X2 X5	0.248	X2 X5 X6	0.276	0.028
X2 X7	0.246	X2 X7 X6	0.281	0.281
X3 X4	0.200	X3 X4 X6	0.220	0.220
X3 X5	0.142	X3 X5 X6	0.178	0.036
X3 X7	0.186	X3 X7 X6	0.243	0.243
X4 X5	0.284	X4 X5 X6	0.298	0.298
X4 X7	0.257	X4 X7 X6	0.286	0.029
X5 X7	0.305	X5 X7 X6	0.341	0.037
X1 X2 X3	0.295	X1 X2 X3 X6	0.312	0.312
X1 X2 X4	0.255	X1 X2 X4 X6	0.267	0.012
X1 X2 X5	0.386	X1 X2 X5 X6	0.390	0.390
X1 X2 X7	0.279	X1 X2 X7 X6	0.304	0.025
X1 X3 X4	0.228	X1 X3 X4 X6	0.248	0.020

X1 X3 X5	0.316	X1 X3 X5 X6	0.321	0.321
X1 X3 X7	0.243	X1 X3 X7 X6	0.287	0.044
X1 X4 X5	0.341	X1 X4 X5 X6	0.355	0.014
X1 X4 X7	0.278	X1 X4 X7 X6	0.314	0.314
X1 X5 X7	0.390	X1 X5 X7 X6	0.409	0.409
X2 X3 X4	0.342	X2 X3 X4 X6	0.358	0.358
X2 X3 X5	0.289	X2 X3 X5 X6	0.320	0.031
X2 X3 X7	0.322	X2 X3 X7 X6	0.368	0.368
X2 X4 X5	0.353	X2 X4 X5 X6	0.368	0.368
X2 X4 X7	0.315	X2 X4 X7 X6	0.342	0.026
X2 X5 X7	0.383	X2 X5 X7 X6	0.412	0.029
X3 X4 X5	0.288	X3 X4 X5 X6	0.300	0.013
X3 X4 X7	0.296	X3 X4 X7 X6	0.325	0.325
X3 X5 X7	0.304	X3 X5 X7 X6	0.340	0.340
X4 X5 X7	0.373	X4 X5 X7 X6	0.394	0.021
X1 X2 X3 X4	0.360	X1 X2 X3 X4 X6	0.372	0.372
X1 X2 X3 X5	0.410	X1 X2 X3 X5 X6	0.416	0.006
X1 X2 X3 X7	0.360	X1 X2 X3 X7 X6	0.389	0.389
X1 X2 X4 X5	0.409	X1 X2 X4 X5 X6	0.418	0.418
X1 X2 X4 X7	0.332	X1 X2 X4 X7 X6	0.357	0.025
X1 X2 X5 X7	0.439	X1 X2 X5 X7 X6	0.454	0.015
X1 X3 X4 X5	0.342	X1 X3 X4 X5 X6	0.354	0.012
X1 X3 X4 X7	0.323	X1 X3 X4 X7 X6	0.352	0.352
X1 X3 X5 X7	0.400	X1 X3 X5 X7 X6	0.415	0.415
X1 X4 X5 X7	0.423	X1 X4 X5 X7 X6	0.443	0.020
X2 X3 X4 X5	0.394	X2 X3 X4 X5 X6	0.407	0.013
X2 X3 X4 X7	0.406	X2 X3 X4 X7 X6	0.432	0.432
X2 X3 X5 X7	0.405	X2 X3 X5 X7 X6	0.434	0.434
X2 X4 X5 X7	0.433	X2 X4 X5 X7 X6	0.453	0.020
X3 X4 X5 X7	0.382	X3 X4 X5 X7 X6	0.399	0.017
X1 X2 X3 X4 X5	0.435	X1 X2 X3 X4 X5 X6	0.443	0.443
X1 X2 X3 X4 X7	0.429	X1 X2 X3 X4 X7 X6	0.445	0.016
X1 X2 X3 X5 X7	0.463	X1 X2 X3 X5 X7 X6	0.475	0.012
X1 X2 X4 X5 X7	0.470	X1 X2 X4 X5 X7 X6	0.484	0.484
X1 X3 X4 X5 X7	0.440	X1 X3 X4 X5 X7 X6	0.452	0.452
X2 X3 X4 X5 X7	0.465	X2 X3 X4 X5 X7 X6	0.483	0.018
X1 X2 X3 X4 X5 X7	0.502	X1 X2 X3 X4 X5 X7 X6	0.510	0.510

Regr	Adj R2	Regr	Adj R2	Contribution X7
		X7	0.159	0.159
X1	0.120	X1 X7	0.202	0.082
X2	0.100	X2 X7	0.246	0.246
X3	0.012	X3 X7	0.186	0.174
X4	0.165	X4 X7	0.257	0.257
X5	0.139	X5 X7	0.305	0.165
X6	0.035	X6 X7	0.205	0.205
X1 X2	0.193	X1 X2 X7	0.279	0.086
X1 X3	0.147	X1 X3 X7	0.243	0.243
X1 X4	0.197	X1 X4 X7	0.278	0.081
X1 X5	0.318	X1 X5 X7	0.390	0.390
X1 X6	0.133	X1 X6 X7	0.247	0.114
X2 X3	0.212	X2 X3 X7	0.322	0.110
X2 X4	0.228	X2 X4 X7	0.315	0.315
X2 X5	0.248	X2 X5 X7	0.383	0.136
X2 X6	0.129	X2 X6 X7	0.281	0.281
X3 X4	0.200	X3 X4 X7	0.296	0.296
X3 X5	0.142	X3 X5 X7	0.304	0.163
X3 X6	0.057	X3 X6 X7	0.243	0.243
X4 X5	0.284	X4 X5 X7	0.373	0.373
X4 X6	0.178	X4 X6 X7	0.286	0.108
X5 X6	0.174	X5 X6 X7	0.341	0.167
X1 X2 X3	0.295	X1 X2 X3 X7	0.360	0.360
X1 X2 X4	0.255	X1 X2 X4 X7	0.332	0.077
X1 X2 X5	0.386	X1 X2 X5 X7	0.439	0.439
X1 X2 X6	0.198	X1 X2 X6 X7	0.304	0.106
X1 X3 X4	0.228	X1 X3 X4 X7	0.323	0.095
X1 X3 X5	0.316	X1 X3 X5 X7	0.400	0.400
X1 X3 X6	0.161	X1 X3 X6 X7	0.287	0.126
X1 X4 X5	0.341	X1 X4 X5 X7	0.423	0.082
X1 X4 X6	0.219	X1 X4 X6 X7	0.314	0.314
X1 X5 X6	0.323	X1 X5 X6 X7	0.409	0.409
X2 X3 X4	0.342	X2 X3 X4 X7	0.406	0.406
X2 X3 X5	0.289	X2 X3 X5 X7	0.405	0.116
X2 X3 X6	0.253	X2 X3 X6 X7	0.368	0.368
X2 X4 X5	0.353	X2 X4 X5 X7	0.433	0.433
X2 X4 X6	0.241	X2 X4 X6 X7	0.342	0.100
X2 X5 X6	0.276	X2 X5 X6 X7	0.412	0.136
X3 X4 X5	0.288	X3 X4 X5 X7	0.382	0.094
X3 X4 X6	0.220	X3 X4 X6 X7	0.325	0.325
X3 X5 X6	0.178	X3 X5 X6 X7	0.340	0.340

X4 X5 X6	0.298	X4 X5 X6 X7	0.394	0.097
X1 X2 X3 X4	0.360	X1 X2 X3 X4 X7	0.429	0.429
X1 X2 X3 X5	0.410	X1 X2 X3 X5 X7	0.463	0.054
X1 X2 X3 X6	0.312	X1 X2 X3 X6 X7	0.389	0.389
X1 X2 X4 X5	0.409	X1 X2 X4 X5 X7	0.470	0.470
X1 X2 X4 X6	0.267	X1 X2 X4 X6 X7	0.357	0.089
X1 X2 X5 X6	0.390	X1 X2 X5 X6 X7	0.454	0.064
X1 X3 X4 X5	0.342	X1 X3 X4 X5 X7	0.440	0.098
X1 X3 X4 X6	0.248	X1 X3 X4 X6 X7	0.352	0.352
X1 X3 X5 X6	0.321	X1 X3 X5 X6 X7	0.415	0.415
X1 X4 X5 X6	0.355	X1 X4 X5 X6 X7	0.443	0.088
X2 X3 X4 X5	0.394	X2 X3 X4 X5 X7	0.465	0.071
X2 X3 X4 X6	0.358	X2 X3 X4 X6 X7	0.432	0.432
X2 X3 X5 X6	0.320	X2 X3 X5 X6 X7	0.434	0.434
X2 X4 X5 X6	0.368	X2 X4 X5 X6 X7	0.453	0.086
X3 X4 X5 X6	0.300	X3 X4 X5 X6 X7	0.399	0.099
X1 X2 X3 X4 X5	0.435	X1 X2 X3 X4 X5 X7	0.502	0.502
X1 X2 X3 X4 X6	0.372	X1 X2 X3 X4 X6 X7	0.445	0.073
X1 X2 X3 X5 X6	0.416	X1 X2 X3 X5 X6 X7	0.475	0.059
X1 X2 X4 X5 X6	0.418	X1 X2 X4 X5 X6 X7	0.484	0.484
X1 X3 X4 X5 X6	0.354	X1 X3 X4 X5 X6 X7	0.452	0.452
X2 X3 X4 X5 X6	0.407	X2 X3 X4 X5 X6 X7	0.483	0.076
X1 X2 X3 X4 X5 X6	0.443	X1 X2 X3 X4 X5 X6 X7	0.510	0.510

GENERAL DOMINANCE ANALYSIS FOR THE RENT REGRESSION

Regr	Adj R2	Regr	Adj R2	Contribution X1
		X1	0.104	0.104
X2	0.130	X2 X1	0.204	0.073
X3	0.076	X3 X1	0.129	0.053
X4	0.153	X4 X1	0.273	0.120
X5	0.164	X5 X1	0.370	0.206
X6	0.024	X6 X1	0.149	0.125
X7	0.405	X7 X1	0.470	0.065
X2 X3	0.154	X2 X3 X1	0.215	0.061
X2 X4	0.254	X2 X4 X1	0.342	0.088
X2 X5	0.262	X2 X5 X1	0.427	0.165
X2 X6	0.139	X2 X6 X1	0.238	0.100
X2 X7	0.510	X2 X7 X1	0.527	0.017

X3 X4	0.197	X3 X4 X1	0.290	0.093
X3 X5	0.239	X3 X5 X1	0.384	0.145
X3 X6	0.087	X3 X6 X1	0.164	0.077
X3 X7	0.407	X3 X7 X1	0.471	0.064
X4 X5	0.240	X4 X5 X1	0.414	0.173
X4 X6	0.169	X4 X6 X1	0.334	0.165
X4 X7	0.501	X4 X7 X1	0.541	0.040
X5 X6	0.171	X5 X6 X1	0.418	0.247
X5 X7	0.515	X5 X7 X1	0.576	0.061
X6 X7	0.439	X6 X7 X1	0.522	0.084
X2 X3 X4	0.277	X2 X3 X4 X1	0.349	0.072
X2 X3 X5	0.297	X2 X3 X5 X1	0.436	0.139
X2 X3 X6	0.159	X2 X3 X6 X1	0.246	0.087
X2 X3 X7	0.510	X2 X3 X7 X1	0.526	0.016
X2 X4 X5	0.339	X2 X4 X5 X1	0.469	0.130
X2 X4 X6	0.263	X2 X4 X6 X1	0.395	0.132
X2 X4 X7	0.564	X2 X4 X7 X1	0.582	0.018
X2 X5 X6	0.267	X2 X5 X6 X1	0.483	0.216
X2 X5 X7	0.584	X2 X5 X7 X1	0.611	0.027
X2 X6 X7	0.537	X2 X6 X7 X1	0.569	0.032
X3 X4 X5	0.296	X3 X4 X5 X1	0.430	0.134
X3 X4 X6	0.207	X3 X4 X6 X1	0.342	0.135
X3 X4 X7	0.500	X3 X4 X7 X1	0.540	0.040
X3 X5 X6	0.244	X3 X5 X6 X1	0.423	0.179
X3 X5 X7	0.523	X3 X5 X7 X1	0.582	0.059
X3 X6 X7	0.438	X3 X6 X7 X1	0.521	0.082
X4 X5 X6	0.250	X4 X5 X6 X1	0.478	0.229
X4 X5 X7	0.560	X4 X5 X7 X1	0.603	0.044
X4 X6 X7	0.550	X4 X6 X7 X1	0.599	0.049
X5 X6 X7	0.538	X5 X6 X7 X1	0.623	0.085
X2 X3 X4 X5	0.375	X2 X3 X4 X5 X1	0.481	0.106
X2 X3 X4 X6	0.284	X2 X3 X4 X6 X1	0.399	0.114
X2 X3 X4 X7	0.568	X2 X3 X4 X7 X1	0.585	0.017
X2 X3 X5 X6	0.302	X2 X3 X5 X6 X1	0.490	0.188
X2 X3 X5 X7	0.592	X2 X3 X5 X7 X1	0.619	0.027
X2 X3 X6 X7	0.538	X2 X3 X6 X7 X1	0.569	0.031
X2 X4 X5 X6	0.345	X2 X4 X5 X6 X1	0.537	0.192
X2 X4 X5 X7	0.605	X2 X4 X5 X7 X1	0.629	0.024
X2 X4 X6 X7	0.603	X2 X4 X6 X7 X1	0.631	0.028
X2 X5 X6 X7	0.608	X2 X5 X6 X7 X1	0.659	0.051
X3 X4 X5 X6	0.301	X3 X4 X5 X6 X1	0.482	0.181
X3 X4 X5 X7	0.564	X3 X4 X5 X7 X1	0.610	0.045
X3 X4 X6 X7	0.548	X3 X4 X6 X7 X1	0.597	0.049

X3 X5 X6 X7	0.549	X3 X5 X6 X7 X1	0.628	0.079
X4 X5 X6 X7	0.599	X4 X5 X6 X7 X1	0.657	0.059
X2 X3 X4 X5 X6	0.380	X2 X3 X4 X5 X6 X1	0.542	0.162
X2 X3 X4 X5 X7	0.613	X2 X3 X4 X5 X7 X1	0.638	0.025
X2 X3 X4 X6 X7	0.607	X2 X3 X4 X6 X7 X1	0.633	0.026
X2 X3 X5 X6 X7	0.621	X2 X3 X5 X6 X7 X1	0.670	0.049
X2 X4 X5 X6 X7	0.637	X2 X4 X5 X6 X7 X1	0.678	0.041
X3 X4 X5 X6 X7	0.602	X3 X4 X5 X6 X7 X1	0.661	0.058
X2 X3 X4 X5 X6 X7	0.647	X2 X3 X4 X5 X6 X7 X1	0.687	0.040

Regr	Adj R2	Regr	Adj R2	Contribution X2
		X2	0.130	0.130
X1	0.104	X1 X2	0.204	0.099
X3	0.076	X3 X2	0.154	0.078
X4	0.153	X4 X2	0.254	0.101
X5	0.164	X5 X2	0.262	0.099
X6	0.024	X6 X2	0.139	0.115
X7	0.405	X7 X2	0.510	0.105
X1 X3	0.129	X1 X3 X2	0.215	0.086
X1 X4	0.273	X1 X4 X2	0.342	0.070
X1 X5	0.370	X1 X5 X2	0.427	0.057
X1 X6	0.149	X1 X6 X2	0.238	0.090
X1 X7	0.470	X1 X7 X2	0.527	0.057
X3 X4	0.197	X3 X4 X2	0.277	0.080
X3 X5	0.239	X3 X5 X2	0.297	0.058
X3 X6	0.087	X3 X6 X2	0.159	0.073
X3 X7	0.407	X3 X7 X2	0.510	0.103
X4 X5	0.240	X4 X5 X2	0.339	0.098
X4 X6	0.169	X4 X6 X2	0.263	0.095
X4 X7	0.501	X4 X7 X2	0.564	0.063
X5 X6	0.171	X5 X6 X2	0.267	0.096
X5 X7	0.515	X5 X7 X2	0.584	0.069
X6 X7	0.439	X6 X7 X2	0.537	0.099
X1 X3 X4	0.290	X1 X3 X4 X2	0.349	0.059
X1 X3 X5	0.384	X1 X3 X5 X2	0.436	0.053
X1 X3 X6	0.164	X1 X3 X6 X2	0.246	0.083
X1 X3 X7	0.471	X1 X3 X7 X2	0.526	0.055
X1 X4 X5	0.414	X1 X4 X5 X2	0.469	0.055
X1 X4 X6	0.334	X1 X4 X6 X2	0.395	0.062
X1 X4 X7	0.541	X1 X4 X7 X2	0.582	0.041
X1 X5 X6	0.418	X1 X5 X6 X2	0.483	0.065

X1 X5 X7	0.576	X1 X5 X7 X2	0.611	0.035
X1 X6 X7	0.522	X1 X6 X7 X2	0.569	0.047
X3 X4 X5	0.296	X3 X4 X5 X2	0.375	0.079
X3 X4 X6	0.207	X3 X4 X6 X2	0.284	0.077
X3 X4 X7	0.500	X3 X4 X7 X2	0.568	0.068
X3 X5 X6	0.244	X3 X5 X6 X2	0.302	0.058
X3 X5 X7	0.523	X3 X5 X7 X2	0.592	0.069
X3 X6 X7	0.438	X3 X6 X7 X2	0.538	0.099
X4 X5 X6	0.250	X4 X5 X6 X2	0.345	0.095
X4 X5 X7	0.560	X4 X5 X7 X2	0.605	0.045
X4 X6 X7	0.550	X4 X6 X7 X2	0.603	0.054
X5 X6 X7	0.538	X5 X6 X7 X2	0.608	0.070
X1 X3 X4 X5	0.430	X1 X3 X4 X5 X2	0.481	0.051
X1 X3 X4 X6	0.342	X1 X3 X4 X6 X2	0.399	0.057
X1 X3 X4 X7	0.540	X1 X3 X4 X7 X2	0.585	0.045
X1 X3 X5 X6	0.423	X1 X3 X5 X6 X2	0.490	0.067
X1 X3 X5 X7	0.582	X1 X3 X5 X7 X2	0.619	0.037
X1 X3 X6 X7	0.521	X1 X3 X6 X7 X2	0.569	0.048
X1 X4 X5 X6	0.478	X1 X4 X5 X6 X2	0.537	0.058
X1 X4 X5 X7	0.603	X1 X4 X5 X7 X2	0.629	0.026
X1 X4 X6 X7	0.599	X1 X4 X6 X7 X2	0.631	0.033
X1 X5 X6 X7	0.623	X1 X5 X6 X7 X2	0.659	0.036
X3 X4 X5 X6	0.301	X3 X4 X5 X6 X2	0.380	0.079
X3 X4 X5 X7	0.564	X3 X4 X5 X7 X2	0.613	0.049
X3 X4 X6 X7	0.548	X3 X4 X6 X7 X2	0.607	0.060
X3 X5 X6 X7	0.549	X3 X5 X6 X7 X2	0.621	0.072
X4 X5 X6 X7	0.599	X4 X5 X6 X7 X2	0.637	0.039
X1 X3 X4 X5 X6	0.482	X1 X3 X4 X5 X6 X2	0.542	0.060
X1 X3 X4 X5 X7	0.610	X1 X3 X4 X5 X7 X2	0.638	0.029
X1 X3 X4 X6 X7	0.597	X1 X3 X4 X6 X7 X2	0.633	0.036
X1 X3 X5 X6 X7	0.628	X1 X3 X5 X6 X7 X2	0.670	0.042
X1 X4 X5 X6 X7	0.657	X1 X4 X5 X6 X7 X2	0.678	0.021
X3 X4 X5 X6 X7	0.602	X3 X4 X5 X6 X7 X2	0.647	0.045
X1 X3 X4 X5 X6 X7	0.661	X1 X3 X4 X5 X6 X7 X2	0.687	0.027

Regr	Adj R2	Regr	Adj R2	Contribution X3
		X3	0.076	0.076
X1	0.104	X1 X3	0.129	0.025
X2	0.130	X2 X3	0.154	0.024
X4	0.153	X4 X3	0.197	0.044
X5	0.164	X5 X3	0.239	0.075

X6	0.024	X6 X3	0.087	0.063
X7	0.405	X7 X3	0.407	0.002
X1 X2	0.204	X1 X2 X3	0.215	0.011
X1 X4	0.273	X1 X4 X3	0.290	0.017
X1 X5	0.370	X1 X5 X3	0.384	0.014
X1 X6	0.149	X1 X6 X3	0.164	0.015
X1 X7	0.470	X1 X7 X3	0.471	0.001
X2 X4	0.254	X2 X4 X3	0.277	0.023
X2 X5	0.262	X2 X5 X3	0.297	0.035
X2 X6	0.139	X2 X6 X3	0.159	0.020
X2 X7	0.510	X2 X7 X3	0.510	0.000
X4 X5	0.240	X4 X5 X3	0.296	0.055
X4 X6	0.169	X4 X6 X3	0.207	0.039
X4 X7	0.501	X4 X7 X3	0.500	-0.001
X5 X6	0.171	X5 X6 X3	0.244	0.072
X5 X7	0.515	X5 X7 X3	0.523	0.008
X6 X7	0.439	X6 X7 X3	0.438	0.000
X1 X2 X4	0.342	X1 X2 X4 X3	0.349	0.007
X1 X2 X5	0.427	X1 X2 X5 X3	0.436	0.009
X1 X2 X6	0.238	X1 X2 X6 X3	0.246	0.008
X1 X2 X7	0.527	X1 X2 X7 X3	0.526	-0.001
X1 X4 X5	0.414	X1 X4 X5 X3	0.430	0.016
X1 X4 X6	0.334	X1 X4 X6 X3	0.342	0.008
X1 X4 X7	0.541	X1 X4 X7 X3	0.540	-0.002
X1 X5 X6	0.418	X1 X5 X6 X3	0.423	0.005
X1 X5 X7	0.576	X1 X5 X7 X3	0.582	0.006
X1 X6 X7	0.522	X1 X6 X7 X3	0.521	-0.001
X2 X4 X5	0.339	X2 X4 X5 X3	0.375	0.036
X2 X4 X6	0.263	X2 X4 X6 X3	0.284	0.021
X2 X4 X7	0.564	X2 X4 X7 X3	0.568	0.004
X2 X5 X6	0.267	X2 X5 X6 X3	0.302	0.035
X2 X5 X7	0.584	X2 X5 X7 X3	0.592	0.008
X2 X6 X7	0.537	X2 X6 X7 X3	0.538	0.000
X4 X5 X6	0.250	X4 X5 X6 X3	0.301	0.052
X4 X5 X7	0.560	X4 X5 X7 X3	0.564	0.005
X4 X6 X7	0.550	X4 X6 X7 X3	0.548	-0.002
X5 X6 X7	0.538	X5 X6 X7 X3	0.549	0.010
X1 X2 X4 X5	0.469	X1 X2 X4 X5 X3	0.481	0.012
X1 X2 X4 X6	0.395	X1 X2 X4 X6 X3	0.399	0.003
X1 X2 X4 X7	0.582	X1 X2 X4 X7 X3	0.585	0.003
X1 X2 X5 X6	0.483	X1 X2 X5 X6 X3	0.490	0.008
X1 X2 X5 X7	0.611	X1 X2 X5 X7 X3	0.619	0.008
X1 X2 X6 X7	0.569	X1 X2 X6 X7 X3	0.569	0.000

X1 X4 X5 X6	0.478	X1 X4 X5 X6 X3	0.482	0.004
X1 X4 X5 X7	0.603	X1 X4 X5 X7 X3	0.610	0.006
X1 X4 X6 X7	0.599	X1 X4 X6 X7 X3	0.597	-0.002
X1 X5 X6 X7	0.623	X1 X5 X6 X7 X3	0.628	0.005
X2 X4 X5 X6	0.345	X2 X4 X5 X6 X3	0.380	0.035
X2 X4 X5 X7	0.605	X2 X4 X5 X7 X3	0.613	0.008
X2 X4 X6 X7	0.603	X2 X4 X6 X7 X3	0.607	0.004
X2 X5 X6 X7	0.608	X2 X5 X6 X7 X3	0.621	0.013
X4 X5 X6 X7	0.599	X4 X5 X6 X7 X3	0.602	0.004
X1 X2 X4 X5 X6	0.537	X1 X2 X4 X5 X6 X3	0.542	0.005
X1 X2 X4 X5 X7	0.629	X1 X2 X4 X5 X7 X3	0.638	0.009
X1 X2 X4 X6 X7	0.631	X1 X2 X4 X6 X7 X3	0.633	0.001
X1 X2 X5 X6 X7	0.659	X1 X2 X5 X6 X7 X3	0.670	0.011
X1 X4 X5 X6 X7	0.657	X1 X4 X5 X6 X7 X3	0.661	0.003
X2 X4 X5 X6 X7	0.637	X2 X4 X5 X6 X7 X3	0.647	0.010
X1 X2 X4 X5 X6 X7	0.678	X1 X2 X4 X5 X6 X7 X3	0.687	0.009

Regr	Adj R2	Regr	Adj R2	Contribution X4
		X4	0.153	0.153
X1	0.104	X1 X4	0.273	0.168
X2	0.130	X2 X4	0.254	0.124
X3	0.076	X3 X4	0.197	0.121
X5	0.164	X5 X4	0.240	0.077
X6	0.024	X6 X4	0.169	0.145
X7	0.405	X7 X4	0.501	0.096
X1 X2	0.204	X1 X2 X4	0.342	0.139
X1 X3	0.129	X1 X3 X4	0.290	0.161
X1 X5	0.370	X1 X5 X4	0.414	0.044
X1 X6	0.149	X1 X6 X4	0.334	0.185
X1 X7	0.470	X1 X7 X4	0.541	0.071
X2 X3	0.154	X2 X3 X4	0.277	0.123
X2 X5	0.262	X2 X5 X4	0.339	0.076
X2 X6	0.139	X2 X6 X4	0.263	0.124
X2 X7	0.510	X2 X7 X4	0.564	0.054
X3 X5	0.239	X3 X5 X4	0.296	0.056
X3 X6	0.087	X3 X6 X4	0.207	0.121
X3 X7	0.407	X3 X7 X4	0.500	0.093
X5 X6	0.171	X5 X6 X4	0.250	0.078
X5 X7	0.515	X5 X7 X4	0.560	0.045
X6 X7	0.439	X6 X7 X4	0.550	0.111
X1 X2 X3	0.215	X1 X2 X3 X4	0.349	0.134

X1 X2 X5	0.427	X1 X2 X5 X4	0.469	0.042
X1 X2 X6	0.238	X1 X2 X6 X4	0.395	0.157
X1 X2 X7	0.527	X1 X2 X7 X4	0.582	0.055
X1 X3 X5	0.384	X1 X3 X5 X4	0.430	0.046
X1 X3 X6	0.164	X1 X3 X6 X4	0.342	0.178
X1 X3 X7	0.471	X1 X3 X7 X4	0.540	0.069
X1 X5 X6	0.418	X1 X5 X6 X4	0.478	0.060
X1 X5 X7	0.576	X1 X5 X7 X4	0.603	0.028
X1 X6 X7	0.522	X1 X6 X7 X4	0.599	0.077
X2 X3 X5	0.297	X2 X3 X5 X4	0.375	0.078
X2 X3 X6	0.159	X2 X3 X6 X4	0.284	0.125
X2 X3 X7	0.510	X2 X3 X7 X4	0.568	0.058
X2 X5 X6	0.267	X2 X5 X6 X4	0.345	0.078
X2 X5 X7	0.584	X2 X5 X7 X4	0.605	0.021
X2 X6 X7	0.537	X2 X6 X7 X4	0.603	0.066
X3 X5 X6	0.244	X3 X5 X6 X4	0.301	0.058
X3 X5 X7	0.523	X3 X5 X7 X4	0.564	0.042
X3 X6 X7	0.438	X3 X6 X7 X4	0.548	0.109
X5 X6 X7	0.538	X5 X6 X7 X4	0.599	0.061
X1 X2 X3 X5	0.436	X1 X2 X3 X5 X4	0.481	0.045
X1 X2 X3 X6	0.246	X1 X2 X3 X6 X4	0.399	0.152
X1 X2 X3 X7	0.526	X1 X2 X3 X7 X4	0.585	0.058
X1 X2 X5 X6	0.483	X1 X2 X5 X6 X4	0.537	0.054
X1 X2 X5 X7	0.611	X1 X2 X5 X7 X4	0.629	0.018
X1 X2 X6 X7	0.569	X1 X2 X6 X7 X4	0.631	0.062
X1 X3 X5 X6	0.423	X1 X3 X5 X6 X4	0.482	0.059
X1 X3 X5 X7	0.582	X1 X3 X5 X7 X4	0.610	0.028
X1 X3 X6 X7	0.521	X1 X3 X6 X7 X4	0.597	0.076
X1 X5 X6 X7	0.623	X1 X5 X6 X7 X4	0.657	0.034
X2 X3 X5 X6	0.302	X2 X3 X5 X6 X4	0.380	0.078
X2 X3 X5 X7	0.592	X2 X3 X5 X7 X4	0.613	0.021
X2 X3 X6 X7	0.538	X2 X3 X6 X7 X4	0.607	0.069
X2 X5 X6 X7	0.608	X2 X5 X6 X7 X4	0.637	0.030
X3 X5 X6 X7	0.549	X3 X5 X6 X7 X4	0.602	0.054
X1 X2 X3 X5 X6	0.490	X1 X2 X3 X5 X6 X4	0.542	0.051
X1 X2 X3 X5 X7	0.619	X1 X2 X3 X5 X7 X4	0.638	0.019
X1 X2 X3 X6 X7	0.569	X1 X2 X3 X6 X7 X4	0.633	0.064
X1 X2 X5 X6 X7	0.659	X1 X2 X5 X6 X7 X4	0.678	0.019
X1 X3 X5 X6 X7	0.628	X1 X3 X5 X6 X7 X4	0.661	0.033
X2 X3 X5 X6 X7	0.621	X2 X3 X5 X6 X7 X4	0.647	0.026
X1 X2 X3 X5 X6 X7	0.670	X1 X2 X3 X5 X6 X7 X4	0.687	0.017

Regr	Adj R2	Regr	Adj R2	Contribution X5
		X5	0.164	0.164
X1	0.104	X1 X5	0.370	0.266
X2	0.130	X2 X5	0.262	0.132
X3	0.076	X3 X5	0.239	0.163
X4	0.153	X4 X5	0.240	0.087
X6	0.024	X6 X5	0.171	0.148
X7	0.405	X7 X5	0.515	0.110
X1 X2	0.204	X1 X2 X5	0.427	0.223
X1 X3	0.129	X1 X3 X5	0.384	0.255
X1 X4	0.273	X1 X4 X5	0.414	0.141
X1 X6	0.149	X1 X6 X5	0.418	0.269
X1 X7	0.470	X1 X7 X5	0.576	0.106
X2 X3	0.154	X2 X3 X5	0.297	0.143
X2 X4	0.254	X2 X4 X5	0.339	0.084
X2 X6	0.139	X2 X6 X5	0.267	0.128
X2 X7	0.510	X2 X7 X5	0.584	0.074
X3 X4	0.197	X3 X4 X5	0.296	0.098
X3 X6	0.087	X3 X6 X5	0.244	0.157
X3 X7	0.407	X3 X7 X5	0.523	0.116
X4 X6	0.169	X4 X6 X5	0.250	0.081
X4 X7	0.501	X4 X7 X5	0.560	0.058
X6 X7	0.439	X6 X7 X5	0.538	0.100
X1 X2 X3	0.215	X1 X2 X3 X5	0.436	0.221
X1 X2 X4	0.342	X1 X2 X4 X5	0.469	0.127
X1 X2 X6	0.238	X1 X2 X6 X5	0.483	0.244
X1 X2 X7	0.527	X1 X2 X7 X5	0.611	0.084
X1 X3 X4	0.290	X1 X3 X4 X5	0.430	0.140
X1 X3 X6	0.164	X1 X3 X6 X5	0.423	0.260
X1 X3 X7	0.471	X1 X3 X7 X5	0.582	0.111
X1 X4 X6	0.334	X1 X4 X6 X5	0.478	0.145
X1 X4 X7	0.541	X1 X4 X7 X5	0.603	0.062
X1 X6 X7	0.522	X1 X6 X7 X5	0.623	0.101
X2 X3 X4	0.277	X2 X3 X4 X5	0.375	0.098
X2 X3 X6	0.159	X2 X3 X6 X5	0.302	0.143
X2 X3 X7	0.510	X2 X3 X7 X5	0.592	0.082
X2 X4 X6	0.263	X2 X4 X6 X5	0.345	0.082
X2 X4 X7	0.564	X2 X4 X7 X5	0.605	0.041
X2 X6 X7	0.537	X2 X6 X7 X5	0.608	0.070
X3 X4 X6	0.207	X3 X4 X6 X5	0.301	0.094
X3 X4 X7	0.500	X3 X4 X7 X5	0.564	0.064
X3 X6 X7	0.438	X3 X6 X7 X5	0.549	0.110

X4 X6 X7	0.550	X4 X6 X7 X5	0.599	0.049
X1 X2 X3 X4	0.349	X1 X2 X3 X4 X5	0.481	0.132
X1 X2 X3 X6	0.246	X1 X2 X3 X6 X5	0.490	0.244
X1 X2 X3 X7	0.526	X1 X2 X3 X7 X5	0.619	0.093
X1 X2 X4 X6	0.395	X1 X2 X4 X6 X5	0.537	0.141
X1 X2 X4 X7	0.582	X1 X2 X4 X7 X5	0.629	0.047
X1 X2 X6 X7	0.569	X1 X2 X6 X7 X5	0.659	0.089
X1 X3 X4 X6	0.342	X1 X3 X4 X6 X5	0.482	0.140
X1 X3 X4 X7	0.540	X1 X3 X4 X7 X5	0.610	0.070
X1 X3 X6 X7	0.521	X1 X3 X6 X7 X5	0.628	0.107
X1 X4 X6 X7	0.599	X1 X4 X6 X7 X5	0.657	0.058
X2 X3 X4 X6	0.284	X2 X3 X4 X6 X5	0.380	0.096
X2 X3 X4 X7	0.568	X2 X3 X4 X7 X5	0.613	0.045
X2 X3 X6 X7	0.538	X2 X3 X6 X7 X5	0.621	0.083
X2 X4 X6 X7	0.603	X2 X4 X6 X7 X5	0.637	0.034
X3 X4 X6 X7	0.548	X3 X4 X6 X7 X5	0.602	0.055
X1 X2 X3 X4 X6	0.399	X1 X2 X3 X4 X6 X5	0.542	0.143
X1 X2 X3 X4 X7	0.585	X1 X2 X3 X4 X7 X5	0.638	0.054
X1 X2 X3 X6 X7	0.569	X1 X2 X3 X6 X7 X5	0.670	0.101
X1 X2 X4 X6 X7	0.631	X1 X2 X4 X6 X7 X5	0.678	0.047
X1 X3 X4 X6 X7	0.597	X1 X3 X4 X6 X7 X5	0.661	0.064
X2 X3 X4 X6 X7	0.607	X2 X3 X4 X6 X7 X5	0.647	0.040
X1 X2 X3 X4 X6 X7	0.633	X1 X2 X3 X4 X6 X7 X5	0.687	0.054

Regr	Adj R2	Regr	Adj R2	Contribution X6
		X6	0.024	0.024
X1	0.104	X1 X6	0.149	0.044
X2	0.130	X2 X6	0.139	0.009
X3	0.076	X3 X6	0.087	0.011
X4	0.153	X4 X6	0.169	0.016
X5	0.164	X5 X6	0.171	0.008
X7	0.405	X7 X6	0.439	0.033
X1 X2	0.204	X1 X2 X6	0.238	0.035
X1 X3	0.129	X1 X3 X6	0.164	0.034
X1 X4	0.273	X1 X4 X6	0.334	0.061
X1 X5	0.370	X1 X5 X6	0.418	0.048
X1 X7	0.470	X1 X7 X6	0.522	0.052
X2 X3	0.154	X2 X3 X6	0.159	0.005
X2 X4	0.254	X2 X4 X6	0.263	0.009
X2 X5	0.262	X2 X5 X6	0.267	0.005
X2 X7	0.510	X2 X7 X6	0.537	0.027

X3 X4	0.197	X3 X4 X6	0.207	0.010
X3 X5	0.239	X3 X5 X6	0.244	0.005
X3 X7	0.407	X3 X7 X6	0.438	0.031
X4 X5	0.240	X4 X5 X6	0.250	0.009
X4 X7	0.501	X4 X7 X6	0.550	0.048
X5 X7	0.515	X5 X7 X6	0.538	0.023
X1 X2 X3	0.215	X1 X2 X3 X6	0.246	0.031
X1 X2 X4	0.342	X1 X2 X4 X6	0.395	0.053
X1 X2 X5	0.427	X1 X2 X5 X6	0.483	0.056
X1 X2 X7	0.527	X1 X2 X7 X6	0.569	0.042
X1 X3 X4	0.290	X1 X3 X4 X6	0.342	0.052
X1 X3 X5	0.384	X1 X3 X5 X6	0.423	0.039
X1 X3 X7	0.471	X1 X3 X7 X6	0.521	0.050
X1 X4 X5	0.414	X1 X4 X5 X6	0.478	0.065
X1 X4 X7	0.541	X1 X4 X7 X6	0.599	0.057
X1 X5 X7	0.576	X1 X5 X7 X6	0.623	0.047
X2 X3 X4	0.277	X2 X3 X4 X6	0.284	0.007
X2 X3 X5	0.297	X2 X3 X5 X6	0.302	0.005
X2 X3 X7	0.510	X2 X3 X7 X6	0.538	0.028
X2 X4 X5	0.339	X2 X4 X5 X6	0.345	0.007
X2 X4 X7	0.564	X2 X4 X7 X6	0.603	0.039
X2 X5 X7	0.584	X2 X5 X7 X6	0.608	0.024
X3 X4 X5	0.296	X3 X4 X5 X6	0.301	0.006
X3 X4 X7	0.500	X3 X4 X7 X6	0.548	0.047
X3 X5 X7	0.523	X3 X5 X7 X6	0.549	0.026
X4 X5 X7	0.560	X4 X5 X7 X6	0.599	0.039
X1 X2 X3 X4	0.349	X1 X2 X3 X4 X6	0.399	0.049
X1 X2 X3 X5	0.436	X1 X2 X3 X5 X6	0.490	0.054
X1 X2 X3 X7	0.526	X1 X2 X3 X7 X6	0.569	0.043
X1 X2 X4 X5	0.469	X1 X2 X4 X5 X6	0.537	0.068
X1 X2 X4 X7	0.582	X1 X2 X4 X7 X6	0.631	0.050
X1 X2 X5 X7	0.611	X1 X2 X5 X7 X6	0.659	0.048
X1 X3 X4 X5	0.430	X1 X3 X4 X5 X6	0.482	0.052
X1 X3 X4 X7	0.540	X1 X3 X4 X7 X6	0.597	0.057
X1 X3 X5 X7	0.582	X1 X3 X5 X7 X6	0.628	0.046
X1 X4 X5 X7	0.603	X1 X4 X5 X7 X6	0.657	0.054
X2 X3 X4 X5	0.375	X2 X3 X4 X5 X6	0.380	0.005
X2 X3 X4 X7	0.568	X2 X3 X4 X7 X6	0.607	0.039
X2 X3 X5 X7	0.592	X2 X3 X5 X7 X6	0.621	0.029
X2 X4 X5 X7	0.605	X2 X4 X5 X7 X6	0.637	0.032
X3 X4 X5 X7	0.564	X3 X4 X5 X7 X6	0.602	0.038
X1 X2 X3 X4 X5	0.481	X1 X2 X3 X4 X5 X6	0.542	0.061
X1 X2 X3 X4 X7	0.585	X1 X2 X3 X4 X7 X6	0.633	0.048

X1 X2 X3 X5 X7	0.619	X1 X2 X3 X5 X7 X6	0.670	0.051
X1 X2 X4 X5 X7	0.629	X1 X2 X4 X5 X7 X6	0.678	0.049
X1 X3 X4 X5 X7	0.610	X1 X3 X4 X5 X7 X6	0.661	0.051
X2 X3 X4 X5 X7	0.613	X2 X3 X4 X5 X7 X6	0.647	0.034
X1 X2 X3 X4 X5 X7	0.638	X1 X2 X3 X4 X5 X7 X6	0.687	0.049

Regr	Adj R2	Regr	Adj R2	Contribution X7
		X7	0.405	0.405
X1	0.104	X1 X7	0.470	0.366
X2	0.130	X2 X7	0.510	0.380
X3	0.076	X3 X7	0.407	0.331
X4	0.153	X4 X7	0.501	0.348
X5	0.164	X5 X7	0.515	0.351
X6	0.024	X6 X7	0.439	0.415
X1 X2	0.204	X1 X2 X7	0.527	0.323
X1 X3	0.129	X1 X3 X7	0.471	0.342
X1 X4	0.273	X1 X4 X7	0.541	0.269
X1 X5	0.370	X1 X5 X7	0.576	0.206
X1 X6	0.149	X1 X6 X7	0.522	0.373
X2 X3	0.154	X2 X3 X7	0.510	0.356
X2 X4	0.254	X2 X4 X7	0.564	0.310
X2 X5	0.262	X2 X5 X7	0.584	0.322
X2 X6	0.139	X2 X6 X7	0.537	0.399
X3 X4	0.197	X3 X4 X7	0.500	0.303
X3 X5	0.239	X3 X5 X7	0.523	0.284
X3 X6	0.087	X3 X6 X7	0.438	0.352
X4 X5	0.240	X4 X5 X7	0.560	0.319
X4 X6	0.169	X4 X6 X7	0.550	0.381
X5 X6	0.171	X5 X6 X7	0.538	0.367
X1 X2 X3	0.215	X1 X2 X3 X7	0.526	0.312
X1 X2 X4	0.342	X1 X2 X4 X7	0.582	0.240
X1 X2 X5	0.427	X1 X2 X5 X7	0.611	0.184
X1 X2 X6	0.238	X1 X2 X6 X7	0.569	0.331
X1 X3 X4	0.290	X1 X3 X4 X7	0.540	0.250
X1 X3 X5	0.384	X1 X3 X5 X7	0.582	0.198
X1 X3 X6	0.164	X1 X3 X6 X7	0.521	0.357
X1 X4 X5	0.414	X1 X4 X5 X7	0.603	0.190
X1 X4 X6	0.334	X1 X4 X6 X7	0.599	0.265
X1 X5 X6	0.418	X1 X5 X6 X7	0.623	0.205
X2 X3 X4	0.277	X2 X3 X4 X7	0.568	0.291

X2 X3 X5	0.297	X2 X3 X5 X7	0.592	0.295
X2 X3 X6	0.159	X2 X3 X6 X7	0.538	0.378
X2 X4 X5	0.339	X2 X4 X5 X7	0.605	0.267
X2 X4 X6	0.263	X2 X4 X6 X7	0.603	0.340
X2 X5 X6	0.267	X2 X5 X6 X7	0.608	0.341
X3 X4 X5	0.296	X3 X4 X5 X7	0.564	0.269
X3 X4 X6	0.207	X3 X4 X6 X7	0.548	0.340
X3 X5 X6	0.244	X3 X5 X6 X7	0.549	0.305
X4 X5 X6	0.250	X4 X5 X6 X7	0.599	0.349
X1 X2 X3 X4	0.349	X1 X2 X3 X4 X7	0.585	0.236
X1 X2 X3 X5	0.436	X1 X2 X3 X5 X7	0.619	0.183
X1 X2 X3 X6	0.246	X1 X2 X3 X6 X7	0.569	0.323
X1 X2 X4 X5	0.469	X1 X2 X4 X5 X7	0.629	0.160
X1 X2 X4 X6	0.395	X1 X2 X4 X6 X7	0.631	0.236
X1 X2 X5 X6	0.483	X1 X2 X5 X6 X7	0.659	0.176
X1 X3 X4 X5	0.430	X1 X3 X4 X5 X7	0.610	0.180
X1 X3 X4 X6	0.342	X1 X3 X4 X6 X7	0.597	0.255
X1 X3 X5 X6	0.423	X1 X3 X5 X6 X7	0.628	0.204
X1 X4 X5 X6	0.478	X1 X4 X5 X6 X7	0.657	0.179
X2 X3 X4 X5	0.375	X2 X3 X4 X5 X7	0.613	0.238
X2 X3 X4 X6	0.284	X2 X3 X4 X6 X7	0.607	0.323
X2 X3 X5 X6	0.302	X2 X3 X5 X6 X7	0.621	0.319
X2 X4 X5 X6	0.345	X2 X4 X5 X6 X7	0.637	0.292
X3 X4 X5 X6	0.301	X3 X4 X5 X6 X7	0.602	0.301
X1 X2 X3 X4 X5	0.481	X1 X2 X3 X4 X5 X7	0.638	0.158
X1 X2 X3 X4 X6	0.399	X1 X2 X3 X4 X6 X7	0.633	0.234
X1 X2 X3 X5 X6	0.490	X1 X2 X3 X5 X6 X7	0.670	0.180
X1 X2 X4 X5 X6	0.537	X1 X2 X4 X5 X6 X7	0.678	0.141
X1 X3 X4 X5 X6	0.482	X1 X3 X4 X5 X6 X7	0.661	0.179
X2 X3 X4 X5 X6	0.380	X2 X3 X4 X5 X6 X7	0.647	0.267
X1 X2 X3 X4 X5 X6	0.542	X1 X2 X3 X4 X5 X6 X7	0.687	0.146

GENERAL DOMINANCE ANALYSIS FOR THE WAGE REGRESSION

Regr	Adj R2	Regr	Adj R2	Contribution X1
		X1	0.019	0.019
X2	-0.009	X2 X1	0.017	0.026
X3	0.013	X3 X1	0.035	0.022
X4	0.007	X4 X1	0.040	0.033
X5	0.256	X5 X1	0.285	0.030
X6	-0.002	X6 X1	0.017	0.020
X7	0.011	X7 X1	0.031	0.020
X2 X3	0.004	X2 X3 X1	0.031	0.027
X2 X4	0.001	X2 X4 X1	0.040	0.039
X2 X5	0.270	X2 X5 X1	0.303	0.033
X2 X6	-0.007	X2 X6 X1	0.024	0.030
X2 X7	0.002	X2 X7 X1	0.023	0.020
X3 X4	0.025	X3 X4 X1	0.061	0.035
X3 X5	0.263	X3 X5 X1	0.283	0.020
X3 X6	0.015	X3 X6 X1	0.042	0.027
X3 X7	0.027	X3 X7 X1	0.049	0.022
X4 X5	0.263	X4 X5 X1	0.282	0.019
X4 X6	0.008	X4 X6 X1	0.040	0.032
X4 X7	0.025	X4 X7 X1	0.055	0.030
X5 X6	0.255	X5 X6 X1	0.294	0.039
X5 X7	0.276	X5 X7 X1	0.297	0.021
X6 X7	0.015	X6 X7 X1	0.039	0.024
X2 X3 X4	0.021	X2 X3 X4 X1	0.061	0.039
X2 X3 X5	0.279	X2 X3 X5 X1	0.302	0.023
X2 X3 X6	0.011	X2 X3 X6 X1	0.047	0.036
X2 X3 X7	0.027	X2 X3 X7 X1	0.049	0.022
X2 X4 X5	0.277	X2 X4 X5 X1	0.302	0.024
X2 X4 X6	0.005	X2 X4 X6 X1	0.046	0.041
X2 X4 X7	0.024	X2 X4 X7 X1	0.055	0.031
X2 X5 X6	0.274	X2 X5 X6 X1	0.323	0.049
X2 X5 X7	0.284	X2 X5 X7 X1	0.310	0.026
X2 X6 X7	0.012	X2 X6 X7 X1	0.039	0.027
X3 X4 X5	0.265	X3 X4 X5 X1	0.283	0.017
X3 X4 X6	0.029	X3 X4 X6 X1	0.068	0.039
X3 X4 X7	0.049	X3 X4 X7 X1	0.080	0.032
X3 X5 X6	0.262	X3 X5 X6 X1	0.294	0.032
X3 X5 X7	0.276	X3 X5 X7 X1	0.296	0.020
X3 X6 X7	0.035	X3 X6 X7 X1	0.064	0.029
X4 X5 X6	0.260	X4 X5 X6 X1	0.289	0.029

X4 X5 X7	0.282	X4 X5 X7 X1	0.299	0.018
X4 X6 X7	0.030	X4 X6 X7 X1	0.061	0.031
X5 X6 X7	0.277	X5 X6 X7 X1	0.307	0.030
X2 X3 X4 X5	0.284	X2 X3 X4 X5 X1	0.304	0.021
X2 X3 X4 X6	0.026	X2 X3 X4 X6 X1	0.070	0.044
X2 X3 X4 X7	0.059	X2 X3 X4 X7 X1	0.088	0.029
X2 X3 X5 X6	0.283	X2 X3 X5 X6 X1	0.322	0.039
X2 X3 X5 X7	0.286	X2 X3 X5 X7 X1	0.310	0.024
X2 X3 X6 X7	0.038	X2 X3 X6 X7 X1	0.066	0.028
X2 X4 X5 X6	0.276	X2 X4 X5 X6 X1	0.313	0.037
X2 X4 X5 X7	0.290	X2 X4 X5 X7 X1	0.309	0.019
X2 X4 X6 X7	0.031	X2 X4 X6 X7 X1	0.065	0.034
X2 X5 X6 X7	0.288	X2 X5 X6 X7 X1	0.327	0.039
X3 X4 X5 X6	0.262	X3 X4 X5 X6 X1	0.289	0.027
X3 X4 X5 X7	0.282	X3 X4 X5 X7 X1	0.300	0.017
X3 X4 X6 X7	0.057	X3 X4 X6 X7 X1	0.092	0.035
X3 X5 X6 X7	0.277	X3 X5 X6 X7 X1	0.307	0.029
X4 X5 X6 X7	0.288	X4 X5 X6 X7 X1	0.311	0.023
X2 X3 X4 X5 X6	0.283	X2 X3 X4 X5 X6 X1	0.314	0.032
X2 X3 X4 X5 X7	0.295	X2 X3 X4 X5 X7 X1	0.313	0.018
X2 X3 X4 X6 X7	0.064	X2 X3 X4 X6 X7 X1	0.096	0.032
X2 X3 X5 X6 X7	0.291	X2 X3 X5 X6 X7 X1	0.327	0.036
X2 X4 X5 X6 X7	0.296	X2 X4 X5 X6 X7 X1	0.323	0.027
X3 X4 X5 X6 X7	0.288	X3 X4 X5 X6 X7 X1	0.311	0.023
X2 X3 X4 X5 X6 X7	0.300	X2 X3 X4 X5 X6 X7 X1	0.325	0.025

Regr	Adj R2	Regr	Adj R2	Contribution X2
		X2	-0.009	-0.009
X1	0.019	X1 X2	0.017	-0.003
X3	0.013	X3 X2	0.004	-0.009
X4	0.007	X4 X2	0.001	-0.005
X5	0.256	X5 X2	0.270	0.014
X6	-0.002	X6 X2	-0.007	-0.004
X7	0.011	X7 X2	0.002	-0.009
X1 X3	0.035	X1 X3 X2	0.031	-0.004
X1 X4	0.040	X1 X4 X2	0.040	0.001
X1 X5	0.285	X1 X5 X2	0.303	0.017
X1 X6	0.017	X1 X6 X2	0.024	0.006
X1 X7	0.031	X1 X7 X2	0.023	-0.008
X3 X4	0.025	X3 X4 X2	0.021	-0.004
X3 X5	0.263	X3 X5 X2	0.279	0.016

X3 X6	0.015	X3 X6 X2	0.011	-0.004
X3 X7	0.027	X3 X7 X2	0.027	0.001
X4 X5	0.263	X4 X5 X2	0.277	0.014
X4 X6	0.008	X4 X6 X2	0.005	-0.003
X4 X7	0.025	X4 X7 X2	0.024	0.000
X5 X6	0.255	X5 X6 X2	0.274	0.018
X5 X7	0.276	X5 X7 X2	0.284	0.007
X6 X7	0.015	X6 X7 X2	0.012	-0.003
X1 X3 X4	0.061	X1 X3 X4 X2	0.061	0.000
X1 X3 X5	0.283	X1 X3 X5 X2	0.302	0.019
X1 X3 X6	0.042	X1 X3 X6 X2	0.047	0.005
X1 X3 X7	0.049	X1 X3 X7 X2	0.049	0.000
X1 X4 X5	0.282	X1 X4 X5 X2	0.302	0.019
X1 X4 X6	0.040	X1 X4 X6 X2	0.046	0.006
X1 X4 X7	0.055	X1 X4 X7 X2	0.055	0.000
X1 X5 X6	0.294	X1 X5 X6 X2	0.323	0.029
X1 X5 X7	0.297	X1 X5 X7 X2	0.310	0.013
X1 X6 X7	0.039	X1 X6 X7 X2	0.039	0.000
X3 X4 X5	0.265	X3 X4 X5 X2	0.284	0.018
X3 X4 X6	0.029	X3 X4 X6 X2	0.026	-0.003
X3 X4 X7	0.049	X3 X4 X7 X2	0.059	0.011
X3 X5 X6	0.262	X3 X5 X6 X2	0.283	0.021
X3 X5 X7	0.276	X3 X5 X7 X2	0.286	0.011
X3 X6 X7	0.035	X3 X6 X7 X2	0.038	0.003
X4 X5 X6	0.260	X4 X5 X6 X2	0.276	0.016
X4 X5 X7	0.282	X4 X5 X7 X2	0.290	0.008
X4 X6 X7	0.030	X4 X6 X7 X2	0.031	0.001
X5 X6 X7	0.277	X5 X6 X7 X2	0.288	0.011
X1 X3 X4 X5	0.283	X1 X3 X4 X5 X2	0.304	0.022
X1 X3 X4 X6	0.068	X1 X3 X4 X6 X2	0.070	0.002
X1 X3 X4 X7	0.080	X1 X3 X4 X7 X2	0.088	0.008
X1 X3 X5 X6	0.294	X1 X3 X5 X6 X2	0.322	0.028
X1 X3 X5 X7	0.296	X1 X3 X5 X7 X2	0.310	0.014
X1 X3 X6 X7	0.064	X1 X3 X6 X7 X2	0.066	0.002
X1 X4 X5 X6	0.289	X1 X4 X5 X6 X2	0.313	0.024
X1 X4 X5 X7	0.299	X1 X4 X5 X7 X2	0.309	0.010
X1 X4 X6 X7	0.061	X1 X4 X6 X7 X2	0.065	0.004
X1 X5 X6 X7	0.307	X1 X5 X6 X7 X2	0.327	0.020
X3 X4 X5 X6	0.262	X3 X4 X5 X6 X2	0.283	0.020
X3 X4 X5 X7	0.282	X3 X4 X5 X7 X2	0.295	0.013
X3 X4 X6 X7	0.057	X3 X4 X6 X7 X2	0.064	0.007
X3 X5 X6 X7	0.277	X3 X5 X6 X7 X2	0.291	0.013
X4 X5 X6 X7	0.288	X4 X5 X6 X7 X2	0.296	0.008

X1 X3 X4 X5 X6	0.289	X1 X3 X4 X5 X6 X2	0.314	0.025
X1 X3 X4 X5 X7	0.300	X1 X3 X4 X5 X7 X2	0.313	0.014
X1 X3 X4 X6 X7	0.092	X1 X3 X4 X6 X7 X2	0.096	0.004
X1 X3 X5 X6 X7	0.307	X1 X3 X5 X6 X7 X2	0.327	0.020
X1 X4 X5 X6 X7	0.311	X1 X4 X5 X6 X7 X2	0.323	0.012
X3 X4 X5 X6 X7	0.288	X3 X4 X5 X6 X7 X2	0.300	0.012
X1 X3 X4 X5 X6 X7	0.311	X1 X3 X4 X5 X6 X7 X2	0.325	0.014

Regr	Adj R2	Regr	Adj R2	Contribution X2
		X3	0.013	0.013
X1	0.019	X1 X3	0.035	0.015
X2	-0.009	X2 X3	0.004	0.013
X4	0.007	X4 X3	0.025	0.019
X5	0.256	X5 X3	0.263	0.008
X6	-0.002	X6 X3	0.015	0.017
X7	0.011	X7 X3	0.027	0.016
X1 X2	0.017	X1 X2 X3	0.031	0.014
X1 X4	0.040	X1 X4 X3	0.061	0.021
X1 X5	0.285	X1 X5 X3	0.283	-0.002
X1 X6	0.017	X1 X6 X3	0.042	0.025
X1 X7	0.031	X1 X7 X3	0.049	0.019
X2 X4	0.001	X2 X4 X3	0.021	0.020
X2 X5	0.270	X2 X5 X3	0.279	0.010
X2 X6	-0.007	X2 X6 X3	0.011	0.018
X2 X7	0.002	X2 X7 X3	0.027	0.025
X4 X5	0.263	X4 X5 X3	0.265	0.002
X4 X6	0.008	X4 X6 X3	0.029	0.022
X4 X7	0.025	X4 X7 X3	0.049	0.024
X5 X6	0.255	X5 X6 X3	0.262	0.007
X5 X7	0.276	X5 X7 X3	0.276	-0.001
X6 X7	0.015	X6 X7 X3	0.035	0.020
X1 X2 X4	0.040	X1 X2 X4 X3	0.061	0.020
X1 X2 X5	0.303	X1 X2 X5 X3	0.302	-0.001
X1 X2 X6	0.024	X1 X2 X6 X3	0.047	0.023
X1 X2 X7	0.023	X1 X2 X7 X3	0.049	0.027
X1 X4 X5	0.282	X1 X4 X5 X3	0.283	0.000
X1 X4 X6	0.040	X1 X4 X6 X3	0.068	0.029
X1 X4 X7	0.055	X1 X4 X7 X3	0.080	0.025
X1 X5 X6	0.294	X1 X5 X6 X3	0.294	0.000
X1 X5 X7	0.297	X1 X5 X7 X3	0.296	-0.001
X1 X6 X7	0.039	X1 X6 X7 X3	0.064	0.025

X2 X4 X5	0.277	X2 X4 X5 X3	0.284	0.006
X2 X4 X6	0.005	X2 X4 X6 X3	0.026	0.021
X2 X4 X7	0.024	X2 X4 X7 X3	0.059	0.035
X2 X5 X6	0.274	X2 X5 X6 X3	0.283	0.009
X2 X5 X7	0.284	X2 X5 X7 X3	0.286	0.003
X2 X6 X7	0.012	X2 X6 X7 X3	0.038	0.026
X4 X5 X6	0.260	X4 X5 X6 X3	0.262	0.002
X4 X5 X7	0.282	X4 X5 X7 X3	0.282	0.001
X4 X6 X7	0.030	X4 X6 X7 X3	0.057	0.027
X5 X6 X7	0.277	X5 X6 X7 X3	0.277	0.000
X1 X2 X4 X5	0.302	X1 X2 X4 X5 X3	0.304	0.003
X1 X2 X4 X6	0.046	X1 X2 X4 X6 X3	0.070	0.024
X1 X2 X4 X7	0.055	X1 X2 X4 X7 X3	0.088	0.033
X1 X2 X5 X6	0.323	X1 X2 X5 X6 X3	0.322	-0.001
X1 X2 X5 X7	0.310	X1 X2 X5 X7 X3	0.310	0.000
X1 X2 X6 X7	0.039	X1 X2 X6 X7 X3	0.066	0.027
X1 X4 X5 X6	0.289	X1 X4 X5 X6 X3	0.289	0.000
X1 X4 X5 X7	0.299	X1 X4 X5 X7 X3	0.300	0.000
X1 X4 X6 X7	0.061	X1 X4 X6 X7 X3	0.092	0.031
X1 X5 X6 X7	0.307	X1 X5 X6 X7 X3	0.307	-0.001
X2 X4 X5 X6	0.276	X2 X4 X5 X6 X3	0.283	0.007
X2 X4 X5 X7	0.290	X2 X4 X5 X7 X3	0.295	0.006
X2 X4 X6 X7	0.031	X2 X4 X6 X7 X3	0.064	0.033
X2 X5 X6 X7	0.288	X2 X5 X6 X7 X3	0.291	0.003
X4 X5 X6 X7	0.288	X4 X5 X6 X7 X3	0.288	0.000
X1 X2 X4 X5 X6	0.313	X1 X2 X4 X5 X6 X3	0.314	0.001
X1 X2 X4 X5 X7	0.309	X1 X2 X4 X5 X7 X3	0.313	0.004
X1 X2 X4 X6 X7	0.065	X1 X2 X4 X6 X7 X3	0.096	0.031
X1 X2 X5 X6 X7	0.327	X1 X2 X5 X6 X7 X3	0.327	0.000
X1 X4 X5 X6 X7	0.311	X1 X4 X5 X6 X7 X3	0.311	0.000
X2 X4 X5 X6 X7	0.296	X2 X4 X5 X6 X7 X3	0.300	0.004
X1 X2 X4 X5 X6 X7	0.323	X1 X2 X4 X5 X6 X7 X3	0.325	0.002

Regr	Adj R2	Regr	Adj R2	Contribution X4
		X4	0.007	0.007
X1	0.019	X1 X4	0.040	0.020
X2	-0.009	X2 X4	0.001	0.010
X3	0.013	X3 X4	0.025	0.013
X5	0.256	X5 X4	0.263	0.008
X6	-0.002	X6 X4	0.008	0.010
X7	0.011	X7 X4	0.025	0.014

X1 X2	0.017	X1 X2 X4	0.040	0.024
X1 X3	0.035	X1 X3 X4	0.061	0.026
X1 X5	0.285	X1 X5 X4	0.282	-0.003
X1 X6	0.017	X1 X6 X4	0.040	0.022
X1 X7	0.031	X1 X7 X4	0.055	0.025
X2 X3	0.004	X2 X3 X4	0.021	0.017
X2 X5	0.270	X2 X5 X4	0.277	0.008
X2 X6	-0.007	X2 X6 X4	0.005	0.011
X2 X7	0.002	X2 X7 X4	0.024	0.022
X3 X5	0.263	X3 X5 X4	0.265	0.002
X3 X6	0.015	X3 X6 X4	0.029	0.014
X3 X7	0.027	X3 X7 X4	0.049	0.022
X5 X6	0.255	X5 X6 X4	0.260	0.005
X5 X7	0.276	X5 X7 X4	0.282	0.006
X6 X7	0.015	X6 X7 X4	0.030	0.015
X1 X2 X3	0.031	X1 X2 X3 X4	0.061	0.030
X1 X2 X5	0.303	X1 X2 X5 X4	0.302	-0.001
X1 X2 X6	0.024	X1 X2 X6 X4	0.046	0.022
X1 X2 X7	0.023	X1 X2 X7 X4	0.055	0.033
X1 X3 X5	0.283	X1 X3 X5 X4	0.283	-0.001
X1 X3 X6	0.042	X1 X3 X6 X4	0.068	0.026
X1 X3 X7	0.049	X1 X3 X7 X4	0.080	0.031
X1 X5 X6	0.294	X1 X5 X6 X4	0.289	-0.005
X1 X5 X7	0.297	X1 X5 X7 X4	0.299	0.002
X1 X6 X7	0.039	X1 X6 X7 X4	0.061	0.022
X2 X3 X5	0.279	X2 X3 X5 X4	0.284	0.005
X2 X3 X6	0.011	X2 X3 X6 X4	0.026	0.015
X2 X3 X7	0.027	X2 X3 X7 X4	0.059	0.032
X2 X5 X6	0.274	X2 X5 X6 X4	0.276	0.002
X2 X5 X7	0.284	X2 X5 X7 X4	0.290	0.006
X2 X6 X7	0.012	X2 X6 X7 X4	0.031	0.019
X3 X5 X6	0.262	X3 X5 X6 X4	0.262	0.000
X3 X5 X7	0.276	X3 X5 X7 X4	0.282	0.007
X3 X6 X7	0.035	X3 X6 X7 X4	0.057	0.022
X5 X6 X7	0.277	X5 X6 X7 X4	0.288	0.011
X1 X2 X3 X5	0.302	X1 X2 X3 X5 X4	0.304	0.002
X1 X2 X3 X6	0.047	X1 X2 X3 X6 X4	0.070	0.023
X1 X2 X3 X7	0.049	X1 X2 X3 X7 X4	0.088	0.039
X1 X2 X5 X6	0.323	X1 X2 X5 X6 X4	0.313	-0.010
X1 X2 X5 X7	0.310	X1 X2 X5 X7 X4	0.309	-0.001
X1 X2 X6 X7	0.039	X1 X2 X6 X7 X4	0.065	0.026
X1 X3 X5 X6	0.294	X1 X3 X5 X6 X4	0.289	-0.005
X1 X3 X5 X7	0.296	X1 X3 X5 X7 X4	0.300	0.004

X1 X3 X6 X7	0.064	X1 X3 X6 X7 X4	0.092	0.028
X1 X5 X6 X7	0.307	X1 X5 X6 X7 X4	0.311	0.003
X2 X3 X5 X6	0.283	X2 X3 X5 X6 X4	0.283	0.000
X2 X3 X5 X7	0.286	X2 X3 X5 X7 X4	0.295	0.009
X2 X3 X6 X7	0.038	X2 X3 X6 X7 X4	0.064	0.026
X2 X5 X6 X7	0.288	X2 X5 X6 X7 X4	0.296	0.008
X3 X5 X6 X7	0.277	X3 X5 X6 X7 X4	0.288	0.011
X1 X2 X3 X5 X6	0.322	X1 X2 X3 X5 X6 X4	0.314	-0.008
X1 X2 X3 X5 X7	0.310	X1 X2 X3 X5 X7 X4	0.313	0.003
X1 X2 X3 X6 X7	0.066	X1 X2 X3 X6 X7 X4	0.096	0.029
X1 X2 X5 X6 X7	0.327	X1 X2 X5 X6 X7 X4	0.323	-0.004
X1 X3 X5 X6 X7	0.307	X1 X3 X5 X6 X7 X4	0.311	0.004
X2 X3 X5 X6 X7	0.291	X2 X3 X5 X6 X7 X4	0.300	0.009
X1 X2 X3 X5 X6 X7	0.327	X1 X2 X3 X5 X6 X7 X4	0.325	-0.002

Regr	Adj R2	Regr	Adj R2	Contribution X5
		X5	0.256	0.256
X1	0.019	X1 X5	0.285	0.266
X2	-0.009	X2 X5	0.270	0.279
X3	0.013	X3 X5	0.263	0.251
X4	0.007	X4 X5	0.263	0.257
X6	-0.002	X6 X5	0.255	0.258
X7	0.011	X7 X5	0.276	0.265
X1 X2	0.017	X1 X2 X5	0.303	0.286
X1 X3	0.035	X1 X3 X5	0.283	0.249
X1 X4	0.040	X1 X4 X5	0.282	0.243
X1 X6	0.017	X1 X6 X5	0.294	0.277
X1 X7	0.031	X1 X7 X5	0.297	0.266
X2 X3	0.004	X2 X3 X5	0.279	0.275
X2 X4	0.001	X2 X4 X5	0.277	0.276
X2 X6	-0.007	X2 X6 X5	0.274	0.280
X2 X7	0.002	X2 X7 X5	0.284	0.281
X3 X4	0.025	X3 X4 X5	0.265	0.240
X3 X6	0.015	X3 X6 X5	0.262	0.247
X3 X7	0.027	X3 X7 X5	0.276	0.249
X4 X6	0.008	X4 X6 X5	0.260	0.253
X4 X7	0.025	X4 X7 X5	0.282	0.257
X6 X7	0.015	X6 X7 X5	0.277	0.263
X1 X2 X3	0.031	X1 X2 X3 X5	0.302	0.271
X1 X2 X4	0.040	X1 X2 X4 X5	0.302	0.261
X1 X2 X6	0.024	X1 X2 X6 X5	0.323	0.299

X1 X2 X7	0.023	X1 X2 X7 X5	0.310	0.287
X1 X3 X4	0.061	X1 X3 X4 X5	0.283	0.222
X1 X3 X6	0.042	X1 X3 X6 X5	0.294	0.252
X1 X3 X7	0.049	X1 X3 X7 X5	0.296	0.247
X1 X4 X6	0.040	X1 X4 X6 X5	0.289	0.250
X1 X4 X7	0.055	X1 X4 X7 X5	0.299	0.244
X1 X6 X7	0.039	X1 X6 X7 X5	0.307	0.268
X2 X3 X4	0.021	X2 X3 X4 X5	0.284	0.263
X2 X3 X6	0.011	X2 X3 X6 X5	0.283	0.272
X2 X3 X7	0.027	X2 X3 X7 X5	0.286	0.259
X2 X4 X6	0.005	X2 X4 X6 X5	0.276	0.272
X2 X4 X7	0.024	X2 X4 X7 X5	0.290	0.265
X2 X6 X7	0.012	X2 X6 X7 X5	0.288	0.276
X3 X4 X6	0.029	X3 X4 X6 X5	0.262	0.233
X3 X4 X7	0.049	X3 X4 X7 X5	0.282	0.234
X3 X6 X7	0.035	X3 X6 X7 X5	0.277	0.242
X4 X6 X7	0.030	X4 X6 X7 X5	0.288	0.258
X1 X2 X3 X4	0.061	X1 X2 X3 X4 X5	0.304	0.244
X1 X2 X3 X6	0.047	X1 X2 X3 X6 X5	0.322	0.275
X1 X2 X3 X7	0.049	X1 X2 X3 X7 X5	0.310	0.261
X1 X2 X4 X6	0.046	X1 X2 X4 X6 X5	0.313	0.267
X1 X2 X4 X7	0.055	X1 X2 X4 X7 X5	0.309	0.253
X1 X2 X6 X7	0.039	X1 X2 X6 X7 X5	0.327	0.288
X1 X3 X4 X6	0.068	X1 X3 X4 X6 X5	0.289	0.221
X1 X3 X4 X7	0.080	X1 X3 X4 X7 X5	0.300	0.219
X1 X3 X6 X7	0.064	X1 X3 X6 X7 X5	0.307	0.243
X1 X4 X6 X7	0.061	X1 X4 X6 X7 X5	0.311	0.250
X2 X3 X4 X6	0.026	X2 X3 X4 X6 X5	0.283	0.257
X2 X3 X4 X7	0.059	X2 X3 X4 X7 X5	0.295	0.236
X2 X3 X6 X7	0.038	X2 X3 X6 X7 X5	0.291	0.252
X2 X4 X6 X7	0.031	X2 X4 X6 X7 X5	0.296	0.265
X3 X4 X6 X7	0.057	X3 X4 X6 X7 X5	0.288	0.231
X1 X2 X3 X4 X6	0.070	X1 X2 X3 X4 X6 X5	0.314	0.245
X1 X2 X3 X4 X7	0.088	X1 X2 X3 X4 X7 X5	0.313	0.225
X1 X2 X3 X6 X7	0.066	X1 X2 X3 X6 X7 X5	0.327	0.260
X1 X2 X4 X6 X7	0.065	X1 X2 X4 X6 X7 X5	0.323	0.258
X1 X3 X4 X6 X7	0.092	X1 X3 X4 X6 X7 X5	0.311	0.219
X2 X3 X4 X6 X7	0.064	X2 X3 X4 X6 X7 X5	0.300	0.236
X1 X2 X3 X4 X6 X7	0.096	X1 X2 X3 X4 X6 X7 X5	0.325	0.229

Regr	Adj R2	Regr	Adj R2	Contribution X6
		X6	-0.002	-0.002
X1	0.019	X1 X6	0.017	-0.002
X2	-0.009	X2 X6	-0.007	0.003
X3	0.013	X3 X6	0.015	0.002
X4	0.007	X4 X6	0.008	0.001
X5	0.256	X5 X6	0.255	0.000
X7	0.011	X7 X6	0.015	0.004
X1 X2	0.017	X1 X2 X6	0.024	0.007
X1 X3	0.035	X1 X3 X6	0.042	0.008
X1 X4	0.040	X1 X4 X6	0.040	0.000
X1 X5	0.285	X1 X5 X6	0.294	0.009
X1 X7	0.031	X1 X7 X6	0.039	0.009
X2 X3	0.004	X2 X3 X6	0.011	0.007
X2 X4	0.001	X2 X4 X6	0.005	0.003
X2 X5	0.270	X2 X5 X6	0.274	0.004
X2 X7	0.002	X2 X7 X6	0.012	0.010
X3 X4	0.025	X3 X4 X6	0.029	0.004
X3 X5	0.263	X3 X5 X6	0.262	-0.001
X3 X7	0.027	X3 X7 X6	0.035	0.008
X4 X5	0.263	X4 X5 X6	0.260	-0.003
X4 X7	0.025	X4 X7 X6	0.030	0.006
X5 X7	0.276	X5 X7 X6	0.277	0.001
X1 X2 X3	0.031	X1 X2 X3 X6	0.047	0.016
X1 X2 X4	0.040	X1 X2 X4 X6	0.046	0.005
X1 X2 X5	0.303	X1 X2 X5 X6	0.323	0.020
X1 X2 X7	0.023	X1 X2 X7 X6	0.039	0.017
X1 X3 X4	0.061	X1 X3 X4 X6	0.068	0.008
X1 X3 X5	0.283	X1 X3 X5 X6	0.294	0.011
X1 X3 X7	0.049	X1 X3 X7 X6	0.064	0.015
X1 X4 X5	0.282	X1 X4 X5 X6	0.289	0.007
X1 X4 X7	0.055	X1 X4 X7 X6	0.061	0.006
X1 X5 X7	0.297	X1 X5 X7 X6	0.307	0.011
X2 X3 X4	0.021	X2 X3 X4 X6	0.026	0.005
X2 X3 X5	0.279	X2 X3 X5 X6	0.283	0.004
X2 X3 X7	0.027	X2 X3 X7 X6	0.038	0.011
X2 X4 X5	0.277	X2 X4 X5 X6	0.276	-0.001
X2 X4 X7	0.024	X2 X4 X7 X6	0.031	0.007
X2 X5 X7	0.284	X2 X5 X7 X6	0.288	0.005
X3 X4 X5	0.265	X3 X4 X5 X6	0.262	-0.003
X3 X4 X7	0.049	X3 X4 X7 X6	0.057	0.009
X3 X5 X7	0.276	X3 X5 X7 X6	0.277	0.002

X4 X5 X7	0.282	X4 X5 X7 X6	0.288	0.006
X1 X2 X3 X4	0.061	X1 X2 X3 X4 X6	0.070	0.009
X1 X2 X3 X5	0.302	X1 X2 X3 X5 X6	0.322	0.020
X1 X2 X3 X7	0.049	X1 X2 X3 X7 X6	0.066	0.017
X1 X2 X4 X5	0.302	X1 X2 X4 X5 X6	0.313	0.011
X1 X2 X4 X7	0.055	X1 X2 X4 X7 X6	0.065	0.009
X1 X2 X5 X7	0.310	X1 X2 X5 X7 X6	0.327	0.017
X1 X3 X4 X5	0.283	X1 X3 X4 X5 X6	0.289	0.007
X1 X3 X4 X7	0.080	X1 X3 X4 X7 X6	0.092	0.012
X1 X3 X5 X7	0.296	X1 X3 X5 X7 X6	0.307	0.011
X1 X4 X5 X7	0.299	X1 X4 X5 X7 X6	0.311	0.011
X2 X3 X4 X5	0.284	X2 X3 X4 X5 X6	0.283	-0.001
X2 X3 X4 X7	0.059	X2 X3 X4 X7 X6	0.064	0.004
X2 X3 X5 X7	0.286	X2 X3 X5 X7 X6	0.291	0.005
X2 X4 X5 X7	0.290	X2 X4 X5 X7 X6	0.296	0.007
X3 X4 X5 X7	0.282	X3 X4 X5 X7 X6	0.288	0.006
X1 X2 X3 X4 X5	0.304	X1 X2 X3 X4 X5 X6	0.314	0.010
X1 X2 X3 X4 X7	0.088	X1 X2 X3 X4 X7 X6	0.096	0.007
X1 X2 X3 X5 X7	0.310	X1 X2 X3 X5 X7 X6	0.327	0.017
X1 X2 X4 X5 X7	0.309	X1 X2 X4 X5 X7 X6	0.323	0.014
X1 X3 X4 X5 X7	0.300	X1 X3 X4 X5 X7 X6	0.311	0.011
X2 X3 X4 X5 X7	0.295	X2 X3 X4 X5 X7 X6	0.300	0.005
X1 X2 X3 X4 X5 X7	0.313	X1 X2 X3 X4 X5 X7 X6	0.325	0.012

Regr	Adj R2	Regr	Adj R2	Contribution X7
		X7	0.011	0.011
X1	0.019	X1 X7	0.031	0.011
X2	-0.009	X2 X7	0.002	0.011
X3	0.013	X3 X7	0.027	0.014
X4	0.007	X4 X7	0.025	0.018
X5	0.256	X5 X7	0.276	0.020
X6	-0.002	X6 X7	0.015	0.017
X1 X2	0.017	X1 X2 X7	0.023	0.006
X1 X3	0.035	X1 X3 X7	0.049	0.014
X1 X4	0.040	X1 X4 X7	0.055	0.016
X1 X5	0.285	X1 X5 X7	0.297	0.012
X1 X6	0.017	X1 X6 X7	0.039	0.022
X2 X3	0.004	X2 X3 X7	0.027	0.023
X2 X4	0.001	X2 X4 X7	0.024	0.023
X2 X5	0.270	X2 X5 X7	0.284	0.014
X2 X6	-0.007	X2 X6 X7	0.012	0.019

X3 X4	0.025	X3 X4 X7	0.049	0.024
X3 X5	0.263	X3 X5 X7	0.276	0.012
X3 X6	0.015	X3 X6 X7	0.035	0.020
X4 X5	0.263	X4 X5 X7	0.282	0.018
X4 X6	0.008	X4 X6 X7	0.030	0.023
X5 X6	0.255	X5 X6 X7	0.277	0.022
X1 X2 X3	0.031	X1 X2 X3 X7	0.049	0.018
X1 X2 X4	0.040	X1 X2 X4 X7	0.055	0.015
X1 X2 X5	0.303	X1 X2 X5 X7	0.310	0.007
X1 X2 X6	0.024	X1 X2 X6 X7	0.039	0.015
X1 X3 X4	0.061	X1 X3 X4 X7	0.080	0.020
X1 X3 X5	0.283	X1 X3 X5 X7	0.296	0.012
X1 X3 X6	0.042	X1 X3 X6 X7	0.064	0.022
X1 X4 X5	0.282	X1 X4 X5 X7	0.299	0.017
X1 X4 X6	0.040	X1 X4 X6 X7	0.061	0.022
X1 X5 X6	0.294	X1 X5 X6 X7	0.307	0.013
X2 X3 X4	0.021	X2 X3 X4 X7	0.059	0.038
X2 X3 X5	0.279	X2 X3 X5 X7	0.286	0.007
X2 X3 X6	0.011	X2 X3 X6 X7	0.038	0.027
X2 X4 X5	0.277	X2 X4 X5 X7	0.290	0.012
X2 X4 X6	0.005	X2 X4 X6 X7	0.031	0.027
X2 X5 X6	0.274	X2 X5 X6 X7	0.288	0.015
X3 X4 X5	0.265	X3 X4 X5 X7	0.282	0.017
X3 X4 X6	0.029	X3 X4 X6 X7	0.057	0.028
X3 X5 X6	0.262	X3 X5 X6 X7	0.277	0.015
X4 X5 X6	0.260	X4 X5 X6 X7	0.288	0.028
X1 X2 X3 X4	0.061	X1 X2 X3 X4 X7	0.088	0.028
X1 X2 X3 X5	0.302	X1 X2 X3 X5 X7	0.310	0.008
X1 X2 X3 X6	0.047	X1 X2 X3 X6 X7	0.066	0.019
X1 X2 X4 X5	0.302	X1 X2 X4 X5 X7	0.309	0.007
X1 X2 X4 X6	0.046	X1 X2 X4 X6 X7	0.065	0.019
X1 X2 X5 X6	0.323	X1 X2 X5 X6 X7	0.327	0.004
X1 X3 X4 X5	0.283	X1 X3 X4 X5 X7	0.300	0.017
X1 X3 X4 X6	0.068	X1 X3 X4 X6 X7	0.092	0.024
X1 X3 X5 X6	0.294	X1 X3 X5 X6 X7	0.307	0.013
X1 X4 X5 X6	0.289	X1 X4 X5 X6 X7	0.311	0.021
X2 X3 X4 X5	0.284	X2 X3 X4 X5 X7	0.295	0.012
X2 X3 X4 X6	0.026	X2 X3 X4 X6 X7	0.064	0.038
X2 X3 X5 X6	0.283	X2 X3 X5 X6 X7	0.291	0.008
X2 X4 X5 X6	0.276	X2 X4 X5 X6 X7	0.296	0.020
X3 X4 X5 X6	0.262	X3 X4 X5 X6 X7	0.288	0.026
X1 X2 X3 X4 X5	0.304	X1 X2 X3 X4 X5 X7	0.313	0.009
X1 X2 X3 X4 X6	0.070	X1 X2 X3 X4 X6 X7	0.096	0.026

X1 X2 X3 X5 X6	0.322	X1 X2 X3 X5 X6 X7	0.327	0.005
X1 X2 X4 X5 X6	0.313	X1 X2 X4 X5 X6 X7	0.323	0.010
X1 X3 X4 X5 X6	0.289	X1 X3 X4 X5 X6 X7	0.311	0.021
X2 X3 X4 X5 X6	0.283	X2 X3 X4 X5 X6 X7	0.300	0.017
X1 X2 X3 X4 X5 X6	0.314	X1 X2 X3 X4 X5 X6 X7	0.325	0.011

APPENDIX B

Average Beta Coefficients by Group and Averages from all Three Regressions

X1 = the Amenity Group
X2 = the Demographics group
X3 = the Education group
X4 = the Fiscal and Other Policy group
X5 = the Economic group
X6 = Urbanization group

Population Regressions

Model	TempJan	TempJuly	Humidity	Water	Typog
X1	0.383	-0.140	-0.134	0.094	0.137
X2 X1	0.431	-0.121	-0.140	0.083	0.113
X3 X1	0.473	-0.097	-0.072	0.069	0.151
X4 X1	0.216	-0.178	-0.052	0.088	0.111
X5 X1	0.590	-0.184	-0.232	0.102	0.140
X6 X1	0.339	-0.139	-0.179	0.099	0.126
X7 X1	0.435	-0.240	-0.261	0.094	0.149
X2 X3 X1	0.481	-0.179	-0.092	0.036	0.076
X2 X4 X1	0.291	-0.139	-0.031	0.080	0.113
X2 X5 X1	0.593	-0.213	-0.205	0.087	0.129
X2 X6 X1	0.389	-0.117	-0.138	0.067	0.101
X2 X7 X1	0.481	-0.191	-0.174	0.076	0.079
X3 X4 X1	0.253	-0.138	0.010	0.057	0.124
X3 X5 X1	0.606	-0.178	-0.220	0.104	0.144
X3 X6 X1	0.415	-0.109	-0.118	0.074	0.136
X3 X7 X1	0.521	-0.226	-0.212	0.061	0.174
X4 X5 X1	0.480	-0.215	-0.175	0.094	0.104
X4 X6 X1	0.186	-0.203	-0.157	0.121	0.091
X4 X7 X1	0.342	-0.224	-0.132	0.070	0.131
X5 X6 X1	0.553	-0.196	-0.252	0.100	0.126
X5 X7 X1	0.702	-0.359	-0.366	0.103	0.169
X6 X7 X1	0.402	-0.344	-0.358	0.100	0.111
X2 X3 X4 X1	0.312	-0.144	0.000	0.019	0.072
X2 X3 X5 X1	0.607	-0.260	-0.168	0.073	0.093
X2 X3 X6 X1	0.419	-0.191	-0.115	0.014	0.050
X2 X3 X7 X1	0.482	-0.144	-0.045	0.034	0.087
X2 X4 X5 X1	0.524	-0.212	-0.142	0.080	0.110
X2 X4 X6 X1	0.246	-0.168	-0.113	0.099	0.099
X2 X4 X7 X1	0.380	-0.166	-0.083	0.054	0.107

X2 X5 X6 X1	0.550	-0.213	-0.214	0.071	0.116
X2 X5 X7 X1	0.644	-0.301	-0.281	0.076	0.115
X2 X6 X7 X1	0.448	-0.281	-0.266	0.068	0.058
X3 X4 X5 X1	0.488	-0.196	-0.147	0.093	0.115
X3 X4 X6 X1	0.213	-0.168	-0.101	0.093	0.099
X3 X4 X7 X1	0.410	-0.214	-0.097	0.030	0.158
X3 X5 X6 X1	0.557	-0.202	-0.254	0.103	0.123
X3 X5 X7 X1	0.751	-0.348	-0.352	0.098	0.189
X3 X6 X7 X1	0.482	-0.321	-0.288	0.063	0.138
X4 X5 X6 X1	0.431	-0.238	-0.240	0.116	0.088
X4 X5 X7 X1	0.673	-0.327	-0.318	0.086	0.159
X4 X6 X7 X1	0.339	-0.301	-0.272	0.104	0.106
X5 X6 X7 X1	0.654	-0.429	-0.423	0.092	0.138
X2 X3 X4 X5 X1	0.494	-0.233	-0.095	0.055	0.074
X2 X3 X4 X6 X1	0.254	-0.176	-0.081	0.028	0.048
X2 X3 X4 X7 X1	0.424	-0.136	4.480	0.001	0.105
X2 X3 X5 X6 X1	0.547	-0.281	-0.206	0.055	0.063
X2 X3 X5 X7 X1	0.666	-0.283	-0.202	0.064	0.107
X2 X3 X6 X7 X1	0.440	-0.226	-0.123	0.017	0.062
X2 X4 X5 X6 X1	0.464	-0.238	-0.206	0.090	0.100
X2 X4 X5 X7 X1	0.632	-0.271	-0.256	0.061	0.129
X2 X4 X6 X7 X1	0.353	-0.250	-0.212	0.077	0.091
X2 X5 X6 X7 X1	0.591	-0.361	-0.336	0.057	0.095
X3 X4 X5 X6 X1	0.433	-0.229	-0.224	0.116	0.091
X3 X4 X5 X7 X1	0.717	-0.309	-0.299	0.078	0.184
X3 X4 X6 X7 X1	0.403	-0.279	-0.214	0.066	0.135
X3 X5 X6 X7 X1	0.700	-0.410	-0.398	0.090	0.159
X4 X5 X6 X7 X1	0.641	-0.383	-0.400	0.103	0.138
X2 X3 X4 X5 X6 X1	0.427	-0.267	-0.175	0.062	0.052
X2 X3 X4 X5 X7 X1	0.634	-0.251	-0.170	0.043	0.113
X2 X3 X4 X6 X7 X1	0.392	-0.207	-0.114	0.020	0.086
X2 X3 X5 X6 X7 X1	0.612	-0.341	-0.257	0.044	0.083
X2 X4 X5 X6 X7 X1	0.581	-0.335	-0.339	0.070	0.116
X3 X4 X5 X6 X7 X1	0.690	-0.357	-0.365	0.099	0.165
X2 X3 X4 X5 X6 X7 X1	0.589	-0.310	-0.251	0.053	0.098
Avg. X1	0.482	-0.236	-0.196	0.073	0.113

Model	Births90	PcPopBlack90	PcPopHisp90	PcPopAsian90	PcAge2549
X2	0.144	0.073	-0.014	0.182	0.002
X1 X2	0.130	-0.068	-0.172	0.071	-0.010
X3 X2	0.250	0.117	-0.061	0.084	0.052

X4 X2	0.119	-0.110	-0.151	0.074	0.018
X5 X2	0.113	0.172	0.046	0.131	-0.060
X6 X2	0.139	0.012	-0.035	0.169	0.031
X7 X2	0.122	-0.173	-0.115	0.112	-0.021
X1 X3 X2	0.230	0.004	-0.173	-0.043	0.016
X1 X4 X2	0.133	-0.083	-0.159	0.036	-0.024
X1 X5 X2	0.087	0.072	-0.062	0.006	-0.112
X1 X6 X2	0.130	-0.080	-0.169	0.072	0.007
X1 X7 X2	0.106	-0.198	-0.189	0.064	-0.015
X3 X4 X2	0.202	-0.016	-0.172	-0.038	0.088
X3 X5 X2	0.181	0.157	-0.003	0.090	0.035
X3 X6 X2	0.258	0.066	-0.084	0.058	0.079
X3 X7 X2	0.214	-0.036	-0.116	0.005	0.029
X4 X5 X2	0.076	0.006	-0.085	0.031	-0.041
X4 X6 X2	0.134	-0.151	-0.138	0.068	0.021
X4 X7 X2	0.120	-0.148	-0.157	0.072	-0.005
X5 X6 X2	0.120	0.121	0.030	0.117	-0.052
X5 X7 X2	0.094	-0.053	-0.027	0.073	-0.076
X6 X7 X2	0.134	-0.209	-0.133	0.092	-0.004
X1 X3 X4 X2	0.211	-0.012	-0.167	-0.071	0.050
X1 X3 X5 X2	0.146	0.083	-0.069	-0.036	-0.037
X1 X3 X6 X2	0.237	0.015	-0.181	-0.044	0.038
X1 X3 X7 X2	0.206	-0.095	-0.166	-0.058	0.031
X1 X4 X5 X2	0.079	0.059	-0.088	-0.011	-0.105
X1 X4 X6 X2	0.146	-0.074	-0.143	0.027	-0.029
X1 X4 X7 X2	0.130	-0.137	-0.188	0.053	-0.011
X1 X5 X6 X2	0.094	0.074	-0.066	0.002	-0.110
X1 X5 X7 X2	0.074	-0.043	-0.094	0.040	-0.067
X1 X6 X7 X2	0.121	-0.192	-0.193	0.063	-0.002
X3 X4 X5 X2	0.137	0.032	-0.118	-0.018	0.065
X3 X4 X6 X2	0.219	-0.048	-0.163	-0.049	0.088
X3 X4 X7 X2	0.200	-0.032	-0.166	-0.030	0.087
X3 X5 X6 X2	0.194	0.100	-0.030	0.077	0.038
X3 X5 X7 X2	0.147	0.008	-0.039	0.027	0.009
X3 X6 X7 X2	0.233	-0.065	-0.135	-0.024	0.048
X4 X5 X6 X2	0.098	-0.029	-0.078	0.027	-0.042
X4 X5 X7 X2	0.083	-0.051	-0.087	0.048	-0.047
X4 X6 X7 X2	0.143	-0.178	-0.145	0.057	-0.009
X5 X6 X7 X2	0.116	-0.073	-0.060	0.049	-0.078
X1 X3 X4 X5 X2	0.134	0.066	-0.104	-0.052	-0.008
X1 X3 X4 X6 X2	0.222	4.533	-0.164	-0.075	0.050
X1 X3 X4 X7 X2	0.217	-0.050	-0.186	-0.056	0.084
X1 X3 X5 X6 X2	0.156	0.090	-0.090	-0.037	-0.035

X1 X3 X5 X7 X2	0.129	-0.013	-0.081	-0.017	0.016
X1 X3 X6 X7 X2	0.224	-0.083	-0.178	-0.055	0.050
X1 X4 X5 X6 X2	0.102	0.075	-0.083	-0.020	-0.111
X1 X4 X5 X7 X2	0.078	-0.013	-0.129	0.040	-0.056
X1 X4 X6 X7 X2	0.150	-0.124	-0.174	0.042	-0.018
X1 X5 X6 X7 X2	0.097	-0.033	-0.109	0.032	-0.065
X3 X4 X5 X6 X2	0.157	0.002	-0.119	-0.021	0.057
X3 X4 X5 X7 X2	0.138	-0.006	-0.103	-0.001	0.075
X3 X4 X6 X7 X2	0.222	-0.061	-0.160	-0.044	0.086
X3 X5 X6 X7 X2	0.170	-0.012	-0.077	0.004	0.010
X4 X5 X6 X7 X2	0.116	-0.073	-0.088	0.032	-0.053
X1 X3 X4 X5 X6 X2	0.152	0.083	-0.115	-0.055	-0.018
X1 X3 X4 X5 X7 X2	0.135	0.003	-0.125	-0.013	0.061
X1 X3 X4 X6 X7 X2	0.229	-0.043	-0.181	-0.057	0.080
X1 X3 X5 X6 X7 X2	0.147	-0.005	-0.105	-0.019	0.017
X1 X4 X5 X6 X7 X2	0.107	0.003	-0.126	0.028	-0.061
X3 X4 X5 X6 X7 X2	0.166	-0.027	-0.113	-0.013	0.067
X1 X3 X4 X5 X6 X7 X2	0.154	0.016	-0.131	-0.018	0.052
Avg. X2	0.151	-0.022	-0.113	0.020	0.002

Model	PcAge5064	PcAge65plus	PCMrdHH90
X2	0.312	-0.145	0.201
X1 X2	0.122	-0.090	0.208
X3 X2	0.411	-0.044	0.385
X4 X2	0.207	-0.158	0.129
X5 X2	0.356	-0.258	0.248
X6 X2	0.325	-0.180	0.154
X7 X2	0.095	-0.025	0.198
X1 X3 X2	0.236	-0.012	0.383
X1 X4 X2	0.156	-0.152	0.173
X1 X5 X2	0.171	-0.253	0.260
X1 X6 X2	0.149	-0.120	0.180
X1 X7 X2	0.032	-0.013	0.194
X3 X4 X2	0.341	-0.070	0.310
X3 X5 X2	0.393	-0.127	0.374
X3 X6 X2	0.424	-0.086	0.352
X3 X7 X2	0.226	0.043	0.369
X4 X5 X2	0.201	-0.247	0.228
X4 X6 X2	0.194	-0.166	0.107
X4 X7 X2	0.135	-0.103	0.151
X5 X6 X2	0.365	-0.298	0.205

X5 X7 X2	0.126	-0.132	0.267
X6 X7 X2	0.097	-0.072	0.148
X1 X3 X4 X2	0.290	-0.067	0.333
X1 X3 X5 X2	0.222	-0.146	0.361
X1 X3 X6 X2	0.278	-0.051	0.374
X1 X3 X7 X2	0.151	0.061	0.355
X1 X4 X5 X2	0.174	-0.274	0.258
X1 X4 X6 X2	0.152	-0.164	0.148
X1 X4 X7 X2	0.104	-0.091	0.161
X1 X5 X6 X2	0.196	-0.281	0.240
X1 X5 X7 X2	0.070	-0.130	0.243
X1 X6 X7 X2	0.058	-0.053	0.143
X3 X4 X5 X2	0.280	-0.131	0.348
X3 X4 X6 X2	0.325	-0.081	0.300
X3 X4 X7 X2	0.271	0.004	0.308
X3 X5 X6 X2	0.390	-0.170	0.338
X3 X5 X7 X2	0.193	-0.036	0.376
X3 X6 X7 X2	0.240	-0.010	0.327
X4 X5 X6 X2	0.201	-0.268	0.197
X4 X5 X7 X2	0.111	-0.169	0.241
X4 X6 X7 X2	0.122	-0.126	0.124
X5 X6 X7 X2	0.134	-0.190	0.226
X1 X3 X4 X5 X2	0.237	-0.161	0.358
X1 X3 X4 X6 X2	0.287	-0.080	0.327
X1 X3 X4 X7 X2	0.237	0.022	0.309
X1 X3 X5 X6 X2	0.248	-0.174	0.355
X1 X3 X5 X7 X2	0.128	-0.035	0.333
X1 X3 X6 X7 X2	0.186	0.017	0.316
X1 X4 X5 X6 X2	0.184	-0.288	0.232
X1 X4 X5 X7 X2	0.088	-0.164	0.237
X1 X4 X6 X7 X2	0.103	-0.110	0.131
X1 X5 X6 X7 X2	0.096	-0.165	0.211
X3 X4 X5 X6 X2	0.269	-0.151	0.329
X3 X4 X5 X7 X2	0.188	-0.044	0.347
X3 X4 X6 X7 X2	0.255	-0.016	0.289
X3 X5 X6 X7 X2	0.203	-0.091	0.342
X4 X5 X6 X7 X2	0.116	-0.198	0.207
X1 X3 X4 X5 X6 X2	0.241	-0.178	0.347
X1 X3 X4 X5 X7 X2	0.159	-0.044	0.323
X1 X3 X4 X6 X7 X2	0.232	0.003	0.284
X1 X3 X5 X6 X7 X2	0.151	-0.069	0.311
X1 X4 X5 X6 X7 X2	0.104	-0.179	0.208
X3 X4 X5 X6 X7 X2	0.190	-0.071	0.324

X1 X3 X4 X5 X6 X7 X2	0.168	-0.060	0.303
Avg. X2	0.205	-0.114	0.266

Model	PcBA90	PrcntHsch	LandGrantU
X3	0.169	-0.077	-0.023
X1 X3	0.078	0.176	-0.002
X2 X3	0.549	-0.204	-0.016
X4 X3	0.141	0.157	-0.049
X5 X3	0.070	-0.121	-0.002
X6 X3	0.202	-0.057	-0.030
X7 X3	0.027	0.237	0.000
X1 X2 X3	0.483	-0.065	0.018
X1 X4 X3	0.109	0.192	-0.036
X1 X5 X3	0.035	0.034	0.031
X1 X6 X3	0.121	0.127	-0.010
X1 X7 X3	-0.002	0.328	0.002
X2 X4 X3	0.551	-0.074	-0.026
X2 X5 X3	0.405	-0.191	-0.015
X2 X6 X3	0.588	-0.231	-0.014
X2 X7 X3	0.494	-0.152	0.009
X4 X5 X3	0.083	0.087	-0.020
X4 X6 X3	0.167	0.148	-0.057
X4 X7 X3	0.058	0.294	-0.024
X5 X6 X3	0.080	-0.132	0.000
X5 X7 X3	-0.020	0.121	0.026
X6 X7 X3	0.085	0.217	-0.019
X1 X2 X4 X3	0.510	-0.015	-0.011
X1 X2 X5 X3	0.311	-0.074	0.023
X1 X2 X6 X3	0.536	-0.127	0.014
X1 X2 X7 X3	0.472	-0.066	0.021
X1 X4 X5 X3	0.053	0.085	0.010
X1 X4 X6 X3	0.146	0.131	-0.041
X1 X4 X7 X3	0.040	0.347	-0.020
X1 X5 X6 X3	0.046	-0.017	0.028
X1 X5 X7 X3	-0.015	0.245	0.031
X1 X6 X7 X3	0.053	0.275	-0.014
X2 X4 X5 X3	0.423	-0.091	-0.021
X2 X4 X6 X3	0.565	-0.092	-0.025
X2 X4 X7 X3	0.524	-0.069	-0.008
X2 X5 X6 X3	0.409	-0.239	-0.011

X2 X5 X7 X3	0.342	-0.110	0.012
X2 X6 X7 X3	0.531	-0.158	-0.001
X4 X5 X6 X3	0.095	0.061	-0.022
X4 X5 X7 X3	0.030	0.212	0.008
X4 X6 X7 X3	0.099	0.247	-0.031
X5 X6 X7 X3	0.020	0.086	0.010
X1 X2 X4 X5 X3	0.348	-0.056	0.004
X1 X2 X4 X6 X3	0.535	-0.071	-0.012
X1 X2 X4 X7 X3	0.514	-0.008	0.001
X1 X2 X5 X6 X3	0.335	-0.153	0.021
X1 X2 X5 X7 X3	0.309	0.013	0.026
X1 X2 X6 X7 X3	0.499	-0.092	0.010
X1 X4 X5 X6 X3	0.067	0.022	0.003
X1 X4 X5 X7 X3	0.018	0.285	0.022
X1 X4 X6 X7 X3	0.074	0.283	-0.026
X1 X5 X6 X7 X3	-8.720	0.194	0.020
X2 X4 X5 X6 X3	0.421	-0.124	-0.019
X2 X4 X5 X7 X3	0.399	-0.049	-0.001
X2 X4 X6 X7 X3	0.539	-0.100	-0.010
X2 X5 X6 X7 X3	0.360	-0.144	0.005
X4 X5 X6 X7 X3	0.053	0.152	0.001
X1 X2 X4 X5 X6 X3	0.353	-0.127	0.000
X1 X2 X4 X5 X7 X3	0.362	0.028	0.013
X1 X2 X4 X6 X7 X3	0.511	-0.041	-0.003
X1 X2 X5 X6 X7 X3	0.314	-0.037	0.019
X1 X4 X5 X6 X7 X3	0.028	0.227	0.014
X2 X4 X5 X6 X7 X3	0.404	-0.103	-0.003
X1 X2 X4 X5 X6 X7 X3	0.354	-0.023	0.008
Avg. X3	0.257	0.024	-0.003

Model	cty92property	cty92sales	cty92highway	cty92safety	cty92education
X4	-0.109	0.061	0.052	-0.175	-0.040
X1 X4	-0.084	0.072	0.107	-0.181	-0.068
X2 X4	-0.163	0.035	0.064	-0.107	0.002
X3 X4	-0.172	0.024	0.064	-0.159	0.045
X5 X4	-0.074	0.025	0.031	-0.126	0.079
X6 X4	-0.079	0.079	0.054	-0.187	-0.028
X7 X4	-0.060	0.122	0.150	-0.227	-0.052
X1 X2 X4	-0.123	0.067	0.123	-0.122	-0.050
X1 X3 X4	-0.137	0.042	0.130	-0.169	0.020
X1 X5 X4	-0.029	0.046	0.093	-0.126	0.075

X1 X6 X4	-0.076	0.086	0.116	-0.193	-0.040
X1 X7 X4	-0.045	0.115	0.206	-0.235	-0.058
X2 X3 X4	-0.278	-0.014	0.111	-0.055	0.118
X2 X5 X4	-0.125	0.006	0.053	-0.065	0.046
X2 X6 X4	-0.136	0.038	0.061	-0.119	-0.009
X2 X7 X4	-0.120	0.089	0.141	-0.135	-0.017
X3 X5 X4	-0.102	0.016	0.027	-0.125	0.105
X3 X6 X4	-0.140	0.043	0.076	-0.174	0.068
X3 X7 X4	-0.137	0.110	0.141	-0.207	0.066
X5 X6 X4	-0.070	0.032	0.033	-0.130	0.091
X5 X7 X4	-0.010	0.095	0.112	-0.179	0.062
X6 X7 X4	-0.040	0.132	0.165	-0.239	-0.037
X1 X2 X3 X4	-0.243	0.017	0.169	-0.075	0.078
X1 X2 X5 X4	-0.068	0.047	0.115	-0.076	0.034
X1 X2 X6 X4	-0.107	0.075	0.121	-0.143	-0.049
X1 X2 X7 X4	-0.086	0.096	0.198	-0.155	-0.024
X1 X3 X5 X4	-0.048	0.041	0.091	-0.127	0.097
X1 X3 X6 X4	-0.121	0.056	0.140	-0.183	0.039
X1 X3 X7 X4	-0.119	0.101	0.214	-0.217	0.068
X1 X5 X6 X4	-0.038	0.051	0.106	-0.132	0.094
X1 X5 X7 X4	0.036	0.099	0.185	-0.184	0.087
X1 X6 X7 X4	-0.050	0.128	0.215	-0.240	-0.029
X2 X3 X5 X4	-0.180	-0.026	0.064	-0.034	0.096
X2 X3 X6 X4	-0.242	-0.008	0.106	-0.071	0.107
X2 X3 X7 X4	-0.213	0.073	0.160	-0.109	0.132
X2 X5 X6 X4	-0.121	0.001	0.052	-0.077	0.043
X2 X5 X7 X4	-0.052	0.078	0.122	-0.100	0.019
X2 X6 X7 X4	-0.093	0.092	0.159	-0.153	-0.033
X3 X5 X6 X4	-0.092	0.024	0.034	-0.131	0.116
X3 X5 X7 X4	-0.050	0.095	0.098	-0.173	0.099
X3 X6 X7 X4	-0.110	0.119	0.160	-0.223	0.079
X5 X6 X7 X4	-0.016	0.100	0.125	-0.190	0.074
X1 X2 X3 X5 X4	-0.120	0.022	0.114	-0.054	0.076
X1 X2 X3 X6 X4	-0.218	0.023	0.153	-0.093	0.072
X1 X2 X3 X7 X4	-0.177	0.075	0.233	-0.134	0.133
X1 X2 X5 X6 X4	-0.074	0.049	0.118	-0.093	0.035
X1 X2 X5 X7 X4	-0.002	0.090	0.182	-0.117	0.059
X1 X2 X6 X7 X4	-0.080	0.103	0.203	-0.171	-0.026
X1 X3 X5 X6 X4	-0.047	0.047	0.106	-0.135	0.108
X1 X3 X5 X7 X4	-0.008	0.100	0.179	-0.178	0.135
X1 X3 X6 X7 X4	-0.113	0.113	0.225	-0.226	0.084
X1 X5 X6 X7 X4	0.016	0.104	0.193	-0.189	0.102
X2 X3 X5 X6 X4	-0.162	-0.025	0.063	-0.049	0.092

X2 X3 X5 X7 X4	-0.101	0.061	0.133	-0.079	0.079
X2 X3 X6 X7 X4	-0.178	0.075	0.178	-0.125	0.114
X2 X5 X6 X7 X4	-0.054	0.074	0.136	-0.120	0.012
X3 X5 X6 X7 X4	-0.046	0.099	0.116	-0.186	0.106
X1 X2 X3 X5 X6 X4	-0.114	0.025	0.112	-0.070	0.074
X1 X2 X3 X5 X7 X4	-0.054	0.075	0.195	-0.104	0.115
X1 X2 X3 X6 X7 X4	-0.165	0.080	0.231	-0.145	0.122
X1 X2 X5 X6 X7 X4	-0.019	0.090	0.183	-0.131	0.057
X1 X3 X5 X6 X7 X4	-0.016	0.105	0.192	-0.186	0.142
X2 X3 X5 X6 X7 X4	-0.092	0.059	0.149	-0.096	0.070
X1 X2 X3 X5 X6 X7 X4	-0.059	0.076	0.198	-0.114	0.109
Avg. X4	-0.097	0.064	0.130	-0.141	0.053

Model	stl92property	stl92sales	stl92inctax	stl92corptax	stl92hosp
X4	-0.091	-0.125	-0.044	-0.074	-0.321
X1 X4	-0.052	-0.065	-0.007	-0.075	-0.277
X2 X4	-0.052	-0.106	-0.088	-0.091	-0.262
X3 X4	-0.203	-0.155	-0.077	-0.079	-0.332
X5 X4	-0.227	-0.106	-0.110	-0.101	-0.302
X6 X4	-0.111	-0.128	-0.083	-0.055	-0.321
X7 X4	0.024	-0.066	-0.149	0.000	-0.227
X1 X2 X4	0.045	-0.053	-0.042	-0.071	-0.225
X1 X3 X4	-0.140	-0.098	-0.044	-0.081	-0.291
X1 X5 X4	-0.125	-0.039	-0.081	-0.026	-0.214
X1 X6 X4	-0.102	-0.099	-0.076	-0.050	-0.260
X1 X7 X4	0.025	-0.043	-0.106	-0.008	-0.194
X2 X3 X4	-0.064	-0.073	-0.068	-0.089	-0.275
X2 X5 X4	-0.154	-0.089	-0.119	-0.104	-0.255
X2 X6 X4	-0.079	-0.116	-0.123	-0.076	-0.232
X2 X7 X4	0.082	-0.051	-0.181	-0.007	-0.188
X3 X5 X4	-0.255	-0.113	-0.112	-0.102	-0.307
X3 X6 X4	-0.231	-0.162	-0.121	-0.061	-0.341
X3 X7 X4	-0.025	-0.080	-0.163	-0.043	-0.243
X5 X6 X4	-0.234	-0.114	-0.151	-0.083	-0.297
X5 X7 X4	-0.066	-0.044	-0.173	-0.032	-0.201
X6 X7 X4	0.028	-0.116	-0.239	0.050	-0.204
X1 X2 X3 X4	0.016	-0.037	-0.037	-0.067	-0.241
X1 X2 X5 X4	-0.017	-0.029	-0.094	-0.025	-0.189
X1 X2 X6 X4	-0.010	-0.080	-0.093	-0.049	-0.203
X1 X2 X7 X4	0.112	-0.031	-0.149	-0.004	-0.161
X1 X3 X5 X4	-0.139	-0.045	-0.084	-0.029	-0.216

X1 X3 X6 X4	-0.182	-0.122	-0.097	-0.053	-0.285
X1 X3 X7 X4	-0.008	-0.062	-0.127	-0.037	-0.195
X1 X5 X6 X4	-0.160	-0.073	-0.140	-0.018	-0.206
X1 X5 X7 X4	-0.059	-0.012	-0.135	0.001	-0.115
X1 X6 X7 X4	0.013	-0.097	-0.206	0.031	-0.179
X2 X3 X5 X4	-0.130	-0.054	-0.076	-0.095	-0.256
X2 X3 X6 X4	-0.102	-0.074	-0.093	-0.064	-0.252
X2 X3 X7 X4	0.025	-0.054	-0.174	-0.052	-0.205
X2 X5 X6 X4	-0.175	-0.100	-0.155	-0.082	-0.227
X2 X5 X7 X4	0.004	-0.027	-0.187	-0.024	-0.188
X2 X6 X7 X4	0.072	-0.099	-0.266	0.032	-0.154
X3 X5 X6 X4	-0.262	-0.118	-0.149	-0.083	-0.308
X3 X5 X7 X4	-0.071	-0.041	-0.177	-0.051	-0.209
X3 X6 X7 X4	-0.030	-0.131	-0.249	0.011	-0.227
X5 X6 X7 X4	-0.059	-0.092	-0.242	0.014	-0.168
X1 X2 X3 X5 X4	-0.013	-0.007	-0.058	-0.036	-0.202
X1 X2 X3 X6 X4	-0.037	-0.047	-0.070	-0.038	-0.220
X1 X2 X3 X7 X4	0.070	-0.045	-0.153	-0.038	-0.163
X1 X2 X5 X6 X4	-0.062	-0.058	-0.141	-0.003	-0.170
X1 X2 X5 X7 X4	0.033	0.001	-0.164	0.008	-0.127
X1 X2 X6 X7 X4	0.087	-0.078	-0.235	0.026	-0.149
X1 X3 X5 X6 X4	-0.170	-0.072	-0.133	-0.018	-0.214
X1 X3 X5 X7 X4	-0.053	-0.010	-0.145	-0.013	-0.108
X1 X3 X6 X7 X4	-0.018	-0.113	-0.213	0.004	-0.187
X1 X5 X6 X7 X4	-0.064	-0.061	-0.207	0.025	-0.104
X2 X3 X5 X6 X4	-0.157	-0.057	-0.105	-0.070	-0.236
X2 X3 X5 X7 X4	-0.032	-0.022	-0.175	-0.052	-0.197
X2 X3 X6 X7 X4	0.007	-0.096	-0.254	-0.014	-0.178
X2 X5 X6 X7 X4	0.003	-0.070	-0.250	0.017	-0.148
X3 X5 X6 X7 X4	-0.070	-0.088	-0.239	-0.005	-0.182
X1 X2 X3 X5 X6 X4	-0.055	-0.024	-0.097	-0.011	-0.187
X1 X2 X3 X5 X7 X4	0.012	0.001	-0.155	-0.020	-0.135
X1 X2 X3 X6 X7 X4	0.045	-0.080	-0.222	-0.011	-0.155
X1 X2 X5 X6 X7 X4	0.018	-0.040	-0.225	0.033	-0.111
X1 X3 X5 X6 X7 X4	-0.055	-0.054	-0.205	0.009	-0.105
X2 X3 X5 X6 X7 X4	-0.036	-0.062	-0.238	-0.016	-0.164
X1 X2 X3 X5 X6 X7 X4	0.001	-0.033	-0.209	-0.002	-0.126
Avg. X4	-0.058	-0.071	-0.143	-0.033	-0.211

Model	stl92highway	stl92pblsfty	RTW
X4	-0.044	0.594	0.183
X1 X4	-0.038	0.431	0.211
X2 X4	-0.043	0.521	0.219
X3 X4	-0.137	0.595	0.260
X5 X4	-0.067	0.547	0.160
X6 X4	0.037	0.601	0.183
X7 X4	-0.203	0.308	0.023
X1 X2 X4	0.013	0.359	0.174
X1 X3 X4	-0.095	0.441	0.251
X1 X5 X4	-0.007	0.274	0.108
X1 X6 X4	0.047	0.429	0.264
X1 X7 X4	-0.147	0.262	0.028
X2 X3 X4	-0.143	0.487	0.228
X2 X5 X4	-0.069	0.482	0.187
X2 X6 X4	0.014	0.502	0.222
X2 X7 X4	-0.173	0.268	0.029
X3 X5 X4	-0.103	0.554	0.199
X3 X6 X4	-0.045	0.612	0.264
X3 X7 X4	-0.269	0.321	0.061
X5 X6 X4	-0.029	0.537	0.143
X5 X7 X4	-0.212	0.228	0.032
X6 X7 X4	-0.109	0.278	0.026
X1 X2 X3 X4	-0.080	0.346	0.186
X1 X2 X5 X4	0.027	0.231	0.067
X1 X2 X6 X4	0.076	0.359	0.219
X1 X2 X7 X4	-0.102	0.208	-0.012
X1 X3 X5 X4	-0.022	0.282	0.127
X1 X3 X6 X4	-0.012	0.448	0.298
X1 X3 X7 X4	-0.211	0.259	0.046
X1 X5 X6 X4	0.031	0.278	0.151
X1 X5 X7 X4	-0.069	0.112	-0.033
X1 X6 X7 X4	-0.047	0.250	0.040
X2 X3 X5 X4	-0.131	0.475	0.214
X2 X3 X6 X4	-0.075	0.483	0.240
X2 X3 X7 X4	-0.240	0.265	0.092
X2 X5 X6 X4	-0.032	0.460	0.185
X2 X5 X7 X4	-0.156	0.203	0.027
X2 X6 X7 X4	-0.081	0.229	0.023
X3 X5 X6 X4	-0.058	0.552	0.181
X3 X5 X7 X4	-0.243	0.245	0.047
X3 X6 X7 X4	-0.174	0.298	0.069
X5 X6 X7 X4	-0.144	0.191	0.049

X1 X2 X3 X5 X4	-0.031	0.257	0.109
X1 X2 X3 X6 X4	-0.021	0.355	0.231
X1 X2 X3 X7 X4	-0.178	0.185	0.036
X1 X2 X5 X6 X4	0.068	0.234	0.114
X1 X2 X5 X7 X4	-0.028	0.106	-0.070
X1 X2 X6 X7 X4	-0.016	0.206	-0.006
X1 X3 X5 X6 X4	0.018	0.292	0.161
X1 X3 X5 X7 X4	-0.100	0.112	-0.028
X1 X3 X6 X7 X4	-0.117	0.249	0.059
X1 X5 X6 X7 X4	-0.019	0.107	-0.010
X2 X3 X5 X6 X4	-0.082	0.469	0.210
X2 X3 X5 X7 X4	-0.201	0.218	0.094
X2 X3 X6 X7 X4	-0.146	0.236	0.087
X2 X5 X6 X7 X4	-0.086	0.161	0.038
X3 X5 X6 X7 X4	-0.174	0.213	0.065
X1 X2 X3 X5 X6 X4	0.014	0.267	0.146
X1 X2 X3 X5 X7 X4	-0.087	0.108	-0.008
X1 X2 X3 X6 X7 X4	-0.100	0.188	0.042
X1 X2 X5 X6 X7 X4	0.020	0.104	-0.047
X1 X3 X5 X6 X7 X4	-0.055	0.110	-0.012
X2 X3 X5 X6 X7 X4	-0.130	0.183	0.096
X1 X2 X3 X5 X6 X7 X4	-0.041	0.110	0.003
Avg. X4	-0.079	0.317	0.109

Model	PcFarmJobs90	PcAgServJobs90	PcMinJobs90	PcConstJobs90	PcMfgJobs90
X5	0.035	0.078	-0.237	0.270	-0.169
X1 X5	0.120	-0.116	-0.311	0.201	-0.156
X2 X5	0.049	-0.018	-0.293	0.205	-0.266
X3 X5	0.022	0.069	-0.246	0.255	-0.192
X4 X5	-0.028	-0.050	-0.297	0.164	-0.200
X6 X5	-0.016	0.049	-0.233	0.250	-0.240
X7 X5	0.076	-0.029	-0.290	0.193	-0.156
X1 X2 X5	0.081	-0.149	-0.363	0.145	-0.269
X1 X3 X5	0.134	-0.118	-0.303	0.198	-0.146
X1 X4 X5	0.048	-0.127	-0.320	0.173	-0.151
X1 X6 X5	0.102	-0.117	-0.301	0.191	-0.209
X1 X7 X5	0.162	-0.101	-0.324	0.178	-0.125
X2 X3 X5	0.082	-0.030	-0.265	0.137	-0.216
X2 X4 X5	-0.043	-0.066	-0.334	0.123	-0.273
X2 X6 X5	0.005	-0.035	-0.279	0.199	-0.303
X2 X7 X5	0.048	-0.083	-0.335	0.139	-0.208

X3 X4 X5	0.000	-0.056	-0.280	0.155	-0.178
X3 X6 X5	-0.033	0.038	-0.238	0.236	-0.259
X3 X7 X5	0.096	-0.024	-0.283	0.189	-0.138
X4 X6 X5	-0.048	-0.056	-0.284	0.152	-0.251
X4 X7 X5	0.003	-0.060	-0.305	0.159	-0.156
X6 X7 X5	0.030	-0.017	-0.264	0.178	-0.198
X1 X2 X3 X5	0.130	-0.169	-0.324	0.095	-0.224
X1 X2 X4 X5	0.014	-0.143	-0.363	0.128	-0.239
X1 X2 X6 X5	0.056	-0.144	-0.347	0.145	-0.295
X1 X2 X7 X5	0.111	-0.123	-0.357	0.129	-0.204
X1 X3 X4 X5	0.073	-0.130	-0.304	0.165	-0.136
X1 X3 X6 X5	0.107	-0.121	-0.296	0.188	-0.206
X1 X3 X7 X5	0.211	-0.092	-0.307	0.168	-0.087
X1 X4 X6 X5	0.041	-0.120	-0.303	0.157	-0.215
X1 X4 X7 X5	0.067	-0.101	-0.348	0.155	-0.117
X1 X6 X7 X5	0.118	-0.091	-0.309	0.163	-0.183
X2 X3 X4 X5	0.026	-0.093	-0.276	0.056	-0.221
X2 X3 X6 X5	0.026	-0.046	-0.249	0.129	-0.269
X2 X3 X7 X5	0.107	-0.097	-0.290	0.101	-0.164
X2 X4 X6 X5	-0.067	-0.069	-0.315	0.118	-0.315
X2 X4 X7 X5	-0.008	-0.089	-0.341	0.115	-0.206
X2 X6 X7 X5	0.002	-0.068	-0.309	0.131	-0.249
X3 X4 X6 X5	-0.020	-0.062	-0.266	0.141	-0.232
X3 X4 X7 X5	0.046	-0.057	-0.283	0.144	-0.125
X3 X6 X7 X5	0.053	-0.014	-0.256	0.173	-0.179
X4 X6 X7 X5	-0.016	-0.044	-0.278	0.147	-0.210
X1 X2 X3 X4 X5	0.072	-0.166	-0.306	0.071	-0.204
X1 X2 X3 X6 X5	0.089	-0.160	-0.307	0.093	-0.266
X1 X2 X3 X7 X5	0.190	-0.142	-0.303	0.089	-0.145
X1 X2 X4 X6 X5	0.002	-0.128	-0.337	0.121	-0.287
X1 X2 X4 X7 X5	0.037	-0.116	-0.374	0.115	-0.181
X1 X2 X6 X7 X5	0.068	-0.108	-0.338	0.123	-0.248
X1 X3 X4 X6 X5	0.057	-0.125	-0.292	0.149	-0.204
X1 X3 X4 X7 X5	0.122	-0.094	-0.322	0.138	-0.077
X1 X3 X6 X7 X5	0.164	-0.086	-0.297	0.155	-0.143
X1 X4 X6 X7 X5	0.053	-0.093	-0.328	0.137	-0.181
X2 X3 X4 X6 X5	-0.001	-0.093	-0.260	0.050	-0.262
X2 X3 X4 X7 X5	0.072	-0.107	-0.276	0.066	-0.153
X2 X3 X6 X7 X5	0.060	-0.082	-0.262	0.092	-0.210
X2 X4 X6 X7 X5	-0.028	-0.075	-0.310	0.110	-0.254
X3 X4 X6 X7 X5	0.022	-0.045	-0.260	0.133	-0.182
X1 X2 X3 X4 X6 X5	0.046	-0.149	-0.287	0.064	-0.257
X1 X2 X3 X4 X7 X5	0.123	-0.136	-0.302	0.069	-0.124

X1 X2 X3 X6 X7 X5	0.138	-0.127	-0.290	0.085	-0.192
X1 X2 X4 X6 X7 X5	0.021	-0.104	-0.347	0.105	-0.236
X1 X3 X4 X6 X7 X5	0.104	-0.092	-0.310	0.124	-0.138
X2 X3 X4 X6 X7 X5	0.047	-0.094	-0.251	0.062	-0.206
X1 X2 X3 X4 X6 X7 X5	0.101	-0.126	-0.286	0.063	-0.180
Avg. X5	0.056	-0.083	-0.299	0.141	-0.201

Model	PcServsJobs90	PcGovJobs90	PcGovJobs90
X5	-0.079	0.009	-0.094
X1 X5	0.004	-0.032	-0.260
X2 X5	0.014	-0.012	-0.143
X3 X5	-0.067	-0.006	-0.133
X4 X5	0.022	-0.060	-0.174
X6 X5	-0.075	-0.027	-0.138
X7 X5	0.062	-0.020	-0.186
X1 X2 X5	0.066	-0.056	-0.272
X1 X3 X5	-0.009	-0.061	-0.232
X1 X4 X5	0.025	-0.045	-0.247
X1 X6 X5	-0.007	-0.045	-0.271
X1 X7 X5	0.074	-0.020	-0.235
X2 X3 X5	-0.019	-0.021	-0.053
X2 X4 X5	0.073	-0.066	-0.138
X2 X6 X5	0.011	-0.041	-0.175
X2 X7 X5	0.116	-0.025	-0.138
X3 X4 X5	-0.003	-0.107	-0.117
X3 X6 X5	-0.065	-0.041	-0.177
X3 X7 X5	0.053	-0.039	-0.136
X4 X6 X5	0.007	-0.076	-0.205
X4 X7 X5	0.079	-0.044	-0.172
X6 X7 X5	0.062	-0.022	-0.208
X1 X2 X3 X5	0.026	-0.061	-0.174
X1 X2 X4 X5	0.080	-0.056	-0.245
X1 X2 X6 X5	0.059	-0.062	-0.286
X1 X2 X7 X5	0.116	-0.049	-0.184
X1 X3 X4 X5	0.005	-0.088	-0.202
X1 X3 X6 X5	-0.017	-0.068	-0.259
X1 X3 X7 X5	0.054	-0.066	-0.135
X1 X4 X6 X5	0.006	-0.052	-0.259
X1 X4 X7 X5	0.080	-0.038	-0.236
X1 X6 X7 X5	0.064	-0.024	-0.236
X2 X3 X4 X5	0.030	-0.085	-0.034

X2 X3 X6 X5	-0.017	-0.050	-0.104
X2 X3 X7 X5	0.073	-0.032	-0.033
X2 X4 X6 X5	0.061	-0.091	-0.170
X2 X4 X7 X5	0.121	-0.061	-0.101
X2 X6 X7 X5	0.116	-0.045	-0.171
X3 X4 X6 X5	-0.017	-0.120	-0.153
X3 X4 X7 X5	0.055	-0.102	-0.082
X3 X6 X7 X5	0.049	-0.046	-0.158
X4 X6 X7 X5	0.064	-0.046	-0.194
X1 X2 X3 X4 X5	0.040	-0.072	-0.136
X1 X2 X3 X6 X5	0.024	-0.058	-0.208
X1 X2 X3 X7 X5	0.068	-0.068	-0.049
X1 X2 X4 X6 X5	0.065	-0.062	-0.266
X1 X2 X4 X7 X5	0.116	-0.070	-0.176
X1 X2 X6 X7 X5	0.110	-0.056	-0.200
X1 X3 X4 X6 X5	-0.009	-0.087	-0.230
X1 X3 X4 X7 X5	0.052	-0.109	-0.133
X1 X3 X6 X7 X5	0.048	-0.064	-0.152
X1 X4 X6 X7 X5	0.060	-0.043	-0.239
X2 X3 X4 X6 X5	0.023	-0.104	-0.075
X2 X3 X4 X7 X5	0.071	-0.082	0.037
X2 X3 X6 X7 X5	0.073	-0.048	-0.074
X2 X4 X6 X7 X5	0.108	-0.071	-0.132
X3 X4 X6 X7 X5	0.042	-0.099	-0.117
X1 X2 X3 X4 X6 X5	0.034	-0.069	-0.177
X1 X2 X3 X4 X7 X5	0.065	-0.096	-0.025
X1 X2 X3 X6 X7 X5	0.067	-0.068	-0.080
X1 X2 X4 X6 X7 X5	0.099	-0.072	-0.196
X1 X3 X4 X6 X7 X5	0.039	-0.104	-0.151
X2 X3 X4 X6 X7 X5	0.061	-0.084	-0.010
X1 X2 X3 X4 X6 X7 X5	0.055	-0.089	-0.061
Avg. X5	0.042	-0.059	-0.159

Model	PopDens90	CDist	incmetgt250k	incmetgt500k	incmetgt1500k
X6	-0.190	-0.166	-0.138	-0.001	0.039
X1 X6	-0.076	-0.136	-0.108	-0.016	0.007
X2 X6	-0.212	-0.118	-0.136	0.006	0.033
X3 X6	-0.194	-0.197	-0.160	-0.007	0.020
X4 X6	-0.030	-0.121	-0.105	0.046	-0.049
X5 X6	-0.190	-0.175	-0.133	-0.001	0.070
X7 X6	-0.098	-0.152	-0.189	-0.084	-0.138

X1 X2 X6	-0.125	-0.077	-0.097	-0.009	0.006
X1 X3 X6	-0.088	-0.149	-0.100	-0.026	0.010
X1 X4 X6	0.031	-0.148	-0.140	0.010	-0.057
X1 X5 X6	-0.047	-0.107	-0.076	-0.005	0.049
X1 X7 X6	-0.088	-0.194	-0.192	-0.076	-0.077
X2 X3 X6	-0.225	-0.128	-0.184	0.004	-0.033
X2 X4 X6	-0.071	-0.094	-0.136	0.043	-0.030
X2 X5 X6	-0.201	-0.132	-0.143	0.005	0.029
X2 X7 X6	-0.134	-0.116	-0.193	-0.061	-0.102
X3 X4 X6	-0.008	-0.138	-0.110	0.045	-0.056
X3 X5 X6	-0.204	-0.178	-0.143	0.003	0.040
X3 X7 X6	-0.112	-0.173	-0.204	-0.100	-0.144
X4 X5 X6	-0.060	-0.132	-0.083	0.067	0.004
X4 X7 X6	0.008	-0.156	-0.165	-0.034	-0.065
X5 X7 X6	-0.100	-0.146	-0.177	-0.079	-0.107
X1 X2 X3 X6	-0.149	-0.078	-0.150	-0.019	-0.045
X1 X2 X4 X6	-0.009	-0.106	-0.146	0.003	-0.065
X1 X2 X5 X6	-0.091	-0.069	-0.097	-0.011	-0.002
X1 X2 X7 X6	-0.124	-0.134	-0.173	-0.064	-0.071
X1 X3 X4 X6	0.035	-0.151	-0.122	0.011	-0.060
X1 X3 X5 X6	-0.048	-0.109	-0.079	-0.003	0.044
X1 X3 X7 X6	-0.112	-0.198	-0.176	-0.095	-0.082
X1 X4 X5 X6	0.040	-0.136	-0.100	0.026	-0.005
X1 X4 X7 X6	0.025	-0.189	-0.173	-0.035	-0.033
X1 X5 X7 X6	-0.075	-0.153	-0.137	-0.061	-0.024
X2 X3 X4 X6	-0.064	-0.081	-0.140	0.052	-0.072
X2 X3 X5 X6	-0.201	-0.131	-0.164	0.010	-0.010
X2 X3 X7 X6	-0.151	-0.125	-0.222	-0.058	-0.122
X2 X4 X5 X6	-0.099	-0.112	-0.122	0.050	-0.019
X2 X4 X7 X6	-0.033	-0.125	-0.193	-0.024	-0.052
X2 X5 X7 X6	-0.126	-0.111	-0.181	-0.064	-0.101
X3 X4 X5 X6	-0.045	-0.131	-0.080	0.068	-0.005
X3 X4 X7 X6	0.011	-0.163	-0.157	-0.034	-0.068
X3 X5 X7 X6	-0.096	-0.143	-0.176	-0.083	-0.109
X4 X5 X7 X6	-0.016	-0.154	-0.146	-0.030	-0.048
X1 X2 X3 X4 X6	-0.027	-0.079	-0.149	0.016	-0.093
X1 X2 X3 X5 X6	-0.091	-0.068	-0.124	-0.011	-0.022
X1 X2 X3 X7 X6	-0.153	-0.126	-0.180	-0.065	-0.093
X1 X2 X4 X5 X6	-0.006	-0.105	-0.130	0.005	-0.056
X1 X2 X4 X7 X6	-0.008	-0.149	-0.183	-0.032	-0.037
X1 X2 X5 X7 X6	-0.107	-0.113	-0.144	-0.060	-0.052
X1 X3 X4 X5 X6	0.042	-0.133	-0.093	0.029	-0.011
X1 X3 X4 X7 X6	0.021	-0.185	-0.142	-0.042	-0.029

X1 X3 X5 X7 X6	-0.068	-0.137	-0.114	-0.069	-0.023
X1 X4 X5 X7 X6	0.017	-0.165	-0.122	-0.026	-0.001
X2 X3 X4 X5 X6	-0.073	-0.091	-0.116	0.059	-0.046
X2 X3 X4 X7 X6	-0.032	-0.120	-0.190	-0.004	-0.058
X2 X3 X5 X7 X6	-0.125	-0.109	-0.189	-0.057	-0.097
X2 X4 X5 X7 X6	-0.052	-0.126	-0.175	-0.028	-0.056
X3 X4 X5 X7 X6	-0.007	-0.144	-0.134	-0.027	-0.047
X1 X2 X3 X4 X5 X6	-0.004	-0.087	-0.132	0.016	-0.069
X1 X2 X3 X4 X7 X6	-0.021	-0.127	-0.157	-0.020	-0.035
X1 X2 X3 X5 X7 X6	-0.105	-0.098	-0.134	-0.057	-0.048
X1 X2 X4 X5 X7 X6	-0.017	-0.134	-0.148	-0.030	-0.028
X1 X3 X4 X5 X7 X6	0.029	-0.143	-0.088	-0.027	0.008
X2 X3 X4 X5 X7 X6	-0.035	-0.112	-0.166	-0.007	-0.046
X1 X2 X3 X4 X5 X7 X6	-0.004	-0.109	-0.122	-0.016	-0.013
Avg. X6	-0.071	-0.131	-0.143	-0.017	-0.038

Model	D2	D3	D4	D5	D6
X7	-0.063	0.016	0.009	0.317	0.152
X1 X7	-0.097	0.043	0.076	0.254	0.075
X2 X7	-0.085	-0.053	-0.034	0.376	0.197
X3 X7	-0.013	0.082	0.049	0.486	0.334
X4 X7	-0.071	0.037	0.129	0.376	0.188
X5 X7	0.038	0.188	0.083	0.444	0.336
X6 X7	-0.055	-0.001	0.074	0.337	0.200
X1 X2 X7	-0.121	-0.066	0.012	0.228	0.062
X1 X3 X7	-0.049	0.112	0.129	0.395	0.255
X1 X4 X7	-0.091	0.084	0.175	0.361	0.149
X1 X5 X7	-0.037	0.142	0.089	0.263	0.140
X1 X6 X7	-0.099	0.023	0.148	0.340	0.164
X2 X3 X7	0.085	0.252	0.182	0.512	0.322
X2 X4 X7	-0.054	0.000	0.118	0.423	0.223
X2 X5 X7	-0.003	0.097	0.038	0.466	0.327
X2 X6 X7	-0.059	-0.043	0.038	0.417	0.245
X3 X4 X7	-0.043	0.083	0.149	0.486	0.348
X3 X5 X7	0.038	0.169	0.077	0.490	0.373
X3 X6 X7	0.017	0.105	0.145	0.534	0.408
X4 X5 X7	0.037	0.243	0.220	0.488	0.370
X4 X6 X7	-0.016	0.126	0.267	0.483	0.283
X5 X6 X7	0.049	0.197	0.152	0.474	0.399
X1 X2 X3 X7	0.060	0.260	0.255	0.376	0.226
X1 X2 X4 X7	-0.055	0.060	0.186	0.403	0.184

X1 X2 X5 X7	-0.060	0.058	0.052	0.269	0.133
X1 X2 X6 X7	-0.105	-0.057	0.076	0.315	0.137
X1 X3 X4 X7	-0.063	0.153	0.229	0.489	0.336
X1 X3 X5 X7	-0.032	0.120	0.090	0.334	0.197
X1 X3 X6 X7	-0.034	0.127	0.215	0.484	0.340
X1 X4 X5 X7	-0.028	0.235	0.193	0.400	0.232
X1 X4 X6 X7	-0.056	0.135	0.279	0.475	0.227
X1 X5 X6 X7	-0.037	0.153	0.151	0.344	0.219
X2 X3 X4 X7	0.087	0.287	0.293	0.515	0.340
X2 X3 X5 X7	0.086	0.238	0.145	0.539	0.342
X2 X3 X6 X7	0.130	0.287	0.280	0.573	0.392
X2 X4 X5 X7	0.053	0.174	0.188	0.547	0.357
X2 X4 X6 X7	0.010	0.082	0.232	0.534	0.298
X2 X5 X6 X7	0.025	0.124	0.116	0.507	0.392
X3 X4 X5 X7	0.040	0.220	0.216	0.551	0.427
X3 X4 X6 X7	0.022	0.194	0.301	0.590	0.436
X3 X5 X6 X7	0.059	0.198	0.159	0.523	0.434
X4 X5 X6 X7	0.066	0.304	0.309	0.549	0.434
X1 X2 X3 X4 X7	0.094	0.372	0.401	0.518	0.346
X1 X2 X3 X5 X7	0.031	0.186	0.166	0.359	0.180
X1 X2 X3 X6 X7	0.092	0.282	0.319	0.468	0.304
X1 X2 X4 X5 X7	0.013	0.197	0.207	0.468	0.253
X1 X2 X4 X6 X7	-0.015	0.111	0.276	0.517	0.251
X1 X2 X5 X6 X7	-0.041	0.088	0.116	0.352	0.216
X1 X3 X4 X5 X7	-0.028	0.216	0.200	0.474	0.307
X1 X3 X4 X6 X7	-0.023	0.220	0.340	0.583	0.393
X1 X3 X5 X6 X7	-0.030	0.141	0.150	0.394	0.258
X1 X4 X5 X6 X7	-0.012	0.271	0.266	0.474	0.286
X2 X3 X4 X5 X7	0.132	0.300	0.262	0.587	0.351
X2 X3 X4 X6 X7	0.157	0.370	0.405	0.614	0.401
X2 X3 X5 X6 X7	0.118	0.275	0.228	0.572	0.398
X2 X4 X5 X6 X7	0.092	0.235	0.267	0.611	0.415
X3 X4 X5 X6 X7	0.074	0.295	0.310	0.597	0.475
X1 X2 X3 X4 X5 X7	0.096	0.322	0.303	0.528	0.286
X1 X2 X3 X4 X6 X7	0.128	0.405	0.464	0.601	0.382
X1 X2 X3 X5 X6 X7	0.047	0.215	0.219	0.420	0.241
X1 X2 X4 X5 X6 X7	0.033	0.233	0.268	0.538	0.305
X1 X3 X4 X5 X6 X7	-0.010	0.263	0.277	0.529	0.345
X2 X3 X4 X5 X6 X7	0.176	0.368	0.345	0.637	0.391
X1 X2 X3 X4 X5 X6 X7	0.113	0.354	0.354	0.576	0.315
Avg. X7	0.011	0.170	0.194	0.464	0.293

Model	D7	D8	D9
X7	0.074	0.301	0.177
X1 X7	-0.064	0.097	-0.132
X2 X7	0.108	0.265	0.139
X3 X7	0.231	0.327	0.195
X4 X7	0.096	0.386	0.164
X5 X7	0.320	0.431	0.257
X6 X7	0.120	0.408	0.172
X1 X2 X7	-0.067	0.134	-0.106
X1 X3 X7	0.085	0.137	-0.124
X1 X4 X7	0.063	0.260	-0.041
X1 X5 X7	0.045	0.128	-0.199
X1 X6 X7	0.029	0.154	-0.169
X2 X3 X7	0.266	0.375	0.296
X2 X4 X7	0.141	0.344	0.141
X2 X5 X7	0.278	0.340	0.235
X2 X6 X7	0.169	0.347	0.141
X3 X4 X7	0.177	0.375	0.134
X3 X5 X7	0.344	0.425	0.240
X3 X6 X7	0.302	0.456	0.206
X4 X5 X7	0.310	0.521	0.265
X4 X6 X7	0.240	0.533	0.262
X5 X6 X7	0.364	0.516	0.258
X1 X2 X3 X7	0.141	0.315	0.117
X1 X2 X4 X7	0.110	0.280	-0.003
X1 X2 X5 X7	0.036	0.125	-0.130
X1 X2 X6 X7	0.016	0.160	-0.149
X1 X3 X4 X7	0.172	0.280	-0.066
X1 X3 X5 X7	0.074	0.119	-0.239
X1 X3 X6 X7	0.176	0.210	-0.141
X1 X4 X5 X7	0.127	0.243	-0.110
X1 X4 X6 X7	0.162	0.302	-0.024
X1 X5 X6 X7	0.117	0.158	-0.209
X2 X3 X4 X7	0.243	0.421	0.240
X2 X3 X5 X7	0.315	0.387	0.297
X2 X3 X6 X7	0.350	0.475	0.309
X2 X4 X5 X7	0.314	0.429	0.259
X2 X4 X6 X7	0.268	0.459	0.232
X2 X5 X6 X7	0.343	0.418	0.248
X3 X4 X5 X7	0.322	0.498	0.221
X3 X4 X6 X7	0.322	0.531	0.243
X3 X5 X6 X7	0.391	0.518	0.252

X4 X5 X6 X7	0.392	0.619	0.331
X1 X2 X3 X4 X7	0.259	0.427	0.143
X1 X2 X3 X5 X7	0.100	0.206	-0.047
X1 X2 X3 X6 X7	0.228	0.351	0.081
X1 X2 X4 X5 X7	0.176	0.237	-0.040
X1 X2 X4 X6 X7	0.209	0.304	0.009
X1 X2 X5 X6 X7	0.120	0.155	-0.139
X1 X3 X4 X5 X7	0.147	0.231	-0.162
X1 X3 X4 X6 X7	0.262	0.337	-0.030
X1 X3 X5 X6 X7	0.134	0.154	-0.235
X1 X4 X5 X6 X7	0.189	0.269	-0.093
X2 X3 X4 X5 X7	0.299	0.440	0.277
X2 X3 X4 X6 X7	0.360	0.529	0.328
X2 X3 X5 X6 X7	0.377	0.468	0.316
X2 X4 X5 X6 X7	0.397	0.515	0.326
X3 X4 X5 X6 X7	0.400	0.600	0.298
X1 X2 X3 X4 X5 X7	0.206	0.313	0.024
X1 X2 X3 X4 X6 X7	0.327	0.437	0.146
X1 X2 X3 X5 X6 X7	0.167	0.232	-0.051
X1 X2 X4 X5 X6 X7	0.245	0.255	-0.028
X1 X3 X4 X5 X6 X7	0.205	0.269	-0.126
X2 X3 X4 X5 X6 X7	0.376	0.525	0.350
X1 X2 X3 X4 X5 X6 X7	0.258	0.324	0.038
Avg. X7	0.210	0.340	0.087

Rent Regressions

Model	TempJan	TempJuly	Humidity	Water	Typog
X1	-0.036	-0.321	-0.031	-0.005	-0.041
X2 X1	0.072	-0.351	-0.229	0.033	-0.096
X3 X1	-0.032	-0.293	-0.043	0.010	-0.019
X4 X1	-0.027	-0.499	-0.126	0.052	-0.075
X5 X1	0.318	-0.580	-0.232	0.156	0.044
X6 X1	-0.087	-0.317	-0.154	0.008	-0.076
X7 X1	-0.281	-0.083	0.269	-0.006	0.145
X2 X3 X1	0.067	-0.330	-0.249	0.052	-0.080
X2 X4 X1	0.086	-0.463	-0.229	0.078	-0.142
X2 X5 X1	0.341	-0.558	-0.349	0.158	0.009
X2 X6 X1	0.012	-0.359	-0.338	0.035	-0.124

X2 X7 X1	-0.119	-0.087	0.156	0.035	0.078
X3 X4 X1	0.008	-0.468	-0.109	0.061	-0.046
X3 X5 X1	0.389	-0.532	-0.174	0.156	0.080
X3 X6 X1	-0.108	-0.316	-0.169	0.022	-0.066
X3 X7 X1	-0.273	-0.085	0.264	-0.005	0.150
X4 X5 X1	0.230	-0.621	-0.213	0.157	0.005
X4 X6 X1	-0.076	-0.563	-0.280	0.076	-0.123
X4 X7 X1	-0.198	-0.099	0.261	0.058	0.097
X5 X6 X1	0.285	-0.638	-0.333	0.165	0.012
X5 X7 X1	-0.004	-0.232	0.101	0.105	0.173
X6 X7 X1	-0.299	-0.206	0.116	0.018	0.105
X2 X3 X4 X1	0.104	-0.439	-0.208	0.093	-0.107
X2 X3 X5 X1	0.390	-0.538	-0.290	0.161	0.047
X2 X3 X6 X1	-0.004	-0.361	-0.367	0.052	-0.128
X2 X3 X7 X1	-0.118	-0.087	0.158	0.034	0.065
X2 X4 X5 X1	0.281	-0.568	-0.294	0.160	-0.031
X2 X4 X6 X1	0.027	-0.538	-0.373	0.098	-0.178
X2 X4 X7 X1	-0.080	-0.086	0.177	0.079	0.025
X2 X5 X6 X1	0.271	-0.635	-0.491	0.170	0.004
X2 X5 X7 X1	0.079	-0.211	0.004	0.121	0.118
X2 X6 X7 X1	-0.152	-0.212	-0.004	0.055	0.050
X3 X4 X5 X1	0.263	-0.566	-0.144	0.154	0.044
X3 X4 X6 X1	-0.059	-0.552	-0.274	0.086	-0.105
X3 X4 X7 X1	-0.193	-0.097	0.261	0.054	0.102
X3 X5 X6 X1	0.335	-0.621	-0.295	0.170	0.034
X3 X5 X7 X1	0.041	-0.224	0.113	0.107	0.190
X3 X6 X7 X1	-0.303	-0.206	0.112	0.020	0.107
X4 X5 X6 X1	0.166	-0.717	-0.354	0.176	-0.034
X4 X5 X7 X1	0.061	-0.213	0.094	0.133	0.135
X4 X6 X7 X1	-0.193	-0.213	0.098	0.086	0.064
X5 X6 X7 X1	-0.032	-0.368	-0.034	0.123	0.130
X2 X3 X4 X5 X1	0.292	-0.539	-0.224	0.156	0.007
X2 X3 X4 X6 X1	0.037	-0.526	-0.367	0.114	-0.155
X2 X3 X4 X7 X1	-0.071	-0.080	0.190	0.070	0.015
X2 X3 X5 X6 X1	0.309	-0.668	-0.457	0.168	0.010
X2 X3 X5 X7 X1	0.107	-0.207	0.045	0.120	0.117
X2 X3 X6 X7 X1	-0.155	-0.213	-0.007	0.055	0.034
X2 X4 X5 X6 X1	0.201	-0.678	-0.467	0.185	-0.035
X2 X4 X5 X7 X1	0.134	-0.199	0.015	0.140	0.072
X2 X4 X6 X7 X1	-0.092	-0.205	0.024	0.104	0.005
X2 X5 X6 X7 X1	0.036	-0.371	-0.158	0.140	0.098
X3 X4 X5 X6 X1	0.191	-0.685	-0.304	0.176	-0.009
X3 X4 X5 X7 X1	0.091	-0.207	0.106	0.134	0.151

X3 X4 X6 X7 X1	-0.201	-0.212	0.098	0.087	0.063
X3 X5 X6 X7 X1	0.003	-0.355	-0.014	0.128	0.144
X4 X5 X6 X7 X1	0.024	-0.332	-0.047	0.154	0.101
X2 X3 X4 X5 X6 X1	0.203	-0.675	-0.419	0.176	-0.021
X2 X3 X4 X5 X7 X1	0.140	-0.199	0.051	0.133	0.071
X2 X3 X4 X6 X7 X1	-0.091	-0.201	0.030	0.099	-0.009
X2 X3 X5 X6 X7 X1	0.056	-0.373	-0.116	0.138	0.089
X2 X4 X5 X6 X7 X1	0.080	-0.337	-0.138	0.162	0.065
X3 X4 X5 X6 X7 X1	0.043	-0.322	-0.029	0.158	0.112
X2 X3 X4 X5 X6 X7 X1	0.077	-0.339	-0.106	0.155	0.055
Avg. X1	0.040	-0.365	-0.101	0.102	0.024

Model	Births90	PcPopBlack90	PcPopHisp90	PcPopAsian90	PcAge2549
X2	-0.052	-0.236	-0.303	-0.041	-0.095
X1 X2	-0.105	0.017	-0.314	-0.067	-0.161
X3 X2	-0.098	-0.176	-0.248	-0.034	-0.149
X4 X2	-0.111	-0.282	-0.260	-0.067	-0.053
X5 X2	-0.150	-0.143	-0.175	0.089	0.048
X6 X2	-0.056	-0.241	-0.287	-0.050	-0.104
X7 X2	-0.138	-0.111	-0.249	-0.156	-0.065
X1 X3 X2	-0.137	-0.011	-0.313	-0.044	-0.170
X1 X4 X2	-0.152	-0.104	-0.221	-0.087	-0.095
X1 X5 X2	-0.192	0.163	-0.160	0.021	-0.032
X1 X6 X2	-0.111	0.063	-0.292	-0.082	-0.171
X1 X7 X2	-0.112	-0.048	-0.196	-0.143	-0.085
X3 X4 X2	-0.139	-0.246	-0.191	-0.082	-0.098
X3 X5 X2	-0.154	-0.008	-0.100	0.059	0.045
X3 X6 X2	-0.100	-0.193	-0.236	-0.042	-0.148
X3 X7 X2	-0.127	-0.097	-0.267	-0.165	-0.043
X4 X5 X2	-0.199	-0.179	-0.216	0.009	0.041
X4 X6 X2	-0.103	-0.294	-0.251	-0.078	-0.063
X4 X7 X2	-0.144	-0.130	-0.179	-0.083	-0.017
X5 X6 X2	-0.145	-0.157	-0.169	0.085	0.047
X5 X7 X2	-0.212	-0.044	-0.156	-0.085	-0.017
X6 X7 X2	-0.131	-0.163	-0.236	-0.175	-0.051
X1 X3 X4 X2	-0.169	-0.109	-0.186	-0.086	-0.131
X1 X3 X5 X2	-0.169	0.198	-0.120	-0.011	-0.007
X1 X3 X6 X2	-0.137	0.021	-0.305	-0.049	-0.161
X1 X3 X7 X2	-0.103	-0.040	-0.212	-0.152	-0.066
X1 X4 X5 X2	-0.217	0.087	-0.150	-0.025	-0.019
X1 X4 X6 X2	-0.138	-0.068	-0.198	-0.106	-0.113

X1 X4 X7 X2	-0.129	-0.102	-0.139	-0.097	-0.046
X1 X5 X6 X2	-0.157	0.274	-0.159	0.007	-0.026
X1 X5 X7 X2	-0.182	0.059	-0.111	-0.080	-0.046
X1 X6 X7 X2	-0.100	-0.040	-0.178	-0.155	-0.081
X3 X4 X5 X2	-0.191	-0.107	-0.138	-0.028	0.084
X3 X4 X6 X2	-0.128	-0.265	-0.182	-0.091	-0.104
X3 X4 X7 X2	-0.122	-0.101	-0.193	-0.107	0.018
X3 X5 X6 X2	-0.142	-0.028	-0.096	0.054	0.058
X3 X5 X7 X2	-0.177	0.009	-0.151	-0.111	0.045
X3 X6 X7 X2	-0.117	-0.143	-0.251	-0.189	-0.030
X4 X5 X6 X2	-0.184	-0.181	-0.214	0.001	0.032
X4 X5 X7 X2	-0.203	-0.072	-0.125	-0.044	0.002
X4 X6 X7 X2	-0.123	-0.168	-0.163	-0.093	-0.015
X5 X6 X7 X2	-0.191	-0.054	-0.170	-0.103	-0.002
X1 X3 X4 X5 X2	-0.192	0.120	-0.101	-0.054	0.022
X1 X3 X4 X6 X2	-0.156	-0.084	-0.180	-0.093	-0.137
X1 X3 X4 X7 X2	-0.110	-0.085	-0.154	-0.117	-0.012
X1 X3 X5 X6 X2	-0.115	0.314	-0.144	-0.020	0.032
X1 X3 X5 X7 X2	-0.146	0.096	-0.099	-0.110	0.018
X1 X3 X6 X7 X2	-0.095	-0.033	-0.196	-0.158	-0.060
X1 X4 X5 X6 X2	-0.166	0.189	-0.147	-0.046	-0.025
X1 X4 X5 X7 X2	-0.188	-0.002	-0.090	-0.054	-0.030
X1 X4 X6 X7 X2	-0.109	-0.091	-0.121	-0.107	-0.052
X1 X5 X6 X7 X2	-0.144	0.126	-0.115	-0.090	-0.031
X3 X4 X5 X6 X2	-0.171	-0.110	-0.142	-0.035	0.084
X3 X4 X5 X7 X2	-0.172	-0.029	-0.128	-0.070	0.083
X3 X4 X6 X7 X2	-0.102	-0.140	-0.178	-0.115	0.018
X3 X5 X6 X7 X2	-0.145	0.015	-0.166	-0.134	0.077
X4 X5 X6 X7 X2	-0.168	-0.081	-0.125	-0.058	0.007
X1 X3 X4 X5 X6 X2	-0.138	0.221	-0.131	-0.066	0.030
X1 X3 X4 X5 X7 X2	-0.153	0.035	-0.087	-0.082	0.052
X1 X3 X4 X6 X7 X2	-0.097	-0.079	-0.142	-0.116	-0.021
X1 X3 X5 X6 X7 X2	-0.101	0.178	-0.113	-0.119	0.046
X1 X4 X5 X6 X7 X2	-0.143	0.065	-0.084	-0.066	-0.024
X3 X4 X5 X6 X7 X2	-0.133	-0.033	-0.135	-0.084	0.095
X1 X3 X4 X5 X6 X7 X2	-0.109	0.105	-0.095	-0.091	0.062
Avg. X2	-0.141	-0.043	-0.177	-0.071	-0.028

Model	PcAge5064	PcAge65plus	PCMrdHH90
X2	0.150	-0.231	0.037
X1 X2	0.218	-0.297	0.121

X3 X2	0.167	-0.325	-0.041
X4 X2	0.223	-0.329	-0.007
X5 X2	0.098	-0.256	0.072
X6 X2	0.136	-0.240	0.047
X7 X2	0.164	-0.277	0.019
X1 X3 X2	0.176	-0.323	0.052
X1 X4 X2	0.255	-0.352	0.026
X1 X5 X2	0.114	-0.316	0.175
X1 X6 X2	0.234	-0.337	0.109
X1 X7 X2	0.156	-0.248	0.051
X3 X4 X2	0.244	-0.413	-0.100
X3 X5 X2	0.200	-0.315	0.054
X3 X6 X2	0.152	-0.319	-0.032
X3 X7 X2	0.172	-0.249	0.054
X4 X5 X2	0.086	-0.308	0.092
X4 X6 X2	0.208	-0.342	-0.005
X4 X7 X2	0.203	-0.236	-0.026
X5 X6 X2	0.099	-0.265	0.063
X5 X7 X2	0.078	-0.287	0.095
X6 X7 X2	0.142	-0.280	-0.030
X1 X3 X4 X2	0.235	-0.400	-0.042
X1 X3 X5 X2	0.141	-0.304	0.183
X1 X3 X6 X2	0.191	-0.334	0.063
X1 X3 X7 X2	0.165	-0.226	0.082
X1 X4 X5 X2	0.113	-0.330	0.153
X1 X4 X6 X2	0.258	-0.390	0.010
X1 X4 X7 X2	0.189	-0.236	-0.011
X1 X5 X6 X2	0.153	-0.362	0.153
X1 X5 X7 X2	0.090	-0.280	0.106
X1 X6 X7 X2	0.166	-0.270	-0.007
X3 X4 X5 X2	0.156	-0.323	0.055
X3 X4 X6 X2	0.230	-0.418	-0.099
X3 X4 X7 X2	0.236	-0.195	0.027
X3 X5 X6 X2	0.199	-0.310	0.045
X3 X5 X7 X2	0.113	-0.225	0.175
X3 X6 X7 X2	0.156	-0.254	0.010
X4 X5 X6 X2	0.076	-0.325	0.088
X4 X5 X7 X2	0.115	-0.243	0.038
X4 X6 X7 X2	0.193	-0.242	-0.061
X5 X6 X7 X2	0.067	-0.304	0.070
X1 X3 X4 X5 X2	0.143	-0.309	0.155
X1 X3 X4 X6 X2	0.231	-0.419	-0.045
X1 X3 X4 X7 X2	0.217	-0.198	0.037

X1 X3 X5 X6 X2	0.187	-0.305	0.216
X1 X3 X5 X7 X2	0.118	-0.215	0.181
X1 X3 X6 X7 X2	0.174	-0.248	0.026
X1 X4 X5 X6 X2	0.124	-0.373	0.140
X1 X4 X5 X7 X2	0.110	-0.247	0.050
X1 X4 X6 X7 X2	0.192	-0.250	-0.047
X1 X5 X6 X7 X2	0.112	-0.303	0.079
X3 X4 X5 X6 X2	0.148	-0.330	0.060
X3 X4 X5 X7 X2	0.144	-0.170	0.116
X3 X4 X6 X7 X2	0.223	-0.204	-0.008
X3 X5 X6 X7 X2	0.112	-0.228	0.172
X4 X5 X6 X7 X2	0.115	-0.258	0.019
X1 X3 X4 X5 X6 X2	0.150	-0.326	0.184
X1 X3 X4 X5 X7 X2	0.138	-0.170	0.128
X1 X3 X4 X6 X7 X2	0.212	-0.219	-0.002
X1 X3 X5 X6 X7 X2	0.149	-0.226	0.180
X1 X4 X5 X6 X7 X2	0.118	-0.263	0.043
X3 X4 X5 X6 X7 X2	0.145	-0.179	0.111
X1 X3 X4 X5 X6 X7 X2	0.148	-0.182	0.136
Avg. X2	0.161	-0.283	0.059

Model	PcBA90	PrcntHsch	LandGrantU
X3	-0.283	0.340	0.034
X1 X3	-0.222	0.112	0.046
X2 X3	-0.258	0.250	0.023
X4 X3	-0.234	0.342	0.000
X5 X3	-0.073	0.412	0.018
X6 X3	-0.258	0.339	0.030
X7 X3	-0.092	0.126	-0.007
X1 X2 X3	-0.193	0.051	0.050
X1 X4 X3	-0.197	0.170	0.016
X1 X5 X3	0.012	0.230	0.036
X1 X6 X3	-0.163	0.018	0.043
X1 X7 X3	-0.086	0.084	-0.011
X2 X4 X3	-0.213	0.312	-0.008
X2 X5 X3	-0.016	0.346	-0.002
X2 X6 X3	-0.244	0.239	0.027
X2 X7 X3	0.091	-0.108	0.028
X4 X5 X3	-0.051	0.441	-0.001
X4 X6 X3	-0.214	0.333	-0.006

X4 X7 X3	-0.045	0.094	-0.005
X5 X6 X3	-0.054	0.416	0.013
X5 X7 X3	0.039	0.173	0.014
X6 X7 X3	-0.048	0.103	-0.019
X1 X2 X4 X3	-0.187	0.165	0.015
X1 X2 X5 X3	0.053	0.196	0.031
X1 X2 X6 X3	-0.127	-0.042	0.048
X1 X2 X7 X3	0.082	-0.092	0.023
X1 X4 X5 X3	-0.003	0.271	0.013
X1 X4 X6 X3	-0.148	0.069	0.017
X1 X4 X7 X3	-0.031	0.059	-0.016
X1 X5 X6 X3	0.073	0.112	0.020
X1 X5 X7 X3	0.051	0.152	0.008
X1 X6 X7 X3	-0.035	0.012	-0.021
X2 X4 X5 X3	0.042	0.371	-0.018
X2 X4 X6 X3	-0.205	0.306	-0.008
X2 X4 X7 X3	0.165	-0.082	0.011
X2 X5 X6 X3	0.004	0.345	-0.004
X2 X5 X7 X3	0.205	-0.012	0.021
X2 X6 X7 X3	0.104	-0.097	0.022
X4 X5 X6 X3	-0.024	0.423	-0.010
X4 X5 X7 X3	0.039	0.147	0.017
X4 X6 X7 X3	-0.015	0.055	-0.009
X5 X6 X7 X3	0.082	0.160	-0.003
X1 X2 X4 X5 X3	0.073	0.225	0.005
X1 X2 X4 X6 X3	-0.156	0.083	0.016
X1 X2 X4 X7 X3	0.153	-0.083	0.006
X1 X2 X5 X6 X3	0.187	0.047	0.009
X1 X2 X5 X7 X3	0.203	0.018	0.020
X1 X2 X6 X7 X3	0.084	-0.110	0.014
X1 X4 X5 X6 X3	0.046	0.137	0.095
X1 X4 X5 X7 X3	0.067	0.144	0.008
X1 X4 X6 X7 X3	-0.001	-0.015	-0.018
X1 X5 X6 X7 X3	0.090	0.087	-0.011
X2 X4 X5 X6 X3	0.066	0.353	-0.023
X2 X4 X5 X7 X3	0.224	0.000	0.011
X2 X4 X6 X7 X3	0.158	-0.087	0.010
X2 X5 X6 X7 X3	0.268	-0.022	0.008
X4 X5 X6 X7 X3	0.067	0.100	0.009
X1 X2 X4 X5 X6 X3	0.151	0.078	-0.010
X1 X2 X4 X5 X7 X3	0.228	0.017	0.010
X1 X2 X4 X6 X7 X3	0.131	-0.108	0.004
X1 X2 X5 X6 X7 X3	0.267	-0.047	0.000

X1 X4 X5 X6 X7 X3	0.091	0.058	-0.002
X2 X4 X5 X6 X7 X3	0.254	-0.038	0.007
X1 X2 X4 X5 X6 X7 X3	0.259	-0.061	0.000
Avg. X3	0.004	0.127	0.009

Model	cty92property	cty92sales	cty92highway	cty92safety	cty92education
X4	-0.269	-0.078	0.220	0.057	-0.093
X1 X4	-0.291	-0.070	0.163	0.069	-0.081
X2 X4	-0.333	-0.155	0.185	0.167	0.023
X3 X4	-0.325	-0.080	0.191	0.078	-0.039
X5 X4	-0.098	-0.061	0.105	0.050	-0.053
X6 X4	-0.234	-0.063	0.220	0.038	-0.074
X7 X4	-0.136	0.183	0.212	-0.116	0.038
X1 X2 X4	-0.353	-0.089	0.140	0.135	0.000
X1 X3 X4	-0.298	-0.058	0.156	0.075	-0.079
X1 X5 X4	-0.046	-0.045	0.030	0.074	-0.072
X1 X6 X4	-0.284	-0.059	0.149	0.051	-0.047
X1 X7 X4	-0.122	0.157	0.164	-0.085	0.030
X2 X3 X4	-0.358	-0.146	0.184	0.142	0.027
X2 X5 X4	-0.130	-0.143	0.078	0.151	0.014
X2 X6 X4	-0.304	-0.147	0.189	0.150	0.020
X2 X7 X4	-0.199	0.101	0.170	-0.028	0.121
X3 X5 X4	-0.168	-0.071	0.076	0.061	0.003
X3 X6 X4	-0.300	-0.068	0.199	0.064	-0.021
X3 X7 X4	-0.153	0.183	0.205	-0.109	0.056
X5 X6 X4	-0.076	-0.051	0.108	0.035	-0.039
X5 X7 X4	-0.034	0.165	0.150	-0.097	0.072
X6 X7 X4	-0.129	0.194	0.234	-0.128	0.052
X1 X2 X3 X4	-0.340	-0.079	0.142	0.115	-0.022
X1 X2 X5 X4	-0.085	-0.065	0.022	0.133	-0.022
X1 X2 X6 X4	-0.335	-0.077	0.133	0.100	0.063
X1 X2 X7 X4	-0.181	0.116	0.142	-0.033	0.087
X1 X3 X5 X4	-0.079	-0.050	0.025	0.079	-0.032
X1 X3 X6 X4	-0.281	-0.046	0.142	0.055	-0.066
X1 X3 X7 X4	-0.132	0.157	0.161	-0.079	0.040
X1 X5 X6 X4	-0.058	-0.047	0.019	0.063	-0.055
X1 X5 X7 X4	-0.002	0.144	0.104	-0.062	0.065
X1 X6 X7 X4	-0.142	0.169	0.172	-0.087	0.055
X2 X3 X5 X4	-0.192	-0.150	0.081	0.138	0.044
X2 X3 X6 X4	-0.335	-0.140	0.192	0.128	0.026
X2 X3 X7 X4	-0.215	0.094	0.176	-0.020	0.155

X2 X5 X6 X4	-0.111	-0.136	0.082	0.132	0.016
X2 X5 X7 X4	-0.076	0.100	0.127	-0.013	0.110
X2 X6 X7 X4	-0.191	0.107	0.205	-0.048	0.117
X3 X5 X6 X4	-0.151	-0.065	0.081	0.048	0.016
X3 X5 X7 X4	-0.054	0.161	0.137	-0.095	0.096
X3 X6 X7 X4	-0.141	0.194	0.230	-0.123	0.066
X5 X6 X7 X4	-0.036	0.165	0.168	-0.113	0.074
X1 X2 X3 X5 X4	-0.114	-0.075	0.028	0.130	-0.002
X1 X2 X3 X6 X4	-0.317	-0.066	0.130	0.086	-0.026
X1 X2 X3 X7 X4	-0.192	0.109	0.150	-0.026	0.118
X1 X2 X5 X6 X4	-0.073	-0.063	0.014	0.094	-0.034
X1 X2 X5 X7 X4	-0.043	0.116	0.095	-0.013	0.094
X1 X2 X6 X7 X4	-0.191	0.126	0.159	-0.050	0.089
X1 X3 X5 X6 X4	-0.075	-0.053	0.016	0.065	-0.030
X1 X3 X5 X7 X4	-0.018	0.139	0.098	-0.062	0.094
X1 X3 X6 X7 X4	-0.140	0.170	0.171	-0.086	0.051
X1 X5 X6 X7 X4	-0.022	0.138	0.102	-0.068	0.065
X2 X3 X5 X6 X4	-0.175	-0.147	0.085	0.123	0.046
X2 X3 X5 X7 X4	-0.089	0.083	0.126	-0.003	0.134
X2 X3 X6 X7 X4	-0.202	0.100	0.211	-0.040	0.147
X2 X5 X6 X7 X4	-0.076	0.095	0.154	-0.036	0.095
X3 X5 X6 X7 X4	-0.050	0.159	0.158	-0.114	0.096
X1 X2 X3 X5 X6 X4	-0.091	-0.075	0.013	0.101	-0.014
X1 X2 X3 X5 X7 X4	-0.057	0.100	0.096	-0.004	0.118
X1 X2 X3 X6 X7 X4	-0.193	0.120	0.164	-0.043	0.108
X1 X2 X5 X6 X7 X4	-0.053	0.108	0.095	-0.032	0.072
X1 X3 X5 X6 X7 X4	-0.027	0.133	0.099	-0.072	0.087
X2 X3 X5 X6 X7 X4	-0.084	0.076	0.154	-0.025	0.119
X1 X2 X3 X5 X6 X7 X4	-0.060	0.090	0.094	-0.020	0.094
Avg. X4	-0.158	0.024	0.133	0.016	0.034

Model	stl92property	stl92sales	stl92inctax	stl92corptax	stl92hosp
X4	0.058	-0.060	0.192	-0.018	-0.138
X1 X4	-0.090	-0.017	0.179	-0.096	-0.145
X2 X4	0.063	-0.012	0.186	-0.091	-0.134
X3 X4	-0.025	-0.108	0.112	-0.023	-0.115
X5 X4	-0.057	-0.060	0.108	-0.026	-0.141
X6 X4	0.009	-0.059	0.165	0.010	-0.140
X7 X4	0.093	-0.093	0.042	-0.046	0.015
X1 X2 X4	0.055	0.047	0.215	-0.113	-0.171
X1 X3 X4	-0.083	-0.033	0.145	-0.093	-0.121

X1 X5 X4	-0.142	0.015	0.134	-0.066	-0.118
X1 X6 X4	-0.175	-0.070	0.083	-0.063	-0.087
X1 X7 X4	0.064	-0.090	0.035	-0.106	-0.050
X2 X3 X4	-0.004	-0.053	0.140	-0.098	-0.139
X2 X5 X4	-0.090	-0.010	0.117	-0.077	-0.134
X2 X6 X4	0.025	-0.014	0.166	-0.083	-0.120
X2 X7 X4	0.127	-0.049	0.056	-0.070	-0.017
X3 X5 X4	-0.159	-0.101	0.063	-0.036	-0.129
X3 X6 X4	-0.052	-0.115	0.080	-0.012	-0.112
X3 X7 X4	0.098	-0.092	0.037	-0.050	0.016
X5 X6 X4	-0.100	-0.062	0.086	0.004	-0.145
X5 X7 X4	0.027	-0.068	-0.003	-0.032	0.024
X6 X7 X4	0.131	-0.171	-0.079	0.003	0.063
X1 X2 X3 X4	0.033	0.024	0.192	-0.116	-0.162
X1 X2 X5 X4	-0.061	0.062	0.139	-0.063	-0.150
X1 X2 X6 X4	-0.027	0.001	0.136	-0.088	-0.116
X1 X2 X7 X4	0.135	-0.043	0.066	-0.109	-0.069
X1 X3 X5 X4	-0.179	-0.007	0.109	-0.070	-0.113
X1 X3 X6 X4	-0.141	-0.074	0.070	-0.068	-0.069
X1 X3 X7 X4	0.069	-0.089	0.033	-0.108	-0.051
X1 X5 X6 X4	-0.226	-0.072	0.025	-0.025	-0.057
X1 X5 X7 X4	-0.002	-0.048	0.013	-0.069	-0.006
X1 X6 X7 X4	0.078	-0.168	-0.092	-0.074	-0.007
X2 X3 X5 X4	-0.157	-0.029	0.100	-0.077	-0.142
X2 X3 X6 X4	-0.033	-0.062	0.114	-0.096	-0.120
X2 X3 X7 X4	0.110	-0.049	0.057	-0.079	-0.017
X2 X5 X6 X4	-0.128	-0.015	0.095	-0.059	-0.127
X2 X5 X7 X4	0.038	-0.035	0.004	-0.046	-0.018
X2 X6 X7 X4	0.157	-0.128	-0.061	-0.045	0.033
X3 X5 X6 X4	-0.188	-0.112	0.039	-0.012	-0.133
X3 X5 X7 X4	0.011	-0.065	-0.004	-0.042	0.022
X3 X6 X7 X4	0.132	-0.171	-0.081	-0.003	0.060
X5 X6 X7 X4	0.047	-0.142	-0.093	0.030	0.091
X1 X2 X3 X5 X4	-0.099	0.049	0.128	-0.067	-0.151
X1 X2 X3 X6 X4	-0.028	-0.015	0.123	-0.092	-0.107
X1 X2 X3 X7 X4	0.124	-0.045	0.066	-0.115	-0.069
X1 X2 X5 X6 X4	-0.159	-0.015	0.027	-0.001	-0.092
X1 X2 X5 X7 X4	0.044	-0.017	0.024	-0.066	-0.051
X1 X2 X6 X7 X4	0.143	-0.120	-0.055	-0.090	-0.035
X1 X3 X5 X6 X4	-0.244	-0.080	0.022	-0.030	-0.066
X1 X3 X5 X7 X4	-0.017	-0.047	0.011	-0.077	-0.005
X1 X3 X6 X7 X4	0.080	-0.167	-0.090	-0.074	-0.012
X1 X5 X6 X7 X4	-0.013	-0.129	-0.090	-0.024	0.053

X2 X3 X5 X6 X4	-0.188	-0.039	0.077	-0.059	-0.134
X2 X3 X5 X7 X4	-0.001	-0.029	0.009	-0.052	-0.019
X2 X3 X6 X7 X4	0.138	-0.127	-0.059	-0.055	0.031
X2 X5 X6 X7 X4	0.059	-0.105	-0.086	0.001	0.045
X3 X5 X6 X7 X4	0.024	-0.140	-0.090	0.023	0.086
X1 X2 X3 X5 X6 X4	-0.179	-0.013	0.034	-0.003	-0.103
X1 X2 X3 X5 X7 X4	0.010	-0.012	0.029	-0.073	-0.053
X1 X2 X3 X6 X7 X4	0.130	-0.118	-0.053	-0.095	-0.038
X1 X2 X5 X6 X7 X4	0.024	-0.092	-0.082	-0.015	-0.003
X1 X3 X5 X6 X7 X4	-0.033	-0.129	-0.086	-0.027	0.046
X2 X3 X5 X6 X7 X4	0.013	-0.099	-0.080	-0.001	0.044
X1 X2 X3 X5 X6 X7 X4	-0.014	-0.087	-0.075	-0.020	-0.011
Avg. X4	-0.012	-0.064	0.044	-0.053	-0.060

Model	stl92highway	stl92pblsfty	RTW
X4	0.053	0.029	0.011
X1 X4	-0.083	-0.028	0.224
X2 X4	0.031	0.065	0.147
X3 X4	0.027	0.023	0.092
X5 X4	0.126	0.190	-0.112
X6 X4	0.148	0.058	0.044
X7 X4	-0.034	-0.365	0.109
X1 X2 X4	-0.042	-0.036	0.230
X1 X3 X4	-0.051	-0.048	0.229
X1 X5 X4	0.015	0.045	0.067
X1 X6 X4	0.035	-0.045	0.323
X1 X7 X4	-0.104	-0.278	0.163
X2 X3 X4	0.008	0.074	0.192
X2 X5 X4	0.077	0.223	0.056
X2 X6 X4	0.083	0.075	0.163
X2 X7 X4	-0.079	-0.282	0.179
X3 X5 X4	0.047	0.195	0.024
X3 X6 X4	0.103	0.035	0.104
X3 X7 X4	-0.042	-0.364	0.108
X5 X6 X4	0.192	0.219	-0.087
X5 X7 X4	-0.013	-0.318	0.040
X6 X7 X4	0.067	-0.436	0.095
X1 X2 X3 X4	-0.026	-0.036	0.239
X1 X2 X5 X4	0.027	0.060	0.064
X1 X2 X6 X4	0.059	-0.047	0.315
X1 X2 X7 X4	-0.095	-0.255	0.183

X1 X3 X5 X4	-0.003	0.058	0.109
X1 X3 X6 X4	0.056	-0.065	0.308
X1 X3 X7 X4	-0.106	-0.276	0.160
X1 X5 X6 X4	0.118	0.046	0.178
X1 X5 X7 X4	-0.024	-0.270	0.074
X1 X6 X7 X4	0.006	-0.329	0.165
X2 X3 X5 X4	-0.001	0.231	0.137
X2 X3 X6 X4	0.059	0.077	0.202
X2 X3 X7 X4	-0.093	-0.285	0.198
X2 X5 X6 X4	0.127	0.244	0.069
X2 X5 X7 X4	-0.039	-0.247	0.103
X2 X6 X7 X4	-0.002	-0.355	0.151
X3 X5 X6 X4	0.107	0.223	0.037
X3 X5 X7 X4	-0.043	-0.294	0.052
X3 X6 X7 X4	0.059	-0.434	0.096
X5 X6 X7 X4	0.059	-0.380	0.059
X1 X2 X3 X5 X4	-0.009	0.080	0.097
X1 X2 X3 X6 X4	0.077	-0.051	0.314
X1 X2 X3 X7 X4	-0.106	-0.263	0.198
X1 X2 X5 X6 X4	0.142	0.078	0.154
X1 X2 X5 X7 X4	-0.011	-0.234	0.079
X1 X2 X6 X7 X4	-0.004	-0.295	0.170
X1 X3 X5 X6 X4	0.096	0.064	0.193
X1 X3 X5 X7 X4	-0.050	-0.251	0.080
X1 X3 X6 X7 X4	0.010	-0.325	0.165
X1 X5 X6 X7 X4	0.047	-0.293	0.115
X2 X3 X5 X6 X4	0.052	0.253	0.147
X2 X3 X5 X7 X4	-0.076	-0.214	0.134
X2 X3 X6 X7 X4	-0.013	-0.355	0.169
X2 X5 X6 X7 X4	0.022	-0.307	0.101
X3 X5 X6 X7 X4	0.033	-0.352	0.075
X1 X2 X3 X5 X6 X4	0.107	0.110	0.172
X1 X2 X3 X5 X7 X4	-0.052	-0.204	0.107
X1 X2 X3 X6 X7 X4	-0.008	-0.298	0.184
X1 X2 X5 X6 X7 X4	0.058	-0.232	0.095
X1 X3 X5 X6 X7 X4	0.027	-0.270	0.126
X2 X3 X5 X6 X7 X4	-0.010	-0.270	0.135
X1 X2 X3 X5 X6 X7 X4	0.025	-0.197	0.129
Avg. X4	0.018	-0.111	0.132

Model	PcFarmJobs90	PcAgServJobs90	PcMinJobs90	PcConstJobs90	PcMfgJobs90
X5	0.036	-0.083	-0.316	-0.020	-0.099
X1 X5	0.113	-0.184	-0.309	0.056	-0.015
X2 X5	0.019	0.010	-0.331	-0.028	-0.151
X3 X5	0.078	-0.035	-0.282	0.047	0.010
X4 X5	-0.011	-0.038	-0.271	0.035	-0.032
X6 X5	0.039	-0.074	-0.285	-0.016	-0.121
X7 X5	0.028	-0.105	-0.255	0.073	-0.006
X1 X2 X5	0.050	-0.127	-0.381	0.010	-0.142
X1 X3 X5	0.154	-0.173	-0.290	0.066	0.022
X1 X4 X5	0.101	-0.154	-0.273	0.066	-0.009
X1 X6 X5	0.079	-0.156	-0.285	0.067	-0.128
X1 X7 X5	0.089	-0.118	-0.224	0.048	0.028
X2 X3 X5	0.083	0.015	-0.307	0.005	-0.079
X2 X4 X5	-0.030	0.004	-0.322	-0.015	-0.106
X2 X6 X5	0.029	0.014	-0.309	-0.027	-0.167
X2 X7 X5	-0.011	-0.032	-0.292	0.020	-0.037
X3 X4 X5	0.044	-0.027	-0.248	0.052	0.024
X3 X6 X5	0.080	-0.029	-0.261	0.041	-0.038
X3 X7 X5	0.062	-0.094	-0.243	0.073	0.027
X4 X6 X5	-0.023	-0.025	-0.254	0.030	-0.059
X4 X7 X5	0.013	-0.061	-0.230	0.092	-0.007
X6 X7 X5	-0.007	-0.087	-0.239	0.073	-0.082
X1 X2 X3 X5	0.100	-0.130	-0.362	0.014	-0.103
X1 X2 X4 X5	0.047	-0.115	-0.347	0.022	-0.099
X1 X2 X6 X5	0.021	-0.088	-0.343	0.034	-0.267
X1 X2 X7 X5	0.045	-0.083	-0.275	0.014	-0.027
X1 X3 X4 X5	0.143	-0.145	-0.250	0.068	0.026
X1 X3 X6 X5	0.109	-0.155	-0.274	0.069	-0.099
X1 X3 X7 X5	0.126	-0.112	-0.211	0.048	0.058
X1 X4 X6 X5	0.058	-0.110	-0.244	0.067	-0.112
X1 X4 X7 X5	0.093	-0.110	-0.210	0.070	0.018
X1 X6 X7 X5	0.040	-0.098	-0.212	0.048	-0.080
X2 X3 X4 X5	0.039	0.004	-0.291	-0.003	-0.051
X2 X3 X6 X5	0.091	0.023	-0.285	0.002	-0.108
X2 X3 X7 X5	0.019	-0.037	-0.275	0.011	-0.016
X2 X4 X6 X5	-0.041	0.016	-0.307	-0.018	-0.129
X2 X4 X7 X5	0.009	-0.025	-0.249	0.050	-0.006
X2 X6 X7 X5	-0.042	-0.008	-0.274	0.023	-0.113
X3 X4 X6 X5	0.030	-0.016	-0.233	0.044	-0.009
X3 X4 X7 X5	0.037	-0.057	-0.219	0.087	0.009
X3 X6 X7 X5	0.028	-0.074	-0.224	0.073	-0.047

X4 X6 X7 X5	-0.019	-0.028	-0.208	0.091	-0.082
X1 X2 X3 X4 X5	0.100	-0.116	-0.320	0.020	-0.065
X1 X2 X3 X6 X5	0.055	-0.093	-0.324	0.022	-0.241
X1 X2 X3 X7 X5	0.084	-0.092	-0.254	0.004	-0.003
X1 X2 X4 X6 X5	-0.001	-0.060	-0.317	0.032	-0.219
X1 X2 X4 X7 X5	0.071	-0.087	-0.241	0.043	0.009
X1 X2 X6 X7 X5	0.000	-0.054	-0.255	0.023	-0.146
X1 X3 X4 X6 X5	0.086	-0.111	-0.232	0.065	-0.086
X1 X3 X4 X7 X5	0.122	-0.107	-0.197	0.065	0.039
X1 X3 X6 X7 X5	0.071	-0.095	-0.200	0.047	-0.054
X1 X4 X6 X7 X5	0.054	-0.081	-0.194	0.065	-0.084
X2 X3 X4 X6 X5	0.026	0.017	-0.277	-0.008	-0.081
X2 X3 X4 X7 X5	0.039	-0.030	-0.231	0.033	0.005
X2 X3 X6 X7 X5	-0.007	-0.011	-0.251	0.011	-0.095
X2 X4 X6 X7 X5	-0.018	0.001	-0.227	0.054	-0.079
X3 X4 X6 X7 X5	0.001	-0.027	-0.198	0.088	-0.068
X1 X2 X3 X4 X6 X5	0.033	-0.066	-0.298	0.020	-0.199
X1 X2 X3 X4 X7 X5	0.106	-0.095	-0.218	0.026	0.023
X1 X2 X3 X6 X7 X5	0.035	-0.064	-0.231	0.008	-0.130
X1 X2 X4 X6 X7 X5	0.032	-0.057	-0.225	0.044	-0.107
X1 X3 X4 X6 X7 X5	0.073	-0.083	-0.185	0.062	-0.069
X2 X3 X4 X6 X7 X5	0.008	-0.004	-0.209	0.036	-0.074
X1 X2 X3 X4 X6 X7 X5	0.057	-0.067	-0.204	0.025	-0.102
Avg. X5	0.046	-0.067	-0.262	0.037	-0.066

Model	PcServsJobs90	PcGovJobs90	PcUnempl90	MGR90
X5	-0.011	-0.208	-0.128	-0.227
X1 X5	-0.035	-0.128	-0.214	-0.466
X2 X5	-0.044	-0.261	-0.026	-0.306
X3 X5	-0.080	-0.217	0.049	-0.306
X4 X5	-0.012	-0.154	-0.112	-0.282
X6 X5	-0.020	-0.199	-0.147	-0.242
X7 X5	0.058	-0.136	-0.134	-0.272
X1 X2 X5	-0.012	-0.224	-0.196	-0.503
X1 X3 X5	-0.062	-0.178	-0.130	-0.507
X1 X4 X5	-0.003	-0.098	-0.150	-0.411
X1 X6 X5	-0.050	-0.124	-0.269	-0.561
X1 X7 X5	0.045	-0.105	-0.163	-0.290
X2 X3 X5	-0.079	-0.271	0.066	-0.364
X2 X4 X5	0.018	-0.210	-0.036	-0.326
X2 X6 X5	-0.045	-0.261	-0.050	-0.313

X2 X7 X5	0.058	-0.138	-0.062	-0.267
X3 X4 X5	-0.042	-0.212	0.036	-0.322
X3 X6 X5	-0.087	-0.228	0.026	-0.332
X3 X7 X5	0.036	-0.181	-0.051	-0.313
X4 X6 X5	-0.016	-0.152	-0.135	-0.302
X4 X7 X5	0.039	-0.116	-0.088	-0.167
X6 X7 X5	0.057	-0.138	-0.177	-0.340
X1 X2 X3 X5	-0.033	-0.250	-0.131	-0.556
X1 X2 X4 X5	0.028	-0.163	-0.144	-0.443
X1 X2 X6 X5	-0.018	-0.221	-0.295	-0.632
X1 X2 X7 X5	0.055	-0.129	-0.133	-0.302
X1 X3 X4 X5	-0.026	-0.151	-0.067	-0.442
X1 X3 X6 X5	-0.074	-0.176	-0.209	-0.599
X1 X3 X7 X5	0.025	-0.151	-0.095	-0.332
X1 X4 X6 X5	-0.020	-0.088	-0.200	-0.505
X1 X4 X7 X5	0.040	-0.093	-0.124	-0.203
X1 X6 X7 X5	0.040	-0.099	-0.205	-0.404
X2 X3 X4 X5	-0.016	-0.251	0.077	-0.386
X2 X3 X6 X5	-0.081	-0.274	0.045	-0.388
X2 X3 X7 X5	0.036	-0.155	0.002	-0.340
X2 X4 X6 X5	0.017	-0.219	-0.062	-0.343
X2 X4 X7 X5	0.050	-0.101	-0.035	-0.153
X2 X6 X7 X5	0.062	-0.147	-0.116	-0.345
X3 X4 X6 X5	-0.050	-0.217	0.010	-0.352
X3 X4 X7 X5	0.024	-0.165	-0.034	-0.210
X3 X6 X7 X5	0.031	-0.190	-0.089	-0.397
X4 X6 X7 X5	0.035	-0.108	-0.142	-0.252
X1 X2 X3 X4 X5	0.004	-0.199	-0.070	-0.500
X1 X2 X3 X6 X5	-0.040	-0.238	-0.235	-0.711
X1 X2 X3 X7 X5	0.032	-0.150	-0.064	-0.377
X1 X2 X4 X6 X5	0.019	-0.171	-0.236	-0.574
X1 X2 X4 X7 X5	0.048	-0.095	-0.088	-0.188
X1 X2 X6 X7 X5	0.053	-0.128	-0.211	-0.437
X1 X3 X4 X6 X5	-0.038	-0.133	-0.148	-0.534
X1 X3 X4 X7 X5	0.021	-0.150	-0.072	-0.252
X1 X3 X6 X7 X5	0.019	-0.145	-0.150	-0.446
X1 X4 X6 X7 X5	0.031	-0.085	-0.171	-0.321
X2 X3 X4 X6 X5	-0.018	-0.260	0.051	-0.416
X2 X3 X4 X7 X5	0.030	-0.129	0.026	-0.245
X2 X3 X6 X7 X5	0.035	-0.167	-0.043	-0.448
X2 X4 X6 X7 X5	0.047	-0.101	-0.088	-0.234
X3 X4 X6 X7 X5	0.019	-0.156	-0.095	-0.295
X1 X2 X3 X4 X6 X5	0.002	-0.196	-0.180	-0.642

X1 X2 X3 X4 X7 X5	0.027	-0.123	-0.023	-0.280
X1 X2 X3 X6 X7 X5	0.028	-0.144	-0.147	-0.528
X1 X2 X4 X6 X7 X5	0.041	-0.097	-0.163	-0.328
X1 X3 X4 X6 X7 X5	0.014	-0.133	-0.136	-0.361
X2 X3 X4 X6 X7 X5	0.027	-0.128	-0.033	-0.334
X1 X2 X3 X4 X6 X7 X5	0.022	-0.118	-0.111	-0.419
Avg. X5	0.004	-0.165	-0.100	-0.373

Model	CDist	incmetgt250k	incmetgt500k	incmetgt1500k
X6	-0.037	-0.119	0.065	-0.106
X1 X6	-0.120	-0.210	0.042	0.002
X2 X6	0.011	-0.098	0.078	-0.018
X3 X6	-0.047	-0.104	0.060	-0.006
X4 X6	-0.079	-0.111	0.034	-0.117
X5 X6	-0.024	-0.089	0.062	-0.058
X7 X6	-0.169	-0.127	0.006	-0.019
X1 X2 X6	-0.044	-0.218	0.027	-0.038
X1 X3 X6	-0.102	-0.197	0.048	0.018
X1 X4 X6	-0.145	-0.290	-0.010	-0.120
X1 X5 X6	-0.170	-0.218	-0.012	0.029
X1 X7 X6	-0.198	-0.196	-0.027	-0.006
X2 X3 X6	0.007	-0.086	0.068	0.012
X2 X4 X6	-0.015	-0.115	0.048	-0.070
X2 X5 X6	-0.002	-0.091	0.060	0.008
X2 X7 X6	-0.122	-0.150	-0.010	0.000
X3 X4 X6	-0.075	-0.113	0.024	-0.064
X3 X5 X6	-0.058	-0.087	0.038	0.014
X3 X7 X6	-0.167	-0.125	0.000	-0.016
X4 X5 X6	-0.076	-0.086	0.046	-0.089
X4 X7 X6	-0.167	-0.210	-0.091	-0.023
X5 X7 X6	-0.150	-0.123	-0.028	-0.021
X1 X2 X3 X6	-0.044	-0.213	0.035	-0.024
X1 X2 X4 X6	-0.089	-0.292	-0.016	-0.130
X1 X2 X5 X6	-0.143	-0.276	-0.046	-0.051
X1 X2 X7 X6	-0.161	-0.204	-0.034	-0.010
X1 X3 X4 X6	-0.135	-0.281	-0.014	-0.096
X1 X3 X5 X6	-0.169	-0.203	-0.018	0.032
X1 X3 X7 X6	-0.196	-0.194	-0.028	-0.003
X1 X4 X5 X6	-0.212	-0.295	-0.046	-0.088
X1 X4 X7 X6	-0.191	-0.240	-0.090	0.001
X1 X5 X7 X6	-0.210	-0.192	-0.065	0.015

X2 X3 X4 X6	-0.026	-0.118	0.034	-0.047
X2 X3 X5 X6	-0.022	-0.101	0.031	0.021
X2 X3 X7 X6	-0.120	-0.152	-0.005	0.000
X2 X4 X5 X6	-0.030	-0.101	0.043	-0.074
X2 X4 X7 X6	-0.131	-0.198	-0.074	0.029
X2 X5 X7 X6	-0.112	-0.156	-0.050	-0.026
X3 X4 X5 X6	-0.082	-0.085	0.025	-0.063
X3 X4 X7 X6	-0.166	-0.207	-0.092	-0.020
X3 X5 X7 X6	-0.156	-0.130	-0.044	-0.030
X4 X5 X7 X6	-0.164	-0.197	-0.101	-0.036
X1 X2 X3 X4 X6	-0.095	-0.286	-0.022	-0.117
X1 X2 X3 X5 X6	-0.150	-0.284	-0.060	-0.059
X1 X2 X3 X7 X6	-0.158	-0.208	-0.028	-0.010
X1 X2 X4 X5 X6	-0.184	-0.330	-0.068	-0.160
X1 X2 X4 X7 X6	-0.162	-0.234	-0.083	0.023
X1 X2 X5 X7 X6	-0.189	-0.231	-0.083	-0.024
X1 X3 X4 X5 X6	-0.206	-0.272	-0.049	-0.081
X1 X3 X4 X7 X6	-0.192	-0.241	-0.090	0.001
X1 X3 X5 X7 X6	-0.213	-0.186	-0.074	0.007
X1 X4 X5 X7 X6	-0.211	-0.235	-0.108	-0.002
X2 X3 X4 X5 X6	-0.040	-0.103	0.022	-0.067
X2 X3 X4 X7 X6	-0.129	-0.200	-0.067	0.027
X2 X3 X5 X7 X6	-0.121	-0.173	-0.060	-0.032
X2 X4 X5 X7 X6	-0.127	-0.197	-0.089	-0.010
X3 X4 X5 X7 X6	-0.164	-0.194	-0.102	-0.043
X1 X2 X3 X4 X5 X6	-0.183	-0.320	-0.072	-0.161
X1 X2 X3 X4 X7 X6	-0.158	-0.236	-0.076	0.020
X1 X2 X3 X5 X7 X6	-0.192	-0.239	-0.092	-0.031
X1 X2 X4 X5 X7 X6	-0.190	-0.250	-0.104	-0.016
X1 X3 X4 X5 X7 X6	-0.213	-0.226	-0.110	-0.011
X2 X3 X4 X5 X7 X6	-0.132	-0.202	-0.088	-0.019
X1 X2 X3 X4 X5 X7 X6	-0.192	-0.253	-0.104	-0.024
Avg. X6	-0.127	-0.189	-0.025	-0.032

Model	D2	D3	D4	D5	D6
X7	0.422	1.237	1.024	0.842	0.844
X1 X7	0.497	1.465	1.256	1.146	1.131
X2 X7	0.406	1.222	1.095	0.890	0.851
X3 X7	0.400	1.191	0.995	0.857	0.874
X4 X7	0.400	1.260	0.853	0.870	0.787
X5 X7	0.289	0.970	0.727	0.647	0.653

X6 X7	0.419	1.237	1.121	0.832	0.865
X1 X2 X7	0.435	1.326	1.211	0.999	0.973
X1 X3 X7	0.471	1.416	1.227	1.138	1.133
X1 X4 X7	0.493	1.435	1.082	1.022	0.984
X1 X5 X7	0.299	1.084	0.874	0.807	0.795
X1 X6 X7	0.481	1.444	1.357	1.222	1.204
X2 X3 X7	0.427	1.266	1.127	0.881	0.830
X2 X4 X7	0.392	1.240	0.937	0.854	0.795
X2 X5 X7	0.289	0.968	0.828	0.725	0.678
X2 X6 X7	0.411	1.244	1.200	0.915	0.888
X3 X4 X7	0.390	1.238	0.843	0.886	0.819
X3 X5 X7	0.291	0.938	0.701	0.713	0.694
X3 X6 X7	0.413	1.221	1.110	0.863	0.907
X4 X5 X7	0.364	1.176	0.788	0.822	0.761
X4 X6 X7	0.466	1.386	1.030	1.022	0.908
X5 X6 X7	0.250	0.919	0.736	0.597	0.636
X1 X2 X3 X7	0.454	1.360	1.235	0.988	0.955
X1 X2 X4 X7	0.455	1.333	1.065	0.925	0.898
X1 X2 X5 X7	0.262	0.983	0.856	0.716	0.684
X1 X2 X6 X7	0.431	1.334	1.323	1.091	1.056
X1 X3 X4 X7	0.488	1.425	1.079	1.035	1.005
X1 X3 X5 X7	0.299	1.058	0.853	0.835	0.808
X1 X3 X6 X7	0.467	1.422	1.341	1.209	1.193
X1 X4 X5 X7	0.371	1.218	0.868	0.840	0.794
X1 X4 X6 X7	0.537	1.512	1.208	1.179	1.080
X1 X5 X6 X7	0.217	0.973	0.853	0.806	0.794
X2 X3 X4 X7	0.435	1.328	0.990	0.867	0.806
X2 X3 X5 X7	0.311	0.985	0.820	0.735	0.653
X2 X3 X6 X7	0.440	1.299	1.239	0.916	0.879
X2 X4 X5 X7	0.374	1.153	0.862	0.838	0.754
X2 X4 X6 X7	0.460	1.370	1.104	1.011	0.903
X2 X5 X6 X7	0.255	0.920	0.837	0.681	0.662
X3 X4 X5 X7	0.340	1.119	0.746	0.827	0.767
X3 X4 X6 X7	0.464	1.381	1.027	1.036	0.931
X3 X5 X6 X7	0.256	0.893	0.712	0.667	0.678
X4 X5 X6 X7	0.339	1.176	0.820	0.837	0.784
X1 X2 X3 X4 X7	0.497	1.415	1.116	0.934	0.907
X1 X2 X3 X5 X7	0.284	0.997	0.855	0.718	0.659
X1 X2 X3 X6 X7	0.451	1.365	1.345	1.077	1.032
X1 X2 X4 X5 X7	0.369	1.152	0.886	0.806	0.736
X1 X2 X4 X6 X7	0.506	1.428	1.205	1.094	0.995
X1 X2 X5 X6 X7	0.187	0.884	0.840	0.711	0.688
X1 X3 X4 X5 X7	0.353	1.178	0.839	0.845	0.801

X1 X3 X4 X6 X7	0.540	1.515	1.211	1.180	1.078
X1 X3 X5 X6 X7	0.228	0.971	0.845	0.828	0.801
X1 X4 X5 X6 X7	0.309	1.145	0.840	0.855	0.785
X2 X3 X4 X5 X7	0.361	1.122	0.815	0.787	0.687
X2 X3 X4 X6 X7	0.502	1.452	1.153	1.019	0.908
X2 X3 X5 X6 X7	0.280	0.938	0.828	0.688	0.628
X2 X4 X5 X6 X7	0.364	1.164	0.903	0.867	0.776
X3 X4 X5 X6 X7	0.321	1.133	0.785	0.835	0.782
X1 X2 X3 X4 X5 X7	0.363	1.133	0.858	0.766	0.685
X1 X2 X3 X4 X6 X7	0.543	1.490	1.240	1.089	0.983
X1 X2 X3 X5 X6 X7	0.217	0.912	0.845	0.702	0.649
X1 X2 X4 X5 X6 X7	0.308	1.078	0.864	0.817	0.721
X1 X3 X4 X5 X6 X7	0.304	1.132	0.827	0.849	0.780
X2 X3 X4 X5 X6 X7	0.354	1.139	0.859	0.807	0.697
X1 X2 X3 X4 X5 X6 X7	0.313	1.075	0.843	0.766	0.655
Avg. X7	0.380	1.202	0.981	0.885	0.836

Model	D7	D8	D9
X7	0.594	0.729	0.720
X1 X7	1.087	0.994	0.927
X2 X7	0.734	0.837	0.807
X3 X7	0.609	0.713	0.696
X4 X7	0.572	0.832	0.872
X5 X7	0.481	0.702	0.710
X6 X7	0.648	0.821	0.745
X1 X2 X7	0.949	0.952	0.888
X1 X3 X7	1.078	0.971	0.897
X1 X4 X7	0.922	1.062	1.007
X1 X5 X7	0.761	0.789	0.695
X1 X6 X7	1.185	1.027	0.888
X2 X3 X7	0.735	0.862	0.834
X2 X4 X7	0.651	0.874	0.856
X2 X5 X7	0.593	0.767	0.759
X2 X6 X7	0.808	0.922	0.844
X3 X4 X7	0.584	0.821	0.853
X3 X5 X7	0.500	0.685	0.688
X3 X6 X7	0.676	0.814	0.734
X4 X5 X7	0.591	0.860	0.879
X4 X6 X7	0.756	1.020	1.010
X5 X6 X7	0.457	0.739	0.717
X1 X2 X3 X7	0.948	0.976	0.915

X1 X2 X4 X7	0.838	1.015	0.959
X1 X2 X5 X7	0.656	0.739	0.678
X1 X2 X6 X7	1.062	0.979	0.854
X1 X3 X4 X7	0.931	1.053	0.994
X1 X3 X5 X7	0.752	0.774	0.668
X1 X3 X6 X7	1.171	1.013	0.876
X1 X4 X5 X7	0.719	0.886	0.818
X1 X4 X6 X7	1.051	1.116	1.036
X1 X5 X6 X7	0.746	0.749	0.636
X2 X3 X4 X7	0.671	0.904	0.892
X2 X3 X5 X7	0.564	0.757	0.777
X2 X3 X6 X7	0.819	0.948	0.876
X2 X4 X5 X7	0.650	0.872	0.856
X2 X4 X6 X7	0.820	1.032	0.991
X2 X5 X6 X7	0.581	0.808	0.778
X3 X4 X5 X7	0.561	0.825	0.835
X3 X4 X6 X7	0.765	1.013	1.001
X3 X5 X6 X7	0.475	0.730	0.702
X4 X5 X6 X7	0.631	0.963	0.957
X1 X2 X3 X4 X7	0.858	1.057	1.003
X1 X2 X3 X5 X7	0.630	0.747	0.705
X1 X2 X3 X6 X7	1.057	1.000	0.879
X1 X2 X4 X5 X7	0.677	0.844	0.788
X1 X2 X4 X6 X7	0.982	1.067	0.995
X1 X2 X5 X6 X7	0.659	0.696	0.612
X1 X3 X4 X5 X7	0.691	0.862	0.778
X1 X3 X4 X6 X7	1.053	1.116	1.039
X1 X3 X5 X6 X7	0.739	0.752	0.631
X1 X4 X5 X6 X7	0.707	0.864	0.797
X2 X3 X4 X5 X7	0.564	0.829	0.832
X2 X3 X4 X6 X7	0.836	1.058	1.024
X2 X3 X5 X6 X7	0.542	0.799	0.804
X2 X4 X5 X6 X7	0.700	0.965	0.943
X3 X4 X5 X6 X7	0.600	0.935	0.923
X1 X2 X3 X4 X5 X7	0.614	0.829	0.783
X1 X2 X3 X4 X6 X7	0.986	1.097	1.031
X1 X2 X3 X5 X6 X7	0.626	0.716	0.656
X1 X2 X4 X5 X6 X7	0.680	0.806	0.762
X1 X3 X4 X5 X6 X7	0.686	0.860	0.784
X2 X3 X4 X5 X6 X7	0.608	0.927	0.926
X1 X2 X3 X4 X5 X6 X7	0.615	0.800	0.773
Avg. X7	0.742	0.884	0.837

Wage Regressions

Model	TempJan	TempJuly	Humidity	Water	Typog
X1	-0.230	0.186	0.028	0.093	0.028
X2 X1	-0.308	0.202	0.000	0.093	0.038
X3 X1	-0.259	0.139	0.013	0.088	0.000
X4 X1	-0.453	0.169	0.048	0.086	0.026
X5 X1	-0.157	0.027	-0.119	0.123	-0.037
X6 X1	-0.241	0.180	0.018	0.089	0.023
X7 X1	-0.420	0.309	0.161	0.083	0.041
X2 X3 X1	-0.318	0.143	-0.020	0.079	-0.009
X2 X4 X1	-0.493	0.192	0.009	0.089	0.016
X2 X5 X1	-0.224	0.039	-0.117	0.127	-0.025
X2 X6 X1	-0.346	0.203	-0.033	0.091	0.040
X2 X7 X1	-0.445	0.317	0.149	0.086	0.047
X3 X4 X1	-0.478	0.142	0.038	0.072	-0.002
X3 X5 X1	-0.148	0.025	-0.113	0.125	-0.036
X3 X6 X1	-0.292	0.123	-0.031	0.087	-0.020
X3 X7 X1	-0.449	0.314	0.171	0.084	0.027
X4 X5 X1	-0.245	0.067	-0.064	0.113	-0.022
X4 X6 X1	-0.442	0.138	-0.008	0.093	0.010
X4 X7 X1	-0.606	0.351	0.240	0.073	0.039
X5 X6 X1	-0.182	0.009	-0.174	0.126	-0.063
X5 X7 X1	-0.322	0.190	0.035	0.117	-0.011
X6 X7 X1	-0.448	0.267	0.144	0.084	0.015
X2 X3 X4 X1	-0.502	0.165	-0.007	0.062	-0.029
X2 X3 X5 X1	-0.210	0.046	-0.086	0.124	-0.019
X2 X3 X6 X1	-0.376	0.130	-0.076	0.072	-0.022
X2 X3 X7 X1	-0.458	0.327	0.173	0.078	0.002
X2 X4 X5 X1	-0.290	0.092	-0.099	0.112	-0.012
X2 X4 X6 X1	-0.499	0.156	-0.060	0.101	0.008
X2 X4 X7 X1	-0.631	0.366	0.239	0.071	0.028
X2 X5 X6 X1	-0.288	0.017	-0.203	0.130	-0.033
X2 X5 X7 X1	-0.374	0.196	0.041	0.121	0.010
X2 X6 X7 X1	-0.484	0.255	0.096	0.090	0.031
X3 X4 X5 X1	-0.245	0.069	-0.053	0.114	-0.022
X3 X4 X6 X1	-0.489	0.099	-0.044	0.083	-0.031
X3 X4 X7 X1	-0.624	0.355	0.271	0.070	0.024
X3 X5 X6 X1	-0.190	-0.010	-0.187	0.129	-0.073
X3 X5 X7 X1	-0.315	0.191	0.042	0.123	-0.012

X3 X6 X7 X1	-0.489	0.266	0.142	0.085	-0.007
X4 X5 X6 X1	-0.258	0.023	-0.136	0.131	-0.043
X4 X5 X7 X1	-0.415	0.240	0.134	0.099	0.010
X4 X6 X7 X1	-0.597	0.331	0.211	0.085	0.021
X5 X6 X7 X1	-0.381	0.154	0.014	0.116	-0.049
X2 X3 X4 X5 X1	-0.304	0.091	-0.065	0.100	-0.023
X2 X3 X4 X6 X1	-0.525	0.123	-0.084	0.068	-0.047
X2 X3 X4 X7 X1	-0.614	0.379	0.265	0.055	-0.011
X2 X3 X5 X6 X1	-0.286	0.001	-0.191	0.124	-0.045
X2 X3 X5 X7 X1	-0.370	0.201	0.069	0.116	-0.002
X2 X3 X6 X7 X1	-0.506	0.266	0.121	0.074	-0.017
X2 X4 X5 X6 X1	-0.323	0.044	-0.189	0.127	-0.025
X2 X4 X5 X7 X1	-0.443	0.243	0.117	0.097	0.017
X2 X4 X6 X7 X1	-0.636	0.332	0.197	0.088	0.022
X2 X5 X6 X7 X1	-0.450	0.145	-0.006	0.121	-0.011
X3 X4 X5 X6 X1	-0.269	0.018	-0.137	0.132	-0.051
X3 X4 X5 X7 X1	-0.404	0.246	0.149	0.104	0.011
X3 X4 X6 X7 X1	-0.633	0.332	0.227	0.086	-0.003
X3 X5 X6 X7 X1	-0.382	0.157	0.021	0.121	-0.051
X4 X5 X6 X7 X1	-0.444	0.216	0.095	0.114	-0.015
X2 X3 X4 X5 X6 X1	-0.341	0.035	-0.169	0.115	-0.043
X2 X3 X4 X5 X7 X1	-0.447	0.250	0.157	0.088	0.000
X2 X3 X4 X6 X7 X1	-0.635	0.345	0.218	0.068	-0.023
X2 X3 X5 X6 X7 X1	-0.452	0.149	0.019	0.115	-0.025
X2 X4 X5 X6 X7 X1	-0.490	0.204	0.061	0.111	0.005
X3 X4 X5 X6 X7 X1	-0.442	0.223	0.110	0.119	-0.017
X2 X3 X4 X5 X6 X7 X1	-0.497	0.210	0.095	0.103	-0.014
Avg. X1	-0.399	0.178	0.029	0.099	-0.007

Model	Births90	PcPopBlack90	PcPopHisp90	PcPopAsian90	PcAge2549
X2	-0.033	0.016	-0.022	0.010	0.018
X1 X2	-0.023	0.108	0.024	0.044	0.018
X3 X2	0.013	0.023	-0.044	-0.033	0.045
X4 X2	-0.035	-0.034	0.009	0.026	0.048
X5 X2	-0.055	0.054	0.075	0.059	0.081
X6 X2	-0.027	0.030	-0.037	-0.001	0.019
X7 X2	-0.049	0.029	-0.014	0.017	0.026
X1 X3 X2	0.015	0.108	-0.007	0.029	0.058
X1 X4 X2	-0.037	0.031	0.040	0.039	0.059
X1 X5 X2	-0.073	0.184	0.093	0.073	0.070
X1 X6 X2	-0.014	0.143	0.021	0.034	0.017

X1 X7 X2	-0.036	0.052	0.034	0.019	0.009
X3 X4 X2	0.009	-0.002	-0.011	-0.025	0.088
X3 X5 X2	-0.046	0.127	0.105	0.029	0.097
X3 X6 X2	0.026	0.045	-0.061	-0.051	0.044
X3 X7 X2	-0.004	0.098	-0.061	-0.020	0.094
X4 X5 X2	-0.073	0.171	0.033	0.071	0.061
X4 X6 X2	-0.025	-0.020	0.013	0.015	0.036
X4 X7 X2	-0.047	-0.036	0.004	0.044	0.088
X5 X6 X2	-0.044	0.075	0.059	0.043	0.067
X5 X7 X2	-0.064	0.155	0.065	0.066	0.080
X6 X7 X2	-0.037	0.021	-0.036	0.005	0.034
X1 X3 X4 X2	-0.001	0.050	0.002	0.011	0.112
X1 X3 X5 X2	-0.056	0.196	0.107	0.055	0.090
X1 X3 X6 X2	0.032	0.159	-0.017	0.018	0.063
X1 X3 X7 X2	0.001	0.097	-0.020	-0.007	0.085
X1 X4 X5 X2	-0.090	0.224	0.033	0.074	0.074
X1 X4 X6 X2	-0.026	0.058	0.049	0.024	0.046
X1 X4 X7 X2	-0.035	-0.023	0.068	0.039	0.070
X1 X5 X6 X2	-0.046	0.265	0.079	0.053	0.054
X1 X5 X7 X2	-0.057	0.195	0.101	0.075	0.061
X1 X6 X7 X2	-0.017	0.080	0.025	0.011	0.005
X3 X4 X5 X2	-0.050	0.202	0.045	0.041	0.108
X3 X4 X6 X2	0.018	0.018	-0.009	-0.038	0.074
X3 X4 X7 X2	0.004	0.029	-0.049	-0.003	0.182
X3 X5 X6 X2	-0.028	0.147	0.089	0.013	0.090
X3 X5 X7 X2	-0.036	0.187	0.068	0.041	0.124
X3 X6 X7 X2	0.010	0.093	-0.080	-0.035	0.102
X4 X5 X6 X2	-0.062	0.175	0.029	0.061	0.052
X4 X5 X7 X2	-0.065	0.160	0.021	0.099	0.096
X4 X6 X7 X2	-0.030	-0.033	0.007	0.038	0.080
X5 X6 X7 X2	-0.051	0.166	0.038	0.049	0.071
X1 X3 X4 X5 X2	-0.063	0.232	0.034	0.053	0.122
X1 X3 X4 X6 X2	0.010	0.080	0.001	0.000	0.103
X1 X3 X4 X7 X2	0.007	0.013	0.005	0.004	0.170
X1 X3 X5 X6 X2	-0.026	0.274	0.078	0.040	0.078
X1 X3 X5 X7 X2	-0.034	0.209	0.095	0.054	0.100
X1 X3 X6 X7 X2	0.020	0.128	-0.029	-0.013	0.083
X1 X4 X5 X6 X2	-0.067	0.265	0.030	0.057	0.061
X1 X4 X5 X7 X2	-0.059	0.171	0.055	0.095	0.086
X1 X4 X6 X7 X2	-0.015	-0.002	0.073	0.027	0.053
X1 X5 X6 X7 X2	-0.027	0.244	0.082	0.055	0.044
X3 X4 X5 X6 X2	-0.039	0.210	0.041	0.031	0.099
X3 X4 X5 X7 X2	-0.035	0.184	0.011	0.071	0.162

X3 X4 X6 X7 X2	0.020	0.030	-0.046	-0.008	0.170
X3 X5 X6 X7 X2	-0.024	0.198	0.043	0.024	0.113
X4 X5 X6 X7 X2	-0.042	0.170	0.014	0.085	0.082
X1 X3 X4 X5 X6 X2	-0.045	0.272	0.019	0.042	0.103
X1 X3 X4 X5 X7 X2	-0.030	0.180	0.043	0.070	0.151
X1 X3 X4 X6 X7 X2	0.022	0.032	0.007	-0.003	0.152
X1 X3 X5 X6 X7 X2	-0.007	0.259	0.072	0.040	0.079
X1 X4 X5 X6 X7 X2	-0.029	0.209	0.050	0.075	0.066
X3 X4 X5 X6 X7 X2	-0.017	0.193	0.004	0.061	0.143
X1 X3 X4 X5 X6 X7 X2	-0.007	0.217	0.033	0.057	0.122
Avg. X2	-0.027	0.119	0.025	0.032	0.080

Model	PcAge5064	PcAge65plus	PCMrdHH90
X2	-0.039	-0.043	-0.004
X1 X2	0.078	-0.105	-0.022
X3 X2	-0.006	0.008	0.068
X4 X2	0.033	-0.091	-0.079
X5 X2	-0.054	-0.074	0.072
X6 X2	-0.023	-0.085	-0.015
X7 X2	0.016	-0.079	-0.024
X1 X3 X2	0.102	-0.036	0.061
X1 X4 X2	0.089	-0.112	-0.109
X1 X5 X2	0.052	-0.134	0.071
X1 X6 X2	0.100	-0.148	-0.043
X1 X7 X2	0.055	-0.109	-0.024
X3 X4 X2	0.085	-0.035	0.013
X3 X5 X2	0.004	-0.079	0.089
X3 X6 X2	0.015	-0.037	0.068
X3 X7 X2	0.065	0.006	0.109
X4 X5 X2	0.019	-0.126	0.126
X4 X6 X2	0.035	-0.121	-0.078
X4 X7 X2	0.064	-0.068	-0.138
X5 X6 X2	-0.043	-0.120	0.071
X5 X7 X2	0.009	-0.082	0.069
X6 X7 X2	0.017	-0.107	-0.056
X1 X3 X4 X2	0.138	-0.042	-0.007
X1 X3 X5 X2	0.071	-0.115	0.088
X1 X3 X6 X2	0.137	-0.081	0.061
X1 X3 X7 X2	0.103	-0.023	0.110
X1 X4 X5 X2	0.067	-0.158	0.094
X1 X4 X6 X2	0.091	-0.141	-0.120

X1 X4 X7 X2	0.084	-0.088	-0.142
X1 X5 X6 X2	0.083	-0.181	0.063
X1 X5 X7 X2	0.052	-0.114	0.072
X1 X6 X7 X2	0.067	-0.144	-0.055
X3 X4 X5 X2	0.066	-0.092	0.156
X3 X4 X6 X2	0.089	-0.068	0.022
X3 X4 X7 X2	0.133	0.042	0.003
X3 X5 X6 X2	0.013	-0.108	0.095
X3 X5 X7 X2	0.043	-0.034	0.119
X3 X6 X7 X2	0.076	-0.030	0.080
X4 X5 X6 X2	0.020	-0.147	0.127
X4 X5 X7 X2	0.059	-0.091	0.045
X4 X6 X7 X2	0.061	-0.078	-0.154
X5 X6 X7 X2	0.010	-0.115	0.059
X1 X3 X4 X5 X2	0.101	-0.109	0.137
X1 X3 X4 X6 X2	0.141	-0.072	-0.003
X1 X3 X4 X7 X2	0.148	0.019	-0.004
X1 X3 X5 X6 X2	0.103	-0.148	0.099
X1 X3 X5 X7 X2	0.077	-0.068	0.122
X1 X3 X6 X7 X2	0.124	-0.066	0.085
X1 X4 X5 X6 X2	0.078	-0.180	0.086
X1 X4 X5 X7 X2	0.071	-0.109	0.042
X1 X4 X6 X7 X2	0.079	-0.107	-0.157
X1 X5 X6 X7 X2	0.073	-0.153	0.060
X3 X4 X5 X6 X2	0.066	-0.108	0.161
X3 X4 X5 X7 X2	0.098	-0.023	0.104
X3 X4 X6 X7 X2	0.128	0.024	-0.014
X3 X5 X6 X7 X2	0.044	-0.068	0.109
X4 X5 X6 X7 X2	0.061	-0.107	0.037
X1 X3 X4 X5 X6 X2	0.106	-0.132	0.137
X1 X3 X4 X5 X7 X2	0.108	-0.042	0.102
X1 X3 X4 X6 X7 X2	0.142	-0.009	-0.016
X1 X3 X5 X6 X7 X2	0.099	-0.113	0.111
X1 X4 X5 X6 X7 X2	0.079	-0.133	0.037
X3 X4 X5 X6 X7 X2	0.096	-0.044	0.094
X1 X3 X4 X5 X6 X7 X2	0.110	-0.075	0.096
Avg. X2	0.067	-0.084	0.037

Model	PcBA90	PrcntHsch	LandGrantU
X3	0.154	-0.060	0.024

X1 X3	0.176	-0.166	0.018
X2 X3	0.215	-0.096	0.030
X4 X3	0.190	-0.054	0.008
X5 X3	0.039	0.142	0.015
X6 X3	0.184	-0.084	0.014
X7 X3	0.202	-0.173	0.020
X1 X2 X3	0.236	-0.197	0.018
X1 X4 X3	0.219	-0.141	-0.007
X1 X5 X3	0.051	0.003	0.023
X1 X6 X3	0.228	-0.232	0.008
X1 X7 X3	0.212	-0.237	0.018
X2 X4 X3	0.268	-0.081	0.014
X2 X5 X3	0.051	0.187	0.011
X2 X6 X3	0.247	-0.109	0.022
X2 X7 X3	0.359	-0.326	0.031
X4 X5 X3	0.075	0.073	0.009
X4 X6 X3	0.209	-0.071	-0.001
X4 X7 X3	0.236	-0.146	0.017
X5 X6 X3	0.057	0.129	0.006
X5 X7 X3	0.074	0.009	0.019
X6 X7 X3	0.228	-0.178	0.009
X1 X2 X4 X3	0.297	-0.168	-0.003
X1 X2 X5 X3	0.062	0.073	0.012
X1 X2 X6 X3	0.297	-0.259	0.007
X1 X2 X7 X3	0.369	-0.372	0.024
X1 X4 X5 X3	0.091	0.000	0.008
X1 X4 X6 X3	0.255	-0.203	-0.011
X1 X4 X7 X3	0.254	-0.211	0.007
X1 X5 X6 X3	0.087	-0.079	0.010
X1 X5 X7 X3	0.076	-0.059	0.023
X1 X6 X7 X3	0.249	-0.273	0.007
X2 X4 X5 X3	0.143	0.094	0.000
X2 X4 X6 X3	0.280	-0.089	0.006
X2 X4 X7 X3	0.422	-0.289	0.027
X2 X5 X6 X3	0.075	0.178	0.002
X2 X5 X7 X3	0.159	0.001	0.012
X2 X6 X7 X3	0.371	-0.316	0.021
X4 X5 X6 X3	0.078	0.079	0.001
X4 X5 X7 X3	0.082	0.023	0.022
X4 X6 X7 X3	0.255	-0.166	0.013
X5 X6 X7 X3	0.084	0.014	0.010
X1 X2 X4 X5 X3	0.156	0.022	-0.003
X1 X2 X4 X6 X3	0.323	-0.219	-0.007

X1 X2 X4 X7 X3	0.423	-0.328	0.016
X1 X2 X5 X6 X3	0.109	-0.021	-0.003
X1 X2 X5 X7 X3	0.150	-0.054	0.011
X1 X2 X6 X7 X3	0.383	-0.377	0.011
X1 X4 X5 X6 X3	0.102	-0.052	0.000
X1 X4 X5 X7 X3	0.095	-0.021	0.018
X1 X4 X6 X7 X3	0.282	-0.257	0.002
X1 X5 X6 X7 X3	0.091	-0.088	0.009
X2 X4 X5 X6 X3	0.148	0.094	-0.006
X2 X4 X5 X7 X3	0.209	-0.027	0.011
X2 X4 X6 X7 X3	0.412	-0.283	0.023
X2 X5 X6 X7 X3	0.157	0.006	0.005
X4 X5 X6 X7 X3	0.084	0.010	0.016
X1 X2 X4 X5 X6 X3	0.160	-0.040	-0.010
X1 X2 X4 X5 X7 X3	0.211	-0.057	0.005
X1 X2 X4 X6 X7 X3	0.417	-0.341	0.010
X1 X2 X5 X6 X7 X3	0.149	-0.081	-0.004
X1 X4 X5 X6 X7 X3	0.104	-0.062	0.009
X2 X4 X5 X6 X7 X3	0.193	-0.031	0.007
X1 X2 X4 X5 X6 X7 X3	0.193	-0.090	-0.004
Avg. X3	0.194	-0.096	0.010

Model	cty92property	cty92sales	cty92highway	cty92safety	cty92education
X4	-0.133	0.065	0.119	-0.075	0.033
X1 X4	-0.170	0.029	0.030	-0.032	0.069
X2 X4	-0.127	0.042	0.154	-0.088	0.037
X3 X4	-0.146	0.042	0.139	-0.077	0.062
X5 X4	0.021	-0.009	0.014	0.040	0.082
X6 X4	-0.137	0.059	0.104	-0.076	0.041
X7 X4	-0.126	0.066	0.129	-0.117	0.061
X1 X2 X4	-0.167	0.012	0.074	-0.063	0.063
X1 X3 X4	-0.172	0.011	0.041	-0.037	0.082
X1 X5 X4	-0.003	-0.019	-0.039	0.048	0.081
X1 X6 X4	-0.172	0.029	0.020	-0.039	0.080
X1 X7 X4	-0.138	0.053	0.052	-0.079	0.068
X2 X3 X4	-0.172	0.019	0.173	-0.062	0.086
X2 X5 X4	0.007	-0.011	0.031	0.053	0.067
X2 X6 X4	-0.125	0.038	0.132	-0.094	0.027
X2 X7 X4	-0.121	0.017	0.167	-0.136	0.081
X3 X5 X4	-0.001	-0.018	0.010	0.039	0.103
X3 X6 X4	-0.143	0.038	0.124	-0.081	0.073

X3 X7 X4	-0.118	0.053	0.152	-0.130	0.085
X5 X6 X4	0.016	-0.010	0.017	0.037	0.084
X5 X7 X4	0.021	-0.005	0.029	-0.006	0.113
X6 X7 X4	-0.133	0.060	0.131	-0.122	0.063
X1 X2 X3 X4	-0.206	-0.009	0.082	-0.034	0.112
X1 X2 X5 X4	-0.024	-0.023	-0.018	0.057	0.069
X1 X2 X6 X4	-0.157	0.016	0.060	-0.080	0.054
X1 X2 X7 X4	-0.136	0.017	0.102	-0.113	0.056
X1 X3 X5 X4	-0.014	-0.025	-0.040	0.044	0.096
X1 X3 X6 X4	-0.158	0.014	0.023	-0.051	0.087
X1 X3 X7 X4	-0.115	0.042	0.073	-0.097	0.075
X1 X5 X6 X4	-0.012	-0.017	-0.027	0.042	0.090
X1 X5 X7 X4	0.007	-0.005	-0.022	0.012	0.100
X1 X6 X7 X4	-0.143	0.051	0.055	-0.088	0.075
X2 X3 X5 X4	-0.031	-0.025	0.036	0.062	0.089
X2 X3 X6 X4	-0.167	0.016	0.150	-0.069	0.076
X2 X3 X7 X4	-0.142	-0.001	0.185	-0.114	0.151
X2 X5 X6 X4	0.004	-0.014	0.026	0.046	0.060
X2 X5 X7 X4	0.007	-0.022	0.048	0.003	0.109
X2 X6 X7 X4	-0.119	0.014	0.167	-0.151	0.069
X3 X5 X6 X4	-0.006	-0.018	0.015	0.036	0.107
X3 X5 X7 X4	0.009	-0.009	0.029	-0.010	0.130
X3 X6 X7 X4	-0.115	0.046	0.154	-0.138	0.087
X5 X6 X7 X4	0.014	-0.007	0.044	-0.016	0.112
X1 X2 X3 X5 X4	-0.053	-0.036	-0.017	0.068	0.090
X1 X2 X3 X6 X4	-0.186	-0.006	0.056	-0.051	0.098
X1 X2 X3 X7 X4	-0.148	-0.001	0.121	-0.093	0.123
X1 X2 X5 X6 X4	-0.029	-0.019	-0.013	0.039	0.067
X1 X2 X5 X7 X4	-0.012	-0.020	0.002	0.017	0.081
X1 X2 X6 X7 X4	-0.128	0.018	0.102	-0.132	0.044
X1 X3 X5 X6 X4	-0.015	-0.022	-0.028	0.034	0.101
X1 X3 X5 X7 X4	0.002	-0.007	-0.018	0.004	0.114
X1 X3 X6 X7 X4	-0.108	0.040	0.073	-0.110	0.078
X1 X5 X6 X7 X4	-0.001	-0.005	-0.010	0.000	0.101
X2 X3 X5 X6 X4	-0.033	-0.026	0.035	0.054	0.085
X2 X3 X5 X7 X4	-0.017	-0.032	0.053	0.015	0.138
X2 X3 X6 X7 X4	-0.135	-0.004	0.182	-0.128	0.135
X2 X5 X6 X7 X4	0.005	-0.024	0.058	-0.014	0.098
X3 X5 X6 X7 X4	0.006	-0.012	0.043	-0.020	0.127
X1 X2 X3 X5 X6 X4	-0.048	-0.030	-0.015	0.050	0.086
X1 X2 X3 X5 X7 X4	-0.031	-0.030	0.009	0.027	0.107
X1 X2 X3 X6 X7 X4	-0.136	-0.001	0.112	-0.108	0.102
X1 X2 X5 X6 X7 X4	-0.017	-0.019	0.007	-0.002	0.070

X1 X3 X5 X6 X7 X4	0.000	-0.008	-0.005	-0.009	0.112
X2 X3 X5 X6 X7 X4	-0.016	-0.032	0.064	-0.002	0.127
X1 X2 X3 X5 X6 X7 X4	-0.029	-0.027	0.012	0.008	0.091
Avg. X4	-0.076	0.005	0.059	-0.033	0.086

Model	stl92property	stl92sales	stl92inctax	stl92corptax	stl92hosp
X4	0.144	-0.012	0.096	-0.048	-0.054
X1 X4	-0.004	-0.067	0.038	-0.109	-0.091
X2 X4	0.115	0.001	0.100	-0.064	-0.062
X3 X4	0.109	-0.012	0.109	-0.049	-0.065
X5 X4	0.091	0.034	0.019	-0.022	-0.039
X6 X4	0.128	-0.035	0.089	-0.021	-0.036
X7 X4	0.097	-0.031	0.046	-0.014	0.018
X1 X2 X4	-0.019	-0.047	0.049	-0.118	-0.105
X1 X3 X4	-0.025	-0.057	0.066	-0.113	-0.114
X1 X5 X4	0.020	0.017	0.010	-0.050	-0.056
X1 X6 X4	-0.030	-0.089	0.015	-0.079	-0.064
X1 X7 X4	0.045	-0.060	-0.010	-0.048	-0.021
X2 X3 X4	0.119	0.021	0.114	-0.062	-0.062
X2 X5 X4	0.138	0.059	0.014	-0.006	-0.046
X2 X6 X4	0.103	-0.020	0.098	-0.024	-0.044
X2 X7 X4	0.043	-0.022	0.052	-0.028	0.006
X3 X5 X4	0.069	0.030	0.018	-0.023	-0.039
X3 X6 X4	0.082	-0.029	0.107	-0.012	-0.054
X3 X7 X4	0.034	-0.048	0.054	-0.028	0.008
X5 X6 X4	0.092	0.015	0.007	-0.011	-0.027
X5 X7 X4	0.081	0.025	0.027	0.005	0.055
X6 X7 X4	0.111	-0.060	0.031	0.035	0.059
X1 X2 X3 X4	-0.003	-0.020	0.073	-0.114	-0.114
X1 X2 X5 X4	0.074	0.052	0.004	-0.031	-0.069
X1 X2 X6 X4	-0.054	-0.068	0.025	-0.073	-0.080
X1 X2 X7 X4	-0.003	-0.056	0.003	-0.051	-0.027
X1 X3 X5 X4	0.013	0.018	0.017	-0.052	-0.063
X1 X3 X6 X4	-0.068	-0.071	0.051	-0.065	-0.090
X1 X3 X7 X4	-0.011	-0.077	0.000	-0.060	-0.042
X1 X5 X6 X4	-0.003	-0.017	-0.030	-0.036	-0.034
X1 X5 X7 X4	0.058	0.017	0.008	-0.027	0.022
X1 X6 X7 X4	0.048	-0.084	-0.027	-0.001	0.013
X2 X3 X5 X4	0.132	0.068	0.023	-0.003	-0.044
X2 X3 X6 X4	0.101	0.006	0.118	-0.017	-0.048
X2 X3 X7 X4	0.002	-0.023	0.055	-0.046	0.006

X2 X5 X6 X4	0.131	0.044	0.007	0.018	-0.030
X2 X5 X7 X4	0.106	0.045	0.014	0.020	0.031
X2 X6 X7 X4	0.057	-0.053	0.034	0.029	0.043
X3 X5 X6 X4	0.066	0.011	0.006	-0.012	-0.031
X3 X5 X7 X4	0.065	0.021	0.025	-0.002	0.052
X3 X6 X7 X4	0.034	-0.076	0.038	0.032	0.046
X5 X6 X7 X4	0.094	-0.005	0.008	0.050	0.094
X1 X2 X3 X5 X4	0.073	0.061	0.019	-0.036	-0.075
X1 X2 X3 X6 X4	-0.042	-0.030	0.059	-0.061	-0.089
X1 X2 X3 X7 X4	-0.033	-0.057	0.006	-0.064	-0.028
X1 X2 X5 X6 X4	0.039	0.022	-0.037	0.003	-0.045
X1 X2 X5 X7 X4	0.077	0.033	-0.003	-0.006	0.000
X1 X2 X6 X7 X4	-0.008	-0.085	-0.022	0.008	-0.003
X1 X3 X5 X6 X4	-0.014	-0.011	-0.018	-0.032	-0.045
X1 X3 X5 X7 X4	0.045	0.011	0.007	-0.032	0.019
X1 X3 X6 X7 X4	-0.031	-0.099	-0.016	0.000	-0.013
X1 X5 X6 X7 X4	0.055	-0.013	-0.019	0.016	0.051
X2 X3 X5 X6 X4	0.124	0.053	0.017	0.018	-0.033
X2 X3 X5 X7 X4	0.088	0.049	0.020	0.006	0.030
X2 X3 X6 X7 X4	0.010	-0.048	0.040	0.010	0.040
X2 X5 X6 X7 X4	0.119	0.018	-0.003	0.072	0.066
X3 X5 X6 X7 X4	0.074	-0.007	0.009	0.044	0.089
X1 X2 X3 X5 X6 X4	0.041	0.036	-0.018	-0.001	-0.055
X1 X2 X3 X5 X7 X4	0.066	0.034	0.003	-0.020	-0.006
X1 X2 X3 X6 X7 X4	-0.048	-0.078	-0.012	-0.006	-0.008
X1 X2 X5 X6 X7 X4	0.068	0.003	-0.035	0.048	0.021
X1 X3 X5 X6 X7 X4	0.033	-0.019	-0.017	0.015	0.043
X2 X3 X5 X6 X7 X4	0.101	0.023	0.003	0.055	0.060
X1 X2 X3 X5 X6 X7 X4	0.056	0.006	-0.028	0.033	0.010
Avg. X4	0.051	-0.012	0.024	-0.020	-0.018

Model	stl92highway	stl92pblsfty	RTW
X4	-0.047	0.005	0.148
X1 X4	-0.141	0.183	0.243
X2 X4	-0.069	0.004	0.174
X3 X4	-0.091	0.008	0.159
X5 X4	-0.005	0.024	-0.062
X6 X4	0.012	0.012	0.191
X7 X4	-0.177	-0.018	0.141
X1 X2 X4	-0.172	0.178	0.252
X1 X3 X4	-0.183	0.202	0.245

X1 X5 X4	-0.065	0.091	0.013
X1 X6 X4	-0.080	0.169	0.294
X1 X7 X4	-0.271	0.060	0.208
X2 X3 X4	-0.108	-0.013	0.170
X2 X5 X4	-0.007	0.001	-0.091
X2 X6 X4	0.001	0.010	0.209
X2 X7 X4	-0.229	0.000	0.185
X3 X5 X4	-0.034	0.030	-0.032
X3 X6 X4	-0.018	0.025	0.211
X3 X7 X4	-0.202	-0.012	0.177
X5 X6 X4	0.036	0.022	-0.044
X5 X7 X4	-0.110	-0.069	-0.002
X6 X7 X4	-0.130	-0.068	0.190
X1 X2 X3 X4	-0.208	0.173	0.245
X1 X2 X5 X4	-0.083	0.069	-0.024
X1 X2 X6 X4	-0.095	0.171	0.304
X1 X2 X7 X4	-0.315	0.064	0.246
X1 X3 X5 X4	-0.081	0.104	0.022
X1 X3 X6 X4	-0.102	0.202	0.312
X1 X3 X7 X4	-0.291	0.070	0.238
X1 X5 X6 X4	-0.011	0.081	0.066
X1 X5 X7 X4	-0.167	-0.023	0.055
X1 X6 X7 X4	-0.212	0.019	0.263
X2 X3 X5 X4	-0.049	-0.008	-0.060
X2 X3 X6 X4	-0.035	-0.001	0.210
X2 X3 X7 X4	-0.252	-0.009	0.231
X2 X5 X6 X4	0.045	0.002	-0.066
X2 X5 X7 X4	-0.123	-0.074	-0.027
X2 X6 X7 X4	-0.174	-0.047	0.221
X3 X5 X6 X4	0.007	0.033	-0.008
X3 X5 X7 X4	-0.127	-0.058	0.012
X3 X6 X7 X4	-0.140	-0.054	0.238
X5 X6 X7 X4	-0.065	-0.117	0.047
X1 X2 X3 X5 X4	-0.113	0.081	-0.002
X1 X2 X3 X6 X4	-0.127	0.173	0.302
X1 X2 X3 X7 X4	-0.331	0.044	0.286
X1 X2 X5 X6 X4	-0.012	0.065	0.033
X1 X2 X5 X7 X4	-0.178	-0.025	0.033
X1 X2 X6 X7 X4	-0.240	0.038	0.290
X1 X3 X5 X6 X4	-0.021	0.101	0.076
X1 X3 X5 X7 X4	-0.178	-0.019	0.065
X1 X3 X6 X7 X4	-0.213	0.042	0.312
X1 X5 X6 X7 X4	-0.110	-0.054	0.121

X2 X3 X5 X6 X4	0.004	0.000	-0.033
X2 X3 X5 X7 X4	-0.146	-0.068	0.007
X2 X3 X6 X7 X4	-0.193	-0.050	0.265
X2 X5 X6 X7 X4	-0.068	-0.114	0.013
X3 X5 X6 X7 X4	-0.079	-0.102	0.062
X1 X2 X3 X5 X6 X4	-0.039	0.081	0.049
X1 X2 X3 X5 X7 X4	-0.203	-0.022	0.065
X1 X2 X3 X6 X7 X4	-0.253	0.028	0.333
X1 X2 X5 X6 X7 X4	-0.108	-0.035	0.087
X1 X3 X5 X6 X7 X4	-0.117	-0.042	0.136
X2 X3 X5 X6 X7 X4	-0.092	-0.105	0.041
X1 X2 X3 X5 X6 X7 X4	-0.128	-0.028	0.115
Avg. X4	-0.117	0.022	0.128

Model	PcFarmJobs90	PcAgServJobs90	PcMinJobs90	PcConstJobs90	PcMfgJobs90
X5	0.052	-0.094	-0.100	0.148	0.160
X1 X5	0.032	-0.083	-0.082	0.188	0.261
X2 X5	0.049	-0.126	-0.146	0.136	0.114
X3 X5	0.075	-0.084	-0.064	0.166	0.238
X4 X5	0.050	-0.128	-0.081	0.179	0.234
X6 X5	0.036	-0.091	-0.089	0.150	0.167
X7 X5	0.044	-0.089	-0.091	0.176	0.218
X1 X2 X5	0.049	-0.112	-0.121	0.165	0.185
X1 X3 X5	0.044	-0.087	-0.076	0.183	0.268
X1 X4 X5	0.044	-0.123	-0.075	0.181	0.263
X1 X6 X5	0.020	-0.070	-0.051	0.187	0.231
X1 X7 X5	0.035	-0.079	-0.068	0.178	0.259
X2 X3 X5	0.092	-0.128	-0.106	0.142	0.194
X2 X4 X5	0.046	-0.143	-0.113	0.156	0.156
X2 X6 X5	0.024	-0.123	-0.133	0.134	0.100
X2 X7 X5	0.054	-0.114	-0.121	0.163	0.150
X3 X4 X5	0.073	-0.133	-0.062	0.173	0.257
X3 X6 X5	0.066	-0.080	-0.052	0.160	0.230
X3 X7 X5	0.062	-0.091	-0.081	0.172	0.233
X4 X6 X5	0.048	-0.115	-0.068	0.174	0.223
X4 X7 X5	0.020	-0.113	-0.095	0.178	0.216
X6 X7 X5	0.030	-0.080	-0.084	0.169	0.215
X1 X2 X3 X5	0.077	-0.116	-0.099	0.157	0.218
X1 X2 X4 X5	0.044	-0.126	-0.104	0.161	0.182
X1 X2 X6 X5	0.031	-0.091	-0.074	0.166	0.139
X1 X2 X7 X5	0.049	-0.112	-0.098	0.167	0.189

X1 X3 X4 X5	0.060	-0.132	-0.064	0.170	0.267
X1 X3 X6 X5	0.022	-0.077	-0.050	0.177	0.221
X1 X3 X7 X5	0.045	-0.088	-0.065	0.174	0.256
X1 X4 X6 X5	0.044	-0.106	-0.050	0.174	0.235
X1 X4 X7 X5	0.024	-0.104	-0.062	0.172	0.235
X1 X6 X7 X5	0.016	-0.059	-0.042	0.168	0.244
X2 X3 X4 X5	0.091	-0.153	-0.074	0.139	0.205
X2 X3 X6 X5	0.078	-0.121	-0.088	0.133	0.176
X2 X3 X7 X5	0.090	-0.120	-0.092	0.146	0.187
X2 X4 X6 X5	0.034	-0.129	-0.100	0.152	0.146
X2 X4 X7 X5	0.038	-0.121	-0.106	0.170	0.166
X2 X6 X7 X5	0.029	-0.099	-0.111	0.157	0.138
X3 X4 X6 X5	0.074	-0.119	-0.047	0.168	0.248
X3 X4 X7 X5	0.038	-0.118	-0.083	0.170	0.226
X3 X6 X7 X5	0.050	-0.081	-0.070	0.164	0.233
X4 X6 X7 X5	0.017	-0.093	-0.078	0.172	0.205
X1 X2 X3 X4 X5	0.078	-0.136	-0.069	0.137	0.211
X1 X2 X3 X6 X5	0.049	-0.096	-0.057	0.149	0.157
X1 X2 X3 X7 X5	0.072	-0.121	-0.077	0.150	0.206
X1 X2 X4 X6 X5	0.035	-0.101	-0.069	0.155	0.150
X1 X2 X4 X7 X5	0.040	-0.116	-0.079	0.167	0.182
X1 X2 X6 X7 X5	0.021	-0.086	-0.063	0.160	0.159
X1 X3 X4 X6 X5	0.051	-0.116	-0.044	0.161	0.230
X1 X3 X4 X7 X5	0.041	-0.114	-0.054	0.165	0.237
X1 X3 X6 X7 X5	0.021	-0.068	-0.040	0.165	0.236
X1 X4 X6 X7 X5	0.023	-0.082	-0.037	0.163	0.218
X2 X3 X4 X6 X5	0.086	-0.136	-0.059	0.133	0.198
X2 X3 X4 X7 X5	0.078	-0.130	-0.070	0.145	0.196
X2 X3 X6 X7 X5	0.068	-0.104	-0.080	0.140	0.176
X2 X4 X6 X7 X5	0.026	-0.101	-0.087	0.166	0.150
X3 X4 X6 X7 X5	0.033	-0.098	-0.067	0.164	0.213
X1 X2 X3 X4 X6 X5	0.058	-0.110	-0.044	0.130	0.168
X1 X2 X3 X4 X7 X5	0.074	-0.128	-0.043	0.144	0.205
X1 X2 X3 X6 X7 X5	0.038	-0.093	-0.045	0.144	0.170
X1 X2 X4 X6 X7 X5	0.029	-0.092	-0.047	0.158	0.155
X1 X3 X4 X6 X7 X5	0.033	-0.093	-0.031	0.156	0.213
X2 X3 X4 X6 X7 X5	0.065	-0.110	-0.055	0.143	0.179
X1 X2 X3 X4 X6 X7 X5	0.055	-0.104	-0.021	0.137	0.169
Avg. X5	0.048	-0.106	-0.074	0.160	0.201

Model	PcServsJobs90	PcGovJobs90	PcUnempl90	AvgWage90
X5	0.071	0.009	-0.185	-0.485
X1 X5	0.046	0.014	-0.124	-0.551
X2 X5	0.063	-0.116	-0.152	-0.523
X3 X5	0.032	-0.032	-0.094	-0.545
X4 X5	0.053	0.018	-0.192	-0.549
X6 X5	0.069	0.015	-0.185	-0.496
X7 X5	0.068	0.014	-0.187	-0.551
X1 X2 X5	0.049	-0.101	-0.123	-0.567
X1 X3 X5	0.034	-0.013	-0.104	-0.551
X1 X4 X5	0.055	0.009	-0.147	-0.562
X1 X6 X5	0.030	0.014	-0.129	-0.592
X1 X7 X5	0.066	0.008	-0.154	-0.581
X2 X3 X5	0.034	-0.134	-0.066	-0.581
X2 X4 X5	0.055	-0.102	-0.175	-0.592
X2 X6 X5	0.066	-0.125	-0.167	-0.532
X2 X7 X5	0.058	-0.094	-0.174	-0.571
X3 X4 X5	0.030	-0.032	-0.140	-0.562
X3 X6 X5	0.028	-0.031	-0.097	-0.551
X3 X7 X5	0.049	-0.021	-0.149	-0.553
X4 X6 X5	0.050	0.021	-0.193	-0.554
X4 X7 X5	0.077	0.006	-0.236	-0.560
X6 X7 X5	0.072	0.020	-0.191	-0.554
X1 X2 X3 X5	0.032	-0.114	-0.074	-0.587
X1 X2 X4 X5	0.054	-0.110	-0.142	-0.600
X1 X2 X6 X5	0.036	-0.103	-0.155	-0.610
X1 X2 X7 X5	0.059	-0.097	-0.158	-0.597
X1 X3 X4 X5	0.036	-0.032	-0.120	-0.558
X1 X3 X6 X5	0.019	-0.007	-0.129	-0.576
X1 X3 X7 X5	0.053	-0.018	-0.147	-0.568
X1 X4 X6 X5	0.042	0.013	-0.150	-0.588
X1 X4 X7 X5	0.081	0.001	-0.202	-0.573
X1 X6 X7 X5	0.061	0.017	-0.153	-0.604
X2 X3 X4 X5	0.028	-0.124	-0.097	-0.618
X2 X3 X6 X5	0.033	-0.139	-0.076	-0.591
X2 X3 X7 X5	0.034	-0.105	-0.104	-0.587
X2 X4 X6 X5	0.056	-0.104	-0.178	-0.596
X2 X4 X7 X5	0.064	-0.093	-0.213	-0.588
X2 X6 X7 X5	0.063	-0.099	-0.189	-0.575
X3 X4 X6 X5	0.025	-0.028	-0.137	-0.569

X3 X4 X7 X5	0.057	-0.040	-0.196	-0.560
X3 X6 X7 X5	0.051	-0.019	-0.148	-0.558
X4 X6 X7 X5	0.078	0.016	-0.237	-0.570
X1 X2 X3 X4 X5	0.032	-0.123	-0.077	-0.615
X1 X2 X3 X6 X5	0.022	-0.104	-0.121	-0.616
X1 X2 X3 X7 X5	0.041	-0.100	-0.113	-0.601
X1 X2 X4 X6 X5	0.044	-0.107	-0.160	-0.623
X1 X2 X4 X7 X5	0.069	-0.100	-0.180	-0.597
X1 X2 X6 X7 X5	0.055	-0.091	-0.184	-0.621
X1 X3 X4 X6 X5	0.027	-0.020	-0.138	-0.574
X1 X3 X4 X7 X5	0.063	-0.040	-0.177	-0.564
X1 X3 X6 X7 X5	0.048	-0.005	-0.154	-0.587
X1 X4 X6 X7 X5	0.077	0.011	-0.197	-0.594
X2 X3 X4 X6 X5	0.029	-0.121	-0.098	-0.624
X2 X3 X4 X7 X5	0.038	-0.107	-0.139	-0.597
X2 X3 X6 X7 X5	0.038	-0.109	-0.119	-0.592
X2 X4 X6 X7 X5	0.066	-0.088	-0.225	-0.597
X3 X4 X6 X7 X5	0.059	-0.027	-0.202	-0.568
X1 X2 X3 X4 X6 X5	0.029	-0.111	-0.115	-0.628
X1 X2 X3 X4 X7 X5	0.045	-0.107	-0.114	-0.603
X1 X2 X3 X6 X7 X5	0.039	-0.090	-0.151	-0.621
X1 X2 X4 X6 X7 X5	0.065	-0.094	-0.197	-0.618
X1 X3 X4 X6 X7 X5	0.061	-0.023	-0.184	-0.578
X2 X3 X4 X6 X7 X5	0.042	-0.098	-0.159	-0.604
X1 X2 X3 X4 X6 X7 X5	0.046	-0.094	-0.148	-0.617
Avg. X5	0.049	-0.056	-0.152	-0.579

Model	PopDens90	CDist	incmetgt250k	incmetgt500k	incmetgt1500k
X6	-0.050	-0.018	-0.049	-0.067	-0.050
X1 X6	-0.061	-0.061	-0.058	-0.051	-0.026
X2 X6	-0.083	-0.021	-0.062	-0.081	-0.081
X3 X6	-0.055	-0.039	-0.069	-0.069	-0.076
X4 X6	-0.019	-0.013	-0.062	-0.091	-0.090
X5 X6	-0.042	-0.015	-0.053	-0.052	-0.065
X7 X6	-0.050	-0.058	-0.074	-0.086	-0.069
X1 X2 X6	-0.085	-0.077	-0.093	-0.069	-0.082
X1 X3 X6	-0.064	-0.090	-0.106	-0.049	-0.067
X1 X4 X6	-0.012	-0.047	-0.100	-0.053	-0.080
X1 X5 X6	0.020	-0.073	-0.108	-0.040	-0.039
X1 X7 X6	-0.031	-0.071	-0.096	-0.090	-0.088
X2 X3 X6	-0.090	-0.024	-0.082	-0.080	-0.107

X2 X4 X6	-0.050	-0.025	-0.074	-0.098	-0.112
X2 X5 X6	-0.070	-0.022	-0.075	-0.054	-0.094
X2 X7 X6	-0.077	-0.072	-0.093	-0.101	-0.098
X3 X4 X6	-0.018	-0.028	-0.067	-0.087	-0.121
X3 X5 X6	-0.021	-0.021	-0.054	-0.055	-0.052
X3 X7 X6	-0.061	-0.083	-0.090	-0.081	-0.084
X4 X5 X6	0.007	-0.029	-0.053	-0.045	-0.033
X4 X7 X6	-0.005	-0.037	-0.069	-0.125	-0.090
X5 X7 X6	-0.013	-0.029	-0.060	-0.069	-0.066
X1 X2 X3 X6	-0.098	-0.083	-0.138	-0.064	-0.114
X1 X2 X4 X6	-0.037	-0.072	-0.123	-0.061	-0.116
X1 X2 X5 X6	-0.001	-0.084	-0.156	-0.054	-0.105
X1 X2 X7 X6	-0.045	-0.093	-0.127	-0.099	-0.124
X1 X3 X4 X6	-0.019	-0.070	-0.128	-0.046	-0.130
X1 X3 X5 X6	0.016	-0.081	-0.121	-0.038	-0.053
X1 X3 X7 X6	-0.038	-0.098	-0.122	-0.081	-0.109
X1 X4 X5 X6	0.057	-0.075	-0.113	-0.031	-0.042
X1 X4 X7 X6	0.012	-0.044	-0.085	-0.107	-0.106
X1 X5 X7 X6	0.027	-0.061	-0.110	-0.071	-0.086
X2 X3 X4 X6	-0.050	-0.017	-0.077	-0.091	-0.133
X2 X3 X5 X6	-0.034	-0.017	-0.076	-0.062	-0.090
X2 X3 X7 X6	-0.097	-0.073	-0.107	-0.088	-0.103
X2 X4 X5 X6	-0.027	-0.025	-0.071	-0.055	-0.073
X2 X4 X7 X6	-0.027	-0.064	-0.071	-0.129	-0.093
X2 X5 X7 X6	-0.034	-0.032	-0.079	-0.073	-0.102
X3 X4 X5 X6	0.021	-0.026	-0.050	-0.044	-0.038
X3 X4 X7 X6	-0.010	-0.059	-0.082	-0.118	-0.120
X3 X5 X7 X6	-0.014	-0.032	-0.064	-0.069	-0.072
X4 X5 X7 X6	0.023	-0.046	-0.078	-0.102	-0.079
X1 X2 X3 X4 X6	-0.053	-0.063	-0.142	-0.049	-0.145
X1 X2 X3 X5 X6	0.002	-0.082	-0.161	-0.055	-0.110
X1 X2 X3 X7 X6	-0.069	-0.088	-0.145	-0.083	-0.132
X1 X2 X4 X5 X6	0.027	-0.080	-0.149	-0.043	-0.100
X1 X2 X4 X7 X6	-0.007	-0.077	-0.101	-0.110	-0.121
X1 X2 X5 X7 X6	0.013	-0.072	-0.146	-0.072	-0.129
X1 X3 X4 X5 X6	0.054	-0.079	-0.116	-0.027	-0.059
X1 X3 X4 X7 X6	0.007	-0.068	-0.107	-0.098	-0.145
X1 X3 X5 X7 X6	0.021	-0.067	-0.115	-0.066	-0.092
X1 X4 X5 X7 X6	0.056	-0.064	-0.107	-0.088	-0.096
X2 X3 X4 X5 X6	0.001	-0.013	-0.066	-0.054	-0.075
X2 X3 X4 X7 X6	-0.037	-0.060	-0.077	-0.110	-0.101
X2 X3 X5 X7 X6	-0.028	-0.030	-0.082	-0.072	-0.100
X2 X4 X5 X7 X6	0.005	-0.051	-0.088	-0.103	-0.100

X3 X4 X5 X7 X6	0.023	-0.045	-0.076	-0.097	-0.085
X1 X2 X3 X4 X5 X6	0.031	-0.072	-0.148	-0.038	-0.105
X1 X2 X3 X4 X7 X6	-0.024	-0.067	-0.110	-0.090	-0.132
X1 X2 X3 X5 X7 X6	0.011	-0.070	-0.148	-0.069	-0.130
X1 X2 X4 X5 X7 X6	0.036	-0.077	-0.134	-0.086	-0.125
X1 X3 X4 X5 X7 X6	0.054	-0.067	-0.106	-0.083	-0.107
X2 X3 X4 X5 X7 X6	0.014	-0.043	-0.083	-0.093	-0.094
X1 X2 X3 X4 X5 X7 X6	0.038	-0.070	-0.130	-0.078	-0.123
Avg. X6	-0.018	-0.055	-0.096	-0.074	-0.093

Model	D2	D3	D4	D5	D6
X7	-0.077	0.005	0.070	0.043	-0.040
X1 X7	-0.045	0.039	0.046	0.145	0.052
X2 X7	-0.060	0.031	0.112	0.054	-0.030
X3 X7	-0.014	0.127	0.145	0.075	-0.034
X4 X7	-0.197	-0.058	0.024	-0.057	-0.065
X5 X7	-0.093	0.027	-0.099	-0.128	-0.113
X6 X7	-0.081	-0.007	0.086	0.053	-0.021
X1 X2 X7	-0.032	0.058	0.079	0.144	0.051
X1 X3 X7	0.015	0.153	0.115	0.153	0.030
X1 X4 X7	-0.136	-0.004	0.039	0.029	0.051
X1 X5 X7	-0.083	0.007	-0.150	-0.056	-0.057
X1 X6 X7	-0.043	0.026	0.083	0.197	0.115
X2 X3 X7	0.040	0.225	0.249	0.063	-0.052
X2 X4 X7	-0.180	-0.015	0.085	-0.051	-0.049
X2 X5 X7	-0.067	0.044	-0.064	-0.145	-0.129
X2 X6 X7	-0.051	0.031	0.148	0.075	0.004
X3 X4 X7	-0.135	0.066	0.083	-0.036	-0.065
X3 X5 X7	-0.069	0.056	-0.077	-0.091	-0.096
X3 X6 X7	-0.002	0.134	0.185	0.103	0.007
X4 X5 X7	-0.120	0.088	0.000	-0.044	0.056
X4 X6 X7	-0.205	-0.048	0.032	-0.034	-0.030
X5 X6 X7	-0.093	0.024	-0.077	-0.113	-0.083
X1 X2 X3 X7	0.067	0.234	0.203	0.129	0.008
X1 X2 X4 X7	-0.131	0.016	0.071	0.022	0.047
X1 X2 X5 X7	-0.057	0.036	-0.110	-0.064	-0.062
X1 X2 X6 X7	-0.021	0.057	0.142	0.212	0.133
X1 X3 X4 X7	-0.060	0.136	0.117	0.043	0.039
X1 X3 X5 X7	-0.063	0.038	-0.125	-0.053	-0.066
X1 X3 X6 X7	0.033	0.159	0.177	0.223	0.111
X1 X4 X5 X7	-0.091	0.084	-0.033	-0.017	0.092

X1 X4 X6 X7	-0.143	-0.009	0.039	0.048	0.080
X1 X5 X6 X7	-0.083	-0.004	-0.103	0.003	0.021
X2 X3 X4 X7	-0.069	0.209	0.219	-0.037	-0.052
X2 X3 X5 X7	-0.024	0.108	-0.016	-0.096	-0.108
X2 X3 X6 X7	0.060	0.236	0.292	0.098	-0.006
X2 X4 X5 X7	-0.085	0.109	0.058	-0.039	0.047
X2 X4 X6 X7	-0.182	0.003	0.104	-0.019	-0.010
X2 X5 X6 X7	-0.055	0.048	-0.028	-0.127	-0.087
X3 X4 X5 X7	-0.105	0.107	0.014	-0.023	0.065
X3 X4 X6 X7	-0.134	0.085	0.099	-0.013	-0.030
X3 X5 X6 X7	-0.064	0.058	-0.049	-0.068	-0.058
X4 X5 X6 X7	-0.127	0.103	0.016	-0.022	0.090
X1 X2 X3 X4 X7	-0.015	0.231	0.200	0.019	0.027
X1 X2 X3 X5 X7	-0.017	0.096	-0.062	-0.043	-0.060
X1 X2 X3 X6 X7	0.090	0.241	0.267	0.209	0.097
X1 X2 X4 X5 X7	-0.063	0.097	0.013	-0.009	0.077
X1 X2 X4 X6 X7	-0.126	0.025	0.093	0.063	0.088
X1 X2 X5 X6 X7	-0.044	0.041	-0.043	0.002	0.036
X1 X3 X4 X5 X7	-0.069	0.120	-0.004	-0.005	0.092
X1 X3 X4 X6 X7	-0.058	0.132	0.113	0.054	0.058
X1 X3 X5 X6 X7	-0.056	0.038	-0.070	0.008	0.014
X1 X4 X5 X6 X7	-0.099	0.079	-0.028	0.008	0.125
X2 X3 X4 X5 X7	-0.045	0.173	0.095	-0.021	0.041
X2 X3 X4 X6 X7	-0.069	0.216	0.227	-0.011	-0.020
X2 X3 X5 X6 X7	-0.013	0.111	0.019	-0.076	-0.064
X2 X4 X5 X6 X7	-0.086	0.126	0.079	-0.016	0.085
X3 X4 X5 X6 X7	-0.111	0.122	0.029	-0.006	0.095
X1 X2 X3 X4 X5 X7	-0.013	0.173	0.066	0.008	0.077
X1 X2 X3 X4 X6 X7	-0.010	0.221	0.200	0.046	0.051
X1 X2 X3 X5 X6 X7	-0.005	0.102	0.003	0.017	0.033
X1 X2 X4 X5 X6 X7	-0.060	0.101	0.034	0.028	0.124
X1 X3 X4 X5 X6 X7	-0.073	0.119	0.001	0.010	0.116
X2 X3 X4 X5 X6 X7	-0.048	0.185	0.113	-0.002	0.076
X1 X2 X3 X4 X5 X6 X7	-0.013	0.171	0.080	0.033	0.111
Avg. X7	-0.063	0.090	0.057	0.014	0.016

Model	D7	D8	D9
X7	-0.047	0.044	-0.072
X1 X7	0.086	0.187	0.162
X2 X7	-0.007	0.068	-0.054
X3 X7	-0.018	0.088	-0.014

X4 X7	-0.118	0.092	-0.092
X5 X7	-0.077	0.056	-0.034
X6 X7	-0.038	0.089	-0.076
X1 X2 X7	0.097	0.178	0.173
X1 X3 X7	0.098	0.238	0.235
X1 X4 X7	0.046	0.299	0.200
X1 X5 X7	-0.019	0.107	0.092
X1 X6 X7	0.153	0.257	0.167
X2 X3 X7	0.034	0.159	0.053
X2 X4 X7	-0.055	0.146	-0.099
X2 X5 X7	-0.079	0.048	-0.024
X2 X6 X7	0.025	0.134	-0.052
X3 X4 X7	-0.100	0.133	-0.040
X3 X5 X7	-0.056	0.069	-0.022
X3 X6 X7	0.013	0.152	-0.012
X4 X5 X7	0.034	0.166	0.009
X4 X6 X7	-0.070	0.171	-0.047
X5 X6 X7	-0.055	0.101	-0.030
X1 X2 X3 X7	0.122	0.290	0.302
X1 X2 X4 X7	0.079	0.329	0.205
X1 X2 X5 X7	-0.006	0.092	0.115
X1 X2 X6 X7	0.188	0.254	0.168
X1 X3 X4 X7	0.078	0.374	0.289
X1 X3 X5 X7	-0.015	0.127	0.113
X1 X3 X6 X7	0.186	0.330	0.251
X1 X4 X5 X7	0.083	0.267	0.184
X1 X4 X6 X7	0.085	0.363	0.231
X1 X5 X6 X7	0.061	0.184	0.117
X2 X3 X4 X7	-0.016	0.231	-0.001
X2 X3 X5 X7	-0.055	0.064	0.000
X2 X3 X6 X7	0.076	0.223	0.053
X2 X4 X5 X7	0.073	0.192	0.012
X2 X4 X6 X7	0.000	0.230	-0.048
X2 X5 X6 X7	-0.040	0.110	-0.012
X3 X4 X5 X7	0.038	0.171	0.008
X3 X4 X6 X7	-0.045	0.223	0.010
X3 X5 X6 X7	-0.028	0.118	-0.017
X4 X5 X6 X7	0.079	0.244	0.056
X1 X2 X3 X4 X7	0.107	0.442	0.330
X1 X2 X3 X5 X7	0.011	0.130	0.158
X1 X2 X3 X6 X7	0.220	0.362	0.298
X1 X2 X4 X5 X7	0.114	0.268	0.185
X1 X2 X4 X6 X7	0.142	0.394	0.239

X1 X2 X5 X6 X7	0.101	0.177	0.141
X1 X3 X4 X5 X7	0.090	0.293	0.204
X1 X3 X4 X6 X7	0.112	0.441	0.323
X1 X3 X5 X6 X7	0.070	0.211	0.146
X1 X4 X5 X6 X7	0.124	0.329	0.223
X2 X3 X4 X5 X7	0.063	0.199	0.022
X2 X3 X4 X6 X7	0.031	0.302	0.039
X2 X3 X5 X6 X7	-0.016	0.126	0.012
X2 X4 X5 X6 X7	0.126	0.273	0.065
X3 X4 X5 X6 X7	0.080	0.247	0.055
X1 X2 X3 X4 X5 X7	0.123	0.313	0.231
X1 X2 X3 X4 X6 X7	0.151	0.484	0.349
X1 X2 X3 X5 X6 X7	0.115	0.213	0.185
X1 X2 X4 X5 X6 X7	0.179	0.324	0.223
X1 X3 X4 X5 X6 X7	0.129	0.357	0.249
X2 X3 X4 X5 X6 X7	0.115	0.276	0.074
X1 X2 X3 X4 X5 X6 X7	0.181	0.361	0.267
Avg. X7	0.049	0.218	0.101

VITA

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Candidate for the Degree of

Doctor of Philosophy/Economics

Thesis: US MICROPOLITAN AREA ECONOMIES IN THE 1990'S

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Title of Study: US MICROPOLITAN AREA ECONOMIES IN THE 1990'S

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Major Field: Urban and Regional Economics

Scope and Method of the Study: This paper uses a hedonic growth model developed by Glaeser and Tobio (2008) and general dominance analysis to examine the forces contributing to the growth of micropolitan areas during the 1990's. The paper also analyses unexplained outliers of micropolitan growth. Micropolitan areas have been described by the US Census Bureau as emerging metropolitan areas and are therefore important for growth of regions.

Findings and Conclusions: The results show that micropolitan growth benefitted from relatively attractive amenities compare to the rest of the nation during the 1990's. Micropolitan areas characterized by stability (high percentage of marriage households), high concentration of people in the "50-64" year old age group, high relative concentration of people with higher education degrees, mild January temperatures and access to water and highways were preferred.

However, local housing markets and the state of the local regulatory environment were also very important determinants of migration and economic growth. Relatively inflexible local housing markets and difficult local regulatory environment significantly retarded overall migration and economic growth, even in micropolitan areas with relatively high level of natural amenities. Most of the outliers' performance could be explained by the state of the local regulatory environment.

ADVISER'S APPROVAL: Dr. Dan Rickman