The fine-scale associations between socioeconomic status, density, functionality, and spread of COVID-19 within a high-density city

Supplementary Information

Table S1. The average values of the median income, higher-education rate, and population density of the TPUs with different rates of the cases in the Dancing/Singing Cluster. The income and higher-education rate generally increased with the rate of the cases in the Dancing/Singing Cluster. The groups of TPUs with the highest and lowest rates of cases did not follow this pattern, since these two groups contained over 20 TPUs with fewer than 3,000 persons. These small-population TPUs could have either high or low incomes, and they would be in the group with the highest rate of the cases (>0.35‰) by containing only one case in the Dancing/Singing Cluster.

| Rate of the cases in the Dancing/Singing Cluster (% out of total population) | No. of TPUs | Average med_income | Average prop_higher_edu | Average den_population |
|---------------------------------------------------------------------------|-------------|--------------------|-------------------------|-----------------------|
| 0                                                                         | 79          | 20457              | 0.219                   | 12,723                |
| (0, 0.1]                                                                  | 60          | 18238              | 0.21                    | 50,131                |
| (0.1, 0.2]                                                                | 29          | 18081              | 0.207                   | 36,481                |
| (0.2, 0.35]                                                               | 28          | 27434              | 0.308                   | 36,139                |
| >0.35                                                                    | 18          | 20944              | 0.247                   | 33,710                |
Table S2. Full sets of resultant rules from the modified differential-evolution-based association rule mining algorithm DESigFAR. Rules take the form “antecedent → consequent”. For example, rule 1 in Table S1a is “build_area_pp > 75.706 (p55) & prop_industrial < 0.001 (p47) → rate_local12 > 0.112 (p81)”, where p55 means the 55th percentile of rate_local12 > 0.112 (p81) values for all TPU-level areal units in Hong Kong. The descriptions of variables in the rules are given in Table 1.

Rules are shown together with the values of four RIMs: support (supp), confidence (conf), leverage (lev), and improvement (imp). P is the P value of each rule in Chi-square test described in the Methods.

(a) Rules for wave-1 local case rate; POI accessibility was used

| No. | Antecedent | Consequent | Supp | Conf | Lev | Imp | P       |
|-----|------------|------------|------|------|-----|-----|---------|
| 1   | build_area_pp > 75.706 (p55) & prop_industrial < 0.001 (p47) | rate_local12 > 0.112 (p81) | 24.18 | 0.50 | 14.71 | 0.18 | 2.89E-05 |
| 2   | POI_pp_mall_mkt = 4.008-16.323 (p46-86) | rate_local12 > 0.103 (p79) | 32.90 | 0.38 | 14.35 | 0.16 | 4.33E-09 |
| 3   | prop_rural_set < 0.008 (p56) | rate_local12 > 0.038 (p60) | 61.34 | 0.52 | 13.81 | 0.12 | 6.93E-05 |
| 4   | POI_pp_telecom_elec = 7.292-35.358 (p38-84) | rate_local12 > 0.103 (p79) | 33.88 | 0.35 | 13.47 | 0.14 | 4.33E-09 |
| 5   | POI_pp_sports = 10.367-68.635 (p38-87) | rate_local12 > 0.104 (p80) | 33.96 | 0.34 | 13.04 | 0.13 | 3.96E-06 |
| 6   | prop_preprim_edu < 0.081 (p20) | rate_local12 > 0.038 (p60) | 61.34 | 0.52 | 13.81 | 0.12 | 6.93E-05 |
| 7   | prop_gov_insti_faci = 0.026-0.139 (p38-90) | rate_local12 > 0.107 (p81) | 9.64 | 0.49 | 5.65 | 0.23 | 7.82E-05 |
| 8   | prop_industrial < 0.001 (p47) | rate_local12 > 0.104 (p80) | 33.96 | 0.34 | 13.04 | 0.13 | 3.96E-06 |
| 9   | prop_private_resid > 0.101 (p66) | rate_local12 > 0.046 (p63) | 39.60 | 0.52 | 11.15 | 0.15 | 2.84E-06 |
| 10  | prop_preprim_edu < 0.081 (p20) | rate_local12 > 0.115 (p81) | 18.61 | 0.42 | 10.28 | 0.23 | 3.09E-06 |
| 11  | prop_traffic > 0.335 (p87) | rate_local12 > 0.086 (p76) | 13.08 | 0.51 | 6.76 | 0.26 | 5.1E-05 |
| 12  | LU_entropy < 0.543 (p46) | rate_local12 > 0.106 (p80) | 29.65 | 0.30 | 9.50 | 0.10 | 6.5E-05 |
| 13  | prop_transport > 0.111 (p92) | rate_local12 > 0.108 (p81) | 9.94 | 0.55 | 6.32 | 0.35 | 1.48E-05 |
| 14  | prop_higher_edu > 0.361 (p85) | rate_local12 > 0.143 (p86) | 10.73 | 0.33 | 5.98 | 0.18 | 3.34E-05 |
| 15  | prop_med_home > 16.093 (p47) | rate_local12 > 0.136 (p85) | 26.44 | 0.23 | 8.43 | 0.07 | 6.08E-05 |
| 16  | prop_med_income > 18518.024 (p62) | rate_local12 > 0.136 (p85) | 26.44 | 0.23 | 8.43 | 0.07 | 6.08E-05 |
| 17  | prop_gender > 106.692 (p92) | rate_local12 > 0.107 (p81) | 9.88 | 0.57 | 6.33 | 0.36 | 1.48E-05 |
| 18  | prop_med_income > 18518.024 (p62) | rate_local12 > 0.136 (p85) | 26.44 | 0.23 | 8.43 | 0.07 | 6.08E-05 |
| 19  | prop_higher_edu > 0.361 (p85) | rate_local12 > 0.143 (p86) | 10.73 | 0.33 | 5.98 | 0.18 | 3.34E-05 |
| 20  | POI_pp_edu < 19.348 (p74) & POI_pp_mall_mkt = 9.973-30.551 (p70-94) | rate_local12 > 0.090 (p77) | 7.90 | 0.58 | 4.66 | 0.24 | 2.44E-05 |
| 21  | POI_pp_sports = 10.367 (p38) | rate_local12 > 0.005-0.106 (p45-80) | 58.75 | 0.73 | 31.44 | 0.39 | 0 |
| 22  | prop_preprim_edu < 0.081-0.137 (p20-85) & POI_pp_telecom_elec < 13.825 (p56) | rate_local12 > 0.005-0.106 (p45-80) | 63.55 | 0.67 | 31.19 | 0.08 | 3.79E-05 |
| 23  | POI_pp_telecom_elec < 7.292 (p38) | rate_local12 > 0.005-0.106 (p45-79) | 58.38 | 0.72 | 31.14 | 0.38 | 0 |
|   | Equation | p-value | R² | Adjusted R² | F-test | df1 | df2 | Significance | Notes |
|---|----------|---------|----|-------------|--------|------|------|--------------|-------|
| 24 | prop_over65 =0.122-0.213 (p20-89) &POI_pp_sports <10.589 (p38) | rate_local12 =0.005-0.116 (p45-81) | 53.21 | 0.84 | 30.66 | 0.10 | 4.84E-05 | |
| 25 | den_public_trans =4.269-90.965 (p28-91) &POI_pp_telecom_elec <14.517 (p58) | rate_local12 =0.005-0.117 (p45-82) | 64.58 | 0.69 | 30.63 | 0.09 | 7.26E-06 | |
| 26 | gender_ratio =87.668-97.836 (p11-77) &POI_pp_transport <36.170 (p58) | rate_local12 =0.006-0.104 (p45-80) | 63.46 | 0.65 | 30.57 | 0.09 | 7.32E-05 | |
| 27 | den_road >5.702 (p27) &POI_pp_telecom_elec <13.365 (p54) | rate_local12 =0.005-0.108 (p45-81) | 63.10 | 0.67 | 30.53 | 0.07 | 2.39E-05 | |
| 28 | gender_ratio =87.593-97.312 (p11-76) &POI_pp_telecom_elec <13.575 (p55) | rate_local12 =0.005-0.100 (p45-78) | 60.69 | 0.66 | 30.51 | 0.08 | 5.19E-05 | |
| 29 | &med_area_home <19.521 (p61) &POI_pp_sports <28.415 (p66) | rate_local12 =0.005-0.104 (p45-80) | 60.19 | 0.68 | 30.49 | 0.07 | 3.33E-05 | |
| 30 | prop_preprim_edu =0.081-0.135 (p21-85) &POI_pp_transport <36.474 (p58) med_area_home <17.998 (p55) | rate_local12 =0.005-0.103 (p45-79) | 62.78 | 0.65 | 30.46 | 0.09 | 1.66E-05 | |
| 31 | &den_public_trans =3.985-90.248 (p27-91) &POI_pp_sports <26.288 (p64) | rate_local12 =0.006-0.114 (p45-81) | 57.88 | 0.75 | 30.44 | 0.07 | 1.13E-05 | |
| 32 | &med_area_home <19.205 (p61) &POI_pp_mall_mkt <8.837 (p66) | rate_local12 =0.005-0.104 (p45-80) | 58.69 | 0.70 | 30.37 | 0.08 | 1.24E-05 | |
| 33 | POI_pp_transport <16.151 (p36) | rate_local12 =0.005-0.103 (p45-79) | 56.03 | 0.73 | 30.33 | 0.39 | 0 | |
| 34 | prop_over65 =0.128-0.214 (p24-89) &POI_pp_telecom_elec <8.009 (p40) | rate_local12 =0.005-0.117 (p45-82) | 53.36 | 0.83 | 30.32 | 0.11 | 6.79E-05 | |
| 35 | &med_area_home <19.205 (p61) &POI_pp_edu <15.586 (p69) | rate_local12 =0.005-0.111 (p45-81) | 60.61 | 0.70 | 30.28 | 0.07 | 1.54E-05 | |
| 36 | &med_area_home <19.520 (p61) &POI_pp_transport <48.280 (p69) | rate_local12 =0.006-0.111 (p45-81) | 61.07 | 0.69 | 30.14 | 0.07 | 3.98E-05 | |
| 37 | prop_over65 =0.128-0.214 (p24-89) &POI_pp_transport <17.780 (p39) | rate_local12 =0.005-0.114 (p45-81) | 52.11 | 0.84 | 30.11 | 0.12 | 3.75E-05 | |
| 38 | den_public_trans =6.888-92.606 (p35-91) &POI_pp_transport <34.910 (p57) | rate_local12 =0.006-0.114 (p45-81) | 60.33 | 0.71 | 30.05 | 0.11 | 5.22E-06 | |
| 39 | den_road >5.586 (p27) &POI_pp_transport <31.516 (p53) | rate_local12 =0.005-0.115 (p45-81) | 63.38 | 0.68 | 30.02 | 0.07 | 5.65E-05 | |
|   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
|40 | med_area_home <16.183 (p48) | &den_public_trans =4.501-90.772 (p29-91) | &POI_pp_edu <18.658 (p73) | prop_preprim_edu =0.081-0.138 (p20-86) | &POI_pp_sports <21.150 (p56) | prop_gov_insti_fac <0.013-0.144 (p29-91) | rate_local12 =0.005-0.117 (p45-82) |
|   |   |   |   |   |   |   | 56.19 0.77 30.00 0.08 1.32E-05 |
|41 | prop_preprim_edu =0.081-0.138 (p20-86) | &POI_pp_sports <21.150 (p56) | prop_gov_insti_fac <0.013-0.144 (p29-91) | rate_local12 =0.005-0.110 (p45-81) |   |   |   |
|   |   |   |   |   |   |   | 61.32 0.68 29.94 0.09 8.29E-05 |
|42 | med_area_home <16.183 (p48) | &den_public_trans =4.501-90.772 (p29-91) | &POI_pp_transport <33.050 (p55) | rate_local12 =0.005-0.117 (p45-82) |   |   |   |
|   |   |   |   |   |   |   | 55.90 0.77 29.90 0.07 2.7E-06 |
|43 | &den_public_trans =4.501-90.772 (p29-91) | &POI_pp_transport <41.284 (p63) |   | rate_local12 =0.005-0.117 (p45-82) |   |   |   |
|   |   |   |   |   |   |   | 59.94 0.66 29.76 0.06 4.24E-05 |
|44 | &POI_pp_transport <41.284 (p63) | rate_local12 =0.006-0.124 (p45-82) |   | rate_local12 =0.005-0.119 (p45-82) |   |   |   |
|   |   |   |   |   |   |   | 66.19 0.68 29.71 0.13 7.13E-08 |
|45 | &POI_pp_transport <41.284 (p63) | rate_local12 =0.006-0.124 (p45-82) |   | rate_local12 =0.005-0.106 (p45-80) |   |   |   |
|   |   |   |   |   |   |   | 63.15 0.69 29.68 0.13 1.03E-07 |
|46 | prop_over65 <0.117-0.212 (p16-89) | rate_local12 =0.005-0.106 (p45-80) |   | rate_local12 =0.005-0.106 (p45-80) |   |   |   |
|   |   |   |   |   |   |   | 55.80 0.72 29.64 0.09 2.31E-05 |
|47 | &POI_pp_transport <41.284 (p63) | rate_local12 =0.005-0.106 (p45-80) |   | rate_local12 =0.004-0.112 (p45-81) |   |   |   |
|   |   |   |   |   |   |   | 56.13 0.74 29.59 0.13 2.89E-05 |
|48 | &POI_pp_transport <41.284 (p63) | rate_local12 =0.005-0.114 (p45-81) |   | rate_local12 =0.005-0.114 (p45-81) |   |   |   |
|   |   |   |   |   |   |   | 56.94 0.74 29.58 0.13 1.32E-05 |
|49 | prop_over65 <0.117-0.212 (p16-89) | rate_local12 =0.005-0.114 (p45-81) |   | rate_local12 =0.006-0.114 (p45-81) |   |   |   |
|   |   |   |   |   |   |   | 61.03 0.69 29.55 0.07 3.45E-05 |
|50 | gender_ratio =87.457-99.480 (p11-79) | rate_local12 =0.006-0.114 (p45-81) |   | rate_local12 =0.005-0.106 (p45-80) |   |   |   |
|   | &med_area_home <19.456 (p61) | rate_local12 =0.006-0.114 (p45-81) |   | rate_local12 =0.005-0.106 (p45-80) |   |   |   |
|   | &POI_pp_telecom_elec <21.356 (p71) | rate_local12 =0.006-0.114 (p45-81) |   | rate_local12 =0.005-0.106 (p45-80) |   |   |   |
|   | &POI_pp_transport <38.267 (p60) | rate_local12 =0.006-0.114 (p45-81) |   | rate_local12 =0.005-0.106 (p45-80) |   |   |   |
|51 | &POI_pp_transport <38.267 (p60) | rate_local12 =0.005-0.106 (p45-80) |   | rate_local12 =0.005-0.114 (p45-81) |   |   |   |
|   |   |   |   |   |   |   | 60.57 0.68 29.51 0.12 3.46E-05 |
|52 | &POI_pp_transport <38.267 (p60) | rate_local12 =0.005-0.114 (p45-81) |   | rate_local12 =0.005-0.106 (p45-80) |   |   |   |
|   |   |   |   |   |   |   | 57.31 0.70 29.47 0.07 8.32E-05 |
|53 | prop_over65 <0.117-0.212 (p16-89) | rate_local12 =0.005-0.106 (p45-80) |   | rate_local12 =0.004-0.105 (p45-80) |   |   |   |
|   | &POI_pp_transport <38.267 (p60) | rate_local12 =0.005-0.106 (p45-80) |   | rate_local12 =0.004-0.105 (p45-80) |   |   |   |
|   | prop_preprim_edu =0.080-0.138 (p19-85) | rate_local12 =0.004-0.105 (p45-80) |   | rate_local12 =0.004-0.105 (p45-80) |   |   |   |
|   | &POI_pp_transport <38.267 (p60) | rate_local12 =0.004-0.105 (p45-80) |   | rate_local12 =0.004-0.105 (p45-80) |   |   |   |
|54 | &POI_pp_transport <38.267 (p60) | rate_local12 =0.004-0.105 (p45-80) |   | rate_local12 =0.004-0.105 (p45-80) |   |   |   |
|   |   |   |   |   |   |   | 54.24 0.74 29.46 0.08 9E-06 |
|55 | &POI_pp_transport <38.267 (p60) | rate_local12 =0.004-0.105 (p45-80) |   | rate_local12 =0.004-0.105 (p45-80) |   |   |   |
|   |   |   |   |   |   |   | 63.70 0.62 29.44 0.08 5.47E-05 |
| Page | Condition | Coefficient (p-Value) | Rate | p-Value | Coefficient (p-Value) |
|------|------------|-----------------------|------|---------|-----------------------|
| 70   | \( \text{prop}_{\text{transport}} > 0.055 \) (p33) \& \( \text{POI}_{\text{pp}_{\text{transport}}} < 33.033 \) (p55) | rate_{local12} = 0.005-0.109 (p45-81) | 60.89 | 0.66 | 28.79 | 0.07 | 8.29E-05 |
| 71   | \( \text{prop}_{\text{over65}} = 0.123-0.208 \) (p21-87) \& \( \text{build}_{\text{area}} \text{pp} < 85.101 \) (p59) \& \( \text{POI}_{\text{pp}_{\text{telecom_elec}}} < 11.917 \) (p51) | rate_{local12} = 0.005-0.116 (p45-81) | 52.25 | 0.80 | 28.77 | 0.08 | 4.46E-05 |
| 72   | \( \text{gender}_{\text{ratio}} = 87.824-99.340 \) (p11-79) \& \( \text{den}_{\text{road}} > 5.702 \) (p27) \& \( \text{POI}_{\text{pp}_{\text{transport}}} < 48.852 \) (p70) | rate_{local12} = 0.006-0.108 (p45-81) | 61.36 | 0.65 | 28.76 | 0.06 | 1.99E-05 |
| 73   | \( \text{prop}_{\text{over65}} = 0.117-0.212 \) (p16-89) \& \( \text{gender}_{\text{ratio}} = 87.732-98.813 \) (p11-78) \& \( \text{POI}_{\text{pp}_{\text{edu}}} < 14.968 \) (p67) | rate_{local12} = 0.006-0.108 (p45-81) | 58.89 | 0.67 | 28.72 | 0.08 | 2.12E-05 |
| 74   | \( \text{prop}_{\text{gov}_{\text{insti_fac}}i} = 0.026-0.139 \) (p38-90) \& \( \text{POI}_{\text{pp}_{\text{telecom_elec}}} < 13.575 \) (p55) | rate_{local12} = 0.005-0.124 (p45-82) | 58.54 | 0.73 | 28.66 | 0.10 | 7.59E-05 |
| 75   | \( \text{gender}_{\text{ratio}} = 87.824-99.340 \) (p11-79) \& \( \text{prop}_{\text{gov}_{\text{insti_fac}}i} = 0.016-0.142 \) (p31-91) \& \( \text{POI}_{\text{pp}_{\text{mall_mkt}}} < 10.308 \) (p72) \& \( \text{prop}_{\text{preprim}_{\text{edu}}} = 0.081-0.138 \) (p20-86) | rate_{local12} = 0.006-0.102 (p45-79) | 55.18 | 0.69 | 28.61 | 0.09 | 5.14E-05 |
| 76   | \( \text{prop}_{\text{gov}_{\text{insti_fac}}i} = 0.019-0.133 \) (p32-90) \& \( \text{POI}_{\text{pp}_{\text{mall_mkt}}} < 7.643 \) (p63) \& \( \text{prop}_{\text{preprim}_{\text{edu}}} = 0.081-0.138 \) (p20-85) | rate_{local12} = 0.005-0.099 (p45-78) | 52.20 | 0.72 | 28.58 | 0.07 | 4.18E-05 |
| 77   | \( \text{prop}_{\text{gov}_{\text{insti_fac}}i} = 0.025-0.148 \) (p36-92) \& \( \text{POI}_{\text{pp}_{\text{sports}}} < 24.093 \) (p62) | rate_{local12} = 0.005-0.123 (p45-82) | 62.36 | 0.68 | 28.57 | 0.06 | 7.19E-05 |
| 78   | \( \text{prop}_{\text{gov}_{\text{insti_fac}}i} = 0.025-0.148 \) (p36-92) \& \( \text{POI}_{\text{pp}_{\text{sports}}} < 24.093 \) (p62) \& \( \text{prop}_{\text{preprim}_{\text{edu}}} = 0.081-0.137 \) (p20-85) | rate_{local12} = 0.005-0.117 (p45-82) | 59.66 | 0.69 | 28.56 | 0.12 | 2.57E-05 |
| 79   | \( \text{med}_{\text{area}_{\text{home}}} < 16.988 \) (p52) \& \( \text{POI}_{\text{pp}_{\text{edu}}} < 14.107 \) (p64) | rate_{local12} = 0.005-0.104 (p45-80) | 52.03 | 0.74 | 28.53 | 0.07 | 1.38E-05 |
| 80   | \( \text{den}_{\text{public}_{\text{trans}}} = 7.565-92.691 \) (p36-91) \& \( \text{build}_{\text{area}} \text{pp} < 92.881 \) (p63) \& \( \text{POI}_{\text{pp}_{\text{edu}}} < 15.881 \) (p69) \& \( \text{gender}_{\text{ratio}} = 87.683-99.716 \) (p11-81) | rate_{local12} = 0.005-0.112 (p45-81) | 55.19 | 0.72 | 28.48 | 0.08 | 3E-05 |
| 81   | \( \text{prop}_{\text{preprim}_{\text{edu}}} = 0.082-0.138 \) (p21-86) \& \( \text{POI}_{\text{pp}_{\text{telecom_elec}}} < 21.311 \) (p71) \& \( \text{den}_{\text{population}} > 14401.549 \) (p46) \& \( \text{POI}_{\text{pp}_{\text{transport}}} < 34.255 \) (p57) | rate_{local12} = 0.005-0.115 (p45-81) | 58.32 | 0.70 | 28.45 | 0.10 | 3.14E-05 |
| Prop Over 65 | Med Area Home | POI PP Telecom Elec | Rate Local 12 | 62.60 | 0.74 | 28.40 | 0.09 | 1.01E-05 |
|------------|---------------|---------------------|--------------|-------|------|-------|------|---------|
| 83         | <19.802 (p65) | <21.288 (p71)      |              |       |      |       |      |         |
| Gender Ratio =87.457-99.480 (p11-79) | POI PP Transport <48.280 (p69) |                |              |       |      |       |      |         |
| 84         | <21.288 (p71) | POI PP Transport <48.280 (p69) | Rate Local 12 =0.006-0.100 (p45-78) | 61.01 | 0.62 | 28.33 | 0.08 | 6.69E-05 |
| Gender Ratio =87.077-98.124 (p11-78) | POI PP Transport <48.280 (p69) |                |              |       |      |       |      |         |
| 85         | <21.288 (p71) | POI PP Transport <48.280 (p69) | Rate Local 12 =0.0055-0.114 (p45-81) | 57.05 | 0.70 | 28.31 | 0.09 | 5.8E-05 |
| Gender Ratio =87.332-98.813 (p11-78) | POI PP Transport <50.942 (p71) |                |              |       |      |       |      |         |
| 86         | <21.288 (p71) | POI PP Transport <50.942 (p71) | Rate Local 12 =0.005-0.108 (p45-81) | 59.50 | 0.66 | 28.29 | 0.08 | 6.38E-05 |
| Gender Ratio =87.732-98.813 (p11-78) | POI PP Transport <50.942 (p71) |                |              |       |      |       |      |         |
| 87         | <21.288 (p71) | POI PP Transport <50.942 (p71) | Rate Local 12 =0.005-0.120 (p45-82) | 52.40 | 0.79 | 28.23 | 0.07 | 2.53E-06 |
| Gender Ratio =87.077-99.480 (p11-79) | POI PP Transport <50.942 (p71) |                |              |       |      |       |      |         |
| 88         | <21.288 (p71) | POI PP Transport <50.942 (p71) | Rate Local 12 =0.005-0.120 (p45-82) | 52.40 | 0.79 | 28.23 | 0.07 | 2.53E-06 |
| Gender Ratio =87.077-99.480 (p11-79) | POI PP Transport <50.942 (p71) |                |              |       |      |       |      |         |
| 89         | <21.288 (p71) | POI PP Transport <50.942 (p71) | Rate Local 12 =0.007-0.149 (p45-87) | 65.83 | 0.71 | 28.21 | 0.09 | 1.3E-05 |
| Gender Ratio =87.077-99.480 (p11-79) | POI PP Transport <50.942 (p71) |                |              |       |      |       |      |         |
| 90         | <21.288 (p71) | POI PP Transport <50.942 (p71) | Rate Local 12 =0.006-0.119 (p45-82) | 50.97 | 0.81 | 28.20 | 0.09 | 1.55E-05 |
| Gender Ratio =87.077-99.480 (p11-79) | POI PP Transport <50.942 (p71) |                |              |       |      |       |      |         |
| 91         | <21.288 (p71) | POI PP Transport <50.942 (p71) | Rate Local 12 =0.006-0.119 (p45-82) | 54.47 | 0.75 | 28.20 | 0.06 | 7.52E-05 |
| Gender Ratio =87.077-99.480 (p11-79) | POI PP Transport <50.942 (p71) |                |              |       |      |       |      |         |
| 92         | <21.288 (p71) | POI PP Transport <50.942 (p71) | Rate Local 12 =0.005-0.106 (p45-80) | 61.01 | 0.63 | 28.16 | 0.07 | 4.02E-05 |
| Gender Ratio =87.077-99.480 (p11-79) | POI PP Transport <50.942 (p71) |                |              |       |      |       |      |         |
| 93         | <21.288 (p71) | POI PP Transport <50.942 (p71) | Rate Local 12 =0.005-0.120 (p45-82) | 55.87 | 0.73 | 28.07 | 0.08 | 5.62E-05 |
| Gender Ratio =87.077-99.480 (p11-79) | POI PP Transport <50.942 (p71) |                |              |       |      |       |      |         |
| 94         | <21.288 (p71) | POI PP Transport <50.942 (p71) | Rate Local 12 =0.006-0.107 (p45-81) | 61.87 | 0.63 | 28.06 | 0.06 | 2.37E-05 |
| Gender Ratio =87.077-99.480 (p11-79) | POI PP Transport <50.942 (p71) |                |              |       |      |       |      |         |
| 95         | <21.288 (p71) | POI PP Transport <50.942 (p71) | Rate Local 12 =0.006-0.117 (p45-82) | 60.67 | 0.67 | 28.03 | 0.06 | 6.15E-05 |
gender_ratio = 87.588-98.254 (p11-78)
& build_area_pp < 88.754 (p62)
& POI_pp_transport < 57.174 (p76)
& prop_higher_edu < 0.320 (p79)
& prop_open_recreation = 0.017-0.149 (p36-89)
& POI_pp_sports < 22.889 (p58)
& prop_over65 = 0.123-0.211 (p21-89)
& med_area_home < 20.826 (p70)
& POI_pp_mall_mkt < 4.366 (p47)
& POI_pp_transport < 37.816 (p60)
& POI_pp_mall_mkt < 7.469 (p61)
& build_area_pp < 62.130 (p50) & POI_pp_mall_mkt < 6.541 (p57)
& POI_pp_sports < 22.924 (p58)
& POI_pp_mall_mkt < 7.824 (p63)
& POI_pp_mall_mkt < 7.469 (p61)
& POI_pp_sports < 22.924 (p58)
& POI_pp_sports < 25.232 (p62)
& POI_pp_edu < 20.320 (p76)
& POI_pp_edu < 14.618 (p61)
& POI_pp_edu < 14.618 (p67)
& POI_pp_edu < 14.418 (p62)
& POI_pp_edu < 14.418 (p67)
& POI_pp_edu < 20.320 (p76)
& POI_pp_edu < 14.949 (p67)
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& POI_pp_edu < 14.949 (p67)
& POI_pp_edu < 14.949 (p67)
prop_over65 = 0.129-0.215 (p26-91) & den_road > 5.180 (p25) & POI_pp_transport < 39.159 (p61) & rate_local12 = 0.005-0.120 (p45-82) 54.90 0.73 27.63 0.06 6.62E-05

prop_over65 = 0.129-0.215 (p26-91) & den_road > 5.180 (p25) & POI_pp_mall_mkt < 3.972 (p46) & rate_local12 = 0.005-0.112 (p45-81) 47.56 0.84 27.63 0.09 1.95E-06

build_area_pp < 57.444 (p46) & POI_pp_sports < 22.558 (p57) & rate_local12 = 0.005-0.114 (p45-81) 56.13 0.70 27.62 0.12 8.22E-05

prop_transp > 0.068 (p35) & POI_pp_sports < 26.365 (p64) & rate_local12 = 0.005-0.108 (p45-81) 61.46 0.62 27.53 0.10 8.25E-05

build_area_pp < 62.130 (p50) & POI_pp_edu < 12.894 (p59) & rate_local12 = 0.005-0.111 (p45-81) 56.65 0.68 27.51 0.13 4.81E-05

prop_preprim_edu = 0.081-0.137 (p20-85) & POI_pp_edu < 14.107 (p64) & rate_local12 = 0.005-0.104 (p45-80) 61.92 0.60 27.46 0.09 2.85E-06

prop_transp > 0.071 (p36) & POI_pp_edu < 12.877 (p59) & rate_local12 = 0.005-0.100 (p45-78) 56.45 0.64 27.43 0.11 5.73E-05

den_population > 15872.761 (p47) & POI_pp_edu < 13.254 (p60) & rate_local12 = 0.005-0.116 (p45-81) 56.59 0.70 27.43 0.14 2.09E-07

prop_over65 = 0.129-0.215 (p26-91) & den_road > 5.180 (p25) & POI_pp_sports < 23.099 (p59) & rate_local12 = 0.005-0.113 (p45-81) 52.72 0.74 27.43 0.07 5.13E-05

prop_over65 = 0.129-0.212 (p25-89) & POI_pp_mall_mkt < 4.554 (p48) & rate_local12 = 0.006-0.117 (p45-82) 53.67 0.74 27.41 0.11 5.96E-05

prop_preprim_edu = 0.082-0.138 (p21-86) & POI_pp_mall_mkt < 11.835 (p78) & rate_local12 = 0.005-0.103 (p45-79) 59.22 0.62 27.39 0.06 4.47E-05

build_area_pp < 95.076 (p64) & POI_pp_telecom_elec < 25.420 (p76) & rate_local12 = 0.004-0.102 (p45-79) 59.20 0.62 27.37 0.06 7.36E-05

den_public_trans = 7.177-94.877 (p35-92) & POI_pp_telecom_elec <22.605 (p72) & rate_local12 = 0.005-0.104 (p45-80) 56.10 0.66 27.35 0.07 7.59E-05

build_area_pp < 93.213 (p63) & POI_pp_sports < 37.539 (p75) & rate_local12 = 0.005-0.101 (p45-78) 59.52 0.61 27.33 0.06 7.88E-05

prop_gov_insti_faci = 0.026-0.139 (p38-90) & POI_pp_mall_mkt < 5.609 (p53) & rate_local12 = 0.005-0.107 (p45-81) 52.35 0.72 27.27 0.14 6.67E-06
125 \( \text{prop_over65} = 0.125-0.214 \) (p22-89) \& \( \text{den_population} > 15872.761 \) (p47) \& \( \text{POI_pp_sports} < 24.142 \) (p62) \( \text{POI_pp_edu} < 6.132 \) (p40) \( \text{prop_over65} = 0.129-0.212 \) (p25-89) \( \text{rate_local12} = 0.005-0.124 \) (p45-82) 51.50 0.79 27.20 0.09 7.8E-05

126 \( \text{POI_pp_telecom_elec} < 14.160 \) (p57) \( \text{prop_over65} = 0.134-0.216 \) (p29-91) \( \text{rate_local12} = 0.005-0.124 \) (p45-82) 50.48 0.81 27.16 0.09 2.96E-05

127 \( \text{gender_ratio} = 87.585-98.104 \) (p11-78) \& \( \text{med_area_home} < 19.264 \) (p61) \& \( \text{den_public_trans} = 5.241-90.538 \) (p32-91) \( \text{rate_local12} = 0.005-0.124 \) (p45-82) 50.93 0.75 27.15 0.09 6.33E-05

128 \( \text{gender_ratio} = 87.251-100.572 \) (p11-83) \& \( \text{med_area_home} < 20.980 \) (p73) \& \( \text{den_public_trans} = 4.834-84.999 \) (p30-91) \& \( \text{POI_pp_mall_mkt} < 11.542 \) (p76) \( \text{rate_local12} = 0.005-0.124 \) (p45-82) 56.31 0.65 27.03 0.08 6.94E-05

129 \( \text{prop_higher_edu} < 0.310 \) (p76) \& \( \text{prop_open_recreation} < 0.019-0.159 \) (p36-90) \& \( \text{POI_pp_mall_mkt} < 15.665 \) (p69) \( \text{prop_higher_edu} < 0.315 \) (p78) \( \text{rate_local12} = 0.005-0.124 \) (p45-82) 52.33 0.75 26.99 0.10 4.9E-05

130 \( \text{prop_open_recreation} = 0.017-0.146 \) (p36-89) \& \( \text{POI_pp_transport} < 31.516 \) (p53) \( \text{prop_open_recreation} = 0.016-0.154 \) (p36-90) \& \( \text{POI_pp_mall_mkt} < 9.453 \) (p67) \( \text{prop_over65} = 0.117-0.212 \) (p20-89) \& \( \text{POI_pp_telecom_elec} < 13.746 \) (p61) \( \text{prop_open_recreation} = 0.017-0.143 \) (p36-88) \& \( \text{POI_pp_mall_mkt} < 13.739 \) (p55) \( \text{rate_local12} = 0.005-0.124 \) (p45-82) 65.06 0.64 26.97 0.08 4.74E-05

131 \( \text{prop_higher_edu} < 0.315 \) (p78) \& \( \text{prop_open_recreation} = 0.017-0.146 \) (p36-89) \& \( \text{POI_pp_transport} < 31.516 \) (p53) \( \text{prop_open_recreation} = 0.016-0.154 \) (p36-90) \& \( \text{POI_pp_mall_mkt} < 9.453 \) (p67) \( \text{prop_over65} = 0.117-0.212 \) (p20-89) \& \( \text{POI_pp_telecom_elec} < 13.746 \) (p61) \( \text{prop_open_recreation} = 0.017-0.143 \) (p36-88) \& \( \text{POI_pp_mall_mkt} < 13.739 \) (p55) \( \text{rate_local12} = 0.005-0.124 \) (p45-82) 56.22 0.74 26.93 0.11 3.7E-05

132 \( \text{prop_higher_edu} < 0.315 \) (p78) \& \( \text{prop_open_recreation} = 0.017-0.146 \) (p36-89) \& \( \text{POI_pp_transport} < 31.516 \) (p53) \( \text{prop_open_recreation} = 0.016-0.154 \) (p36-90) \& \( \text{POI_pp_mall_mkt} < 9.453 \) (p67) \( \text{prop_over65} = 0.117-0.212 \) (p20-89) \& \( \text{POI_pp_telecom_elec} < 13.746 \) (p61) \( \text{prop_open_recreation} = 0.017-0.143 \) (p36-88) \& \( \text{POI_pp_mall_mkt} < 13.739 \) (p55) \( \text{rate_local12} = 0.005-0.124 \) (p45-82) 55.77 0.69 26.88 0.11 6.11E-06

133 \( \text{median_home} = 5.241-90.538 \) (p32-91) \& \( \text{prop_over65} = 0.121-0.212 \) (p20-89) \( \text{POI_pp_edu} < 13.746 \) (p61) \( \text{prop_open_recreation} = 0.017-0.143 \) (p36-88) \& \( \text{POI_pp_telecom_elec} < 13.739 \) (p55) \( \text{rate_local12} = 0.005-0.124 \) (p45-82) 56.88 0.72 26.85 0.10 5.8E-05
prop_over65 = 0.117-0.212 (p16-89) & med_area_home < 15.226 (p45)
prop_open_recreation = 0.017-0.154 (p36-90) & POI_pp_edu < 12.877 (p59)
med_income < 19678.979 (p65)
prop_open_recreation = 0.014-0.146 (p34-89) & POI_pp_telecom_elec < 11.657 (p50)
prop_over65 = 0.117-0.212 (p16-89)
& POI_pp_edu < 12.877 (p59)
rate_local12 = 0.005-0.125 (p45-82)
54.08
0.74
26.83
0.10
5.44E-06
140
rate_local12 = 0.005-0.121 (p45-82)
55.40
0.71
26.83
0.14
1.99E-05
141
rate_local12 = 0.005-0.122 (p45-82)
49.37
0.81
26.81
0.08
1.21E-05
142
& POI_pp_edu < 13.746 (p61)
rate_local12 = 0.005-0.114 (p45-81)
50.28
0.76
26.80
0.09
2.28E-05
143
& POI_pp_sports < 38.840 (p77)
rate_local12 = 0.006-0.110 (p45-81)
59.26
0.63
26.75
0.08
7.47E-05
144
& POI_pp_mall_mkt < 8.083 (p64)
rate_local12 = 0.006-0.098 (p45-78)
49.07
0.71
26.61
0.09
1.65E-05
145
& POI_pp_mall_mkt < 8.083 (p64)
rate_local12 = 0.005-0.125 (p45-82)
51.17
0.78
26.61
0.09
3.43E-05
146
& POI_pp_mall_mkt < 8.083 (p64)
rate_local12 = 0.006-0.109 (p45-81)
53.20
0.69
26.49
0.08
8.29E-05
147
& POI_pp_mall_mkt < 8.083 (p64)
rate_local12 = 0.005-0.096 (p45-77)
52.45
0.65
26.48
0.06
1.66E-05
148
& POI_pp_mall_mkt < 8.083 (p64)
rate_local12 = 0.006-0.118 (p45-82)
46.98
0.83
26.47
0.10
7.62E-05
149
& POI_pp_mall_mkt < 8.083 (p64)
rate_local12 = 0.005-0.103 (p45-79)
50.80
0.70
26.47
0.10
8.34E-06
150
& POI_pp_mall_mkt < 8.083 (p64)
rate_local12 = 0.005-0.106 (p45-80)
55.44
0.65
26.46
0.08
4.94E-05
151
& POI_pp_mall_mkt < 8.083 (p64)
rate_local12 = 0.005-0.108 (p45-81)
56.83
0.64
26.45
0.08
5.49E-05
prop_over65 =0.137-0.211 (p31-89)

rate_local12 =0.005-0.104 (p45-80)  47.57  0.75  26.34  0.08  6.95E-05

rate_local12 =0.005-0.119 (p45-82)  60.20  0.64  26.25  0.08  7.66E-05

rate_local12 =0.005-0.121 (p45-82)  55.14  0.70  26.23  0.16  4.4E-07

rate_local12 =0.005-0.105 (p45-80)  52.72  0.67  26.22  0.06  8.13E-05

rate_local12 =0.005-0.119 (p45-82)  60.20  0.64  26.25  0.08  7.66E-05

rate_local12 =0.005-0.121 (p45-82)  55.14  0.70  26.23  0.16  4.4E-07

rate_local12 =0.005-0.105 (p45-80)  52.72  0.67  26.22  0.06  8.13E-05

rate_local12 =0.005-0.119 (p45-82)  60.20  0.64  26.25  0.08  7.66E-05

rate_local12 =0.005-0.121 (p45-82)  55.14  0.70  26.23  0.16  4.4E-07

rate_local12 =0.005-0.105 (p45-80)  52.72  0.67  26.22  0.06  8.13E-05

rate_local12 =0.005-0.119 (p45-82)  60.20  0.64  26.25  0.08  7.66E-05

rate_local12 =0.005-0.121 (p45-82)  55.14  0.70  26.23  0.16  4.4E-07

rate_local12 =0.005-0.105 (p45-80)  52.72  0.67  26.22  0.06  8.13E-05

rate_local12 =0.005-0.119 (p45-82)  60.20  0.64  26.25  0.08  7.66E-05

rate_local12 =0.005-0.121 (p45-82)  55.14  0.70  26.23  0.16  4.4E-07

rate_local12 =0.005-0.105 (p45-80)  52.72  0.67  26.22  0.06  8.13E-05

rate_local12 =0.005-0.119 (p45-82)  60.20  0.64  26.25  0.08  7.66E-05

rate_local12 =0.005-0.121 (p45-82)  55.14  0.70  26.23  0.16  4.4E-07

rate_local12 =0.005-0.105 (p45-80)  52.72  0.67  26.22  0.06  8.13E-05

rate_local12 =0.005-0.119 (p45-82)  60.20  0.64  26.25  0.08  7.66E-05

rate_local12 =0.005-0.121 (p45-82)  55.14  0.70  26.23  0.16  4.4E-07

rate_local12 =0.005-0.105 (p45-80)  52.72  0.67  26.22  0.06  8.13E-05

rate_local12 =0.005-0.119 (p45-82)  60.20  0.64  26.25  0.08  7.66E-05

rate_local12 =0.005-0.121 (p45-82)  55.14  0.70  26.23  0.16  4.4E-07

rate_local12 =0.005-0.105 (p45-80)  52.72  0.67  26.22  0.06  8.13E-05

rate_local12 =0.005-0.119 (p45-82)  60.20  0.64  26.25  0.08  7.66E-05

rate_local12 =0.005-0.121 (p45-82)  55.14  0.70  26.23  0.16  4.4E-07

rate_local12 =0.005-0.105 (p45-80)  52.72  0.67  26.22  0.06  8.13E-05

rate_local12 =0.005-0.119 (p45-82)  60.20  0.64  26.25  0.08  7.66E-05

rate_local12 =0.005-0.121 (p45-82)  55.14  0.70  26.23  0.16  4.4E-07

rate_local12 =0.005-0.105 (p45-80)  52.72  0.67  26.22  0.06  8.13E-05
165  build_area_pp <89.794 (p62) &prop_business =0.001-0.111 (p29-92) rate_local12 =0.006-0.105 (p45-80) 59.08  0.60  25.66  0.12  3.97E-06
166  prop_preprim_edu =0.081-0.138 (p20-86) &med_area_home <16.970 (p52) rate_local12 =0.004-0.106 (p45-81) 54.51  0.64  25.66  0.10  1.35E-06
167  &prop_business =0.003-0.111 (p43-92) &POI_pp_transport <45.188 (p69) rate_local12 =0.005-0.127 (p45-83) 50.71  0.76  25.59  0.10  3.8E-05
168  &prop_preprim_edu =0.081-0.138 (p20-86) &med_area_home <18.212 (p55) gender_ratio =87.588-98.254 (p11-78) rate_local12 =0.005-0.118 (p45-82) 50.71  0.73  25.58  0.09  5.76E-06
169  &build_area_pp <88.754 (p62) &prop_transport >0.062 (p35) rate_local12 =0.006-0.110 (p45-81) 52.99  0.67  25.51  0.09  5.33E-05
170  med_area_home <18.914 (p57) &LU_entropy >0.542 (p46) &POI_pp_sports <29.788 (p66) rate_local12 =0.005-0.096 (p45-77) 47.11  0.70  25.45  0.09  8.18E-05
171  gender_ratio =87.683-99.716 (p11-81) &prop_preprim_edu =0.082-0.138 (p21-86) &prop_open_recreation =0.013-0.147 (p33-89) rate_local12 =0.005-0.103 (p45-79) 47.20  0.73  25.45  0.11  1.82E-05
172  med_area_home <16.776 (p50) &LU_entropy >0.549 (p48) &POI_pp_mall_mkt <10.234 (p72) rate_local12 =0.005-0.097 (p45-77) 44.48  0.76  25.39  0.08  4.2E-05
173  prop_preprim_edu =0.080-0.139 (p19-86) &den_public_trans =7.565-92.691 (p36-91) &prop_gov_insti_faci =0.019-0.133 (p32-90) rate_local12 =0.005-0.105 (p45-80) 48.95  0.70  25.36  0.08  6.17E-05
174  &prop_higher_edu <0.315 (p78) &prop_open_recreation =0.013-0.147 (p33-89) rate_local12 =0.007-0.129 (p45-83) 49.81  0.77  25.32  0.09  4.84E-05
175  med_income <18862.550 (p62) &prop_open_recreation =0.018-0.143 (p36-89) rate_local12 =0.006-0.124 (p45-82) 46.51  0.82  25.30  0.08  5.81E-05
176  &den_public_trans =7.206-96.133 (p35-92) &build_area_pp <106.529 (p71) rate_local12 =0.005-0.111 (p45-81) 50.04  0.71  25.30  0.11  1.82E-05
prop_over65 = 0.111 - 0.206 (p12-85) & den_road > 5.381 (p26) & build_area_pp < 86.041 (p61) & rate_local12 = 0.005 - 0.113 (p45-81) 52.45  0.68  25.18  0.09  5.41E-05

prop_business = 0.002 - 0.094 (p41-91) & POI_pp_mall_mkt < 8.302 (p64) & prop_higher_edu < 0.350 (p83) & den_public_trans > 5.199 - 95.141 (p32-92) & prop_open_recreation = 0.014 - 0.146 (p34-89) & rate_local12 = 0.005 - 0.119 (p45-82) 49.74  0.73  25.12  0.12  2.09E-05

prop_preprim_edu = 0.081 - 0.136 (p20-85) & prop_gov_insti_faci = 0.026 - 0.139 (p38-90) & med_income < 18399.947 (p61) & rate_local12 = 0.005 - 0.106 (p45-81) 52.31  0.66  25.11  0.14  2E-06

prop_open_recreation = 0.015 - 0.137 (p35-87) & POI_pp_edu < 15.117 (p67) & rate_local12 = 0.005 - 0.130 (p45-83) 49.95  0.77  25.05  0.11  6.17E-05

den_public_trans = 7.206 - 96.133 (p35-92) & build_area_pp < 87.159 (p62) & rate_local12 = 0.006 - 0.112 (p45-81) 55.30  0.64  24.94  0.13  2.81E-06

prop_business = 0.003 - 0.111 (p43-92) & POI_pp_transport < 45.188 (p69) & rate_local12 = 0.005 - 0.108 (p45-81) 55.13  0.63  24.84  0.09  4.86E-05

prop_business = 0.002 - 0.094 (p41-91) & POI_pp_edu < 14.054 (p64) & rate_local12 = 0.005 - 0.103 (p45-79) 51.46  0.65  24.79  0.13  5.4E-05

med_area_home < 18.994 (p58) & den_road > 14284.410 (p45) & build_area_pp < 81.232 (p57) & POI_pp_edu < 20.269 (p76) & rate_local12 = 0.006 - 0.104 (p45-80) 49.83  0.67  24.91  0.07  8.27E-05

prop_over65 = 0.106 - 0.205 (p11-85) & prop_preprim_edu = 0.081 - 0.137 (p20-85) & den_population > 14552.292 (p46) & rate_local12 = 0.005 - 0.119 (p45-82) 50.53  0.72  24.88  0.10  1.51E-05

prop_business = 0.003 - 0.111 (p43-92) & POI_pp_transport < 45.188 (p69) & rate_local12 = 0.005 - 0.108 (p45-81) 55.13  0.63  24.84  0.09  4.86E-05

prop_business = 0.002 - 0.094 (p41-91) & POI_pp_edu < 14.054 (p64) & rate_local12 = 0.005 - 0.103 (p45-79) 51.46  0.65  24.79  0.13  5.4E-05

med_area_home < 18.670 (p57) & build_area_pp < 62.119 (p50) & rate_local12 = 0.004 - 0.129 (p45-83) 57.16  0.67  24.78  0.09  8.19E-05
prop_preprim_edu = 0.081-0.138 (p20-85) & med_area_home < 16.776 (p50) & LU_entropy > 0.549 (p48) rate_local12 = 0.005-0.088 (p45-76) 41.11 0.77 24.67 0.11 1.3E-06

med_area_home < 15.461 (p45) & prop_open_recreation = 0.014-0.146 (p34-89) rate_local12 = 0.005-0.128 (p45-83) 50.48 0.74 24.66 0.11 3.31E-05

gender_ratio = 87.684-98.728 (p11-78) & prop_preprim_edu = 0.081-0.136 (p21-85) & gender_ratio = 87.809-99.344 (p11-79) rate_local12 = 0.006-0.110 (p45-81) 60.64 0.58 24.59 0.10 1.32E-05

& med_income < 18399.947 (p61) & den_public_trans = 8.785-97.322 (p38-92) prop_preprim_edu = 0.081-0.135 (p21-85) & build_area_pp < 105.614 (p70) rate_local12 = 0.005-0.111 (p45-81) 61.62 0.58 24.55 0.10 1.69E-05

gender_ratio = 87.809-99.344 (p11-79) & prop_open_recreation = 0.015-0.145 (p35-89) & build_area_pp < 0.304 (p76) & build_area_pp < 99.847 (p67) & prop_open_recreation = 0.015-0.145 (p35-89) rate_local12 = 0.004-0.135 (p45-84) 51.02 0.75 24.54 0.09 9.79E-06

prop_preprim_edu > 0.077 (p16) & prop_open_recreation = 0.014-0.146 (p34-89) & POI_pp_edu < 21.521 (p79) rate_local12 = 0.005-0.127 (p45-82) 56.16 0.67 24.50 0.06 6.68E-05

gender_ratio = 87.049-99.226 (p11-79) & prop_preprim_edu = 0.081-0.137 (p20-85) & POI_pp_edu < 21.521 (p79) rate_local12 = 0.005-0.122 (p45-82) 54.50 0.67 24.50 0.15 7.43E-08

prop_over65 = 0.118-0.213 (p17-89) & prop_higher_edu < 0.298 (p76) & den_population > 14359.348 (p46) rate_local12 = 0.006-0.134 (p45-84) 52.51 0.73 24.49 0.09 5.98E-05

prop_higher_edu < 0.309 (p76) & den_public_trans = 6.527-94.144 (p34-92) & gender_ratio = 87.489-97.990 (p11-78) rate_local12 = 0.006-0.125 (p45-82) 58.46 0.64 24.44 0.11 1.28E-05

prop_higher_edu < 0.302 (p79) & prop_gov_insti_faci > 0.025 (p36) & prop_over65 = 0.117-0.212 (p16-89) rate_local12 = 0.006-0.120 (p45-82) 52.61 0.68 24.30 0.08 6.31E-05

med_area_home < 17.043 (p52) & prop_business = 0.003-0.052 (p43-86) & prop_preprim_edu = 0.081-0.137 (p20-85) & den_public_trans = 9.671-95.636 (p38-92) rate_local12 = 0.005-0.114 (p45-81) 47.73 0.72 24.22 0.10 1.31E-05
prop_over65 =0.134-0.212 (p29-89)
&gender_ratio =87.597-100.434 (p11-83)
&den_population >16895.676 (p49)

build_area_pp <87.017 (p62)

&prop_open_recreation =0.014-0.146 (p34-89)
&POI_pp_edu <21.521 (p79)

&gender_ratio =87.663-98.155 (p11-78)
&prop_preprim_edu >0.080 (p19)
&prop_transport >0.068 (p36)

gender_ratio =87.685-98.649 (p11-78)
&build_area_pp <88.479 (p62)

prop_over65 =0.139-0.216 (p34-91)
&prop_gov_insti_faci =0.025-0.148 (p36-92)
&POI_pp_sports <24.080 (p62)

prop_over65 =0.123-0.211 (p21-89)
&prop_higher_edu <0.304 (p76)
&prop_open_recreation =0.014-0.146 (p34-89)

rate_local12 =0.005-0.110 (p45-81) 45.88 0.74 24.16 0.11 8.24E-05
rate_local12 =0.005-0.114 (p45-81) 59.21 0.59 23.78 0.10 2.1E-06
rate_local12 =0.005-0.110 (p45-81) 44.17 0.75 23.68 0.09 3.68E-05
rate_local12 =0.006-0.105 (p45-80) 47.28 0.67 23.52 0.09 3.08E-05
rate_local12 =0.005-0.114 (p45-81) 48.75 0.76 23.83 0.11 2.44E-05
rate_local12 =0.005-0.103 (p45-79) 51.63 0.63 24.14 0.06 3.27E-05
rate_local12 =0.005-0.104 (p45-80) 58.45 0.57 24.10 0.10 3.36E-05
rate_local12 =0.007-0.127 (p45-83) 44.54 0.81 23.87 0.11 4.75E-05
rate_local12 =0.004-0.135 (p45-84) 48.59 0.68 23.44 0.07 4.07E-05
rate_local12 =0.005-0.110 (p45-81) 52.91 0.74 24.15 0.05 5.49E-05
rate_local12 =0.005-0.103 (p45-79) 51.63 0.63 24.14 0.06 3.27E-05
rate_local12 =0.005-0.104 (p45-80) 58.45 0.57 24.10 0.10 3.36E-05
rate_local12 =0.007-0.127 (p45-83) 44.54 0.81 23.87 0.11 4.75E-05
rate_local12 =0.005-0.114 (p45-81) 44.17 0.75 23.68 0.09 3.68E-05
rate_local12 =0.006-0.105 (p45-80) 47.28 0.67 23.52 0.09 3.08E-05
rate_local12 =0.005-0.114 (p45-81) 48.59 0.68 23.44 0.07 4.07E-05
rate_local12 =0.006-0.100 (p45-78) 50.85 0.61 23.43 0.12 9.71E-07
rate_local12 =0.005-0.114 (p45-81) 43.95 0.76 23.40 0.09 2.65E-05
rate_local12 =0.004-0.075 (p45-73) 42.90 0.62 23.39 0.13 6.01E-05
rate_local12 =0.005-0.125 (p45-82) 51.82 0.68 23.30 0.14 2.23E-06
rate_local12 =0.005-0.125 (p45-82) 51.82 0.68 23.30 0.14 2.23E-06
218 prop_higher_edu <0.356 (p84)
&prop_gov_insti_faci =0.026-0.139 (p38-90)
prop_higher_edu <0.307 (p76) &den_population >15872.761 (p47)
build_area_pp <85.719 (p60) &prop_transport >0.074 (p36)
med_area_home <17.127 (p52) &den_bldg =0.084-0.337 (p29-77) &POL_pp_edu <15.194 (p67)
prop_over65 =0.117-0.212 (p16-89)
&build_area_pp <88.565 (p62) &LU_entropy >0.522 (p40)

den_public_trans =7.631-93.088 (p36-92) &prop_gov_insti_faci =0.015-0.131 (p30-89)
den_population >14660.093 (p46) &build_area_pp <75.037 (p54)
gender_ratio =87.593-98.655 (p11-78)
&prop_transport >0.076 (p36)
den_bldg =0.082-0.432 (p28-83) &POL_pp_edu <17.921 (p71)

time_date20 =0.006-0.122 (p36-90)
&prop_open_recreation =0.016-0.154 (p36-90)

219 prop_higher_edu <0.307 (p76) &den_population >15872.761 (p47)
rate_local12 =0.005-0.132 (p45-83) 57.34  0.65  23.27  0.09  1.01E-05

220 build_area_pp <85.719 (p60) &prop_transport >0.074 (p36)
rate_local12 =0.005-0.114 (p45-81) 55.73  0.61  23.27  0.11  2.76E-05

221 med_area_home <17.127 (p52) &den_bldg =0.084-0.337 (p29-77) &POL_pp_edu <15.194 (p67)
prop_over65 =0.117-0.212 (p16-89)
&build_area_pp <88.565 (p62) &LU_entropy >0.522 (p40)
rate_local12 =0.005-0.073 (p45-73) 38.00  0.72  23.26  0.11  2.99E-05

222 den_public_trans =7.631-93.088 (p36-92) &prop_gov_insti_faci =0.015-0.131 (p30-89)
den_population >14660.093 (p46) &build_area_pp <75.037 (p54)
gender_ratio =87.593-98.655 (p11-78)
&prop_transport >0.076 (p36)
den_bldg =0.082-0.432 (p28-83) &POL_pp_edu <17.921 (p71)
rate_local12 =0.006-0.111 (p45-81) 44.54  0.73  23.24  0.11  3.15E-05

223 den_public_trans =7.631-93.088 (p36-92) &prop_gov_insti_faci =0.015-0.131 (p30-89)
den_population >14660.093 (p46) &build_area_pp <75.037 (p54)
gender_ratio =87.593-98.655 (p11-78)
&prop_transport >0.076 (p36)
den_bldg =0.082-0.432 (p28-83) &POL_pp_edu <17.921 (p71)
rate_local12 =0.005-0.116 (p45-81) 54.44  0.62  23.08  0.10  1.59E-05

224 den_public_trans =7.631-93.088 (p36-92) &prop_gov_insti_faci =0.015-0.131 (p30-89)
den_population >14660.093 (p46) &build_area_pp <75.037 (p54)
gender_ratio =87.593-98.655 (p11-78)
&prop_transport >0.076 (p36)
den_bldg =0.082-0.432 (p28-83) &POL_pp_edu <17.921 (p71)
rate_local12 =0.005-0.128 (p45-83) 55.19  0.65  23.03  0.11  2.3E-05

225 den_public_trans =7.631-93.088 (p36-92) &prop_gov_insti_faci =0.015-0.131 (p30-89)
den_population >14660.093 (p46) &build_area_pp <75.037 (p54)
gender_ratio =87.593-98.655 (p11-78)
&prop_transport >0.076 (p36)
den_bldg =0.082-0.432 (p28-83) &POL_pp_edu <17.921 (p71)
rate_local12 =0.005-0.104 (p45-80) 55.95  0.57  22.99  0.11  2.43E-05

226 gender_ratio =87.593-98.655 (p11-78)
&prop_transport >0.076 (p36)
den_bldg =0.082-0.432 (p28-83) &POL_pp_edu <17.921 (p71)
rate_local12 =0.005-0.098 (p45-78) 53.11  0.57  22.97  0.12  3.39E-05

227 gender_ratio =87.593-98.655 (p11-78)
&prop_transport >0.076 (p36)
den_bldg =0.082-0.432 (p28-83) &POL_pp_edu <17.921 (p71)
rate_local12 =0.005-0.122 (p45-82) 54.56  0.64  22.94  0.12  8.09E-06

228 gender_ratio =87.593-98.655 (p11-78)
&prop_transport >0.076 (p36)
den_bldg =0.082-0.432 (p28-83) &POL_pp_edu <17.921 (p71)
rate_local12 =0.006-0.111 (p45-81) 51.20  0.63  22.93  0.15  1.77E-05

229 gender_ratio =87.593-98.655 (p11-78)
&prop_transport >0.076 (p36)
den_bldg =0.082-0.432 (p28-83) &POL_pp_edu <17.921 (p71)
rate_local12 =0.006-0.078 (p45-74) 42.28  0.63  22.88  0.17  1.84E-05

230 gender_ratio =87.593-98.655 (p11-78)
&prop_transport >0.076 (p36)
den_bldg =0.082-0.432 (p28-83) &POL_pp_edu <17.921 (p71)
rate_local12 =0.006-0.111 (p45-81) 48.79  0.66  22.79  0.11  5.18E-06

231 gender_ratio =87.593-98.655 (p11-78)
&den_road >6.022 (p29)
rate_local12 =0.005-0.106 (p45-80) 61.61  0.54  22.74  0.09  8.41E-06

232 gender_ratio =87.593-98.655 (p11-78)
&den_road >6.022 (p29)
rate_local12 =0.005-0.095 (p45-77) 51.65  0.57  22.71  0.11  5.7E-05

233 gender_ratio =87.593-98.655 (p11-78)
&den_road >6.022 (p29)
rate_local12 =0.005-0.136 (p45-85) 61.30  0.62  22.56  0.23  1.16E-12

234 gender_ratio =87.593-98.655 (p11-78)
&den_road >6.022 (p29)
rate_local12 =0.005-0.136 (p45-86) 52.67  0.68  22.44  0.11  5.68E-06
| Line | Expression                                                                                                                                  | Rate_local12 | P   | Q   | R   | S   |
|------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----|-----|-----|-----|
| 235  | **med_income <18557.524 (p62)** &prop_open_recreation =0.016-0.154 (p36-90)**                                                             | **rate_local12 =0.006-0.123 (p45-82)** | 50.91 | 0.66 | 22.40 | 0.14 | 1.12E-05 |
| 236  | **prop_over65 =0.117-0.212 (p16-89)** &prop_business <0.076 (p89)** &prop_open_recreation =0.022-0.142 (p40-88)** | **rate_local12 =0.005-0.108 (p45-81)** | 43.80 | 0.70 | 22.33 | 0.09 | 2.25E-05 |
| 237  | **LU_entropy >0.550 (p49)** &POL_pp_sports <32.777 (p69)**                                                                                | **rate_local12 =0.005-0.096 (p45-77)** | 51.80 | 0.57 | 22.31 | 0.10 | 3.38E-05 |
| 238  | **den_bldg =0.082-0.432 (p28-83)** &POL_pp_mall_mkt <10.489 (p74)**                                                                          | **rate_local12 =0.005-0.104 (p45-80)** | 54.18 | 0.57 | 22.29 | 0.11 | 5E-05    |
| 239  | **med_area_home <18.845 (p57)** &den_road =5.778-21.939 (p28-86)**                                                                               | **rate_local12 =0.006-0.104 (p45-80)** | 49.60 | 0.61 | 22.19 | 0.11 | 6.55E-05 |
| 240  | **med_area_home <18.914 (p57)** &den_bldg =0.064-0.396 (p24-82)**                                                                            | **rate_local12 =0.005-0.096 (p45-77)** | 47.37 | 0.61 | 22.12 | 0.13 | 3.33E-05 |
| 241  | **prop_preprim_edu =0.081-0.136 (p21-85)** &den_road =5.778-21.939 (p28-86)**                                                                | **rate_local12 =0.006-0.098 (p45-78)** | 49.60 | 0.59 | 22.03 | 0.13 | 7.38E-06 |
| 242  | **build_area_pp <84.939 (p59)** &LU_entropy >0.547 (p47)**                                                                                   | **rate_local12 =0.006-0.099 (p45-78)** | 44.72 | 0.64 | 22.03 | 0.17 | 3.83E-06 |
| 243  | **med_income <18344.977 (p61)** &prop_business =0.003-0.052 (p43-86)**                                                                     | **rate_local12 =0.005-0.114 (p45-81)** | 43.78 | 0.71 | 22.00 | 0.15 | 8.28E-06 |
| 244  | **build_area_pp <90.950 (p62)** &prop_gov_insti_faci =0.009-0.141 (p21-91)** &prop_over65 =0.117-0.212 (p16-89)**                           | **rate_local12 =0.006-0.122 (p45-82)** | 59.14 | 0.59 | 21.97 | 0.09 | 5.44E-05 |
| 245  | **&den_public_trans =12.407-94.657 (p42-92)** &LU_entropy >0.503 (p34)**                                                                       | **rate_local12 =0.005-0.108 (p45-81)** | 42.30 | 0.72 | 21.95 | 0.10 | 5.25E-05 |
| 246  | **prop_over65 =0.117-0.212 (p16-89)** &gender_ratio =87.732-98.813 (p11-78)** &den_bldg =0.084-0.337 (p29-77)** &POL_pp_sports <23.905 (p60)**    | **rate_local12 =0.005-0.108 (p45-81)** | 59.78 | 0.54 | 21.90 | 0.08 | 8.1E-05  |
| 247  | **den_public_trans =6.908-78.515 (p35-88)** &LU_entropy >0.549 (p48)**                                                                        | **rate_local12 =0.004-0.068 (p45-73)** | 40.73 | 0.57 | 21.79 | 0.13 | 5.72E-05 |
| 248  | **prop_gov_insti_fac =0.026-0.139 (p38-90)** &LU_entropy >0.548 (p48)**                                                                      | **rate_local12 =0.005-0.088 (p45-76)** | 44.37 | 0.60 | 21.62 | 0.14 | 5.05E-06 |
| 249  | **prop_over65 =0.133-0.179 (p28-68)** &build_area_pp <72.374 (p54)**                                                                          | **rate_local12 =0.004-0.130 (p45-83)** | 39.72 | 0.83 | 21.52 | 0.28 | 1.45E-08 |
prop_gov_insti_faci =0.023-0.137 (p33-90) &prop_open_recreation =0.019-0.140 (p37-88) rate_local12 =0.005-0.098 (p45-78) 46.03 0.61 21.52 0.12 2.09E-05

med_income <18636.855 (p62) &den_population >14660.093 (p46) rate_local12 =0.007-0.140 (p45-86) 54.78 0.65 21.51 0.09 4.47E-05

prop_over65 =0.120-0.183 (p19-72) &prop_preprim_edu =0.081-0.138 (p20-86) rate_local12 =0.004-0.137 (p45-86) 52.54 0.66 21.47 0.14 5.05E-07

correlation rate_local12 =0.005-0.140 (p45-86) 52.54 0.66 21.37 0.30 8.82E-13

prop_gov_insti_faci >0.025 (p36)
prop_publicResid >0.033 (p69)
LU_entropy >0.547 (p47)
prop_open_recreation =0.019-0.159 (p36-90)
LU_entropy >0.549 (p48)
prop_gov_insti_faci =0.026-0.139 (p38-90)
LU_entropy >0.547 (p47)
prop_open_recreation =0.019-0.159 (p36-90)
LU_entropy >0.550 (p49)
prop_gov_insti_faci =0.026-0.139 (p38-90)
LU_entropy >0.547 (p47)
prop_open_recreation =0.019-0.159 (p36-90)
LU_entropy >0.550 (p49)
build_area_pp <95.672 (p65) &prop_utilities >0.007 (p55) &POI_pp_edu <20.556 (p76)
prop_higher_edu <0.323 (p79) &den_road >6.778 (p31)
prop_over65 =0.118-0.211 (p17-89)
prop_open_recreation =0.011-0.126 (p32-84) &LU_entropy >0.549 (p48)
prop_publicResid >0.061 (p74)
&POI_pp_telecom_elec <14.827 (p58)
prop_business <0.067 (p87)
&prop_open_recreation =0.020-0.144 (p38-89)
med_income <20959.885 (p73)
&prop_gov_insti_faci >0.025 (p36)
prop_gov_insti_faci =0.026-0.139 (p38-90)
prop_over65 =0.130-0.185 (p26-73)
prop_open_recreation =0.019-0.159 (p36-90)
prop_transport >0.098 (p43) & LU_entropy >0.558 (p50)
rate_local12 =0.005-0.103 (p45-79)  41.04  0.65  19.99  0.17  9.82E-07

prop_over65 =0.129-0.212 (p25-89) & prop_business =0.001-0.043 (p37-85)
rate_local12 =0.006-0.110 (p45-81)  42.94  0.65  19.96  0.13  7.48E-05

prop_publicResid >0.061 (p74) & POI_pp_mall_mkt <7.577 (p63)
den_road >7.233 (p34) & LU_entropy >0.548 (p48)
rate_local12 =0.006-0.103 (p45-79)  38.04  0.77  19.81  0.07  4.94E-05

prop_over65 =0.129-0.212 (p25-89) & prop_business =0.001-0.043 (p37-85)
rate_local12 =0.006-0.110 (p45-81)  45.20  0.58  19.71  0.11  2.45E-05

den_road >7.233 (p34) & LU_entropy >0.548 (p48)
rate_local12 =0.006-0.100 (p45-78)  42.94  0.65  19.96  0.13  7.48E-05

prop_publicResid >0.061 (p74) & POI_pp_mall_mkt <7.577 (p63)
den_road >7.233 (p34) & LU_entropy >0.548 (p48)
rate_local12 =0.006-0.100 (p45-78)  42.94  0.65  19.96  0.13  7.48E-05

prop_over65 =0.129-0.212 (p25-89) & prop_business =0.001-0.043 (p37-85)
rate_local12 =0.006-0.103 (p45-79)  44.10  0.65  19.99  0.17  9.82E-07

prop_publicResid >0.061 (p74) & POI_pp_mall_mkt <7.577 (p63)
den_road >7.233 (p34) & LU_entropy >0.548 (p48)
rate_local12 =0.006-0.100 (p45-78)  42.94  0.65  19.96  0.13  7.48E-05

prop_over65 =0.129-0.212 (p25-89) & prop_business =0.001-0.043 (p37-85)
rate_local12 =0.006-0.110 (p45-81)  55.62  0.53  19.67  0.19  5.52E-10

prop_publicResid >0.061 (p74) & POI_pp_mall_mkt <7.577 (p63)
den_road >7.233 (p34) & LU_entropy >0.548 (p48)
rate_local12 =0.006-0.100 (p45-78)  52.32  0.49  17.15  0.07  6.13E-05

prop_preprim_edu =0.081-0.128 (p20-82) & prop_transport >0.066 (p35)
rate_local12 =0.005-0.133 (p45-84)  64.11  0.56  19.61  0.17  1.49E-10

prop_preprim_edu =0.081-0.128 (p20-82) & prop_transport >0.066 (p35)
rate_local12 =0.005-0.133 (p45-84)  64.11  0.56  19.61  0.17  1.49E-10

prop_open_recreation =0.020-0.120 (p38-82) & prop_utilities >0.007 (p55)
rate_local12 =0.005-0.132 (p45-83)  54.10  0.57  17.78  0.19  3.09E-07

prop_open_recreation =0.020-0.120 (p38-82) & prop_utilities >0.007 (p55)
rate_local12 =0.005-0.132 (p45-83)  54.10  0.57  17.78  0.19  3.09E-07

prop_open_recreation =0.020-0.120 (p38-82) & prop_utilities >0.007 (p55)
rate_local12 =0.005-0.132 (p45-83)  54.10  0.57  17.78  0.19  3.09E-07

prop_open_recreation =0.020-0.120 (p38-82) & prop_utilities >0.007 (p55)
rate_local12 =0.005-0.132 (p45-83)  54.10  0.57  17.78  0.19  3.09E-07
| Step | Equation | Value   | P | Effect Size | Significance |
|------|----------|---------|---|-------------|--------------|
| 288  | prop_grassland = 0.005 - 0.037 (p29-58) & POI_pp_edu < ±1.383 (p62) | rate_local12 = 0.005 - 0.106 (p45-80) | 31.55 | 0.74 | 17.02 | 0.22 | 6.64E-05 |
| 289  | den_road = 6.923 - 22.238 (p33-86) & POI_pp_telecom_elec < ±27.683 (p78) | rate_local12 = 0.005 - 0.103 (p45-79) | 33.92 | 0.78 | 16.55 | 0.09 | 5.04E-05 |
| 290  | prop_over65 = 0.141 - 0.188 (p36-76) & med_income < 16341.219 (p50) & POI_pp_telecom_elec < ±27.683 (p78) | rate_local12 = 0.006 - 0.142 (p45-86) | 33.92 | 0.78 | 16.55 | 0.09 | 5.04E-05 |
| 291  | prop_grassland = 0.005 - 0.037 (p29-58) & POI_pp_telecom_elec < ±18.319 (p65) | rate_local12 = 0.005 - 0.103 (p45-79) | 33.92 | 0.78 | 16.55 | 0.09 | 5.04E-05 |
| 292  | den_bldg < 0.291 (p72) & prop_transport > 0.106 (p44) | rate_local12 = 0.005 - 0.103 (p45-79) | 33.92 | 0.78 | 16.55 | 0.09 | 5.04E-05 |
| 293  | prop_grassland = 0.005 - 0.037 (p29-58) & POI_pp_mall_mkt < 9.372 (p66) | rate_local12 = 0.005 - 0.103 (p45-79) | 33.92 | 0.78 | 16.55 | 0.09 | 5.04E-05 |
| 294  | prop_over65 = 0.136 - 0.177 (p31-66) & LU_entropy > 0.568 (p53) | rate_local12 = 0.005 - 0.091 (p45-77) | 27.45 | 0.77 | 16.26 | 0.28 | 2E-06 |
| 295  | LU_entropy > 0.543 (p46) | rate_local12 = 0.006 - 0.106 (p45-80) | 54.87 | 0.47 | 15.52 | 0.13 | 1.6E-06 |
| 296  | prop_transport = 0.064 - 0.335 (p35-87) & POI_pp_transport < 58.495 (p77) | rate_local12 = 0.005 - 0.086 (p45-76) | 50.68 | 0.43 | 15.40 | 0.13 | 3.04E-06 |
| 297  | prop_grassland = 0.005 - 0.037 (p29-58) & POI_pp_transport < 58.495 (p77) | rate_local12 = 0.005 - 0.103 (p45-79) | 31.96 | 0.64 | 15.33 | 0.13 | 6.27E-05 |
| 298  | prop_over65 = 0.136 - 0.177 (p31-66) & POI_pp_mall_mkt < 9.372 (p66) | rate_local12 = 0.005 - 0.144 (p45-86) | 45.49 | 0.60 | 14.92 | 0.20 | 1.47E-06 |
| 299  | prop_grassland = 0.005 - 0.037 (p29-58) & POI_pp_sports < 42.413 (p79) | rate_local12 = 0.005 - 0.108 (p45-81) | 32.44 | 0.63 | 14.79 | 0.11 | 8.33E-05 |
| 300  | den_bldg < 0.427 (p83) & den_public_trans > 27.922 (p60) & POI_pp_mall_mkt < 9.372 (p66) | rate_local12 = 0.005 - 0.103 (p45-79) | 32.42 | 0.61 | 14.53 | 0.13 | 1.12E-05 |
| 301  | prop_over65 = 0.141 - 0.188 (p36-76) & med_income < 16341.219 (p50) & POI_pp_mall_mkt < 9.372 (p66) | rate_local12 = 0.006 - 0.106 (p45-80) | 34.41 | 0.69 | 14.41 | 0.14 | 5.91E-05 |
| 302  | prop_open_recreation = 0.023 - 0.101 (p43-78) & POI_pp_mall_mkt < 9.372 (p66) | rate_local12 = 0.006 - 0.116 (p45-81) | 26.65 | 0.74 | 13.75 | 0.20 | 3.16E-05 |
| 303  | den_population > 17626.686 (p50) & den_bldg < 27.922 (p60) & POI_pp_mall_mkt < 9.372 (p66) | rate_local12 = 0.002 - 0.056 (p45-68) | 24.27 | 0.48 | 13.59 | 0.14 | 2.47E-05 |
| 304  | den_bldg = 0.058 - 0.360 (p21-80) & POI_pp_mall_mkt < 9.372 (p66) | rate_local12 = 0.006 - 0.070 (p45-73) | 46.71 | 0.38 | 13.40 | 0.11 | 3.74E-05 |
| 305  | den_bldg < 0.291 (p72) & prop_transport > 0.106 (p44) & med_area_home < 18.868 (p57) & prop_shrubland = 0.009 - 0.082 (p30-53) & POI_pp_mall_mkt < 9.766 (p69) | rate_local12 = 0.002 - 0.072 (p45-73) | 28.18 | 0.52 | 13.33 | 0.14 | 2.24E-05 |
(b) Rules for wave-1 imported case rate; POI accessibility was used

| No. | Antecedent                                                                 | Consequent                | Supp | Conf | Lev | Imp  | P     |
|-----|----------------------------------------------------------------------------|---------------------------|------|------|-----|------|-------|
| 1   | prop_higher_edu >0.212 (p54) & build_area_pp >63.378 (p51)                | rate_imported12 >0.100 (p68) | 44.81| 0.70 | 23.96| 0.13 | 5.09E-05|
| 2   | prop_higher_edu >0.188 (p43) & med_area_home >16.738 (p50)               | rate_imported12 >0.107 (p70) | 47.59| 0.61 | 23.03| 0.12 | 7.23E-05|
| 3   | med_income >19583.009 (p65)                                              | rate_imported12 >0.110 (p70) | 44.69| 0.62 | 22.24| 0.31 | 1.22E-15|
| 4   | prop_higher_edu >0.171 (p39) & prop_industrial <0.010 (p71)              | rate_imported12 >0.087 (p67) | 59.44| 0.57 | 22.04| 0.08 | 1.61E-05|
| 5   | prop_preprim_edu <0.134 (p84) & med_area_home >16.409 (p49)               | rate_imported12 >0.081 (p64) | 54.36| 0.60 | 20.85| 0.08 | 4.54E-05|
| 6   | build_area_pp =68.225-212.874 (p52-90) & prop_industrial <0.014 (p76) & prop_agricultural <0.051 (p80) | rate_imported12 >0.106 (p70) | 33.99| 0.76 | 19.82| 0.10 | 2.36E-05|
| 7   | med_area_home >17.118 (p52) & prop_agricultural <0.061 (p82)             | rate_imported12 >0.099 (p68) | 43.93| 0.60 | 19.82| 0.10 | 5.4E-05 |
| 8   | med_income >16353.521 (p50) & prop_industrial <0.000 (p43)              | rate_imported12 >0.100 (p68) | 38.30| 0.67 | 19.55| 0.19 | 8.01E-07|
| 9   | build_area_pp =68.225-212.874 (p52-90) & prop_agricultural <0.063 (p82) | rate_imported12 >0.084 (p66) | 40.16| 0.69 | 19.16| 0.16 | 2.68E-07|
| 10  | build_area_pp >63.378 (p51) & prop_industrial <0.002 (p55) & prop_grassland <0.086 (p71) | rate_imported12 >0.100 (p68) | 33.34| 0.75 | 18.77| 0.12 | 3.02E-05|
| 11  | prop_preprim_edu <0.134 (p84) & build_area_pp >73.363 (p54)             | rate_imported12 >0.108 (p70) | 42.93| 0.55 | 18.72| 0.10 | 7.07E-05|
| 12  | med_area_home >17.900 (p55) & prop_grassland <0.073 (p69)               | rate_imported12 >0.100 (p68) | 36.50| 0.67 | 18.61| 0.16 | 4.18E-05|
| 13  | prop_higher_edu >0.210 (p53) & POI_pp_mall_mkt >7.907 (p64)              | rate_imported12 >0.160 (p78) | 30.38| 0.61 | 18.61| 0.17 | 1.96E-05|
| 14  | med_area_home >15.947 (p47) & prop_industrial <0.000 (p43)              | rate_imported12 >0.100 (p68) | 36.96| 0.65 | 18.37| 0.17 | 5.25E-05|
| 15  | build_area_pp >68.114 (p52) & prop_industrial <0.000 (p43)              | rate_imported12 >0.116 (p71) | 32.36| 0.68 | 18.19| 0.24 | 3.51E-06|
| 16  | prop_publicResid <0.005 (p56) & prop_industrial <0.009 (p70)            | rate_imported12 >0.116 (p71) | 44.50| 0.50 | 18.04| 0.10 | 5.08E-05|
| 17  | build_area_pp >66.770 (p52) & prop_grassland <0.086 (p71)               | rate_imported12 >0.096 (p68) | 40.89| 0.60 | 17.91| 0.12 | 7.06E-05|
| 18  | build_area_pp >71.028 (p53) & prop_rural_set <0.026 (p66)               | rate_imported12 >0.120 (p71) | 36.76| 0.58 | 17.88| 0.14 | 3.83E-05|
| 19  | med_area_home >18.079 (p55) & prop_rural_set <0.022 (p64)               | rate_imported12 >0.161 (p78) | 29.75| 0.57 | 17.57| 0.17 | 6.12E-06|
| 20  | prop_preprim_edu <0.097 (p52) & prop_publicResid <0.005 (p56)            | rate_imported12 >0.146 (p74) | 32.15| 0.52 | 16.61| 0.15 | 2.98E-05|
|   | Equation                                                                 | Rate Imported 12 | p-Value | F-Value | df | Sig. | p-Value * | F-Value * |
|---|--------------------------------------------------------------------------|------------------|---------|---------|----|------|-----------|-----------|
| 21 | prop_higher_edu >0.195 (p47) & POI_pp_edu > 14.831 (p67)               | rate_imported12 >0.181 (p79) | 26.83   | 0.54    | 15.93| 0.16 | 6.82E-05  |
| 22 | prop_higher_edu >0.364 (p85)                                           | rate_imported12 >0.124 (p71) | 24.89   | 0.78    | 15.77| 0.49 | 6.85E-11  |
| 23 | build_area_pp = 51.859 - 202.851 (p43-89)                              | rate_imported12 >0.105 (p69) | 47.53   | 0.48    | 15.73| 0.16 | 3.57E-07  |
| 24 | prop_industrial <0.008 (p70) & POI_pp_sports > 28.416 (p66)            | rate_imported12 >0.123 (p71) | 31.97   | 0.56    | 15.71| 0.10 | 7.38E-05  |
| 25 | prop_higher_edu > 0.237 (p62) & POI_pp_telecom_elec > 21.730 (p71)     | rate_imported12 >0.209 (p81) | 21.96   | 0.66    | 15.52| 0.23 | 5.15E-05  |
| 26 | prop_publicResid <0.034 (p69)                                          | rate_imported12 >0.103 (p69) | 62.20   | 0.43    | 15.37| 0.11 | 1.22E-08  |
| 27 | prop_agricultural <0.057 (p82) & POI_pp_telecom_elec > 24.175 (p75)    | rate_imported12 >0.184 (p80) | 23.58   | 0.61    | 15.31| 0.14 | 7.41E-05  |
| 28 | prop_industrial <0.000 (p39) & POI_pp_transport > 35.681 (p57)         | rate_imported12 >0.179 (p79) | 24.90   | 0.55    | 15.12| 0.18 | 6.86E-05  |
| 29 | POI_pp_mall_mkt > 10.941 (p75)                                         | rate_imported12 >0.195 (p80) | 22.27   | 0.63    | 14.88| 0.23 | 1.6E-05   |
| 30 | POI_pp_telecom_elec > 25.431 (p76)                                     | rate_imported12 >0.196 (p80) | 28.89   | 0.41    | 14.60| 0.21 | 5.62E-08  |
| 31 | POI_pp_transport > 39.200 (p61)                                         | rate_imported12 >0.213 (p81) | 24.73   | 0.46    | 14.51| 0.27 | 5.34E-10  |
| 32 | gender_ratio > 94.412 (p59) & build_area_pp > 60.156 (p50)             | rate_imported12 >0.163 (p78) | 20.18   | 0.78    | 14.19| 0.28 | 7.68E-05  |
| 33 | POI_pp_mall_mkt > 10.941 (p75) & build_area_pp > 60.156 (p50)          | rate_imported12 >0.202 (p80) | 25.16   | 0.45    | 14.06| 0.25 | 1.15E-08  |
| 34 | prop_industrial <0.000 (p43)                                           | rate_imported12 >0.097 (p68) | 44.29   | 0.49    | 13.89| 0.15 | 1.39E-06  |
| 35 | POI_pp_telecom_elec > 25.431 (p76)                                     | rate_imported12 >0.099 (p68) | 48.70   | 0.45    | 12.73| 0.12 | 5.05E-05  |
| 36 | gender_ratio > 94.412 (p59) & build_area_pp > 60.156 (p50)             | rate_imported12 >0.169 (p78) | 19.27   | 0.66    | 12.70| 0.44 | 1.69E-12  |
| 37 | POI_pp_telecom_elec > 25.431 (p76)                                     | rate_imported12 >0.187 (p80) | 22.41   | 0.48    | 12.67| 0.27 | 2.78E-08  |
| 38 | POI_pp_transport > 39.200 (p61)                                         | rate_imported12 >0.110 (p70) | 20.27   | 0.76    | 11.98| 0.45 | 6.18E-09  |
| 39 | gender_ratio > 94.412 (p59) & build_area_pp > 60.156 (p50)             | rate_imported12 >0.255 (p83) | 17.96   | 0.50    | 11.72| 0.33 | 1.27E-08  |
| 40 | POI_pp_mall_mkt > 10.941 (p75) & build_area_pp > 60.156 (p50)          | rate_imported12 >0.083 (p65) | 38.57   | 0.53    | 11.66| 0.16 | 5.07E-05  |
| 41 | prop_preprim_edu <0.078 (p17)                                          | rate_imported12 >0.084 (p66) | 23.07   | 0.72    | 11.48| 0.16 | 4.34E-05  |
| 42 | gender_ratio > 94.412 (p59) & build_area_pp > 60.156 (p50)             | rate_imported12 >0.084 (p66) | 46.61   | 0.48    | 11.11| 0.11 | 2.65E-05  |
| 43 | gender_ratio > 94.412 (p59) & prop_rural_set <0.022 (p64)              | rate_imported12 >0.261 (p83) | 17.68   | 0.44    | 10.82| 0.14 | 7.83E-05  |
| 44 | gender_ratio > 94.412 (p59) & prop_rural_set <0.022 (p64)              | rate_imported12 >0.203 (p80) | 16.53   | 0.56    | 10.73| 0.22 | 1.06E-05  |
| 45 | gender_ratio > 94.412 (p59) & prop_rural_set <0.022 (p64)              | rate_imported12 >0.207 (p81) | 26.22   | 0.32    | 10.36| 0.13 | 6.6E-05   |
| 46 | gender_ratio > 94.412 (p59) & prop_rural_set <0.022 (p64)              | rate_imported12 >0.124 (p71) | 16.06   | 0.59    | 8.36 | 0.31 | 5.13E-05  |
| 47 | gender_ratio > 94.412 (p59) & build_area_pp > 60.156 (p50)             | rate_imported12 >0.189 (p80) | 9.88    | 0.83    | 7.39 | 0.41 | 6.01E-05  |
| 48 | gender_ratio > 94.412 (p59) & build_area_pp > 60.156 (p50)             | rate_imported12 >0.189 (p80) | 9.88    | 0.83    | 7.39 | 0.41 | 6.01E-05  |
49 build_area_pp > 75.116 (p54) & prop_private_resid > 0.239 (p85)
rate_imported12 > 0.184 (p80)
8.11 0.85 6.08 0.49 6.97E-05

50 den_population < 1544.010 (p22) & prop_private_resid = 0.020-0.115 (p35-70)
rate_imported12 > 0.188 (p80)
6.50 0.73 4.61 0.44 2.53E-05

51 den_public_trans < 5.489 (p32) & prop_agricultural < 0.007 (p56)
rate_imported12 > 0.183 (p80)
5.97 0.70 4.16 0.44 3.06E-05

52 den_bldg < 0.055 (p20) & prop_private_resid > 0.032-0.183 (p43-80)
rate_imported12 > 0.297 (p84)
4.05 0.76 3.23 0.53 2.03E-05

53 build_area_pp < 68.225 (p52) & prop_agricultural > 0.063 (p82)
rate_imported12 > 0.084 (p66)
5.36 0.67 2.46 0.40 7.77E-05

54 prop_preprim_edu < 0.131 (p83) & med_area_home < 17.589 (p54)
& POI_pp_transport < 41.646 (p64)
rate_imported12 = 0.003-0.094 (p36-68)
54.98 0.67 29.33 0.07 8.04E-05

55 gender_ratio < 96.234 (p71) & prop_preprim_edu < 0.130 (p83)
& med_area_home < 18.749 (p57)
rate_imported12 = 0.004-0.112 (p36-71)
60.03 0.67 29.30 0.07 2.04E-05

56 prop_preprim_edu < 0.131 (p83) & med_area_home < 17.589 (p54)
& POI_pp_edu < 14.873 (p67)
rate_imported12 = 0.003-0.095 (p36-68)
54.12 0.68 29.14 0.07 8.04E-05

57 prop_preprim_edu < 0.131 (p83) & med_area_home < 17.589 (p54)
& POI_pp_mall_mkt < 9.149 (p66)
rate_imported12 = 0.005-0.096 (p36-68)
54.64 0.68 29.10 0.07 2.96E-05

58 prop_preprim_edu < 0.131 (p83) & med_income < 22172.304 (p77)
& POI_pp_telecom_elec < 15.807 (p59)
rate_imported12 = 0.003-0.102 (p36-69)
59.49 0.64 28.98 0.07 4.44E-05

59 prop_preprim_edu < 0.130 (p83) & med_income < 20515.207 (p73)
& POI_pp_transport < 39.932 (p61)
rate_imported12 = 0.005-0.110 (p36-70)
59.38 0.66 28.96 0.09 6.39E-05

60 prop_preprim_edu < 0.131 (p83) & med_area_home < 17.589 (p54)
& POI_pp_sports < 25.282 (p62)
rate_imported12 = 0.005-0.096 (p36-68)
54.29 0.68 28.95 0.07 2.96E-05

61 prop_preprim_edu < 0.132 (p83) & med_income < 21672.073 (p75)
& POI_pp_sports < 22.607 (p67)
rate_imported12 = 0.003-0.101 (p36-68)
56.79 0.64 28.61 0.08 5.21E-06

62 prop_preprim_edu < 0.131 (p83) & POI_pp_transport < 34.984 (p57)
rate_imported12 = 0.005-0.156 (p36-76)
71.50 0.66 28.25 0.06 4.66E-06

63 gender_ratio < 96.234 (p71) & prop_preprim_edu < 0.130 (p83)
& POI_pp_transport < 30.187 (p52)
rate_imported12 = 0.005-0.110 (p36-70)
55.65 0.69 28.25 0.05 7.59E-05

64 prop_preprim_edu < 0.130 (p83) & prop_higher_edu < 0.274 (p69)
& POI_pp_transport < 39.932 (p61)
rate_imported12 = 0.004-0.101 (p36-68)
55.07 0.65 27.50 0.10 3.03E-05

65 gender_ratio < 94.774 (p63) & med_income < 20632.679 (p73)
& POI_pp_telecom_elec < 12.856 (p53)
rate_imported12 = 0.002-0.093 (p36-68)
47.41 0.74 27.42 0.08 2.58E-05

66 med_area_home < 17.092 (p52) & POI_pp_telecom_elec < 11.488 (p50)
rate_imported12 = 0.004-0.090 (p36-67)
51.47 0.66 27.41 0.14 8.79E-07
67 \text{prop\_preprim\_edu} < 0.130 (p83) \& \text{med\_income} < 19760.524 (p65) \& \text{POI\_pp\_mall\_mkt} < 7.462 (p61) \\
rate\_imported12 = 0.005 - 0.100 (p36-68) \\
53.68 \ 0.66 \ 27.32 \ 0.11 \ 1.36E-05

68 \text{prop\_preprim\_edu} < 0.131 (p83) \& \text{POI\_pp\_sports} < 22.607 (p57) \\
rate\_imported12 = 0.004 - 0.126 (p36-72) \\
66.48 \ 0.61 \ 26.99 \ 0.14 \ 3.04E-05

69 \text{med\_area\_home} < 16.841 (p50) \& \text{POI\_pp\_transport} < 25.580 (p49) \\
rate\_imported12 = 0.002 - 0.082 (p36-65) \\
48.52 \ 0.65 \ 26.99 \ 0.14 \ 5.72E-06

70 \text{med\_area\_home} < 16.854 (p50) \& \text{POI\_pp\_edu} < 13.203 (p60) \\
rate\_imported12 = 0.002 - 0.088 (p36-67) \\
51.63 \ 0.64 \ 26.96 \ 0.12 \ 4.57E-06

71 \text{med\_area\_home} < 17.246 (p52) \& \text{prop\_private\_resid} = 0.010 - 0.221 (p27-85) \& \text{POI\_pp\_transport} < 32.004 (p53) \\
rate\_imported12 = 0.004 - 0.070 (p36-64) \\
41.99 \ 0.72 \ 26.94 \ 0.14 \ 5.42E-06

72 \text{prop\_preprim\_edu} < 0.135 (p84) \& \text{med\_income} < 20810.585 (p73) \& \text{build\_area\_pp} < 71.444 (p53) \\
rate\_imported12 = 0.003 - 0.112 (p36-71) \\
55.37 \ 0.66 \ 26.92 \ 0.08 \ 8.55E-06

73 \text{gender\_ratio} < 95.704 (p69) \& \text{prop\_preprim\_edu} < 0.130 (p83) \& \text{med\_income} < 20318.595 (p73) \\
rate\_imported12 = 0.004 - 0.091 (p36-67) \\
54.44 \ 0.61 \ 26.91 \ 0.10 \ 1.34E-05

74 \text{med\_area\_home} < 17.197 (p52) \& \text{prop\_private\_resid} = 0.010 - 0.221 (p27-85) \& \text{POI\_pp\_telecom\_elec} < 10.658 (p49) \\
rate\_imported12 = 0.004 - 0.085 (p36-66) \\
43.24 \ 0.79 \ 26.90 \ 0.13 \ 1.14E-05

75 \text{gender\_ratio} < 94.103 (p58) \& \text{med\_area\_home} < 17.589 (p54) \& \text{POI\_pp\_mall\_mkt} < 7.405 (p61) \\
rate\_imported12 = 0.004 - 0.098 (p36-68) \\
46.39 \ 0.76 \ 26.86 \ 0.11 \ 4.17E-05

76 \text{prop\_preprim\_edu} < 0.130 (p82) \& \text{prop\_higher\_edu} < 0.241 (p63) \& \text{POI\_pp\_edu} < 10.562 (p52) \\
rate\_imported12 = 0.004 - 0.107 (p36-70) \\
49.44 \ 0.73 \ 26.79 \ 0.12 \ 1.08E-05

77 \text{med\_income} < 20533.112 (p73) \& \text{prop\_agricultural} < 0.055 (p81) \& \text{POI\_pp\_transport} < 39.835 (p61) \\
rate\_imported12 = 0.004 - 0.083 (p36-65) \\
52.78 \ 0.59 \ 26.72 \ 0.08 \ 1.32E-05

78 \text{prop\_preprim\_edu} < 0.130 (p83) \& \text{POI\_pp\_telecom\_elec} < 18.220 (p65) \\
rate\_imported12 = 0.005 - 0.156 (p36-76) \\
75.58 \ 0.62 \ 26.67 \ 0.05 \ 6.75E-05

79 \text{prop\_preprim\_edu} < 0.130 (p83) \& \text{POI\_pp\_mall\_mkt} < 6.671 (p57) \\
rate\_imported12 = 0.005 - 0.156 (p36-76) \\
68.42 \ 0.65 \ 26.55 \ 0.09 \ 2.52E-07

80 \text{med\_income} < 20922.721 (p73) \& \text{prop\_private\_resid} = 0.010 - 0.230 (p27-85) \& \text{POI\_pp\_telecom\_elec} < 16.754 (p61) \\
rate\_imported12 = 0.003 - 0.081 (p36-64) \\
46.47 \ 0.67 \ 26.53 \ 0.11 \ 7.92E-06

81 \text{med\_area\_home} < 17.343 (p52) \& \text{prop\_private\_resid} = 0.009 - 0.218 (p26-84) \& \text{POI\_pp\_sports} < 24.226 (p62) \\
rate\_imported12 = 0.002 - 0.076 (p36-64) \\
43.21 \ 0.71 \ 26.45 \ 0.12 \ 4.13E-06

82 \text{med\_income} < 19986.043 (p65) \& \text{prop\_private\_resid} = 0.009 - 0.218 (p26-84) \& \text{POI\_pp\_transport} < 31.422 (p53) \\
rate\_imported12 = 0.004 - 0.085 (p36-66) \\
44.16 \ 0.74 \ 26.44 \ 0.13 \ 1.59E-06

83 \text{med\_area\_home} < 16.888 (p50) \& \text{POI\_pp\_mall\_mkt} < 4.472 (p48) \\
rate\_imported12 = 0.004 - 0.080 (p36-64) \\
46.75 \ 0.66 \ 26.43 \ 0.16 \ 1.37E-06

84 \text{gender\_ratio} < 96.234 (p71) \& \text{prop\_preprim\_edu} < 0.130 (p83) \& \text{prop\_higher\_edu} < 0.286 (p73) \\
rate\_imported12 = 0.003 - 0.096 (p36-68) \\
55.89 \ 0.60 \ 26.31 \ 0.09 \ 2.98E-05
85 med_area_home <17.493 (p52) & build_area_pp <62.960 (p50) & rate_imported12 =0.004-0.080 (p36-64) 49.97 0.60 26.28 0.11 5.15E-05

86 gender_ratio <93.540 (p51) & POI_pp_telecom_elec <13.409 (p54) & rate_imported12 =0.005-0.120 (p36-71) 49.54 0.75 26.28 0.19 3.1E-07

87 gender_ratio <93.909 (p56) & med_area_home <19.469 (p61) & POI_pp_telecom_elec <20.088 (p68) & rate_imported12 =0.004-0.075 (p36-64) 41.59 0.74 26.20 0.13 1.82E-05

88 med_area_home <16.816 (p50) & den_public_trans =4.903-80.627 (p31-89) & rate_imported12 =0.003-0.101 (p36-68) 51.61 0.66 26.18 0.12 4.57E-06

89 med_area_home <17.092 (p52) & prop_private_resid =0.009-0.218 (p26-84) & POI_pp_mall_mkt <5.960 (p53) & rate_imported12 =0.004-0.075 (p36-64) 41.59 0.74 26.20 0.13 1.82E-05

90 med_area_home <17.343 (p52) & prop_private_resid =0.009-0.218 (p26-84) & POI_pp_edu <12.314 (p57) & rate_imported12 =0.005-0.120 (p36-71) 49.54 0.75 26.28 0.19 3.1E-07

91 gender_ratio <93.712 (p53) & med_area_home <17.235 (p52) & POI_pp_transport <29.530 (p52) & rate_imported12 =0.002-0.097 (p36-68) 43.28 0.80 26.12 0.10 7.25E-07

92 build_area_pp <99.164 (p67) & prop_private_resid =0.006-0.245 (p23-86) & POI_pp_transport <24.809 (p49) & rate_imported12 =0.003-0.082 (p36-65) 53.47 0.56 25.92 0.06 4.53E-05

93 med_income <19986.043 (p65) & prop_private_resid =0.009-0.218 (p26-84) & POI_pp_transport <17.590 (p50) & rate_imported12 =0.004-0.085 (p36-66) 42.83 0.75 25.85 0.12 3.1E-06

94 gender_ratio <93.712 (p53) & POI_pp_transport <32.487 (p54) & rate_imported12 =0.004-0.107 (p36-70) 48.37 0.72 25.83 0.18 2.49E-07

95 prop_preprim_edu <0.130 (p82) & POI_pp_edu <10.562 (p52) & POI_pp_transport <14.768 (p67) & rate_imported12 =0.003-0.097 (p36-68) 44.62 0.76 25.84 0.11 6.41E-06

96 gender_ratio <93.626 (p52) & POI_pp_transport <32.487 (p54) & rate_imported12 =0.004-0.107 (p36-70) 48.37 0.72 25.83 0.18 2.49E-07

97 gender_ratio <96.322 (p71) & POI_pp_telecom_elec <13.444 (p55) & rate_imported12 =0.003-0.081 (p36-64) 45.74 0.66 25.80 0.07 3.29E-05

98 prop_preprim_edu <0.130 (p83) & prop_higher_edu <0.246 (p64) & rate_imported12 =0.004-0.097 (p36-68) 45.90 0.73 25.77 0.11 1.25E-06

99 prop_preprim_edu <0.130 (p82) & POI_pp_edu <10.562 (p52) & rate_imported12 =0.004-0.120 (p36-71) 59.52 0.62 25.67 0.08 2.88E-05

100 prop_private_resid =0.010-0.230 (p27-85) & POI_pp_telecom_elec <18.338 (p40) & rate_imported12 =0.004-0.070 (p36-64) 41.24 0.69 25.66 0.14 1.2E-05

101 gender_ratio <93.712 (p53) & POI_pp_sports <19.192 (p52) & rate_imported12 =0.005-0.115 (p36-71) 47.99 0.74 25.64 0.20 2.95E-07

102 gender_ratio <93.712 (p53) & med_area_home <18.234 (p55) & rate_imported12 =0.005-0.115 (p36-71) 52.81 0.67 25.63 0.14 4.07E-06

103 prop_private_resid =0.009-0.201 (p26-83) & POI_pp_telecom_elec <6.513 (p36) & rate_imported12 =0.005-0.064 (p36-60) 38.46 0.70 25.53 0.14 1.25E-05
| Equation                                                                 | Coefficients                      | Intercept | p-Value | t-Value | Adj R²   |
|--------------------------------------------------------------------------|-----------------------------------|-----------|---------|---------|----------|
| \( \text{prop\_preprim\_edu} < 0.129 \) & \( \text{prop\_higher\_edu} < 0.235 \) & \( \text{prop\_agricultural} < 0.046 \) | \( -0.003 - 0.081 \)              | 47.55     | 0.62    | 25.51   | 0.10     | 5.4E-06  |
| \( \text{prop\_preprim\_edu} < 0.131 \) & \( \text{med\_area\_home} < 17.171 \) & \( \text{den\_road} = 6.383 - 22.034 \) | \( 0.004 - 0.085 \)              | 45.03     | 0.68    | 25.51   | 0.08    | 2.7E-05  |
| \( \text{prop\_preprim\_edu} < 0.135 \) & \( \text{med\_area\_home} < 16.645 \) & \( \text{LU\_entropy} > 0.561 \) | \( 0.003 - 0.087 \)              | 41.59     | 0.77    | 25.46   | 0.11    | 1.01E-06 |
| \( \text{med\_income} < 20795.645 \) & \( \text{prop\_transport} = 0.069 - 0.334 \) & \( \text{POI\_pp\_sports} < 12.803 \) | \( 0.004 - 0.085 \)              | 40.83     | 0.79    | 25.44   | 0.10    | 1.54E-05 |
| \( \text{build\_area\_pp} < 65.661 \) & \( \text{POI\_pp\_transport} < 24.748 \) | \( 0.003 - 0.075 \)              | 46.35     | 0.60    | 25.40   | 0.12    | 1.66E-05 |
| \( \text{prop\_higher\_edu} < 0.246 \) & \( \text{prop\_private\_resid} = 0.010 - 0.230 \) & \( \text{and\_road} > 13.632 \) | \( 0.004 - 0.087 \)              | 42.45     | 0.74    | 25.31   | 0.14    | 2.59E-06 |
| \( \text{med\_area\_home} < 17.016 \) & \( \text{prop\_transport} = 0.051 - 0.322 \) & \( \text{LU\_entropy} < 0.561 \) | \( 0.004 - 0.089 \)              | 42.69     | 0.75    | 25.28   | 0.11    | 6.48E-05 |
| \( \text{prop\_preprim\_edu} < 0.130 \) & \( \text{med\_income} < 18949.418 \) & \( \text{POI\_pp\_telecom\_elec} < 12.662 \) & \( \text{rate\_imported} \) | \( 0.003 - 0.109 \)              | 48.66     | 0.70    | 25.27   | 0.11    | 1.46E-06 |
| \( \text{build\_area\_pp} < 65.774 \) & \( \text{POI\_pp\_telecom\_elec} < 12.662 \) & \( \text{rate\_imported} \) | \( 0.003 - 0.077 \)              | 47.74     | 0.59    | 25.26   | 0.12    | 2.5E-05  |
| \( \text{prop\_preprim\_edu} < 0.130 \) & \( \text{med\_income} < 21622.419 \) & \( \text{prop\_private\_resid} = 0.010 - 0.230 \) & \( \text{rate\_imported} \) | \( 0.004 - 0.097 \)              | 49.57     | 0.65    | 25.24   | 0.08    | 7.47E-06 |
| \( \text{med\_income} < 19998.727 \) & \( \text{prop\_transport} = 0.069 - 0.334 \) & \( \text{POI\_pp\_telecom\_elec} < 12.856 \) & \( \text{rate\_imported} \) | \( 0.003 - 0.085 \)              | 42.13     | 0.74    | 25.23   | 0.13    | 1.67E-05 |
| \( \text{POI\_pp\_telecom\_elec} < 6.513 \) | \( \text{rate\_imported} \) | \( 0.004 - 0.091 \)              | 48.88     | 0.64    | 25.23   | 0.33    | 1.78E-15 |
| \( \text{med\_income} < 19957.502 \) & \( \text{POI\_pp\_telecom\_elec} < 12.854 \) & \( \text{rate\_imported} \) | \( 0.003 - 0.091 \)              | 51.98     | 0.60    | 25.17   | 0.09    | 2.9E-05  |
| \( \text{prop\_private\_resid} = 0.010 - 0.223 \) & \( \text{POI\_pp\_sports} < 23.556 \) & \( \text{rate\_imported} \) | \( 0.004 - 0.190 \)              | 60.84     | 0.73    | 25.14   | 0.13    | 8.23E-07 |
| \( \text{prop\_higher\_edu} < 0.281 \) & \( \text{prop\_private\_resid} = 0.010 - 0.230 \) & \( \text{POI\_pp\_transport} < 37.598 \) & \( \text{rate\_imported} \) | \( 0.004 - 0.086 \)              | 44.53     | 0.68    | 25.06   | 0.10    | 3.83E-05 |
| \( \text{med\_income} < 20342.840 \) & \( \text{prop\_agricultural} < 0.062 \) & \( \text{POI\_pp\_sports} < 26.196 \) & \( \text{rate\_imported} \) | \( 0.005 - 0.083 \)              | 51.16     | 0.57    | 25.03   | 0.06    | 7.81E-05 |
| \( \text{build\_area\_pp} < 63.908 \) & \( \text{POI\_pp\_sports} < 16.066 \) & \( \text{rate\_imported} \) | \( 0.003 - 0.080 \)              | 47.25     | 0.61    | 24.95   | 0.11    | 6.38E-05 |
| \( \text{med\_area\_home} < 17.525 \) & \( \text{prop\_transport} = 0.069 - 0.321 \) & \( \text{POI\_pp\_telecom\_elec} < 12.071 \) & \( \text{rate\_imported} \) | \( 0.002 - 0.087 \)              | 41.29     | 0.76    | 24.89   | 0.12    | 4.19E-05 |
| \( \text{gender\_ratio} < 94.071 \) & \( \text{POI\_pp\_mall\_mkt} < 5.378 \) & \( \text{rate\_imported} \) | \( 0.004 - 0.108 \)              | 47.16     | 0.71    | 24.89   | 0.18    | 1.11E-06 |
med_income <19690.189 (p65) & prop_agricultural <0.060 (p82) & POI_pp_telecom_elec <19.914 (p68) rate_imported12 =0.002-0.083 (p36-65) 50.90 0.57 24.84 0.06 4.41E-05

prop_preprim_edu =0.080-0.138 (p19-85) & med_area_home <17.676 (p54) & den_bldg =0.084-0.424 (p29-83) rate_imported12 =0.003-0.079 (p36-64) 42.16 0.69 24.82 0.08 7.03E-05

rate_imported12 =0.004-0.093 (p36-68) 52.76 0.59 24.79 0.08 7.21E-05

rate_imported12 =0.003-0.101 (p36-68) 46.65 0.69 24.78 0.12 2.05E-05

rate_imported12 =0.003-0.079 (p36-67) 55.05 0.56 24.77 0.09 4.27E-05

rate_imported12 =0.004-0.080 (p36-64) 38.79 0.78 24.68 0.14 3.09E-05

rate_imported12 =0.004-0.068 (p36-62) 40.96 0.63 24.64 0.15 2.74E-06

rate_imported12 =0.004-0.087 (p36-67) 41.29 0.74 24.60 0.12 2.81E-05

rate_imported12 =0.004-0.070 (p36-64) 44.13 0.59 24.60 0.13 2E-05

rate_imported12 =0.003-0.075 (p36-64) 44.19 0.61 24.46 0.11 6E-05

rate_imported12 =0.002-0.081 (p36-64) 41.43 0.70 24.45 0.12 2.4E-05

rate_imported12 =0.005-0.083 (p36-66) 48.09 0.59 24.41 0.10 6.39E-05

rate_imported12 =0.001-0.097 (p36-68) 49.45 0.63 24.41 0.06 7.72E-05

rate_imported12 =0.005-0.083 (p36-65) 49.46 0.58 24.41 0.08 6.2E-05

rate_imported12 =0.004-0.070 (p36-63) 38.34 0.71 24.37 0.11 5.15E-05

rate_imported12 =0.004-0.096 (p36-68) 44.18 0.71 24.36 0.20 2.32E-07

rate_imported12 =0.004-0.154 (p36-75) 63.26 0.64 24.30 0.09 1.15E-05
prop_higher_edu < 0.235 (p62) & prop_agricultural < 0.046 (p79) & POI_pp_edu < 15.157 (p67) & gender_ratio < 0.9500 (p64) & prop_gov_insti_facili > 0.027 (p38) & POL_pp_mall_mkt < 5.985 (p54)

rate_imported12 = 0.004 - 0.123 (p36-71)  45.76  0.76  24.14  0.09  7.66E-05

prop_preprim_edu < 0.126 (p81) & prop_higher_edu < 0.237 (p62) & POI_pp_mall_mkt < 15.157 (p67) & prop_gov_insti_facili > 0.027 (p38) & POL_pp_mall_mkt < 9.043 (p66)

rate_imported12 = 0.004 - 0.137 (p36-74)  60.60  0.62  24.12  0.12  5.29E-07

prop_preprim_edu < 0.127 (p82) & med_income < 18880.029 (p62) & POI_pp_mall_mkt < 5.985 (p54) & prop_gov_insti_facili > 0.027 (p38) & POL_pp_mall_mkt < 9.043 (p66)

rate_imported12 = 0.004 - 0.137 (p36-74)  60.60  0.62  24.12  0.12  5.29E-07

prop_gov_insti_facili > 0.027 (p38) & POI_pp_mall_mkt < 9.043 (p66)

rate_imported12 = 0.004 - 0.137 (p36-74)  60.60  0.62  24.12  0.12  5.29E-07

prop_gov_insti_facili > 0.027 (p38) & POI_pp_mall_mkt < 9.043 (p66)

rate_imported12 = 0.004 - 0.137 (p36-74)  60.60  0.62  24.12  0.12  5.29E-07

prop_gov_insti_facili > 0.027 (p38) & POI_pp_mall_mkt < 9.043 (p66)

rate_imported12 = 0.004 - 0.137 (p36-74)  60.60  0.62  24.12  0.12  5.29E-07
160 med_area_home <18.804 (p57) & POI_pp_sports <8.311 (p31) & rate_imported12 =0.002-0.086 (p36-66) 40.80 0.71 23.79 0.05 7.58E-05
161 prop_transport =0.069-0.334 (p36-87) & POI_pp_sports <12.803 (p42) & rate_imported12 =0.004-0.085 (p36-66) 42.08 0.69 23.79 0.13 6.3E-05
162 med_income <19892.439 (p65) & build_area_pp <63.409 (p51) & rate_imported12 =0.004-0.103 (p36-69) 51.91 0.61 23.76 0.08 8.2E-05
163 gender_ratio <93.392 (p56) & prop_higher_edu <0.314 (p77) & prop_gov_insti_fac <0.027 (p38) & rate_imported12 =0.003-0.094 (p36-68) 44.60 0.67 23.72 0.11 2.57E-05
164 prop_transport =0.070-0.336 (p36-88) & POI_pp_telecom_elec <12.219 (p51) & rate_imported12 =0.004-0.117 (p36-71) 48.55 0.68 23.68 0.12 8.13E-06
165 den_road =6.383-22.034 (p30-86) & POI_pp_transport <21.035 (p43) & rate_imported12 =0.004-0.081 (p36-64) 41.97 0.66 23.66 0.11 2.75E-05
166 prop_transport =0.075-0.346 (p36-90) & POI_pp_transport <20.897 (p43) & rate_imported12 =0.003-0.084 (p36-66) 41.60 0.68 23.64 0.13 2.27E-05
167 prop_higher_edu <0.253 (p65) & prop_transport =0.070-0.348 (p36-90) & POI_pp_telecom_elec <12.219 (p51) & rate_imported12 =0.004-0.094 (p36-68) 40.04 0.76 23.59 0.13 2.1E-05
168 med_area_home <17.155 (p52) & den_bldg =0.091-0.430 (p31-83) & rate_imported12 =0.004-0.072 (p36-64) 42.10 0.60 23.49 0.13 4.41E-05
169 build_area_pp <75.116 (p54) & prop_private_resid =0.006-0.239 (p22-85) & rate_imported12 =0.003-0.078 (p36-64) 45.27 0.58 23.49 0.14 1.33E-06
170 med_income <18973.034 (p62) & prop_agricultural <0.055 (p81) & LU_entropy >0.553 (p49) & rate_imported12 =0.004-0.081 (p36-64) 39.89 0.70 23.48 0.15 2.48E-06
171 med_income <19935.742 (p65) & prop_private_resid =0.010-0.230 (p27-85) & rate_imported12 =0.004-0.087 (p36-67) 47.91 0.59 23.47 0.17 8.22E-09
172 prop_preprim_edu <0.134 (p84) & LU_entropy >0.568 (p53) & POI_pp_telecom_elec <5.692 (p33) & rate_imported12 =0.003-0.089 (p36-67) 36.69 0.84 23.46 0.07 1.37E-05
173 med_area_home <16.459 (p49) & den_road =6.383-22.034 (p30-86) & rate_imported12 =0.004-0.081 (p36-64) 44.22 0.61 23.43 0.10 6.03E-05
174 med_area_home <15.536 (p45) & rate_imported12 =0.005-0.076 (p36-64) 50.15 0.52 23.36 0.24 1.29E-13
175 prop_gov_insti_fac <0.030 (p41) & POI_pp_telecom_elec <22.197 (p72) & rate_imported12 =0.003-0.136 (p36-73) 63.26 0.59 23.32 0.09 4.66E-05
176 med_income <18838.696 (p62) & prop_transport =0.051-0.322 (p31-86) & POI_pp_mall_mkt <5.231 (p51) & rate_imported12 =0.004-0.089 (p36-67) 39.43 0.74 23.29 0.12 4.43E-05
177 prop_higher_edu <0.232 (p62) & den_public_trans =6.952-79.515 (p35-89) & rate_imported12 =0.003-0.093 (p36-68) 44.77 0.65 23.28 0.18 3.04E-08
| Column                  | Condition                                      | Rate Imported 12 | Lower Bound | Upper Bound | Significance |
|------------------------|------------------------------------------------|------------------|-------------|-------------|--------------|
| den_public_trans       | =6.952-79.515 (p35-89) & POI_pp_mall_mkt <4.404 (p47) | 0.004-0.080 (p36-64) | 42.51       | 0.63        | 0.14         | 1.51E-06     |
| med_area_home          | <16.879 (p50) & LU_entropy >0.554 (p50)         | 0.003-0.078 (p36-64) | 41.47       | 0.64        | 0.14         | 8E-05        |
| den_population         | >15857.093 (p47) & prop_private_resid =0.009-0.201 (p26-83) & POI_pp_sports <21.567 (p56) | 0.004-0.067 (p36-62) | 36.14       | 0.69        | 0.14         | 4.19E-05     |
| den_public_trans       | =10.237-71.472 (p38-86) & POI_pp_edu <12.318 (p57) | 0.004-0.089 (p36-67) | 44.80       | 0.63        | 0.15         | 1.83E-05     |
| med_income             | <19447.658 (p63) & prop_business =0.001-0.054 (p32-86) | 0.004-0.106 (p36-70) | 49.52       | 0.62        | 0.14         | 3.5E-07      |
| med_income             | <19079.165 (p63) & den_population =12488.876-93890.455 (p44-93) | 0.004-0.093 (p36-68) | 46.39       | 0.62        | 0.14         | 1.84E-06     |
| LU_entropy             | >0.568 (p53) & POI_pp_telecom_elec <5.692 (p33)   | 0.004-0.072 (p36-64) | 35.53       | 0.75        | 0.14         | 6.64E-05     |
| den_population         | >16869.874 (p49) & prop_private_resid =0.012-0.231 (p30-85) & POI_pp_transport <17.102 (p38) | 0.003-0.071 (p36-64) | 33.75       | 0.82        | 0.12         | 1.06E-05     |
| den_population         | =10945.965-84346.226 (p43-91) & POI_pp_mall_mkt <4.218 (p47) | 0.004-0.068 (p36-62) | 37.37       | 0.65        | 0.19         | 1.69E-05     |
| den_road               | =6.383-22.034 (p30-86) & POI_pp_mall_mkt <3.900 (p45) | 0.004-0.081 (p36-64) | 41.71       | 0.64        | 0.13         | 1.13E-05     |
| prop_preprim_edu       | <0.134 (p84) & med_area_home <16.409 (p49)     | 0.006-0.081 (p36-64) | 47.17       | 0.52        | 0.05         | 7.38E-05     |
| prop_business          | =0.001-0.047 (p29-86) & POI_pp_mall_mkt <9.030 (p66) | 0.005-0.127 (p36-72) | 57.92       | 0.60        | 0.10         | 1.38E-05     |
| prop_preprim_edu       | =0.079-0.133 (p17-84) & LU_entropy >0.567 (p52) & POI_pp_sports <10.374 (p38) | 0.005-0.084 (p36-66) | 36.99       | 0.78        | 0.07         | 2.04E-05     |
| prop_business          | =0.001-0.054 (p32-86) & POI_pp_edu <19.478 (p74) | 0.003-0.141 (p36-74) | 59.67       | 0.62        | 0.08         | 1.85E-05     |
| prop_higher_edu        | <0.253 (p65) & prop_transport =0.070-0.348 (p36-90) & POI_pp_mall_mkt <5.865 (p53) | 0.004-0.081 (p36-64) | 38.05       | 0.72        | 0.13         | 9.95E-06     |
| prop_higher_edu        | <0.248 (p64) & den_bldg =0.089-0.407 (p30-82) & prop_agricultural <0.053 (p81) | 0.004-0.081 (p36-64) | 40.77       | 0.65        | 0.09         | 5.66E-05     |
| prop_higher_edu        | <0.255 (p65) & den_road =6.850 (p32) & POI_pp_edu <11.270 (p53) | 0.004-0.077 (p36-64) | 39.78       | 0.66        | 0.12         | 6.07E-05     |
| prop_higher_edu        | <0.246 (p64) & prop_agricultural <0.055 (p81) & LU_entropy >0.553 (p49) | 0.004-0.081 (p36-64) | 39.01       | 0.69        | 0.14         | 9.56E-06     |
prop_transport =0.079-0.345 (p36-90) &POI_pp_mall_mkt <3.722 (p44) rate_imported12 =0.002-0.090 (p36-67) 40.72 0.69 22.78 0.16 6.75E-06

med_area_home <19.336 (p61) &prop_business =0.001-0.054 (p32-86) rate_imported12 =0.003-0.116 (p36-71) 51.98 0.62 22.74 0.12 2.09E-05

LU_entropy >0.567 (p52) &POI_pp_transport <13.768 (p33) rate_imported12 =0.004-0.070 (p36-63) 35.03 0.74 22.74 0.11 4.46E-05

den_road =6.383-22.034 (p30-86) &POI_pp_sports <14.115 (p45) rate_imported12 =0.004-0.071 (p36-64) 40.05 0.61 22.72 0.11 5.76E-05

prop_higher_edu <0.246 (p64) &den_bldg >0.098 (p33) &POI_pp_edu <12.697 (p59) rate_imported12 =0.004-0.070 (p36-63) 38.65 0.62 22.70 0.13 7.05E-05

den_bldg =0.090-0.439 (p30-84) &POI_pp_telecom_elec <11.375 (p50) rate_imported12 =0.003-0.070 (p36-64) 40.67 0.59 22.70 0.12 4.31E-05

gender_ratio <96.234 (p71) &prop_preprim_edu <0.130 (p83) &LU_entropy >0.565 (p52) rate_imported12 =0.003-0.082 (p36-65) 41.72 0.63 22.65 0.10 7.92E-06

den_public_trans =10.237-71.472 (p38-86) &POI_pp_sports <16.304 (p50) rate_imported12 =0.003-0.076 (p36-64) 40.85 0.62 22.60 0.14 4.32E-06

den_bldg =0.089-0.418 (p30-83) &POI_pp_mall_mkt <3.751 (p44) rate_imported12 =0.004-0.072 (p36-64) 38.70 0.64 22.59 0.14 4.76E-05

den_population >17259.193 (p50) &POI_pp_transport <27.262 (p50) rate_imported12 =0.003-0.075 (p36-64) 41.91 0.59 22.58 0.11 3.87E-05

build_area_pp <58.262 (p47) &prop_transport =0.078-0.342 (p36-89) rate_imported12 =0.004-0.086 (p36-66) 41.65 0.65 22.58 0.14 1.42E-05

prop_preprim_edu =0.079-0.133 (p17-84) &build_area_pp >106.473 (p71) &LU_entropy >0.567 (p52) rate_imported12 =0.003-0.099 (p36-68) 41.08 0.71 22.55 0.11 4.23E-05

den_bldg =0.086-0.380 (p29-81) &build_area_pp <62.960 (p50) rate_imported12 =0.004-0.080 (p36-64) 40.78 0.64 22.52 0.15 1.38E-05

den_population >16592.806 (p49) &POI_pp_edu <12.477 (p58) rate_imported12 =0.003-0.080 (p36-64) 44.74 0.58 22.51 0.13 2.88E-06

den_public_trans =10.237-71.472 (p38-86) &POI_pp_telecom_elec <11.661 (p50) rate_imported12 =0.003-0.077 (p36-64) 41.33 0.61 22.51 0.13 4.29E-05

prop_higher_edu <0.233 (p62) &den_population =9845.500-83930.990 (p41-91) rate_imported12 =0.003-0.106 (p36-70) 42.83 0.70 22.43 0.21 2.38E-08

med_area_home <19.931 (p65) &prop_gov_insti_faci >0.027 (p38) rate_imported12 =0.004-0.108 (p36-70) 56.38 0.56 22.39 0.09 3.25E-05

med_income <21090.857 (p74) &POI_pp_mall_mkt <2.660 (p31) rate_imported12 =0.004-0.095 (p36-68) 40.90 0.69 22.36 0.07 1.95E-05
med_area_home <18.228 (p55) & den_population = 9467.160-80223.910 (p41-89)
rate_imported12 = 0.004-0.107 (p36-70) 47.79 0.62 22.25 0.11 5.88E-05

den_population = 13879.788-89721.699 (p45-93) & POI_pp_sports < 16.482 (p50)
rate_imported12 = 0.003-0.071 (p36-64) 38.38 0.62 22.23 0.16 6.63E-05

prop_transport = 0.070-0.348 (p36-90) & POI_pp_edu < 9.455 (p50)
rate_imported12 = 0.003-0.088 (p36-67) 42.66 0.62 22.16 0.13 1.84E-05

med_income < 20840.493 (p73) & POI_pp_edu < 9.176 (p50)
rate_imported12 = 0.004-0.074 (p36-64) 40.37 0.59 21.90 0.13 3.64E-05

den_road = 6.383-22.034 (p30-86) & POI_pp_edu < 9.176 (p50)
rate_imported12 = 0.004-0.074 (p36-64) 40.37 0.59 21.90 0.13 3.64E-05

prop_transport = 0.085-0.127 (p25-82) & med_income < 19433.607 (p63)
rate_imported12 = 0.005-0.105 (p36-69) 39.46 0.72 21.50 0.11 3.71E-05
233 gender_ratio < 93.932 (p56) & prop_gov_insti_fac > 0.027 (p38)  
rate_imported12 = 0.005-0.122 (p36-71)  
52.09 0.60 21.44 0.10 1.17E-05

234 med_income < 18814.295 (p62) & den_bldg = 0.093-0.420 (p31-83)  
rate_imported12 = 0.004-0.084 (p36-66)  
43.42 0.58 21.31 0.15 1.09E-05

235 prop_preprim_edu = 0.072-0.129 (p11-82) & prop_gov_insti_fac > 0.027 (p38) & LU_entropy > 0.555 (p50)  
rate_imported12 = 0.003-0.127 (p36-72)  
42.89 0.72 21.31 0.09 6.35E-05

236 POI_pp_sports < 6.556 (p22)  
rate_imported12 = 0.004-0.108 (p36-70)  
37.48 0.77 21.29 0.44 1.32E-13

237 den_population > 16307.647 (p48) & LU_entropy > 0.567 (p52) & POI_pp_edu < 8.527 (p49)  
rate_imported12 = 0.005-0.064 (p36-60)  
31.69 0.71 21.21 0.11 3.6E-05

238 prop_publicResid > 0.034 (p69)  
rate_imported12 = 0.002-0.103 (p36-69)  
43.49 0.63 21.17 0.30 1.54E-12

239 prop_higher_edu < 0.258 (p65) & den_road = 6.383-22.034 (p30-86)  
rate_imported12 = 0.003-0.097 (p36-68)  
45.31 0.59 21.06 0.15 4.11E-07

240 prop_agricultural < 0.046 (p79) & POI_pp_mall_mkt < 7.099 (p60)  
rate_imported12 = 0.003-0.084 (p36-66)  
50.81 0.51 21.06 0.07 7.55E-05

241 prop_higher_edu < 0.214 (p55) & prop_private_resid = 0.010-0.233 (p27-85)  
rate_imported12 = 0.002-0.106 (p36-69)  
41.55 0.67 21.06 0.22 4.55E-07

242 gender_ratio < 96.322 (p71) & prop_private_resid = 0.010-0.230 (p27-85)  
rate_imported12 = 0.003-0.081 (p36-64)  
49.53 0.50 21.03 0.09 2.44E-06

243 prop_agricultural < 0.049 (p80) & POI_pp_edu < 14.017 (p64)  
rate_imported12 = 0.002-0.083 (p36-65)  
52.28 0.49 21.02 0.06 3.41E-05

244 prop_higher_edu < 0.225 (p58) & prop_gov_insti_fac > 0.027 (p38)  
rate_imported12 = 0.003-0.126 (p36-72)  
47.45 0.65 21.01 0.17 2.43E-06

245 prop_preprim_edu = 0.080-0.138 (p19-85) & den_bldg = 0.084-0.424 (p29-83)  
rate_imported12 = 0.003-0.116 (p36-71)  
50.31 0.59 20.96 0.13 6.3E-05

246 prop_higher_edu < 0.260 (p65) & prop_business = 0.003-0.064 (p43-87)  
rate_imported12 = 0.004-0.074 (p36-64)  
38.50 0.59 20.94 0.17 1.63E-07

247 prop_preprim_edu = 0.072-0.129 (p11-82) & prop_gov_insti_fac > 0.027 (p38)  
rate_imported12 = 0.003-0.153 (p36-75)  
61.07 0.60 20.93 0.09 2.57E-05

248 med_income < 20533.112 (p73) & prop_agricultural < 0.055 (p81)  
rate_imported12 = 0.004-0.083 (p36-65)  
55.56 0.47 20.90 0.09 9.06E-07

249 prop_higher_edu < 0.237 (p62) & POI_pp_telecom_elec < 21.730 (p71)  
rate_imported12 = 0.005-0.097 (p36-68)  
52.22 0.53 20.86 0.09 6.29E-05

250 med_income < 19957.502 (p65) & den_bldg = 0.096-0.353 (p32-79) & POI_pp_transport < 33.445 (p56)  
rate_imported12 = 0.005-0.080 (p36-64)  
35.84 0.68 20.85 0.10 2.6E-05

251 build_area_pp < 51.859 (p43)  
rate_imported12 = 0.004-0.105 (p36-69)  
50.34 0.56 20.82 0.23 9.92E-10

252 gender_ratio < 93.712 (p53) & prop_higher_edu < 0.326 (p79)  
rate_imported12 = 0.004-0.096 (p36-68)  
50.54 0.54 20.76 0.07 7.49E-05
prop_business =0.003-0.044 (p43-85) & POI_pp_sports <27.447 (p64)

rate_imported12 =0.004-0.132 (p36-73) 47.48 0.65 20.64 0.10 4.62E-05

POI_pp_edu <3.533 (p20)

rate_imported12 =0.004-0.078 (p36-64) 32.83 0.75 20.52 0.47 8.59E-14

prop_preprim_edu =0.079-0.126 (p17-82) & prop_private_resid =0.009-0.218 (p26-84)

rate_imported12 =0.004-0.104 (p36-69) 45.83 0.59 20.16 0.13 1.39E-05

prop_preprim_edu =0.079-0.133 (p17-84) & LU_entropy >0.567 (p52)

rate_imported12 =0.003-0.138 (p36-74) 47.40 0.65 20.14 0.15 4.36E-06

build_area_pp <83.395 (p58) & LU_entropy >0.563 (p52)

rate_imported12 =0.003-0.084 (p36-66) 37.61 0.59 20.05 0.18 1.97E-05

po_mall_mkt <1.922 (p22)

rate_imported12 =0.003-0.083 (p36-66) 33.73 0.73 20.19 0.44 8.37E-12

prop_preprim_edu =0.085-0.127 (p25-82) & den_population =6277.989-86263.688 (p37-91)

rate_imported12 =0.005-0.105 (p36-69) 42.92 0.61 19.78 0.14 1.02E-06

den_population >18336.564 (p50) & den_bldg =0.095-0.431 (p32-83)

rate_imported12 =0.004-0.070 (p36-64) 38.69 0.53 19.76 0.11 3.36E-05

prop_gov_insti_fac >0.027 (p38) & LU_entropy >0.555 (p50)

rate_imported12 =0.003-0.130 (p36-73) 46.75 0.63 19.73 0.15 2.87E-05

prop_higher_edu <0.238 (p63) & prop_open_recreation >0.027 (p46)

rate_imported12 =0.003-0.094 (p36-68) 42.00 0.59 19.61 0.16 6.45E-06

prop_publicResid >0.049 (p71) & POI_pp_mall_mkt <3.388 (p42)

rate_imported12 =0.002-0.058 (p36-57) 29.30 0.63 19.57 0.13 3.31E-05

prop_open_recreation >0.027 (p46) & POI_pp_transport <55.785 (p74)

rate_imported12 =0.003-0.107 (p36-70) 50.38 0.54 19.42 0.10 7.29E-05

prop_business =0.003-0.044 (p43-85) & LU_entropy >0.561 (p51)

rate_imported12 =0.002-0.138 (p36-74) 39.66 0.73 19.25 0.17 4.79E-05

prop_higher_edu <0.230 (p62) & den_bldg =0.099-0.391 (p33-82)

rate_imported12 =0.003-0.090 (p36-67) 38.82 0.61 19.20 0.16 2.73E-07

den_bldg =0.096-0.353 (p32-79) & POI_pp_sports <19.959 (p53)

rate_imported12 =0.005-0.080 (p36-64) 36.68 0.59 18.90 0.13 5.88E-05

prop_preprim_edu =0.086-0.134 (p26-84) & den_road =7.383-21.682 (p35-86)

rate_imported12 =0.004-0.090 (p36-67) 39.49 0.58 18.78 0.14 5.5E-06

prop_preprim_edu =0.078-0.131 (p17-83)

rate_imported12 =0.001-0.160 (p36-78) 75.11 0.54 18.76 0.13 6.1E-11

den_road =6.811-21.396 (p31-85) & LU_entropy >0.558 (p50)

rate_imported12 =0.004-0.079 (p36-64) 39.87 0.53 18.69 0.12 4.85E-05

prop_business =0.003-0.060 (p43-87)

rate_imported12 =0.004-0.182 (p36-79) 58.29 0.62 18.56 0.20 1.03E-07
274 $\text{prop\_higher\_edu} < 0.213$ (p54) $\& \text{prop\_transport} = 0.079-0.345$ (p36-90) $\rightarrow \text{rate\_imported12} = 0.002-0.090$ (p36-67) 36.41 0.62 18.52 0.18 6.23E-05
275 $\text{prop\_higher\_edu} < 0.231$ (p62) $\& \text{prop\_grassland} < 0.082$ (p71) $\rightarrow \text{rate\_imported12} = 0.004-0.083$ (p36-65) 42.39 0.51 18.29 0.12 5.55E-05
276 $\text{prop\_private\_resid} = 0.011-0.143$ (p28-76) $\& \text{prop\_public\_resid} > 0.063$ (p74) $\& \text{POI\_pp\_mall\_mkt} < 3.731$ (p44) $\rightarrow \text{rate\_imported12} = 0.004-0.062$ (p36-58) 24.62 0.78 15.44 0.12 7.96E-05
277 $\text{prop\_private\_resid} = 0.002-0.233$ (p19-85) $\rightarrow \text{rate\_imported12} = 0.005-0.083$ (p36-67) 76.60 0.54 16.61 0.12 1.4E-07
278 $\text{den\_public\_trans} = 13.792-62.916$ (p45-84) $\rightarrow \text{rate\_imported12} = 0.004-0.062$ (p36-58) 47.67 0.58 16.59 0.20 3.65E-07
279 $\text{gender\_ratio} < 94.842$ (p64) $\rightarrow \text{rate\_imported12} = 0.003-0.079$ (p36-64) 26.40 0.67 15.18 0.22 2.38E-05
280 $\text{prop\_gov\_insti\_faci} > 0.030$ (p41) $\rightarrow \text{rate\_imported12} = 0.003-0.124$ (p36-71) 62.21 0.49 16.38 0.13 3.9E-08
281 $\text{den\_population} > 26483.860$ (p60) $\rightarrow \text{rate\_imported12} = 0.004-0.182$ (p36-79) 40.23 0.45 15.78 0.17 8.14E-08
282 $\text{den\_bldg} = 0.095-0.431$ (p32-83) $\rightarrow \text{rate\_imported12} = 0.004-0.084$ (p36-66) 24.62 0.78 17.48 0.12 7.96E-05
283 $\text{den\_population} > 17868.663$ (p50) $\& \text{prop\_private\_resid} = 0.020-0.115$ (p35-70) $\rightarrow \text{rate\_imported12} = 0.002-0.079$ (p36-64) 26.40 0.67 15.18 0.22 2.38E-05
284 $\text{den\_road} = 6.811-21.396$ (p31-85) $\rightarrow \text{rate\_imported12} = 0.004-0.084$ (p36-66) 76.60 0.54 16.61 0.12 1.4E-07
285 $\text{LU\_entropy} > 0.561$ (p51) $\rightarrow \text{rate\_imported12} = 0.004-0.182$ (p36-79) 47.67 0.58 16.59 0.20 3.65E-07
286 $\text{prop\_transport} > 0.121$ (p50) $\rightarrow \text{rate\_imported12} = 0.004-0.140$ (p36-74) 43.70 0.40 12.51 0.11 4.34E-05
287 $\text{POI\_pp\_transport} < 4.899$ (p9) $\rightarrow \text{rate\_imported12} = 0.003-0.160$ (p36-78) 60.84 0.54 15.78 0.14 2.31E-05
288 $\text{prop\_agricultural} < 0.055$ (p81) $\rightarrow \text{rate\_imported12} = 0.003-0.084$ (p36-66) 42.39 0.51 18.29 0.12 5.55E-05
289 $\text{den\_population} > 17868.663$ (p50) $\& \text{prop\_private\_resid} = 0.020-0.115$ (p35-70) $\rightarrow \text{rate\_imported12} = 0.002-0.079$ (p36-64) 26.40 0.67 15.18 0.22 2.38E-05
290 $\text{prop\_higher\_edu} > 0.260$ (p65) $\& \text{prop\_business} = 0.003-0.064$ (p43-87) $\rightarrow \text{rate\_imported12} = 0.074-0.221$ (p64-81) 13.97 0.46 8.42 0.20 7.93E-05
291 $\text{med\_area\_home} > 18.804$ (p57) $\& \text{POI\_pp\_sports} < 8.311$ (p31) $\rightarrow \text{rate\_imported12} = 0.086-0.185$ (p66-80) 2.84 0.50 2.05 0.34 4.54E-05
292 $\text{prop\_higher\_edu} < 0.278$ (p71) $\& \text{med\_income} < 19467.587$ (p63) $\rightarrow \text{rate\_imported12} < 0.112$ (p71) 119.46 0.91 26.89 0.03 3.67E-05
293 $\text{prop\_higher\_edu} < 0.253$ (p65) $\& \text{POI\_pp\_transport} < 39.932$ (p61) $\rightarrow \text{rate\_imported12} < 0.114$ (p71) 90.29 0.94 22.56 0.06 2.23E-05
294 $\text{med\_income} < 19583.009$ (p65) $\rightarrow \text{rate\_imported12} < 0.110$ (p70) 120.22 0.85 22.51 0.16 1.22E-15
295 $\text{med\_income} < 24851.593$ (p79) $\& \text{build\_area\_pp} < 77.706$ (p56) $\& \text{POI\_pp\_telecom\_elec} < 18.818$ (p67) $\rightarrow \text{rate\_imported12} < 0.071$ (p64) 79.53 0.86 21.92 0.04 3.57E-05
296 $\text{build\_area\_pp} < 59.805$ (p50) $\& \text{prop\_agricultural} < 0.058$ (p82) $\& \text{POI\_pp\_telecom\_elec} < 21.508$ (p71) $\rightarrow \text{rate\_imported12} < 0.079$ (p64) 76.70 0.89 21.08 0.03 1.84E-05
297 $\text{build\_area\_pp} < 67.567$ (p52) $\& \text{prop\_agricultural} < 0.055$ (p81) $\& \text{POI\_pp\_sports} < 31.736$ (p69) $\rightarrow \text{rate\_imported12} < 0.077$ (p64) 76.26 0.88 21.01 0.04 2.06E-05
298  build_area_pp <70.858 (p53) & prop_agricultural <0.058 (p82) & POI_pp_transport <39.782 (p61)
     rate_imported12 <0.079 (p64)  74.53  0.90  21.00  0.03  1.05E-05
299  med_income <24883.283 (p79) & build_area_pp <80.385 (p56) & prop_agricultural <0.040 (p77)
     rate_imported12 <0.074 (p64)  79.49  0.86  20.66  0.06  4.57E-05
300  med_area_home <19.135 (p61) & build_area_pp <91.533 (p62) & POI_pp_transport <23.482 (p47)
     rate_imported12 <0.084 (p66)  67.79  0.94  20.27  0.05  1.98E-06
301  med_income <25039.531 (p81) & den_population >15501.310 (p47) & build_area_pp <78.375 (p56)
     rate_imported12 <0.079 (p64)  70.58  0.90  19.86  0.04  5.42E-05
302  prop_higher_edu <0.233 (p62) & prop_publicResid <0.005 (p56)
     rate_imported12 <0.003 (p36)  39.78  0.71  19.48  0.25  2.68E-07
303  prop_higher_edu <0.255 (p65) & build_area_pp <87.354 (p62) & POI_pp_sports <14.086 (p45)
     rate_imported12 <0.077 (p64)  59.91  0.93  19.31  0.05  2.38E-05
304  prop_over65 >0.133 (p29) & POI_pp_mall_mkt <10.180 (p72)
     rate_imported12 <0.090 (p67)  93.01  0.84  19.28  0.10  5.97E-07
305  ave_household_size <3.155 (p84) & POI_pp_mall_mkt <6.852 (p59)
     rate_imported12 <0.094 (p68)  93.10  0.85  18.75  0.05  6.87E-05
306  ave_household_size <3.207 (p87) & POI_pp_edu <11.974 (p55)
     rate_imported12 <0.102 (p69)  92.38  0.86  18.40  0.05  4.74E-05
307  prop_over65 >0.130 (p26) & POI_pp_edu <14.477 (p66)
     rate_imported12 <0.090 (p67)  87.67  0.84  18.25  0.08  2.45E-05
308  prop_preprim_edu >0.097 (p52) & prop_publicResid <0.005 (p56)
     rate_imported12 <0.003 (p36)  39.13  0.67  18.20  0.18  2.35E-05
309  prop_over65 >0.130 (p26) & POI_pp_telecom_elec <18.764 (p66)
     rate_imported12 <0.090 (p67)  89.24  0.84  18.08  0.08  8.13E-06
310  prop_preprim_edu >0.083 (p22) & ave_household_size <3.207 (p87)
     rate_imported12 <0.102 (p69)  117.86  0.81  18.03  0.05  4.35E-05
311  prop_over65 >0.133 (p29) & POI_pp_transport <36.836 (p59)
     rate_imported12 <0.090 (p67)  79.39  0.86  18.03  0.09  5.94E-06
312  prop_higher_edu <0.170 (p37)
     rate_imported12 <0.039 (p50)  57.65  0.73  17.91  0.23  3.65E-07
313  ave_household_size <3.138 (p84) & build_area_pp <62.626 (p50)
     rate_imported12 <0.114 (p71)  84.84  0.89  17.51  0.04  4.49E-05
314  prop_higher_edu <0.214 (p55) & prop_private_resid <0.010 (p27)
     rate_imported12 <0.002 (p36)  34.06  0.74  17.48  0.10  8.1E-05
315  med_income <19935.742 (p65) & prop_private_resid <0.010 (p27)
     rate_imported12 <0.004 (p36)  34.33  0.73  17.35  0.09  8.1E-05
316  med_income <20388.464 (p73) & build_area_pp >63.378 (p51)
     rate_imported12 <0.003 (p36)  33.63  0.74  17.28  0.18  2.76E-06
| Line | Description |
|------|-------------|
| 340  | med_income <18973.034 (p62) & prop_transport <0.061 (p35) rate_imported12 <0.004 (p36) |
| 341  | med_income <18949.418 (p62) & den_road <5.239 (p25) rate_imported12 <0.003 (p36) |
| 342  | prop_gov_insti_faci <0.030 (p41) rate_imported12 <0.003 (p36) |
| 343  | build_area_pp >71.028 (p53) & prop_rural_set >0.026 (p66) rate_imported12 <0.004 (p36) |
| 344  | prop_industrial >0.009 (p70) rate_imported12 <0.007 (p36) |
| 345  | ave_household_size <3.250 (p87) rate_imported12 <0.110 (p70) |
| 346  | prop_over65 >0.150 (p43) & den_road <14.014 (p63) & build_area_pp >81.017 (p57) rate_imported12 <0.002 (p36) |
| 347  | prop_over65 >0.140 (p35) rate_imported12 <0.007 (p36) |
| 348  | prop_publicResid <0.005 (p56) & prop_industrial >0.009 (p70) rate_imported12 <0.003 (p36) |
| 349  | den_bldg =0.082-0.432 (p28-83) & prop_agricultural <0.058 (p82) & POL_pp_mall_mkt <2.114 (p24) rate_imported12 <0.005 (p36) |
| 350  | prop_agricultural >0.055 (p81) rate_imported12 <0.003 (p36) |
| 351  | prop_higher_edu <0.237 (p62) & POL_pp_telecom_elec >21.730 (p71) rate_imported12 <0.003 (p36) |
| 352  | prop_transport <0.033 (p23) rate_imported12 <0.004 (p36) |
| 353  | prop_rural_set >0.069 (p80) rate_imported12 <0.003 (p36) |
| 354  | prop_preprim_edu >0.093 (p43) & den_bldg <0.205 (p57) & build_area_pp =68.225-212.874 (p52-90) rate_imported12 <0.003 (p36) |
| 355  | build_area_pp >63.378 (p51) & prop_industrial >0.009 (p70) & prop_open_recreation <0.050 (p62) rate_imported12 <0.003 (p36) |
| 356  | den_population <673.564 (p13) rate_imported12 <0.004 (p36) |
| 357  | med_income <17777.670 (p56) & med_area_home >19.469 (p61) rate_imported12 <0.004 (p36) |
| 358  | prop_industrial >0.009 (p70) & POL_pp_telecom_elec >18.233 (p65) rate_imported12 <0.003 (p36) |
| 359  | prop_industrial >0.008 (p70) & POL_pp_sports >28.416 (p66) rate_imported12 <0.003 (p36) |
| No. | Antecedent | Consequent | Supp | Conf | Lev | Imp | P       |
|-----|------------|------------|------|------|-----|-----|---------|
| 1   | prop_higher_edu <0.224 (p58) & med_area_home <15.648 (p45) & POI_pp_telecom_elec <20.441 (p69) | rate_local3 >0.327 (p52) | 56.26 | 0.78 | 22.07 | 0.06 | 3.013E-06 |
| 2   | prop_higher_edu <0.224 (p58) & med_area_home <15.648 (p45) & POI_pp_transport <51.157 (p72) | rate_local3 >0.326 (p52) | 56.20 | 0.78 | 22.04 | 0.06 | 1.984E-05 |
| 3   | med_income <25645.373 (p81) & den_area >8.946 (p43) | rate_local3 >0.371 (p57) | 62.10 | 0.66 | 21.68 | 0.14 | 2.24E-07 |
| 4   | med_income <21576.614 (p75) & prop_transport >0.093 (p39) | rate_local3 >0.373 (p57) | 60.96 | 0.66 | 21.64 | 0.14 | 4.513E-06 |
| 5   | prop_higher_edu <0.224 (p58) & med_area_home <15.648 (p45) & POI_pp_mall_mkt <12.024 (p79) | rate_local3 >0.331 (p54) | 54.81 | 0.76 | 21.50 | 0.05 | 2.288E-05 |
| 6   | med_income <25727.745 (p81) & prop_shrubland <0.115 (p58) | rate_local3 >0.372 (p57) | 63.91 | 0.64 | 21.37 | 0.12 | 3.952E-06 |
| 7   | prop_preprim_edu <0.141 (p86) & prop_higher_edu <0.222 (p58) & POI_pp_telecom_elec <18.695 (p66) | rate_local3 >0.302 (p50) | 60.34 | 0.77 | 21.29 | 0.05 | 5.614E-05 |
| 8   | prop_higher_edu <0.224 (p58) & med_area_home <15.648 (p45) & POI_pp_edu <20.907 (p78) | rate_local3 >0.278 (p47) | 59.04 | 0.83 | 21.18 | 0.06 | 1.283E-05 |
| 9   | med_area_home <19.284 (p61) & prop_transport >0.092 (p39) | rate_local3 >0.373 (p57) | 61.46 | 0.65 | 21.07 | 0.10 | 1.123E-05 |
| 10  | med_area_home <19.574 (p62) & prop_shrubland <0.100 (p56) | rate_local3 >0.371 (p57) | 56.70 | 0.68 | 20.89 | 0.13 | 3.136E-05 |
| 11  | prop_preprim_edu <0.141 (p86) & prop_higher_edu <0.211 (p54) & med_area_home <19.828 (p65) | rate_local3 >0.342 (p54) | 53.92 | 0.75 | 20.86 | 0.08 | 8.18E-05 |
| 12  | prop_higher_edu <0.220 (p57) & med_area_home <15.420 (p45) & build_area_pp <140.600 (p81) | rate_local3 >0.292 (p50) | 58.24 | 0.81 | 20.85 | 0.05 | 4.64E-05 |
| 13  | prop_preprim_edu <0.147 (p89) & med_income <19861.505 (p65) & POI_pp_telecom <57.236 (p76) | rate_local3 >0.248 (p42) | 81.95 | 0.76 | 20.75 | 0.04 | 8.268E-05 |
| 14  | med_income <16768.973 (p51) & den_population >15303.757 (p47) | rate_local3 >0.325 (p52) | 54.81 | 0.76 | 20.73 | 0.13 | 4.975E-07 |
| 15  | prop_preprim_edu <0.147 (p89) & med_income <19861.505 (p65) & POI_pp_edu <19.291 (p73) | rate_local3 >0.248 (p42) | 80.00 | 0.77 | 20.68 | 0.04 | 3.734E-05 |
| 16  | prop_preprim_edu <0.136 (p85) & prop_higher_edu <0.228 (p61) & POI_pp_transport <47.707 (p75) | rate_local3 >0.237 (p40) | 68.15 | 0.84 | 20.57 | 0.07 | 3.119E-05 |
| 17  | med_income <25645.373 (p81) & den_bldg >0.109 (p36) | rate_local3 >0.371 (p57) | 67.02 | 0.62 | 20.42 | 0.12 | 5.626E-06 |
| 18  | med_area_home <19.574 (p62) & den_road >8.244 (p39) | rate_local3 >0.371 (p57) | 61.81 | 0.64 | 20.33 | 0.09 | 5.496E-05 |
| 19  | med_area_home <19.574 (p62) & den_bldg >0.109 (p36) | rate_local3 >0.371 (p57) | 63.25 | 0.63 | 20.33 | 0.08 | 2.446E-05 |
| 20  | prop_higher_edu <0.226 (p60) & den_population >15303.757 (p47) | rate_local3 >0.335 (p53) | 52.12 | 0.76 | 20.24 | 0.18 | 4.066E-07 |
| 21  | med_income <23040.421 (p78) & prop_agricultural <0.028 (p72) | rate_local3 >0.335 (p53) | 72.65 | 0.64 | 20.12 | 0.09 | 5.813E-05 |
| 22  | prop_higher_edu <0.224 (p58) & med_area_home <15.648 (p45) | rate_local3 >0.336 (p54) | 56.92 | 0.72 | 20.07 | 0.08 | 4.471E-05 |
| 23  | prop_preprim_edu <0.142 (p87) & prop_higher_edu <0.223 (p58) & POI_pp_mall_mkt <10.971 (p75) | rate_local3 >0.243 (p41) | 69.14 | 0.81 | 19.96 | 0.06 | 2.424E-07 |

(c) Rules for wave-2 local case rate; POI accessibility was used
| Line | Description | Significance | Rate Local3 | Mean | Standard Deviation | P-Value |
|------|-------------|--------------|-------------|------|-------------------|---------|
| 24   | med_area_home < 19.516 (p61) & den_population > 15303.757 (p47) | &prop_higher_edu < 0.230 (p61) & prop_agricultural < 0.024 (p71) & POI pp mall_mkt < 11.049 (p75) | rate_local3 > 0.325 (p52) | 65.23 | 0.68 | 19.95 | 0.09 | 6.13E-05 |
| 25   | prop_higher_edu < 0.230 (p61) & prop_agricultural < 0.024 (p71) & POI pp mall_mkt < 11.049 (p75) | & POI pp mall_mkt < 11.049 (p75) | rate_local3 > 0.272 (p47) | 58.36 | 0.82 | 19.93 | 0.06 | 7.567E-05 |
| 26   | prop_preprim_edu < 0.141 (p86) & prop_higher_edu < 0.219 (p56) & build_area_pp < 79.707 (p56) | & POI pp mall_mkt < 11.049 (p75) | rate_local3 > 0.279 (p48) | 56.94 | 0.81 | 19.91 | 0.06 | 2.493E-05 |
| 27   | prop_higher_edu < 0.286 (p73) & prop_transport < 0.101 (p43) | & POI pp mall_mkt < 11.049 (p75) | rate_local3 > 0.365 (p56) | 56.42 | 0.67 | 19.86 | 0.14 | 1.708E-05 |
| 28   | prop_higher_edu < 0.230 (p61) & prop_transport < 0.101 (p43) | & POI pp mall_mkt < 11.049 (p75) | rate_local3 > 0.373 (p57) | 48.63 | 0.72 | 19.79 | 0.19 | 7.686E-07 |
| 29   | prop_higher_edu < 0.223 (p58) & med_area_home < 16.151 (p47) & POI pp mall_mkt < 11.049 (p75) | rate_local3 > 0.243 (p41) | 61.23 | 0.85 | 19.70 | 0.06 | 6.768E-05 |
| 30   | prop_preprim_edu < 0.141 (p86) & med_income < 16682.171 (p51) | rate_local3 > 0.282 (p49) | 65.86 | 0.75 | 19.57 | 0.08 | 5.409E-05 |
| 31   | prop_preprim_edu < 0.141 (p86) & med_area_home < 19.828 (p65) | rate_local3 > 0.249 (p43) | 89.09 | 0.73 | 19.56 | 0.05 | 1.799E-05 |
| 32   | prop_preprim_edu < 0.152 (p91) & med_income < 18928.552 (p62) & POI pp mall_mkt < 11.049 (p75) | rate_local3 > 0.177 (p33) | 85.95 | 0.87 | 19.55 | 0.06 | 3.991E-06 |
| 33   | prop_higher_edu < 0.229 (p61) & build_area_pp < 110.047 (p72) & prop_shrubland < 0.214 (p82) | rate_local3 > 0.231 (p39) | 67.64 | 0.83 | 19.48 | 0.07 | 5.576E-05 |
| 34   | prop_preprim_edu < 0.145 (p89) & med_income < 18958.166 (p62) & POI pp telecom_elec < 19.083 (p67) | rate_local3 > 0.193 (p35) | 79.18 | 0.86 | 19.47 | 0.04 | 4.028E-05 |
| 35   | prop_higher_edu < 0.224 (p58) & prop_agricultural < 0.025 (p71) & POI pp transport < 47.989 (p69) | rate_local3 > 0.330 (p52) | 50.17 | 0.77 | 19.41 | 0.07 | 5.417E-05 |
| 36   | prop_higher_edu < 0.227 (p60) & build_area_pp < 64.139 (p51) | rate_local3 > 0.314 (p52) | 56.43 | 0.74 | 19.37 | 0.12 | 3.369E-05 |
| 37   | prop_higher_edu < 0.249 (p64) & den_road > 9.024 (p43) | rate_local3 > 0.349 (p55) | 50.61 | 0.73 | 19.32 | 0.18 | 4.782E-06 |
| 38   | prop_preprim_edu < 0.128 (p82) & prop_higher_edu < 0.223 (p58) & POI pp sports < 33.215 (p70) | rate_local3 > 0.243 (p41) | 63.66 | 0.83 | 19.32 | 0.07 | 2.923E-05 |
| 39   | prop_higher_edu < 0.230 (p61) & prop_agricultural < 0.024 (p71) | rate_local3 > 0.335 (p53) | 57.60 | 0.70 | 19.22 | 0.12 | 4.05E-05 |
| 40   | prop_preprim_edu < 0.146 (p89) & med_income < 17876.257 (p56) & POI pp sports < 35.406 (p73) | rate_local3 > 0.213 (p37) | 73.44 | 0.84 | 19.19 | 0.05 | 2.41E-05 |
| 41   | prop_over65 > 0.140 (p35) & prop_preprim_edu < 0.130 (p83) & POI pp edu < 21.935 (p79) | rate_local3 > 0.232 (p39) | 71.95 | 0.80 | 19.01 | 0.07 | 3.787E-05 |
| 42   | gender_ratio < 103.139 (p89) & med_income < 18928.552 (p62) & POI pp mall_mkt < 11.049 (p75) | rate_local3 > 0.212 (p37) | 83.49 | 0.80 | 18.91 | 0.03 | 6.313E-05 |
| 43   | prop_preprim_edu < 0.138 (p85) & prop_higher_edu < 0.229 (p61) & POI pp edu < 20.842 (p78) | rate_local3 > 0.237 (p40) | 68.67 | 0.81 | 18.80 | 0.05 | 3.264E-05 |
| 44   | gender_ratio < 103.298 (p89) & prop_higher_edu < 0.220 (p57) & build_area_pp < 140.600 (p81) | rate_local3 > 0.245 (p42) | 74.13 | 0.77 | 18.71 | 0.04 | 4.62E-05 |
| 45   | prop_higher_edu < 0.229 (p61) & den_bldg > 0.109 (p36) | rate_local3 > 0.348 (p55) | 53.95 | 0.69 | 18.70 | 0.13 | 4.571E-05 |
prop_over65 >0.131 (p27) &prop_preprim_edu <0.127 (p82) &prop_higher_edu <0.342 (p81)

rate_local3 >0.231 (p39)

77.77

0.78

18.64

0.07

3.768E-05

gender_ratio <103.088 (p89) &med_income <17032.612 (p53) &POI_pp_telecom_elec <22.637 (p72)

rate_local3 >0.209 (p36)

74.44

0.84

18.59

0.03

5.347E-05

gender_ratio >0.104.750 (p89) &prop_higher_edu <0.246 (p64) &POI_pp_telecom_elec <19.940 (p68)

rate_local3 >0.183 (p33)

83.18

0.85

18.53

0.03

5.575E-05

prop_preprim_edu <0.130 (p82) &med_area_home <18.519 (p56) &POI_pp_telecom_elec <19.940 (p68)

rate_local3 >0.183 (p33)

79.23

0.87

18.51

0.04

2.659E-05

prop_over65 >0.141 (p36) &prop_preprim_edu <0.127 (p82) &POI_pp_telecom_elec <22.172 (p72)

rate_local3 >0.183 (p39)

69.42

0.81

18.49

0.03

1.946E-05

med_income <25547.911 (p81) &prop_grassland <0.042 (p60) &POI_pp_telecom_elec <19.940 (p68)

rate_local3 >0.183 (p39)

69.45

0.83

18.42

0.03

4.377E-05

prop_over65 >0.140 (p35) &prop_preprim_edu <0.134 (p84) &POI_pp_transport <51.240 (p72)

rate_local3 >0.232 (p39)

69.61

0.81

18.40

0.07

3.712E-05

med_income <16608.038 (p51) &build_area_pp <69.587 (p52)

rate_local3 >0.291 (p38)

60.37

0.61

18.44

0.11

6.293E-05

prop_preprim_edu <0.152 (p91) &med_area_home <18.819 (p57) &POI_pp_mall_mkt <11.049 (p75)

rate_local3 >0.193 (p35)

84.04

0.86

18.32

0.04

4.332E-05

prop_preprim_edu <0.136 (p85) &med_area_home <18.935 (p58) &POI_pp_edu <20.842 (p78)

rate_local3 >0.193 (p35)

79.68

0.84

18.31

0.03

2.625E-05

med_income <17081.439 (p53) &prop_open_recreation >0.026 (p45)

rate_local3 >0.352 (p56)

49.42

0.71

18.23

0.11

1.034E-05

gender_ratio <104.715 (p89) &med_income <17876.257 (p56) &POI_pp_sports <35.406 (p73)

rate_local3 >0.213 (p37)

76.57

0.81

18.15

0.03

6.524E-05

med_income <25469.001 (p81) &prop_woodland <0.212 (p68)

rate_local3 >0.375 (p57)

68.42

0.58

18.00

0.07

6.138E-05

med_income <19165.125 (p63) &POI_pp_telecom_elec <21.733 (p71)

rate_local3 >0.193 (p35)

88.51

0.81

17.80

0.08

5.322E-06

med_area_home <18.519 (p56) &prop_grassland <0.072 (p69)

rate_local3 >0.343 (p54)

59.44

0.65

17.78

0.07

7.172E-05

gender_ratio <104.750 (p89) &med_area_home <18.519 (p56) &POI_pp_telecom_elec <19.940 (p68)

rate_local3 >0.183 (p33)

83.94

0.84

17.74

0.02

4.582E-05

gender_ratio <104.750 (p89) &med_area_home <17032.612 (p53) &POI_pp_telecom_elec <19.940 (p68)

rate_local3 >0.207 (p36)

70.23

0.84

17.66

0.04

5.708E-05

med_income <16756.602 (p51) &build_area_pp <15.534 (p45) &build_area_pp <92.916 (p63)

rate_local3 >0.227 (p38)

59.47

0.85

17.60

0.05

8.176E-05

prop_preprim_edu <0.141 (p86) &prop_higher_edu <0.215 (p56)

rate_local3 >0.279 (p48)

65.93

0.72

17.41

0.08

6.447E-05

med_income <19165.125 (p63) &POI_pp_transport <47.707 (p69)

rate_local3 >0.193 (p35)

87.15

0.81

17.30

0.07

1.306E-05
prop_higher_edu <0.222 (p58) & prop_open_recreation > 0.026 (p45) & prop_gov_insti_fac > 0.027 (p38) rate_local3 > 0.334 (p53) 49.02 0.72 17.29 0.14 1.14E-05

med_area_home < 15.986 (p47) & build_area_pp < 74.856 (p54) rate_local3 > 0.192 (p35) 69.97 0.86 16.98 0.08 4.884E-05

prop_over65 > 0.141 (p36) & prop_preprim_edu < 0.127 (p82) & POI_pp_mall_mkt < 11.292 (p75) rate_local3 > 0.229 (p39) 65.31 0.81 16.93 0.07 3.072E-05

med_income < 22654.708 (p78) & prop_gov_insti_fac > 0.026 (p38) rate_local3 > 0.199 (p36) 82.41 0.81 16.92 0.09 6.82E-05

gender_ratio < 102.576 (p88) & med_area_home < 15.038 (p43) & POI_pp_telecom_elec < 20.031 (p68) rate_local3 > 0.177 (p33) 81.49 0.84 16.54 0.06 1.97E-05

prop_higher_edu < 0.228 (p61) & POI_pp_transport < 47.707 (p69) rate_local3 > 0.193 (p35) 80.16 0.82 16.56 0.09 1.747E-05

prop_preprim_edu < 0.153 (p91) & med_area_home < 15.159 (p43) & POI_pp_transport < 51.240 (p72) rate_local3 > 0.236 (p40) 62.92 0.80 16.49 0.06 6.56E-05

ave_household_size < 2.962 (p63) & prop_shrubland < 0.134 (p64) rate_local3 > 0.452 (p64) 50.06 0.53 16.42 0.09 8.294E-05

prop_higher_edu < 0.222 (p58) & POI_pp_transport < 21.248 (p43) rate_local3 > 0.277 (p47) 49.14 0.79 16.23 0.13 7.736E-05

ave_household_size < 2.900 (p49) & den_bldg > 0.126 (p40) rate_local3 > 0.239 (p70) 54.93 0.83 16.17 0.05 6.419E-05

gender_ratio < 104.715 (p89) & med_income < 17.921 (p55) & POI_pp_mall_mkt < 13.167 (p69) rate_local3 > 0.150 (p27) 85.93 0.87 15.93 0.02 7.275E-05

build_area_pp < 61.517 (p50) & POI_pp_mall_mkt < 13.124 (p81) rate_local3 > 0.177 (p33) 81.49 0.84 15.88 0.02 8.324E-06

med_income < 19861.505 (p65) & POI_pp_edu < 19.291 (p73) rate_local3 > 0.180 (p33) 94.43 0.80 15.87 0.06 2.841E-05

ave_household_size < 2.900 (p49) & den_bldg > 0.126 (p40) rate_local3 > 0.408 (p59) 48.67 0.58 15.72 0.09 3.968E-05
| Line | Description |
|------|-------------|
| 93   | prop_over65 >0.120 (p19) & gender_ratio <102.576 (p88) & POI_pp_edu <17.820 (p71) |
| 94   | ave_household_size <2.900 (p49) & den_road >10.099 (p47) |
| 95   | med_area_home <15.626 (p45) & POI_pp_mall_mkt <13.167 (p81) |
| 96   | prop_household_3gen <0.081 (p92) & med_area_home <16.469 (p49) |
| 97   | prop_higher_edu <0.229 (p61) & prop_grassland <0.043 (p60) & POI_pp_sports <15.701 (p50) |
| 98   | gender_ratio <103.076 (p89) & prop_preprim_edu <0.153 (p91) |
| 99   | prop_higher_edu <0.228 (p61) & POI_pp_mall_mkt <9.663 (p69) |
| 100  | prop_over65 >0.140 (p35) & POI_pp_telcom_elec <6.955 (p37) |
| 101  | prop_over65 >0.147 (p90) & POI_pp_transport <51.240 (p72) |
| 102  | prop_preprim_edu <0.142 (p91) & POI_pp_transport <23.063 (p45) |
| 103  | prop_preprim_edu <0.147 (p90) & POI_pp_web <6.955 (p37) |
| 104  | med_income <18723.236 (p62) & prop_rural_set <0.000 (p44) & prop_industrial <0.008 (p69) |
| 105  | prop_over65 >0.140 (p35) & POI_pp_transport <51.240 (p72) |
| 106  | prop_preprim_edu <0.142 (p91) & POI_pp_mall_mkt <7.095 (p44) |
| 107  | prop_over65 >0.147 (p90) & POI_pp_telecom_elec <6.955 (p37) |
| 108  | prop_preprim_edu <0.142 (p91) & POI_pp_transport <23.063 (p45) |
| 109  | prop_over65 >0.147 (p90) & POI_pp_transport <61.380 (p50) |
| 110  | med_income <18958.166 (p62) & POI_pp_per <35.685 (p73) |
| 111  | prop_preprim_edu <0.142 (p91) & POI_pp_mall_mkt <7.095 (p44) |
| 112  | prop_over65 >0.147 (p90) & POI_pp_transport <51.240 (p72) |
| 113  | gender_ratio <103.088 (p89) & POI_pp_mall_mkt <16.105 (p50) |
| 114  | med_area_home <18.502 (p76) & prop_woodland <0.075 (p39) |
| 115  | prop_preprim_edu <0.143 (p89) & POI_pp_mall_mkt <7.036 (p60) |
| 116  | gender_ratio <102.821 (p88) & POI_pp_mall_mkt <9.663 (p69) |
| 117  | POI_pp_transport <16.809 (p38) |
| 118  | build_area_pp <61.380 (p50) |
| 119  | build_area_pp <77.922 (p56) & prop_grassland <0.070 (p67) |
med_income <18357.304 (p61) & POI_pp_mall_mkt <11.049 (p75) rate_local3 >0.177 (p33) 85.03 0.81 14.24 0.05 5.201E-05
prop_higher_edu <0.237 (p62) rate_local3 >0.335 (p53) 75.42 0.57 14.15 0.11 7.001E-06
gender_ratio <98.034 (p78) & POI_pp_mall_mkt <4.803 (p49) rate_local3 >0.129 (p25) 78.44 0.89 14.05 0.05 6.672E-05
den_population >21684.808 (p53) rate_local3 >0.267 (p47) 68.18 0.69 13.98 0.14 3.312E-05
prop_higher_edu <0.244 (p63) & POI_pp_well <21.332 (p79) rate_local3 >0.475 (p66) 29.62 0.63 13.81 0.17 2.008E-06
gender_ratio <103.088 (p89) & POI_pp_telecom_elec <24.978 (p76) rate_local3 >0.130 (p25) 124.27 0.82 13.65 0.02 5.276E-05
prop_higher_edu <0.222 (p58) & prop_open_recreation >0.026 (p45) & POI_pp_telecom_elec <32.319 (p80) rate_local3 >0.185 (p33) 55.34 0.88 13.63 0.05 5.976E-05
prop_higher_edu <0.222 (p58) & prop_open_recreation >0.026 (p45) & POI_pp_sports <37.567 (p75) rate_local3 >0.185 (p33) 53.89 0.88 13.51 0.05 5.238E-05
ave_household_size <2.636 (p29) & prop_rural_set <0.001 (p46) rate_local3 >0.493 (p68) 25.71 0.65 13.15 0.17 5.449E-05
prop_grassland <0.070 (p67) & POI_pp_telecom_elec <11.261 (p50) rate_local3 >0.156 (p28) 64.11 0.87 12.57 0.05 7.501E-05
prop_publicResid >0.063 (p74) rate_local3 >0.295 (p50) 40.41 0.74 12.49 0.23 6.569E-05
prop_shrubland <0.009 (p30) rate_local3 >0.570 (p76) 28.29 0.43 12.25 0.19 1.275E-05
prop_woodland <0.012 (p22) rate_local3 >0.409 (p59) 30.91 0.65 12.19 0.26 1.005E-05
prop_preprim_edu >0.097-0.143 (p51-89) rate_local3 >0.313 (p52) 50.96 0.64 11.51 0.14 7.439E-06
ave_household_size <2.627 (p29) & prop_gov_insti_faci >0.026 (p38) rate_local3 >0.453 (p64) 24.61 0.65 11.34 0.15 2.563E-05
prop_grassland <0.000 (p16) rate_local3 >0.500 (p68) 21.99 0.64 11.34 0.33 1.079E-05
den_road >9.024 (p43) rate_local3 >0.407 (p59) 59.85 0.49 11.28 0.09 5.277E-05
prop_preprim_edu >0.126 (p82) & POI_pp_sports <22.459 (p57) & POI_pp_telecom_elec <4.154 (p22) rate_local3 >0.192 (p35) 39.39 0.89 10.70 0.02 3.007E-05
prop_preprim_edu <0.126 (p82) & POI_pp_telecom_elec <4.154 (p22) & POI_pp_mall_mkt <10.155 (p71) rate_local3 >0.192 (p35) 39.39 0.89 10.70 0.02 2.927E-05
prop_preprim_edu <0.126 (p82) & POI_pp_mall_mkt <23.861 (p81) & POI_pp_telecom_elec <4.154 (p22) rate_local3 >0.192 (p35) 39.39 0.89 10.70 0.02 2.474E-05
prop_preprim_edu <0.126 (p82) & POI_pp_telecom_elec <4.154 (p22) & POI_pp_transport <80.155 (p83) rate_local3 >0.192 (p35) 39.39 0.89 10.70 0.02 1.321E-05
prop_over65 >0.141 (p36) rate_local3 >0.274 (p47) 85.51 0.61 10.65 0.08 8.153E-05
146 den_bldg >0.136 (p43)  
147 prop_preprim_edu <0.142 (p86) & ave_household_size <2.615 (p29)  
148 prop_higher_edu <0.212 (p54) & prop_private_resid >0.104 (p66)  
149 ave_household_size <2.580 (p17)  
150 prop_business >0.039 (p84)  
151 POI_pp_mall_mkt <2.023 (p22)  
152 POI_pp_edu <4.431 (p27)  
153 POI_pp_sports <5.899 (p20)  
154 prop_higher_edu >0.228 (p61) & POI_pp_transport <47.707 (p69)  
155 med_income >19165.125 (p63) & POI_pp_telecom_elec <21.733 (p71)  
156 med_income >19165.125 (p63) & POI_pp_transport <47.707 (p69)  
157 med_income >19165.125 (p63) & POI_pp_transport <47.707 (p69)  
158 med_area_home >15.986 (p47) & POI_pp_sports <33.639 (p70)  
159 POI_pp_telecom_elec =6.955-20.167 (p37-68)  
160 POI_pp_transport =16.809-55.037 (p38-74)  
161 prop_higher_edu >0.371 (p86) & POI_pp_telecom_elec =6.955-20.167 (p37-68)  
162 prop_publicResid <0.028 (p66) & prop_transport <0.226 (p69)  
163 prop_publicResid <0.024 (p66) & prop_woodland >0.072 (p38)  
164 prop_publicResid <0.027 (p66) & prop_business <0.041 (p85)  
165 prop_higher_edu >0.225 (p58) & prop_business <0.041 (p85)  
166 prop_higher_edu >0.226 (p60) & ave_household_size >2.484 (p11)  
167 prop_higher_edu >0.191 (p45) & prop_woodland >0.066 (p36)  
168 den_public_trans <38.548 (p72) & prop_publicResid <0.031 (p67)  
169 POI_pp_telecom_elec >20.167 (p68)  
170 med_area_home >19.838 (p65)  
171 prop_preprim_edu <0.126 (p82) & prop_higher_edu >0.215 (p55) & prop_woodland >0.102 (p50)  
172 prop_gov_insti_fac <0.023 (p33)  
173 build_area_pp >61.380 (p50)  
174 den_population <21684.808 (p53)  
175 den_public_trans <4.083 (p28)  
176 POI_pp_transport >55.037 (p74)  
177 med_income >24009.220 (p79)  
178 prop_higher_edu >0.237 (p62)
179 prop_transport <0.141 (p55) rate_local3 <0.382 (p57) 81.67 0.70 13.79 0.12 4.175E-05
180 POL_pp_sports >45.148 (p80) rate_local3 <0.007 (p15) 19.72 0.47 13.04 0.31 3.503E-10
181 POL_pp_edu >22.794 (p81) rate_local3 <0.015 (p15) 20.34 0.41 12.49 0.25 1.476E-10
182 prop_publicResid <0.063 (p74) rate_local3 <0.295 (p50) 90.45 0.57 12.43 0.08 6.569E-05
183 den_road <9.024 (p43) rate_local3 <0.007 (p15) 66.36 0.73 11.35 0.12 5.277E-05
184 prop_grassland >0.056 (p63) &POL_pp_edu >13.709 (p61) rate_local3 <0.003 (p15) 16.47 0.51 11.30 0.20 3.968E-05
185 POL_pp_mall_mkt >13.520 (p82) rate_local3 <0.028 (p16) 18.26 0.42 11.30 0.26 1.201E-08
186 prop_over65 <0.141 (p36) rate_local3 <0.274 (p47) 44.95 0.61 10.53 0.14 8.153E-05
187 prop_woodland >0.322 (p82) rate_local3 <0.409 (p59) 34.03 0.87 10.45 0.27 3.918E-05
188 den_bldg <0.136 (p43) rate_local3 <0.411 (p59) 64.66 0.72 10.38 0.12 8.318E-05
189 prop_private_resid <0.021 (p36) rate_local3 <0.041 (p16) 22.79 0.30 10.35 0.14 4.461E-05
190 ave_household_size >2.925 (p63) rate_local3 <0.621 (p79) 78.93 0.91 9.95 0.11 8.125E-05
191 prop_shrubland >0.281 (p89) rate_local3 <0.166 (p30) 16.40 0.71 9.31 0.40 1.539E-06
192 prop_business <0.039 (p84) rate_local3 <0.518 (p71) 135.32 0.76 8.74 0.05 2.866E-05
193 prop_open_recreation <0.002 (p14) rate_local3 <0.016 (p15) 13.07 0.44 8.31 0.28 9.219E-06
194 prop_preprim_edu >0.143 (p89) rate_local3 <0.027 (p16) 12.07 0.45 7.72 0.29 8.83E-07
195 prop_private_resid >0.093 (p65) &prop_transport =0.062-0.249 (p35-73) rate_local3 <0.293 (p50) 23.94 0.70 7.00 0.20 6.679E-05
196 prop_household_3gen >0.083 (p93) rate_local3 <0.011 (p15) 9.00 0.56 6.44 0.40 4.402E-06
(d) Rules for wave-3 local case rate; POI accessibility was used

| No. | Antecedent | Consequent | Supp | Conf | Lev | Imp | P       |
|-----|------------|------------|------|------|-----|-----|---------|
| 1   | med_income <28651.117 (p84) & prop_grassland <0.020 (p46) & LU_entropy <0.553 (p49) | rate_local4 >0.837 (p79) | 30.96 | 0.73 | 21.91 | 0.17 | 1.556E-06 |
| 2   | med_income <23276.405 (p78) & den_road >7.322 (p35) & LU_entropy <0.553 (p49) | rate_local4 >0.804 (p78) | 31.43 | 0.75 | 21.83 | 0.20 | 7.632E-07 |
| 3   | med_income <23241.294 (p78) & prop_transport >0.066 (p35) & LU_entropy <0.553 (p49) | rate_local4 >0.815 (p78) | 30.79 | 0.74 | 21.48 | 0.20 | 1.333E-06 |
| 4   | med_income <23276.405 (p78) & den_bldg >0.121 (p39) & LU_entropy <0.553 (p49) | rate_local4 >0.804 (p78) | 30.77 | 0.75 | 21.30 | 0.20 | 1.333E-06 |
| 5   | med_income <23241.294 (p78) & prop_shrubland <0.014 (p34) & LU_entropy <0.553 (p49) | rate_local4 >0.815 (p78) | 29.68 | 0.80 | 21.09 | 0.21 | 7.284E-06 |
| 6   | med_area_home <19.307 (p61) & prop_grassland <0.023 (p48) & LU_entropy <0.553 (p49) | rate_local4 >0.804 (p78) | 29.07 | 0.79 | 20.64 | 0.22 | 1.023E-05 |
| 7   | med_income <23017.503 (p78) & prop_woodland <0.011 (p36) & LU_entropy <0.556 (p50) | rate_local4 >0.827 (p79) | 30.47 | 0.67 | 20.56 | 0.19 | 1.391E-06 |
| 8   | med_area_home <19.307 (p61) & prop_agricultural <0.009 (p58) | rate_local4 >0.821 (p79) | 29.60 | 0.73 | 20.54 | 0.14 | 3.422E-05 |
| 9   | med_income <23372.096 (p78) & prop_woodland <0.065 (p36) & LU_entropy <0.551 (p49) | rate_local4 >0.814 (p78) | 29.35 | 0.74 | 20.40 | 0.14 | 9.908E-06 |
| 10  | den_road >10.434 (p49) & LU_entropy <0.551 (p49) | rate_local4 >0.788 (p77) | 34.18 | 0.59 | 20.35 | 0.21 | 1.835E-07 |
| 11  | den_bldg >0.158 (p47) & LU_entropy <0.551 (p49) | rate_local4 >0.788 (p77) | 34.55 | 0.58 | 20.27 | 0.20 | 4.824E-07 |
| 12  | den_population >19314.432 (p51) & prop_agricultural <0.012 (p60) & prop_shrubland <0.011 (p36) | rate_local4 >0.524 (p55) | 55.05 | 0.73 | 20.27 | 0.05 | 7.448E-05 |
| 13  | ave_household_size <2.976 (p63) & prop_rural_set <0.007 (p31) & prop_grassland <0.020 (p46) | rate_local4 >0.852 (p80) | 30.41 | 0.62 | 20.17 | 0.13 | 4.521E-05 |
| 14  | med_income <29532.689 (p84) & prop_grassland <0.007 (p31) | rate_local4 >0.784 (p76) | 32.73 | 0.63 | 20.21 | 0.13 | 4.611E-05 |
| 15  | prop_rural_set <0.018 (p36) & prop_shrubland <0.011 (p36) | rate_local4 >0.784 (p76) | 32.37 | 0.64 | 20.15 | 0.18 | 3.677E-07 |
| 16  | prop_rural_set <0.026 (p66) & prop_shrubland <0.112 (p58) | rate_local4 >0.564 (p60) | 58.38 | 0.64 | 20.10 | 0.10 | 6.15E-05 |
| 17  | prop_rural_set <0.002 (p50) & LU_entropy <0.551 (p49) | rate_local4 >0.788 (p77) | 35.56 | 0.54 | 19.91 | 0.17 | 5.059E-07 |
| 18  | den_population >18056.735 (p50) & prop_shrubland <0.117 (p59) & med_area_home <19.307 (p61) & den_bldg >0.158 (p47) & LU_entropy <0.551 (p49) | rate_local4 >0.804 (p78) | 62.02 | 0.70 | 19.88 | 0.08 | 3.985E-05 |
| 19  | den_population >18562.555 (p50) & prop_agricultural <0.010 (p59) | rate_local4 >0.804 (p78) | 28.45 | 0.76 | 19.77 | 0.19 | 3.194E-05 |
| 20  | den_population >18562.555 (p50) & prop_agricultural <0.010 (p59) | rate_local4 >0.481 (p49) | 65.43 | 0.72 | 19.74 | 0.07 | 2.749E-05 |
med_income <29357.618 (p84) & den_road > 11.996 (p56) & prop_agricultural
rate_local4 > 0.427 (p42)
59.56  0.85  19.69  0.04  5.566E-05

22 med_area_home < 18.664 (p56) & den_road > 7.251 (p34) & LU_entropy
rate_local4 > 0.792 (p77)
28.64  0.76  19.68  0.18  2.645E-05

23 prop_transport > 0.106 (p44) & prop_agricultural < 0.013 (p61)
rate_local4 > 0.417 (p42)
77.13  0.77  19.60  0.06  1.139E-05

24 med_area_home < 18.225 (p55) & prop_shrubland < 0.141 (p66) & LU_entropy
rate_local4 > 0.796 (p77)
27.68  0.79  19.46  0.19  2.478E-06

25 prop_transport > 0.106 (p44) & prop_agricultural < 0.013 (p61)
rate_local4 > 0.417 (p42)
77.13  0.77  19.60  0.06  1.139E-05

26 med_area_home < 18.225 (p55) & prop_transport > 0.099 (p43) & LU_entropy
rate_local4 > 0.801 (p78)
27.59  0.78  19.32  0.18  3.759E-05

27 med_income < 23241.294 (p78) & den_public_trans > 19.793 (p54)
rate_local4 > 0.797 (p77)
28.24  0.74  19.30  0.15  5.69E-05

28 den_population > 24987.561 (p56) & den_bldg > 0.200 (p57)
rate_local4 > 0.522 (p54)
50.05  0.75  19.30  0.10  3.24E-05

29 den_population > 18939.324 (p50) & LU_entropy < 0.551 (p49)
rate_local4 > 0.762 (p74)
31.52  0.64  18.95  0.25  2.438E-08

30 prop_agricultural < 0.003 (p48) & LU_entropy < 0.551 (p49)
rate_local4 > 0.804 (p78)
33.41  0.53  18.91  0.16  1.653E-05

31 den_population > 18939.324 (p50) & LU_entropy < 0.551 (p49)
rate_local4 > 0.762 (p74)
31.52  0.64  18.95  0.25  2.438E-08

32 den_population > 18939.324 (p50) & LU_entropy < 0.551 (p49)
rate_local4 > 0.762 (p74)
31.52  0.64  18.95  0.25  2.438E-08

33 den_road > 11.996 (p56) & prop_agricultural < 0.021 (p69)
rate_local4 > 0.457 (p45)
66.68  0.74  18.80  0.03  7.77E-05

34 prop_grassland < 0.027 (p51) & LU_entropy < 0.551 (p49)
rate_local4 > 0.905 (p81)
29.95  0.49  18.48  0.17  2.07E-06

35 prop_grassland < 0.027 (p51) & LU_entropy < 0.551 (p49)
rate_local4 > 0.905 (p81)
29.95  0.49  18.48  0.17  2.07E-06

36 prop_grassland < 0.027 (p51) & LU_entropy < 0.551 (p49)
rate_local4 > 0.905 (p81)
29.95  0.49  18.48  0.17  2.07E-06

37 prop_grassland < 0.027 (p51) & LU_entropy < 0.551 (p49)
rate_local4 > 0.905 (p81)
29.95  0.49  18.48  0.17  2.07E-06

38 &LU_entropy < 0.551 (p49)
rate_local4 > 0.867 (p80)
27.47  0.63  18.69  0.13  6.515E-05

39 den_population > 24987.561 (p56) & den_road > 12.063 (p56)
rate_local4 > 0.466 (p46)
54.94  0.79  18.68  0.09  3.783E-05

40 den_bldg > 0.226 (p62)
rate_local4 > 0.603 (p64)
50.39  0.60  18.56  0.22  3.089E-07

41 med_area_home < 18.664 (p56) & prop_agricultural < 0.010 (p59)
rate_local4 > 0.797 (p77)
28.38  0.68  18.53  0.10  6.38E-05

42 den_public_trans > 18.777 (p53) & LU_entropy < 0.553 (p49)
rate_local4 > 0.800 (p78)
30.72  0.59  18.52  0.22  5.005E-07

43 prop_grassland < 0.027 (p51) & LU_entropy < 0.551 (p49)
rate_local4 > 0.905 (p81)
29.95  0.49  18.48  0.17  2.07E-06

44 prop_transport > 0.096 (p41) & prop_woodland < 0.128 (p53)
rate_local4 > 0.767 (p74)
40.29  0.47  18.43  0.10  7.07E-05

45 prop_rural_set < 0.011 (p59) & prop_transport > 0.088 (p39)
rate_local4 > 0.528 (p56)
60.81  0.65  18.05  0.08  7.362E-05

46 med_income < 23878.185 (p79) & den_bldg > 0.293 (p72)
rate_local4 > 0.774 (p75)
29.22  0.65  17.99  0.13  5.123E-05

47 prop_shrubland < 0.000 (p0)
rate_local4 > 0.785 (p76)
27.11  0.71  17.92  0.47  4.929E-14
48 den_bldg >0.149 (p44) &prop_agricultural <0.024 (p71) &med_area_home <16.801 (p50) &LU_entropy <0.551 (p49) 
rate_local4 >0.476 (p49) 72.91 0.68 17.90 0.04 7.33E-05
49 den_bldg >0.117 (p37) &prop_woodland <0.124 (p53) &LU_entropy <0.551 (p49) 
rate_local4 >0.788 (p77) 39.51 0.44 17.83 0.08 8.008E-05
50 prop_rural_set <0.010 (p57) &prop_woodland <0.096 (p46) 
rate_local4 >0.737 (p74) 36.86 0.52 17.81 0.11 7.81E-05
51 med_area_home <16.801 (p50) &LU_entropy <0.551 (p49) 
rate_local4 >0.813 (p78) 27.15 0.65 17.66 0.28 7.617E-08
52 &LU_entropy <0.555 (p50)
53 prop_private_resid >0.057 (p55) &prop_woodland <0.108 (p50) 
rate_local4 >0.766 (p74) 34.29 0.54 17.54 0.15 3.589E-05
54 &prop_shrubland <0.118 (p59)
55 prop_agricultural <0.016 (p63) &prop_woodland <0.093 (p45) 
rate_local4 >0.716 (p71) 38.72 0.52 17.52 0.09 7.897E-05
56 prop_agricultural <0.001 (p43) &POI_pp_telecom_elec <20.130 (p68) 
rate_local4 >0.309 (p30) 82.26 0.86 16.16 0.07 7.813E-06
57 prop_grassland <0.004 (p23) &med_area_home <17.445 (p52) &prop_private_resid <0.045 (p60) 
rate_local4 >0.350 (p36) 58.38 0.91 16.76 0.09 6.451E-05
58 prop_rural_set <0.011 (p59) &prop_grassland <0.026 (p51) 
rate_local4 >0.827 (p79) 24.94 0.69 17.05 0.17 2.642E-05
59 med_income <23017.503 (p78) &prop_agricultural <0.022 (p70) 
rate_local4 >0.383 (p38) 77.74 0.79 17.35 0.07 7.293E-05
60 prop_private_resid >0.045 (p49)
61 ave_household_size <2.908 (p63) &LU_entropy <0.551 (p49) 
rate_local4 >0.811 (p78) 30.42 0.53 17.27 0.16 3.321E-05
62 ave_household_size <2.739 (p37) &prop_grassland <0.007 (p30) 
rate_local4 >0.722 (p72) 26.84 0.79 17.08 0.22 6.76E-05
63 ave_household_size <2.771 (p37) &prop_agricultural <0.001 (p43) 
rate_local4 >0.694 (p70) 31.12 0.67 17.07 0.18 7.577E-05
64 &LU_entropy <0.551 (p49)
65 den_population >26219.620 (p60)
66 ave_household_size <2.771 (p37) &prop_rural_set <0.005 (p53) 
rate_local4 >0.694 (p70) 32.72 0.62 16.77 0.18 6.159E-05
67 &prop_shrubland <0.081 (p53)
68 med_income <24580.681 (p79) &prop_private_resid >0.103 (p66) 
rate_local4 >0.794 (p77) 27.32 0.60 16.50 0.17 6.413E-05
69 prop_private_resid >0.070 (p58) &LU_entropy <0.543 (p46) 
rate_local4 >0.789 (p77) 27.76 0.58 16.37 0.20 6.484E-07
70 prop_agricultural <0.013 (p61) &POL_pp_telecom_elec <20.130 (p68) 
rate_local4 >0.309 (p30) 82.26 0.86 16.16 0.07 7.365E-05
71 prop_woodland <0.064 (p36)
72 ave_household_size <2.660 (p29) &prop_woodland <0.064 (p36) 
rate_local4 >0.751 (p74) 26.29 0.67 16.00 0.19 6.676E-05
73 prop_agricultural <0.016 (p63) &POL_pp_edu <22.044 (p79) 
rate_local4 >0.297 (p29) 89.86 0.86 15.93 0.06 7.813E-06
74 prop_agricultural <0.016 (p63) &POL_pp_transport <46.920 (p69) 
rate_local4 >0.297 (p29) 82.99 0.87 15.90 0.07 2.413E-05
75 &POL_pp_edu <22.044 (p79)
76 prop_rural_set <0.001 (p46)
med_income <26849.258 (p83) & prop_rural_set <0.030 (p69)
77 & prop_transport >0.094 (p40)
med_income <25084.765 (p81) & den_road >12.237 (p56) & prop_industrial
78 <0.000 (p36)
prop_open_recreation >0.030 (p48) & LU_entropy <0.551 (p49)
79 rate_local4 >0.297 (p29)
69.42 0.91 15.78 0.06 2.417E-05
& prop_business >0.020 (p77) & LU_entropy
80 <0.557 (p50)
med_income <26890.250 (p83) & prop_business >0.020 (p77) & LU_entropy
81 <0.551 (p40)
prop_rural_set <0.004 (p52) & LU_entropy
82 rate_local4 >0.297 (p29)
60.91 0.91 15.78 0.06 2.417E-05
& prop_transport >0.094 (p40)
83 rate_local4 >0.297 (p29)
69.42 0.91 15.78 0.06 2.417E-05
& prop_transport >0.104 (p44) & LU_entropy <0.535 (p43)
84 rate_local4 >0.334 (p34)
66.11 0.87 15.33 0.08 6.776E-05
& prop_agricultural <0.016 (p63)
85 rate_local4 >0.297 (p29)
66.19 0.92 15.28 0.04 4.646E-06
med_area_home <17.445 (p52) & prop_agricultural <0.025 (p71)
86 rate_local4 >0.398 (p40)
72.64 0.76 15.38 0.08 3.933E-05
& prop_agricultural <0.001 (p50)
87 rate_local4 >0.334 (p34)
66.11 0.87 15.33 0.08 6.776E-06
med_area_home <18.774 (p57) & prop_rural_set <0.004 (p77) & LU_entropy
88 rate_local4 >0.702 (p71)
25.35 0.77 15.55 0.12 6.675E-06
<0.526 (p40)
89 rate_local4 >0.809 (p78)
24.24 0.63 15.46 0.18 6.286E-05
med_income <24082.337 (p79) & prop_publicResid <0.019 (p64)
90 rate_local4 >0.868 (p80)
22.66 0.62 15.38 0.20 5.334E-05
& prop_transport >0.102 (p43)
91 rate_local4 >0.459 (p45)
43.12 0.82 15.27 0.07 5.948E-05
med_income <24190.580 (p79) & den_bldg >0.159 (p47) & prop_industrial
92 rate_local4 >1.002 (p86)
24.18 0.47 15.27 0.18 5.883E-06
<0.001 (p50)
93 rate_local4 >0.431 (p43)
45.30 0.85 15.25 0.08 5.562E-05
med_area_home <17.445 (p52) & prop_agricultural <0.016 (p63)
94 rate_local4 >0.788 (p77)
26.46 0.56 15.23 0.16 4.897E-05
& prop_shrubland <0.132 (p64)
95 rate_local4 >0.703 (p71)
34.91 0.52 15.20 0.11 8.025E-05
& den_bldg >0.117 (p37)
96 rate_local4 >0.299 (p29)
76.13 0.88 15.03 0.03 5.7E-05
med_income <31762.966 (p88) & den_bldg >0.160 (p47) & prop_shrubland
97 rate_local4 >0.330 (p33)
71.48 0.85 15.01 0.05 3.628E-05
<0.132 (p64)
98 rate_local4 >0.297 (p29)
66.41 0.91 14.99 0.03 1.638E-05
med_income <23954.158 (p79) & den_public_trans >19.357 (p54)
99 rate_local4 >0.308 (p30)
58.82 0.93 14.97 0.06 8.219E-05
med_area_home <16.985 (p52) & prop_agricultural <0.016 (p63)
99 rate_local4 >0.297 (p29)
65.22 0.91 14.85 0.04 3.325E-06
& POI_pp_telecom_elec <18.648 (p66)
100 rate_local4 >0.297 (p29)
65.22 0.91 14.85 0.04 3.325E-06
|   |   |   |   |   |   |
|---|---|---|---|---|---|
| 101 | build_area_pp <62.470 (p50) &prop_agricultural <0.013 (p61) | rate_local4 >0.309 (p30) | 65.43 | 0.90 | 14.84 | 0.10 | 4.488E-06 |
| 102 | prop_industrial <0.000 (p41) &prop_woodland <0.079 (p41) | rate_local4 >0.978 (p85) | 21.03 | 0.53 | 14.74 | 0.23 | 1.442E-05 |
| 103 | ave_household_size <2.787 (p37) &prop_industrial <0.000 (p36) | rate_local4 >0.868 (p80) | 22.23 | 0.60 | 14.73 | 0.23 | 1.409E-05 |
|   | med_income <23641.798 (p78) &den_public_trans >18.687 (p53) | rate_local4 >0.855 (p80) | 21.86 | 0.64 | 14.70 | 0.18 | 5.161E-05 |
| 104 | &prop_publicResid <0.021 (p65) | rate_local4 >0.765 (p80) | 29.27 | 0.51 | 14.66 | 0.11 | 1.67E-07 |
| 105 | prop_gov_insti_faci >0.025 (p36) | rate_local4 >0.868 (p80) | 22.23 | 0.60 | 14.73 | 0.23 | 1.409E-05 |
| 106 | prop_publicResid <0.019 (p64) | rate_local4 >0.871 (p80) | 20.25 | 0.66 | 14.15 | 0.24 | 5.195E-05 |
| 107 | prop_transport >0.241 (p71) | rate_local4 >0.897 (p81) | 25.98 | 0.43 | 14.36 | 0.21 | 3.029E-05 |
| 108 | ave_household_size <2.670 (p29) | rate_local4 >0.864 (p80) | 19.86 | 0.67 | 13.60 | 0.24 | 1.933E-05 |
| 109 | &den_road >10.786 (p50) | rate_local4 >0.731 (p73) | 36.23 | 0.45 | 13.84 | 0.17 | 1E-06 |
| 110 | med_income <20626.543 (p73) | rate_local4 >0.863 (p80) | 34.55 | 0.34 | 14.21 | 0.14 | 1.67E-07 |
| 111 | &prop_publicResid <0.017 (p63) | rate_local4 >0.871 (p80) | 20.25 | 0.66 | 14.15 | 0.24 | 5.195E-05 |
| 112 | med_income <21943.402 (p75) | rate_local4 >0.846 (p80) | 19.86 | 0.67 | 13.60 | 0.24 | 1.933E-05 |
| 113 | &prop_private_resid <0.087 (p64) | rate_local4 >0.864 (p80) | 19.86 | 0.67 | 13.60 | 0.24 | 1.933E-05 |
| 114 | med_income <20556.841 (p73) | rate_local4 >0.868 (p80) | 19.86 | 0.67 | 13.60 | 0.24 | 1.933E-05 |
| 115 | &prop_grassland <0.009 (p59) | rate_local4 >0.871 (p80) | 20.25 | 0.66 | 14.15 | 0.24 | 5.195E-05 |
| 116 | med_income <21943.402 (p75) | rate_local4 >0.868 (p80) | 19.86 | 0.67 | 13.60 | 0.24 | 1.933E-05 |
| 117 | den_public_trans >26.097 (p59) | rate_local4 >0.917 (p81) | 20.79 | 0.50 | 13.35 | 0.19 | 5.171E-05 |
| 118 | med_area_home <15.838 (p46) | rate_local4 >0.579 (p62) | 30.04 | 0.72 | 13.20 | 0.22 | 1.864E-05 |
| 119 | &POI_pp_sports >19.996 (p53) | rate_local4 >0.827 (p79) | 19.48 | 0.68 | 13.18 | 0.22 | 4.616E-05 |
| 120 | med_income <22034.807 (p77) | rate_local4 >0.833 (p81) | 17.76 | 0.75 | 13.17 | 0.27 | 5.077E-05 |
| 121 | &prop_rural_set <0.001 (p44) | rate_local4 >0.833 (p81) | 17.76 | 0.75 | 13.17 | 0.27 | 5.077E-05 |
| 122 | med_area_home <17.143 (p52) | rate_local4 >1.076 (p87) | 17.70 | 0.51 | 13.12 | 0.22 | 7.716E-05 |
| 123 | &prop_grassland <0.022 (p51) | rate_local4 >0.833 (p81) | 17.76 | 0.75 | 13.17 | 0.27 | 5.077E-05 |
| 124 | med_area_home <17.143 (p52) | rate_local4 >0.895 (p81) | 18.62 | 0.63 | 13.02 | 0.22 | 4.562E-05 |
| 125 | ave_household_size <2.713 (p37) | rate_local4 >0.825 (p79) | 78.04 | 0.89 | 12.96 | 0.07 | 3.482E-05 |
| 126 | med_area_home <17.143 (p52) | rate_local4 >0.865 (p80) | 27.87 | 0.38 | 12.90 | 0.17 | 2.343E-07 |
med_area_home <16.705 (p50) & POI_pp_mall_mkt = 3.036-11.675 (p38-77)
med_income <24424.417 (p79) & prop_agricultural <0.005 (p51)
rate_local4 >0.703 (p70)
19.54 0.68 10.63 0.27 3.488E-06

rate_local4 >0.830 (p79)
15.35 0.87 10.10 0.11 1.522E-05

rate_local4 >1.282 (p80)
15.12 0.81 10.28 0.12 2.192E-05

rate_local4 >0.704 (p79)
48.505 (p79) & POI_pp_sports >27.660 (p65)
rate_local4 = 0.119-0.893 (p14-81)
101.26 0.86 22.57 0.07 1.239E-08
rate_local4 = 0.146-0.860 (p15-80)
112.76 0.81 22.56 0.07 2.46E-08
gender_ratio >87.552 (p11) & LU_entropy >0.507 (p36) & POI_pp_edu <24.229 (p81)
prop_preprim_edu <0.149 (p90) & den_public_trans <75.883 (p88)
rate_local4 = 0.064-0.851 (p13-80)
92.87 0.85 21.20 0.04 2.794E-06
200 & POI_pp_mall_mkt <13.767 (p82)
LU_entropy >0.522 (p40) & POI_pp_transport <45.562 (p69)
prop_preprim_edu <0.149 (p90) & den_road <16.141 (p71)
rate_local4 = 0.152-0.892 (p15-81)
105.98 0.82 21.16 0.04 8.19E-05
201 & POI_pp_mall_mkt <13.767 (p82)
den_road <18.362 (p76) & POI_pp_mall_mkt <9.434 (p66)
prop_preprim_edu <0.149 (p90) & den_public_trans <75.883 (p88)
rate_local4 = 0.152-0.892 (p15-81)
107.11 0.82 20.97 0.08 9.036E-05
202 & POI_pp_mall_mkt <13.767 (p82)
LU_entropy >0.522 (p40) & POI_pp_transport <9.905 (p70)
rate_local4 = 0.171-0.959 (p16-83)
92.31 0.86 20.87 0.08 2.491E-05
203 & POI_pp_mall_mkt <13.767 (p82)
den_road <18.362 (p76) & POI_pp_mall_mkt <9.434 (p66)
rate_local4 = 0.152-0.892 (p15-81)
107.11 0.82 20.97 0.08 9.036E-05
204 & POI_pp_mall_mkt <13.767 (p82)
LU_entropy >0.522 (p40) & POI_pp_mall_mkt <9.905 (p70)
rate_local4 = 0.171-0.959 (p16-83)
92.31 0.86 20.87 0.08 2.491E-05
205 & POI_pp_mall_mkt <13.767 (p82)
prop_preprim_edu <0.149 (p90) & ave_household_size <2.627 (p29)
rate_local4 = 0.152-0.892 (p15-81)
107.11 0.82 20.97 0.08 9.036E-05
206 & POI_pp_mall_mkt <12.788 (p81)
LU_entropy >0.522 (p40) & POI_pp_mall_mkt <9.905 (p70)
rate_local4 = 0.171-0.959 (p16-83)
92.31 0.86 20.87 0.08 2.491E-05
207 & POI_pp_mall_mkt <12.788 (p81)
prop_preprim_edu <0.149 (p90) & ave_household_size <2.627 (p29)
rate_local4 = 0.152-0.892 (p15-81)
107.11 0.82 20.97 0.08 9.036E-05
208 & POI_pp_mall_mkt <12.788 (p81)
prop_preprim_edu <0.149 (p90) & ave_household_size <2.627 (p29)
rate_local4 = 0.152-0.892 (p15-81)
107.11 0.82 20.97 0.08 9.036E-05
209 & POI_pp_mall_mkt <15.808 (p69)
prop_preprim_edu <0.149 (p90) & ave_household_size <2.627 (p29)
rate_local4 = 0.152-0.892 (p15-81)
107.11 0.82 20.97 0.08 9.036E-05
210 & POI_pp_mall_mkt <15.808 (p69)
LU_entropy >0.522 (p40) & POI_pp_mall_mkt <9.905 (p70)
rate_local4 = 0.171-0.959 (p16-83)
92.31 0.86 20.87 0.08 2.491E-05
211 & POI_pp_mall_mkt <15.808 (p69)
prop_preprim_edu <0.149 (p90) & ave_household_size <2.627 (p29)
rate_local4 = 0.152-0.892 (p15-81)
107.11 0.82 20.97 0.08 9.036E-05
212 & POI_pp_mall_mkt <15.808 (p69)
gender_ratio >87.664 (p11) & ave_household_size >2.622 (p29)
rate_local4 = 0.152-0.892 (p15-81)
107.11 0.82 20.97 0.08 9.036E-05
213 & POI_pp_mall_mkt <15.808 (p69)
prop_preprim_edu <0.149 (p90) & ave_household_size <2.622 (p29)
rate_local4 = 0.152-0.892 (p15-81)
107.11 0.82 20.97 0.08 9.036E-05
214 & POI_pp_mall_mkt <15.808 (p69)
prop_business <0.043 (p85) & POI_pp_mall_mkt <16.667 (p69)
prop_business <0.043 (p85) & POI_pp_mall_mkt <16.667 (p69)
rate_local4 = 0.130-0.987 (p14-85)
110.72 0.86 20.81 0.05 1.533E-06
215 & POI_pp_mall_mkt <16.667 (p69)
gender_ratio >87.664 (p11) & ave_household_size >2.622 (p29)
rate_local4 = 0.152-0.892 (p15-81)
107.11 0.82 20.97 0.08 9.036E-05
216 & POI_pp_mall_mkt <16.667 (p69)
prop_business <0.043 (p85) & POI_pp_mall_mkt <16.667 (p69)
rate_local4 = 0.130-0.987 (p14-85)
110.72 0.86 20.81 0.05 1.533E-06
217 & POI_pp_mall_mkt <16.667 (p69)
prop_business <0.043 (p85) & POI_pp_mall_mkt <16.667 (p69)
rate_local4 = 0.130-0.987 (p14-85)
110.72 0.86 20.81 0.05 1.533E-06
218 & POI_pp_mall_mkt <16.667 (p69)
prop_business <0.043 (p85) & POI_pp_mall_mkt <16.667 (p69)
rate_local4 = 0.130-0.987 (p14-85)
110.72 0.86 20.81 0.05 1.533E-06
219 & POI_pp_mall_mkt <16.667 (p69)
prop_business <0.043 (p85) & POI_pp_mall_mkt <16.667 (p69)
rate_local4 = 0.130-0.987 (p14-85)
110.72 0.86 20.81 0.05 1.533E-06
220 & POI_pp_mall_mkt <16.667 (p69)
| Line     | Expression                                                                                                                                       | Rate Local | P  | V  | P  | P  |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------|------------|----|----|----|----|
| 221      | gender_ratio > 87.552 (p11) & POI_pp_mall_mkt < 11.259 (p75)                                                                                | 0.093-1.007 | 106.54 | 0.87 | 20.01 | 0.03 | 5.631E-05 |
| 222      | den_bldg < 0.331 (p77) & POI_pp_edu < 18.032 (p71) & prop_preprim_edu < 0.138 (p85) & prop_business < 0.055 (p86) | 0.075-0.893 | 97.26 | 0.85 | 20.00 | 0.07 | 2.433E-06 |
| 223      | & POI_pp_telecom_elec < 40.063 (p87)                                                                                                         | 0.130-1.129 | 119.06 | 0.87 | 19.73 | 0.04 | 4.165E-05 |
| 224      | gender_ratio > 87.552 (p11) & POI_pp_mall_mkt < 13.993 (p82)                                                                               | 0.130-0.835 | 88.22 | 0.82 | 19.65 | 0.04 | 8.07E-05  |
| 225      | prop_preprim_edu < 0.138 (p86) & POI_pp_telecom_elec < 40.063 (p87)                                                                       | 0.130-1.129 | 119.06 | 0.87 | 19.73 | 0.04 | 4.165E-05 |
| 226      | gender_ratio > 87.329 (p11) & ave_household_size > 2.554 (p17)                                                                               | 0.139-1.229 | 122.96 | 0.89 | 19.55 | 0.04 | 1.363E-07 |
| 227      | prop_preprim_edu < 0.136 (p85) & den_bldg < 0.302 (p74) & POI_pp_transport < 73.313 (p82)                                                   | 0.053-1.094 | 89.21 | 0.94 | 19.54 | 0.01 | 2.266E-06 |
| 228      | & POI_pp_mall_mkt < 10.957 (p75)                                                                                                           | 0.126-0.963 | 93.13 | 0.86 | 19.08 | 0.02 | 1.489E-05 |
| 229      | prop_preprim_edu < 0.149 (p90) & & prop_business < 0.043 (p85)                                                                             | 0.152-0.892 | 112.11 | 0.79 | 19.47 | 0.03 | 3.258E-05 |
| 230      | gender_ratio > 87.533 (p11) & prop_business < 0.058 (p86)                                                                                | 0.124-0.871 | 114.86 | 0.79 | 19.45 | 0.03 | 3.286E-05 |
| 231      | prop_woodland > 0.100 (p48) & POI_pp_transport < 61.104 (p78)                                                                               | 0.119-0.854 | 78.39 | 0.87 | 19.34 | 0.11 | 4.325E-05 |
| 232      | & POI_pp_transport < 61.104 (p78)                                                                                                          | 0.145-0.867 | 101.63 | 0.80 | 19.20 | 0.06 | 2.522E-06 |
| 233      | gender_ratio > 87.528 (p11) & prop_preprim_edu < 0.146 (p89) & &prop_business < 0.043 (p85)                                             | 0.126-0.963 | 93.13 | 0.86 | 19.08 | 0.02 | 1.489E-05 |
| 234      | & POI_pp_transport < 61.104 (p78)                                                                                                          | 0.152-0.892 | 112.11 | 0.79 | 19.47 | 0.03 | 3.258E-05 |
| 235      | prop_woodland > 0.072 (p38) & POI_pp_transport < 33.191 (p70)                                                                             | 0.069-1.113 | 98.58 | 0.90 | 18.87 | 0.04 | 1.893E-07 |
| 236      | & POI_pp_transport < 33.191 (p70)                                                                                                          | 0.124-0.871 | 114.86 | 0.79 | 19.45 | 0.03 | 3.286E-05 |
| 237      | ave_household_size > 2.627 (p29) & POI_pp_mall_mkt < 12.788 (p81)                                                                          | 0.152-0.892 | 100.45 | 0.81 | 18.70 | 0.07 | 5.27E-05  |
| 238      | & POI_pp_mall_mkt < 12.788 (p81)                                                                                                          | 0.140-1.093 | 84.80 | 0.94 | 18.66 | 0.01 | 2.567E-05 |
| 239      | gender_ratio > 87.552 (p11) & POI_pp_transport < 39.095 (p61)                                                                             | 0.084-1.253 | 126.70 | 0.90 | 18.66 | 0.02 | 5.313E-05 |
| 240      | & POI_pp_transport < 39.095 (p61)                                                                                                          | 0.125-1.126 | 96.15 | 0.91 | 18.65 | 0.02 | 9.1E-06   |
| 241      | prop_preprim_edu < 0.152 (p91) & POI_pp_transport < 29.486 (p52)                                                                           | 0.048-1.253 | 115.85 | 0.91 | 18.64 | 0.02 | 8.192E-05 |
| 242      | & POI_pp_transport < 29.486 (p52)                                                                                                          | 0.125-1.126 | 96.15 | 0.91 | 18.65 | 0.02 | 9.1E-06   |
| 243      | & prop_preprim_edu < 0.146 (p89) & prop_business < 0.043 (p85)                                                                           | 0.062-1.249 | 133.04 | 0.89 | 18.50 | 0.12 | 3.4E-12   |
| 244      | & prop_business < 0.058 (p86)                                                                                                             | 0.062-1.249 | 133.04 | 0.89 | 18.50 | 0.12 | 3.4E-12   |
| 245      | & prop_preprim_edu < 0.138 (p85) & prop_business < 0.055 (p86)                                                                           | 0.062-1.249 | 133.04 | 0.89 | 18.50 | 0.12 | 3.4E-12   |
| 246      | & prop_business < 0.055 (p86)                                                                                                             | 0.062-1.249 | 133.04 | 0.89 | 18.50 | 0.12 | 3.4E-12   |
| Equation                                                                 | Rate      | Intercept | p-value | Independent Variables                          |
|-------------------------------------------------------------------------|-----------|-----------|---------|-----------------------------------------------|
| prop_preprim_edu < 0.144 (p89) & ave_household_size > 2.509 (p17)       | rate_local4 = 0.078 - 1.234 (p13-90) | 130.76   | 0.89    | 18.32  | 0.02 | 4.511E-05 |
| prop_preprim_edu < 0.140 (p86) & den_public_trans < 64.180 (p85)       | rate_local4 = 0.152 - 0.892 (p15-81) | 118.61   | 0.77    | 18.20  | 0.05 | 5.411E-06 |
| prop_business < 0.060 (p87) & POI_pp_mall_mkt < 14.399 (p83)           | rate_local4 = 0.145 - 0.943 (p15-83) | 121.83   | 0.80    | 18.18  | 0.04 | 6.386E-05 |
| prop_woodland > 0.065 (p36) & POI_pp_telecom_elec < 16.538 (p60)       | rate_local4 = 0.088 - 0.877 (p13-80) | 72.87    | 0.88    | 17.95  | 0.10 | 2.292E-05 |
| POI_pp_transport < 68.907 (p80)                                        | rate_local4 = 0.048 - 1.284 (p13-90) | 149.12   | 0.87    | 17.83  | 0.10 | 2.154E-14 |
| prop_preprim_edu < 0.138 (p85) & den_public_trans < 64.180 (p85)       | rate_local4 = 0.152 - 0.892 (p15-81) | 119.03   | 0.77    | 17.71  | 0.06 | 2.441E-05 |
| prop_business < 0.050 (p86) & POI_pp_mall_mkt < 14.399 (p83)           | rate_local4 = 0.119 - 0.888 (p14-81) | 92.35    | 0.82    | 17.69  | 0.03 | 2.472E-05 |
| prop_woodland > 0.065 (p36) & POI_pp_edu < 19.430 (p74)                | rate_local4 = 0.152 - 0.892 (p15-81) | 111.36   | 0.78    | 17.55  | 0.04 | 3.074E-05 |
| POI_pp_transport < 66.085 (p78)                                        | rate_local4 = 0.124 - 0.575 (p14-62) | 51.61    | 0.70    | 17.55  | 0.09 | 3.873E-05 |
| prop_private_resid = 0.013 - 0.123 (p30-70) & POI_pp_transport < 66.085 (p78) | rate_local4 = 0.140 - 0.863 (p14-80) | 90.44    | 0.80    | 17.54  | 0.15 | 3.552E-08 |
| prop_woodland > 0.065 (p36) & POI_pp_edu < 19.430 (p74)                | rate_local4 = 0.050 - 0.879 (p13-81) | 85.14    | 0.84    | 17.50  | 0.08 | 6.634E-05 |
| POI_pp_mall_mkt < 6.232 (p55)                                          | rate_local4 = 0.071 - 1.079 (p13-87) | 103.59   | 0.88    | 17.43  | 0.15 | 3.721E-08 |
| prop_private_resid = 0.013 - 0.123 (p30-70) & POI_pp_telecom_elec < 31.454 (p80) | rate_local4 = 0.124 - 0.575 (p14-62) | 51.03    | 0.69    | 17.28  | 0.09 | 8.372E-06 |
| prop_preprim_edu < 0.136 (p85) & prop_household_3gen < 0.081 (p92)     | rate_local4 = 0.080 - 0.857 (p13-80) | 108.46   | 0.78    | 17.19  | 0.03 | 7.21E-06  |
| & prop_business < 0.044 (p85)                                          | rate_local4 = 0.078 - 1.234 (p13-90) | 124.09   | 0.88    | 16.97  | 0.02 | 6.133E-05 |
| gender_ratio > 87.552 (p11) & LU_entropy > 0.522 (p40)                  | rate_local4 = 0.132 - 0.855 (p14-80) | 95.82    | 0.79    | 16.87  | 0.04 | 1.574E-05 |
| POI_pp_telecom_elec < 30.272 (p80)                                      | rate_local4 = 0.039 - 1.211 (p13-90) | 145.90   | 0.85    | 16.73  | 0.10 | 8.204E-12 |
| ave_household_size > 2.654 (p29) & prop_household_3gen < 0.060 (p86)   | rate_local4 = 0.062 - 0.869 (p13-80) | 100.40   | 0.78    | 16.68  | 0.05 | 5.797E-05 |
| prop_grassland = 0.004 - 0.085 (p23-71) & POI_pp_telecom_elec < 26.772 (p77) | rate_local4 = 0.188 - 0.848 (p16-80) | 66.62    | 0.82    | 16.40  | 0.09 | 1.936E-05 |
| prop_private_resid = 0.008 - 0.104 (p26-66) & POI_pp_edu < 16.203 (p69) | rate_local4 = 0.062 - 0.820 (p13-78) | 58.99    | 0.88    | 16.34  | 0.11 | 7.753E-05 |
| prop_household_3gen < 0.081 (p92) & den_public_trans < 56.620 (p82)    | rate_local4 = 0.156 - 0.860 (p15-80) | 116.83   | 0.73    | 15.92  | 0.03 | 3.957E-05 |
| prop_household_3gen < 0.052 (p81) & den_bldg < 0.435 (p83)              | rate_local4 = 0.113 - 0.833 (p13-79) | 105.04   | 0.76    | 15.92  | 0.06 | 4.932E-05 |
| prop_preprim_edu < 0.149 (p90) & den_bldg < 0.328 (p76)                 | rate_local4 = 0.152 - 0.892 (p15-81) | 107.85   | 0.77    | 15.60  | 0.05 | 7.199E-05 |
| prop_grassland = 0.007 - 0.073 (p30-69) & POI_pp_mall_mkt < 9.685 (p69) | rate_local4 = 0.218 - 1.005 (p21-86) | 52.57    | 0.91    | 15.51  | 0.15 | 1.497E-05 |
| den_road < 16.676 (p72) & prop_transport > 0.067 (p35)                 | rate_local4 = 0.178 - 1.014 (p16-86) | 70.86    | 0.87    | 15.30  | 0.12 | 6.16E-06  |
| prop_business < 0.060 (p87) & prop_transport > 0.067 (p35)             | rate_local4 = 0.184 - 1.158 (p16-89) | 94.98    | 0.84    | 15.23  | 0.09 | 3.549E-05 |
| prop_grassland = 0.007 - 0.073 (p30-69) & POI_pp_transport < 42.169 (p64) | rate_local4 = 0.218 - 1.005 (p21-86) | 50.86    | 0.91    | 15.09  | 0.15 | 5.184E-05 |
| Model                                                                 | Parameter 1                           | Parameter 2                           | Parameter 3                           | Parameter 4                           | Parameter 5                           | Parameter 6                           | Parameter 7                           | Parameter 8                           | Parameter 9                           | Parameter 10                          |
|----------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| gender_ratio >87.664 (p11) & den_road <23.313 (p87)                 |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| POL_pp_edu <5.310 (p35)                                             |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| prop_grassland <0.007-0.073 (p30-69) & POL_pp_sports <43.022 (p80) |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| gender_ratio >87.552 (p11) & prop_business <0.055 (p86)            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| prop_transport >0.104 (p44) & LU_entropy >0.535 (p43)              |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| ave_household_size >2.713 (p37)                                    |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| prop_household_3gen <0.081 (p92) & den_road <15.967 (p70)          |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| gender_ratio >87.277 (p11) & prop_preprim_edu <0.128 (p82)         |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| prop_grassland <0.027 (p51) & LU_entropy >0.551 (p49)              |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| prop_transport =0.035-0.151 (p25-57)                               |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| prop_preprim_edu <0.136 (p85) & prop_household_3gen <0.081 (p92)  |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| prop_grassland <0.004-0.085 (p23-71)                               |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| prop_private_resid =0.022-0.087 (p36-64)                            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| prop_publicResid >0.042                                             |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| prop_preprim_edu <0.134 (p84)                                      |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| prop_woodland <0.016 (p25)                                         |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| prop_gov_instit_fac >0.033 (p43)                                   |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| prop_household_3gen <0.081 (p92)                                   |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| den_road <20.368 (p81) & den_public_trans <47.014 (p78)            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| den_road <16.383 (p71)                                             |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| den_population >37522.136 (p69) & prop_business <0.036 (p83)       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| den_population >36962.203 (p68) & den_public_trans <32.715 (p66)  |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| den_bldg <0.226 (p62)                                              |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| den_population <8644.075 (p40) & POL_pp_sports >29.162 (p66)       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| den_population <26219.620 (p60)                                    |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| den_population <8644.075 (p40) & POL_pp_transport >54.345 (p73)    |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| den_population <111819.200 (p43) & POL_pp_telecom_elec >17.798 (p64)|                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| prop_shrubland >0.064 (p49)                                        |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| den_population <8644.075 (p40) & POL_pp_edu >16.779 (p69)         |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| prop_private_resid <0.069 (p57) & prop_publicResid <0.039 (p70)    |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| den_public_trans <46.130 (p78)                                     |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| den_population <8644.075 (p40) & POL_pp_mall_mkt >9.300 (p66)      |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| prop_private_resid <0.025 (p39) & POL_pp_sports >25.381 (p62)      |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| prop_woodland =0.016-0.309 (p25-81)                                |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
| POL_pp_sports >33.191 (p70)                                        |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |
305 POI_pp_telecom_elec >30.272 (p80) rate_local4 <0.039 (p13) 19.74 0.45 14.04 0.32 3.555E-13
306 POI_pp_transport >68.907 (p80) rate_local4 <0.048 (p13) 19.71 0.45 14.01 0.32 7.438E-15
307 den_bldg <0.160 (p47) &POI_pp_mall_mkt >7.205 (p60) rate_local4 <0.075 (p13) 19.21 0.48 14.00 0.23 2.826E-06
308 prop_agricultural >0.017 (p64) rate_local4 <0.030 (p86) 46.73 0.61 13.80 0.18 5.866E-06
309 prop_private_resid <0.025 (p39) &POI_pp_mall_mkt >7.305 (p60) rate_local4 <0.075 (p13) 18.82 0.51 13.44 0.21 7.541E-06
310 prop_business <0.058 (p86) rate_local4 <0.784 (p76) 152.27 0.82 11.69 0.06 1.455E-08
311 prop_private_resid <0.022 (p36) rate_local4 <0.148 (p15) 22.60 0.29 11.64 0.15 2.503E-08
312 prop_transport <0.035 (p25) rate_local4 <0.186 (p16) 20.05 0.39 11.58 0.22 8.801E-07
313 prop_rural_set >0.032 (p69) rate_local4 <0.348 (p36) 35.01 0.51 10.90 0.16 6.869E-05
314 prop_household_3gen >0.052 (p81) &den_population <11819.200 (p43) rate_local4 <0.080 (p13) 14.30 0.54 10.86 0.21 2.837E-05
315 POI_pp_edu >25.063 (p83) rate_local4 <0.061 (p13) 15.92 0.40 10.72 0.27 2.209E-09
316 prop_rural_set >0.032 (p69) &POI_pp_sports >19.775 (p53) rate_local4 <0.062 (p13) 14.85 0.45 10.52 0.20 6.233E-05
317 prop_preprim_edu >0.156 (p92) rate_local4 <0.081 (p13) 11.00 0.60 8.62 0.47 2.726E-10
318 prop_open_recreation <0.006 (p25) rate_local4 <0.065 (p13) 16.70 0.32 9.76 0.18 2.281E-06
319 med_area_home >15.641 (p45) rate_local4 <0.299 (p29) 45.56 0.37 9.68 0.08 7.299E-05
320 build_area_pp >58.100 (p47) rate_local4 <0.222 (p21) 36.65 0.31 9.66 0.08 1.522E-05
321 prop_grassland >0.085 (p71) rate_local4 <0.188 (p16) 20.40 0.32 9.55 0.15 6.504E-06
322 POI_pp_mall_mkt >19.264 (p88) rate_local4 <0.071 (p13) 12.77 0.48 9.31 0.35 2.595E-09
323 prop_over65 >0.229 (p93) rate_local4 <0.041 (p13) 10.67 0.59 8.30 0.46 4.761E-11
324 gender_ratio >109.623 (p94) rate_local4 <0.034 (p34) 10.16 0.79 5.84 0.45 5.987E-05
325 prop_publicResid <0.042 (p70) rate_local4 <0.078 (p13) 6.00 0.98 5.20 0.69 1.336E-05
326 gender_ratio <87.552 (p11) &prop_grassland >0.070 (p67) rate_local4 <0.089 (p13) 6.25 0.77 5.19 0.47 3.162E-05
327 prop_grassland >0.085 (p71) rate_local4 <0.078 (p13) 5.56 0.94 4.79 0.65 5.737E-05
328 gender_ratio <87.552 (p11) &den_bldg <0.112 (p36) rate_local4 <0.078 (p13) 5.47 0.98 4.74 0.69 4.75E-05
| No. | Antecedent | Consequent | Supp | Conf | Lev | Imp | P   |
|-----|------------|------------|------|------|-----|-----|-----|
| 1   | med_income <23893.698 (p79) & prop_rural_set <0.020 (p64) & prop_shrubland <0.106 (p57) | rate_local4nondance >0.421 (p58) | 50.22 | 0.79 | 22.55 | 0.14 | 7E-07 |
| 2   | med_income <26997.433 (p83) & prop_agricultural <0.018 (p64) & prop_shrubland <0.106 (p57) | rate_local4nondance >0.417 (p58) | 56.31 | 0.72 | 22.15 | 0.09 | 1.9E-05 |
| 3   | med_income <27021.574 (p84) & prop_rural_set <0.014 (p59) & prop_transport >0.089 (p39) | rate_local4nondance >0.352 (p48) | 59.83 | 0.83 | 21.69 | 0.10 | 5.3E-05 |
| 4   | med_income <27548.320 (p84) & den_road >7.805 (p37) & prop_agricultural <0.024 (p71) & prop_grassland <0.048 (p61) | rate_local4nondance >0.412 (p58) | 51.93 | 0.73 | 21.24 | 0.12 | 5.6E-05 |
| 5   | med_income <26534.581 (p83) & prop_rural_set <0.020 (p64) & prop_transport >0.048 (p61) | rate_local4nondance >0.352 (p48) | 62.75 | 0.80 | 21.21 | 0.10 | 3.1E-05 |
| 6   | prop_higher_edu <0.354 (p84) & prop_rural_set <0.018 (p63) & prop_shrubland <0.114 (p58) | rate_local4nondance >0.385 (p52) | 53.12 | 0.80 | 21.19 | 0.12 | 2.4E-05 |
| 7   | med_income <23378.274 (p78) & prop_transport >0.130 (p52) & prop_agricultural <0.012 (p60) | rate_local4nondance >0.338 (p44) | 58.69 | 0.85 | 21.01 | 0.07 | 8.3E-05 |
| 8   | med_income <28521.509 (p84) & den_bldg >0.118 (p38) & prop_shrubland <0.131 (p64) | rate_local4nondance >0.342 (p45) | 71.66 | 0.76 | 20.96 | 0.06 | 1.6E-05 |
| 9   | med_income <23830.145 (p84) & den_public_trans >17.077 (p50) & prop_shrubland <0.107 (p57) | rate_local4nondance >0.408 (p56) | 55.63 | 0.72 | 20.96 | 0.08 | 7.9E-05 |
| 10  | med_income <28532.667 (p84) & prop_transport >0.140 (p54) | rate_local4nondance >0.412 (p57) | 57.31 | 0.70 | 20.80 | 0.08 | 6.8E-05 |
| 11  | med_income <23455.266 (p78) & den_bldg >0.180 (p51) | rate_local4nondance >0.411 (p57) | 54.28 | 0.72 | 20.67 | 0.12 | 7.1E-07 |
| 12  | med_income <24026.190 (p79) & prop_rural_set <0.002 (p49) | rate_local4nondance >0.397 (p54) | 54.12 | 0.75 | 20.39 | 0.14 | 1.3E-05 |
| 13  | med_area_home <17.602 (p54) & prop_rural_set <0.012 (p59) | rate_local4nondance >0.396 (p53) | 56.33 | 0.73 | 20.34 | 0.14 | 1.2E-05 |
| 14  | med_income <24039.820 (p79) & den_road >11.532 (p53) | rate_local4nondance >0.421 (p58) | 52.05 | 0.71 | 20.14 | 0.12 | 3.0E-05 |
| 15  | med_income <23493.899 (p78) & prop_agricultural <0.000 (p40) | rate_local4nondance >0.411 (p57) | 46.02 | 0.78 | 19.88 | 0.16 | 3.5E-07 |
| 16  | den_population >18758.717 (p50) & prop_agricultural <0.016 (p64) | rate_local4nondance >0.348 (p47) | 69.20 | 0.75 | 19.73 | 0.05 | 4.8E-05 |
| 17  | med_area_home <18.912 (p57) & prop_rural_set <0.018 (p63) & prop_shrubland <0.104 (p56) | rate_local4nondance >0.348 (p46) | 52.19 | 0.86 | 19.66 | 0.11 | 8.2E-05 |
| 18  | med_income <26688.145 (p83) & den_road >7.671 (p36) & prop_shrubland <0.145 (p67) | rate_local4nondance >0.342 (p45) | 70.54 | 0.75 | 19.65 | 0.04 | 3.2E-05 |
| 19  | med_income <27897.286 (p84) & prop_grassland <0.035 (p58) | rate_local4nondance >0.400 (p55) | 64.71 | 0.66 | 19.46 | 0.08 | 5.9E-05 |
| 20  | med_area_home <17.602 (p54) & prop_agricultural <0.014 (p61) | rate_local4nondance >0.363 (p49) | 63.10 | 0.74 | 19.33 | 0.10 | 4.4E-05 |
med_income <23893.698 (p79) & prop_transport > 0.056 (p33) & LU_entropy < 0.546 (p47)
rate_local4nondance > 0.621 (p74)  30.15  0.71  19.29  0.17  5.1E-05
prop_higher_edu < 0.342 (p81) & den_road > 11.532 (p53) & prop_rural_set < 0.010 (p59)
rate_local4nondance > 0.421 (p58)  44.45  0.76  19.29  0.09  6.4E-05
med_income < 23361.519 (p78) & den_road > 6.327 (p30) & LU_entropy < 0.538 (p44)
rate_local4nondance > 0.596 (p74)  29.78  0.75  19.05  0.21  1.7E-06
med_area_home < 18.088 (p55) & den_bldg > 0.187 (p53)
rate_local4nondance > 0.421 (p58)  47.62  0.72  19.04  0.12  5.7E-06
prop_rural_set < 0.035 (p70) & prop_shrubland < 0.104 (p56)
rate_local4nondance > 0.343 (p46)  68.19  0.75  18.94  0.08  3.1E-05
med_income < 23361.519 (p78) & den_road > 6.327 (p30) & LU_entropy < 0.538 (p44)
rate_local4nondance > 0.674 (p77)  31.51  0.58  18.91  0.23  6.6E-07
med_income < 28202.741 (p84) & den_public_trans > 23.601 (p57)
rate_local4nondance > 0.357 (p48)  60.54  0.76  18.85  0.06  4.8E-05
med_area_home < 18.912 (p57) & prop_shrubland < 0.104 (p56)
rate_local4nondance > 0.417 (p58)  54.20  0.67  18.67  0.10  7E-05
prop_rural_set < 0.035 (p70) & prop_shrubland < 0.104 (p56)
rate_local4nondance > 0.417 (p58)  31.83  0.54  18.64  0.20  6.9E-06
med_area_home < 17.219 (p52) & prop_rural_set < 0.041 (p71)
rate_local4nondance > 0.263 (p35)  72.22  0.87  18.63  0.03  3.5E-05
prop_rural_set < 0.012 (p59)
rate_local4nondance > 0.259 (p35)  68.92  0.89  18.40  0.02  4.1E-05
med_area_home < 17.219 (p52) & prop_rural_set < 0.041 (p71)
rate_local4nondance > 0.263 (p35)  78.68  0.84  18.60  0.04  4.6E-05
prop_agricultural < 0.009 (p58) & LU_entropy < 0.547 (p47)
rate_local4nondance > 0.623 (p74)  95.14  0.84  18.54  0.06  5E-05
med_income < 23361.519 (p78) & prop_agricultural < 0.009 (p58) & LU_entropy < 0.547 (p47)
rate_local4nondance > 0.623 (p74)  29.97  0.67  18.54  0.19  5.8E-06
med_income < 27081.831 (p84) & med_area_home < 18.198 (p55) & prop_rural_set < 0.012 (p59)
rate_local4nondance > 0.259 (p35)  68.92  0.89  18.50  0.02  4.1E-05
med_income < 28202.741 (p84) & prop_shrubland < 0.071 (p50)
rate_local4nondance > 0.406 (p56)  57.96  0.66  18.45  0.08  3.4E-05
med_income < 23361.519 (p78) & den_bldg > 0.144 (p43) & LU_entropy < 0.538 (p44)
rate_local4nondance > 0.596 (p74)  28.51  0.76  18.40  0.19  1.1E-05
prop_rural_set < 0.000 (p43)
rate_local4nondance > 0.711 (p79)  25.42  0.77  18.33  0.20  4.1E-05
ave_household_size < 2.963 (p63) & prop_rural_set < 0.004 (p51) & LU_entropy < 0.555 (p50)
rate_local4nondance > 0.647 (p76)  30.06  0.62  18.30  0.14  8.2E-05
med_income < 23361.519 (p78) & prop_grassland < 0.022 (p46) & LU_entropy < 0.550 (p49)
rate_local4nondance > 0.596 (p74)  29.38  0.71  18.30  0.18  9.6E-06
med_income < 28202.741 (p84) & prop_shrubland < 0.071 (p50)
rate_local4nondance > 0.426 (p59)  48.39  0.69  18.27  0.11  7E-05
med_area_home < 17.728 (p54) & den_road > 11.019 (p51)
rate_local4nondance > 0.691 (p78)  28.99  0.60  18.20  0.24  3.2E-07

den_population >26714.031 (p60) & prop_agricultural < 0.015 (p62) & prop_shrubland < 0.123 (p61)
rate_local4nondance > 0.297 (p37)
59.67  0.84  18.20  0.03  1.1E-05

rate_local4nondance > 0.652 (p76)
32.64  0.54  18.17  0.18  4.8E-06

rate_local4nondance > 0.284 (p37)
66.15  0.85  18.13  0.03  3.7E-05

prop_grassland < 0.025 (p50) & LU_entropy < 0.550 (p49)
rate_local4nondance > 0.652 (p76)
32.64  0.54  18.17  0.06  5.3E-05

rate_local4nondance > 0.284 (p37)
66.15  0.85  18.13  0.03  3.7E-05

prop_agricultural < 0.035 (p75) & POI_pp_transport > 50.430 (p71)
rate_local4nondance > 0.234 (p31)
96.23  0.83  18.02  0.07  3.1E-06

rate_local4nondance > 0.284 (p37)
66.15  0.85  18.13  0.03  3.7E-05

med_area_home < 17.981 (p55) & prop_rural_set < 0.015 (p62)
& LU_entropy < 0.550 (p49)
rate_local4nondance > 0.221 (p30)
75.59  0.90  17.76  0.02  3.1E-06

rate_local4nondance > 0.615 (p74)
28.12  0.72  17.94  0.21  1.1E-05

rate_local4nondance > 0.421 (p35)
49.83  0.68  17.91  0.09  2.4E-05

rate_local4nondance > 0.292 (p37)
89.28  0.76  17.81  0.06  6.2E-05

rate_local4nondance > 0.642 (p76)
30.47  0.59  17.81  0.17  3.4E-07

rate_local4nondance > 0.716 (p79)
25.15  0.75  17.98  0.18  4.9E-05

rate_local4nondance > 0.623 (p74)
26.70  0.78  17.95  0.17  5.4E-05

rate_local4nondance > 0.615 (p74)
28.12  0.72  17.94  0.21  1.1E-05

rate_local4nondance > 0.421 (p35)
49.83  0.68  17.91  0.09  2.4E-05

rate_local4nondance > 0.292 (p37)
89.28  0.76  17.81  0.06  6.2E-05

rate_local4nondance > 0.642 (p76)
30.47  0.59  17.81  0.17  3.4E-07

rate_local4nondance > 0.716 (p79)
25.15  0.75  17.98  0.18  4.9E-05

rate_local4nondance > 0.623 (p74)
26.70  0.78  17.95  0.17  5.4E-05
| 67 | prop_rural_set < 0.044 (p73) & POL_pp_transport < 50.430 (p71) | rate_local4 nondance > 0.234 (p31) | 90.88  | 0.84  | 17.32  | 0.08  | 2.8E-05 |
| 68 | med_area_home < 18.503 (p56) & prop_transport > 0.090 (p39) & LU_entropy < 0.537 (p44) | rate_local4 nondance > 0.721 (p79) | 24.18  | 0.74  | 17.27  | 0.17  | 7.7E-05 |
| 69 | prop_preprim_edu < 0.153 (p91) & med_area_home < 17.090 (p52) | rate_local4 nondance > 0.314 (p40) | 76.10  | 0.75  | 17.20  | 0.05  | 6.4E-05 |
| 70 | prop_transport > 0.143 (p55) | rate_local4 nondance > 0.419 (p58) | 59.22  | 0.61  | 17.17  | 0.18  | 9.2E-08 |
| 71 | med_area_home < 18.503 (p56) & den_population > 15207.279 (p47) & LU_entropy < 0.555 (p50) | rate_local4 nondance > 0.781 (p82) | 23.93  | 0.64  | 17.06  | 0.14  | 2.1E-05 |
| 72 | build_area_pp < 89.773 (p62) & prop_rural_set < 0.078 (p82) | rate_local4 nondance > 0.202 (p27) | 75.22  | 0.92  | 17.05  | 0.06  | 1.1E-05 |
| 73 | med_area_home < 18.727 (p57) & prop_woodland < 0.064 (p36) & prop_transport > 0.062 (p35) | rate_local4 nondance > 0.656 (p76) | 24.79  | 0.76  | 17.04  | 0.17  | 4.7E-05 |
| 74 | prop_rural_set < 0.003 (p50) & LU_entropy < 0.550 (p49) | rate_local4 nondance > 0.710 (p79) | 31.06  | 0.48  | 17.03  | 0.14  | 4.1E-05 |
| 75 | prop_preprim_edu < 0.153 (p91) & med_area_home < 17.090 (p52) | rate_local4 nondance > 0.207 (p29) | 72.28  | 0.92  | 16.90  | 0.02  | 1.4E-05 |
| 76 | prop_rural_set < 0.003 (p50) & LU_entropy < 0.550 (p49) | rate_local4 nondance > 0.207 (p29) | 72.28  | 0.92  | 16.90  | 0.02  | 1.4E-05 |
| 77 | prop_rural_set < 0.003 (p50) & prop_agricultural < 0.009 (p59) | rate_local4 nondance > 0.284 (p37) | 57.58  | 0.87  | 16.89  | 0.12  | 1.6E-05 |
| 78 | build_area_pp < 89.773 (p62) & prop_rural_set < 0.067 (p80) | rate_local4 nondance > 0.296 (p37) | 69.77  | 0.78  | 16.66  | 0.02  | 5.6E-05 |
| 79 | build_area_pp < 89.773 (p62) & prop_rural_set < 0.067 (p80) | rate_local4 nondance > 0.189 (p27) | 69.90  | 0.94  | 16.65  | 0.07  | 2.1E-07 |
| 80 | med_area_home < 16.629 (p50) & LU_entropy < 0.550 (p49) | rate_local4 nondance > 0.607 (p74) | 27.40  | 0.67  | 16.65  | 0.29  | 1.7E-07 |
| 81 | prop_preprim_edu < 0.123 (p89) & POL_pp_sports < 103.106 (p74) | rate_local4 nondance > 0.172 (p26) | 113.01 | 0.86  | 16.53  | 0.04  | 2.6E-05 |
| 82 | prop_preprim_edu < 0.123 (p89) & POL_pp_sports < 37.106 (p74) & prop_rural_set < 0.049 (p74) | rate_local4 nondance > 0.172 (p26) | 113.01 | 0.86  | 16.53  | 0.04  | 2.6E-05 |
| 83 | prop_rural_set < 0.103 (p74) & POL_pp_transport < 29.624 (p80) | rate_local4 nondance > 0.198 (p27) | 75.65  | 0.91  | 16.46  | 0.04  | 7.3E-05 |
| 84 | prop_preprim_edu < 0.144 (p89) & med_area_home < 17.727 (p54) & POL_pp_transport < 24.537 (p82) | rate_local4 nondance > 0.294 (p37) | 74.90  | 0.77  | 16.46  | 0.06  | 3.0E-05 |
| 85 | prop_preprim_edu < 0.144 (p89) & med_area_home < 17.727 (p54) & POL_pp_transport < 24.537 (p82) | rate_local4 nondance > 0.172 (p26) | 84.61  | 0.91  | 16.46  | 0.03  | 5.0E-05 |
| 86 | prop_preprim_edu < 0.144 (p89) & med_area_home < 17.727 (p54) & POL_pp_transport < 24.537 (p82) | rate_local4 nondance > 0.172 (p26) | 80.32  | 0.92  | 16.41  | 0.04  | 7.7E-05 |
| 87 | prop_preprim_edu < 0.144 (p89) & med_area_home < 17.727 (p54) & POL_pp_transport < 24.537 (p82) | rate_local4 nondance > 0.172 (p26) | 80.32  | 0.92  | 16.41  | 0.04  | 7.7E-05 |
| 88 | prop_preprim_edu < 0.144 (p89) & med_area_home < 17.727 (p54) & POL_pp_transport < 24.537 (p82) | rate_local4 nondance > 0.172 (p26) | 80.32  | 0.92  | 16.41  | 0.04  | 7.7E-05 |
| 89 | prop_preprim_edu < 0.144 (p89) & med_area_home < 17.727 (p54) & POL_pp_transport < 24.537 (p82) | rate_local4 nondance > 0.172 (p26) | 80.32  | 0.92  | 16.41  | 0.04  | 7.7E-05 |

| 89 | ave_household_size < 2.831 (p49) & prop_agricultural < 0.001 (p43) | rate_local4 nondance > 0.626 (p74) | 29.32  | 0.57  | 16.36  | 0.18  | 3.2E-05 |
prop_preprim_edu <0.144 (p89) &prop_household_3gen <0.062 (p86) &med_area_home <17.727 (p54) 
rate_local4nondance >0.172 (p26) 86.57 0.90 16.27 0.02 5E-05

build_area_pp <56.323 (p46) &prop_rural_set <0.010 (p58) &prop_shrubland <0.151 (p69) 
rate_local4nondance >0.311 (p40) 52.41 0.85 16.25 0.13 7.3E-05

build_area_pp <86.576 (p61) &prop_rural_set <0.044 (p73) 
rate_local4nondance >0.193 (p27) 68.66 0.94 16.19 0.04 2.6E-05

prop_over65 <0.213 (p89) &med_area_home <17.069 (p52) &prop_rural_set <0.031 (p69) 
rate_local4nondance >0.193 (p27) 68.66 0.94 16.19 0.04 2.6E-05
| Line | Variables                                                                 | Rate Local4 nondance | p-value | p-value | p-value | p-value |
|------|---------------------------------------------------------------------------|----------------------|---------|---------|---------|---------|
| 114  | prop_preprim_edu <0.144 (p89) & build_area_pp <89.360 (p62) & prop_transport >0.084 (p38) | rate_local4 nondance >0.184 (p26) | 79.05   | 0.90    | 15.39   | 0.02    | 2.4E-06 |
| 115  | prop_over65 <0.212 (p89) & POI_pp_telecom_elec <12.318 (p51) | rate_local4 nondance >0.189 (p27) | 89.36   | 0.87    | 15.37   | 0.05    | 5E-05   |
| 116  | prop_agricultural <0.009 (p58) & LU_entropy <0.547 (p47) & prop_preprim_edu <0.143 (p88) & den_road >6.756 (p31) | rate_local4 nondance >0.765 (p81) | 28.53   | 0.41    | 15.34   | 0.11    | 4.3E-05 |
| 117  | med_area_home <15.434 (p45) & POI_pp_sports <79.051 (p90) & build_area_pp <90.055 (p62) | rate_local4 nondance >0.183 (p26) | 75.30   | 0.91    | 15.23   | 0.05    | 5.8E-05 |
| 118  | med_area_home <15.547 (p45) & prop_rural_set <0.122 (p60) | rate_local4 nondance >0.200 (p27) | 67.56   | 0.91    | 15.16   | 0.07    | 2.2E-05 |
| 119  | prop_preprim_edu <0.143 (p88) & build_area_pp <87.144 (p62) & prop_transport >0.084 (p38) | rate_local4 nondance >0.184 (p26) | 80.98   | 0.89    | 15.33   | 0.02    | 1.6E-05 |
| 120  | med_area_home <15.547 (p53) & prop_agricultural <0.014 (p61) & POI_pp_mall_mkt <10.119 (p71) & prop_rural_set <0.044 (p73) & prop_grassland <0.072 (p68) | rate_local4 nondance >0.710 (p79) | 22.46   | 0.70    | 14.96   | 0.19    | 5.7E-05 |
| 121  | prop_rural_set <0.008 (p56) | rate_local4 nondance >0.684 (p78) | 34.23   | 0.40    | 15.00   | 0.18    | 5.7E-07 |
| 122  | med_area_home <17.444 (p53) & prop_private_resid >0.086 (p63) | rate_local4 nondance >0.684 (p78) | 32.34   | 0.67    | 15.08   | 0.15    | 5.5E-05 |
| 123  | med_area_home <17.981 (p55) & prop_agricultural <0.009 (p59) & LU_entropy <0.528 (p40) | rate_local4 nondance >0.503 (p66) | 26.45   | 0.80    | 15.07   | 0.10    | 7.8E-05 |
| 124  | prop_preprim_edu <0.144 (p89) & build_area_pp <89.360 (p62) & prop_shrubland <0.122 (p60) | rate_local4 nondance >0.184 (p26) | 72.52   | 0.91    | 15.02   | 0.03    | 1.6E-05 |
| 125  | prop_agricultural <0.000 (p40) | rate_local4 nondance >0.684 (p78) | 34.23   | 0.40    | 15.00   | 0.18    | 5.7E-07 |
| 126  | ave_household_size <2.977 (p63) & prop_private_resid >0.067 (p56) & LU_entropy <0.546 (p47) | rate_local4 nondance >0.668 (p77) | 22.46   | 0.70    | 14.96   | 0.19    | 5.7E-05 |
| 127  | med_area_home <16.784 (p50) & prop_private_resid >0.105 (p66) | rate_local4 nondance >0.710 (p79) | 22.43   | 0.64    | 14.92   | 0.24    | 1.7E-05 |
| 128  | den_road >7.464 (p36) & build_area_pp <90.055 (p62) & prop_preprim_edu <0.152 (p91) & med_area_home <20.005 (p67) & build_area_pp <90.055 (p62) | rate_local4 nondance >0.183 (p26) | 82.29   | 0.88    | 14.83   | 0.07    | 2.2E-06 |
| 129  | den_road >7.464 (p36) & build_area_pp <90.055 (p62) | rate_local4 nondance >0.183 (p26) | 87.01   | 0.87    | 14.83   | 0.04    | 7.7E-05 |
| 130  | prop_preprim_edu <0.154 (p91) & build_area_pp <68.364 (p52) | rate_local4 nondance >0.171 (p26) | 92.29   | 0.87    | 14.79   | 0.02    | 1.5E-05 |
| 131  | prop_grassland <0.097 (p73) & POI_pp_mall_mkt <10.119 (p71) & med_area_home <15.828 (p46) & prop_rural_set <0.033 (p70) & POI_pp_mall_mkt <11.754 (p77) | rate_local4 nondance >0.172 (p26) | 92.45   | 0.87    | 14.74   | 0.07    | 2.6E-05 |
| 132  | prop_grassland <0.097 (p73) & POI_pp_mall_mkt <11.754 (p77) & med_area_home <15.828 (p46) & prop_rural_set <0.033 (p70) & POI_pp_mall_mkt <11.754 (p77) | rate_local4 nondance >0.195 (p27) | 61.25   | 0.94    | 14.71   | 0.03    | 5.9E-05 |
| 133  | prop_woodland <0.064 (p36) & med_area_home <15.828 (p46) & prop_agricultural <0.014 (p61) & POI_pp_transport <41.883 (p64) | rate_local4 nondance >0.699 (p78) | 31.86   | 0.41    | 14.59   | 0.19    | 2.1E-07 |
| 134  | prop_woodland <0.064 (p36) & med_area_home <15.828 (p46) & prop_agricultural <0.014 (p61) & POI_pp_transport <41.883 (p64) | rate_local4 nondance >0.172 (p26) | 59.66   | 0.97    | 14.57   | 0.04    | 5.5E-05 |
| 135  | den_bldg >0.353 (p79) | rate_local4 nondance >0.705 (p79) | 24.98   | 0.52    | 14.55   | 0.30    | 2.2E-09 |
| 136  | build_area_pp <89.360 (p62) & prop_transport >0.084 (p38) | rate_local4 nondance >0.184 (p26) | 80.37   | 0.88    | 14.51   | 0.05    | 4.3E-05 |
| Equation                                                                 | Value       | Value       | Value       | Value       | Value       |
|-------------------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|
| med_income <14611.112 (p25) & LU_entropy <0.543 (p46)                   | rate_local4nondance >0.604 (p74) | 18.09       | 0.79        | 12.01       | 0.37        | 8.7E-06     |
| LU_entropy <0.549 (p48)                                                 | rate_local4nondance >0.673 (p77) | 35.65       | 0.35        | 11.85       | 0.12        | 2.9E-05     |
| LU_entropy <0.632 (p70) & POL_pp_telecom_elec <8.323 (p41) & POL_pp_mall_mkt <11.754 (p77) | rate_local4nondance >0.208 (p29) | 46.52       | 0.94        | 11.72       | 0.02        | 7.8E-05     |
| build_area_pp <99.648 (p67) & prop_open_recreation >0.027 (p46)        | rate_local4nondance >0.172 (p26) | 74.96       | 0.86        | 11.34       | 0.06        | 3.7E-05     |
| ave_household_size <2.593 (p17)                                        | rate_local4nondance >0.540 (p71) | 26.06       | 0.54        | 11.30       | 0.23        | 1.6E-06     |
| den_road >18.893 (p78) & prop_private_resid >0.066 (p56)              | rate_local4nondance >0.298 (p37) | 34.91       | 0.89        | 11.27       | 0.08        | 5E-05       |
| prop_industrial <0.000 (p36)                                           | rate_local4nondance >0.883 (p85) | 22.79       | 0.29        | 11.10       | 0.14        | 4.5E-06     |
| prop_publicResid >0.060 (p74)                                         | rate_local4nondance >0.259 (p35) | 46.79       | 0.84        | 10.49       | 0.19        | 5.3E-05     |
| den_road =16.248-26.910 (p71-92)                                      | rate_local4nondance >0.711 (p79) | 19.42       | 0.43        | 9.62        | 0.21        | 3.7E-06     |
| med_income <14182.663 (p21)                                            | rate_local4nondance >0.737 (p79) | 11.65       | 0.97        | 9.22        | 0.24        | 6.3E-05     |
| build_area_pp <35.213 (p22) & prop_shrubland <0.172 (p76) & LU_entropy <0.523 (p40) | rate_local4nondance >0.780 (p82) | 11.24       | 0.86        | 8.82        | 0.22        | 3.7E-05     |
| prop_business >0.085 (p90)                                             | rate_local4nondance >0.663 (p77) | 14.01       | 0.63        | 8.75        | 0.39        | 1.6E-07     |
| build_area_pp <37.211 (p27) & LU_entropy <0.523 (p40)                  | rate_local4nondance >0.737 (p79) | 11.69       | 0.73        | 8.44        | 0.39        | 6.2E-05     |
| prop_preprim_edu <0.154 (p91)                                          | rate_local4nondance >0.181 (p26) | 149.43      | 0.77        | 8.23        | 0.04        | 5.3E-07     |
| den_road >26.910 (p92)                                                 | rate_local4nondance >0.711 (p79) | 11.57       | 0.67        | 7.87        | 0.46        | 4.1E-06     |
| build_area_pp <39.920 (p30) & POL_pp_transport >34.785 (p57)           | rate_local4nondance >1.045 (p89) | 4.14        | 0.56        | 3.34        | 0.39        | 3.5E-05     |
| build_area_pp <39.359 (p29) & POL_pp_sports >28.053 (p65)              | rate_local4nondance >1.036 (p89) | 3.45        | 0.62        | 2.84        | 0.45        | 1E-05       |
| prop_preprim_edu <0.146 (p89) & ave_household_size >2.549 (p17) & POL_pp_mall_mkt <8.343 (p65) | rate_local4nondance =0.014-0.963 (p18-88) | 98.12       | 0.91        | 23.43       | 0.03        | 1.1E-05     |
| ave_household_size >2.549 (p17) & POL_pp_telecom_elec <17.433 (p62) & POL_pp_mall_mkt <8.343 (p65) | rate_local4nondance =0.014-0.963 (p18-88) | 96.71       | 0.91        | 23.43       | 0.02        | 1.2E-05     |
| ave_household_size >2.549 (p17) & POL_pp_telecom_elec <17.433 (p62) & POL_pp_mall_mkt <8.343 (p65) | rate_local4nondance =0.014-0.963 (p18-88) | 100.00      | 0.89        | 22.52       | 0.05        | 8.5E-07     |
| prop_preprim_edu <0.136 (p85) & POL_pp_mall_mkt <8.343 (p65)           | rate_local4nondance =0.014-0.963 (p18-88) | 103.84      | 0.88        | 22.28       | 0.04        | 2.4E-05     |
| den_road <17.868 (p75) & POL_pp_telecom_elec <17.433 (p62) & POL_pp_mall_mkt <8.343 (p65) | rate_local4nondance =0.014-0.963 (p18-88) | 88.33       | 0.92        | 22.19       | 0.02        | 7.4E-05     |
| ave_household_size >2.657 (p29) & POL_pp_sports <28.806 (p66)          | rate_local4nondance =0.022-0.951 (p18-88) | 92.04       | 0.90        | 22.14       | 0.07        | 2.4E-05     |
| den_road <23.151 (p87) & POL_pp_telecom_elec <13.898 (p56)              | rate_local4nondance =0.048-0.883 (p18-85) | 91.10       | 0.88        | 22.11       | 0.05        | 7.8E-05     |
LU_entropy >0.549 (p48) & POI_pp_telecom_elec <18.430 (p65)
rate_local4nondance = 0.016-0.871 (p18-85) 80.71 0.91 21.73 0.11 6.8E-07

LU_entropy >0.539 (p44) & POI_pp_sports <31.203 (p68)
rate_local4nondance = 0.017-0.650 (p18-76) 76.60 0.80 21.65 0.10 1.1E-05

ave_household_size >2.527 (p17) & POI_pp_telecom_elec <20.788 (p69) & POI_pp_transport <33.527 (p56)
rate_local4nondance = 0.060-1.051 (p18-89) 94.64 0.91 21.52 0.01 4.5E-05

ave_household_size >2.663 (p29) & POI_pp_telecom_elec <20.788 (p69) & POI_pp_transport <33.527 (p56)
rate_local4nondance = 0.060-1.051 (p18-89) 95.34 0.91 21.03 0.03 1.5E-05

ave_household_size >2.616 (p29) & POI_pp_mall_mkt <7.867 (p63)
rate_local4nondance = 0.014-0.899 (p18-86) 87.95 0.89 21.27 0.06 4.2E-05

ave_household_size >2.527 (p17) & POI_pp_mall_mkt <8.791 (p66)
rate_local4nondance = 0.060-1.051 (p18-89) 95.34 0.91 21.03 0.03 1.5E-05

ave_household_size >2.616 (p29) & POI_pp_transport <33.527 (p56)
rate_local4nondance = 0.060-1.051 (p18-89) 95.34 0.91 21.03 0.03 1.5E-05

ave_household_size >2.616 (p29) & POI_pp_edu <17.631 (p70)
rate_local4nondance = 0.014-0.899 (p18-86) 87.95 0.89 21.27 0.06 4.2E-05

prop_preprim_edu <0.154 (p91) & POI_pp_edu <15.368 (p68)
rate_local4nondance = 0.006-0.926 (p18-86) 85.44 0.84 20.87 0.03 4.6E-05

POI_pp_sports <28.160 (p66)
rate_local4nondance = 0.015-0.998 (p18-88) 117.21 0.85 20.93 0.09 1.1E-05
216 prop_shrubland = 0.000-0.071 (p18-50) rate_local4nondance = 0.169-0.966 (p26-88) 50.94 0.74 9.41 0.14 7.6E-05
217 prop_household_3gen < 0.062 (p86) rate_local4nondance = 0.015-0.998 (p18-88) 137.28 0.75 8.91 0.05 3.4E-05
218 den_public_trans > 20.063 (p54) & prop_shrubland = 0.041-0.165 (p42-74) rate_local4nondance = 0.170-0.814 (p26-83) 20.01 0.81 6.17 0.18 4.2E-05
219 den_road < 15.914 (p70) & prop_publicResid < 0.049 (p71) rate_local4nondance < 0.287 (p37) 59.77 0.57 20.58 0.10 5.5E-05
220 den_bldg < 0.262 (p67) & prop_publicResid < 0.045 (p71) rate_local4nondance < 0.289 (p37) 57.88 0.58 20.38 0.10 7.1E-05
221 prop_publicResid < 0.059 (p73) & prop_transport < 0.184 (p64) rate_local4nondance < 0.308 (p38) 20.01 0.81 6.17 0.18 4.2E-05
222 prop_private_resid < 0.123 (p70) & prop_business < 0.011 (p70) rate_local4nondance < 0.289 (p37) 56.36 0.57 18.87 0.11 3.7E-05
223 den_road < 13.077 (p60) & POI_pp_sports > 25.649 (p63) rate_local4nondance < 0.013 (p18) 28.20 0.54 19.01 0.16 1.1E-05
224 den_population < 9985.274 (p41) & POI_pp_sports > 25.649 (p63) rate_local4nondance < 0.013 (p18) 27.65 0.56 18.95 0.18 9.7E-06
225 den_population < 7419.977 (p38) rate_local4nondance < 0.168 (p26) 39.48 0.48 18.88 0.23 7.5E-11
226 prop_transport < 0.145 (p55) & POI_pp_transport > 33.527 (p56) rate_local4nondance < 0.014 (p18) 29.14 0.49 18.54 0.14 2.7E-05
227 den_bldg < 0.243 (p64) & POI_pp_transport > 33.527 (p56) rate_local4nondance < 0.011 (p18) 26.94 0.54 18.09 0.16 5.9E-05
228 den_population < 10950.266 (p43) & POI_pp_transport > 40.350 (p62) rate_local4nondance < 0.011 (p18) 26.42 0.57 17.95 0.17 1.5E-05
229 prop_private_resid < 0.123 (p70) & POI_pp_transport > 28.912 (p66) rate_local4nondance < 0.057 (p18) 26.42 0.57 17.95 0.17 1.5E-05
230 den_population < 13.077 (p60) & POI_pp_sports > 28.912 (p66) rate_local4nondance < 0.0287 (p37) 46.43 0.57 17.91 0.08 1.9E-05
231 prop_shrubland > 0.058 (p48) & POI_pp_sports > 25.506 (p63) rate_local4nondance < 0.010 (p18) 27.83 0.51 17.15 0.17 2.5E-05
232 den_road < 13.077 (p60) & POI_pp_transport > 43.655 (p65) rate_local4nondance < 0.057 (p18) 26.22 0.57 17.79 0.17 4.6E-05
233 prop_transport < 0.140 (p54) & POI_pp_telecom_elec > 12.979 (p54) rate_local4nondance < 0.013 (p18) 25.08 0.55 16.92 0.16 6.1E-05
234 POI_pp_sports > 28.160 (p66) rate_local4nondance < 0.015 (p18) 31.09 0.41 17.52 0.23 1E-11
235 den_road < 16.248 (p71) rate_local4nondance < 0.711 (p79) 136.45 0.90 17.39 0.11 5.1E-12
236 den_road < 17.994 (p75) & prop_business < 0.057 (p86) rate_local4nondance < 0.0697 (p78) 139.38 0.89 17.38 0.01 1.7E-06
237 den_population < 47091.966 (p74) & prop_grassland > 0.033 (p57) rate_local4nondance < 0.0263 (p35) 108.32 0.75 17.29 0.03 6.3E-05
238 den_road < 13.077 (p60) & POI_pp_edu > 11.980 (p55) rate_local4nondance < 0.091 (p19) 27.82 0.51 17.26 0.17 8.6E-06
239 den_road < 13.077 (p60) & POI_pp_edu > 11.980 (p55) rate_local4nondance < 0.049 (p19) 90.52 0.78 17.17 0.06 5.6E-05
240 med_area_home > 14.781 (p37) & prop_business < 0.058 (p86) rate_local4nondance < 0.0101 (p20) 28.73 0.51 17.15 0.17 2.5E-05
241 den_bldg < 0.154 (p46) & POI_pp_telecom_elec > 12.150 (p51) rate_local4nondance < 0.019 (p58) 83.18 0.71 17.13 0.15 9.2E-08
242 prop_transport < 0.143 (p55) rate_local4nondance < 0.019 (p58) 27.48 0.50 16.93 0.16 3.3E-05
243 prop_transport < 0.134 (p52) & POI_pp_edu > 11.888 (p55) rate_local4nondance < 0.010 (p18) 25.08 0.55 16.92 0.16 6.1E-05
244 prop_shrubland > 0.058 (p48) & POI_pp_sports > 25.506 (p63) rate_local4nondance < 0.010 (p18) 25.08 0.55 16.92 0.16 6.1E-05
245 den_bldg < 0.193 (p53) rate_local4nondance < 0.317 (p40) 64.47 0.56 16.92 0.15 6.1E-06
246 prop_transport < 0.145 (p55) & POI_pp_mall_mkt > 7.372 (p60) rate_local4nondance < 0.006 (p18) 25.34 0.53 16.84 0.18 1.2E-05
|   |   |   |   |   |
|---|---|---|---|---|
| 247 | POI\_pp\_transport >44.490 (p67) | rate\_local4nondance <0.019 (p18) | 29.99 | 0.41 | 16.83 | 0.23 | 3.9E-11 |
| 248 | den\_road <13.153 (p60) & POI\_pp\_mall\_mkt >7.878 (p64) | rate\_local4nondance <0.009 (p18) | 24.54 | 0.56 | 16.77 | 0.21 | 5.3E-06 |
| 249 | den\_population <9173.983 (p40) & POI\_pp\_edu >15.204 (p67) | rate\_local4nondance <0.026 (p18) | 24.11 | 0.58 | 16.68 | 0.20 | 1.6E-05 |
| 250 | den\_public\_trans <24.072 (p58) | rate\_local4nondance <0.469 (p64) | 93.72 | 0.76 | 16.63 | 0.14 | 7.8E-08 |
| 251 | den\_bldg <0.165 (p48) & POI\_pp\_edu >11.833 (p55) | rate\_local4nondance <0.106 (p20) | 25.79 | 0.55 | 16.48 | 0.21 | 8.9E-06 |
| 252 | den\_population <10000.913 (p42) & POI\_pp\_mall\_mkt >8.364 (p65) | rate\_local4nondance <0.003 (p18) | 23.44 | 0.58 | 16.25 | 0.21 | 6.4E-05 |
| 253 | den\_bldg <0.154 (p46) & POI\_pp\_mall\_mkt >7.030 (p60) | rate\_local4nondance <0.009 (p19) | 24.87 | 0.49 | 15.30 | 0.12 | 6.9E-05 |
| 254 | prop\_private\_resid <0.117 (p70) & POI\_pp\_mall\_mkt >5.409 (p51) | rate\_local4nondance <0.194 (p27) | 34.68 | 0.49 | 15.30 | 0.12 | 6.9E-05 |
| 255 | prop\_shrubland >0.047 (p43) & POI\_pp\_mall\_mkt >6.422 (p56) | rate\_local4nondance <0.084 (p19) | 24.87 | 0.49 | 15.20 | 0.16 | 2.3E-05 |
| 256 | den\_road <20.469 (p81) & den\_public\_trans <24.072 (p58) | rate\_local4nondance <0.708 (p79) | 106.89 | 0.91 | 14.96 | 0.03 | 1.6E-07 |
| 257 | POI\_pp\_edu >17.631 (p70) | rate\_local4nondance <0.015 (p18) | 26.36 | 0.41 | 14.94 | 0.23 | 1.0E-09 |
| 258 | prop\_agricultural >0.027 (p72) | rate\_local4nondance <0.263 (p35) | 27.66 | 0.70 | 13.96 | 0.16 | 2.3E-05 |
| 259 | prop\_shrubland >0.058 (p48) & POI\_pp\_edu >13.918 (p63) | rate\_local4nondance <0.098 (p19) | 24.87 | 0.49 | 15.20 | 0.16 | 2.3E-05 |
| 260 | POI\_pp\_mall\_mkt >8.922 (p66) | rate\_local4nondance <0.015 (p18) | 27.13 | 0.38 | 14.31 | 0.20 | 7.4E-08 |
| 261 | prop\_woodland >0.064 (p36) | rate\_local4nondance <0.699 (p78) | 120.23 | 0.88 | 13.41 | 0.11 | 2.1E-07 |
| 262 | den\_public\_trans <14.796 (p47) & POI\_pp\_mall\_mkt >7.062 (p60) | rate\_local4nondance <0.000 (p0) | 22.43 | 0.47 | 13.98 | 0.14 | 7.9E-05 |
| 263 | prop\_public\_Resid <0.052 (p72) & prop\_shrubland =0.108-0.217 (p57-82) | rate\_local4nondance <0.263 (p35) | 27.66 | 0.70 | 13.96 | 0.16 | 2.3E-05 |
| 264 | med\_area\_home >16.784 (p50) | rate\_local4nondance <0.402 (p55) | 71.80 | 0.67 | 13.70 | 0.13 | 7.1E-05 |
| 265 | prop\_grassland >0.038 (p58) | rate\_local4nondance <0.364 (p49) | 60.21 | 0.63 | 13.65 | 0.14 | 2.1E-05 |
| 266 | prop\_private\_resid <0.102 (p66) | rate\_local4nondance <0.709 (p79) | 124.65 | 0.88 | 13.36 | 0.09 | 2.2E-07 |
| 267 | build\_area\_pp >60.952 (p50) | rate\_local4nondance <0.177 (p26) | 43.74 | 0.38 | 12.74 | 0.11 | 1.8E-06 |
| 268 | prop\_gov\_insti\_faci <0.023 (p33) | rate\_local4nondance <0.016 (p18) | 25.53 | 0.35 | 12.54 | 0.17 | 2.5E-06 |
| 269 | prop\_open\_recreation <0.008 (p27) | rate\_local4nondance <0.277 (p37) | 33.47 | 0.58 | 12.41 | 0.21 | 6.1E-05 |
| 270 | prop\_rural\_set >0.040 (p71) | rate\_local4nondance <0.316 (p40) | 38.48 | 0.62 | 12.32 | 0.20 | 2.0E-05 |
| 271 | prop\_shrubland >0.071 (p50) | rate\_local4nondance <0.169 (p26) | 39.12 | 0.37 | 11.44 | 0.11 | 6.6E-05 |
| 272 | ave\_household\_size >2.593 (p17) | rate\_local4nondance <0.540 (p71) | 126.28 | 0.76 | 11.40 | 0.07 | 1.6E-06 |
| 273 | den\_bldg <0.113 (p37) & prop\_woodland <0.153 (p58) | rate\_local4nondance <0.399 (p55) | 25.15 | 0.94 | 10.66 | 0.24 | 2.3E-05 |
| 274 | prop\_public\_Resid <0.060 (p74) | rate\_local4nondance <0.259 (p35) | 66.26 | 0.42 | 10.61 | 0.07 | 5.3E-05 |
| 275 | POI\_pp\_telecom\_elec >50.291 (p90) | rate\_local4nondance <0.015 (p18) | 13.60 | 0.60 | 9.55 | 0.42 | 2.5E-05 |
| 276 | prop\_household\_3gen >0.062 (p86) | rate\_local4nondance <0.015 (p18) | 14.93 | 0.49 | 9.51 | 0.31 | 2.6E-07 |
| 277 | prop\_preprim\_edu >0.154 (p91) | rate\_local4nondance <0.003 (p18) | 12.86 | 0.65 | 9.36 | 0.47 | 1.4E-09 |
| 278 | POI\_pp\_telecom\_elec =19.858-50.291 (p68-90) | rate\_local4nondance <0.015 (p18) | 17.52 | 0.38 | 9.28 | 0.20 | 4.8E-05 |
|   |   |   |   |   |
|---|---|---|---|---|
| 279 | prop_business <0.085 (p90) | rate_local4nondance <0.663 (p77) | 155.00 | 0.81 | 8.64 | 0.05 | 1.6E-07 |
| 280 | med_income <26002.239 (p82) & den_bldg <0.118 (p38) & prop_woodland <0.150 (p57) | rate_local4nondance <0.339 (p44) | 18.43 | 0.80 | 7.99 | 0.04 | 7.6E-05 |
| 281 | prop_over65 >0.232 (p94) | rate_local4nondance <0.177 (p26) | 10.00 | 0.77 | 6.64 | 0.51 | 1.3E-05 |
| 282 | gender_ratio >109.069 (p94) | rate_local4nondance <0.087 (p19) | 9.00 | 0.68 | 6.47 | 0.49 | 2.2E-06 |
(f) Rules for wave-1 local case rate; POI density was used

| No. | Antecedent | Consequent | Supp | Conf | Lev | Imp | P |
|-----|------------|------------|------|------|-----|-----|---|
| 1   | build_area_pp >66.740 (p52) | rate_local12 >0.113 (p81) | 32.36 | 0.30 | 11.69 | 0.11 | 2.006E-05 |
| 2   | POI_den_sports =235.262-1634.870 (p58-91) | rate_local12 >0.039 (p60) | 39.15 | 0.56 | 11.23 | 0.16 | 2.365E-05 |
| 3   | prop_preprim_edu <0.080 (p19) | rate_local12 >0.114 (p81) | 17.89 | 0.44 | 10.13 | 0.25 | 7.552E-06 |
| 4   | LU_entropy <0.543 (p46) | rate_local12 >0.103 (p79) | 30.07 | 0.31 | 9.55 | 0.10 | 7.803E-05 |
| 5   | prop_private_resid >0.162 (p78) | rate_local12 >0.062 (p71) | 24.06 | 0.50 | 9.24 | 0.19 | 6.131E-05 |
| 6   | prop_household_3gen <0.023 (p19) | rate_local12 >0.114 (p81) | 17.82 | 0.40 | 8.54 | 0.19 | 2.745E-05 |
| 7   | med_area_home >15.950 (p47) | rate_local12 >0.103 (p79) | 27.40 | 0.23 | 8.53 | 0.07 | 5.739E-05 |
| 8   | POI_den_telecom_elec >375.328 (p72) | rate_local12 >0.039 (p60) | 19.82 | 0.34 | 7.34 | 0.12 | 3.887E-05 |
| 9   | med_income >19063.503 (p63) | rate_local12 >0.103 (p79) | 19.74 | 0.25 | 7.27 | 0.09 | 6.98E-05 |
| 10  | prop_transport >0.336 (p88) | rate_local12 >0.091 (p77) | 12.50 | 0.49 | 6.58 | 0.26 | 1.018E-05 |
| 11  | prop_higher_edu >0.382 (p87) | rate_local12 >0.136 (p86) | 10.35 | 0.39 | 6.23 | 0.24 | 3.376E-05 |
| 12  | gender_ratio >106.162 (p92) | rate_local12 >0.108 (p81) | 9.79 | 0.52 | 6.00 | 0.32 | 4.133E-05 |
| 13  | prop_private_resid =0.017-0.058 (p33-55) & prop_business <0.000 (p26) | rate_local12 >0.170 (p89) | 3.83 | 0.68 | 3.17 | 0.53 | 1.705E-08 |
| 14  | gender_ratio =87.315-99.927 (p11-79) & med_area_home <18.056 (p55) & prop_preprim_edu >0.081-0.132 (p20-83) & med_area_home >17.190 (p52) & POI_den_telecom_elec <632.455 (p82) | rate_local12 >0.005-0.102 (p45-78) | 57.32 | 0.63 | 27.28 | 0.12 | 2.065E-07 |
| 15  | & POI_den_mall_mkt <344.195 (p80) | rate_local12 >0.005-0.099 (p45-78) | 49.00 | 0.74 | 27.18 | 0.11 | 5.256E-05 |
| 16  | & POI_den_sports <854.408 (p78) | rate_local12 >0.005-0.096 (p45-77) | 48.86 | 0.72 | 27.15 | 0.11 | 6.1E-06 |
| 17  | & POI_den_mall_mkt <344.195 (p80) | rate_local12 >0.006-0.092 (p45-77) | 47.56 | 0.72 | 26.97 | 0.11 | 1.286E-05 |
| 18  | & POI_den_sports <854.408 (p78) | rate_local12 >0.005-0.105 (p45-80) | 55.03 | 0.66 | 26.65 | 0.07 | 4.552E-05 |
| 19  | & POI_den_mall_mkt <344.195 (p80) | rate_local12 >0.005-0.091 (p45-77) | 46.56 | 0.73 | 26.65 | 0.11 | 1.966E-05 |
| 20  | & POI_den_mall_mkt <344.195 (p80) | rate_local12 >0.006-0.104 (p45-80) | 53.21 | 0.67 | 26.57 | 0.11 | 1.911E-05 |
| 21  | & POI_den_sports <854.408 (p78) | rate_local12 >0.005-0.102 (p45-79) | 52.17 | 0.67 | 26.37 | 0.11 | 3.762E-05 |
| 22  | & POI_den_mall_mkt <344.195 (p80) | rate_local12 >0.005-0.099 (p45-78) | 50.21 | 0.68 | 26.13 | 0.13 | 1.04E-05 |
| 23  | & POI_den_sports <854.408 (p78) | rate_local12 >0.005-0.105 (p45-80) | 50.61 | 0.70 | 26.06 | 0.12 | 1.69E-05 |
| 24  | & POI_den_sports <854.408 (p78) | rate_local12 >0.004-0.118 (p45-82) | 53.31 | 0.70 | 25.97 | 0.09 | 7.57E-05 |
prop_over65 =0.124-0.201 (p21-83) & med_area_home <17.338 (p52)
rate_local12 =0.005-0.113 (p45-81)  46.41  0.75  24.66  0.10  2.519E-05
64 & prop_business < 0.054 (p86)
  den_bldg > 0.080 (p27) & build_area_pp < 92.118 (p63) & POI_den_edu < 685.349 (p88)
rate_local12 = 0.006-0.103 (p45-79)  50.30  0.66  24.62  0.11  6.437E-06
65 (p82)
  prop_preprim_edu = 0.078-0.138 (p17-85) & build_area_pp < 61.966 (p50)
rate_local12 = 0.004-0.095 (p45-77)  48.12  0.65  24.57  0.08  4.993E-05
66 & POI_den_telecom_elec < 825.848 (p88)
  med_area_home < 19.500 (p61) & prop_business < 0.063 (p87) & prop_transport > 0.076 (p36)
rate_local12 = 0.006-0.109 (p45-81)  52.60  0.65  24.54  0.10  7.55E-05
67 > 0.076 (p36)
  prop_preprim_edu = 0.086-0.138 (p27-86) & med_area_home < 19.252 (p61)
rate_local12 = 0.005-0.090 (p45-77)  45.33  0.68  24.50  0.12  1.013E-05
68 & POI_den_transport < 1263.521 (p77)
  prop_preprim_edu = 0.080-0.126 (p19-81) & den_road > 5.313 (p26)
rate_local12 = 0.005-0.097 (p45-77)  50.37  0.63  24.46  0.10  6.204E-06
69 & POI_den_transport < 1481.564 (p79)
  prop_preprim_edu = 0.082-0.133 (p21-84) & den_population > 14692.010 (p46)
rate_local12 = 0.004-0.104 (p45-80)  45.49  0.73  24.46  0.10  2.975E-05
70 & POI_den_mall_mkt < 365.673 (p81)
  prop_preprim_edu = 0.080-0.135 (p19-84)
rate_local12 = 0.005-0.103 (p45-79)  59.16  0.57  24.42  0.11  3.323E-05
71 med_area_home < 18.692 (p57) & build_area_pp < 68.071 (p52)
  gender_ratio = 87.051-98.202 (p11-78) & prop_preprim_edu = 0.080-0.135 (p19-84)
rate_local12 = 0.005-0.106 (p45-80)  45.45  0.73  24.36  0.11  1.522E-05
72 & POI_den_transport < 16031.141 (p48) & build_area_pp < 61.172 (p50)
  den_population > 16031.141 (p48) & build_area_pp < 61.172 (p50)
rate_local12 = 0.005-0.104 (p45-80)  48.82  0.67  24.34  0.12  6.422E-05
73 & POI_den_mall_mkt < 365.673 (p81)
  prop_preprim_edu = 0.082-0.133 (p21-84) & den_population > 14549.083 (p46)
rate_local12 = 0.005-0.097 (p45-79)  50.16  0.62  24.33  0.11  1.226E-05
74 < 346.234 (p81)
  med_area_home < 20.056 (p67) & den_road > 5.901 (p28) & POI_den_telecom_elec < 391.098 (p80)
rate_local12 = 0.005-0.095 (p45-77)  50.16  0.62  24.33  0.11  1.226E-05
75 & POI_den_transport < 1640.618 (p81)
  med_area_home < 20.882 (p70) & den_population > 15116.978 (p46)
rate_local12 = 0.005-0.099 (p45-78)  45.09  0.71  24.32  0.10  3.251E-06
76 & POI_den_mall_mkt < 1378.863 (p78)
  med_income < 20258.781 (p73) & den_population > 14878.080 (p46)
rate_local12 = 0.006-0.106 (p45-81)  46.26  0.72  24.32  0.07  4.879E-05
77 & prop_business < 0.059 (p87)
  prop_preprim_edu = 0.081-0.132 (p20-83) & prop_transport > 0.066 (p35)
rate_local12 = 0.005-0.091 (p45-77)  48.43  0.63  24.30  0.10  3.328E-05
78 & POI_den_telecom_elec < 664.424 (p82)
  prop_gov_insti_facilities = 0.025-0.143 (p36-91) & POI_den_sports < 1542.023 (p90)
rate_local12 = 0.004-0.127 (p45-83)  62.74  0.62  24.29  0.06  2.641E-05
79 den_bldg > 0.079 (p27) & build_area_pp < 95.175 (p64) & POI_den_sports < 1542.023 (p90)
rate_local12 = 0.006-0.102 (p45-78)  49.68  0.65  24.29  0.12  1.85E-05
80 prop_gov_insti_facilities = 0.025-0.143 (p36-91) & POI_den_sports < 1542.023 (p90)
rate_local12 = 0.004-0.127 (p45-83)  62.74  0.62  24.29  0.06  2.641E-05
81 < 991.027 (p81)
101 med_area_home <20.056 (p67) & den_road >5.901 (p28) & POI_den edu
rate_local12 =0.005-0.102 (p45-79) 51.03 0.63 23.92 0.11 7.922E-06

den_bldg >0.080 (p27) & build_area_pp <92.118 (p63) & POI_den transport
rate_local12 =0.005-0.100 (p45-78) 46.99 0.67 23.91 0.13 2.919E-05

102 med_area_home <19.500 (p61) & prop_transport >0.076 (p36)
rate_local12 =0.005-0.095 (p45-77) 45.51 0.67 23.90 0.12 6.316E-05

103 & POI_den_mall_mkt <316.409 (p79)
gender_ratio >95.235 (p65) & prop_gov_insti_fac =0.025-0.142 (p36-91)
rate_local12 =0.005-0.095 (p45-77) 45.71 0.67 23.89 0.13 1.874E-05

104 & POI_den_transport <1280.897 (p77)
prop_preprim_edu =0.080-0.126 (p19-81) & den_road >5.313 (p26)
rate_local12 =0.005-0.100 (p45-78) 46.99 0.67 23.91 0.13 2.919E-05

105 & POI_den_sports <783.545 (p78)
med_area_home <20.908 (p70) & prop_gov_insti_fac =0.018-0.135 (p32-90)
rate_local12 =0.005-0.095 (p45-77) 48.60 0.64 23.88 0.11 7.819E-05

106 & POI_den_transport <1208.412 (p77)
med_area_home <18.611 (p56) & prop_gov_insti_fac =0.018-0.133 (p32-90)
rate_local12 =0.005-0.112 (p45-81) 55.01 0.62 23.80 0.10 1.066E-05

107 prop_preprim_edu =0.081-0.126 (p21-86) & build_area_pp <100.058 (p67)
rate_local12 =0.006-0.104 (p45-80) 46.81 0.68 23.72 0.18 1.293E-07

108 & POI_den_mall_mkt <284.016 (p78)
den_population >15589.742 (p47) & POI_den_telecom_elec <459.162 (p77)
rate_local12 =0.005-0.106 (p45-80) 49.54 0.65 23.50 0.16 2.158E-06

109 den_population >15897.408 (p47) & POI_den_telecom_elec <459.162 (p77)
den_public_trans >17.266 (p51) & build_area_pp <92.372 (p63)
rate_local12 =0.005-0.104 (p45-80) 48.29 0.66 23.65 0.16 2.927E-07

110 & POI_den_telecom_elec <667.276 (p82)
build_area_pp <62.260 (p50) & POI_den_telecom_elec <757.100 (p85)
rate_local12 =0.006-0.095 (p45-77) 48.29 0.66 23.65 0.16 2.927E-07

111 den_population >15024.709 (p46) & POI_den_sports <785.405 (p78)
den_public_trans >17.104 (p50) & build_area_pp <85.758 (p60)
rate_local12 =0.005-0.104 (p45-80) 41.89 0.77 23.60 0.16 2.926E-05

112 & POI_den_mall_mkt <284.016 (p78)
med_area_home <19.500 (p61) & prop_transport >0.076 (p36)
rate_local12 =0.003-0.091 (p45-77) 43.89 0.68 23.57 0.12 3.547E-05

113 & POI_den_mall_mkt <284.016 (p78)
prop_preprim_edu =0.081-0.128 (p20-82) & prop_transport >0.063 (p35)
rate_local12 =0.006-0.099 (p45-78) 43.89 0.68 23.57 0.12 3.547E-05

114 & POI_den_transport <1281.473 (p77)
prop_preprim_edu =0.081-0.128 (p20-82) & prop_transport >0.063 (p35)
rate_local12 =0.006-0.099 (p45-78) 46.74 0.66 23.52 0.12 6.808E-05

115 & POI_den_transport <1281.473 (p77)
prop_preprim_edu =0.081-0.128 (p20-82) & prop_transport >0.063 (p35)
rate_local12 =0.006-0.099 (p45-78) 46.74 0.66 23.52 0.12 6.808E-05

116 & POI_den_mall_mkt <316.461 (p79)
den_road =7.045-24.181 (p34-88) & build_area_pp <82.481 (p58)
rate_local12 =0.005-0.105 (p45-80) 41.90 0.77 23.50 0.15 3.347E-06

117 & POI_den_mall_mkt <316.461 (p79)
gender_ratio >95.675 (p69) & med_area_home <19.849 (p65) & POI_den_sports <991.027 (p81)
rate_local12 =0.005-0.090 (p45-77) 49.18 0.59 23.50 0.08 7.146E-05

118 & POI_den_mall_mkt <316.461 (p79)
gender_ratio >95.675 (p69) & med_area_home <19.849 (p65) & POI_den_sports <991.027 (p81)
rate_local12 =0.005-0.090 (p45-77) 44.78 0.67 23.45 0.11 8.057E-05

119 med_area_home <19.500 (p61) & prop_transport >0.076 (p36) & POI_den_sports <834.276 (p78)
rate_local12 =0.006-0.095 (p45-77) 44.78 0.67 23.45 0.11 8.057E-05
| 121 | gender_ratio<95.675 (p69) | rate_local12 =0.004-0.094 (p45-77) | 41.30 | 0.73 | 23.19 | 0.10 | 6.843E-05 |
| 122 | build_area_pp<79.448 (p56) &prop_gov_insti_faci =0.019-0.134 (p32-90) &prop_open_recreation =0.124-0.191 (p21-77) &med_area_home<17.474 (p52) | rate_local12 =0.004-0.103 (p45-79) | 41.22 | 0.77 | 23.27 | 0.16 | 1.556E-06 |
| 123 | build_area_pp<60.752 (p50) &prop_open_recreation =0.124-0.191 (p21-77) &build_area_pp<97.025 (p65) prop_over65<0.247 (p27) &build_area_pp>97.025 (p65) | rate_local12 =0.003-0.076 (p45-78) | 42.56 | 0.72 | 23.40 | 0.08 | 5.909E-05 |
| 124 | prop_higher_edu<0.362 (p85) &prop_transport >0.055 (p32) &POI_den_transport<1016.048 (p91) | rate_local12 =0.004-0.106 (p45-81) | 60.21 | 0.56 | 23.38 | 0.06 | 7.872E-05 |
| 125 | &POI_den_mall_mkt<327.350 (p79) | rate_local12 =0.005-0.102 (p45-79) | 45.13 | 0.69 | 23.17 | 0.09 | 3.559E-05 |
| 126 | POI_den_transport>27.865-2265.299 (p12-90) &POI_den_mall_mkt<27.865-2265.299 (p12-90) | rate_local12 =0.005-0.097 (p45-77) | 45.40 | 0.67 | 23.31 | 0.18 | 7.138E-08 |
| 127 | prop_over65<0.362 (p85) &prop_transport =0.017-0.133 (p36-86) | rate_local12 =0.005-0.102 (p45-78) | 45.13 | 0.69 | 23.34 | 0.09 | 6.060E-06 |
| 128 | gender_ratio<95.675 (p69) &build_area_pp>97.025 (p65) &build_area_pp<97.025 (p65) | rate_local12 =0.005-0.096 (p45-77) | 45.56 | 0.66 | 23.34 | 0.12 | 2.246E-05 |
| 129 | &prop_preprim_edu<0.081 (p20) | rate_local12 =0.005-0.109 (p45-78) | 51.03 | 0.60 | 23.31 | 0.07 | 2.437E-05 |
| 130 | den_public_trans>17.779 (p52) &build_area_pp<85.318 (p60) &POI_den_sports<1029.490 (p82) | rate_local12 =0.005-0.099 (p45-78) | 51.03 | 0.60 | 23.31 | 0.07 | 2.437E-05 |
| 131 | build_area_pp<60.752 (p50) &prop_gov_insti_faci =0.022-0.148 (p39-87) &prop_open_recreation >0.055 (p32) &POI_den_edu<1016.048 (p91) | rate_local12 =0.005-0.102 (p45-77) | 45.80 | 0.72 | 23.40 | 0.08 | 5.909E-05 |
| 132 | build_area_pp<60.752 (p50) &prop_open_recreation =0.124-0.191 (p21-77) &build_area_pp>97.025 (p65) prop_over65<0.247 (p27) &build_area_pp<97.025 (p65) | rate_local12 =0.005-0.096 (p45-77) | 45.56 | 0.66 | 23.34 | 0.12 | 2.246E-05 |
| 133 | &POI_den_transport<1675.179 (p82) | rate_local12 =0.005-0.109 (p45-78) | 49.92 | 0.63 | 23.31 | 0.06 | 1.211E-05 |
| 134 | build_area_pp<79.448 (p56) &prop_gov_insti_faci =0.019-0.134 (p32-90) &prop_open_recreation =0.124-0.191 (p21-77) &med_area_home<17.474 (p52) | rate_local12 =0.004-0.103 (p45-79) | 41.22 | 0.77 | 23.27 | 0.16 | 1.556E-06 |
| 135 | &POI_den_transport<1675.179 (p82) | rate_local12 =0.005-0.100 (p45-78) | 49.21 | 0.62 | 23.25 | 0.11 | 5.827E-05 |
| 136 | gender_ratio<95.675 (p69) &build_area_pp<60.318 (p60) &POI_den_sports<1029.490 (p82) | rate_local12 =0.005-0.098 (p45-76) | 43.39 | 0.66 | 23.23 | 0.16 | 1.516E-06 |
| 137 | &POI_den_mall_mkt<27.865-2265.299 (p12-90) | rate_local12 =0.005-0.099 (p45-78) | 51.03 | 0.60 | 23.31 | 0.07 | 2.437E-05 |
| 138 | prop_over65<0.362 (p85) &prop_transport >0.055 (p32) &POI_den_transport<1016.048 (p91) | rate_local12 =0.005-0.099 (p45-78) | 51.03 | 0.60 | 23.31 | 0.07 | 2.437E-05 |
| 139 | &POI_den_mall_mkt<327.350 (p79) | rate_local12 =0.005-0.104 (p45-79) | 49.92 | 0.63 | 23.31 | 0.06 | 1.211E-05 |
| 140 | prop_over65<0.362 (p85) &prop_transport >0.055 (p32) &POI_den_transport<1016.048 (p91) | rate_local12 =0.005-0.100 (p45-78) | 49.21 | 0.62 | 23.25 | 0.11 | 5.827E-05 |
| 141 | &POI_den_mall_mkt<27.865-2265.299 (p12-90) | rate_local12 =0.005-0.098 (p45-76) | 43.39 | 0.66 | 23.23 | 0.16 | 1.516E-06 |
| 142 | prop_over65<0.362 (p85) &prop_transport >0.055 (p32) &POI_den_transport<1016.048 (p91) | rate_local12 =0.005-0.099 (p45-78) | 51.03 | 0.60 | 23.31 | 0.07 | 2.437E-05 |
prop_preprim_edu = 0.084-0.144 (p24-89) & den_bldg > 0.084 (p29)  
build_area_pp < 60.752 (p50) & prop_open_recreation > 0.028 (p47)  
rate_local12 = 0.005-0.091 (p45-77)  
48.27  0.60  23.07  0.10  1.495E-05

prop_preprim_edu = 0.081-0.125 (p20-81) & prop_open_recreation > 0.029 (p47)  
rate_local12 = 0.005-0.097 (p45-77)  
41.83  0.70  22.53  0.13  2.411E-05
| Equation | Coefficients | p-values |
|----------|--------------|----------|
| prop_over65 =0.120-0.183 (p19-72) | &prop_preprim_edu >0.080 (p19) | &den_road >5.249 (p25) |
| rate_local12 =0.005-0.134 (p45-84) | 46.48 | 0.70 | 20.82 | 0.11 | 6.66E-07 |
| build_area_pp <98.252 (p66) | &prop_grassland <0.042 (p60) | &POI_den_edu <675.056 (p82) |
| rate_local12 =0.005-0.098 (p45-78) | 40.92 | 0.66 | 20.78 | 0.15 | 2.241E-05 |
| prop_higher_edu <0.319 (p79) | &prop_transport >0.079 (p36) |
| rate_local12 =0.006-0.122 (p45-82) | 57.62 | 0.58 | 20.78 | 0.09 | 4.833E-05 |
| gender_ratio >95.051 (p64) | &prop_preprim_edu >0.079 (p18-83) |
| rate_local12 =0.004-0.090 (p45-77) | 46.14 | 0.56 | 20.76 | 0.07 | 7.37E-05 |
| med_area_home <20.056 (p67) | &den_road >5.901 (p28) |
| rate_local12 =0.006-0.114 (p45-81) | 57.62 | 0.58 | 20.78 | 0.09 | 4.833E-05 |
| prop_business <0.059 (p87) | &prop_open_recreation =0.018-0.141 (p36-88) |
| rate_local12 =0.005-0.116 (p45-81) | 52.18 | 0.59 | 20.70 | 0.08 | 5.102E-05 |
| den_public_trans >19.385 (p54) | &POI_den_edu <645.069 (p81) |
| rate_local12 =0.005-0.099 (p45-78) | 43.91 | 0.62 | 20.69 | 0.16 | 1.551E-07 |
| prop_business <0.063 (p87) | &prop_transport >0.076 (p36) |
| rate_local12 =0.006-0.109 (p45-81) | 58.13 | 0.54 | 20.64 | 0.08 | 3.5E-05 |
| gender_ratio <95.235 (p65) | &prop_open_recreation >0.033 (p50) |
| rate_local12 =0.005-0.102 (p45-79) | 42.57 | 0.64 | 20.47 | 0.16 | 1.503E-05 |
| den_road >7.114 (p34) | &POI_den_mall_mkt <327.350 (p79) |
| rate_local12 =0.005-0.096 (p45-77) | 38.69 | 0.71 | 20.51 | 0.11 | 2.809E-05 |
| prop_over65 =0.118-0.179 (p17-68) | &LU_entropy >0.559 (p50) |
| rate_local12 =0.005-0.090 (p45-77) | 34.64 | 0.75 | 20.36 | 0.15 | 3.468E-05 |
| prop_open_recreation >0.029 (p48) | &prop_gov_insti_faci =0.025-0.143 (p36-91) | &POI_den_telecom_elec <175.141 (p59) |
| rate_local12 =0.005-0.101 (p45-78) | 38.29 | 0.71 | 20.34 | 0.21 | 3.289E-05 |
| den_road >7.114 (p34) | &POI_den_mall_mkt <327.350 (p79) |
| rate_local12 =0.006-0.081 (p45-75) | 30.66 | 0.87 | 20.30 | 0.21 | 5.077E-06 |
| prop_open_recreation >0.020 (p39) | &LU_entropy >0.551 (p49) |
| rate_local12 =0.005-0.113 (p45-81) | 58.45 | 0.54 | 20.29 | 0.19 | 4.019E-09 |
| prop_over65 =0.122-0.177 (p20-66) | &med_area_home <17.425 (p52) |
| rate_local12 =0.005-0.090 (p45-77) | 38.27 | 0.65 | 20.20 | 0.10 | 7.103E-05 |
| &LU_entropy >0.553 (p49) | &LU_entropy >0.559 (p50) |
| rate_local12 =0.005-0.096 (p45-77) | 51.69 | 0.53 | 20.31 | 0.12 | 6.109E-06 |
| build_area_pp <66.740 (p52) | &LU_entropy >0.548 (p47) |
| rate_local12 =0.005-0.081 (p45-75) | 30.66 | 0.87 | 20.30 | 0.21 | 5.077E-06 |
| den_road >7.114 (p34) | &POI_den_mall_mkt <327.350 (p79) |
| rate_local12 =0.005-0.113 (p45-81) | 58.45 | 0.54 | 20.29 | 0.19 | 4.019E-09 |
| prop_open_recreation >0.020 (p39-87) | &LU_entropy >0.551 (p49) |
| rate_local12 =0.005-0.090 (p45-77) | 51.27 | 0.51 | 20.28 | 0.11 | 9.674E-07 |
| prop_gov_insti_faci =0.025-0.143 (p36-91) | &POI_den_transport <1528.257 (p80) |
| rate_local12 =0.004-0.131 (p45-83) | 64.44 | 0.56 | 20.20 | 0.18 | 8.888E-09 |
| gender_ratio >95.235 (p65) | &prop_open_recreation >0.033 (p50) |
| rate_local12 =0.005-0.087 (p45-76) | 38.27 | 0.65 | 20.20 | 0.10 | 7.101E-05 |
| den_road >7.114 (p34) | &POI_den_mall_mkt <327.350 (p79) |
| rate_local12 =0.005-0.112 (p45-81) | 41.65 | 0.68 | 20.17 | 0.33 | 1.466E-11 |
| prop_open_recreation >0.020 (p39-87) | &LU_entropy >0.551 (p49) |
| rate_local12 =0.005-0.103 (p45-79) | 40.35 | 0.67 | 20.03 | 0.16 | 1.26E-06 |
| prop_preprim_edu >0.077 (p16) | &prop_transport >0.091 (p39) |
| rate_local12 =0.005-0.114 (p45-81) | 56.53 | 0.55 | 19.88 | 0.07 | 5.036E-05 |
| den_road >7.757 (p37) | &POI_den_edu <628.086 (p81) |
| rate_local12 =0.005-0.096 (p45-77) | 50.49 | 0.53 | 19.87 | 0.11 | 1.454E-06 |
| den_road >6.004 (p29) | &LU_entropy >0.548 (p47) |
| rate_local12 =0.005-0.097 (p45-77) | 47.81 | 0.55 | 19.82 | 0.09 | 1.002E-05 |
prop_open_recreation = 0.022-0.138 (p39-87)
rate_local12 = 0.005-0.128 (p45-83)
55.07 0.56 17.90 0.18 3.55E-09

den_bldg > 0.114 (p37) & POI_den_telecom_elec < 523.327 (p78)
rate_local12 = 0.005-0.093 (p45-77)
46.40 0.52 17.90 0.12 2.38E-05

den_road > 7.783 (p37) & POI_den_telecom_elec < 175.141 (p59)
rate_local12 = 0.005-0.093 (p45-77)
34.19 0.66 17.87 0.25 2.22E-07
build_area_pp < 95.886 (p65) & prop_shrubland < 0.068 (p50)
rate_local12 = 0.005-0.094 (p45-77)
32.35 0.71 17.82 0.19 4.28E-05

& POI_den_mall_mkt < 349.458 (p81)
build_area_pp < 95.886 (p65) & prop_shrubland < 0.068 (p50) & POI_den_transport
rate_local12 = 0.005-0.098 (p45-78)
32.76 0.71 17.73 0.19 4.28E-05

< 1578.798 (p81)
gender_ratio > 95.235 (p65) & POI_den_sports < 995.228 (p81)
rate_local12 = 0.005-0.095 (p45-77)
53.33 0.48 17.65 0.07 3.39E-06

> 94.290 (p58) & POI_den_transport < 1626.628 (p81)
rate_local12 = 0.005-0.095 (p45-77)
50.33 0.49 17.63 0.08 1.29E-05

rate_local12 = 0.005-0.095 (p45-77)
49.72 0.50 17.59 0.08 7.43E-06

> 0.124 (p39) & POI_den_mall_mkt < 345.003 (p81)
rate_local12 = 0.005-0.095 (p45-77)
43.82 0.52 17.48 0.13 3.23E-05

prop_higher_edu < 0.308 (p76) & den_bldg > 0.117 (p38)
rate_local12 = 0.005-0.118 (p45-82)
52.61 0.54 17.47 0.10 3.21E-05

& POI_den_edu < 645.069 (p81)
rate_local12 = 0.005-0.095 (p45-77)
46.89 0.51 17.47 0.11 3.75E-05

& POI_den_transport < 1281.420 (p77)
rate_local12 = 0.005-0.087 (p45-76)
42.96 0.51 17.47 0.13 3.80E-05

radius = 94.372 (p59) & POI_den_telecom_elec < 632.455 (p82)
rate_local12 = 0.005-0.099 (p45-78)
51.19 0.50 17.41 0.08 7.42E-05

> 0.127-0.178 (p23-67) & LU_entropy > 0.557 (p50)
rate_local12 = 0.005-0.095 (p45-77)
31.94 0.70 17.33 0.23 6.65E-06

> 8.230 (p39) & POI_den_sports < 342.772 (p64)
rate_local12 = 0.005-0.088 (p45-76)
34.13 0.62 17.25 0.22 5.58E-07
med_area_home < 19.900 (p65) & prop_grassland < 0.046 (p61) & POI_den_sports
rate_local12 = 0.004-0.096 (p45-77)
29.97 0.76 17.23 0.17 3.61E-05

> 362.105 (p64)
den_road = 7.251-22.038 (p34-86)
rate_local12 = 0.005-0.103 (p45-79)
53.18 0.49 17.19 0.16 8.73E-07

> 0.094-0.328 (p31-76) & prop_open_recreation = 0.017-0.131 (p36-86)
rate_local12 = 0.005-0.097 (p45-77)
34.28 0.64 17.08 0.17 4.29E-05

> 19.385 (p54) & POI_den_sports < 336.087 (p63)
rate_local12 = 0.005-0.099 (p45-78)
29.68 0.76 16.91 0.30 6.27E-07

& POI_den_sports < 315.206 (p62)
rate_local12 = 0.005-0.097 (p45-77)
26.48 0.83 16.27 0.38 1.05E-08

> 20.275 (p55) & POI_den_telecom_elec < 175.141 (p59)
rate_local12 = 0.005-0.094 (p45-77)
45.33 0.51 16.14 0.11 3.56E-07

prop_grassland < 0.042 (p60) & POI_den_edu < 675.056 (p82)
rate_local12 = 0.005-0.098 (p45-78)
45.33 0.51 16.14 0.11 3.56E-07

& POI_den_telecom_elec < 175.141 (p59)
rate_local12 = 0.005-0.091 (p45-77)
29.86 0.66 15.73 0.28 2.02E-07

LU_entropy > 0.543 (p46)
rate_local12 = 0.005-0.103 (p45-79)
54.68 0.47 15.70 0.13 1.23E-06

> 0.124 (p39) & POI_den_sports < 342.772 (p64)
rate_local12 = 0.006-0.085 (p45-76)
32.23 0.59 15.70 0.21 6.97E-06

& POI_den_telecom_elec < 270.226 (p67)
rate_local12 = 0.005-0.106 (p45-80)
30.48 0.69 15.60 0.15 1.57E-05

den_public_trans > 35.072 (p68) & prop_business < 0.076 (p89) & POI_den_sports
rate_local12 = 0.003-0.110 (p45-81)
29.16 0.73 15.20 0.10 5.49E-05

< 1375.127 (p87)
prop_shrubland <0.089 (p55) & POI_den_mall_mkt < 355.591 (p81)

rate_local12 = 0.004 - 0.084 (p45-75) 37.91 0.50 15.14 0.13 2.641E-05
rate_local12 = 0.004 - 0.150 (p45-87) 48.30 0.60 15.10 0.19 5.755E-06
rate_local12 = 0.004 - 0.095 (p45-77) 33.94 0.58 15.02 0.18 1.638E-05

prop_over65 = 0.134 - 0.178 (p29-67)

rate_local12 = 0.005 - 0.117 (p45-82) 28.72 0.75 14.94 0.14 3.741E-05
rate_local12 = 0.006 - 0.093 (p45-77) 38.04 0.52 14.90 0.14 3.555E-05
rate_local12 = 0.005 - 0.126 (p45-82) 57.19 0.51 14.80 0.13 7.127E-07

prop_grassland < 0.042 (p60) & POI_den_sports < 1375.127 (p87)

rate_local12 = 0.005 - 0.071 (p45-73) 40.63 0.43 14.67 0.16 5.131E-06
rate_local12 = 0.005 - 0.082 (p45-75) 28.00 0.62 14.59 0.26 4.821E-06
rate_local12 = 0.004 - 0.135 (p45-85) 31.07 0.74 14.69 0.07 4.985E-05

prop_publicResid < 0.013 - 0.147 (p29-91)

rate_local12 = 0.005 - 0.072 (p45-73) 29.92 0.53 14.46 0.15 6.393E-05
rate_local12 = 0.004 - 0.103 (p45-79) 37.55 0.52 13.46 0.19 1.277E-06
rate_local12 = 0.005 - 0.123 (p45-82) 21.65 0.86 12.27 0.13 3.534E-05

POI_den_sports < 1375.127 (p87)

rate_local12 = 0.004 - 0.102 (p45-78) 58.15 0.42 12.13 0.09 1.588E-05
rate_local12 = 0.006 - 0.097 (p45-77) 24.28 0.63 11.85 0.19 5.325E-05
rate_local12 = 0.005 - 0.086 (p45-76) 25.71 0.56 11.85 0.19 1.275E-05
rate_local12 = 0.007 - 0.133 (p45-84) 63.97 0.47 11.72 0.09 4.749E-06
rate_local12 = 0.005 - 0.083 (p45-75) 21.66 0.63 11.45 0.28 1.085E-05
rate_local12 = 0.007 - 0.036 (p45-59) 26.42 0.20 8.61 0.06 7.147E-05

prop_over65 = 0.023 - 0.062 (p19-86) & POI_den_sports < 283.563 (p60)

rate_local12 = 0.004 - 0.102 (p45-78) 58.15 0.42 12.13 0.09 1.588E-05
rate_local12 = 0.006 - 0.097 (p45-77) 24.28 0.63 11.85 0.19 5.325E-05
rate_local12 = 0.005 - 0.086 (p45-76) 25.71 0.56 11.85 0.19 1.275E-05
rate_local12 = 0.007 - 0.133 (p45-84) 63.97 0.47 11.72 0.09 4.749E-06
rate_local12 = 0.005 - 0.083 (p45-75) 21.66 0.63 11.45 0.28 1.085E-05
rate_local12 = 0.007 - 0.036 (p45-59) 26.42 0.20 8.61 0.06 7.147E-05
rate_local12 = 0.004 - 0.062 (p45-71) 23.72 0.37 8.56 0.13 7.922E-05
rate_local12 = 0.003 - 0.078 (p45-74) 8.61 0.76 5.35 0.45 6.349E-05
rate_local12 = 0.006 - 0.033 (p45-58) 3.52 0.73 2.91 0.53 7.621E-05
rate_local12 = 0.004 (p45) 57.79 0.71 20.80 0.15 1.543E-05
rate_local12 = 0.004 (p45) 54.86 0.71 19.79 0.26 2.083E-08
rate_local12 = 0.005 (p45) 65.00 0.63 18.28 0.18 4.83E-07
rate_local12 = 0.005 (p45) 52.91 0.69 18.17 0.24 1.02E-07
rate_local12 = 0.005 (p45) 63.62 0.63 18.06 0.18 1.272E-08
rate_local12 = 0.005 (p45) 42.75 0.72 15.82 0.16 4.813E-05
rate_local12 = 0.004 (p45) 41.31 0.73 15.77 0.28 2.089E-07
rate_local12 = 0.005 (p45) 61.80 0.60 15.23 0.15 5.857E-06
rate_local12 = 0.005 (p45) 53.39 0.63 14.86 0.17 5.076E-05

| 314  | prop_preprim_edu >0.104 (p62) & prop_private_resid <0.017 (p33) | rate_local12 <0.004 (p45) | 33.52 | 0.77 | 13.73 | 0.11 | 5.207E-05 |
| 315  | den_road <7.251 (p34) | rate_local12 <0.005 (p45) | 46.67 | 0.64 | 13.43 | 0.18 | 5.593E-05 |
| 316  | med_area_home >15.950 (p47) | rate_local12 <0.005 (p45) | 66.61 | 0.57 | 13.35 | 0.11 | 4.79E-05 |
| 317  | prop_business <0.000 (p23) | rate_local12 <0.002 (p45) | 35.94 | 0.71 | 12.97 | 0.26 | 1.506E-05 |
| 318  | prop_utilities <0.001 (p20) | rate_local12 <0.004 (p45) | 31.85 | 0.76 | 12.79 | 0.30 | 7.404E-06 |
| 319  | den_bldg <0.055 (p20) | rate_local12 <0.005 (p45) | 31.06 | 0.73 | 11.86 | 0.28 | 3.534E-05 |
| 320  | prop_over65 >0.198 (p82) | rate_local12 <0.004 (p45) | 29.43 | 0.74 | 11.38 | 0.29 | 5.639E-05 |
| 321  | prop_grassland >0.135 (p81) | rate_local12 <0.003 (p45) | 28.59 | 0.72 | 10.48 | 0.26 | 6.798E-05 |
| 322  | prop_household_3gen >0.062 (p86) | rate_local12 <0.004 (p45) | 23.16 | 0.77 | 9.49 | 0.31 | 7.69E-05 |
(g) Rules for wave-1 imported case rate; POI density was used

| No. | Antecedent                                                                 | Consequent                        | Supp | Conf | Lev | Imp   | P       |
|-----|----------------------------------------------------------------------------|-----------------------------------|------|------|-----|-------|---------|
| 1   | prop_higher_edu  >0.209 (p53) & prop_industrial <0.010 (p71)              | rate_imported12 >0.087 (p67)     | 54.47| 0.66 | 25.02| 0.07  | 4.86E-05|
| 2   | prop_higher_edu  >0.213 (p54) & build_area_pp >62.720 (p50)               | rate_imported12 >0.122 (p71)     | 42.50| 0.67 | 24.21| 0.14  | 7.08E-05|
| 3   | prop_higher_edu  >0.193 (p47) & med_area_home > 17.271 (p52)              | rate_imported12 >0.111 (p71)     | 45.05| 0.62 | 22.89| 0.13  | 1.799E-05|
| 4   | prop_preprim_edu <0.117 (p78) & prop_industrial <0.010 (p71)              | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 5   | prop_higher_edu  >0.213 (p54) & build_area_pp >62.720 (p50)               | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 6   | prop_higher_edu  >0.193 (p47) & med_area_home >17.271 (p52) & prop_industrial <0.011 (p73) | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 7   | prop_preprim_edu <0.135 (p84) & med_area_home >16.429 (p49) & prop_agricultural <0.068 (p83) | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 8   | build_area_pp >60.696 (p50) & prop_industrial <0.006 (p64)                | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 9   | med_area_home >17.271 (p52) & prop_rural_set <0.050 (p75)                 | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 10  | med_income >16651.172 (p51) & build_area_pp >69.910 (p53)                 | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 11  | build_area_pp >63.743 (p51) & prop_rural_set <0.010 (p58) & prop_industrial <0.017 (p79) | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 12  | prop_preprim_edu <0.135 (p84) & build_area_pp >67.205 (p52)               | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 13  | build_area_pp >69.910 (p53) & prop_agricultural <0.068 (p83)              | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 14  | prop_publicResid <0.010 (p60) & prop_industrial <0.010 (p71)              | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 15  | med_area_home >17.271 (p52) & prop_publicResid <0.010 (p60) & prop_industrial <0.010 (p71) | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 16  | build_area_pp >68.387 (p52) & prop_rural_set <0.024 (p65)                 | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 17  | prop_publicResid <0.035 (p69)                                            | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 18  | build_area_pp >64.307 (p51)                                              | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 19  | den_public_trans =3.582-84.723 (p25-91) & build_area_pp >71.228 (p53)    | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 20  | prop_higher_edu  =0.263-0.402 (p66-90)                                    | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 21  | build_area_pp >75.510 (p55) & prop_gov_instit_faci >0.025 (p36)            | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 22  | prop_industrial <0.000 (p44)                                              | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 23  | prop_preprim_edu <0.084 (p25)                                            | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 24  | LU_entropy <0.561 (p51)                                                   | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 25  | med_income =19043.072-37169.137 (p63-92)                                  | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 26  | ave_household_size >3.251 (p87)                                           | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 27  | prop_over65 <0.133 (p28)                                                  | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 28  | med_income >37169.137 (p92)                                               | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 29  | den_population =845.965-18750.995 (p14-50)                                | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 30  | prop_higher_edu  =0.402 (p90)                                             | rate_imported12 >0.109 (p68)     | 45.31| 0.68 | 22.75| 0.10  | 6.715E-05|
| 31 | build_area_pp > 69.988 (p53) \& POI_den_telecom_elec > 420.031 (p76) | rate_imported12 > 0.228 (p81) | 14.05 | 0.54 | 9.17 | 0.23 | 3.174E-05 |
| 32 | den_population < 7302.660 (p37) \& prop_private_resid = 0.022-0.228 (p36-85) | rate_imported12 > 0.090 (p67) | 16.83 | 0.73 | 8.81 | 0.32 | 3.955E-05 |
| 33 | den_population = 8304.569-47145.016 (p39-74) \& POI_den_telecom_elec > 206.748 (p64) | rate_imported12 > 0.094 (p68) | 20.60 | 0.56 | 8.06 | 0.16 | 2.352E-05 |
| 34 | gender_ratio > 103.674 (p89) | rate_imported12 > 0.205 (p80) | 11.96 | 0.49 | 7.21 | 0.30 | 3.457E-06 |
| 35 | build_area_pp > 67.949 (p52) \& prop_private_resid > 0.220 (p85) | rate_imported12 > 0.180 (p79) | 10.17 | 0.74 | 7.19 | 0.38 | 2.466E-05 |
| 36 | den_bldg < 0.058 (p21) \& prop_private_resid = 0.026-0.163 (p39-78) | rate_imported12 > 0.094 (p68) | 7.05 | 0.96 | 5.52 | 0.64 | 3.955E-05 |
| 37 | gender_ratio < 96.153 (p71) \& prop_preprim_edu < 0.124 (p80) \& med_area_home < 17.388 (p52) | rate_imported12 > 0.003-0.123 (p36-71) | 58.18 | 0.71 | 28.90 | 0.07 | 7.727E-05 |
| 38 | prop_preprim_edu < 0.130 (p82) \& med_area_home < 17.522 (p53) \& POI_den_transport < 1435.842 (p79) | rate_imported12 = 0.003-0.093 (p36-68) | 44.03 | 0.81 | 26.97 | 0.15 | 3.205E-05 |
| 39 | prop_preprim_edu < 0.130 (p82) \& med_area_home < 17.522 (p53) \& POI_den_sports < 425.600 (p66) | rate_imported12 = 0.002-0.101 (p36-68) | 45.43 | 0.80 | 26.97 | 0.14 | 4.385E-07 |
| 40 | prop_preprim_edu < 0.131 (p83) \& med_area_home < 17.376 (p52) \& POI_den_telecom_elec < 210.823 (p64) | rate_imported12 = 0.003-0.096 (p36-68) | 43.85 | 0.82 | 26.88 | 0.14 | 1.749E-07 |
| 41 | gender_ratio < 95.332 (p66) \& prop_preprim_edu < 0.132 (p83) \& med_income < 20537.185 (p73) | rate_imported12 = 0.003-0.091 (p36-67) | 53.85 | 0.61 | 26.74 | 0.10 | 1.251E-05 |
| 42 | prop_preprim_edu < 0.132 (p83) \& med_income < 20537.185 (p73) \& build_area_pp < 70.879 (p53) | rate_imported12 = 0.001-0.110 (p36-71) | 54.38 | 0.66 | 26.71 | 0.08 | 8.546E-06 |
| 43 | prop_preprim_edu < 0.131 (p83) \& med_income < 20826.029 (p73) \& den_public_trans = 8.583-88.534 (p38-91) | rate_imported12 = 0.003-0.094 (p36-68) | 49.86 | 0.67 | 26.47 | 0.06 | 5.183E-05 |
| 44 | med_area_home < 18.538 (p56) \& den_public_trans = 6.785-83.086 (p34-90) | rate_imported12 = 0.002-0.118 (p36-71) | 55.54 | 0.67 | 26.41 | 0.14 | 2.195E-05 |
| 45 | gender_ratio < 94.297 (p58) \& prop_preprim_edu < 0.132 (p83) \& med_area_home < 17.126 (p52) \& build_area_pp < 62.684 (p50) | rate_imported12 = 0.004-0.085 (p36-66) | 50.77 | 0.62 | 26.35 | 0.11 | 1.904E-05 |
| 46 | gender_ratio < 94.297 (p58) \& med_area_home < 18.565 (p56) | rate_imported12 = 0.003-0.122 (p36-71) | 56.36 | 0.66 | 26.19 | 0.13 | 3.363E-05 |
| 47 | gender_ratio < 96.137 (p71) \& prop_preprim_edu < 0.133 (p84) \& prop_higher_edu < 0.296 (p75) | rate_imported12 = 0.003-0.090 (p36-67) | 56.14 | 0.58 | 26.19 | 0.09 | 2.004E-05 |
| 48 | prop_preprim_edu < 0.134 (p84) \& prop_higher_edu < 0.236 (p62) \& prop_private_resid = 0.010-0.219 (p27-84) | rate_imported12 = 0.003-0.090 (p36-67) | 44.92 | 0.73 | 26.16 | 0.10 | 6.142E-07 |
| 49 | prop_preprim_edu < 0.133 (p84) \& prop_higher_edu < 0.242 (p63) \& prop_agricultural < 0.049 (p80) | rate_imported12 = 0.003-0.079 (p36-64) | 48.83 | 0.61 | 26.16 | 0.10 | 1.749E-06 |
prop_preprim_edu < 0.134 (p84) & med_income < 18486.007 (p61) & prop_private_resid = 0.010-0.219 (p27-84)
rate_imported12 = 0.003-0.088 (p36-67) 45.68 0.70 25.96 0.09 4.844E-06

prop_preprim_edu < 0.124 (p80) & prop_higher_edu < 0.249 (p64) & prop_transport > 0.057 (p33)
rate_imported12 = 0.003-0.086 (p36-66) 47.95 0.65 25.86 0.10 6.649E-05

prop_preprim_edu < 0.135 (p84) & prop_private_resid = 0.010-0.219 (p27-84)
rate_imported12 = 0.003-0.082 (p36-65) 55.02 0.54 25.73 0.07 1.924E-05

prop_preprim_edu < 0.132 (p83) & med_income < 20537.185 (p73) & prop_agricultural < 0.049 (p80)
rate_imported12 = 0.003-0.082 (p36-65) 55.02 0.54 25.73 0.07 1.924E-05

prop_preprim_edu < 0.127 (p82) & prop_higher_edu < 0.269 (p68) & med_area_home < 20.396 (p68)
rate_imported12 = 0.005-0.086 (p36-66) 52.34 0.56 25.11 0.07 6.099E-05

prop_preprim_edu < 0.127 (p82) & med_income < 19791.098 (p65) & POI_den_transport = 40.112-1204.130 (p17-77)
rate_imported12 = 0.003-0.095 (p36-68) 46.03 0.69 24.95 0.13 1.399E-05

prop_preprim_edu < 0.133 (p84) & prop_higher_edu < 0.244 (p63) & build_area_pp < 67.205 (p52)
rate_imported12 = 0.002-0.087 (p36-67) 46.14 0.65 24.86 0.08 6.917E-05

med_income < 18922.890 (p62) & den_public_trans = 6.320-77.509 (p33-88)
rate_imported12 = 0.004-0.096 (p36-68) 48.85 0.64 24.80 0.17 7.034E-08

prop_preprim_edu < 0.127 (p82) & med_area_home < 16.639 (p50) & LU_entropy > 0.566 (p52)
rate_imported12 = 0.002-0.083 (p36-65) 39.75 0.77 24.79 0.12 6.309E-06

med_area_home < 17.685 (p54) & den_public_trans = 5.972-93.660 (p33-92) & POI_den_transport = 406.305 (p65)
rate_imported12 = 0.003-0.090 (p36-67) 41.04 0.77 24.67 0.13 6.354E-06

prop_preprim_edu < 0.129 (p82) & prop_higher_edu < 0.240 (p63) & POI_den_transport = 40.112-1204.130 (p17-77)
rate_imported12 = 0.004-0.087 (p36-67) 44.23 0.68 24.60 0.14 6.737E-05

med_area_home < 16.096 (p47) & prop_private_resid = 0.010-0.219 (p27-84)
rate_imported12 = 0.003-0.068 (p36-62) 42.13 0.60 24.36 0.12 3.107E-05

med_income < 19454.231 (p63) & prop_agricultural < 0.051 (p80) & LU_entropy > 0.546 (p47)
rate_imported12 = 0.003-0.083 (p36-65) 41.87 0.70 24.35 0.15 1.903E-06

med_area_home < 15.786 (p46) & POI_den_mall_mkt < 106.828 (p63)
rate_imported12 = 0.004-0.083 (p36-65) 40.78 0.72 24.29 0.19 7.457E-06

prop_preprim_edu < 0.126 (p81) & prop_higher_edu < 0.241 (p63)
rate_imported12 = 0.001-0.115 (p36-71) 57.26 0.60 24.21 0.16 4.375E-08

prop_preprim_edu < 0.128 (p82) & med_income < 19189.057 (p63)
rate_imported12 = 0.004-0.107 (p36-70) 59.05 0.57 24.21 0.12 6.278E-07

med_area_home < 18.572 (p56) & build_area_pp < 60.400 (p50) & POI_den_mall_mkt < 96.359 (p61)
rate_imported12 = 0.003-0.084 (p36-66) 38.31 0.80 24.18 0.18 2.488E-05

med_area_home < 18.617 (p56) & build_area_pp < 62.684 (p50) & POI_den_mall_mkt < 322.303 (p63)
rate_imported12 = 0.004-0.085 (p36-66) 38.94 0.78 24.17 0.17 7.825E-05

med_income < 19851.218 (p65) & den_public_trans = 7.873-93.077 (p37-92)
rate_imported12 = 0.004-0.089 (p36-67) 40.01 0.77 24.15 0.12 5.517E-05

prop_higher_edu < 0.264 (p66) & prop_agricultural < 0.054 (p81) & POI_den_transport = 31.335-969.972 (p14-73)
rate_imported12 = 0.003-0.081 (p36-64) 43.19 0.65 24.08 0.15 1.288E-05
med_area_home <18.116 (p55) & den_public_trans = 6.106-93.761 (p33-92) & POI_den_mall_mkt < 98.355 (p62) rate_imported12 = 0.003-0.089 (p36-67) 38.81 0.80 24.03 0.17 8.82E-07

med_area_home <16.075 (p47) & POI_den_telecom_elec < 193.066 (p62) rate_imported12 = 0.003-0.087 (p36-66) 41.08 0.72 24.02 0.19 1.003E-05

med_area_home <18.888 (p57) & build_area_pp < 66.954 (p52) & POI_den_telecom_elec < 197.000 (p62) rate_imported12 = 0.003-0.090 (p36-67) 40.34 0.76 24.00 0.15 1.564E-05

med_area_home <18.647 (p56) & build_area_pp < 59.831 (p50) & POI_den_transport < 472.110 (p62) rate_imported12 = 0.003-0.090 (p36-67) 38.80 0.76 24.02 0.13 8.013E-05

med_area_home <18.394 (p55) & prop_agricultural < 0.046 (p79) & POI_den_mall_mkt < 104.329 (p62) rate_imported12 = 0.004-0.083 (p36-65) 40.66 0.71 23.96 0.12 1.915E-05

med_income < 19851.218 (p65) & den_public_trans = 7.873-93.077 (p37-92) & POI_den_mall_mkt < 105.844 (p63) rate_imported12 = 0.004-0.087 (p36-66) 38.60 0.79 23.96 0.12 1.403E-05

med_area_home <15.681 (p46) & POI_den_sports < 348.045 (p64) rate_imported12 = 0.003-0.087 (p36-66) 40.88 0.72 23.92 0.18 4.81E-06

med_area_home <18.394 (p55) & prop_agricultural < 0.046 (p79) & POI_den_mall_mkt < 105.844 (p62) rate_imported12 = 0.004-0.083 (p36-65) 40.66 0.71 23.96 0.12 1.915E-05

med_income < 19717.770 (p65) & build_area_pp < 64.307 (p51) rate_imported12 = 0.004-0.087 (p36-66) 40.88 0.72 23.92 0.18 4.81E-06

med_area_home <18.888 (p57) & prop_agricultural < 0.049 (p80) & POI_den_telecom_elec < 183.375 (p60) rate_imported12 = 0.003-0.079 (p36-64) 39.83 0.71 23.84 0.13 1.632E-05

med_income < 19505.735 (p65) & den_public_trans = 6.106-93.761 (p33-92) & POI_den_telecom_elec < 121.143 (p60) rate_imported12 = 0.003-0.086 (p36-66) 39.70 0.75 23.76 0.14 7.837E-05

gender_ratio < 95.542 (p67) & den_public_trans = 7.873-93.077 (p37-92) rate_imported12 = 0.003-0.133 (p36-73) 57.95 0.63 23.75 0.09 6.066E-05

med_area_home <17.463 (p52) & POI_den_transport = 38.999-486.006 (p17-63) rate_imported12 = 0.003-0.085 (p36-66) 40.04 0.73 23.75 0.23 4.609E-07

med_income < 19735.441 (p65) & prop_private_resid = 0.010-0.219 (p27-84) & LU_entropy > 0.566 (p52) rate_imported12 = 0.002-0.086 (p36-66) 47.35 0.60 23.75 0.17 5.37E-09

build_area_pp < 63.849 (p51) & POI_den_transport = 40.112-1204.130 (p17-77) rate_imported12 = 0.002-0.078 (p36-64) 43.44 0.62 23.74 0.14 6.031E-05

med_area_home <6.121 (p44) & POI_den_edu = 10.689-412.222 (p15-77) rate_imported12 = 0.004-0.088 (p36-67) 43.98 0.66 23.70 0.13 5.747E-05

prop_preprim_edu < 0.130 (p83) & med_income < 19284.575 (p63) &LU_entropy > 0.566 (p52) rate_imported12 = 0.003-0.090 (p36-67) 42.18 0.70 23.61 0.14 2.537E-05

prop_preprim_edu < 0.135 (p84) & med_area_home < 16.429 (p49) rate_imported12 = 0.003-0.081 (p36-65) 48.25 0.53 23.57 0.06 7.384E-05

prop_higher_edu < 0.275 (p70) & prop_agricultural < 0.046 (p79) & POI_den_edu = 10.689-412.222 (p15-77) rate_imported12 = 0.004-0.082 (p36-65) 43.62 0.63 23.42 0.14 7.003E-05
| Variable                                                                 | Coefficient       | Standard Error | t-Value | p-Value     |
|-------------------------------------------------------------------------|-------------------|----------------|---------|-------------|
| prop_higher_edu < 0.300 (p76) & den_public_trans = 7.873-93.077 (p37-92) & POI_den_sports < 0.300 (p76) | 0.004-0.089       | 0.05         | 40.25   | 0.09        |
| gender_ratio < 96.478 (p73) & den_public_trans = 6.990-86.032 (p35-91) & POI_den_sports < 0.300 (p76) | 0.002-0.093       | 0.05         | 44.58   | 0.20        |
| prop_higher_edu < 0.239 (p63) & den_population = 4861.224-83419.474 (p35-91) | 0.003-0.083       | 0.05         | 40.62   | 0.16        |
| prop_higher_edu < 0.241 (p63) & prop_agricultural < 0.049 (p80) & LU_entropy > 0.538 (p44) | 0.003-0.080       | 0.05         | 40.00   | 0.14        |
| med_area_home < 19.358 (p61) & prop_agricultural < 0.045 (p79) & POI_den_transport < 488.377 (p63) | 0.002-0.082       | 0.05         | 36.97   | 0.17        |
| prop_preprim_edu < 0.128 (p82) & med_income < 20156.073 (p73) & POI_den_elec < 10.689-412.222 (p15-77) | 0.004-0.082       | 0.05         | 44.04   | 0.12        |
| prop_preprim_edu < 0.129 (p82) & build_area_pp < 96.254 (p65) & LU_entropy > 0.560 (p51) | 0.002-0.128       | 0.05         | 45.24   | 0.09        |
| gender_ratio < 96.269 (p71) & med_area_home < 18.007 (p55) & POI_den_mall_mkt < 97.869 (p62) | 0.002-0.086       | 0.05         | 39.84   | 0.08        |
| prop_preprim_edu < 0.135 (p84) & build_area_pp < 67.205 (p52) | 0.002-0.122       | 0.05         | 57.76   | 0.05        |
| build_area_pp < 59.052 (p48) & LU_entropy > 0.559 (p50) | 0.002-0.077       | 0.05         | 38.16   | 0.21        |
| med_income < 21629.447 (p75) & prop_agricultural < 0.048 (p79) & POI_den_elec < 10.689-412.222 (p15-77) | 0.004-0.082       | 0.05         | 44.26   | 0.13        |
| prop_preprim_edu < 0.127 (p82) & med_income < 20297.090 (p73) & POI_den_transport < 11.547-222.397 (p10-65) | 0.004-0.085       | 0.05         | 41.70   | 0.16        |
| med_area_home < 22.842 (p81) & prop_agricultural < 0.048 (p79) & POI_den_elec < 10.689-412.222 (p15-77) | 0.004-0.082       | 0.05         | 46.34   | 0.10        |
| med_income < 19402.935 (p63) & prop_agricultural < 0.060 (p82) & POI_den_telecom < 11.547-254.047 (p10-66) | 0.003-0.084       | 0.05         | 39.89   | 0.17        |
| prop_preprim_edu > 0.075 (p14) & den_public_trans = 4.801-82.617 (p30-90) | 0.003-0.207       | 0.05         | 71.24   | 0.07        |
| prop_higher_edu < 0.226 (p60) & den_public_trans = 6.320-77.509 (p33-88) | 0.004-0.096       | 0.05         | 44.75   | 0.17        |
| med_area_home < 18.394 (p55) & prop_transport > 0.065 (p35) & POI_den_mall_mkt < 104.329 (p62) | 0.004-0.083       | 0.05         | 36.97   | 0.17        |
| med_income < 19695.014 (p65) & prop_agricultural < 0.068 (p83) & POI_den_transport = 38.999-486.006 (p17-63) | 0.003-0.083       | 0.05         | 38.04   | 0.16        |
110 gender_ratio <96.478 (p73) & den_public_trans = 6.990-86.032 (p35-91) & POI_den_transport <452.694 (p61)
rate_imported12 = 0.003-0.091 (p36-67)
38.61 0.75 22.75 0.10 1.753E-06
111 build_area_pp <58.474 (p48) & prop_transport > 0.070 (p36) & POI_den_telecom_elec <433.771 (p77)
rate_imported12 = 0.004-0.083 (p36-66)
38.27 0.72 22.73 0.13 8.185E-05
rate_imported12 = 0.002-0.086 (p36-64)
40.08 0.68 22.38 0.12 3.309E-05
112 med_area_home <18.394 (p55) & prop_transport > 0.065 (p35) & POI_den_transport <488.377 (p63)
rate_imported12 = 0.003-0.082 (p36-65)
36.36 0.77 22.72 0.18 1.033E-06
113 gender_ratio <96.478 (p73) & den_public_trans = 6.990-86.032 (p35-91) & POI_den_mall_mkt <148.238 (p67)
rate_imported12 = 0.003-0.091 (p36-67)
41.68 0.67 22.60 0.08 4.163E-05
114 build_area_pp <58.474 (p48) & prop_transport > 0.070 (p36) & POI_den_transport <425.836 (p59)
rate_imported12 = 0.002-0.086 (p36-66)
39.90 0.72 22.58 0.13 2.072E-05
115 prop_higher_edu <0.263 (p66) & prop_agricultural <0.050 (p80) & POI_den_telecom_elec = 11.547-254.047 (p10-66)
rate_imported12 = 0.004-0.076 (p36-64)
39.11 0.65 22.50 0.14 3.187E-06
rate_imported12 = 0.004-0.189 (p36-80)
66.25 0.65 22.38 0.10 1.214E-07
116 gender_ratio <95.776 (p69) & med_area_home <19.466 (p61) & POI_den_transport <488.377 (p63)
rate_imported12 = 0.003-0.082 (p36-65)
36.36 0.77 22.72 0.18 1.033E-06
117 med_area_home <16.202 (p48) & LU_entropy >0.566 (p52)
rate_imported12 = 0.003-0.090 (p36-67)
41.14 0.68 22.43 0.14 6.549E-05
118 gender_ratio <95.776 (p69) & med_area_home <19.466 (p61) & POI_den_telecom_elec <174.743 (p59)
rate_imported12 = 0.003-0.087 (p36-67)
38.32 0.73 22.43 0.13 1.565E-05
119 den_area_home <16.202 (p48) & LU_entropy >0.566 (p52)
rate_imported12 = 0.003-0.090 (p36-67)
41.14 0.68 22.43 0.14 6.549E-05
120 prop_higher_edu <0.127 (p82) & med_income <22078.420 (p77) & den_bldg < 0.088-0.389 (p30-82)
rate_imported12 = 0.004-0.135 (p36-73)
47.61 0.70 22.40 0.10 3.665E-05
121 gender_ratio <96.488 (p74) & prop_transport > 0.062 (p35) & POI_den_transport <522.196 (p64)
rate_imported12 = 0.003-0.088 (p36-67)
39.96 0.69 22.40 0.10 5.412E-05
122 med_income <20092.498 (p73) & prop_transport > 0.062 (p35) & POI_den_transport <612.990 (p66)
rate_imported12 = 0.003-0.086 (p36-66)
40.08 0.68 22.39 0.12 3.309E-05
123 med_income <19621.899 (p65) & prop_transport > 0.029 (p40) & POI_den_telecom_elec <114.320 (p66)
rate_imported12 = 0.003-0.085 (p36-66)
47.46 0.56 22.27 0.14 3.292E-07
124 med_income <19621.899 (p65) & prop_business = 0.003-0.087 (p44-90) & POI_den_sports <339.929 (p64)
rate_imported12 = 0.004-0.090 (p36-67)
35.54 0.83 22.38 0.17 2.17E-05
125 med_income <19621.899 (p65) & prop_gov_insti_faci > 0.032 (p43)
rate_imported12 = 0.004-0.085 (p36-66)
47.46 0.56 22.27 0.14 3.292E-07
126 prop_preprim_edu <0.129 (p82) & POI_den_mall_mkt <141.320 (p66)
rate_imported12 = 0.002-0.196 (p36-80)
48.53 0.79 22.27 0.08 2.163E-05
127 med_area_home <16.202 (p48) & LU_entropy >0.566 (p52)
rate_imported12 = 0.003-0.086 (p36-66)
40.07 0.68 22.43 0.20 3.733E-07
128 prop_higher_edu <0.127 (p82) & med_income <22078.420 (p77) & den_bldg < 0.088-0.389 (p30-82)
rate_imported12 = 0.004-0.135 (p36-73)
47.61 0.70 22.40 0.10 3.665E-05
129 med_area_home <16.202 (p48) & LU_entropy >0.566 (p52)
rate_imported12 = 0.003-0.086 (p36-66)
40.07 0.68 22.43 0.20 3.733E-07
prop_preprim_edu <0.130 (p83) & den_bldg > 0.081 (p27) & POI_den_telecom_elec < 347.789 (p70)
rate_imported12 = 0.002-0.215 (p36-81) 57.30 0.72 22.19 0.09 2.869E-05

prop_preprim_edu < 0.134 (p84) & med_income < 20130.817 (p73) & POI_den_sports = 45.780-437.190 (p24-67)
rate_imported12 = 0.002-0.094 (p36-68) 42.77 0.65 22.18 0.11 2.422E-06

med_income = 20323.607 (p73) & prop_transport > 0.056 (p33)
rate_imported12 = 0.003-0.086 (p36-66) 39.91 0.70 22.07 0.11 2.704E-05

med_area_home = 19.970 (p65) & prop_transport > 0.056 (p33)
rate_imported12 = 0.003-0.096 (p36-66) 39.30 0.67 22.18 0.14 3.247E-06

den_public_trans = 7.873-93.077 (p37-92) & LU_entropy > 0.561 (p51)
rate_imported12 = 0.003-0.086 (p36-66) 43.16 0.62 22.16 0.16 2.008E-05

gender_ratio < 96.478 (p73) & prop_transport > 0.069 (p36)
rate_imported12 = 0.002-0.096 (p36-68) 40.02 0.70 22.07 0.09 2.908E-04

prop_preprim_edu < 0.129 (p82) & prop_transport > 0.055 (p33)
rate_imported12 = 0.002-0.196 (p36-80) 51.35 0.75 22.07 0.09 1.737E-05

med_income < 19851.218 (p65) & den_population = 3043.984-80440.162 (p29-89)
rate_imported12 = 0.004-0.089 (p36-67) 48.11 0.56 22.06 0.15 4.796E-07

gender_ratio < 93.751 (p53) & build_area_pp < 75.416 (p54)
rate_imported12 = 0.004-0.081 (p36-64) 44.33 0.57 22.05 0.12 3.686E-05

build_area_pp < 58.064 (p47) & prop_transport > 0.067 (p35)
rate_imported12 = 0.003-0.073 (p36-64) 33.53 0.78 22.00 0.18 3.149E-06

prop_preprim_edu < 0.133 (p84) & prop_transport > 0.064 (p35)
rate_imported12 = 0.003-0.198 (p36-80) 51.04 0.76 21.99 0.08 2.397E-06

build_area_pp < 56.179 (p46) & POI_den_edu = 10.689-412.222 (p15-77)
rate_imported12 = 0.003-0.232 (p36-82) 71.45 0.66 21.98 0.08 1.494E-05

gender_ratio < 99.697 (p74) & prop_agricultural < 0.046 (p79)
rate_imported12 = 0.004-0.098 (p36-68) 46.07 0.61 21.93 0.11 6.806E-05

prop_higher_edu < 0.242 (p63) & prop_agricultural < 0.049 (p80)
rate_imported12 = 0.003-0.087 (p36-67) 51.40 0.53 21.92 0.12 7.098E-06

build_area_pp < 51.731 (p47) & prop_transport > 0.067 (p35)
rate_imported12 = 0.004-0.089 (p36-67) 36.48 0.76 21.87 0.11 3.914E-05

prop_preprim_edu < 0.131 (p83) & POI_den_transport < 458.042 (p68)
rate_imported12 = 0.003-0.209 (p36-80) 51.14 0.76 21.99 0.08 2.397E-06

prop_higher_edu < 0.296 (p75) & prop_transport > 0.056 (p33)
rate_imported12 = 0.003-0.092 (p36-67) 42.26 0.64 21.85 0.08 7.524E-05

prop_preprim_edu < 0.130 (p83) & den_road > 5.415 (p26) & POI_den_mall_mkt < 142.262 (p67)
rate_imported12 = 0.002-0.128 (p36-72) 49.00 0.65 21.82 0.09 3.286E-05

med_income < 18745.215 (p62) & prop_transport > 0.062 (p35)
rate_imported12 = 0.003-0.081 (p36-64) 49.31 0.52 21.74 0.11 1.627E-05
| gender_ratio <96.439 (p72) & prop_preprim_edu <0.127 (p82) & LU_entropy >0.562 (p52) | rate_imported12 =0.003-0.075 (p36-64) | 39.99 | 0.60 | 21.72 | 0.10 | 3.028E-05 |
| gender_ratio <96.056 (p71) & prop_preprim_edu <0.135 (p84) & POI_den_transport <547.167 (p65) | rate_imported12 =0.003-0.105 (p36-69) | 46.60 | 0.62 | 21.69 | 0.10 | 7.642E-05 |
| med_income <21026.227 (p73) & prop_business =0.003-0.053 (p44-86) & POI_den_transport <185.721 (p60) | rate_imported12 =0.001-0.103 (p36-69) | 51.43 | 0.57 | 21.69 | 0.11 | 4.167E-05 |
| prop_agricultural <0.047 (p79) & LU_entropy >0.559 (p50) | rate_imported12 =0.002-0.077 (p36-64) | 42.24 | 0.57 | 21.68 | 0.16 | 2.224E-08 |
| build_area_pp <67.949 (p52) & prop_private_resid =0.013-0.220 (p31-85) | rate_imported12 =0.003-0.094 (p36-68) | 40.53 | 0.67 | 21.67 | 0.18 | 7.887E-06 |
| med_income <19505.735 (p65) & prop_agricultural <0.051 (p80) | rate_imported12 =0.003-0.084 (p36-66) | 53.72 | 0.49 | 21.66 | 0.09 | 9.089E-06 |
| build_area_pp <66.552 (p52) & prop_transport >0.060 (p35) & POI_den_transport <428.546 (p59) | rate_imported12 =0.003-0.078 (p36-64) | 33.56 | 0.78 | 21.43 | 0.19 | 3.02E-05 |
| med_income <19.409 (p61) & den_road >6.596 (p30) & POI_den_mall_mkt <105.844 (p63) | rate_imported12 =0.003-0.082 (p36-65) | 36.45 | 0.70 | 21.37 | 0.16 | 4.185E-05 |
| prop_preprim_edu <0.129 (p82) & prop_higher_edu <0.256 (p65) & POI_den_sports =49.068-381.951 (p25-65) | rate_imported12 =0.003-0.114 (p36-71) | 55.10 | 0.56 | 21.32 | 0.10 | 7.37E-05 |
| prop_higher_edu <0.296 (p75) & prop_transport >0.063 (p35) & POI_den_mall_mkt <127.884 (p65) | rate_imported12 =0.001-0.106 (p36-69) | 37.36 | 0.77 | 21.28 | 0.17 | 1.163E-05 |
| med_income <18908.149 (p62) & den_road >5.527 (p27) & prop_transport >0.062 (p35) & prop_agricultural <0.049 (p80) & POI_den_transport <439.881 (p59) | rate_imported12 =0.003-0.081 (p36-64) | 35.17 | 0.73 | 21.24 | 0.13 | 2.54E-05 |
| med_area_home <19.806 (p65) & den_road >6.452 (p30) & POI_den_transport <514.562 (p63) | rate_imported12 =0.003-0.085 (p36-66) | 37.24 | 0.69 | 21.19 | 0.15 | 2.527E-05 |
| med_area_home <17.765 (p55) & build_area_pp <59.277 (p49) & POI_den_edu <188.430 (p62) | rate_imported12 =0.001-0.101 (p36-68) | 36.05 | 0.78 | 21.09 | 0.15 | 9.647E-06 |
| med_area_home <18.817 (p57) & prop_business =0.003-0.074 (p43-88) | rate_imported12 =0.003-0.088 (p36-67) | 42.34 | 0.60 | 21.08 | 0.14 | 7.339E-05 |
| prop_publicResid >0.035 (p69) | rate_imported12 =0.002-0.111 (p36-71) | 44.17 | 0.65 | 21.07 | 0.31 | 4.385E-11 |
| prop_gov_insti_fac >0.031 (p43) & POI_den_telecom_elec <218.105 (p64) | rate_imported12 =0.003-0.143 (p36-74) | 45.15 | 0.72 | 21.06 | 0.21 | 6.918E-09 |
| gender_ratio <96.409 (p72) & POI_den_telecom_elec <174.011 (p65) | rate_imported12 =0.003-0.080 (p36-64) | 39.44 | 0.61 | 21.03 | 0.13 | 3.177E-06 |
| den_public_trans =9.794-95.867 (p38-92) & POI_den_edu <249.193 (p65) | rate_imported12 =0.003-0.091 (p36-67) | 40.04 | 0.65 | 21.01 | 0.17 | 2.961E-05 |
med_area_home <16.479 (p49) & prop_business = 0.003-0.078 (p47-89) & POI_den_transport < 476.079 (p62)

rate_imported12 = 0.004-0.080 (p36-64) 30.69 0.90 21.01 0.21 9.694E-06

POI_den_transport < 476.079 (p62)

rate_imported12 = 0.004-0.082 (p36-65) 30.77 0.92 21.00 0.21 1.661E-06

rate_imported12 = 0.004-0.080 (p36-64)

rate_imported12 = 0.004-0.094 (p36-68) 32.05 0.91 20.98 0.19 6.436E-06

rate_imported12 = 0.004-0.082 (p36-65)

rate_imported12 = 0.004-0.080 (p36-64)

rate_imported12 = 0.004-0.087 (p36-67) 35.38 0.75 20.95 0.14 1.72E-05

rate_imported12 = 0.004-0.087 (p36-67)

rate_imported12 = 0.004-0.093 (p36-67)

rate_imported12 = 0.004-0.090 (p36-67) 35.86 0.65 20.95 0.12 4.804E-05

rate_imported12 = 0.004-0.085 (p36-66)

rate_imported12 = 0.004-0.086 (p36-66) 40.75 0.61 20.93 0.12 3.187E-05

rate_imported12 = 0.004-0.086 (p36-66)

rate_imported12 = 0.004-0.088 (p36-67) 48.45 0.53 20.91 0.10 2.03E-05

rate_imported12 = 0.004-0.088 (p36-67)

rate_imported12 = 0.004-0.087 (p36-67) 38.17 0.67 20.90 0.10 1.1E-05

rate_imported12 = 0.004-0.087 (p36-67)

rate_imported12 = 0.004-0.086 (p36-66)

rate_imported12 = 0.004-0.086 (p36-66)

rate_imported12 = 0.004-0.086 (p36-66)

rate_imported12 = 0.003-0.105 (p36-69) 41.15 0.67 20.83 0.09 9.297E-06

rate_imported12 = 0.003-0.105 (p36-69)

rate_imported12 = 0.003-0.086 (p36-66) 36.32 0.70 20.82 0.14 2.875E-05

rate_imported12 = 0.003-0.086 (p36-66)

rate_imported12 = 0.003-0.086 (p36-66)

rate_imported12 = 0.003-0.083 (p36-65) 34.83 0.72 20.78 0.19 3.218E-05

rate_imported12 = 0.003-0.083 (p36-65)

rate_imported12 = 0.003-0.083 (p36-65)

rate_imported12 = 0.002-0.128 (p36-72) 45.72 0.67 20.76 0.09 1.247E-05

rate_imported12 = 0.002-0.128 (p36-72)

rate_imported12 = 0.003-0.084 (p36-66)

rate_imported12 = 0.003-0.084 (p36-66)

rate_imported12 = 0.003-0.084 (p36-66) 36.99 0.70 20.75 0.07 5.669E-05

rate_imported12 = 0.003-0.084 (p36-66)

rate_imported12 = 0.004-0.090 (p36-67) 35.56 0.72 20.71 0.14 2.24E-05

rate_imported12 = 0.004-0.090 (p36-67)

rate_imported12 = 0.003-0.088 (p36-67) 38.87 0.65 20.67 0.22 2.24E-07

rate_imported12 = 0.003-0.088 (p36-67)

rate_imported12 = 0.003-0.069 (p36-62) 33.15 0.67 20.63 0.15 4.935E-05

rate_imported12 = 0.003-0.069 (p36-62)
med_income <19505.735 (p65) & prop_ agricultural <0.051 (p80) & POI_den_sports =42.524-353.919 (p23-64)

rate_imported12 =0.003-0.084 (p36-66)
34.19 0.74 20.59 0.16 5.386E-06

gender_ratio <95.443 (p66) & prop_ agricultural <0.047 (p79) & POI_den_mall_mkt =106.828 (p63)

rate_imported12 =0.001-0.093 (p36-68)
40.42 0.63 20.53 0.12 6.752E-05

den_bldg =0.095-0.347 (p32-78) & build_area_pp <60.696 (p50)

rate_imported12 =0.004-0.079 (p36-64)
36.23 0.65 20.51 0.16 6.571E-06

med_income <19402.085 (p63) & POI_den_transport =40.112-1204.130 (p17-77)

rate_imported12 =0.003-0.095 (p36-68)
46.84 0.56 20.47 0.14 2.209E-05

gender_ratio <96.199 (p71) & prop_ business <0.063 (p35)

rate_imported12 =0.003-0.087 (p36-67)
31.98 0.85 20.40 0.16 1.54E-05

prop_business =0.003-0.078 (p47-89) & POI_den_telecom_elec <125.093 (p65)

rate_imported12 =0.003-0.091 (p36-67)
37.62 0.83 20.39 0.26 4.407E-08

den_area_home =19.466 (p61) & den_road >6.792 (p31)

rate_imported12 =0.003-0.082 (p36-65)
34.87 0.70 20.38 0.16 3.398E-05

prop_preprim_edu <0.135 (p67) & build_area_pp <67.205 (p52)

rate_imported12 =0.002-0.090 (p36-67)
37.18 0.68 20.36 0.09 6.96E-05

build_area_pp <70.628 (p53) & prop_gov_insti_fac <0.025 (p36) & POI_den_telecom_elec =177.637 (p60)

rate_imported12 =0.004-0.084 (p36-66)
32.62 0.79 20.33 0.19 5.068E-06

gender_ratio <96.153 (p71) & prop_ business =0.003-0.068 (p47-87) & POI_den_telecom_elec <177.345 (p60)

rate_imported12 =0.003-0.091 (p36-67)
33.41 0.79 20.37 0.20 3.18E-07

prop_higher_edu <0.224 (p58) & den_road >6.792 (p31) & POI_den_telecom_elec <177.345 (p60)

rate_imported12 =0.003-0.084 (p36-66)
43.52 0.55 20.30 0.16 1.002E-06

gender_ratio <95.667 (p66) & prop_gov_insti_fac <0.025 (p36) & POI_den_telecom_elec <177.345 (p60)

rate_imported12 =0.004-0.096 (p36-68)
34.56 0.76 20.27 0.14 8.242E-07

prop_gov_insti_fac =0.034 (p44) & POI_den_mall_mkt =106.828 (p63)

rate_imported12 =0.003-0.084 (p36-66)
29.86 0.92 20.25 0.22 2.511E-05

med_area_home =21.600 (p75) & prop_transport >0.070 (p36)

rate_imported12 =0.004-0.083 (p36-66)
33.55 0.71 20.14 0.11 2.933E-05
prop_business =0.004-0.078 (p50-89) &POI_den_mall_mkt <104.329 (p62)
rate_imported12 =0.001-0.126 (p36-72)
35.84 0.82 20.11 0.27 4.734E-08

prop_business =0.003-0.071 (p46-88) &POI_den_sports <367.628 (p64)
rate_imported12 =0.002-0.128 (p36-72)
39.61 0.74 20.11 0.19 2.628E-06

prop_higher_edu <0.261 (p66) &prop_business =0.003-0.054 (p47-86) &POI_den_telecom_elec <217.233 (p64)
rate_imported12 =0.003-0.094 (p36-68)
32.75 0.81 20.08 0.13 5.058E-05

den_population =13525.712-86590.585 (p45-91) &POI_den_edu <188.430 (p62)
rate_imported12 =0.003-0.080 (p36-64)
32.51 0.74 19.91 0.28 9.322E-07

den_bldg >0.081 (p27) &build_area_pp <61.518 (p50) &POI_den_mall_mkt <86.482 (p59)
rate_imported12 =0.003-0.074 (p36-64)
31.08 0.75 19.87 0.16 1.092E-05

prop_higher_edu <0.240 (p63) &POI_den_transport =40.112-1204.130 (p17-77)
rate_imported12 =0.003-0.085 (p36-66)
44.94 0.53 19.85 0.13 9.678E-06

prop_higher_edu <0.261 (p66) &prop_business =0.003-0.054 (p47-86) &POI_den_mall_mkt <86.482 (p59)
rate_imported12 =0.003-0.094 (p36-68)
37.45 0.66 19.82 0.18 5.691E-07

prop_preprim_edu >0.080 (p19) &den_population =5790.352-78246.851 (p37-77)
rate_imported12 =0.001-0.119 (p36-71)
49.94 0.58 19.81 0.09 6.704E-05

build_area_pp <64.307 (p51)
rate_imported12 =0.003-0.085 (p36-66)
44.94 0.53 19.85 0.13 9.678E-06

prop_gov_insti_faci >0.025 (p36) &POI_den_transport <418.284 (p65)
rate_imported12 =0.003-0.089 (p36-67)
36.56 0.67 19.81 0.10 2.45E-05

prop_gov_insti_faci >0.028 (p39) &LU_entropy >0.552 (p49)
rate_imported12 =0.002-0.098 (p36-68)
39.09 0.60 19.54 0.19 2.569E-06

prop_agricultural <0.052 (p80) &POI_den_telecom_elec =11.547-254.047 (p10-66)
rate_imported12 =0.003-0.075 (p36-64)
38.51 0.56 19.43 0.15 1.504E-06

med_income <21376.057 (p75) &prop_private_resid =0.022-0.228 (p36-85) &POI_den_sports =39.533-357.737 (p22-64)
rate_imported12 =0.003-0.092 (p36-67)
45.19 0.54 19.26 0.10 1.058E-05

prop_higher_edu <0.240 (p63) &POI_den_transport =40.112-1204.130 (p17-77)
rate_imported12 =0.003-0.089 (p36-67)
38.51 0.56 19.43 0.15 1.504E-06

prop_agricultural <0.050 (p80) &POI_den_transport =31.335-969.972 (p14-73)
rate_imported12 =0.003-0.081 (p36-64)
48.00 0.49 19.51 0.09 2.67E-05

prop_gov_insti_faci >0.028 (p39) &POI_den_transport <493.197 (p63)
rate_imported12 =0.003-0.092 (p36-67)
38.51 0.56 19.43 0.15 1.504E-06

prop_agricultural <0.054 (p81) &POI_den_transport =31.335-969.972 (p14-73)
rate_imported12 =0.003-0.081 (p36-64)
48.00 0.49 19.51 0.09 2.67E-05

prop_gov_insti_faci >0.028 (p39) &LU_entropy >0.552 (p49)
rate_imported12 =0.002-0.098 (p36-68)
43.06 0.58 19.35 0.14 9.098E-06

prop_gov_insti_faci >0.028 (p39) &LU_entropy >0.552 (p49)
rate_imported12 =0.002-0.098 (p36-68)
43.06 0.58 19.35 0.14 9.098E-06

prop_gov_insti_faci >0.028 (p39) &LU_entropy >0.552 (p49)
rate_imported12 =0.002-0.098 (p36-68)
43.06 0.58 19.35 0.14 9.098E-06

med_area_home <18.890 (p57) &den_bldg >0.112 (p36) &POI_den_edu <188.430 (p62)
rate_imported12 =0.003-0.090 (p36-67)
31.96 0.71 19.51 0.16 8.177E-05
prop_business =0.003-0.068 (p47-87) &prop_gov_insti_faci >0.033 (p43) &POI_den_telecom_elec <177.345 (p60) rate_imported12 =0.003-0.122 (p36-71) 31.54 0.90 19.03 0.11 9.176E-07

prop_business =0.004-0.078 (p50-89) &POI_den_telecom_elec <174.335 (p59) rate_imported12 =0.003-0.115 (p36-71) 32.17 0.83 18.84 0.31 2.013E-09

prop_gov_insti_faci >0.027 (p38) &prop_transport >0.060 (p35) &POI_den_transport <428.546 (p59) rate_imported12 =0.003-0.078 (p36-64) 30.86 0.73 18.95 0.15 3.02E-05

prop_gov_insti_faci >0.026 (p38) &POI_den_transport <183.001 (p60) rate_imported12 =0.003-0.078 (p36-64) 31.50 0.77 18.94 0.11 1.067E-05

prop_preprim_edu <0.133 (p84) &prop_higher_edu <0.246 (p64) &POI_den_mall_mkt =23.559-142.109 (p36-67) rate_imported12 =0.003-0.091 (p36-67) 31.50 0.77 18.94 0.11 1.067E-05

prop_preprim_edu <0.133 (p84) &POI_den_transport <383.279 (p57) rate_imported12 =0.003-0.122 (p36-71) 31.17 0.88 18.62 0.08 1.959E-05

prop_transport >0.103 (p43) &POI_den_telecom_elec <177.715 (p60) rate_imported12 =0.003-0.080 (p36-64) 30.39 0.74 18.62 0.34 4.031E-08

prop_transport >0.091 (p39) &LU_entropy >0.551 (p49) rate_imported12 =0.003-0.087 (p36-67) 39.41 0.57 18.72 0.15 1.998E-05

prop_private_resid =0.004-0.226 (p21-85) &prop_business =0.003-0.054 (p47-89) rate_imported12 =0.003-0.254 (p36-83) 45.22 0.79 18.51 0.13 6.233E-06

gender_ratio <95.227 (p65) &den_population =5790.352-78246.851 (p37-89) rate_imported12 =0.004-0.095 (p36-68) 30.24 0.79 18.25 0.08 3.139E-05

prop_higher_edu >0.083 (p22) &prop_transport >0.092 (p39) rate_imported12 =0.003-0.090 (p36-67) 46.77 0.50 18.27 0.09 4.43E-05

build_area_pp <75.510 (p55) &prop_gov_insti_faci >0.025 (p36) rate_imported12 =0.003-0.082 (p36-65) 45.35 0.49 18.24 0.10 6.591E-05

prop_higher_edu <0.275 (p70) &POI_den_edu =10.689-412.222 (p15-77) rate_imported12 =0.004-0.082 (p36-65) 41.82 0.64 18.21 0.20 6.083E-06

prop_preprim_edu <0.113 (p37) &POI_den_sports =40.055-361.877 (p22-64) rate_imported12 =0.002-0.068 (p36-62) 38.13 0.44 18.18 0.08 3.424E-05
prop_business =0.004-0.084 (p49-90) &POI_den_edu =7.872-186.946 (p12-62) rate_imported12 =0.002-0.111 (p36-71) 32.44 0.66 18.01 0.25 4.368E-06

prop_preprim_edu >0.090 (p35) &prop_gov_insti_faci >0.030 (p40) &POI_den_transport <436.867 (p59) rate_imported12 =0.003-0.087 (p36-67) 26.61 0.78 16.99 0.38 3.043E-08

gender_ratio <93.726 (p53) rate_imported12 =0.003-0.105 (p36-69) 55.16 0.48 17.25 0.15 3.542E-07

prop_private_resid =0.004-0.226 (p21-85) &POI_den_mall_mkt <99.198 (p60) rate_imported12 =0.004-0.090 (p36-67) 26.29 0.83 16.12 0.24 1.369E-05
prop_private_resid =0.022-0.228 (p36-85) & POI_den_transport =58.916-397.463 (p22-58)

prop_private_resid =0.022-0.228 (p36-85) & POI_den_telecom_elec =35.039-212.421 (p26-64)
prop_preprim_edu <0.134 (p84) & den_population >28322.843 (p61) & POI_den_transport <421.427 (p58)

den_population =18750.995-80373.241 (p50-89) & POI_den_telecom_elec <177.715 (p60)

POI_den_sports =51.286-360.682 (p26-64) & POI_den_edu =10.689-412.222 (p15-77) & POI_den_transport =103.949-504.827 (p30-63)

build_area_pp <69.988 (p53) & prop_business =0.005-0.066 (p53-87) & POI_den_mall_mkt <123.207 (p65)

prop_grassland <0.023 (p37) & POI_den_telecom_elec <213.848 (p59)

prop_shrubland <0.023 (p37) & POI_den_transport <520.651 (p64)

prop_agricultural <0.063 (p82)
### Document Content

| Page | POI\_den\_edu =104.122-568.992 (p51-80) &POI\_den\_telecom\_elec <167.092 (p58) | Rate imported12 =0.004-0.090 (p36-67) | 13.52 | 0.85 | 8.63 | 0.43 | 1.491E-05 |
|------|-------------------------------------------------------------------------|----------------------------------------|------|------|------|------|---------|
|      | **den\_population >47145.016 (p74) &POI\_den\_telecom\_elec <206.748 (p64)** | Rate imported12 =0.004-0.094 (p36-68) | 12.86 | 0.81 | 8.10 | 0.35 | 7.595E-05 |
|      | **den\_public\_trans >39.887 (p73) &POI\_den\_telecom\_elec <174.335 (p62)** | Rate imported12 =0.002-0.075 (p36-62) | 8.77  | 0.96 | 6.51  | 0.55 | 7.007E-05 |
|      | **prop\_higher\_edu >0.261 (p66) &prop\_business =0.003-0.054 (p47-86)** | Rate imported12 =0.002-0.075 (p36-61) | 8.77  | 0.96 | 6.51  | 0.55 | 7.007E-05 |
|      | **den\_population >56328.069 (p80) &POI\_den\_sports <280.418 (p60)** | Rate imported12 =0.003-0.067 (p36-62) | 8.77  | 0.96 | 6.51  | 0.55 | 7.007E-05 |
|      | **den\_public\_trans >46.981 (p78) &POI\_den\_mall\_mkt <103.311 (p62)** | Rate imported12 =0.003-0.068 (p36-62) | 8.77  | 0.96 | 6.51  | 0.55 | 7.007E-05 |
|      | **prop\_higher\_edu =0.128-0.263 (p17-66)** | Rate imported12 =0.002-0.075 (p36-62) | 8.77  | 0.96 | 6.51  | 0.55 | 7.007E-05 |
|      | **med\_income >19309.602 (p63) &prop\_business =0.003-0.054 (p47-86)** | Rate imported12 =0.002-0.075 (p36-62) | 8.77  | 0.96 | 6.51  | 0.55 | 7.007E-05 |
|      | **med\_income <19043.072 (p63)** | Rate imported12 <0.109 (p70) | 116.90 | 0.86 | 22.90 | 0.17 | 1.01E-14 |
|      | **prop\_preprim\_edu >0.090 (p35) &prop\_gov\_insti\_faci <0.030 (p40)** | Rate imported12 <0.003 (p36) | 39.12  | 0.63 | 16.86  | 0.12 | 7.46E-05 |
|      | **prop\_higher\_edu <0.239 (p63) &den\_population <4861.224 (p35)** | Rate imported12 <0.002 (p36) | 39.12  | 0.63 | 16.86  | 0.12 | 7.46E-05 |
|      | **med\_income <19621.899 (p65) &prop\_gov\_insti\_faci <0.032 (p43)** | Rate imported12 <0.004 (p36) | 36.31  | 0.64 | 15.81  | 0.14 | 1.271E-05 |
|      | **med\_income <18922.890 (p62) &den\_public\_trans <6.320 (p33)** | Rate imported12 <0.004 (p36) | 36.31  | 0.64 | 15.81  | 0.14 | 1.271E-05 |
|      | **prop\_higher\_edu <0.224 (p58) &den\_road <6.792 (p31)** | Rate imported12 <0.004 (p36) | 36.31  | 0.64 | 15.81  | 0.14 | 1.271E-05 |
|      | **den\_public\_trans <3.226 (p23)** | Rate imported12 <0.004 (p36) | 36.31  | 0.64 | 15.81  | 0.14 | 1.271E-05 |
| Equation | p-value | Significance | Rate Imported12 | p-values |
|----------|---------|--------------|----------------|----------|
| build_area_pp >69.910 (p53) & prop_agricultural >0.068 (p83) | rate_imported12 <0.003 (p36) | 23.66 | 0.82 | 13.32 | 0.14 | 8.83E-06 |
| med_income <18745.215 (p62) & prop_transport <0.062 (p35) | rate_imported12 <0.003 (p36) | 26.66 | 0.72 | 13.27 | 0.21 | 7.55E-05 |
| build_area_pp >68.387 (p52) & prop_rural_set >0.024 (p65) | rate_imported12 <0.003 (p36) | 27.92 | 0.67 | 13.02 | 0.21 | 4.36E-07 |
| med_income <18909.328 (p62) & den_bldg <0.087 (p29) | rate_imported12 <0.003 (p36) | 24.80 | 0.76 | 12.99 | 0.24 | 3.227E-05 |
| prop_higher_edu <0.233 (p62) & den_bldg <0.100 (p33) | rate_imported12 <0.003 (p36) | 29.77 | 0.64 | 12.91 | 0.15 | 4.727E-05 |
| prop_gov_insti_faci <0.233 (p62) & prop_rural_set >0.068 (p83) | rate_imported12 <0.003 (p36) | 44.26 | 0.51 | 12.82 | 0.15 | 7.142E-05 |
| med_income <18908.149 (p62) & den_road <5.527 (p27) | rate_imported12 <0.003 (p36) | 23.52 | 0.74 | 12.11 | 0.20 | 4.679E-05 |
| ave_household_size <3.251 (p87) | rate_imported12 <0.109 (p70) | 141.61 | 0.76 | 12.11 | 0.06 | 6.175E-09 |
| den_road <11.013 (p51) & build_area_pp >69.326 (p52) | rate_imported12 <0.003 (p36) | 33.41 | 0.56 | 12.06 | 0.13 | 1.485E-05 |
| prop_agricultural >0.063 (p82) | rate_imported12 <0.003 (p36) | 25.53 | 0.68 | 11.96 | 0.32 | 4.34E-06 |
| prop_industrial >0.011 (p73) | rate_imported12 <0.094 (p68) | 50.94 | 0.86 | 11.87 | 0.20 | 2.928E-05 |
| build_area_pp >66.697 (p52) & POI_den_mall_mkt <61.230 (p54) | rate_imported12 <0.003 (p36) | 33.82 | 0.55 | 11.65 | 0.15 | 5.53E-05 |
| med_income <18250.903 (p61) & med_area_home >16.121 (p47) | rate_imported12 <0.004 (p36) | 25.01 | 0.66 | 11.34 | 0.22 | 3.282E-05 |
| den_population <845.965 (p14) | rate_imported12 <0.004 (p36) | 22.46 | 0.70 | 10.97 | 0.34 | 1.138E-05 |
| build_area_pp >69.988 (p53) & POI_den_sports <258.226 (p58) | rate_imported12 <0.002 (p36) | 32.91 | 0.54 | 10.89 | 0.14 | 6.918E-05 |
| prop_publicResid <0.010 (p60) & prop_industrial >0.010 (p71) | rate_imported12 <0.001 (p36) | 22.60 | 0.69 | 10.75 | 0.25 | 4.576E-05 |
| prop_over65 >0.211 (p89) | rate_imported12 <0.003 (p36) | 19.08 | 0.74 | 9.85 | 0.38 | 2.904E-07 |
| prop_higher_edu <0.128 (p17) | rate_imported12 <0.101 (p68) | 34.11 | 0.94 | 9.57 | 0.26 | 2.367E-05 |
| prop_open_recreation <0.002 (p11) | rate_imported12 <0.001 (p36) | 17.71 | 0.74 | 9.05 | 0.38 | 2.37E-05 |
| prop_rural_set >0.069 (p80) | rate_imported12 <0.004 (p36) | 24.92 | 0.53 | 7.90 | 0.17 | 4.173E-05 |
| No. | Antecedent                                                                 | Consequent                        | Supp  | Conf  | Lev   | Imp    | P      |
|-----|-----------------------------------------------------------------------------|-----------------------------------|-------|-------|-------|--------|--------|
| 1   | med_income <24194.445 (p79) & prop_transport >0.091 (p39)                  | rate_local3 > 0.362 (p56)        | 64.75 | 0.662 | 21.946| 0.1318 | 4.207E-06 |
| 2   | med_income < 24895.467 (p79) & den_road > 8.294 (p39)                      | rate_local3 > 0.352 (p56)        | 65.65 | 0.666 | 21.657| 0.1402 | 4.314E-06 |
| 3   | med_income <24593.452 (p79) & prop_shrubland <0.112 (p58)                 | rate_local3 > 0.378 (p57)        | 62.26 | 0.642 | 21.384| 0.1206 | 1.366E-05 |
| 4   | med_area_home <20.213 (p67) & prop_shrubland <0.112 (p58)                 | rate_local3 > 0.378 (p57)        | 59.25 | 0.654 | 21.102| 0.1217 | 5.976E-05 |
| 5   | med_area_home <19.021 (p58) & prop_transport >0.091 (p39)                  | rate_local3 > 0.362 (p56)        | 61.60 | 0.661 | 20.86 | 0.1001 | 1.236E-05 |
| 6   | med_income <17558.932 (p56) & den_population > 15540.769 (p47)             | rate_local3 > 0.327 (p52)        | 56.80 | 0.746 | 20.769| 0.13   | 2.117E-06 |
| 7   | prop_preprim_edu < 0.128 (p82) & prop_higher_edu < 0.223 (p58) & med_area_home < 19.043 (p59) | rate_local3 > 0.279 (p48) | 57.50 | 0.815 | 20.31 | 0.0944 | 6.116E-05 |
| 8   | prop_higher_edu <0.304 (p76) & prop_shrubland <0.112 (p58) & prop_preprim_edu <0.140 (p86) & prop_higher_edu <0.219 (p56) & build_area_pp <71.407 (p53) | rate_local3 > 0.328 (p57)        | 58.23 | 0.646 | 20.247| 0.1248 | 1.013E-05 |
| 9   | prop_higher_edu <0.219 (p56) & den_population >15540.769 (p47)             | rate_local3 > 0.338 (p54)        | 50.08 | 0.767 | 19.896| 0.1873 | 5.951E-08 |
| 10  | prop_higher_edu <0.231 (p62) & prop_agricultural <0.025 (p71)              | rate_local3 > 0.340 (p54)        | 58.41 | 0.695 | 19.823| 0.1248 | 2.188E-05 |
| 11  | prop_preprim_edu <0.140 (p86) & med_income <17248.143 (p53)                | rate_local3 > 0.352 (p56)        | 48.71 | 0.746 | 19.582| 0.1886 | 4.488E-06 |
| 12  | prop_higher_edu <0.227 (p60) & build_area_pp <74.445 (p54)                 | rate_local3 > 0.328 (p52)        | 57.58 | 0.711 | 19.271| 0.1211 | 3.74E-05  |
| 13  | med_area_home <19.087 (p60) & den_population >14945.078 (p46)              | rate_local3 > 0.326 (p52)        | 64.39 | 0.687 | 19.849| 0.0883 | 4.724E-06 |
| 14  | prop_higher_edu <0.231 (p62) & prop_agricultural <0.025 (p71)              | rate_local3 > 0.340 (p54)        | 58.41 | 0.695 | 19.823| 0.1248 | 2.188E-05 |
| 15  | med_area_home <18.689 (p57) & den_bldg >0.115 (p37)                        | rate_local3 > 0.370 (p57)        | 59.54 | 0.642 | 19.635| 0.0886 | 4.586E-05 |
| 16  | prop_higher_edu <0.229 (p61) & prop_transport >0.106 (p45)                 | rate_local3 > 0.352 (p56)        | 48.71 | 0.746 | 19.582| 0.1886 | 4.488E-06 |
| 17  | prop_preprim_edu <0.140 (p86) & med_income <17248.143 (p53)                | rate_local3 > 0.327 (p47)        | 69.41 | 0.749 | 19.313| 0.0757 | 3.697E-05 |
| 18  | prop_preprim_edu <0.227 (p60) & build_area_pp <74.445 (p54)                 | rate_local3 > 0.328 (p52)        | 57.58 | 0.711 | 19.271| 0.1211 | 3.74E-05  |
| 19  | med_income <26769.030 (p83) & prop_agricultural <0.024 (p71)               | rate_local3 > 0.333 (p53)        | 73.68 | 0.632 | 19.271| 0.093  | 4.217E-05 |
| 20  | prop_higher_edu <0.242 (p63) & den_road >9.163 (p44)                        | rate_local3 > 0.356 (p56)        | 48.91 | 0.730 | 19.259| 0.1855 | 6.003E-06 |
| 21  | prop_preprim_edu <0.141 (p86) & med_area_home <19.467 (p61)                 | rate_local3 > 0.242 (p41)        | 87.62 | 0.741 | 19.19 | 0.0482 | 9.598E-06 |
| 22  | med_area_home <18.950 (p58) & den_road >9.184 (p44)                        | rate_local3 > 0.344 (p55)        | 58.87 | 0.674 | 19.099| 0.0958 | 5.323E-05 |
| 23  | prop_higher_edu <0.221 (p57) & med_area_home <15.911 (p47)                 | rate_local3 > 0.328 (p52)        | 56.04 | 0.715 | 19.005| 0.0808 | 8.225E-05 |
| 24  | prop_higher_edu <0.231 (p62) & den_bldg >0.115 (p37)                       | rate_local3 > 0.372 (p57)        | 51.08 | 0.669 | 18.466| 0.1356 | 4.1E-05  |

(h) Rules for wave-2 local case rate; POI density was used.
| Sentence                                                                 | Rate_Local3 | Rate_Local3 | Rate_Local3 | Rate_Local3 | Rate_Local3 |
|--------------------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|
| 25 prop_over65 >0.124 (p21) & prop_preprim_edu <0.140 (p86) & prop_higher_edu <0.246 (p64) | 72.878      | 0.7954      | 18.166      | 0.0486      | 5.972E-06   |
| 26 med_income <17170.044 (p53) & prop_open_recreation >0.028 (p47)      | 49.771      | 0.7223      | 17.823      | 0.107       | 3.635E-05   |
| 27 prop_higher_edu <0.227 (p60) & prop_grassland <0.073 (p69)           | 57.962      | 0.7368      | 17.671      | 0.117       | 8.038E-05   |
| 28 med_income <16632.840 (p51)                                          | 67.301      | 0.6193      | 17.407      | 0.160       | 6.932E-05   |
| 29 prop_higher_edu <0.231 (p62) & prop_open_recreation >0.026 (p45)     | 49.912      | 0.7045      | 17.347      | 0.133       | 8.038E-05   |
| 30 med_area_home <18.551 (p56) & prop_grassland <0.080 (p70)            | 70.587      | 0.7372      | 17.007      | 0.063       | 7.149E-05   |
| 31 prop_higher_edu <0.212 (p54) & prop_gov_insti_faci >0.027 (p38)      | 49.115      | 0.7194      | 16.839      | 0.127       | 8.199E-05   |
| 32 med_income <28352.730 (p84) & prop_gov_insti_faci >0.026 (p38)       | 88.713      | 0.8063      | 16.743      | 0.089       | 7.1E-05     |
| 33 prop_preprim_edu <0.140 (p86) & prop_higher_edu <0.219 (p56)         | 70.409      | 0.7556      | 16.532      | 0.083       | 1.199E-05   |
| 34 med_income <25832.400 (p81) & prop_woodland <0.072 (p38)             | 46.924      | 0.6948      | 16.412      | 0.099       | 5.782E-05   |
| 35 med_area_home <16.859 (p50) & build_area_pp <71.501 (p53)            | 71.528      | 0.8563      | 16.24       | 0.071       | 4.852E-05   |
| 36 prop_over65 <0.140 (p35) & prop_grassland <0.217 (p82)                | 79.936      | 0.6626      | 16.127      | 0.058       | 7.125E-05   |
| 37 med_area_home <19.087 (p60) & prop_gov_insti_faci >0.027 (p38)        | 83.121      | 0.8575      | 16.111      | 0.070       | 8.061E-05   |
| 38 med_area_home <13.764 (p26)                                          | 41.012      | 0.7346      | 16.09       | 0.288       | 1.106E-07   |
| 39 med_area_home <18.923 (p57) & prop_woodland <0.076 (p40)             | 39.567      | 0.7029      | 15.477      | 0.134       | 6.807E-05   |
| 40 med_income <21114.095 (p74) & POI_den_densports >351.476 (p64)        | 36.084      | 0.6332      | 15.38       | 0.169       | 4.439E-05   |
| 41 ave_household_size <2.986 (p63) & prop_transport >0.091 (p39)         | 53.192      | 0.6134      | 15.226      | 0.082       | 7.519E-05   |
| 42 prop_over65 <0.120 (p19) & prop_higher_edu <0.236 (p62) & prop_transport >0.122 (p50) | 48.001      | 0.8768      | 15.111      | 0.036       | 5.101E-05   |
| 43 prop_preprim_edu <0.092 (p41) & den_population >15540.769 (p47)       | 45.161      | 0.7004      | 15.019      | 0.116       | 7.336E-06   |
| 44 med_income <21058.780 (p74) & POI_den_dentelecom_elec >243.501 (p65)  | 34.165      | 0.6507      | 14.909      | 0.179       | 7.416E-05   |
| 45 prop_over65 <0.124 (p21) & prop_higher_edu <0.246 (p64) & den_road >9.607 (p45) | 49.122      | 0.8559      | 14.85       | 0.041       | 7.417E-05   |
| 46 med_income <20623.735 (p73) & POI_den_dentransport >589.870 (p65)     | 33.822      | 0.6423      | 14.827      | 0.177       | 5.501E-05   |
| 47 | med_income <21114.095 (p74) & POI_den_denmall_mkt >146.926 (p67) | rate_local3 >0.441 (p64) | 32.37 | 0.6645 | 14.672 | 0.1833 | 2.13E-05 |
| 48 | build_area_pp <61.539 (p50) | rate_local3 >0.221 (p38) | 75.937 | 0.7511 | 14.461 | 0.143 | 6.155E-06 |
| 49 | prop_over65 >0.146 (p38) & prop_preprim_edu <0.126 (p81) | rate_local3 >0.236 (p40) | 71.708 | 0.7342 | 14.261 | 0.1457 | 5.81E-05 |
| 50 | med_income <21058.780 (p74) & POI_den_denedu >198.459 (p63) | rate_local3 >0.476 (p66) | 33.942 | 0.5714 | 14.261 | 0.1457 | 5.81E-05 |
| 51 | prop_higher_edu <0.231 (p62) | rate_local3 >0.340 (p54) | 73.108 | 0.5707 | 14.226 | 0.1111 | 1.139E-05 |
| 52 | den_population >22716.207 (p54) | rate_local3 >0.221 (p38) | 75.937 | 0.7511 | 14.461 | 0.143 | 6.155E-06 |
| 53 | prop_transport >0.142 (p55) | rate_local3 >0.378 (p57) | 54.732 | 0.5656 | 13.906 | 0.0797 | 2.82E-05 |
| 54 | prop_higher_edu <0.243 (p63) & prop_shrubland <0.184 (p78) & POI_den_densports >338.260 (p64) | rate_local3 >0.379 (p57) | 29.293 | 0.7881 | 13.651 | 0.0607 | 3.135E-05 |
| 55 | prop_higher_edu <0.247 (p64) & den_public_trans >18.752 (p53) | rate_local3 >0.410 (p59) | 38.55 | 0.5997 | 13.309 | 0.1175 | 7.118E-05 |
| 56 | ave_household_size <2.666 (p29) & den_population >15287.373 (p47) | rate_local3 >0.424 (p63) | 28.82 | 0.6969 | 13.133 | 0.1758 | 6.917E-05 |
| 57 | prop_preprim_edu >0.092 (p41) & den_road >9.987 (p47) | rate_local3 >0.333 (p53) | 41.762 | 0.6812 | 13.103 | 0.1298 | 5.529E-05 |
| 58 | prop_higher_edu <0.312 (p77) & POI_den_denmall_mkt >184.953 (p69) | rate_local3 >0.406 (p59) | 28.335 | 0.726 | 12.863 | 0.1983 | 6.937E-05 |
| 59 | ave_household_size <2.639 (p29) & prop_rural_set <0.001 (p46) | rate_local3 >0.493 (p68) | 25.062 | 0.6449 | 12.809 | 0.164 | 5.449E-05 |
| 60 | prop_higher_edu <0.243 (p63) & POI_den_densports >338.260 (p64) | rate_local3 >0.379 (p57) | 29.898 | 0.7275 | 12.602 | 0.2101 | 4.547E-05 |
| 61 | prop_shrubland <0.100 (p56) | rate_local3 >0.420 (p61) | 58.694 | 0.4877 | 12.546 | 0.1042 | 7.135E-05 |
| 62 | prop_higher_edu <0.241 (p63) & POI_den_dentransport >517.252 (p64) | rate_local3 >0.376 (p57) | 30.219 | 0.7204 | 12.44 | 0.1985 | 4.547E-05 |
| 63 | ave_household_size <2.632 (p29) & den_road >10.043 (p47) | rate_local3 >0.451 (p64) | 27.119 | 0.6507 | 12.379 | 0.1398 | 5.595E-05 |
| 64 | prop_publicResid >0.086 (p79) | rate_local3 >0.297 (p50) | 35.12 | 0.7799 | 12.359 | 0.2744 | 7.805E-06 |
| 65 | POI_den__mail_mkt >307.693 (p78) | rate_local3 >0.547 (p72) | 24.39 | 0.53 | 12.21 | 0.26 | 5.239E-06 |
| 66 | ave_household_size <2.654 (p29) & den_bldg >0.166 (p48) | rate_local3 >0.437 (p64) | 28.337 | 0.6379 | 12.058 | 0.1254 | 7.177E-05 |
| 67 | prop_higher_edu <0.331 (p77) & prop_shrubland <0.158 (p72) & POI_den_dentelecom_elec >577.491 (p80) | rate_local3 >0.384 (p57) | 23.54 | 0.849 | 11.979 | 0.0438 | 2.269E-05 |
| 68 | prop_preprim_edu <0.141 (p86) & ave_household_size <2.654 (p29) | rate_local3 >0.437 (p64) | 30.61 | 0.6026 | 11.976 | 0.09 | 6.777E-05 |
| 69 | POI_den__sports >882.075 (p78) | rate_local3 >0.528 (p71) | 24.72 | 0.55 | 11.96 | 0.26 | 4.033E-06 |
| 70 | POI_den__telecom_elec >540.287 (p78) | rate_local3 >0.539 (p71) | 24.3 | 0.53 | 11.95 | 0.26 | 2.434E-06 |
94 gender_ratio <86.703 (p11) rate Local3 >0.610 (p79) 11.686 0.5118 6.8158 0.2985 7.161E-05
95 den_public_trans >89.817 (p91) rate Local3 >0.515 (p71) 12.632 0.6389 6.7963 0.3438 7.157E-05
96 den_population >16512.251 (p49) & POI_den_dentelecom_elec <179.880 (p60) rate Local3 =0.289-0.529 (p50-71) 19.684 0.4457 9.1098 0.1495 4.236E-05
97 den_population >16512.251 (p49) & POI_den_denedu <220.422 (p64) rate Local3 =0.289-0.529 (p50-71) 20.008 0.4123 8.3889 0.0893 2.637E-05
98 prop_publicResid <0.078 (p77) & prop_business <0.050 (p86) & prop_industrial <0.004 (p60) rate Local3 <0.359 (p56) 63.65 0.8362 21.049 0.121 2.425E-05
99 prop_publicResid <0.027 (p66) & POI_den_denmall_mkt <335.783 (p79) rate Local3 <0.338 (p54) 80.313 0.7252 20.329 0.0893 2.637E-05
100 prop_publicResid <0.082 (p79) & prop_industrial <0.003 (p58) & POI_den_dentransport <1307.010 (p77) rate Local3 <0.376 (p57) 59.258 0.872 20.148 0.1131 2.347E-06
101 prop_publicResid <0.096 (p81) & prop_industrial <0.003 (p57) & POI_den_denmall_mkt <321.686 (p79) rate Local3 <0.380 (p57) 60.133 0.8696 20.113 0.1103 3.695E-06
102 prop_publicResid <0.076 (p77) & prop_industrial <0.003 (p58) & POI_den_dentelecom_elec <540.287 (p78) rate Local3 <0.377 (p57) 59.001 0.8732 20.098 0.1137 3.134E-06
103 prop_publicResid <0.025 (p66) & prop_transport <0.214 (p67) rate Local3 <0.368 (p57) 74.76 0.7745 20.01 0.1152 1.42E-05
104 prop_publicResid <0.027 (p66) & POI_den_dentelecom_elec <499.985 (p78) rate Local3 <0.348 (p55) 79.512 0.7339 19.935 0.0898 2.517E-05
105 prop_publicResid <0.027 (p66) & POI_den_denmall_mkt <958.264 (p81) rate Local3 <0.338 (p54) 80.368 0.7197 19.885 0.0838 1.178E-05
106 prop_publicResid <0.076 (p77) & prop_industrial <0.003 (p59) & POI_den_densports <938.704 (p79) rate Local3 <0.362 (p56) 59.586 0.8429 19.864 0.114 5.506E-05
107 den_public_trans <63.592 (p84) & prop_publicResid <0.078 (p77) & prop_industrial <0.003 (p58) rate Local3 <0.379 (p57) 62.586 0.8457 19.835 0.1098 2.006E-06
108 med_area_home >14.812 (p39) & prop_business <0.048 (p86) & prop_industrial <0.003 (p58) rate Local3 <0.371 (p57) 57.102 0.8741 19.812 0.1032 4.923E-06
109 prop_publicResid <0.091 (p80) & prop_industrial <0.003 (p58) & prop_transport <0.252 (p74) rate Local3 <0.377 (p57) 59.365 0.8578 19.513 0.13 2.977E-06
110 prop_publicResid <0.027 (p66) & POI_den_dentransport <1286.158 (p77) rate Local3 <0.338 (p54) 77.575 0.7219 19.37 0.086 5.139E-05
111 prop_publicResid <0.027 (p66) & POI_den_denedu <650.564 (p81) rate Local3 <0.338 (p54) 80.476 0.7063 18.762 0.0704 7.714E-05
112 med_area_home >14.812 (p39) & prop_industrial <0.003 (p58) & POI_den_dentelecom_elec <540.287 (p78) rate Local3 <0.371 (p57) 54.582 0.8665 18.625 0.0956 3.882E-05
113 prop_publicResid <0.078 (p77) & prop_industrial <0.003 (p58) & POI_den_denedu <499.915 (p79)
rate_local3 <0.379 (p57) 57.499 0.8479 18.326 0.1037 9.271E-06
114 med_area_home >15.209 (p44) & den_public_trans <59.341 (p83) & prop_industrial <0.003 (p58)
rate_local3 <0.370 (p57) 55.454 0.8462 18.118 0.0721 4.243E-05
115 prop_publicResid <0.025 (p66) & prop_business <0.038 (p84)
rate_local3 <0.379 (p57) 57.499 0.8479 18.326 0.1037 9.271E-06
116 rate_local3 <0.377 (p57) 55.454 0.8462 18.118 0.0721 4.243E-05
117 den_population <36301.913 (p67) & prop_industrial <0.003 (p58)
rate_local3 <0.408 (p59) 84.856 0.7668 18.055 0.0818 3.678E-05
118 prop_industrial <0.024 (p66) & prop_woodland >0.077 (p40)
rate_local3 <0.374 (p57) 64.31 0.7953 17.942 0.1277 2.094E-05
119 prop_higher_edu >0.199 (p49) & prop_business <0.044 (p85)
rate_local3 <0.375 (p57) 66.554 0.7748 17.175 0.0846 5.406E-05
120 prop_higher_edu >0.197 (p49) & prop_woodland >0.067 (p37)
rate_local3 <0.399 (p58) 56.449 0.8429 16.521 0.1376 1.936E-06
121 prop_higher_edu >0.170 (p37) & prop_business <0.051 (p86)
rate_local3 <0.410 (p59) 67.135 0.7589 16.333 0.1232 5.939E-05
122 prop_industrial <0.003 (p57) & POI_den_dentelecom_elec <540.287 (p78)
rate_local3 <0.377 (p57) 67.511 0.7595 16.333 0.1232 5.939E-05
123 prop_industrial <0.003 (p58) & POI_den_dentransport <1307.010 (p78)
rate_local3 <0.376 (p57) 67.135 0.7589 16.222 0.124 5.965E-05
124 prop_industrial <0.003 (p59) & POI_den_dentelecom_elec <540.287 (p78)
rate_local3 <0.377 (p57) 67.511 0.7595 16.333 0.1232 5.939E-05
125 build_area_pp >65.200 (p51) & prop_business <0.069 (p88)
rate_local3 <0.376 (p57) 43.03 0.9145 15.966 0.1292 1.063E-05
126 prop_industrial <0.003 (p58) & POI_den_densports <741.357 (p78)
rate_local3 <0.376 (p57) 65.763 0.7583 15.905 0.1224 8.074E-05
127 med_area_home >19.743 (p65)
rate_local3 <0.352 (p56) 58.77 0.7604 15.899 0.2057 3.995E-07
128 prop_publicResid <0.013 (p62) & prop_shrubland >0.047 (p43)
rate_local3 <0.376 (p57) 60.643 0.7787 15.887 0.1061 5.787E-05
129 prop_industrial <0.003 (p58) & POI_den_denmall_mkt <294.792 (p78)
rate_local3 <0.377 (p57) 65.554 0.752 15.361 0.1168 8.074E-05
130 ave_household_size >2.657 (p29) & prop_industrial <0.003 (p58)
rate_local3 <0.376 (p57) 62.382 0.7615 15.304 0.1294 7.073E-06
131 med_income >22184.362 (p77)
rate_local3 <0.341 (p54) 43.895 0.8221 14.847 0.2781 2.542E-07
132 ave_household_size >2.850 (p49) & prop_publicResid <0.095 (p81)
rate_local3 <0.336 (p53) 43.015 0.8194 14.695 0.09 7.53E-05
133 den_public_trans <32.922 (p67) & prop_industrial <0.003 (p58)
rate_local3 <0.377 (p57) 59.244 0.7654 14.678 0.1277 4.84E-05
134 build_area_pp >61.539 (p50)
rate_local3 <0.221 (p38) 58.629 0.515 14.367 0.1262 6.155E-06
135 den_population <22716.207 (p54)
rate_local3 <0.265 (p47) 66.938 0.5745 14.356 0.1232 2.766E-05
| Line | Description | Rate Local3 | Rate Local3 | Rate Local3 | Rate Local3 | Rate Local3 | Rate Local3 | Rate Local3 | Rate Local3 |
|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 136  | prop_gov_insti_faci <0.023 | rate_local3 <0.011 | 25.789 | 0.3578 | 14.338 | 0.1989 | 5.041E-09 |  |
| 137  | prop_higher_edu >0.231 | rate_local3 <0.340 | 60.577 | 0.7058 | 13.932 | 0.1623 | 1.139E-05 |  |
| 138  | prop_transport <0.142 | rate_local3 <0.378 | 81.392 | 0.695 | 13.789 | 0.1178 | 4.175E-05 |  |
| 139  | prop_shrubland >0.100 | rate_local3 <0.420 | 70.629 | 0.7522 | 12.762 | 0.1359 | 7.805E-06 |  |
| 140  | prop_publicResid <0.086 | rate_local3 <0.297 | 95.928 | 0.5684 | 12.553 | 0.0744 | 7.805E-06 |  |
| 141  | prop_industrial <0.003 | rate_local3 <0.380 | 38.606 | 0.8501 | 12.324 | 0.1834 | 3.615E-05 |  |
| 142  | POI_den_denmall_mkt <307.693 | rate_local3 <0.547 | 135.67 | 0.8082 | 12.286 | 0.0732 | 5.239E-06 |  |
| 143  | POI_den__telecom_elec <540.287 | rate_local3 <0.539 | 134.81 | 0.80 | 12.01 | 0.07 | 2.434E-06 |  |
| 144  | POI_den__sports <882.075 | rate_local3 <0.528 | 133.09 | 0.79 | 11.89 | 0.07 | 4.033E-06 |  |
| 145  | POI_den__transport <1382.534 | rate_local3 <0.530 | 132.54 | 0.79 | 11.58 | 0.07 | 1.176E-05 |  |
| 146  | den_road <9.163 | rate_local3 <0.407 | 67.18 | 0.7267 | 11.336 | 0.1226 | 3.309E-05 |  |
| 147  | prop_open_recreation <0.099 | rate_local3 <0.508 | 64.928 | 0.8366 | 11.29 | 0.0321 | 3.972E-05 |  |
| 148  | prop_open_recreation <0.016 | rate_local3 <0.013 | 22.835 | 0.3012 | 10.789 | 0.1423 | 1.963E-05 |  |
| 149  | POI_den__telecom_elec <540.287 | rate_local3 <0.539 | 134.81 | 0.80 | 12.01 | 0.07 | 2.434E-06 |  |
| 150  | prop_over65 <0.140 | rate_local3 <0.403 | 35.086 | 0.8626 | 10.684 | 0.2627 | 7.471E-06 |  |
| 151  | prop_private_resid <0.221 | rate_local3 <0.287 | 44.728 | 0.6149 | 10.591 | 0.1456 | 7.794E-05 |  |
| 152  | ave_household_size >3.008 | rate_local3 <0.610 | 60.542 | 0.936 | 9.8406 | 0.1521 | 6.605E-05 |  |
| 153  | den_public_trans <89.817 | rate_local3 <0.518 | 133.97 | 0.7577 | 8.7898 | 0.0497 | 4.192E-05 |  |
| 154  | prop_business <0.037 | rate_local3 <0.510 | 132.89 | 0.7501 | 8.7862 | 0.0496 | 2.061E-05 |  |
| 155  | prop_industrial <0.003 | rate_local3 <0.486 | 31.377 | 0.9309 | 8.4727 | 0.1713 | 4.243E-05 |  |
| 156  | prop_preprim_edu <0.017 | rate_local3 <0.021 | 11.836 | 0.523 | 8.2401 | 0.3641 | 4.683E-07 |  |
| 157  | prop_private_resid >0.104 | rate_local3 <0.284 | 22.581 | 0.7428 | 7.9125 | 0.194 | 7.598E-05 |  |
| 158  | prop_household_3gen <0.058 | rate_local3 <0.013 | 13.594 | 0.3959 | 8.1391 | 0.2371 | 1.984E-05 |  |
| 159  | prop_private_resid >0.104 | rate_local3 <0.284 | 22.581 | 0.7428 | 7.9125 | 0.194 | 7.598E-05 |  |
| 160  | den_public_trans <89.817 | rate_local3 <0.515 | 143.72 | 0.7394 | 6.7434 | 0.0347 | 7.157E-05 |  |
### Rules for wave-3 local case rate: POI density was used

| No. | Antecedent | Consequent | Supp | Conf | Lev | Imp | P     |
|-----|------------|------------|------|------|-----|-----|-------|
| 1   | med_income <23455.645 (p78) & den_road >8.039 (p38) & LU_entropy <0.548 (p48) | rate_local4 >0.788 (p77) | 31.38 | 0.77 | 21.68 | 0.20 | 2.075E-06 |
| 2   | med_income <23474.184 (p78) & prop_grassland <0.022 (p47) & LU_entropy <0.554 (p50) | rate_local4 >0.796 (p77) | 31.02 | 0.76 | 21.50 | 0.19 | 3.727E-06 |
| 3   | den_population >18592.692 (p50) & prop_agricultural <0.010 (p59) & prop_shrubland <0.097 (p55) | rate_local4 >0.466 (p46) | 60.83 | 0.81 | 21.48 | 0.05 | 8.88E-06 |
| 4   | med_income <23183.658 (p78) & prop_transport >0.087 (p38) & LU_entropy <0.547 (p47) | rate_local4 >0.817 (p78) | 30.05 | 0.78 | 21.45 | 0.20 | 1.32E-05 |
| 5   | med_income <23814.728 (p78) & prop_agricultural <0.010 (p59) & prop_shrubland <0.097 (p55) | rate_local4 >0.431 (p43) | 63.92 | 0.84 | 21.01 | 0.05 | 1.296E-05 |
| 6   | med_income <23474.184 (p78) & prop_agricultural <0.010 (p59) & LU_entropy <0.554 (p50) | rate_local4 >0.792 (p77) | 32.26 | 0.68 | 21.00 | 0.18 | 2.647E-06 |
| 7   | med_income <23474.184 (p78) & prop_woodland <0.028 (p29) & LU_entropy <0.554 (p50) | rate_local4 >0.817 (p78) | 29.45 | 0.78 | 20.96 | 0.12 | 1.17E-05 |
| 8   | prop_transport >0.128 (p52) & LU_entropy <0.547 (p47) | rate_local4 >0.789 (p77) | 33.42 | 0.64 | 20.86 | 0.25 | 2.149E-08 |
| 9   | den_population >18592.692 (p50) & prop_shrubland <0.010 (p59) & prop_agricultural <0.012 (p60) | rate_local4 >0.466 (p46) | 61.21 | 0.79 | 20.82 | 0.05 | 3.644E-06 |
| 10  | med_income <22034.302 (p77) & den_bldg >0.134 (p42) & LU_entropy <0.547 (p47) | rate_local4 >0.806 (p78) | 29.56 | 0.77 | 20.78 | 0.21 | 2.809E-05 |
| 11  | med_income <24553.043 (p79) & LU_entropy <0.548 (p47) & POI_den_telecom_elec >223.612 (p65) | rate_local4 >0.811 (p78) | 29.89 | 0.74 | 20.74 | 0.18 | 1.844E-05 |
| 12  | den_population >17099.042 (p50) & prop_rural_set <0.039 (p71) & prop_shrubland <0.097 (p55) | rate_local4 >0.466 (p46) | 59.77 | 0.80 | 20.74 | 0.05 | 3.983E-06 |
| 13  | prop_grassland <0.017 (p43) & LU_entropy <0.547 (p47) | rate_local4 >0.803 (p78) | 33.11 | 0.61 | 20.56 | 0.20 | 3.356E-07 |
| 14  | prop_higher_edu <0.363 (p85) & den_road >8.189 (p38) & LU_entropy <0.548 (p48) | rate_local4 >0.808 (p78) | 30.14 | 0.71 | 20.41 | 0.14 | 5.557E-06 |
| 15  | med_income <22534.375 (p78) & LU_entropy <0.549 (p48) & POI_den_sports >368.773 (p64) | rate_local4 >0.621 (p79) | 28.85 | 0.76 | 20.39 | 0.19 | 5.263E-05 |
| 16  | den_road >9.940 (p47) & LU_entropy <0.548 (p48) | rate_local4 >0.788 (p77) | 34.15 | 0.59 | 20.36 | 0.21 | 1.063E-07 |
| 17  | med_income <23794.776 (p79) & prop_agricultural <0.017 (p64) & prop_shrubland <0.118 (p60) | rate_local4 >0.442 (p43) | 61.86 | 0.82 | 20.34 | 0.09 | 6.161E-05 |
19 $\text{med\_income} < 27018.204 \ (p84) \ & \text{prop\_rural\_set} < 0.024 \ (p65) \\
& \text{prop\_shrubland} < 0.118 \ (p60) \\
\text{rate\_local4} > 0.443 \ (p43) \\
58.54 \ 0.84 \ 20.32 \ 0.09 \ 3.687E-05

20 $\text{med\_income} < 24553.043 \ (p79) \ & \text{POI\_den\_mall\_mkt} > 163.832 \ (p69) \\
\text{rate\_local4} > 0.788 \ (p77) \\
32.02 \ 0.65 \ 20.24 \ 0.14 \ 4.493E-05

21 $\text{med\_income} < 21397.583 \ (p75) \ & \text{prop\_rural\_set} < 0.002 \ (p49) \\
& \text{LU\_entropy} < 0.549 \ (p48) \\
\text{rate\_local4} > 0.791 \ (p77) \\
29.43 \ 0.76 \ 20.21 \ 0.21 \ 1.275E-05

22 $\text{den\_bldg} > 0.162 \ (p47) \ & \text{LU\_entropy} < 0.546 \ (p47) \\
\text{rate\_local4} > 0.808 \ (p78) \\
28.67 \ 0.76 \ 20.06 \ 0.19 \ 2.302E-05

23 $\text{ave\_household\_size} < 2.934 \ (p63) \ & \text{prop\_agricultural} < 0.010 \ (p59) \\
& \text{LU\_entropy} < 0.558 \ (p50) \\
\text{rate\_local4} > 0.824 \ (p79) \\
31.12 \ 0.62 \ 20.12 \ 0.13 \ 3.923E-05

24 $\text{med\_area\_home} < 18.625 \ (p56) \ & \text{prop\_grassland} < 0.018 \ (p45) \\
& \text{LU\_entropy} < 0.550 \ (p48) \\
\text{rate\_local4} > 0.807 \ (p78) \\
27.81 \ 0.82 \ 20.10 \ 0.23 \ 5.435E-06

25 $\text{prop\_rural\_set} < 0.024 \ (p65) \ & \text{prop\_shrubland} < 0.110 \ (p58) \\
\text{med\_area\_home} < 19.189 \ (p61) \ & \text{den\_road} > 8.189 \ (p38) \\
& \text{LU\_entropy} < 0.548 \ (p48) \\
\text{rate\_local4} > 0.808 \ (p78) \\
59.45 \ 0.66 \ 20.09 \ 0.10 \ 1.347E-05

26 $\text{den\_population} > 18592.692 \ (p50) \ & \text{prop\_shrubland} < 0.097 \ (p55) \\
\text{rate\_local4} > 0.791 \ (p77) \\
35.32 \ 0.55 \ 19.91 \ 0.17 \ 3.676E-07

27 $\text{prop\_shrubland} < 0.021 \ (p37) \ & \text{LU\_entropy} < 0.543 \ (p46) \\
\text{rate\_local4} > 0.787 \ (p77) \\
32.28 \ 0.63 \ 20.02 \ 0.19 \ 6.655E-08

28 $\text{med\_income} < 24602.040 \ (p79) \ & \text{POI\_den\_transport} > 860.459 \ (p70) \\
\text{rate\_local4} > 0.783 \ (p76) \\
31.15 \ 0.68 \ 19.98 \ 0.13 \ 4.866E-05

29 $\text{med\_income} < 24606.472 \ (p79) \ & \text{POI\_den\_telecom\_elec} > 297.186 \ (p68) \\
\text{rate\_local4} > 0.792 \ (p77) \\
31.64 \ 0.64 \ 19.95 \ 0.14 \ 4.316E-05

30 $\text{med\_income} < 28797.450 \ (p84) \ & \text{prop\_grassland} < 0.005 \ (p29) \\
\text{ave\_household\_size} < 2.934 \ (p63) \ & \text{prop\_grassland} < 0.009 \ (p34) \\
& \text{LU\_entropy} < 0.558 \ (p50) \\
\text{rate\_local4} > 0.824 \ (p79) \\
28.39 \ 0.74 \ 19.93 \ 0.14 \ 6.342E-05

31 $\text{prop\_rural\_set} < 0.002 \ (p49) \ & \text{LU\_entropy} < 0.549 \ (p48) \\
\text{rate\_local4} > 0.791 \ (p77) \\
35.32 \ 0.55 \ 19.91 \ 0.17 \ 3.676E-07

32 $\text{den\_population} > 18592.692 \ (p50) \ & \text{prop\_shrubland} < 0.097 \ (p55) \\
\text{rate\_local4} > 0.526 \ (p56) \\
58.58 \ 0.69 \ 19.91 \ 0.09 \ 2.575E-05

33 $\text{med\_income} < 23474.184 \ (p78) \ & \text{prop\_woodland} < 0.015 \ (p24) \\
\text{rate\_local4} > 0.817 \ (p78) \\
29.11 \ 0.71 \ 19.91 \ 0.13 \ 3.975E-05

34 $\text{med\_income} < 23243.595 \ (p78) \ & \text{POI\_den\_sports} > 464.930 \ (p68) \\
\text{rate\_local4} > 0.804 \ (p78) \\
31.32 \ 0.63 \ 19.90 \ 0.14 \ 5.095E-05

35 $\text{med\_income} < 23878.187 \ (p79) \ & \text{LU\_entropy} < 0.551 \ (p49) \\
& \text{POI\_den\_edu} > 204.703 \ (p63) \\
\text{rate\_local4} > 0.822 \ (p79) \\
28.56 \ 0.73 \ 19.87 \ 0.18 \ 1.417E-05

36 $\text{den\_population} > 20156.904 \ (p52) \ & \text{den\_bldg} > 0.213 \ (p59) \\
\text{med\_income} < 23474.184 \ (p78) \ & \text{den\_public\_trans} > 16.405 \ (p50) \\
& \text{LU\_entropy} < 0.555 \ (p50) \\
\text{rate\_local4} > 0.817 \ (p78) \\
29.02 \ 0.70 \ 19.79 \ 0.15 \ 5.972E-05

37 $\text{med\_income} < 27485.399 \ (p84) \ & \text{prop\_transport} > 0.077 \ (p36) \\
& \text{prop\_agricultural} < 0.012 \ (p60) \\
\text{rate\_local4} > 0.394 \ (p39) \\
70.68 \ 0.84 \ 19.73 \ 0.06 \ 4.522E-05
40. `den_population >18592.692 (p50) &prop_aran <0.010 (p59)`
   
41. `prop_transport >0.106 (p45) &prop_aran <0.010 (p59)`
   `med_income <27485.399 (p84) &den_road >10.530 (p49)`
   
42. `rate_local4 >0.447 (p43)`
   `prop_agricultural <0.010 (p59)`
   `&prop_ran <0.009 (p59)`
   
43. `prop_aran <0.013 (p61) &prop_shrub <0.114 (p58)`
   `rate_local4 >0.442 (p43)`
   `med_area_home <18.625 (p56) &prop_shrub <0.137 (p65)`
   
44. `&LU_entropy <0.553 (p49)`
   `rate_local4 >0.807 (p78)`
   `27.63 0.79 19.59 0.20 2.112E-06`
   
45. `prop_woodland <0.098 (p47) &LU_entropy <0.543 (p46)`
   
46. `ave_household_size <2.942 (p63) &prop_shrub <0.146 (p67)`
   `&LU_entropy <0.553 (p49)`
   
47. `rate_local4 >0.804 (p78)`
   `27.68 0.77 19.44 0.19 2.949E-05`
   
48. `LU_entropy <0.546 (p47) &POI_den_telecom_elec >223.612 (p65)`
   `rate_local4 >0.817 (p78)`
   `32.28 0.56 19.43 0.13 4.9E-05`
   
49. `POI_den_transport >904.959 (p71)`
   `ave_household_size <2.826 (p49) &prop_rural <0.022 (p64)`
   
50. `&prop_shrub <0.125 (p61)`
   `rate_local4 >0.722 (p72)`
   `34.34 0.64 19.25 0.10 6.966E-05`
   
51. `den_road >16.034 (p70)`
   
52. `POI_den_mall_mkt >208.752 (p73)`
   `rate_local4 >0.759 (p74)`
   `35.84 0.56 19.14 0.30 2.191E-12`
   
53. `POI_den_sports >598.644 (p72)`
   `rate_local4 >0.753 (p74)`
   `34.64 0.58 19.11 0.32 1.821E-11`
   
54. `&LU_entropy <0.553 (p49)`
   `rate_local4 >0.797 (p77)`
   `27.09 0.80 19.10 0.18 6.196E-05`
   
55. `med_area_home <18.625 (p56) &prop_woodland <0.084 (p42)`
   
56. `&LU_entropy <0.550 (p49)`
   `rate_local4 >0.807 (p78)`
   `26.53 0.81 19.00 0.22 1.544E-05`
   
57. `LU_entropy <0.548 (p48) &POI_den_educ >204.703 (p63)`
   `rate_local4 >0.788 (p77)`
   `32.48 0.57 18.90 0.14 5.243E-05`
   
58. `med_income <27504.973 (p84) &den_public_trans >16.600 (p50)`
   
59. `&prop_woodland <0.099 (p55)`
   `rate_local4 >0.437 (p43)`
   `60.87 0.81 18.88 0.07 4.031E-05`
   
60. `prop_woodland <0.111 (p50) &POI_den_educ >253.687 (p65)`
   `rate_local4 >0.761 (p74)`
   `32.92 0.60 18.77 0.10 7.123E-05`
   
61. `den_population >19181.514 (p50) &LU_entropy <0.547 (p47)`
   `rate_local4 >0.748 (p74)`
   `31.41 0.66 18.75 0.25 2.886E-08`
   
62. `prop_agricultural <0.002 (p47) &LU_entropy <0.543 (p46)`
   `rate_local4 >0.811 (p78)`
   `32.48 0.53 18.69 0.16 1.313E-05`
   
63. `prop_agricultural <0.000 (p37)`
   `rate_local4 >0.709 (p71)`
   `41.79 0.53 18.66 0.24 1.304E-10`
   
64. `POI_den_telecom_elec >374.340 (p72)`
   
65. `rate_local4 >0.741 (p74)`
   `34.54 0.58 18.63 0.31 9.927E-12`
   
66. `den_public_trans >16.405 (p50) &LU_entropy <0.555 (p50)`
   
67. `rate_local4 >0.790 (p77)`
   `32.08 0.57 18.56 0.20 2.016E-08`
   
68. `prop_transport >0.103 (p43) &prop_woodland <0.119 (p52)`
   
69. `rate_local4 >0.760 (p74)`
   `40.00 0.48 18.52 0.10 2.999E-05`
| ID | Condition                                                                 | Rate Local | 0.722 (p72) | 0.63 | 18.42 | 0.10 | 3.786E-05 |
|----|----------------------------------------------------------------------------|------------|--------------|------|-------|------|------------|
| 65 | ave_household_size <2.826 (p49) & prop_rural_set <0.047 (p73) & prop_grassland <0.030 (p54) | rate_local4 >0.722 (p72) | 33.27 | 0.63 | 18.42 | 0.10 | 3.786E-05 |
| 66 | den_bldg >0.240 (p64)                                                    | rate_local4 >0.681 (p70) | 42.91 | 0.55 | 18.42 | 0.24 | 2.469E-09 |
| 67 | med_income <24159.180 (p79) & den_bldg >0.291 (p72)                      | rate_local4 >0.784 (p76) | 29.39 | 0.63 | 18.17 | 0.13 | 2.873E-05 |
| 68 | prop_grassland <0.030 (p54)                                              | rate_local4 >0.786 (p77) | 29.80 | 0.62 | 18.15 | 0.38 | 9.845E-13 |
| 69 | med_income <24553.043 (p79) & prop_rural_set <0.047 (p73) & prop_grassland <0.030 (p54) | rate_local4 >0.847 (p80) | 30.50 | 0.52 | 18.11 | 0.11 | 6.863E-05 |
| 70 | prop_rural_set <0.050 (p73)                                              | rate_local4 >0.777 (p76) | 27.26 | 0.72 | 17.87 | 0.47 | 1.265E-13 |
| 71 | rate_local4 >0.784 (p76)                                                 | rate_local4 >0.786 (p77) | 29.80 | 0.62 | 18.15 | 0.38 | 9.845E-13 |
| 72 | prop_rural_set <0.050 (p73)                                              | rate_local4 >0.847 (p80) | 30.50 | 0.52 | 18.11 | 0.11 | 6.863E-05 |
| 73 | med_income <24553.043 (p79) & POI_den_edu >218.294 (p64)                 | rate_local4 >0.847 (p80) | 30.50 | 0.52 | 18.11 | 0.11 | 6.863E-05 |
| 74 | rate_local4 >0.784 (p76)                                                 | rate_local4 >0.786 (p77) | 29.80 | 0.62 | 18.15 | 0.38 | 9.845E-13 |
| 75 | rate_local4 >0.847 (p80)                                                 | rate_local4 >0.847 (p80) | 30.50 | 0.52 | 18.11 | 0.11 | 6.863E-05 |
| 76 | med_income <24159.180 (p79) & den_bldg >0.291 (p72)                      | rate_local4 >0.784 (p76) | 29.39 | 0.63 | 18.17 | 0.13 | 2.873E-05 |
| 77 | prop_grassland <0.030 (p54)                                              | rate_local4 >0.786 (p77) | 29.80 | 0.62 | 18.15 | 0.38 | 9.845E-13 |
| 78 | med_income <24553.043 (p79) & prop_rural_set <0.047 (p73) & prop_grassland <0.030 (p54) | rate_local4 >0.847 (p80) | 30.50 | 0.52 | 18.11 | 0.11 | 6.863E-05 |
| 79 | rate_local4 >0.784 (p76)                                                 | rate_local4 >0.786 (p77) | 29.80 | 0.62 | 18.15 | 0.38 | 9.845E-13 |
| 80 | prop_rural_set <0.050 (p73)                                              | rate_local4 >0.847 (p80) | 30.50 | 0.52 | 18.11 | 0.11 | 6.863E-05 |
| 81 | med_income <24553.043 (p79) & POI_den_edu >218.294 (p64)                 | rate_local4 >0.847 (p80) | 30.50 | 0.52 | 18.11 | 0.11 | 6.863E-05 |
| 82 | rate_local4 >0.784 (p76)                                                 | rate_local4 >0.786 (p77) | 29.80 | 0.62 | 18.15 | 0.38 | 9.845E-13 |
| 83 | prop_rural_set <0.050 (p73)                                              | rate_local4 >0.847 (p80) | 30.50 | 0.52 | 18.11 | 0.11 | 6.863E-05 |
| 84 | den_bldg >0.240 (p64)                                                    | rate_local4 >0.681 (p70) | 42.91 | 0.55 | 18.42 | 0.24 | 2.469E-09 |
| 85 | med_income <24159.180 (p79) & den_bldg >0.291 (p72)                      | rate_local4 >0.784 (p76) | 29.39 | 0.63 | 18.17 | 0.13 | 2.873E-05 |
| 86 | prop_grassland <0.030 (p54)                                              | rate_local4 >0.786 (p77) | 29.80 | 0.62 | 18.15 | 0.38 | 9.845E-13 |
| 87 | med_income <24553.043 (p79) & prop_rural_set <0.047 (p73) & prop_grassland <0.030 (p54) | rate_local4 >0.847 (p80) | 30.50 | 0.52 | 18.11 | 0.11 | 6.863E-05 |
| 88 | den_bldg >0.240 (p64)                                                    | rate_local4 >0.681 (p70) | 42.91 | 0.55 | 18.42 | 0.24 | 2.469E-09 |
| 89 | med_income <24553.043 (p79) & prop_rural_set <0.047 (p73) & prop_grassland <0.030 (p54) | rate_local4 >0.847 (p80) | 30.50 | 0.52 | 18.11 | 0.11 | 6.863E-05 |
| 90 | rate_local4 >0.784 (p76)                                                 | rate_local4 >0.786 (p77) | 29.80 | 0.62 | 18.15 | 0.38 | 9.845E-13 |
| 91 | med_income <24553.043 (p79) & POI_den_edu >218.294 (p64)                 | rate_local4 >0.847 (p80) | 30.50 | 0.52 | 18.11 | 0.11 | 6.863E-05 |
92 med_income <26724.437 (p83) & den_road > 18.654 (p77) & rate_local4 > 0.801 (p78) 
93 ave_household_size < 2.779 (p37) & prop_rural_set < 0.004 (p51) & rate_local4 > 0.708 (p71) 
94 med_income < 21422.604 (p75) & prop_shrubland < 0.121 (p60) & rate_local4 > 0.545 (p57) 
95 prop_transport > 0.224 (p69) & rate_local4 > 0.799 (p77) 
96 med_income < 23474.184 (p78) & prop_open_recreation > 0.029 (p47) &LU_entropy < 0.554 (p50) & rate_local4 > 0.792 (p77) 
97 ave_household_size < 2.749 (p37) & prop_grassland < 0.008 (p32) & rate_local4 > 0.847 (p80) 
98 prop_private_resid > 0.060 (p55) & rate_local4 > 0.787 (p77) 
99 ave_household_size < 2.749 (p37) & prop_agricultural < 0.001 (p44) & rate_local4 > 0.720 (p71) 
100 ave_household_size < 2.779 (p37) & prop_shrubland < 0.076 (p51) & rate_local4 > 0.708 (p71) 
101 med_income < 23824.720 (p79) & prop_private_resid > 0.097 (p65) & rate_local4 > 0.799 (p77) 
102 den_public_trans > 22.586 (p56) & prop_shrubland < 0.099 (p55) & rate_local4 > 0.437 (p43) 
103 ave_household_size < 2.792 (p37) & den_population > 15122.431 (p46) & prop_rural_set < 0.008 (p56) & rate_local4 > 0.565 (p60) 
104 med_income < 27224.417 (p84) & den_bldg > 0.169 (p50) & prop_industrial < 0.000 (p43) & rate_local4 > 0.900 (p81) 
105 den_population > 29701.369 (p63) & rate_local4 > 0.428 (p42) 
106 med_income < 24215.184 (p79) & prop_industrial < 0.000 (p0) & rate_local4 > 0.910 (p81) &POL_den_edu > 218.294 (p64) 
107 build_area_pp < 190.427 (p88) & prop_agricultural < 0.014 (p61) & rate_local4 > 0.304 (p29) &LU_entropy < 0.528 (p40) 
108 med_area_home < 19.541 (p61) & prop_agricultural < 0.007 (p55) & rate_local4 > 0.686 (p70) 
109 med_income < 24831.420 (p79) & prop_publicResid < 0.037 (p70) & rate_local4 > 0.829 (p79) & prop_transport > 0.123 (p50) 
110 med_income < 26859.289 (p83) & den_bldg > 0.104 (p35) & rate_local4 > 0.336 (p35) & prop_shrubland < 0.125 (p61) 
111 med_income < 24553.043 (p79) & prop_industrial < 0.000 (p0) & prop_woodland < 0.070 (p37) & rate_local4 > 0.869 (p80) 
112 med_income < 24553.043 (p79) & den_road > 12.323 (p57) & rate_local4 > 0.893 (p81) & prop_industrial < 0.000 (p0) 
113 med_income < 23474.184 (p78) & prop_open_recreation > 0.029 (p47) &LU_entropy < 0.554 (p50) & rate_local4 > 0.792 (p77) 
114 ave_household_size < 2.749 (p37) & prop_grassland < 0.008 (p32) & rate_local4 > 0.847 (p80) 
115 ave_household_size < 2.749 (p37) & prop_agricultural < 0.001 (p44) & rate_local4 > 0.720 (p71) 
116 ave_household_size < 2.779 (p37) & prop_private_resid > 0.097 (p65) & rate_local4 > 0.847 (p80) 
117 med_income < 24215.184 (p79) & prop_private_resid > 0.097 (p65) & rate_local4 > 0.799 (p77) 
118 den_public_trans > 22.586 (p56) & prop_private_resid > 0.099 (p55) & rate_local4 > 0.437 (p43) 
119 ave_household_size < 2.792 (p37) & den_population > 15122.431 (p46) & prop_rural_set < 0.008 (p56) & rate_local4 > 0.565 (p60) 
120 med_income < 27224.417 (p84) & den_bldg > 0.169 (p50) & prop_industrial < 0.000 (p43) & rate_local4 > 0.900 (p81) 
121 den_population > 29701.369 (p63) & rate_local4 > 0.428 (p42) 
122 med_income < 24215.184 (p79) & prop_industrial < 0.000 (p0) & rate_local4 > 0.910 (p81) &POL_den_edu > 218.294 (p64) 
123 build_area_pp < 190.427 (p88) & prop_agricultural < 0.014 (p61) & rate_local4 > 0.304 (p29) &LU_entropy < 0.528 (p40) 
124 med_area_home < 19.541 (p61) & prop_agricultural < 0.007 (p55) & rate_local4 > 0.686 (p70) 
125 med_income < 24831.420 (p79) & prop_publicResid < 0.037 (p70) & rate_local4 > 0.829 (p79) & prop_transport > 0.123 (p50) 
126 med_income < 26859.289 (p83) & den_bldg > 0.104 (p35) & rate_local4 > 0.336 (p35) & prop_shrubland < 0.125 (p61) 
127 med_income < 24553.043 (p79) & prop_industrial < 0.000 (p0) & prop_woodland < 0.070 (p37) & rate_local4 > 0.869 (p80) 
128 med_income < 24553.043 (p79) & den_road > 12.323 (p57) & rate_local4 > 0.893 (p81) & prop_industrial < 0.000 (p0)
|   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|
| 113 | ave_household_size <2.904 (p63) | &prop_private_resid >0.075 (p60) | &LU_entropy <0.553 (p49) | rate_local4 >0.809 (p78) | 22.81 | 0.77 | 16.02 | 0.21 | 3.412E-05 |
| 114 | med_income <24831.420 (p79) | &prop_publicResid <0.037 (p70) | &prop_shrubland <0.021 (p37) | rate_local4 >0.846 (p80) | 23.43 | 0.66 | 16.01 | 0.17 | 7.987E-05 |
| 115 | prop_open_recreation >0.029 (p47) | &LU_entropy <0.554 (p50) | rate_local4 >0.792 (p77) | 27.94 | 0.55 | 15.87 | 0.18 | 2.402E-05 |
| 116 | med_income <24553.043 (p79) | &prop_industrial <0.000 (p0) | rate_local4 >0.869 (p80) | 21.47 | 0.73 | 15.62 | 0.21 | 8.15E-05 |
| 117 | prop_open_recreation <0.000 (p0) | &prop_shrubland <0.037 (p41) | rate_local4 >0.792 (p77) | 27.94 | 0.55 | 15.87 | 0.18 | 2.402E-05 |
| 118 | med_income <24553.043 (p79) | &prop_industrial <0.000 (p0) | rate_local4 >0.869 (p80) | 21.47 | 0.73 | 15.62 | 0.21 | 8.15E-05 |
| 119 | prop_shrubland <0.037 (p41) | rate_local4 >0.869 (p80) | 23.98 | 0.59 | 15.58 | 0.22 | 1.603E-05 |
| 120 | med_income <27750.705 (p84) | &prop_industrial <0.001 (p48) | rate_local4 >0.366 (p36) | 72.86 | 0.81 | 15.57 | 0.05 | 6.584E-05 |
| 121 | med_income <27423.226 (p84) | &prop_industrial <0.001 (p48) | rate_local4 >0.919 (p81) | 23.02 | 0.55 | 15.47 | 0.17 | 2.014E-05 |
| 122 | med_income <28872.090 (p84) | &prop_rural_set <0.050 (p74) | rate_local4 >0.297 (p29) | 70.24 | 0.90 | 15.44 | 0.05 | 2.952E-05 |
| 123 | med_area_home <17.020 (p52) | &prop_rural_set <0.040 (p71) | rate_local4 >0.309 (p30) | 69.21 | 0.89 | 15.41 | 0.05 | 7.014E-06 |
| 124 | med_income <23475.477 (p78) | &prop_rural_set >10.922 (p51) | rate_local4 >0.878 (p80) | 22.54 | 0.62 | 15.40 | 0.21 | 5.402E-05 |
| 125 | med_area_home <17.020 (p52) | &prop_rural_set <0.040 (p71) | rate_local4 >0.309 (p30) | 69.21 | 0.89 | 15.41 | 0.05 | 7.014E-06 |
| 126 | med_area_home <17.020 (p52) | &prop_rural_set <0.050 (p74) | rate_local4 >0.297 (p29) | 70.24 | 0.90 | 15.44 | 0.05 | 2.952E-05 |
| 127 | med_income <24792.419 (p79) | &prop_industrial <0.001 (p50) | rate_local4 >0.964 (p84) | 21.99 | 0.54 | 15.38 | 0.18 | 3.553E-05 |
| 128 | med_income <24553.043 (p79) | &prop_industrial <0.000 (p0) | rate_local4 >0.339 (p35) | 64.53 | 0.87 | 15.35 | 0.08 | 5.209E-05 |
| 129 | med_income <24054.127 (p79) | &prop_publicTrans >18.631 (p53) | rate_local4 >0.774 (p75) | 24.08 | 0.68 | 15.33 | 0.19 | 4.364E-05 |
| 130 | med_area_home <17.020 (p52) | &prop_agricultural <0.012 (p60) | rate_local4 >0.329 (p33) | 70.04 | 0.86 | 15.30 | 0.09 | 6.1E-05 |
| 131 | ave_household_size <2.904 (p63) | &prop_private_resid >0.090 (p64) | rate_local4 >0.792 (p77) | 25.32 | 0.60 | 15.28 | 0.18 | 4.788E-05 |
| 132 | ave_household_size <2.904 (p63) | &prop_private_resid >0.090 (p64) | rate_local4 >0.792 (p77) | 25.32 | 0.60 | 15.28 | 0.18 | 4.788E-05 |
| Equation                                                                 | Rate Local4 | p | 15 | 16 | 17 | 18 | 19 | 20 |
|-------------------------------------------------------------------------|-------------|---|----|----|----|----|----|----|
| med_income <23878.187 (p79) & den_population >20544.461 (p52)           | 21.80       | 0.76 | 15.16 | 0.13 | 4.218E-05 |
| &LU_entropy <0.514 (p38)                                               |             |    |     |    |    |    |    |    |
| ave_household_size <2.749 (p37) & prop_industrial <0.000 (p0)          | 22.60       | 0.62 | 14.96 | 0.25 | 1.409E-05 |
| prop_higher_edu <0.331 (p79) & prop_rural_set <0.039 (p71)             | 61.36       | 0.91 | 14.70 | 0.07 | 1.427E-05 |
| & prop_shrubland <0.122 (p60)                                        |             |    |     |    |    |    |    |    |
| den_road >8.269 (p39) & prop_shrubland <0.145 (p67)                    | 86.89       | 0.73 | 14.69 | 0.03 | 7.999E-05 |
| prop_over65 >0.114 (p15) & den_public_trans >29.911 (p62)               | 59.72       | 0.85 | 14.53 | 0.04 | 8.011E-05 |
| rate_local4 >0.811 (p78)                                              | 102.18      | 0.88 | 14.45 | 0.02 | 4.721E-05 |
| prop_household_3gen <0.078 (p91) & prop_transport >0.093 (p39)          | 24.10       | 0.50 | 14.45 | 0.16 | 4.661E-05 |
| & prop_publicResid <0.023 (p66)                                         |             |    |     |    |    |    |    |    |
| prop_higher_edu <0.379 (p87) & prop_shrubland <0.181 (p78)             | 87.77       | 0.84 | 14.44 | 0.02 | 4.164E-05 |
| & prop_grassland <0.047 (p61)                                         |             |    |     |    |    |    |    |    |
| den_bldg >0.104 (p35) & prop_shrubland <0.145 (p67)                    | 90.66       | 0.72 | 14.42 | 0.04 | 1.077E-06 |
| prop_preprim_edu <0.148 (p90) & med_income <23790.502 (p79)             | 81.46       | 0.92 | 14.38 | 0.03 | 4.948E-05 |
| & prop_grassland <0.040 (p59)                                         |             |    |     |    |    |    |    |    |
| build_area_pp <104.067 (p69) & prop_rural_set <0.046 (p73)              | 74.57       | 0.87 | 14.29 | 0.05 | 5.959E-05 |
| & prop_shrubland <0.213 (p82)                                         |             |    |     |    |    |    |    |    |
| prop_higher_edu <0.361 (p84) & den_bldg >0.197 (p55)                    | 34.63       | 0.44 | 14.26 | 0.18 | 1.071E-05 |
| & prop_private_resid >0.091 (p64)                                       |             |    |     |    |    |    |    |    |
| prop_higher_edu <0.361 (p84) & den_bldg >0.197 (p55)                    | 20.45       | 0.63 | 14.12 | 0.15 | 1.826E-05 |
| & prop_industrial <0.000 (p0)                                          |             |    |     |    |    |    |    |    |
| med_income <21397.583 (p75) & prop_publicResid <0.011 (p61)             | 20.92       | 0.73 | 14.08 | 0.25 | 8.326E-05 |
| & prop_rural_set <0.002 (p49)                                          |             |    |     |    |    |    |    |    |
| med_income <31100.793 (p88) & den_road >11.705 (p54)                    | 69.48       | 0.89 | 14.08 | 0.01 | 7.267E-05 |
| & prop_shrubland <0.149 (p68)                                          |             |    |     |    |    |    |    |    |
| med_area_home <16.868 (p50) & prop_grassland <0.003 (p23)               | 19.64       | 0.69 | 14.07 | 0.15 | 2.445E-05 |
| & prop_higher_edu <0.379 (p50)                                         |             |    |     |    |    |    |    |    |
| med_income <28097.287 (p84) & prop_shrubland <0.181 (p78)               | 86.48       | 0.87 | 14.03 | 0.02 | 1.325E-05 |
| & prop_grassland <0.047 (p61)                                          |             |    |     |    |    |    |    |    |
| LU_entropy <0.545 (p46)                                                | 35.12       | 0.36 | 14.02 | 0.14 | 1.637E-08 |
| med_area_home <17.698 (p54) & den_public_trans >17.842 (p52)            | 69.63       | 0.90 | 13.83 | 0.01 | 4.31E-06 |
| & prop_shrubland <0.226 (p84)                                          |             |    |     |    |    |    |    |    |
| prop_higher_edu <0.379 (p87) & den_road >10.254 (p48)                    | 79.35       | 0.87 | 13.71 | 0.04 | 3.768E-05 |
| & prop_utilities <0.003 (p36)                                          |             |    |     |    |    |    |    |    |
| den_road >10.435 (p49) & prop_publicResid <0.014 (p62)                  | 22.41       | 0.64 | 13.64 | 0.25 | 6.063E-05 |
| & prop_publicTrans >23.156 (p57)                                        |             |    |     |    |    |    |    |    |
| prop_higher_edu <0.361 (p84) & den_road >10.254 (p48)                    | 23.02       | 0.52 | 13.63 | 0.17 | 4.873E-05 |
prop_higher_edu <0.322 (p79) & den_bldg >0.167 (p49)
  & prop_shrubland <0.156 (p70)
med_income =28423.363 (p84) & med_area_home =17.098 (p52)
  & prop_rural_set <0.009 (p57)
med_area_home <17.698 (p54) & den_public_trans >17.842 (p52)
ave_household_size <2.681 (p29)
med_income <28423.363 (p84) & med_area_home <17.098 (p52)
  & prop_rural_set <0.009 (p57)
rate_local4 >0.282 (p28)  67.06  0.89  13.35  0.01  1.947E-05
rate_local4 >0.260 (p25)  65.56  0.92  13.18  0.01  7.784E-05
rate_local4 >0.275 (p28)  71.04  0.89  13.15  0.05  5.01E-05
rate_local4 >0.282 (p28)  27.71  0.42  13.00  0.20  3.338E-06
rate_local4 >0.823 (p79)  18.55  0.67  13.00  0.21  3.075E-05
rate_local4 >0.379 (p84)  68.29  0.84  12.99  0.03  5.879E-05
rate_local4 >0.274 (p28)  23.15  0.62  12.94  0.09  1.544E-05
rate_local4 >0.737 (p74)  36.25  0.86  12.84  0.09  2.202E-05
rate_local4 >0.274 (p28)  65.93  0.87  12.79  0.06  2.328E-05
rate_local4 >1.030 (p86)  23.89  0.31  12.74  0.17  2.01E-07
rate_local4 >0.282 (p28)  68.11  0.88  12.72  0.04  2.493E-05
rate_local4 >0.274 (p28)  68.29  0.89  12.95  0.09  1.139E-05
rate_local4 >0.737 (p74)  21.15  0.66  12.49  0.29  4.188E-06
rate_local4 >0.824 (p79)  16.81  0.84  12.42  0.47  4.118E-07
rate_local4 >0.262 (p25)  65.42  0.91  12.39  0.04  5.906E-05
rate_local4 >0.793 (p77)  20.32  0.61  12.29  0.21  2.597E-05
rate_local4 >0.300 (p29)  51.18  0.92  12.23  0.03  5.311E-06
rate_local4 >0.827 (p79)  19.33  0.59  12.19  0.24  5.111E-05
rate_local4 >0.799 (p77)  17.87  0.73  12.15  0.28  5.208E-05
rate_local4 >0.737 (p74)  20.96  0.64  12.10  0.25  5.319E-05
rate_local4 >0.302 (p29)  51.20  0.92  12.08  0.02  4.581E-05
rate_local4 >0.278 (p28)  86.24  0.84  11.89  0.03  8.105E-05
rate_local4 >0.289 (p29)  53.79  0.91  11.87  0.08  8.878E-06
rate_local4 >0.302 (p29)  48.67  0.92  11.77  0.01  1.533E-05
rate_local4 >0.534 (p56)  73.40  0.53  11.48  0.08  5.687E-05
| Equation | Description |
|----------|-------------|
| $\text{prop\_utilities} < 0.003 \ (p36) \ & \text{prop\_grassland} < 0.019 \ (p45)$ | rate\_local4 > 0.843 \ (p80) |
| $\text{med\_income} < 28905.229 \ (p84) \ & \text{prop\_private\_resid} > 0.093 \ (p65) \ & \text{prop\_shrubland} < 0.149 \ (p68)$ | rate\_local4 > 0.294 \ (p29) |
| $\text{ave\_household\_size} < 2.794 \ (p37) \ & \text{prop\_gov\_insti\_faci} > 0.025 \ (p36)$ | rate\_local4 > 0.843 \ (p80) |
| $\text{den\_population} > 52299.793 \ (p79) \ & \text{build\_area\_pp} < 93.205 \ (p63)$ | rate\_local4 > 0.294 \ (p29) |
| $\text{med\_area\_home} < 15.396 \ (p45)$ | rate\_local4 > 0.294 \ (p29) |
| $\text{POI\_den\_edu} = 448.921 - 1372.584 \ (p78-94)$ | rate\_local4 > 0.751 \ (p74) |
| $\text{med\_area\_home} < 17.327 \ (p52) \ & \text{prop\_public\_Resid} < 0.000 \ (p0)$ | rate\_local4 > 0.903 \ (p81) |
| $\text{den\_public\_trans} > 99.082 \ (p92)$ | rate\_local4 > 0.847 \ (p80) |
| $\text{prop\_household\_3gen} < 0.080 \ (p92)$ | rate\_local4 > 0.847 \ (p80) |
| $\text{prop\_preprim\_edu} < 0.137 \ (p86-93)$ | rate\_local4 > 0.847 \ (p80) |
| $\text{gender\_ratio} < 87.319 \ (p11)$ | rate\_local4 > 8.69 \ (p70) |
| $\text{prop\_preprim\_edu} < 0.155 \ (p91) \ & \text{LU\_entropy} > 0.544 \ (p46)$ | rate\_local4 > 8.69 \ (p70) |
| $\text{den\_road} < 16.849 \ (p72)$ | rate\_local4 > 8.69 \ (p70) |
| $\text{prop\_preprim\_edu} < 0.146 \ (p91) \ & \text{POI\_den\_telecom\_elec} < 326.218 \ (p70)$ | rate\_local4 > 8.69 \ (p70) |
| $\text{prop\_preprim\_edu} < 0.155 \ (p91) \ & \text{POI\_den\_mall\_mkt} < 265.556 \ (p77)$ | rate\_local4 > 8.69 \ (p70) |
| $\text{prop\_household\_3gen} < 0.080 \ (p92) \ & \text{POI\_den\_sports} < 650.387 \ (p75)$ | rate\_local4 > 8.69 \ (p70) |
| $\text{gender\_ratio} > 87.639 \ (p11)$ | rate\_local4 > 8.69 \ (p70) |

**Note:** The above equations are placeholders and do not represent real data or analysis. The text explores various statistical relationships and rates between different variables, but the specific values and rates are not provided as they are likely to be part of a larger dataset or analysis not shown here.
206 LU_entropy >0.545 (p46)
rate_local4 = 0.183-0.840 (p16-79)
88.77 0.77 17.65 0.15 2.551E-09

207 prop_preprim_edu <0.155 (p91) & POI_den_edu <451.677 (p78)
rate_local4 = 0.099-0.831 (p13-79)
110.24 0.77 17.39 0.05 1.909E-05

208 prop_preprim_edu <0.155 (p91) & ave_household_size >2.699 (p29)
rate_local4 = 0.108-0.823 (p13-79)
103.33 0.77 17.19 0.03 6.644E-05

209 prop_preprim_edu <0.155 (p91) & den_public_trans <57.487 (p82)
rate_local4 = 0.099-0.831 (p13-79)
119.01 0.76 17.18 0.04 7.471E-05

210 gender_ratio >87.341 (p11) & LU_entropy >0.510 (p36)
rate_local4 = 0.132-0.854 (p14-80)
95.90 0.79 17.17 0.04 2.066E-05

211 prop_household_3gen <0.080 (p92) & POI_den_edu <450.512 (p78)
rate_local4 = 0.099-0.831 (p13-79)
112.64 0.76 16.51 0.04 3.931E-05

212 gender_ratio >87.319 (p11) & ave_household_size >2.693 (p29)
rate_local4 = 0.150-0.840 (p15-79)
97.65 0.75 16.43 0.04 5.746E-05

213 prop_preprim_edu <0.155 (p91) & den_bldg <0.401 (p82)
rate_local4 = 0.108-0.823 (p13-79)
106.85 0.74 15.50 0.04 8.169E-05

214 prop_preprim_edu <0.126 (p82) & prop_business <0.030 (p84)
rate_local4 = 0.087-0.797 (p13-85)
112.73 0.71 17.55 0.04 2.823E-05

215 gender_ratio >87.236 (p11) & den_public_trans <68.524 (p86)
rate_local4 = 0.127-0.819 (p14-78)
117.02 0.73 15.28 0.04 2.348E-05

216 gender_ratio >87.511 (p11) & den_road <25.616 (p91)
rate_local4 = 0.123-0.723 (p14-72)
111.68 0.67 15.26 0.04 3.822E-05

217 ave_household_size >2.681 (p29)
rate_local4 = 0.108-0.823 (p13-79)
108.28 0.73 13.76 0.09 6.903E-05

218 build_area_pp <154.967 (p85)
rate_local4 = 0.254-1.043 (p24-86)
121.92 0.68 12.49 0.07 1.507E-06

219 den_road =9.806-16.034 (p46-70)
rate_local4 = 0.157-0.759 (p15-74)
41.65 0.81 11.52 0.22 6.043E-05

220 prop_publicResid >0.054 (p72)
rate_local4 = 0.248-1.078 (p23-87)
47.53 0.81 10.54 0.18 2.482E-05

221 prop_transport =0.104-0.224 (p44-69)
rate_local4 = 0.174-0.799 (p16-77)
40.99 0.79 9.72 0.19 6.883E-05

222 den_bldg =0.135-0.240 (p42-64)
rate_local4 = 0.186-0.681 (p16-70)
34.08 0.73 9.65 0.21 4.157E-05

223 den_public_trans >16.405 (p50) & LU_entropy >0.625 (p67)
rate_local4 = 0.282-0.790 (p28-77)
22.41 0.66 5.94 0.11 5.73E-05

224 den_public_trans <44.105 (p77) & POI_den_mall_mkt <249.510 (p76)
rate_local4 = 0.720 (p71)
124.37 0.87 22.13 0.04 1.753E-05

225 den_public_trans <40.100 (p73) & POI_den_sports <807.470 (p78)
rate_local4 = 0.711 (p71)
120.16 0.87 21.85 0.05 2.101E-06

226 den_road >17.821 (p75) & den_public_trans <51.003 (p79)
rate_local4 = 0.698 (p70)
126.17 0.85 21.85 0.03 5.487E-06

227 den_public_trans <46.718 (p78) & POI_den_telecom_elec <494.553 (p78)
rate_local4 = 0.711 (p71)
125.44 0.86 21.83 0.05 9.692E-06

228 den_public_trans <40.100 (p73) & POI_den_transport <1274.302 (p77)
rate_local4 = 0.711 (p71)
120.28 0.87 21.81 0.05 7.691E-06

229 den_public_trans <49.010 (p79) & POI_den_edu <598.811 (p80)
rate_local4 = 0.735 (p74)
131.57 0.87 21.49 0.05 2.107E-05

230 den_bldg <0.312 (p75) & den_public_trans <49.010 (p79)
rate_local4 = 0.715 (p71)
124.37 0.85 20.42 0.04 3.894E-05

231 den_bldg <0.313 (p75) & POI_den_edu <448.921 (p78)
rate_local4 = 0.753 (p74)
126.52 0.88 19.83 0.03 6.557E-05
232 den_road <18.030 (p76) & prop_business <0.063 (p87) & rate_local4 <0.698 (p70) 
233 prop_business <0.063 (p87) & POI_den_edu <506.706 (p79) & rate_local4 <0.784 (p76) 
234 den_bldg <0.330 (p77) & POI_den_sports <958.635 (p81) & rate_local4 <0.766 (p74) 
235 POI_den_transport <904.959 (p71) & rate_local4 <0.726 (p73) 
236 POI_den_sports <598.644 (p72) & rate_local4 <0.751 (p74) 
237 POI_den_mall_mkt <208.752 (p73) & rate_local4 <0.753 (p74) 
238 den_bldg <0.330 (p77) & POI_den_transport <1601.585 (p81) & rate_local4 <0.766 (p74) 
239 den_population <35216.647 (p66) & den_public_trans <40.100 (p73) & rate_local4 <0.715 (p71) 
240 den_bldg <0.330 (p77) & den_road <20.312 (p81) & rate_local4 <0.766 (p74) 
241 POI_den_telecom_elec <374.340 (p72) & rate_local4 <0.741 (p74) 
242 den_bldg <0.312 (p75) & POI_den_mall_mkt <474.871 (p86) & rate_local4 <0.767 (p74) 
243 den_bldg <0.341 (p77) & POI_den_telecom_elec <755.639 (p85) & rate_local4 <0.758 (p74) 
244 POI_den_sports <820.348 (p78) & POI_den_edu <442.307 (p78) & rate_local4 <0.755 (p74) 
245 prop_business <0.063 (p87) & POI_den_sports <1059.151 (p82) & rate_local4 <0.784 (p76) 
246 prop_business <0.051 (p86) & POI_den_transport <1601.585 (p81) & rate_local4 <0.766 (p74) 
247 den_population <36883.552 (p68) & prop_business <0.065 (p87) & rate_local4 <0.736 (p74) 
248 prop_business <0.057 (p86) & POI_den_telecom_elec <653.258 (p82) & rate_local4 <0.825 (p79) 
249 den_population <7339.493 (p37) & rate_local4 <0.177 (p16) 
250 den_road <25.616 (p91) & POI_den_edu <396.631 (p76) & rate_local4 <0.835 (p79) 
251 POI_den_edu <448.921 (p78) & rate_local4 <0.751 (p74) 
252 POI_den_edu <448.921 (p78) & POI_den_mall_mkt <311.791 (p78) & rate_local4 <0.725 (p73) 
253 prop_shrubland >0.064 (p49) & rate_local4 <0.777 (p76) 
254 prop_private_resid <0.114 (p69) & prop_publicResid <0.033 (p69) & rate_local4 <0.183 (p16) 
255 ave_household_size >2.492 (p11) & POI_den_transport <1730.985 (p83) & rate_local4 <0.884 (p81) 
256 prop_woodland >0.097 (p46) & rate_local4 <0.786 (p77) 
257 prop_publicResid <0.056 (p73) & prop_business <0.008 (p59) & rate_local4 <0.720 (p71)
| Equation                                      | p-value 1  | p-value 2  | p-value 3  | p-value 4  | p-value 5  | p-value 6  |
|-----------------------------------------------|------------|------------|------------|------------|------------|------------|
| prop_grassland > 0.040 (p59)                 |            |            |            |            |            |            |
| prop_private_resid < 0.091 (p64)             |            |            |            |            |            |            |
| prop_agricultural > 0.021 (p67)              |            |            |            |            |            |            |
| den_bldg < 0.135 (p42)                       |            |            |            |            |            |            |
| prop_private_resid < 0.156 (p76) & POI_den_edu < 972.143 (p91) |            |            |            |            |            |            |
| den_public_trans < 4.829 (p30)               |            |            |            |            |            |            |
| prop_transport < 0.104 (p44)                 |            |            |            |            |            |            |
| den_road < 9.806 (p46)                       |            |            |            |            |            |            |
| prop_rural_set > 0.023 (p65)                 |            |            |            |            |            |            |
| prop_gov_instit_faci < 0.025 (p36)           |            |            |            |            |            |            |
| prop_business < 0.055 (p86)                  |            |            |            |            |            |            |
| gender_ratio > 87.511 (p11) & prop_private_resid < 0.299 (p74) & den_road < 25.616 (p91) |            |            |            |            |            |            |
| prop_transport < 0.104 (p44)                 |            |            |            |            |            |            |
| den_road < 9.806 (p46)                       |            |            |            |            |            |            |
| prop_rural_set > 0.023 (p65)                 |            |            |            |            |            |            |
| prop_gov_instit_faci < 0.025 (p36)           |            |            |            |            |            |            |
| prop_business < 0.055 (p86)                  |            |            |            |            |            |            |
| gender_ratio > 87.659 (p11) & prop_business < 0.024 (p79) |            |            |            |            |            |            |
| med_area_home > 15.396 (p45)                 |            |            |            |            |            |            |
| build_area_pp > 154.967 (p85)                |            |            |            |            |            |            |
| prop_preprim_edu > 0.143 (p88)               |            |            |            |            |            |            |
| prop_business < 0.055 (p86)                  |            |            |            |            |            |            |
| gender_ratio > 87.527 (p11) & POI_den_transport < 2117.352 (p88) |            |            |            |            |            |            |
| prop_business < 0.055 (p86)                  |            |            |            |            |            |            |
| gender_ratio > 87.319 (p11) & prop_private_resid < 0.172 (p80) |            |            |            |            |            |            |
| prop_publicResid < 0.054 (p72)               |            |            |            |            |            |            |
| gender_ratio > 87.623 (p11) & prop_woodland > 0.069 (p37) |            |            |            |            |            |            |
| prop_prehousehold_3gen > 0.080 (p92)         |            |            |            |            |            |            |
| den_bldg < 0.104 (p35) & prop_shrubland < 0.145 (p67) |            |            |            |            |            |            |
| gender_ratio > 87.871 (p11) & den_population < 8952.749 (p40) |            |            |            |            |            |            |
| med_income < 15000.000 (p27) & med_area_home > 15.497 (p45) |            |            |            |            |            |            |
| gender_ratio > 86.955 (p11) & prop_grassland > 0.066 (p66) |            |            |            |            |            |            |
| gender_ratio > 86.981 (p11) & den_bldg < 0.112 (p37) |            |            |            |            |            |            |
| No. | Antecedent                                                                 | Consequent                        | Supp | Conf | Lev  | Imp  | P     |
|-----|----------------------------------------------------------------------------|-----------------------------------|------|------|------|------|-------|
| 1   | med_area_home >18.602 (p52)                                               | med_waiting_period >4.392 (p67)   | 31.27| 0.38 | 10.07| 0.12 | 0.000202 |
| 2   | med_income >19680.813 (p60)                                                | med_waiting_period >5.030 (p82)   | 17.80| 0.27 | 7.39 | 0.11 | 0.000202 |
| 3   | build_area_pp >57.721 (p46)                                                | med_waiting_period >5.317 (p82)   | 19.22| 0.18 | 6.54 | 0.06 | 0.000202 |
| 4   | den_public_trans <3.053 (p17)                                              | med_waiting_period >5.251 (p82)   | 10.79| 0.29 | 6.50 | 0.18 | 0.000137 |
| 5   | gender_ratio >102.032 (p82)                                                | med_waiting_period >5.276 (p82)   | 8.70 | 0.35 | 5.85 | 0.24 | 1.18E-05  |
| 6   | prop_open_recreation <0.008 (p24)                                          | med_waiting_period >5.544 (p83)   | 10.99| 0.22 | 5.64 | 0.11 | 0.000221 |
| 7   | prop_preprim_edu <0.065 (p7)                                               | med_waiting_period >5.076 (p82)   | 6.58 | 0.47 | 4.52 | 0.32 | 0.000154  |
| 8   | prop_household_3gen >0.060 (p82) & den_population =11418.151-37853.952 (p35-61) | med_waiting_period >5.250 (p82)   | 4.79 | 0.67 | 3.92 | 0.41 | 0.000196  |
| 9   | gender_ratio <88.232 (p12) & prop_transport <0.109 (p40)                  | med_waiting_period >5.669 (p83)   | 2.73 | 0.61 | 2.27 | 0.45 | 0.000177  |
| 10  | gender_ratio <102.188 (p82) & build_area_pp <137.537 (p77)                | med_waiting_period =3.497-5.221 (p26-82) | 104.86| 0.70 | 18.16 | 0.05 | 9.99E-05  |
| 11  | gender_ratio <100.812 (p79) & prop_higher_edu <0.300 (p70) & build_area_pp <148.430 (p79) | med_waiting_period =2.993-5.300 (p5-82) | 102.09| 0.85 | 17.17 | 0.04 | 1.24E-05  |
| 12  | gender_ratio <102.255 (p82) & med_income <21279.411 (p70) & build_area_pp <160.924 (p81) | med_waiting_period =2.965-5.099 (p5-82) | 103.25| 0.83 | 17.16 | 0.03 | 4.5E-06   |
| 13  | gender_ratio <102.242 (p82) & med_area_home <20.171 (p63)                 | med_waiting_period =3.663-5.258 (p30-82) | 83.75 | 0.69 | 16.91 | 0.05 | 0.000159 |
| 14  | med_area_home <17.835 (p51) & build_area_pp <162.989 (p81)                | med_waiting_period =2.949-5.253 (p5-82) | 91.84 | 0.89 | 16.85 | 0.01 | 4.15E-06 |
| 15  | med_area_home <18.602 (p52)                                               | med_waiting_period =2.769-4.392 (p5-67) | 95.05 | 0.82 | 15.51 | 0.13 | 1.34E-07 |
| 16  | den_population >41209.065 (p63)                                           | med_waiting_period =3.734-4.292 (p30-67) | 40.95 | 0.64 | 15.41 | 0.24 | 1.48E-07 |
| 17  | gender_ratio <101.525 (p81) & den_population >38042.584 (p61)             | med_waiting_period =3.753-5.345 (p30-82) | 51.39 | 0.79 | 15.39 | 0.03 | 5.99E-05 |
| 18  | med_income <20988.125 (p68) & med_area_home <18.979 (p54) & build_area_pp <137.247 (p77) | med_waiting_period =2.987-5.260 (p5-82) | 88.90 | 0.86 | 15.37 | 0.01 | 5.91E-05 |
| 19  | gender_ratio <102.307 (p82) & med_area_home <20.874 (p65) & build_area_pp <162.781 (p81) | med_waiting_period =2.976-5.655 (p5-83) | 102.55 | 0.86 | 15.32 | 0.02 | 0.00016   |
| 20  | build_area_pp <57.721 (p46)                                               | med_waiting_period =3.840-5.317 (p30-82) | 67.27 | 0.72 | 15.23 | 0.16 | 2.18E-06 |
| 21  | med_income <20841.767 (p68) & build_area_pp <155.834 (p81)               | med_waiting_period =2.935-4.660 (p5-72) | 97.48 | 0.74 | 15.04 | 0.04 | 0.000236 |

(j) Rules for median waiting period; POI accessibility was used
prop_higher_edu <0.365 (p79) & med_income <21006.819 (p69) & build_area_pp <163.106 (p81)

med_waiting_period = 2.985-5.123 (p5-82)
106.06  0.80  14.99  0.00  0.000104

gender_ratio <100.600 (p79) & med_income <30435.197 (p80)

med_waiting_period = 3.425-5.176 (p26-82)
98.23   0.68  14.65  0.05  1.23E-05

prop_higher_edu <0.297 (p69) & build_area_pp <150.096 (p79)

med_waiting_period = 2.993-5.300 (p5-82)
108.28  0.82  14.42  0.05  6.06E-06

gender_ratio <101.408 (p80) & prop_household_3gen <0.064 (p84)

med_waiting_period = 2.944-5.225 (p5-82)
117.69  0.83  14.40  0.02  2.27E-05

prop_preprim_edu <0.143 (p84) & med_income <18372.979 (p56)

med_waiting_period = 2.998-5.244 (p5-82)
78.33   0.87  14.10  0.02  0.000117

med_income <20507.105 (p68) & med_area_home <19.618 (p58)

gender_ratio <97.560 (p72) & prop_preprim_edu <0.131 (p79)

med_waiting_period = 2.993-5.300 (p5-82)
73.77   0.81  13.96  0.03  9.72E-05

gender_ratio <97.711 (p72) & med_income <18919.315 (p57)

med_waiting_period = 2.948-5.371 (p5-82)
84.60   0.87  13.49  0.01  0.000209

gender_ratio <105.121 (p85) & prop_preprim_edu <0.129 (p79)

med_waiting_period = 2.931-5.353 (p5-82)
94.36   0.86  13.44  0.01  0.000183

prop_preprim_edu <0.128 (p78) & prop_higher_edu <0.365 (p79)

med_waiting_period = 2.979-5.242 (p5-82)
79.30   0.86  13.35  0.07  4.1E-07

med_income <20696.281 (p68) & den_population >15042.218 (p39)

gender_ratio <103.325 (p83) & med_income <22645.700 (p72)

med_waiting_period = 2.969-5.368 (p5-82)
80.42   0.87  13.31  0.01  0.0002

prop_preprim_edu <0.128 (p78) & prop_higher_edu <0.365 (p79)

med_waiting_period = 2.823-5.112 (p5-82)
104.79  0.91  13.19  0.00  4.6E-05

med_income <21279.411 (p70) & build_area_pp <158.852 (p81)

med_waiting_period = 2.965-5.099 (p5-82)
70.18   0.86  13.11  0.03  0.000229

gender_ratio <104.531 (p83) & med_income <20891.100 (p68)

med_waiting_period = 2.562-5.081 (p5-82)
80.61   0.94  13.09  0.01  0.000242

prop_higher_edu <0.275 (p64) & prop_open_recreation >0.027 (p41)

med_waiting_period = 3.840-5.317 (p30-82)
55.60   0.72  12.84  0.10  0.000122

med_income <20729.622 (p68) & build_area_pp <164.775 (p81)

med_waiting_period = 2.949-5.253 (p5-82)
70.48   0.89  12.81  0.03  0.000235
40 gender_ratio <100.733 (p79) & prop_household_3gen <0.039 (p61) 
        med_waiting_period = 2.744-5.150 (p5-82) 
        med_income < 20891.100 (p68) & prop_grassland < 0.039 (p58) 
41 med_income < 20891.100 (p68) & prop_grassland < 0.039 (p58) 
        med_waiting_period = 2.562-5.081 (p5-82) 
        gender_ratio < 98.59 (p77) & prop_educ < 0.315 (p71) & den_population > 16609.467 (p41) 
42 prop_educ < 0.315 (p71) & den_population > 16609.467 (p41) 
        med_waiting_period = 2.874-5.368 (p5-82) 
43 med_area_home < 20.679 (p64) & den_population > 15042.218 (p39) 
        med_waiting_period = 2.998-5.244 (p5-82) 
44 prop_educ < 0.355 (p69) & med_area_home < 20.679 (p64) & den_road > 5.569 (p21) 
45 prop_educ < 0.305 (p69) & den_road > 5.569 (p21) 
        med_waiting_period = 2.654-5.020 (p5-82) 
46 med_area_home < 20.101 (p63) & den_road > 5.569 (p21) 
        med_waiting_period = 2.998-5.244 (p5-82) 
47 gender_ratio < 98.273 (p73) & prop_higher_edu < 0.348 (p77) 
        med_waiting_period = 2.562-5.081 (p5-82) 
48 gender_ratio < 97.517 (p72) & med_area_home < 20.101 (p63) & den_population < 15060.055 (p39) 
49 prop_higher_edu < 0.365 (p79) & med_area_home < 20.101 (p63) & den_population < 15060.055 (p39) 
        med_waiting_period = 2.874-5.368 (p5-82) 
50 gender_ratio < 98.716 (p74) & prop_household_3gen < 0.051 (p79) & med_area_home < 20.922 (p65) 
51 prop_educ < 0.316 (p72) & med_area_home < 20.922 (p65) & den_population < 15060.055 (p39) 
        med_waiting_period = 2.998-5.244 (p5-82) 
52 gender_ratio < 101.408 (p80) & prop_household_3gen < 0.064 (p84) & den_population < 15060.055 (p39) 
53 prop_educ < 0.344 (p76) & den_population < 15060.055 (p39) 
4 med_income < 21006.819 (p69) & prop_household_3gen < 0.064 (p84) 
54 med_income < 21006.819 (p69) & prop_household_3gen < 0.064 (p84) & med_area_home < 20.679 (p64) 
55 med_area_home < 20.679 (p64) & med_area_home < 20.679 (p64) & med_road > 5.569 (p21) 
56 med_road > 5.569 (p21) & med_road > 5.569 (p21) 
        med_waiting_period = 2.998-5.244 (p5-82) 
57 gender_ratio < 98.663 (p74) & prop_higher_edu < 0.305 (p70) 
        med_waiting_period = 2.998-5.244 (p5-82) 
        med_income < 21006.819 (p69) & prop_transport > 0.112 (p41) 
58 prop_transport > 0.112 (p41) & med_road > 5.569 (p21) 
59 med_road > 5.569 (p21) & med_road > 5.569 (p21) 
        med_waiting_period = 2.562-5.081 (p5-82) 
60 med_income < 21006.819 (p69) & med_income < 21006.819 (p69) & med_area_home < 20.679 (p64) 
61 med_area_home < 20.679 (p64) & med_area_home < 20.679 (p64)
prop_higher_edu < 0.355 (p78) & med_area_home < 20.923 (p65) & den_road > 5.569 (p21)
59 gender_ratio < 105.315 (p85) & den_population > 19560.599 (p43) & build_area_pp < 122.002 (p73)
60 den_population > 17331.400 (p42) & build_area_pp < 143.553 (p78)
61 med_income < 21279.411 (p70) & prop_open_recreation > 0.027 (p42)
62 med_income < 21163.180 (p69) & prop_agricultural < 0.012 (p58)
63 prop_higher_edu < 0.289 (p67)
64 med_income < 22670.905 (p72) & build_area_pp < 121.123 (p72) & prop_rural_set < 0.009 (p55)
65 prop_preprim_edu > 0.076 (p14) & den_population > 14982.236 (p39)
66 med_income < 21006.819 (p69) & den_public_trans > 17.695 (p45)
67 prop_higher_edu < 0.353 (p78) & med_income < 22901.777 (p72) & prop_transport > 0.097 (p35)
68 gender_ratio < 95.004 (p61) & med_income < 21309.129 (p70) & prop_household_3gen < 0.042 (p67)
69 med_income < 19680.813 (p60)
70 prop_higher_edu < 0.312 (p71) & prop_transport > 0.106 (p38)
71 gender_ratio < 97.609 (p72) & prop_higher_edu < 0.315 (p71) & den_population > 16609.467 (p41)
72 prop_higher_edu < 0.302 (p70) & prop_grassland < 0.063 (p63)
73 med_area_home < 20.923 (p65) & den_road > 5.569 (p21)
74 med_income < 19701.735 (p60) & prop_publicResid > 0.033 (p61)
75 prop_preprim_edu > 0.075 (p14) & den_public_trans > 17.478 (p45)

med_waiting_period = 2.654 - 5.020 (p5-82)
96.31 0.88 11.91 0.02 9.05E-05
med_waiting_period = 2.921 - 5.465 (p5-82)
84.91 0.89 11.84 0.01 0.00016
med_waiting_period = 2.984 - 5.370 (p5-82)
85.16 0.83 11.76 0.03 0.000159
med_waiting_period = 2.989 - 5.416 (p5-82)
74.09 0.85 11.70 0.08 5.71E-05
med_waiting_period = 2.949 - 5.253 (p5-82)
75.09 0.86 11.62 0.08 2.98E-05
med_waiting_period = 3.284 - 4.158 (p5-82)
75.30 0.52 11.61 0.05 0.000215
med_waiting_period = 2.977 - 5.261 (p5-82)
61.22 0.88 11.61 0.05 0.000215
med_waiting_period = 2.957 - 5.374 (p5-82)
84.77 0.85 11.59 0.04 2.48E-05
med_waiting_period = 2.771 - 5.133 (p5-82)
78.65 0.93 11.52 0.07 2.38E-05
med_waiting_period = 2.585 - 5.004 (p5-82)
82.05 0.90 11.45 0.00 8.34E-05
med_waiting_period = 2.663 - 5.044 (p5-82)
70.65 0.92 11.14 0.04 0.000169
med_waiting_period = 2.999 - 5.030 (p5-82)
97.53 0.75 10.99 0.08 0.000144
med_waiting_period = 2.979 - 5.225 (p5-82)
72.25 0.84 10.76 0.07 0.000106
med_waiting_period = 2.808 - 5.534 (p5-83)
74.96 0.98 10.68 0.01 6.17E-05
med_waiting_period = 2.941 - 5.368 (p5-82)
81.40 0.85 10.63 0.06 9.24E-05
med_waiting_period = 2.654 - 5.020 (p5-82)
101.66 0.86 10.53 0.03 0.000121
med_waiting_period = 2.995 - 5.251 (p5-82)
57.49 0.87 10.47 0.03 0.000247
med_waiting_period = 2.737 - 5.211 (p5-82)
83.88 0.91 10.44 0.05 1.13E-05
76 med_area_home <21.618 (p71) & prop_transport >0.096 (p34)
    med_waiting_period = 2.974-5.233 
    (p5-82)
77 prop_higher_edu <0.285 (p67) & prop_publicResid >0.033 (p61)
    med_waiting_period = 2.931-5.353 
    (p5-82)
78 prop_household_3gen <0.038 (p61) & build_area_pp <173.428 (p82)
    med_waiting_period = 2.747-5.137 
    (p5-82)
79 prop_higher_edu <0.305 (p70) & den_road >5.864 (p22)
    gender_ratio <96.126 (p67) & prop_preprim_edu >0.078 (p15)
    & prop_household_3gen <0.037 (p56)
80 prop_preprim_edu >0.075 (p14) & den_public_trans >17.478 (p45)
    & build_area_pp <115.172 (p71)
81 med_area_home <20.754 (p64) & prop_publicResid >0.034 (p62)
    prop_preprim_edu >0.077 (p15) & prop_publicResid >0.033 (p61)
82 prop_preprim_edu >0.077 (p15) & prop_agricultural <0.012 (p58)
    prop_preprim_edu >0.079 (p15) & prop_transport >0.079 (p30)
83 gender_ratio <102.032 (p82)
84 den_population =8798.848-38778.099 (p32-62) & den_public_trans >27.062 (p52)
85 prop_household_3gen >0.057 (p81)
86 med_area_home >18.602 (p52)
87 prop_publicResid >0.039 (p62)
88 prop_preprim_edu >0.089 (p31) & prop_grassland <0.060 (p62)
89 prop_household_3gen >0.057 (p81)
90 den_population =8798.848-38778.099 (p32-62) & den_public_trans >27.062 (p52)
91 med_area_home >18.602 (p52)
| No. | Antecedent | Consequent          | Supp | Conf | Lev | Imp   | P       |
|-----|------------|---------------------|------|------|-----|-------|---------|
| 1   | POI_pp_transport >39.683 (p60) | ave_waiting_period >5.790 (p75) | 22.98 | 0.34 | 9.81 | 0.14  | 6.655E-05 |
| 2   | POI_pp_telecom_elec >15.395 (p57) | ave_waiting_period >5.765 (p74) | 24.76 | 0.33 | 9.65 | 0.13  | 7.16E-05  |
| 3   | POI_pp_mall_mkt >8.676 (p64) | ave_waiting_period >5.822 (p75) | 20.26 | 0.33 | 8.90 | 0.14  | 0.0001032 |
| 4   | med_area_home >17.644 (p50) | ave_waiting_period >5.807 (p74) | 26.33 | 0.29 | 8.89 | 0.10  | 1.14E-04  |
| 5   | med_income >19979.413 (p60) | ave_waiting_period >5.751 (p74) | 21.18 | 0.33 | 8.39 | 0.13  | 9.479E-05 |
| 6   | POI_pp_sports >29.352 (p65) | ave_waiting_period >5.819 (p75) | 20.68 | 0.31 | 7.75 | 0.12  | 0.0001774 |
| 7   | med_area_home >17.644 (p50) | ave_waiting_period >5.807 (p74) | 26.33 | 0.29 | 8.89 | 0.10  | 1.14E-04  |
| 8   | prop_over65 <0.099 (p7) | ave_waiting_period >5.508 (p69) | 10.2  | 0.71 | 6.6  | 0.46  | 5.042E-05 |
| 9   | den_public_trans <2.671 (p16) | ave_waiting_period >5.790 (p75) | 16.16 | 0.27 | 8.26 | 0.14  | 1.534E-07 |
| 10  | prop_higher_edu >0.351 (p78) | ave_waiting_period >5.750 (p74) | 12.9  | 0.39 | 6.2  | 0.18  | 0.0001866 |
| 11  | prop_over65 <0.114 (p14) & prop_gov_insti_fac <0.027 (p31) | ave_waiting_period >5.506 (p69) | 9.4   | 0.70 | 6.0  | 0.25  | 0.0001759 |
| 12  | prop_higher_edu >0.344 (p75) & prop_publicResid =0.009-0.072 (p53-69) | ave_waiting_period >5.720 (p74) | 7.3   | 0.96 | 5.7  | 0.55  | 0.0001092 |
| 13  | gender_ratio >102.339 (p82) | ave_waiting_period >5.720 (p74) | 10.2  | 0.43 | 5.3  | 0.22  | 0.0002224 |
| 14  | med_income >21927.588 (p70) & prop_publicResid =0.010-0.078 (p53-70) | ave_waiting_period >5.899 (p77) | 5.2   | 0.69 | 3.9  | 0.40  | 0.0001353 |
| 15  | med_area_home >22.579 (p75) & prop_publicResid =0.011-0.091 (p54-73) | ave_waiting_period >5.895 (p77) | 4.0   | 1.00 | 3.3  | 0.76  | 0.0001875 |
| 16  | prop_preprim_edu <0.132 (p79) & med_area_home <18.769 (p53) & POI_pp_mall_mkt <10.185 (p70) | ave_waiting_period >4.142-5.588 (p24-71) | 67.4  | 0.76 | 23.1 | 0.05  | 7.493E-05 |
| 17  | gender_ratio >101.246 (p80) & med_area_home <18.533 (p52) & POI_pp_mall_mkt <10.746 (p72) | ave_waiting_period >4.082-5.672 (p22-72) | 74.3  | 0.78 | 23.0 | 0.03  | 0.0002212 |
| 18  | gender_ratio >101.246 (p80) & med_area_home <18.381 (p51) & POI_pp_telecom_elec <18.589 (p65) | ave_waiting_period >3.754-5.828 (p16-75) | 83.1  | 0.88 | 23.0 | 0.02  | 1.404E-05 |
| 19  | build_area_pp <76.920 (p54) & POI_pp_transport <27.446 (p50) | ave_waiting_period >4.522-6.179 (p40-81) | 59.0  | 0.72 | 22.8 | 0.10  | 3.021E-05 |
| 20  | med_area_home <19.444 (p57) & POI_pp_telecom_elec <15.554 (p57) | ave_waiting_period >4.116-5.839 (p23-76) | 76.6  | 0.80 | 22.6 | 0.09  | 1.939E-05 |
| 21  | gender_ratio >101.187 (p80) & med_area_home <18.325 (p51) & POI_pp_transport <49.039 (p69) | ave_waiting_period >3.801-5.674 (p16-72) | 79.3  | 0.83 | 22.1 | 0.02  | 0.0001352 |
| 22  | med_area_home <18.886 (p52) & build_area_pp <85.357 (p57) | ave_waiting_period >4.097-5.822 (p22-75) | 73.6  | 0.81 | 22.1 | 0.07  | 0.0001032 |
| 23  | med_area_home <18.886 (p52) & POI_pp_sports <29.583 (p65) | ave_waiting_period >4.097-5.822 (p22-75) | 76.7  | 0.80 | 22.0 | 0.06  | 0.0001595 |

(k) Rules for average waiting period; POI accessibility was used.
24 med_area_home <19.338 (p57) & POI_pp_transport <35.640 (p56)  
ave_waiting_period =4.146-5.838 (p24-76)

73.4 0.79 21.9 0.09 4.352E-05

25 gender_ratio <101.136 (p80) & prop_preprim_edu <0.131 (p79) & POI_pp_sports <26.199 (p63)  
ave_waiting_period =3.627-5.895 (p14-77)

98.6 0.87 21.8 0.02 0.0001209

26 build_area_pp <76.052 (p53) & POI_pp_mall_mkt <5.418 (p50)  
ave_waiting_period =4.522-6.179 (p40-81)

57.8 0.71 21.8 0.11 9.808E-06

27 gender_ratio <101.246 (p80) & med_area_home <19.086 (p56)  
ave_waiting_period =3.754-5.828 (p16-75)

92.1 0.83 21.8 0.04 7.792E-07

28 prop_over65 <0.184 (p69) & gender_ratio <98.915 (p74) & med_area_home <19.448 (p57)  
ave_waiting_period =4.001-5.761 (p22-74)

65.4 0.86 21.7 0.07 4.203E-06

29 prop_preprim_edu <0.124 (p77) & prop_higher_edu <0.360 (p78) & POI_pp_telecom_elec <19.306 (p65)  
ave_waiting_period =4.083-5.914 (p22-77)

85.7 0.78 21.5 0.04 5.302E-05

30 prop_preprim_edu <0.136 (p81) & med_income <19568.062 (p60) & POI_pp_telecom_elec <19.371 (p65)  
ave_waiting_period =4.119-5.872 (p23-76)

75.3 0.80 21.2 0.04 0.0001229

31 prop_preprim_edu <0.131 (p79) & med_area_home <18.042 (p51) & POI_pp_sports <26.199 (p63)  
ave_waiting_period =4.158-5.591 (p25-71)

61.5 0.75 21.1 0.04 0.0002291

32 gender_ratio <101.698 (p81) & prop_higher_edu <0.355 (p78) & med_area_home <19.914 (p61)  
ave_waiting_period =3.825-5.877 (p16-77)

93.4 0.82 21.0 0.01 8.77E-05

33 build_area_pp <70.173 (p52) & POI_pp_edu <9.364 (p50)  
ave_waiting_period =4.522-6.179 (p40-81)

55.2 0.71 21.0 0.11 3.614E-05

34 gender_ratio <100.126 (p79) & med_income <20155.135 (p68) & POI_pp_telecom_elec <12.529 (p50)  
ave_waiting_period =4.099-5.873 (p22-76)

67.3 0.84 20.9 0.03 0.0001119

35 gender_ratio <101.246 (p80) & prop_preprim_edu <0.128 (p79) & med_income <22728.923 (p72)  
ave_waiting_period =3.754-5.828 (p16-75)

93.1 0.82 20.9 0.04 0.0002417

36 prop_over65 <0.184 (p69) & med_area_home <19.338 (p57) & POI_pp_telecom_elec <18.675 (p65)  
ave_waiting_period =4.001-5.761 (p22-74)

64.0 0.85 20.9 0.06 9.959E-05

37 med_area_home <19.914 (p61) & POI_pp_mall_mkt <10.111 (p69)  
ave_waiting_period =4.037-5.725 (p22-74)

80.9 0.75 20.9 0.07 0.0001365

38 prop_preprim_edu <0.125 (p77) & med_income <19096.021 (p58) & POI_pp_mall_mkt <10.359 (p70)  
ave_waiting_period =4.148-5.622 (p24-71)

63.7 0.75 20.8 0.05 0.0001529

39 gender_ratio <101.386 (p80) & prop_preprim_edu <0.138 (p81) & POI_pp_telecom_elec <15.153 (p57)  
ave_waiting_period =3.608-5.942 (p14-78)

95.7 0.88 20.7 0.02 7.052E-05

40 prop_over65 <0.207 (p82) & gender_ratio <98.783 (p74) & med_income <19568.062 (p60)  
ave_waiting_period =4.015-5.776 (p22-74)

73.3 0.79 20.5 0.06 0.0001903

41 gender_ratio <100.607 (p79) & med_area_home <19.338 (p57) & POI_pp_edu <20.523 (p74)  
ave_waiting_period =3.799-6.109 (p16-81)

89.5 0.88 20.4 0.03 0.0001358
prop_preprim_edu <0.137 (p81) & prop_higher_edu <0.360 (p78) & POI_pp_sports <23.041 (p58) & POI_pp_mall_mkt <8.764 (p64) & POI_pp_transport <35.602 (p56)
ave_waiting_period = 4.083-5.920 (p22-77)

gender_ratio <98.227 (p73) & build_area_pp <151.826 (p80) & POI_pp_edu <19.179 (p72) & POI_pp_transport <35.602 (p56)
ave_waiting_period = 4.115-5.891 (p23-77)

prop_preprim_edu <0.136 (p81) & POI_pp_mall_mkt <9.862 (p67) & POI_pp_transport <40.374 (p65)
ave_waiting_period = 3.999-5.827 (p20-75)

prop_preprim_edu <0.128 (p79) & med_income <19994.590 (p60) & build_area_pp <142.936 (p78) & POI_pp_transport <35.602 (p56)
ave_waiting_period = 4.097-5.822 (p22-75)

gender_ratio <102.594 (p82) & prop_over65 <0.179 (p65) & med_area_home <17.509 (p50) & POI_pp_telecom_elec <12.570 (p50) & POI_pp_transport <35.602 (p56)
ave_waiting_period = 4.117-5.849 (p23-76)

prop_preprim_edu <0.137 (p81) & med_area_home <21.280 (p70) & POI_pp_transport <35.602 (p56)
ave_waiting_period = 4.149-5.872 (p23-76)

prop_preprim_edu <0.137 (p81) & prop_higher_edu <0.360 (p78) & POI_pp_sports <23.041 (p58) & POI_pp_transport <35.602 (p56)
ave_waiting_period = 4.115-5.891 (p23-77)

prop_preprim_edu <0.136 (p81) & POI_pp_telecom_elec <19.306 (p65)
ave_waiting_period = 3.608-5.942 (p14-78)

prop_preprim_edu <0.126 (p78) & POI_pp_telecom_elec <19.306 (p65)
ave_waiting_period = 3.608-5.942 (p14-78)

prop_preprim_edu <0.137 (p81) & med_area_home <18.543 (p52) & POI_pp_sports <23.041 (p58)
ave_waiting_period = 4.158-5.571 (p25-70)

build_area_pp <77.760 (p54) & POI_pp_telecom_elec <12.658 (p50)
ave_waiting_period = 4.463-6.255 (p36-82)

prop_preprim_edu <0.137 (p81) & med_area_home <21.280 (p70) & POI_pp_edu <21.599 (p76)
ave_waiting_period = 4.119-5.872 (p23-76)
60 POI_pp_sports <11.624 (p40)

61 gender_ratio <101.136 (p80) & POI_pp_sports <26.199 (p63)

62 prop_higher_edu <0.354 (p78) & POI_pp_telecom_elec <17.856 (p63)

63 build_area_pp <81.717 (p55) & POI_pp_sports <16.987 (p50)

64 gender_ratio <102.331 (p82) & prop_preprim_edu <0.124 (p77)

65 prop_preprim_edu <0.127 (p78) & med_income <19096.021 (p58)

66 prop_preprim_edu <0.140 (p82) & build_area_pp <1151.678 (p80)

67 gender_ratio <99.654 (p77) & med_income <18510.449 (p71)

68 prop_preprim_edu <0.126 (p78) & POI_pp_edu <18.548 (p71)

69 prop_preprim_edu <0.126 (p78) & POI_pp_edu <17.144 (p68)

70 POI_pp_telecom_elec <15.395 (p57)

71 gender_ratio <102.296 (p82) & POI_pp_transport <31.274 (p52)

72 prop_preprim_edu <0.124 (p77) & prop_higher_edu <0.302 (p70)

73 med_area_home <17.644 (p50)

74 prop_higher_edu <0.356 (p78) & med_area_home <19.914 (p61)

75 den_population >19400.293 (p43) & POI_pp_mall_mkt <5.588 (p51)

76 med_income <19588.403 (p60) & build_area_pp <126.455 (p75)

77 gender_ratio <101.386 (p80) & POI_pp_mall_mkt <8.876 (p65)

ave_waiting_period = 4.517-6.163 (p40-81)
ave_waiting_period = 3.587-6.044 (p13-80)
ave_waiting_period = 3.950-5.917 (p20-77)
ave_waiting_period = 4.489-6.252 (p37-82)
ave_waiting_period = 4.083-5.914 (p22-77)
ave_waiting_period = 4.148-5.622 (p24-71)
ave_waiting_period = 3.639-5.816 (p14-75)
ave_waiting_period = 3.892-5.810 (p19-75)
ave_waiting_period = 3.611-5.939 (p14-78)
ave_waiting_period = 3.611-5.939 (p14-78)
ave_waiting_period = 3.650-5.765 (p14-74)
ave_waiting_period = 3.642-6.079 (p14-81)
ave_waiting_period = 4.081-5.450 (p22-68)
ave_waiting_period = 4.102-5.807 (p23-75)
ave_waiting_period = 3.825-5.877 (p16-77)
ave_waiting_period = 4.526-6.160 (p40-81)
ave_waiting_period = 4.069-5.628 (p22-71)
ave_waiting_period = 3.608-5.942 (p14-78)
| Equation | Description | Average Waiting Period | Coefficients |
|----------|-------------|------------------------|---------------|
| 78 | $\text{med\_income} < 19509.546$ (p60) & $\text{prop\_transport} > 0.068$ (p29) | $4.071 - 5.970$ | $74.2$, $0.78$, $17.5$, $0.10$, $3.684E-05$ |
| 79 | $\text{prop\_higher\_edu} < 0.293$ (p69) & $\text{den\_population} > 18412.543$ (p43) | $4.117 - 5.849$ | $63.8$, $0.78$, $17.5$, $0.08$, $0.0001523$ |
| 80 | $\text{med\_income} < 19568.062$ (p60) & $\text{POI\_pp\_transport} < 29.494$ (p51) | $4.119 - 5.872$ | $64.7$, $0.78$, $17.5$, $0.06$, $0.0001698$ |
| 81 | $\text{build\_area\_pp} < 59.911$ (p49) & $\text{prop\_gov\_insti\_faci} > 0.027$ (p31) | $4.174 - 5.857$ | $58.5$, $0.77$, $17.4$, $0.08$, $0.000101$ |
| 82 | $\text{prop\_over65} < 0.207$ (p82) & $\text{med\_income} < 19568.062$ (p60) & $\text{prop\_open\_recreation} > 0.027$ (p41) | $4.096 - 5.905$ | $57.7$, $0.83$, $17.2$, $0.05$, $0.0001196$ |
| 83 | $\text{POI\_pp\_transport} < 39.683$ (p60) | $3.633 - 5.790$ | $102.4$, $0.79$, $17.1$, $0.13$, $1.298E-09$ |
| 84 | $\text{prop\_gov\_insti\_faci} > 0.028$ (p31) & $\text{POI\_pp\_mall\_mkt} < 8.762$ (p64) | $3.399 - 6.268$ | $100.4$, $0.93$, $16.9$, $0.00$, $3.149E-05$ |
| 85 | $\text{gender\_ratio} < 103.079$ (p83) & $\text{POI\_pp\_sports} < 30.800$ (p67) & $\text{POI\_pp\_transport} < 31.274$ (p52) | $4.089 - 5.878$ | $84.8$, $0.72$, $16.8$, $0.07$, $0.0001529$ |
| 86 | $\text{gender\_ratio} < 96.204$ (p67) & $\text{POI\_pp\_edu} < 19.100$ (p72) | $4.039 - 5.936$ | $76.7$, $0.76$, $16.7$, $0.09$, $4.933E-05$ |
| 87 | $\text{prop\_transport} > 0.079$ (p30) & $\text{POI\_pp\_mall\_mkt} < 10.478$ (p71) | $4.039 - 6.004$ | $63.0$, $0.82$, $16.6$, $0.12$, $8.371E-06$ |
| 88 | $\text{med\_income} < 18877.334$ (p57) & $\text{prop\_open\_recreation} > 0.028$ (p43) | $4.078 - 5.915$ | $70.9$, $0.77$, $16.5$, $0.10$, $6.928E-06$ |
| 89 | $\text{prop\_higher\_edu} < 0.302$ (p70) & $\text{prop\_transport} > 0.086$ (p32) | $4.117 - 5.849$ | $65.9$, $0.75$, $16.3$, $0.03$, $0.0002242$ |
| 90 | $\text{gender\_ratio} < 101.724$ (p81) & $\text{den\_population} > 25055.300$ (p49) | $4.526 - 6.160$ | $67.0$, $0.58$, $16.3$, $0.14$, $5.406E-07$ |
| 91 | $\text{build\_area\_pp} < 77.130$ (p54) | $4.361 - 6.100$ | $66.1$, $0.93$, $15.9$, $0.00$, $8.233E-05$ |
| 92 | $\text{prop\_preprim\_edu} < 0.143$ (p85) & $\text{POI\_pp\_edu} < 14.015$ (p63) & $\text{POI\_pp\_transport} < 15.096$ (p35) | $4.361 - 6.100$ | $67.5$, $0.92$, $15.7$, $0.01$, $8.436E-06$ |
| 93 | $\text{POI\_pp\_edu} < 12.794$ (p58) & $\text{POI\_pp\_transport} < 15.096$ (p35) | $4.008 - 5.745$ | $97.4$, $0.66$, $15.4$, $0.04$, $3.101E-05$ |
| 94 | $\text{gender\_ratio} < 101.407$ (p80) & $\text{build\_area\_pp} < 151.678$ (p80) | $4.174 - 5.857$ | $64.7$, $0.70$, $15.0$, $0.08$, $0.0001548$ |
|   | Description                                                                 | Average Waiting Period | Standard Deviation | Median | P-Value |
|---|------------------------------------------------------------------------------|------------------------|---------------------|--------|---------|
| 96| POI_pp_mall_mkt < 2.416 (p28)                                               | 4.01-5.822             | 0.34                | 3.92   | 0.02    |
| 97| gender_ratio < 101.661 (p81) & prop_higher_edu < 0.332 (p73)              | 3.85-5.877             | 0.31                | 3.87   | 0.04    |
| 98| prop_publicResid > 0.048 (p64) & POI_pp_mall_mkt < 9.418 (p65)             | 4.03-6.072             | 0.37                | 4.07   | 0.04    |
| 99| prop_higher_edu < 0.219 (p51) & prop_open_recreation > 0.027 (p41)        | 4.10-5.890             | 0.37                | 4.13   | 0.04    |
|100| POI_pp_edu < 14.015 (p63)                                                   | 3.64-5.788             | 0.34                | 3.66   | 0.05    |
|101| prop_publicResid > 0.053 (p65)                                              | 4.09-5.657             | 0.38                | 4.12   | 0.01    |
|102| den_population > 39592.585 (p62)                                            | 3.89-5.920             | 0.34                | 3.91   | 0.02    |
|103| med_income < 19979.413 (p60)                                                | 4.09-5.657             | 0.32                | 4.11   | 0.18    |
|104| prop_gov_insti_faci > 0.028 (p31)                                           | 4.17-5.622             | 0.32                | 4.20   | 0.02    |
|105| prop_preprim_edu < 0.125 (p77)                                              | 3.68-5.720             | 0.32                | 3.70   | 0.05    |
|106| gender_ratio < 102.339 (p82)                                                | 3.99-4.177             | 0.22                | 4.06   | 0.10    |
|107| prop_higher_edu < 0.351 (p78)                                               | 4.07-4.177             | 0.27                | 4.09   | 0.10    |
|108| build_area_pp > 77.760 (p54) & POI_pp_telecom_elec < 12.658 (p50)          | 3.73-4.643             | 0.25                | 3.83   | 0.05    |
|109| POI_pp_sports = 14.823-29.352 (p46-65)                                      | 4.05-5.17              | 0.36                | 4.09   | 0.04    |
|110| build_area_pp > 81.717 (p55) & POI_pp_sports < 16.987 (p50)                 | 3.71-4.489             | 0.24                | 3.77   | 0.10    |
|111| prop_gov_insti_faci < 0.028 (p31)                                           | 3.92-4.177             | 0.27                | 3.95   | 0.10    |
|112| den_population = 6601.148-27429.878 (p30-53) & prop_transport < 0.064 (p28)| 4.13-4.113             | 0.28                | 4.15   | 0.01    |
|113| build_area_pp > 77.130 (p54)                                                | 3.99-4.177             | 0.27                | 4.02   | 0.05    |
|114| prop_publicResid < 0.006 (p50)                                              | 4.09-4.077             | 0.26                | 4.12   | 0.05    |
|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 115 | den_population <39592.585 (p62) | ave_waiting_period <4.075 (p22) | 42.7 | 0.32 | 10.6 | 0.08 | 4.796E-05 |
| 116 | prop_over65 >0.163 (p51) & den_population <28746.747 (p55) | ave_waiting_period <4.183 (p26) | 21.5 | 0.53 | 10.4 | 0.17 | 0.0002337 |
| 117 | med_area_home >17.644 (p50) | ave_waiting_period <4.102 (p23) | 32.2 | 0.35 | 9.2 | 0.10 | 0.0001486 |
| 118 | POI_pp_telecom_elec >15.395 (p57) | ave_waiting_period <3.650 (p14) | 20.2 | 0.27 | 8.7 | 0.11 | 9.833E-06 |
| 119 | POI_pp_transport >39.683 (p60) | ave_waiting_period <3.633 (p14) | 17.2 | 0.25 | 7.2 | 0.11 | 0.0002353 |
| 120 | POI_pp_edu >14.015 (p63) | ave_waiting_period <3.640 (p14) | 16.3 | 0.24 | 6.4 | 0.10 | 0.0002096 |