GWR

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Model type Gaussian

Number of observations: 67

Number of covariates: 3

Global Regression Results

---------------------------------------------------------------------------

Residual sum of squares: 760567.776

Log-likelihood: -407.863

AIC: 821.725

AICc: 824.370

BIC: 760298.675

R2: 0.032

Adj. R2: 0.002

Variable Est. SE t(Est/SE) p-value

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X0 119.942 216.111 0.555 0.579

X1 2.177 1.702 1.279 0.201

X2 1.878 2.413 0.778 0.437

Geographically Weighted Regression (GWR) Results

---------------------------------------------------------------------------

Spatial kernel: Adaptive bisquare

Bandwidth used: 21.000

Diagnostic information

---------------------------------------------------------------------------

Residual sum of squares: 70299.727

Effective number of parameters (trace(S)): 22.839

Degree of freedom (n - trace(S)): 44.161

Sigma estimate: 39.899

Log-likelihood: -328.089

AIC: 703.857

AICc: 731.948

BIC: 756.416

R2: 0.911

Adj. alpha (95%): 0.007

Adj. critical t value (95%): 2.807

Summary Statistics For GWR Parameter Estimates

---------------------------------------------------------------------------

Variable Mean STD Min Median Max

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X0 60.711 282.966 -437.290 -20.315 617.184

X1 2.476 2.438 -4.096 2.727 5.796

X2 2.696 3.192 -7.252 2.692 7.617

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Model type Gaussian

Number of observations: 67

Number of covariates: 3

Global Regression Results

---------------------------------------------------------------------------

Residual sum of squares: 6003138.351

Log-likelihood: -477.073

AIC: 960.145

AICc: 962.791

BIC: 6002869.251

R2: 0.009

Adj. R2: -0.022

Variable Est. SE t(Est/SE) p-value

------------------------------- ---------- ---------- ---------- ----------

X0 582.862 1642.219 0.355 0.723

X1 3.661 4.991 0.733 0.463

X2 0.705 6.008 0.117 0.907

Geographically Weighted Regression (GWR) Results

---------------------------------------------------------------------------

Spatial kernel: Adaptive bisquare

Bandwidth used: 21.000

Diagnostic information

---------------------------------------------------------------------------

Residual sum of squares: 972222.168

Effective number of parameters (trace(S)): 22.326

Degree of freedom (n - trace(S)): 44.674

Sigma estimate: 147.521

Log-likelihood: -416.088

AIC: 878.827

AICc: 905.420

BIC: 930.253

R2: 0.840

Adj. alpha (95%): 0.007

Adj. critical t value (95%): 2.799

Summary Statistics For GWR Parameter Estimates

---------------------------------------------------------------------------

Variable Mean STD Min Median Max

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X0 704.257 2885.549 -7182.959 471.403 8908.074

X1 5.045 6.405 -7.780 4.078 16.437

X2 0.938 11.030 -28.490 1.617 29.695

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Model type Gaussian

Number of observations: 67

Number of covariates: 3

Global Regression Results

---------------------------------------------------------------------------

Residual sum of squares: 11691424.735

Log-likelihood: -499.403

AIC: 1004.806

AICc: 1007.451

BIC: 11691155.635

R2: 0.024

Adj. R2: -0.006

Variable Est. SE t(Est/SE) p-value

------------------------------- ---------- ---------- ---------- ----------

X0 -1727.977 2698.162 -0.640 0.522

X1 6.031 5.910 1.020 0.308

X2 5.775 8.551 0.675 0.499

Geographically Weighted Regression (GWR) Results

---------------------------------------------------------------------------

Spatial kernel: Adaptive bisquare

Bandwidth used: 21.000

Diagnostic information

---------------------------------------------------------------------------

Residual sum of squares: 1805748.960

Effective number of parameters (trace(S)): 21.700

Degree of freedom (n - trace(S)): 45.300

Sigma estimate: 199.654

Log-likelihood: -436.829

AIC: 919.058

AICc: 943.907

BIC: 969.104

R2: 0.849

Adj. alpha (95%): 0.007

Adj. critical t value (95%): 2.788

Summary Statistics For GWR Parameter Estimates

---------------------------------------------------------------------------

Variable Mean STD Min Median Max

-------------------- ---------- ---------- ---------- ---------- ----------

X0 -869.744 5380.262 -15391.794 -168.340 11349.630

X1 4.561 6.454 -4.490 3.690 20.521

X2 4.358 17.797 -35.895 1.227 44.489

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===========================================================================

Model type Gaussian

Number of observations: 66

Number of covariates: 3

Global Regression Results

---------------------------------------------------------------------------

Residual sum of squares: 40977436.893

Log-likelihood: -533.833

AIC: 1073.666

AICc: 1076.322

BIC: 40977172.944

R2: 0.039

Adj. R2: 0.009

Variable Est. SE t(Est/SE) p-value

------------------------------- ---------- ---------- ---------- ----------

X0 11248.591 9308.760 1.208 0.227

X1 16.603 12.469 1.332 0.183

X2 10.734 13.739 0.781 0.435

Geographically Weighted Regression (GWR) Results

---------------------------------------------------------------------------

Spatial kernel: Adaptive bisquare

Bandwidth used: 18.000

Diagnostic information

---------------------------------------------------------------------------

Residual sum of squares: 7268464.269

Effective number of parameters (trace(S)): 25.305

Degree of freedom (n - trace(S)): 40.695

Sigma estimate: 422.619

Log-likelihood: -476.760

AIC: 1006.130

AICc: 1043.252

BIC: 1063.728

R2: 0.830

Adj. alpha (95%): 0.006

Adj. critical t value (95%): 2.845

Summary Statistics For GWR Parameter Estimates

---------------------------------------------------------------------------

Variable Mean STD Min Median Max

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X0 4713.343 14587.670 -40563.834 5068.219 29135.007

X1 8.261 20.768 -28.923 3.893 69.438

X2 6.509 24.518 -75.043 1.818 76.629

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===========================================================================

Model type Gaussian

Number of observations: 66

Number of covariates: 3

Global Regression Results

---------------------------------------------------------------------------

Residual sum of squares: 27986626.936

Log-likelihood: -521.250

AIC: 1048.500

AICc: 1051.156

BIC: 27986362.988

R2: 0.020

Adj. R2: -0.011

Variable Est. SE t(Est/SE) p-value

------------------------------- ---------- ---------- ---------- ----------

X0 -3686.761 9003.647 -0.409 0.682

X1 12.712 11.433 1.112 0.266

X2 -0.025 13.086 -0.002 0.998

Geographically Weighted Regression (GWR) Results

---------------------------------------------------------------------------

Spatial kernel: Adaptive bisquare

Bandwidth used: 25.000

Diagnostic information

---------------------------------------------------------------------------

Residual sum of squares: 8848316.992

Effective number of parameters (trace(S)): 19.300

Degree of freedom (n - trace(S)): 46.700

Sigma estimate: 435.284

Log-likelihood: -483.251

AIC: 1007.102

AICc: 1026.449

BIC: 1051.552

R2: 0.690

Adj. alpha (95%): 0.008

Adj. critical t value (95%): 2.747

Summary Statistics For GWR Parameter Estimates

---------------------------------------------------------------------------

Variable Mean STD Min Median Max

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X0 -4830.941 19428.789 -84725.711 -230.790 17994.404

X1 12.270 27.137 -28.194 7.924 86.463

X2 3.164 23.388 -32.075 -1.997 97.177

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STWR

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Model type Gaussian

Number of observations: 333

Number of covariates: 3

Global Regression Results

---------------------------------------------------------------------------

Residual sum of squares: 27986626.936

Log-likelihood: -521.250

AIC: 1048.500

AICc: 1051.156

BIC: 27986362.988

R2: 0.020

Adj. R2: -0.011

Variable Est. SE t(Est/SE) p-value

------------------------------- ---------- ---------- ---------- ----------

X0 -3686.761 9003.647 -0.409 0.682

X1 12.712 11.433 1.112 0.266

X2 -0.025 13.086 -0.002 0.998

Spatiotemporal Weighted Regression (STWR) Results

---------------------------------------------------------------------------

Spatial kernel: Adaptive spt\_bisquare

Model sita used: 0.000

Model alpha used: 0.040

Init Bandwidth used: 3.000

Model Ticktimes used: 5.000

Model Ticktimes Intervels: 1197.812

Diagnostic information

---------------------------------------------------------------------------

Residual sum of squares: 1178259.448

Effective number of parameters (trace(S)): 30.096

Degree of freedom (n - trace(S)): 302.904

Sigma estimate: 62.369

Log-likelihood: -416.716

AIC: 895.625

AICc: 902.259

BIC: 1014.043

R2: 0.959

Adj. alpha (95%): 0.005

Adj. critical t value (95%): 2.827

Summary Statistics For GTWR Parameter Estimates

---------------------------------------------------------------------------

Variable Mean STD Min Median Max

-------------------- ---------- ---------- ---------- ---------- ----------

X0 -26.763 93.225 -297.350 -10.810 186.586

X1 2.777 0.891 1.020 2.668 4.856

X2 2.919 0.886 1.120 2.906 4.567

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