MIGRATION CLUSTERS IN AREAS OF ORIGIN AND DESTINATION: FLOWS FROM BAHIA TO SÃO PAULO

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RESEARCH QUESTION AND DATA

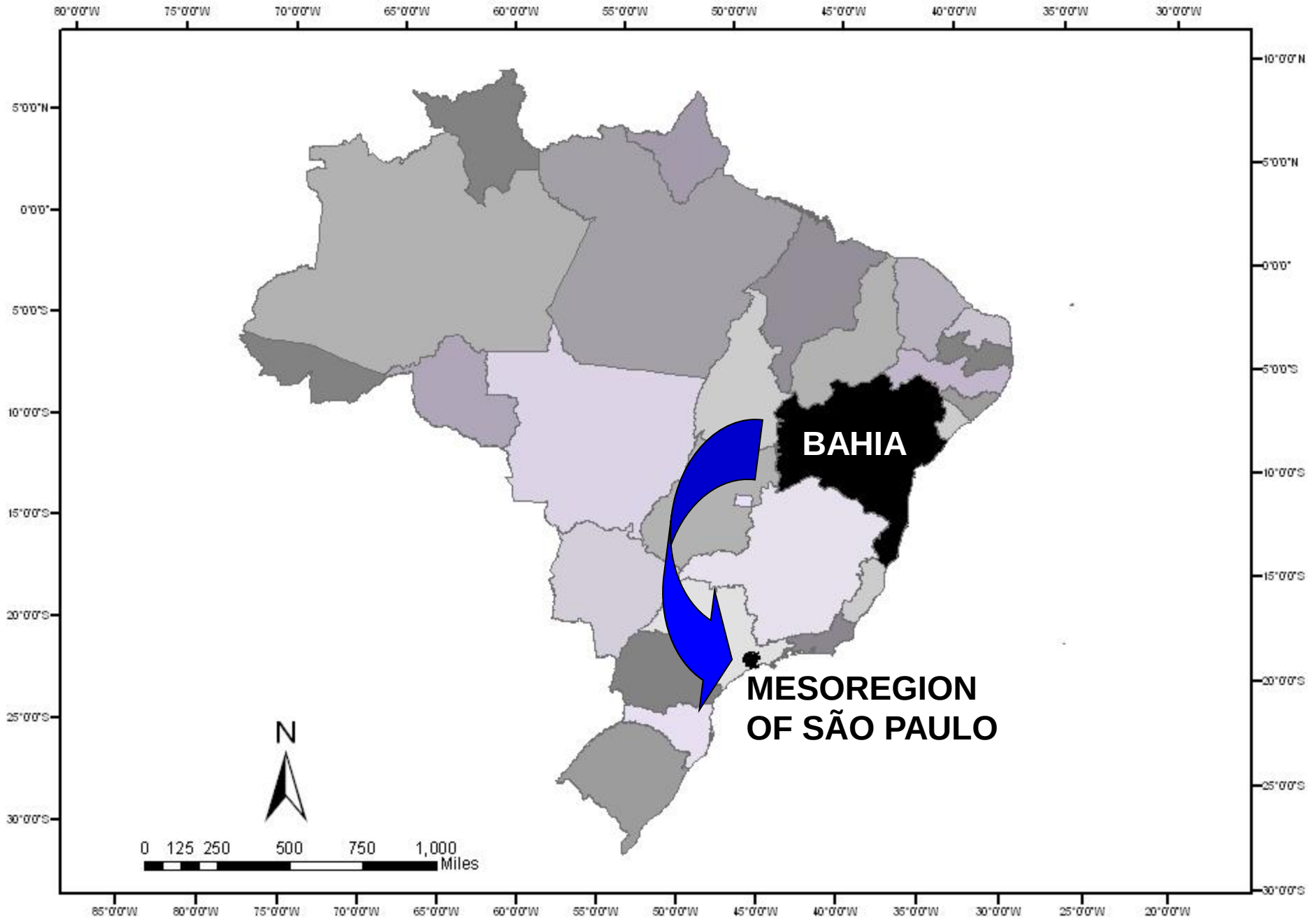
– Analyze whether the pattern of CONCENTRATION OF MIGRANTS in the area of destination is the same as that of the area of origin.

– The 2000 CENSUS has migration data for regions of origin (municipality) and destination (group of census tracts).

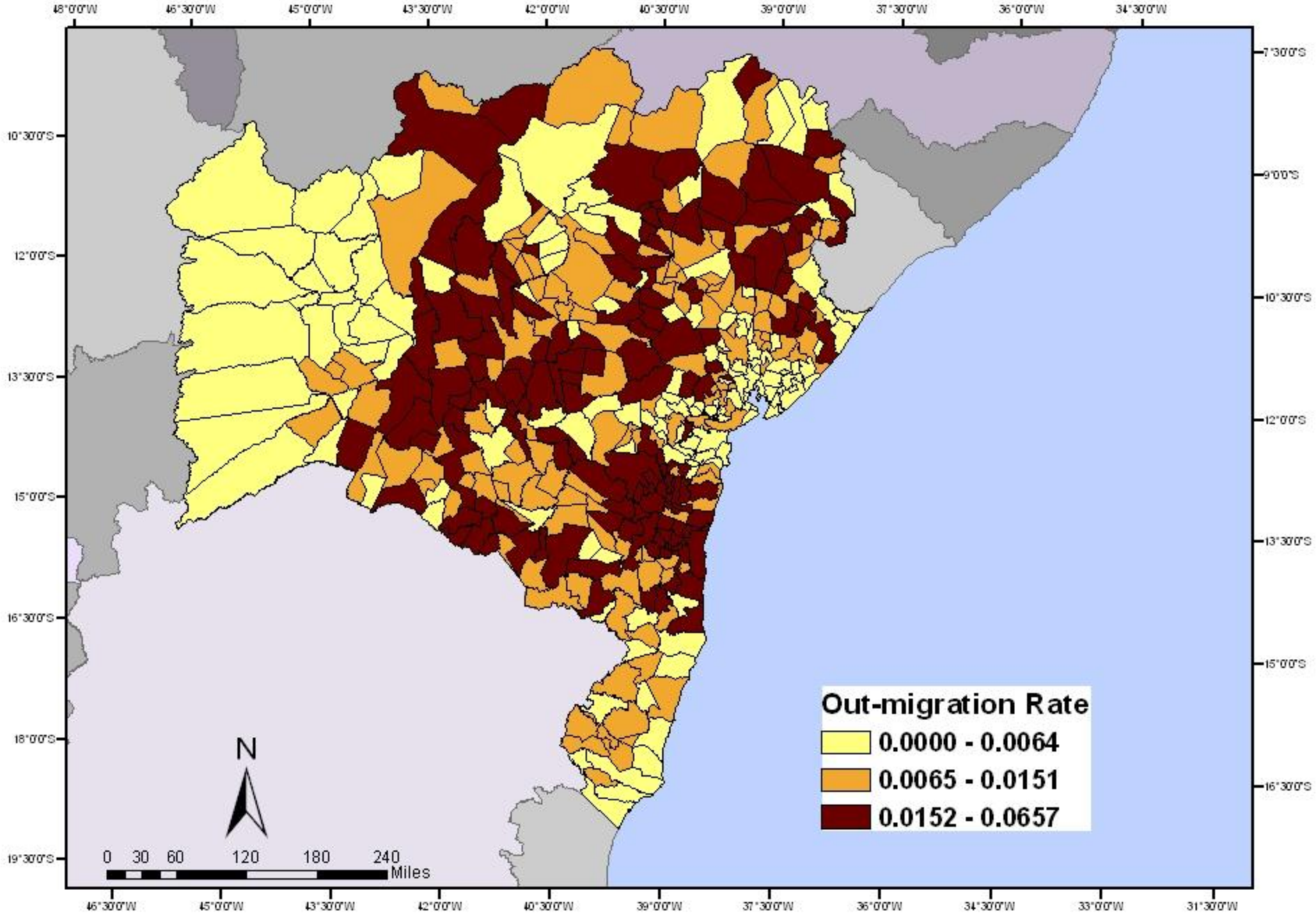
– Migration flows from 415 municipalities in the state of Bahia to 875 groups of census tracts in the mesoregion of São Paulo.

– Migrants are men with at least 23 years of age (N=4,553), avoiding familial migration (women and children).

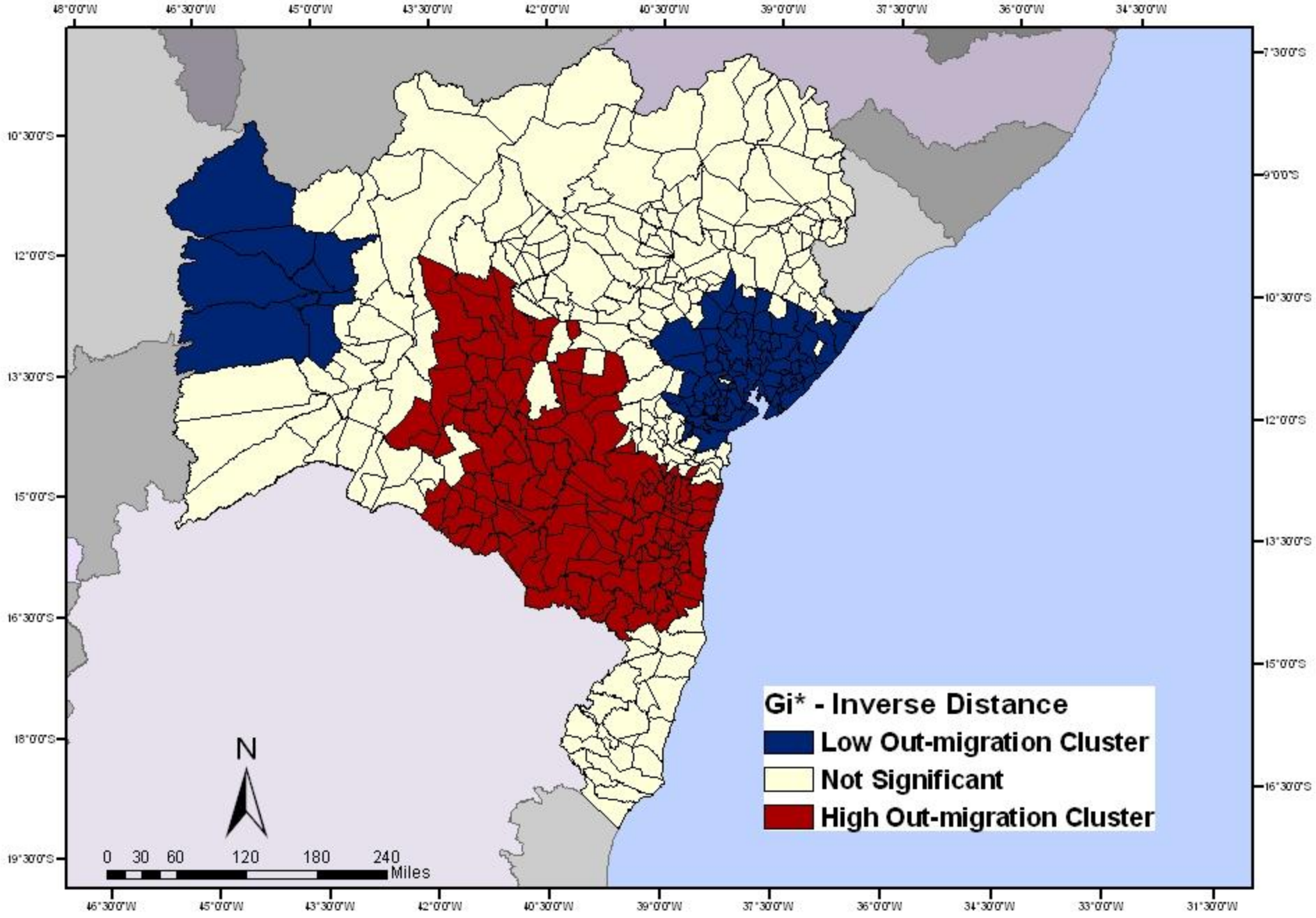
BRAZIL



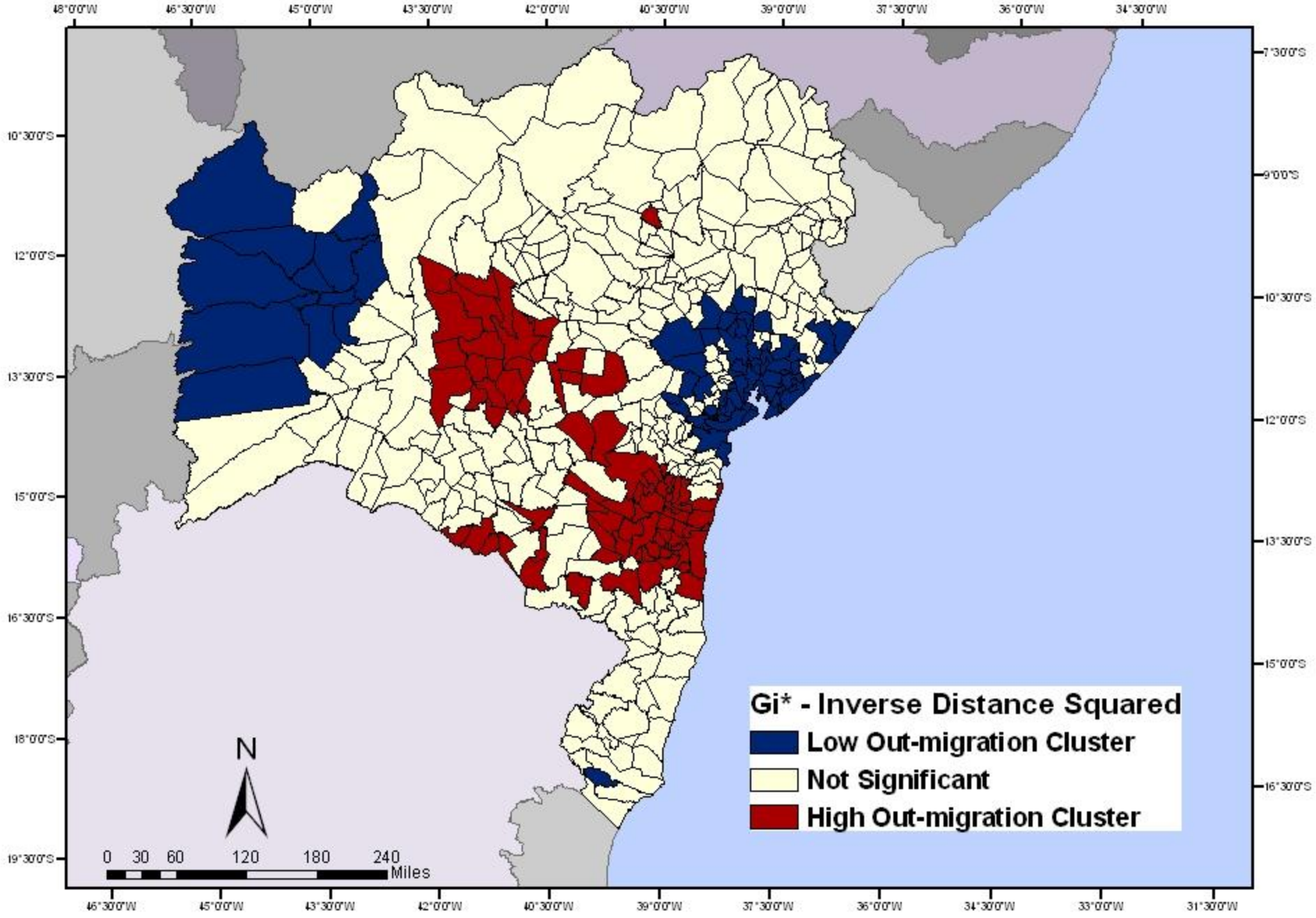
STATE OF BAHIA (AREA OF ORIGIN)



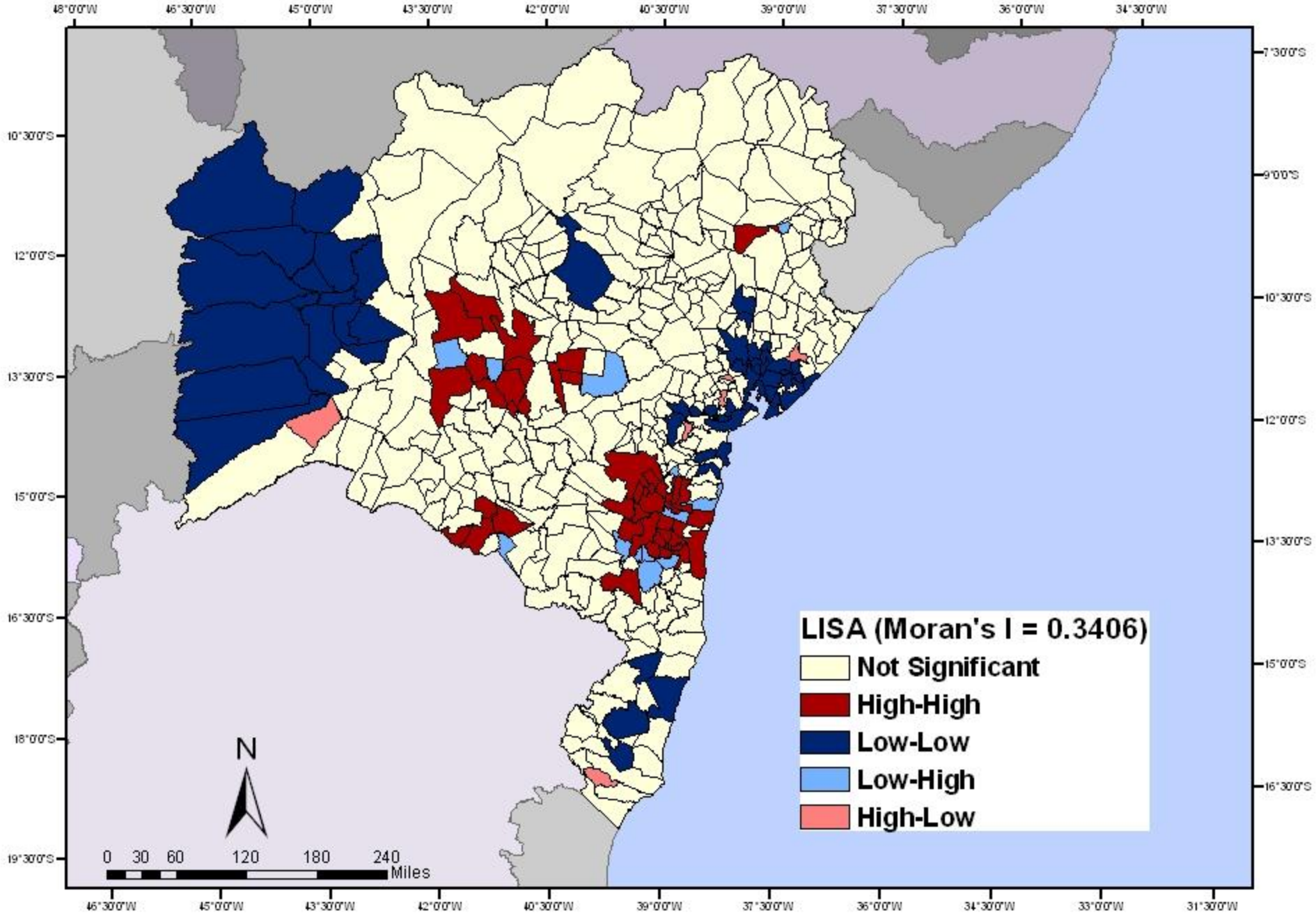
Hot Spots (Gi*) - Inverse Distance



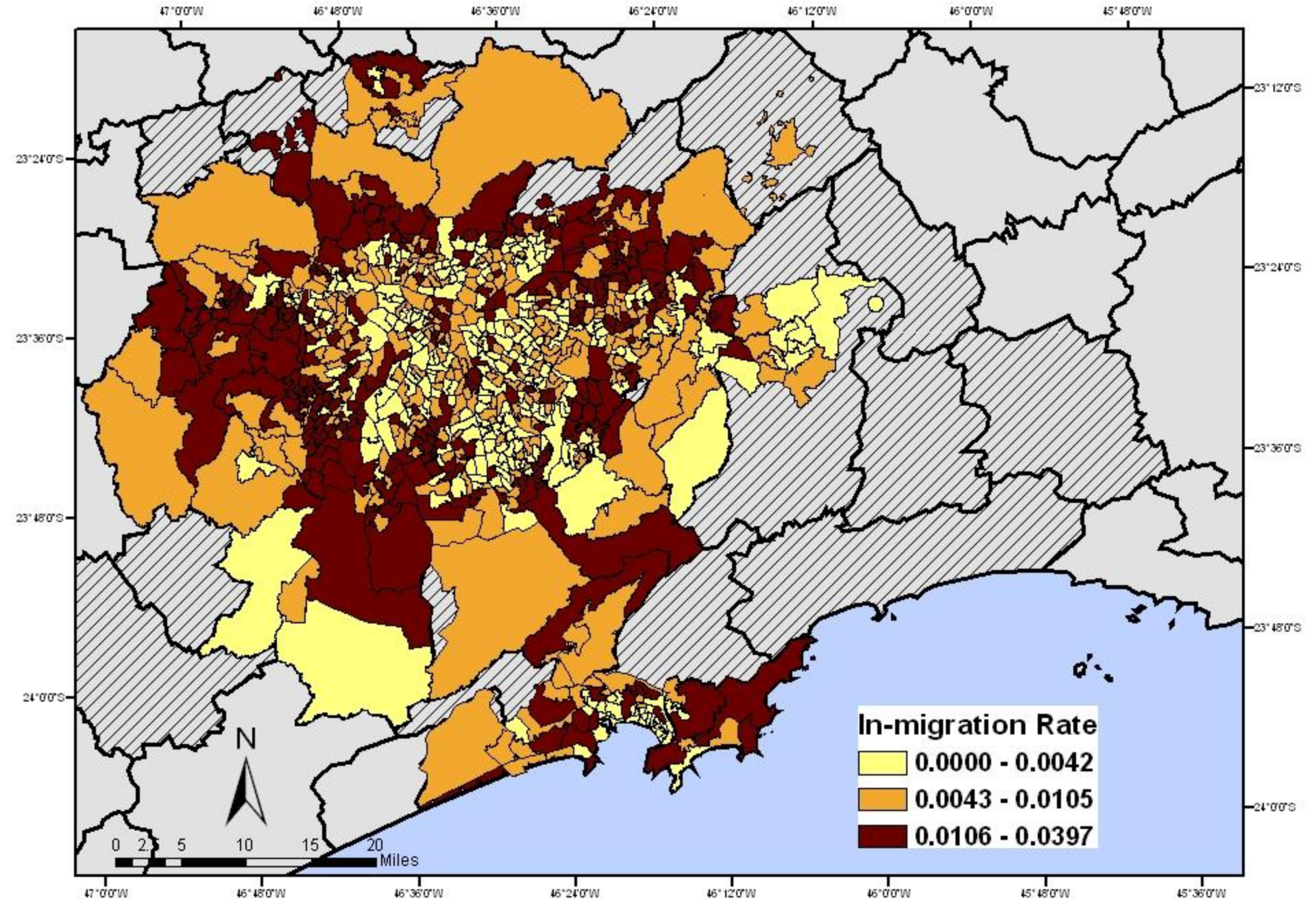
Hot Spots (Gi*) - Inverse Distance Squared



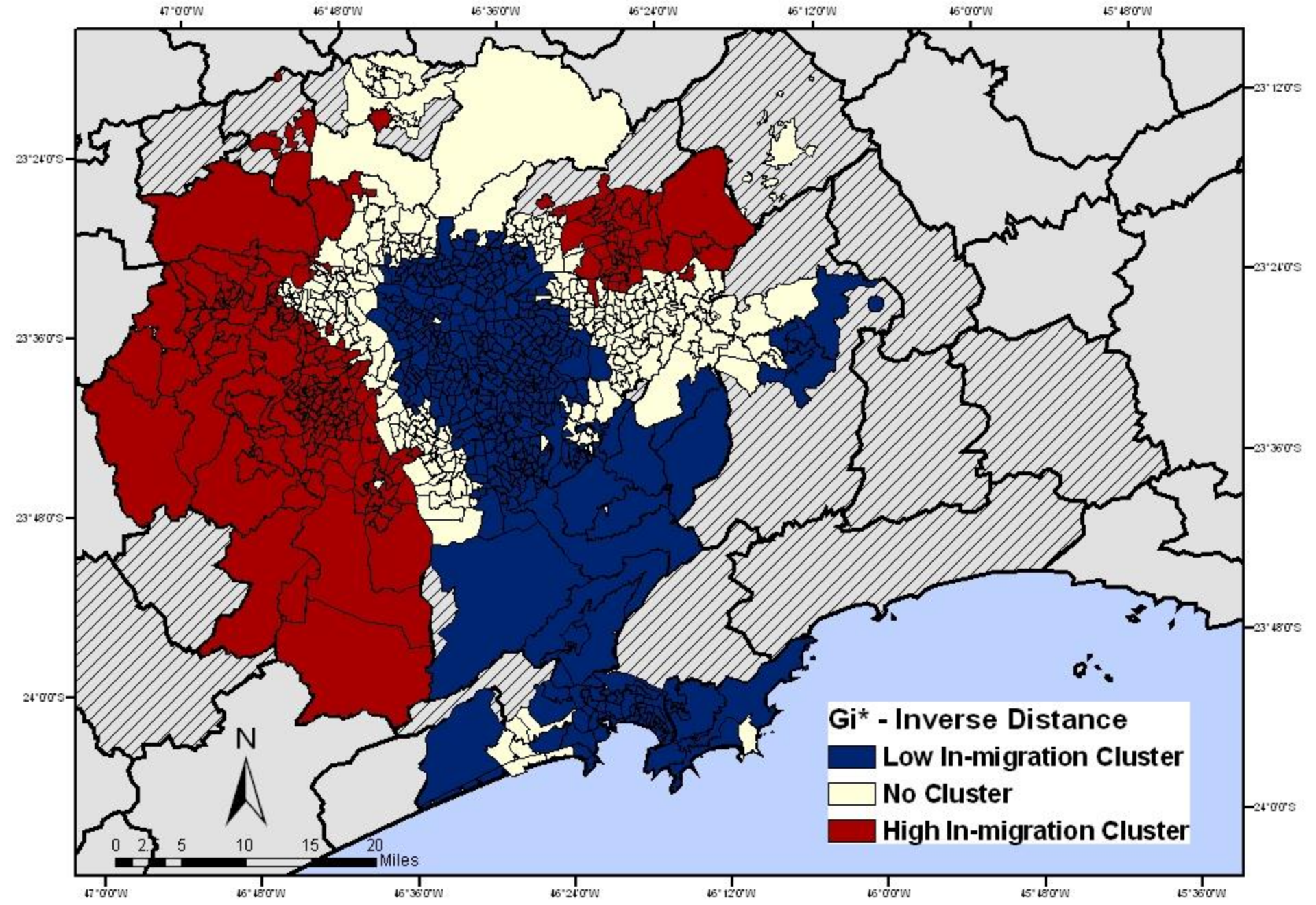
LISA Clusters (Moran's I = 0.3406)



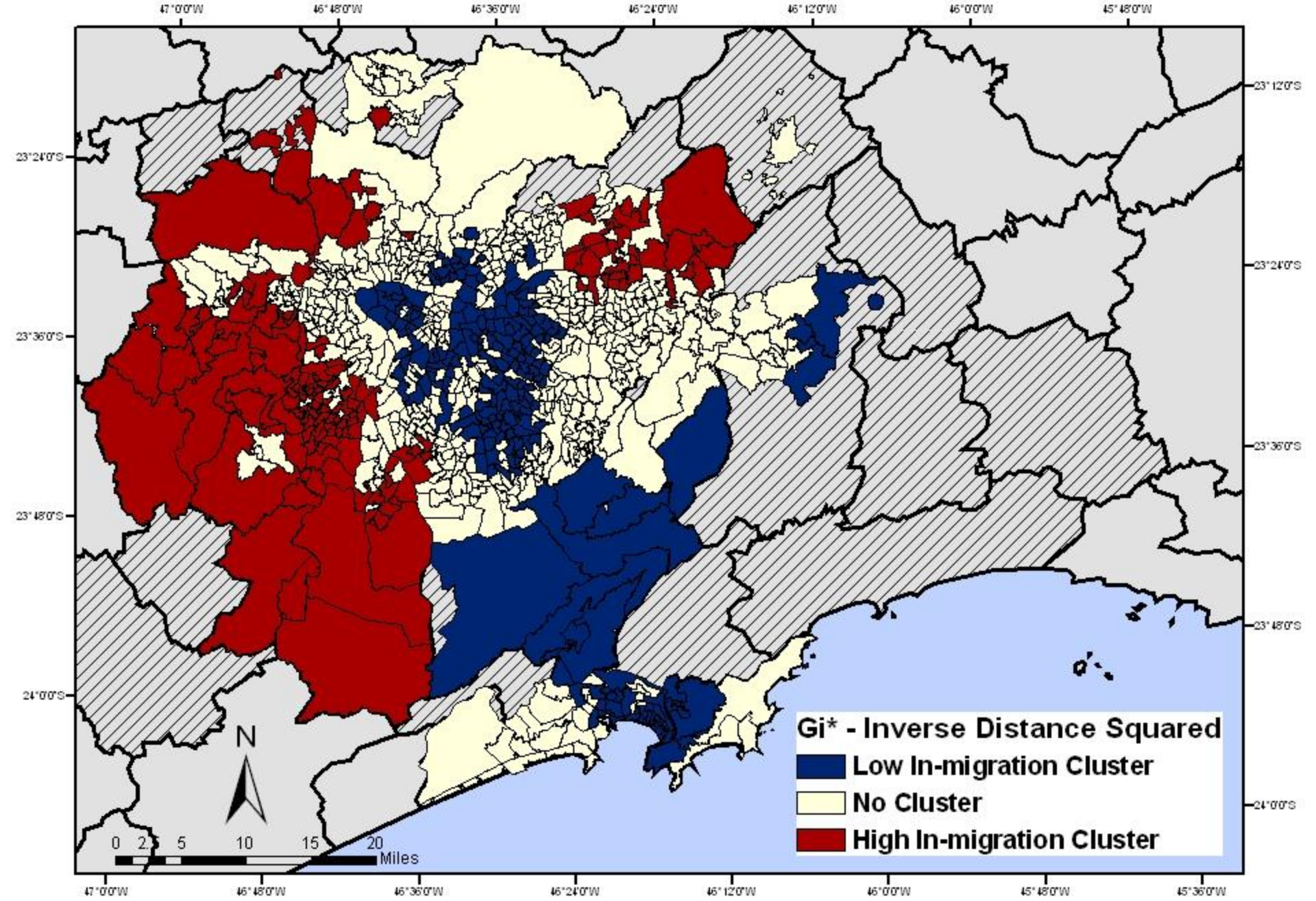
MESOREGION OF SÃO PAULO (AREA OF DESTINATION)



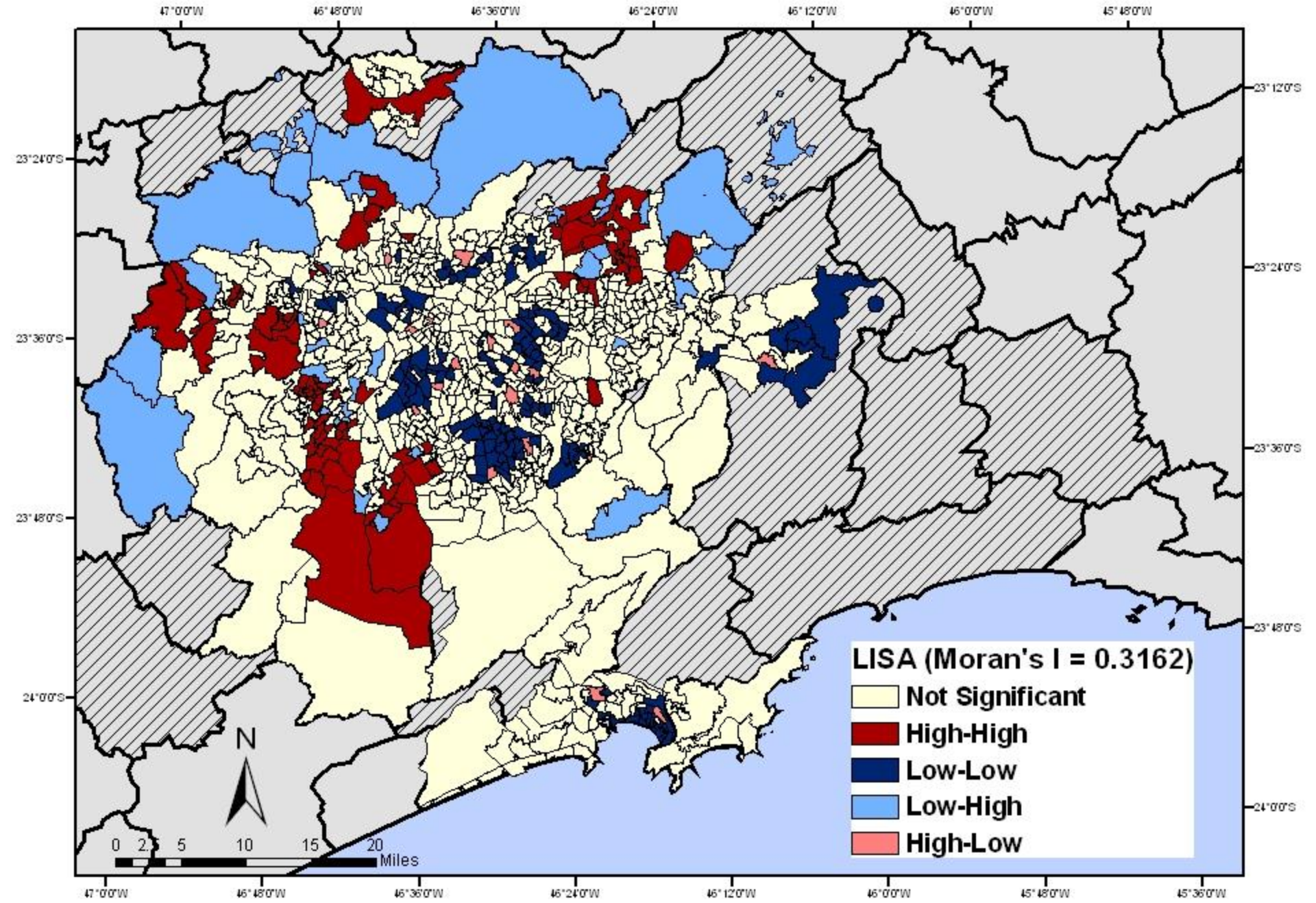
Hot Spots (Gi*) - Inverse Distance



Hot Spots (Gi*) - Inverse Distance Squared



LISA Clusters (Moran's I = 0.3162)



REGRESSION MODELS

BAHIA

Mean years of education
in each municipality

Proportion of population working
in each municipality

Out-migration rates
(denominator: male population with at least 23 years of age in each municipality)

SÃO PAULO

Mean years of education
in each group of census tract

Proportion of population working
in each group of census tract

In-migration rates
(denominator: male population with at least 23 years of age in each census-tract group)

FOUR SETS OF INDEPENDENT VARIABLES

1. ONLY FOR MALES 23+:

1.1. Original independent variables

1.2. Independent variables weighted by estimates of neighbors

2. FOR THE WHOLE POPULATION:

2.1. Original independent variables

2.2. Independent variables weighted by estimates of neighbors

GENERAL RESULTS

– There was no significant difference between models using only men 23+ and whole population in covariates.

– OLS indicated the need to use spatial error models (Lagrange multiplier).

RESULTS FOR BAHIA

– Models indicated better estimates for SPATIALLY weighted years of education.

– Years of education are INVERSELY correlated with out-migration.

– Proportion of population working is also INVERSELY correlated with out-migration, but not statistically significant.

RESULTS FOR SÃO PAULO

– Models indicated better estimates for original covariates (NON-SPATIALLY weighted).

– Years of education are INVERSELY correlated with in-migration.

– Proportion of population working is POSITIVELY correlated with in-migration.

COMMENTS ON SPATIALLY WEIGHTED COVARIATES

– In Bahia, migrants are more likely to leave municipalities with low levels of education, which are surrounded by municipalities with the SAME LEVELS of education.

– In São Paulo, migrants are more likely to move into areas with low education, and high proportion of population working, which are surrounded by areas with DIFFERENT LEVELS in covariates.

– This is suggesting that for larger areas (municipalities), mean education and employment tend to have same levels of neighbors.

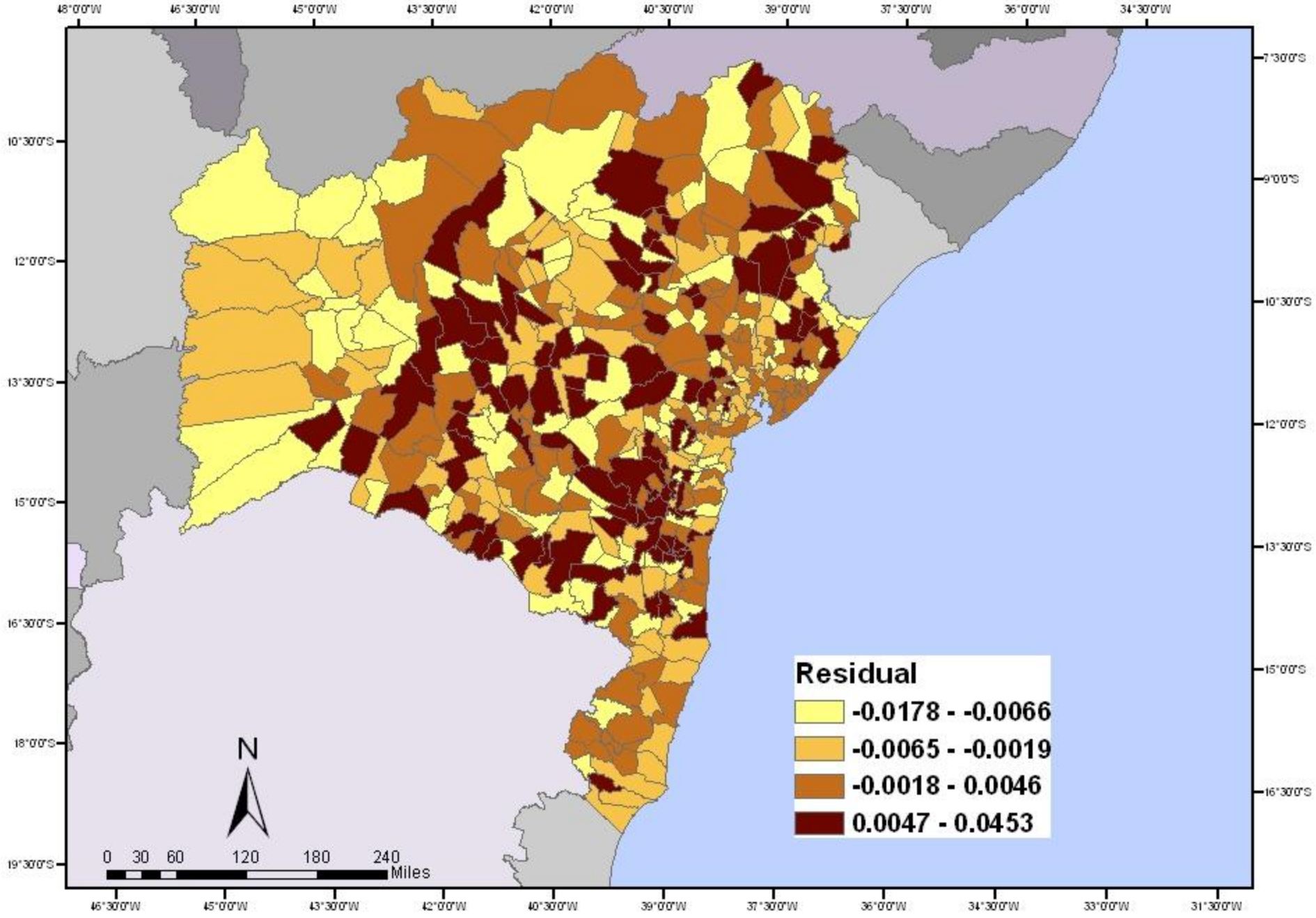
NEW “FUTURE IMPROVEMENTS”

– Low-skilled migrants are moving into areas with higher opportunities of jobs, but with low-skilled population.

– Is it an indicative that those migrants are working on low-skilled jobs in São Paulo?

– One possible improvement to this study would be the inclusion of OCCUPATION variable in the model.

STATE OF BAHIA (RESIDUAL)



MESOREGION OF SÃO PAULO (RESIDUAL)