

Locally Adaptive Spatially Explicit Population Projection Method

Disclosure Number

201303054

Technology Summary

The invention relates to population growth projections and more specifically to a computer method for making such projections. This invention incorporates a range of both theoretical and empirical growth constraints to simulate population growth and predict the spatial distribution of population for future years. Through broadening the applications of the LandScan modeling approach, we produced a credible large-scale, national level population distribution which incorporates locally adaptive modeling techniques in order to address spatially varying population dynamics. The spatially explicit population projection model can serve as an early indicator of spatially vulnerable populations, thus increasing mitigation preparation and response time in crisis situations. This methodology is also applicable to suitability modeling where population is a critical component, such as planning for new construction projects, new building siting, future market spheres of influence, and calculating potential consumer bases.

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