5.3.3 Connectivity and Equality: Consequence of Emergency Medical Services

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Accessibility highly depends on the mobility to access medical services, shopping centers, public activities, and recreational areas. Especially, emergency medical services for ambulance and emergency vehicles are very sensitive to the mobility to respond rapidly to emergency calls. Designing the emergency medical service coverage highly relies on the geographic information systems to plan routes and coverage for ambulance providers. However, the poorly maintained connectivity in GIS networks harms the emergency plan with bias. The statewide networks including county lines overlook the connectivity due to a variety of objectives of the road networks. For example, asset management, highway performance management systems (HPMS), and road closure information system uses different network datasets. Emergency medical service networks are in needs of several importance factors, such as require one-way, turns, speed, curvature, and elevation. In this paper, we emphasize these factors and discuss our approaches to fix the network issues used for the study.

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