

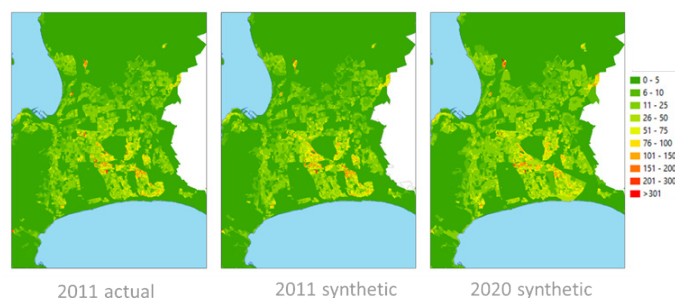
Development of a Spatial Demographic Model for the City of Cape Town



In concert with their counterparts elsewhere in the developing world, South African metros are placing an increasing emphasis on mainstreaming data-driven tools to guide strategic decision-making. Since decisions aimed at intervening in complex systems such as cities are prone to unintended consequences, it is anticipated that the availability of tools which harness empirical data to shed light on what may be expected in the near future will assist officials to make strategic decisions faster, cheaper and with a better prospect for success. However, the ability for South African metros to gain a nuanced understanding of spatial-temporal dynamics at neighbourhood level is encumbered by the lack of granular data, and the 10-year time distance between Census periods.

Cape Town uses population projections to inform the development and review their annual Integrated Development Plan and to inform long term strategies, planning, implementation, and improvement of municipal services. In 2017 the City's Policy and Strategy Department commissioned the PDG-PWC team to update Cape Town's population projections from 2016 to 2040. This project was completed in June 2018 and the projections are currently used as the official population projections for Cape Town.

PDG – working in partnership with PwC – was commissioned in 2019 to develop a spatial demographic model which disaggregates citywide population projections to small areas based on the City's land use model. The CPOP2 model draws on internationally cutting-edge statistical methodologies, including synthetic population generation and neural network-based association, to distil relational patterns between dwelling units, households and individuals based on the 2011 baseline data. In doing so, the City is able



Population projections for Cape Town

to place synthetic households and individuals with complete attributes within formal and informal dwelling units of different categories and within different neighbourhood types, from 2016 to 2040.

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CPOP2 PROJECT:

Project Profile: Development of a Spatial Demographic Model for the City of Cape Town

Client: City of Cape Town

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