CASE STUDY

Ministry of Social Development

SPATIAL ANALYSIS HELPS THE MINISTRY OF SOCIAL DEVELOPMENT KNOW WHERE FUNDING AND RESOURCES ARE MOST NEEDED

Spatial analysis helps the Ministry of Social Development know where funding and resources are most needed.

The Ministry of Social Development wanted to ensure that Work and Income clients did not face undue delays in meeting or speaking with a client manager at a nearby branch and that branch staff had optimal case loads.

Using out-of-box MapInfo® Professional technology, MSD's own geocoded client data and census area unit information, Work and Income service centre boundaries were able to be mapped, then assessed and realigned to optimise the number of clients per centre.

Read this case study to understand how spatial analysis helps MSD target funds and resources to where they are most needed; why geocoding is a critical part of the analysis into potential boundary re-alignment; and how spatial analysis is delivering information for decision makers within MSD.

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– Beth-Anne Lee, Senior GIS Analyst, Ministry of Social Development

Summary

With work that touches the lives of more than one million New Zealanders, the Ministry of Social Development provides a range of services including employment, superannuation and income support, provision of social policy advice to central government, and administering funding to community service providers.

The Ministry's ability to deliver these and other services across the length and breadth of New Zealand calls for effective tools to target resources (people and funds) to the areas where they're most needed.

"People all across the Ministry are often surprised and impressed with the added benefits location intelligence provides, frequently exceeding their expectations of simple paper maps and charts," explains Beth-Anne Lee, Senior GIS Analyst with the Ministry's Centre for Social Research and Evaluation.

Spatial analysis delivers info for decision makers

The 2009 economic downturn increased interest in understanding where the growing numbers of unemployed people were concentrated, and how the Ministry could ensure resources were well positioned to provide help where it was needed, explains Lee.

"This is where spatial analysis has come into its own.

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"We used the redistricting functionality within MapInfo and built a series of digital maps to determine potential boundary realignments for service centre catchments.

"At a glance, decision-makers were able to see where to shift clients from an overburdened service centre to one more capable of dealing with extra demand.

"Without GIS to visually interpret the data, decisions about re-assigning clients to service centres could've taken a lot longer," says Lee.

Geocoding is critical

To enable these spatial insights, MapInfo uses data from a third-party geocoding engine. Ministry staff update address information into their proprietary front-line geocoding system whenever contact is made with a client. With main benefit and New Zealand Super recipients alone making up nearly one million active clients, accurate data about their location is critical to enabling effective service delivery.

MapInfo Professional combines the geocoded client data and other information like Statistics New Zealand demographics or New Zealand Police family violence data to produce maps showing the distribution of clients by categories such as benefit type, ethnicity, age, and benefit duration.

These maps are then used for project planning and implementation as well as for informing central government of current trends, explains Lee.

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Beth-Anne Lee, Senior GIS Analyst, Ministry of Social Development

Improved funding allocation

The Ministry also oversees a large number of government and non-government funded programmes in the social sector. Lee explains that spatial analysis is starting to play a key role in helping decision-makers decide how, where, and what sort of programmes to deliver at which locations.

"Comparing existing funding volumes to client needs at specific locations is a common information request. And being able to produce maps that show the distribution of programmes against our client data can be invaluable when implementing or reviewing initiatives. For instance knowing where teen parents are located helps us determine where to locate relevant services for this group," she says.

"Funding can be complicated with programmes being delivered to different types of regions," explains Lee. "For instance some programmes are delivered within a specific territorial authority region while others might deliver programmes for several local service centres. So the Ministry's funding and contracting system has been enhanced to include a model to approximate funding for consistent geographic boundaries.

"This has greatly improved the Ministry's ability to utilise datasets from other organisations that report by different boundaries. And to ensure funding is allocating where it's most needed."