How Agilysis use Acorn to improve road safety interventions & outcomes

Background

Agilysis is a transport safety consultancy specialising in road safety. There is a wealth of experience working with road safety and a company-wide mission of using data to inform road safety interventions and prevention strategies for casualty reduction and overall road awareness.

One of their key requirements is the ability to supply insights to road safety stakeholders about individuals involved in or exposed to different types of road risk in various local communities. Since 2009, the UK government, through the Department for Transport, has been supplying the Agilysis team with police recorded postcode data to identify the home communities of individuals who have suffered injuries or were otherwise involved in injury collisions. This has enabled Agilysis to share extensive information about drivers, riders and casualties involved in collisions with road safety stakeholders as effectively as possible.

The information is relayed via a socio-demographic profiling tool to gain quick and useful insights for road safety stakeholders as timely as possible. However, the types of incidents that occur and the demographic profiles of the individuals involved in them can vastly vary, which is where a high-performing geodemographic segmentation tool becomes paramount.

Challenge

Agilysis had been using another socio-demographic profiling tool to convey the necessary demographic profiling insights for over a decade. However, as time progressed, two critical issues arose:

1. The tool's provider wouldn't allow Agilysis to view their socio-demographic profiling model at a low enough geographic level to make it as useful as needed.

2. Agilysis was unable to expose all the available variables to their stakeholders due to license holder restrictions. This particularly affected their road safety stakeholders who generally work for local authorities and police forces.

Solution

Agilysis began using CACI's geodemographic segmentation, Acorn, to enhance the calibre of their road safety intervention design and deliver precise, robust results to stakeholders.

> What made Acorn an attractive product from our point of view is that those restrictions were reduced," **Bruce Walton**, Technical Director at Agilysis, explained. **"We were allowed to expose the kinds of information that are particularly relevant to our stakeholders. We've been able to make that available to our stakeholders and therefore sharpen the focus of the information that we are able to give them.**

Variables such as access to vehicles and attitudes towards law enforcement have been particularly relevant for Agilysis to refer to when designing road safety interventions and effectively sharing findings with their stakeholders. The business plans to further leverage Acorn to be able to expose casualty and driver profiles at a lower geographical level, so rather than, for example, a local authority only having the information at the level of the entire authority, they will be capable of assessing different communities within their authority and their variances.

Benefits

According to Bruce, Acorn's range of variables and CACI's permittance of Agilysis transparently sharing sociodemographic metrics and results with stakeholders has helped the business make the information as useful as possible to augment the design of road safety interventions and provide police forces, highway authorities and other stakeholders with valuable data. This intelligence leads to improved strategic and decision-making.

> **We've been able to create custom profiles of the Acorn types and groups, in addition to their basic standard profile that CACI supplies, which we exposed to our stakeholders,"** he explained. **"We've also created a couple which are customised to the specific needs of the road safety community which allows our stakeholders to look for more specific catchment-centred information via a user-friendly portal.**
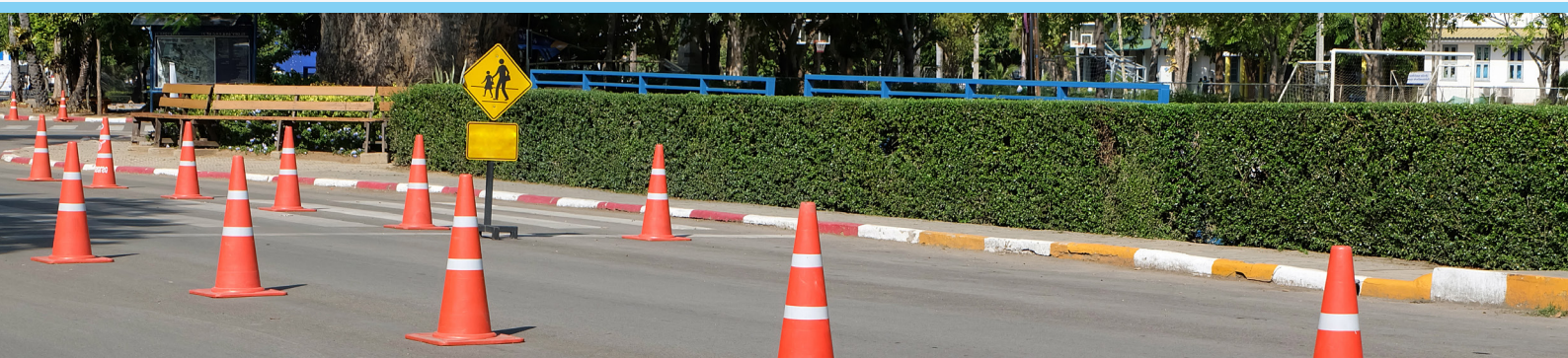
CACI's Acorn custom profile for Agilysis' Road Safety Insight
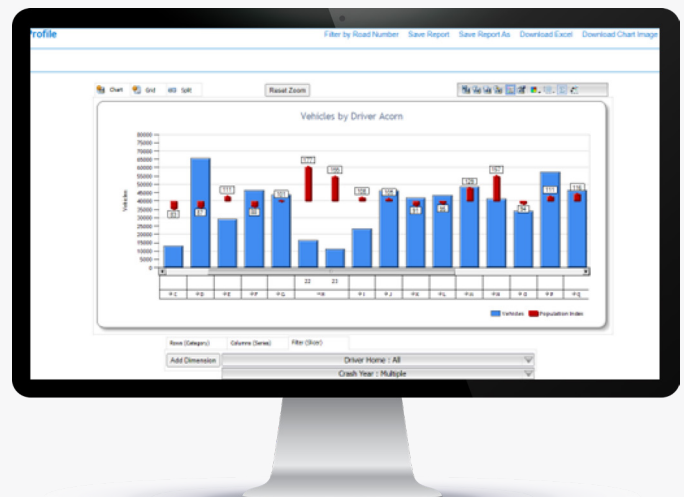
As shown above, Road Safety Insight highlights relevant road safety perspective variables, including car ownership, transport to work, annual mileage, hobbies and more. The business dissected the available list of all the metrics, identifying those which felt most useful, easiest and relevant to understand and apply to the individual forces policing strategy. Code was then written to machine generate these Acorn profiles consistently through all types, which is currently being applied to groups as well.

By leveraging these insights, Agilysis can better understand the likely propensity of an individual Acorn type to partake in various acts of travel, walking and cycling, a key priority of many road safety stakeholders nowadays.

What's next?

Additional CACI datasets are likely for Agilysis' future, with the business having already assessed datasets that can further enhance transport safety projects. These should provide new insights into key metrics such as collision involved drivers from outside Britain and road danger for deprived and minority communities.

If you would like to learn more about segmentation and using data to understand your local public service, please get in touch:

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