

Case study: Cambridgeshire Fire and Rescue Service

Using Experian's Mosaic
consumer classification system
to help reduce house fires in
Cambridgeshire



Client

Cambridgeshire Fire & Rescue Service (CFRS) fights an average of 48 dwelling fires per month. Faced with an increasing number of incidents to tackle, it turned to Experian for assistance and deployed its Mosaic classification tool to improve its risk assessment processes. The knowledge gained from the Mosaic analysis has allowed the fire service to predict fire risk by individual household, enabled greater strategic control over the allocation of resources and improved community awareness activities.



**CAMBRIDGESHIRE
& PETERBOROUGH
FIRE AUTHORITY**

Working together to improve community safety

CFRS is responsible for delivering a fire and rescue service to the 700,000 people of Cambridgeshire and Peterborough. The service operates from 28 fire stations and is headquartered in Huntingdon. Although the service is always available to respond if there is a fire, it focuses a great deal of its efforts on educating the local community about how they can best prevent fires from happening in the first place. The fire service's community safety work comprises of a broad range of activities ranging from visiting schools and groups to checking individual's homes for potential risks.

Challenge

As part of its community safety work, CFRS undertook a project to identify which wards within its operational area should be targeted. This project involved analysing the number of fires in each ward and identifying 10 wards with the greatest number of primary dwelling

fires. Although these findings were useful in allowing the fire service to understand which areas were at risk, it did not help them understand how they should best engage with the residents living in these locations.

Solution

CFRS therefore turned to Experian and used its household-level Mosaic classification tool to find out if there were any significant patterns between residential fires and socio-demographic type. The tool classifies the UK into 11 main socio-economic groups and, within this, 61 different types according to various characteristics, providing a detailed insight into the types of residents living in a particular area. Analysis using Mosaic involved taking five years' data relating to fires in residential properties - a total of 2597 fires - across Cambridgeshire to create a detailed risk map showing which properties, wards and neighbourhoods were most susceptible to fire.

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The findings indicated that there was a strong correlation between the occurrence of residential fires and Mosaic classifications. Armed with this knowledge, the fire service was able to dramatically improve its risk assessment activities.

Results

The household based consumer classification system has enabled CFRS to predict the level of fire risk by individual household and given the fire service greater strategic control of the allocation of its resources. Mosaic is also helping the fire service prioritise where community safety visits take place and ensure safety messages are positioned where those most at risk

will see them in locations such as bingo halls and local markets. This tailored messaging not only means that the fire service is reaching the most relevant publics but ensures resources are not wasted on untargeted communications activity.

Before using the tool, CFRS had leaned heavily on the professional judgement of its employees and census data when prioritising essential services and resources. Now, it is able to rely on more objective evidence to vastly improve risk management processes. Prior to the analysis, one ward in particular, Huntingdon North, was ranked as the ward with the ninth highest proportion of fires per household. After using the Mosaic analysis to inform targeted communication and community safety work, Huntingdon North dropped to be ranked 69th most prone to fire, per 100 households.

In coming months CFRS is planning to use Mosaic analysis for other vital tasks such as prioritising its water hydrants maintenance programme so that maintenance and servicing efforts are focused in areas most vulnerable to residential fires. The fire service also plans to use the Mosaic tool to improve social marketing efforts and will implement an annual review to assess the influence of targeting, and working with partners.

“We always knew that fires were prevalent in certain estates but, until now, we have been reliant on the local knowledge of our fire officers for this information. We have lacked objective and consistent analysis on where fires were taking place or information on the types of people or neighbourhoods most vulnerable. Mosaic has enabled us to make a direct connection between types of neighbourhood and people most at risk of dwelling fires so we can apply a more systematic approach to risk management and resource allocation. “

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