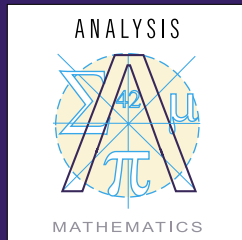


"The role of the modern statistician covers both the collection and the analysis of data. The PARTS project featured here shows these roles interact to give a basis for high quality decision making."

Dr John Henstridge
Managing Director



The Way We Move

Regular readers of our newsletters will know that Data Analysis Australia began conducting the Perth and Regions Travel Survey (PARTS) for the Department for Planning and Infrastructure in 2002. The survey is still going strong and the methodology developed by Data Analysis Australia for sampling and data collection has been so successful that it has been adopted for travel surveys elsewhere.

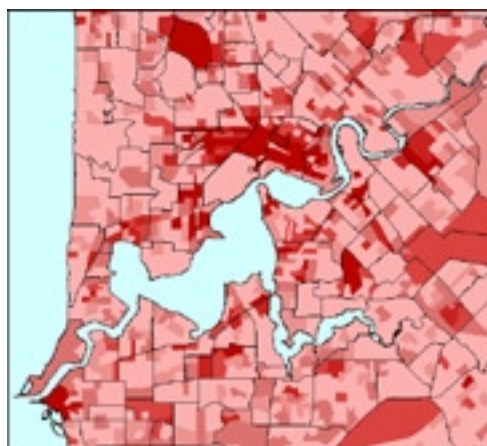
PARTS collects data on the travel behaviour of people within the Perth Metropolitan Area and the Shires of Mandurah and Murray. The data covers travel patterns for *every hour of the day, every day of the year* and will continue over a four-year period. Now that we are more than halfway through the data collection enough information has been collected and processed for meaningful results to be obtained.

You may ask yourself what is the point in collecting so much data on travel patterns at all times of the day and year. "Surely it is only weekday peak traffic that is really important in terms of planning", you may think. This might be true if the data was only for the calibration of transport models dealing with peak hour traffic. However today transport planning goes beyond just looking at peaks and, due to the richness of the data collected, planners from other areas may also be able to extract valuable information, some of which are discussed below.

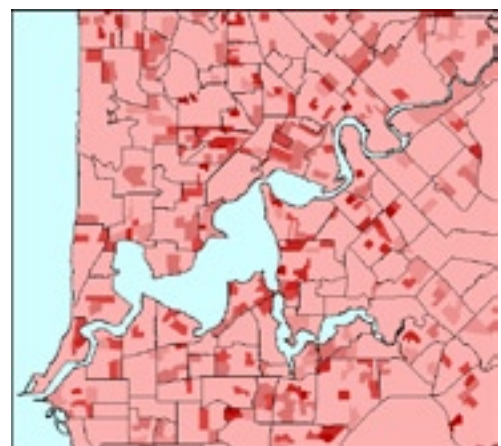
There are environmental questions, such as "are people car pooling?", which could be answered. Traditional traffic counters on the roads count the number of vehicles, but PARTS also records the number of occupants. This data shows that in about 30% of car trips made during peak times (excluding kids' travel to and from school), there is more than one person in the car.

Advertisements for the Health Department's "Find 30" campaign encourage us to spend at least 30 minutes exercising each day. Are people doing this by walking to nearby places instead of driving or by going for a walk or bike ride specifically for exercise? PARTS gathers information on the distance people travel, their method of travel and their reason for travelling. Just over half of all trips of less than one kilometre are made by people walking or riding bicycles, but only 4% of people walk or ride bikes expressly for exercise.

The Census finds out where people are at a single point in time, the evening, but PARTS finds out where people are at any time of day. For most services it is important to be conveniently located for users, which may be close to where they work, rather than live. Our comparison of population densities at 10am and 10pm on a typical working day clearly shows the disparity between the number of people in the CBD during the day and at night.



Weekday 10am



Weekday 10pm

For more information on the collection and uses of travel data, contact **Donna Hill**.

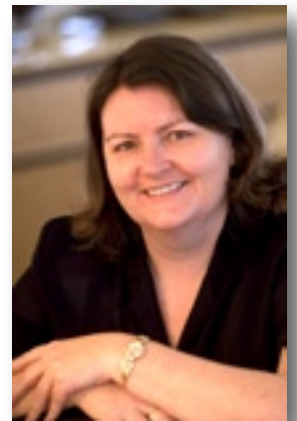
Lawyers and statisticians are often seen as opposites. However in this month's Analytical Ideas article John Henstridge argues that, at least in what they do in Court, they have much in common. The gap between them is more one of language and background rather than anything fundamental. Working together, particularly with the statistician as an expert witness, can give good outcomes. John draws on his extensive experience as an expert witness in various courts across Australia. He has been called upon to comment on statistical issues in a variety of contexts including surveys, geological and medical data and jury selection.

Staff Profile

Donna Hill started working at Data Analysis Australia in 1999 as a Consultant Statistician after receiving a Bachelor of Science majoring in Mathematics at Edith Cowan University. Donna graduated with first class honours focusing on Geostatistics in her final year. She also received the highly prestigious University Medal, which is awarded each year to the top graduating student.

Donna was promoted to Senior Consultant Statistician, which involves her in work as varied as the management of the Perth And Regions Travel Survey (see front page article), the examination of drug use data, and analysis of gold standards and diamond prices. Some of her clients include Western Power, Hamersley Iron, the Office of Road Safety and the Department of Education, Science and Training. As IT manager, Donna also oversees Data Analysis Australia's computer developments.

When she is not hard at work, Donna relaxes by going to the movies and particularly enjoys anything starring George Clooney.



Company News

Data Analysis Australia was awarded a contract by the federal Department of Family and Community Services (DFACS) to undertake a study on the feasibility of conducting a longitudinal study of problem gambling behaviours of Australian youth. Longitudinal studies are complex data collections that require a major investment to properly design and establish. **Data Analysis Australia** will draw on its expertise in survey design in considering the statistical issues involved.

We congratulate **Chris Milne** on a recent joint publication (with Brenton Clark of Murdoch University) titled *Small sample bias correction for Huber's proposal-2 scale m-estimator* in the December volume of the Australian and New Zealand Journal of Statistics (Vol 45, No. 4, p649).

The **Statistical Society of Australia** is currently leading a review of *The State of Statistics in Australian Universities*. As one of the biggest private employers of statisticians in Australia, **Data Analysis Australia** has been a keen participant in this process. Continuing in our active support of the statistics profession, two of **Data Analysis Australia's** consultants, **Jodie Thompson** (Secretary) and **Anna Munday** (Treasurer), were elected to positions on the executive committee of the WA Branch of the Statistical Society of Australia at the recent Annual General Meeting.

John Henstridge enlightened the Rotary Club of Claremont-Cottesloe in February, with a talk entitled "Trust me, I'm a Statistician" on the modern role and diversity of work by statisticians.

Classic Quote

"Let us remember the unfortunate econometrician who, in one of the major functions of his system, had to use a proxy for risk and a dummy for sex."

Fritz Machlup, Journal of Political Economy 1974

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