

This document describes the dataset `Koppelman`

The file is an abridged version of the dataset `ModeCanada` which is supplied with the R package `mlogit`. The original data is documented in a series of papers by Frank Koppelman, who is credited with supplying the dataset for the R vignette. Papers which use and describe this dataset include

Christophier V. Forinash and Frank S. Koppelman (1993) "Application and interpretation of nested logit models of intercity mode choice," *Transportation Research Record* 1413, 98-106.

Frank S. Koppelman and Chieh-Hua Wen (2000) "The paired combinatorial logit model: properties, estimation and application," *Transportation Research Part B*, 34, 75-89.

Chieh-Hua Wen and Frank S. Koppelman (2001) "The generalized nested logit model" *Transportation Research Part B*, 35, 627-641.

The dataset was assembled in 1989 by VIA Rail (the Canadian national rail carrier) to estimate the demand for high-speed rail in the Toronto-Montreal corridor. The main information source was a Passenger Review administered to business travelers augmented by information about each trip. The observations consist of a choice between four modes of transportation (train, air, bus, car) with information about the travel mode and about the passenger. The posted dataset has been balanced to only include cases where all four travel modes are recorded.

The file contains 11,116 observations on 2779 individuals.

<code>case</code>	Case number (individual traveler)
<code>alternative</code>	Train, air, bus, or car
<code>choice</code>	1 if this mode was selected, 0 otherwise
<code>distance</code>	Trip distance (kilometer)
<code>cost</code>	Trip cost (Canadian \$)
<code>intime</code>	Travel time in-vehicle (minutes)
<code>outtime</code>	Travel time out-of-vehicle (minutes)
<code>income</code>	Household income of traveler, recorded in categories (\$)
<code>urban</code>	1 if origin or destination is a large city

The variables `distance`, `income`, and `urban` are case-specific and not alternative-specific.

The variables `choice`, `cost`, `intime` and `outtime` vary by case and alternative.