

# 20-year panel data on individual states and transitions

2024 / Tohoku

## Overview

This dataset contains 20 years of panel data for disaster-affected individuals, including life events (marriage, divorce, childbirth, employment, retirement, interregional migration, etc.) and residential choice information for each year.

## License

Use is permitted only for the 2025 Summer Course on Behavior Modeling in Transportation Networks.

## Data Column Specification

Column Name	Data Type	Description
no	Int64	Record number (row index in the dataset)
time	Int64	Observation year (Gregorian calendar)
ev_married	Int64	Marriage event indicator (1 = occurred, 0 = not occurred)
ev_divorced	Int64	Divorce or bereavement event indicator
ev_birth	Int64	Childbirth event indicator
ev_independent	Int64	Child's independence from the household indicator
Jokyo	Int64	Migration from Tohoku to the Tokyo metropolitan area indicator
U-turn	Int64	Migration from the Tokyo metropolitan area back to Tohoku indicator
to-Sendai	Int64	Migration from non-Sendai Tohoku to Sendai indicator
own_house	Float64	Home ownership status
Shushoku	Int64	

Column Name	Data Type	Description
		First employment or re-employment after long-term unemployment indicator
quit_tomobataraki	Int64	Transition from dual-earner to single-earner household indicator
start_tomobataraki	Int64	Transition from single-earner to dual-earner household indicator
retirement	Int64	Retirement event indicator
individual_id	Int64	Unique identifier for the individual
target	Int64	ID of the chosen residential alternative (correct label in analysis). Represents the actual residence selected from the set of spatial alternatives. Alternatives are coded as 0=Stay (remain in current residence), 1=Iwate, 2=Sendai City, 3=Miyagi Prefecture (excluding Sendai), 4=Fukushima, 5=Ibaraki, 6=Saitama, 7=Chiba, 8=Tokyo Special Wards, 9=Tokyo, 10=Kanagawa.
choice	Int64	ID of a residential alternative in the choice set. Used to represent each possible spatial alternative evaluated in the model. Alternatives are coded as 0=Stay (remain in current residence), 1=Iwate, 2=Sendai City, 3=Miyagi Prefecture (excluding Sendai), 4=Fukushima, 5=Ibaraki, 6=Saitama, 7=Chiba, 8=Tokyo Special Wards, 9=Tokyo, 10=Kanagawa.
residence	Int64	ID of the current residence at the time of observation. Indicates the municipality or zone where the individual resided. Alternatives are coded as 0=Stay (remain in current residence), 1=Iwate, 2=Sendai City, 3=Miyagi Prefecture (excluding Sendai), 4=Fukushima, 5=Ibaraki, 6=Saitama, 7=Chiba, 8=Tokyo Special Wards, 9=Tokyo, 10=Kanagawa.

### Hash Value

39504ef0a4f7c32c684bcac9ad72be0721b7687ba47f6104d35baa650319bbdc

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