## **Transitions**

File: WEMP1

## THE DATA

This dataset looks at the employment status of married women. There is a set of simple set of variables. For each individual, data is recorded annually. There are 1425 measurements.

## THE VARIABLES

**case** individual identifier

**femp** wife's employment status; 1=employed, 0=unemployed

**year** year (1975 – 1987)

**fempt\_1** wife's employment status at t-1; 1=employed, 0=unemployed

Spend some a short time getting to know the data?

Crosstabulate wife's current employment status (**femp**) with employment status at t-1 (**fempt\_1**). This is sometimes called a transition matrix.

- 1. What can we infer from this information?
- 2. Is there a significant relationship between the wife's current employment status and her previous employment status?

Compute a variable **fempt\_2** so that 0=employed, 1=unemployed. (The new variable is the same as **fempt\_1** but with the categories reversed).

Crosstabulate wife's current employment status (**femp**) with employment status at t-1 (**fempt\_2**).

3. What do you notice about the value of chi-square?

Crosstabulate wife's current employment status (**femp**) with employment status at t-1 (**fempt\_1** and **fempt\_2**) this time compute **Total** percentages and the McNemar test. This is a nonparametric test for two related dichotomous variables.

- 4. What do you conclude about the relationship between wife's current employment status and employment status at t-1?
- 5. What is the McNemar test telling us? Should we beware of variable coding?
- 6. Why might this be considered a naïve analysis?

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