

12/10/96

HOUSEHOLD TIES

Matrices:

In general, for each relation in each village there will be four matrices that code ties to households within the village, to households in other villages, in other districts, and in other provinces. Matrices and ties are super-scripted with "v" to indicate these matrices are constructed for each village (v).

X^v: household by household, with entries x_{ij}^v for ties from households to other households within village v. This matrix is size n by n, where n is the number of households in village v.

Y^v: household by village, with entries y_{ij}^v for ties from households in village v to other villages. This codes ties outside the village but within the district. This matrix is size n by m, where m is the number of villages.

Z^v: household by district, with entries z_{ij}^v for ties from households to other districts. This codes ties outside the village and outside the district to other districts. This matrix is size n by p where p is the number of districts.

W^v: household by province, with entries w_{ij}^v for ties from households to other provinces. This codes ties outside the village, district, and province to other provinces. This matrix is of size n by q where q is the number of provinces.

X^v is a square sociomatrix, **Y^v**, **Z^v** and **W^v** are rectangular matrices. I am thinking of these as four separate matrices, but they can be appended to each other to form an n by (n+ m + p + q) matrix. If ties to households outside the village are sparse, we can code these ties in a linked list format to save storage space (see memo of 8/29/96).

The output should be a sociomatrix preceded by the data description for UCINET. This is described in my memo on SOCIOMATRICES of 11/5/96.