# First-Order Transition Matrices

"Patterns of everyday activities across social contexts"
Giacomo Vagni and Benjamin Cornwell

**Table 1:** First-Order Transition Matrices for Each of the Eight Hamming-Based Clusters.

| Transition Matrix, Cluster A | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Travel | Eat | Leisure | Missing | Paid | Personal | TV | Unpaid |
| Travel → | 0.80 | 0.03 | 0.02 | 0.00 | 0.10 | 0.02 | 0.01 | 0.03 |
| Eat → | 0.03 | 0.82 | 0.03 | 0.00 | 0.05 | 0.03 | 0.02 | 0.03 |
| Leisure → | 0.03 | 0.02 | 0.87 | 0.00 | 0.04 | 0.02 | 0.01 | 0.02 |
| Missing → | 0.00 | 0.04 | 0.00 | 0.96 | 0.00 | 0.00 | 0.00 | 0.00 |
| Paid → | 0.01 | 0.01 | 0.00 | 0.00 | 0.98 | 0.00 | 0.00 | 0.00 |
| Personal → | 0.02 | 0.03 | 0.01 | 0.00 | 0.01 | 0.91 | 0.00 | 0.02 |
| TV → | 0.01 | 0.02 | 0.01 | 0.00 | 0.01 | 0.01 | 0.93 | 0.01 |
| Unpaid → | 0.03 | 0.05 | 0.03 | 0.00 | 0.02 | 0.02 | 0.01 | 0.85 |
| Transition Matrix, Cluster B | | | | | | | | |
| Travel → | 0.81 | 0.03 | 0.03 | 0.00 | 0.06 | 0.03 | 0.01 | 0.04 |
| Eat → | 0.02 | 0.81 | 0.03 | 0.00 | 0.05 | 0.02 | 0.02 | 0.05 |
| Leisure → | 0.01 | 0.01 | 0.91 | 0.00 | 0.01 | 0.01 | 0.01 | 0.03 |
| Missing → | 0.00 | 0.00 | 0.00 | 0.71 | 0.14 | 0.00 | 0.14 | 0.00 |
| Paid → | 0.01 | 0.01 | 0.00 | 0.00 | 0.98 | 0.00 | 0.00 | 0.00 |
| Personal → | 0.02 | 0.02 | 0.01 | 0.00 | 0.00 | 0.90 | 0.01 | 0.03 |
| TV → | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.02 | 0.95 | 0.02 |
| Unpaid → | 0.01 | 0.03 | 0.02 | 0.00 | 0.00 | 0.01 | 0.01 | 0.91 |
| Transition Matrix, Cluster C | | | | | | | | |
| Travel → | 0.81 | 0.02 | 0.03 | 0.00 | 0.08 | 0.02 | 0.00 | 0.03 |
| Eat → | 0.03 | 0.82 | 0.03 | 0.00 | 0.05 | 0.02 | 0.02 | 0.04 |
| Leisure → | 0.02 | 0.01 | 0.91 | 0.00 | 0.01 | 0.01 | 0.01 | 0.02 |
| Missing → | 0.00 | 0.00 | 0.00 | 0.95 | 0.00 | 0.02 | 0.00 | 0.02 |
| Paid → | 0.01 | 0.01 | 0.00 | 0.00 | 0.98 | 0.00 | 0.00 | 0.00 |
| Personal → | 0.02 | 0.03 | 0.01 | 0.00 | 0.01 | 0.89 | 0.01 | 0.03 |
| TV → | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | 0.02 | 0.94 | 0.01 |
| Unpaid → | 0.02 | 0.04 | 0.03 | 0.00 | 0.01 | 0.02 | 0.02 | 0.86 |
| Transition Matrix, Cluster D | | | | | | | | |
| Travel → | 0.81 | 0.02 | 0.03 | 0.00 | 0.07 | 0.01 | 0.00 | 0.06 |
| Eat → | 0.02 | 0.86 | 0.02 | 0.00 | 0.02 | 0.01 | 0.01 | 0.06 |
| Leisure → | 0.02 | 0.01 | 0.92 | 0.00 | 0.01 | 0.01 | 0.01 | 0.03 |
| Missing → | 0.03 | 0.03 | 0.03 | 0.78 | 0.00 | 0.00 | 0.03 | 0.09 |
| Paid → | 0.01 | 0.01 | 0.00 | 0.00 | 0.97 | 0.00 | 0.00 | 0.01 |
| Personal → | 0.02 | 0.03 | 0.01 | 0.00 | 0.00 | 0.90 | 0.01 | 0.04 |
| TV → | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.01 | 0.95 | 0.01 |
| Unpaid → | 0.02 | 0.03 | 0.02 | 0.00 | 0.00 | 0.01 | 0.01 | 0.91 |
| Transition Matrix, Cluster E | | | | | | | | |
| Travel → | 0.86 | 0.02 | 0.02 | 0.00 | 0.05 | 0.01 | 0.00 | 0.03 |
| Eat → | 0.02 | 0.82 | 0.02 | 0.00 | 0.03 | 0.02 | 0.02 | 0.07 |
| Leisure → | 0.02 | 0.01 | 0.90 | 0.00 | 0.01 | 0.01 | 0.01 | 0.04 |
| Missing → | 0.11 | 0.07 | 0.00 | 0.82 | 0.00 | 0.00 | 0.00 | 0.00 |
| Paid → | 0.01 | 0.01 | 0.00 | 0.00 | 0.98 | 0.00 | 0.00 | 0.01 |
| Personal → | 0.01 | 0.02 | 0.01 | 0.00 | 0.00 | 0.93 | 0.00 | 0.03 |
| TV → | 0.01 | 0.01 | 0.01 | 0.00 | 0.01 | 0.01 | 0.94 | 0.02 |
| Unpaid → | 0.01 | 0.03 | 0.02 | 0.00 | 0.01 | 0.01 | 0.01 | 0.92 |

**Table 1 (Continued)** First-Order Transition Matrices for Each of the Eight Hamming-Based Clusters.

| Transition Matrix, Cluster F | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Travel | Eat | Leisure | Missing | Paid | Personal | TV | Unpaid |
| Travel → | 0.83 | 0.02 | 0.08 | 0.00 | 0.01 | 0.01 | 0.01 | 0.04 |
| Eat → | 0.01 | 0.84 | 0.04 | 0.00 | 0.00 | 0.02 | 0.03 | 0.05 |
| Leisure → | 0.01 | 0.01 | 0.95 | 0.00 | 0.00 | 0.01 | 0.01 | 0.02 |
| Missing → | 0.00 | 0.00 | 0.01 | 0.97 | 0.00 | 0.01 | 0.00 | 0.01 |
| Paid → | 0.02 | 0.00 | 0.02 | 0.00 | 0.95 | 0.00 | 0.00 | 0.01 |
| Personal → | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.95 | 0.00 | 0.02 |
| TV → | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.01 | 0.95 | 0.01 |
| Unpaid → | 0.01 | 0.03 | 0.04 | 0.00 | 0.00 | 0.01 | 0.02 | 0.89 |
| Transition Matrix, Cluster G | | | | | | | | |
| Travel → | 0.80 | 0.02 | 0.04 | 0.00 | 0.00 | 0.01 | 0.01 | 0.13 |
| Eat → | 0.01 | 0.84 | 0.02 | 0.00 | 0.00 | 0.01 | 0.01 | 0.11 |
| Leisure → | 0.01 | 0.01 | 0.89 | 0.00 | 0.00 | 0.01 | 0.01 | 0.06 |
| Missing → | 0.00 | 0.04 | 0.00 | 0.86 | 0.00 | 0.00 | 0.04 | 0.04 |
| Paid → | 0.01 | 0.00 | 0.02 | 0.00 | 0.89 | 0.01 | 0.00 | 0.06 |
| Personal → | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.91 | 0.00 | 0.06 |
| TV → | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.01 | 0.95 | 0.02 |
| Unpaid → | 0.01 | 0.02 | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | 0.94 |
| Transition Matrix, Cluster H | | | | | | | | |
| Travel → | 0.79 | 0.02 | 0.07 | 0.00 | 0.00 | 0.01 | 0.01 | 0.10 |
| Eat → | 0.01 | 0.84 | 0.03 | 0.00 | 0.00 | 0.02 | 0.02 | 0.10 |
| Leisure → | 0.01 | 0.01 | 0.93 | 0.00 | 0.00 | 0.01 | 0.01 | 0.04 |
| Missing → | 0.00 | 0.03 | 0.05 | 0.85 | 0.00 | 0.03 | 0.00 | 0.05 |
| Paid → | 0.02 | 0.01 | 0.03 | 0.00 | 0.88 | 0.00 | 0.00 | 0.06 |
| Personal → | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.94 | 0.00 | 0.03 |
| TV → | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.01 | 0.95 | 0.03 |
| Unpaid → | 0.01 | 0.03 | 0.02 | 0.00 | 0.00 | 0.01 | 0.01 | 0.93 |