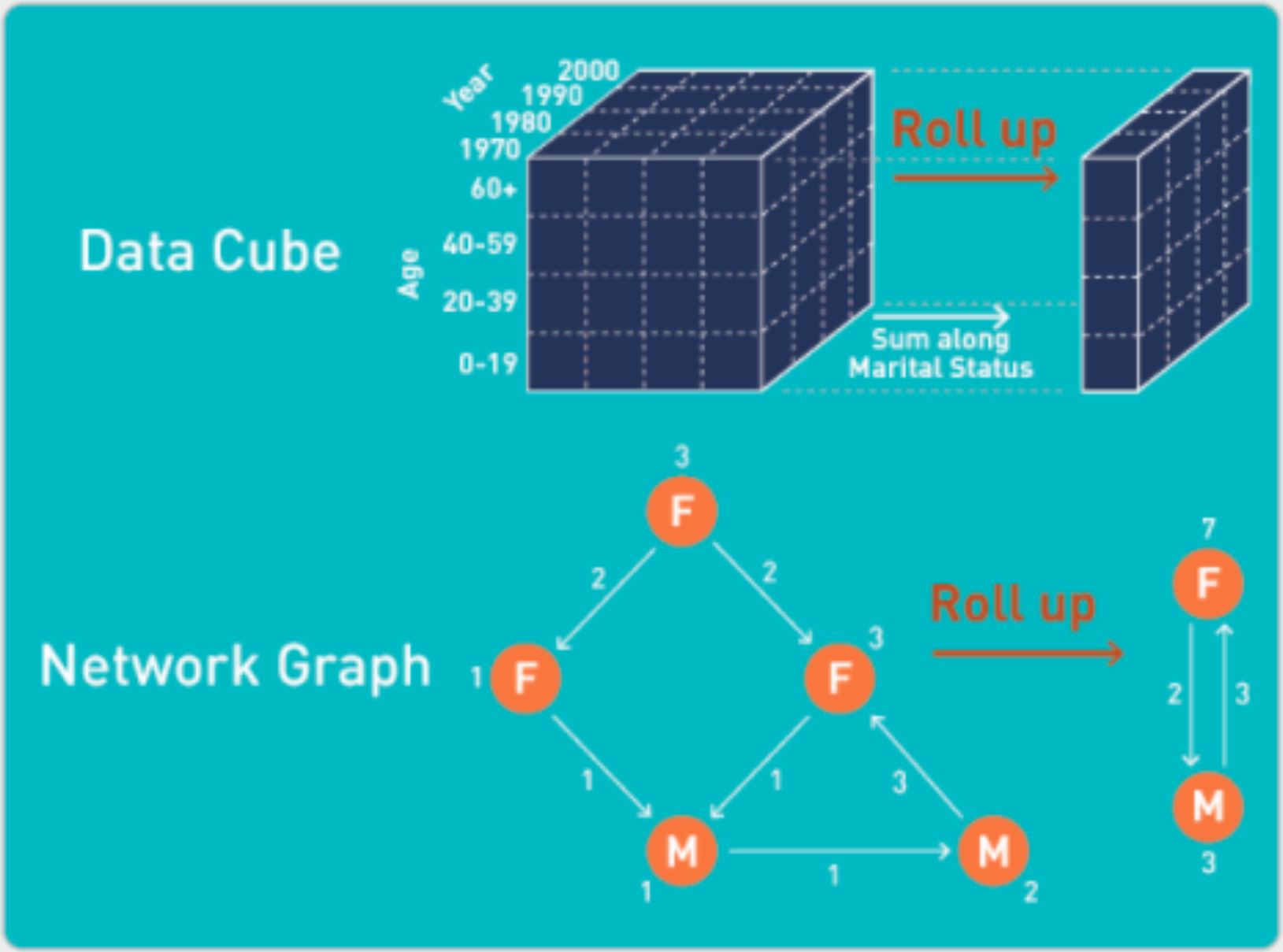
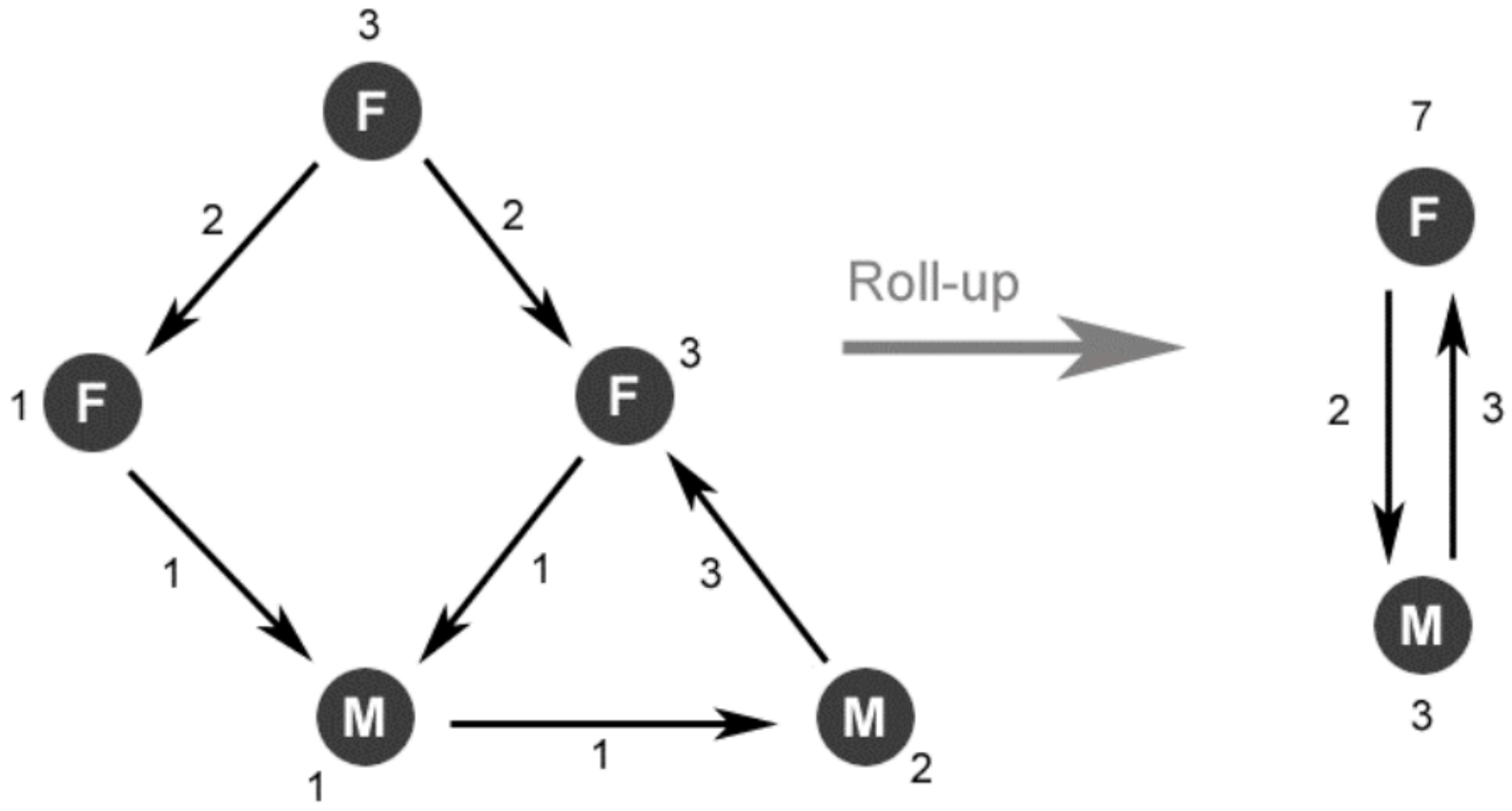
Reducing Complexity

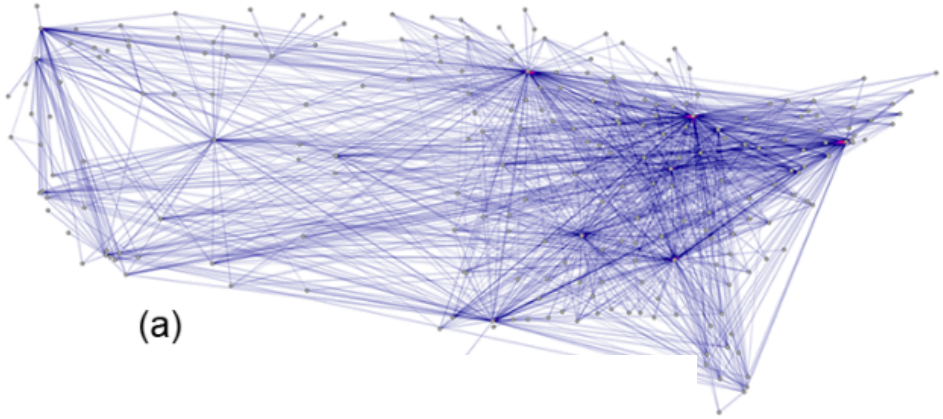

Data Cube
Year
2000
1990
1980
1970
Age
60+
40-59
20-39
0-19
Roll up
Sum along
Marital Status
Network Graph
F
M
1
2
3
Roll up
7
2
3

PivotGraph (Wattenberg)

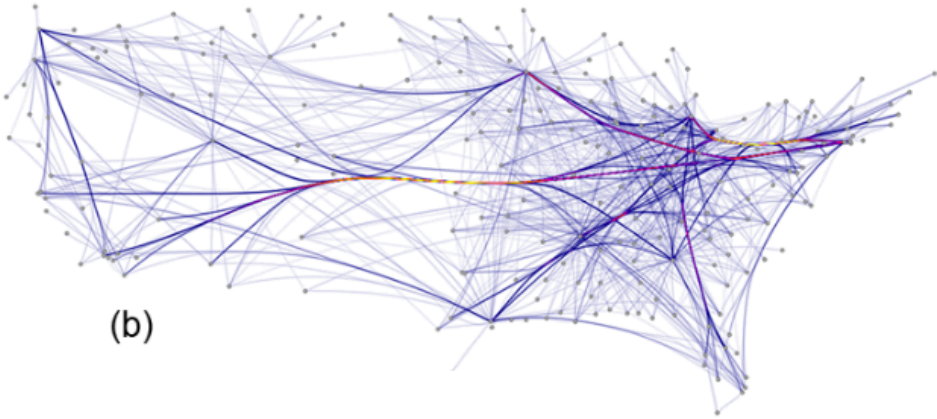


Edge Bundling

Holten & van Wijk, 2009



unbundled



force-directed edge bundling

Holten, D., & Van Wijk, J. J. (2009). Force-directed edge bundling for graph visualization. In *Computer Graphics Forum* (Vol. 28, No. 3, pp. 983-990).

Filtering, Subsetting, Binning

Techniques often necessary for static vis and complement interactive/exploratory vis

Combine with network statistics (attributes)

Statistical pitfalls for subsetting on networks (caution)

Sampling Strategies

Random node selection

Random edge selection

Crawling (random walks)

Goals

Statistically represente subgraph

Re-estimation of network parameters, node/edge attributes

Vis!

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