The Evolution and Formation of Amicus Curiae Networks

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1 Appendix: Supplementary Materials

1.1 Labeled Nodes in Graphs of Egocentric Networks

Fig. 4 in the text presents the egocentric networks of three central players: the NWF, the NACDL and the ACLU. We have annotated the clusters in the graph in the text based on their issues. Here we present graphs with labeled nodes.

1.2 ERGMs by Decade

We also estimated ERGMs parameterized with measures of density, isolates and 2-stars by decade to assess the dynamics of each property, controlling for the others. We find that the results suggest a similar picture to that painted by the more naive univariate network statistics presented in the text.

1.3 Bipartite ERGM

The data can be built as a time-indexed bipartite network, but we are currently collapsing over time (by decade) and projecting onto interest groups for theoretical reasons, as discussed in the text. There are alternative ways to analyze the data including valued-regression, if we collapsed in time and projected while keeping the edge weights, or bipartite regression, if we collapsed over time, but did not project (Wang et al. 2009), or TERGMs if we projected, but did not collapse over time (Hanneke & Xing 2007, Desmarais & Cranmer 2010). Another interesting approach is Opsahl's (forthcoming) work, which offers new definitions and calculations for clustering coefficients in two-mode networks. The development of the options for these relatively new approaches is currently an active area of research. Examining these alternative approaches will lead to a better understanding of all facets of this large dataset, but it is beyond the scope of our current paper. Below we present the results of the ERGM for the same network specified with a bipartite structure: interest groups linked to briefs which may be linked to other interest groups. We find that the inferences are largely consistent regardless of whether we conceive of the network as bipartite or a one mode projection.

References

Desmarais, B. A. & S. J. Cranmer. 2010. "Analyzing longitudinal networks: the temporal exponential random graph model." Presented at the Annual Meeting of the Midwest Political Science Association.

Hanneke, S. & E. P. Xing. 2007. Discrete temporal models of social networks. In *Statistical network analysis: Models, issues, and new directions.* Berlin, Germany: Springer pp. 115–125.

Wang, P., K. Sharpe, G.L. Robins & P.E. Pattison. 2009. "Exponential random graph (p*) models for affiliation networks." *Social Networks* 31(1):12–25.

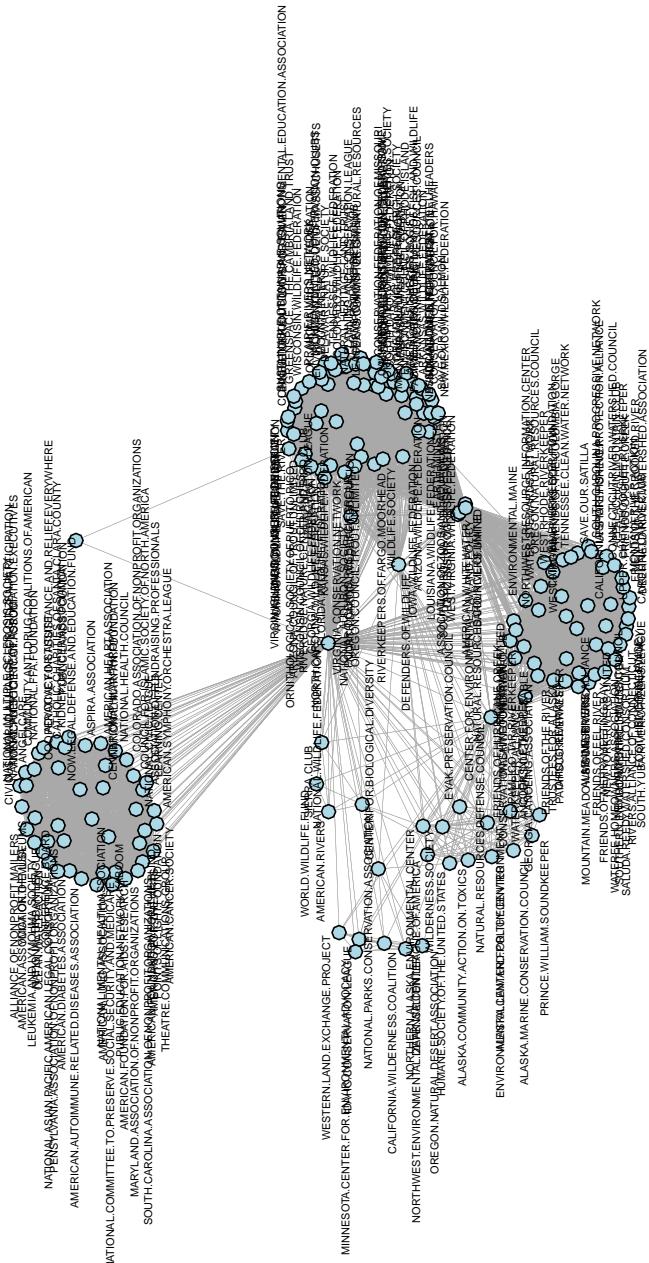Figure 1: Egocentric Network of National Wildlife Federation

Figure 2: Egocentric Network of National Association of Criminal Defense Lawyers
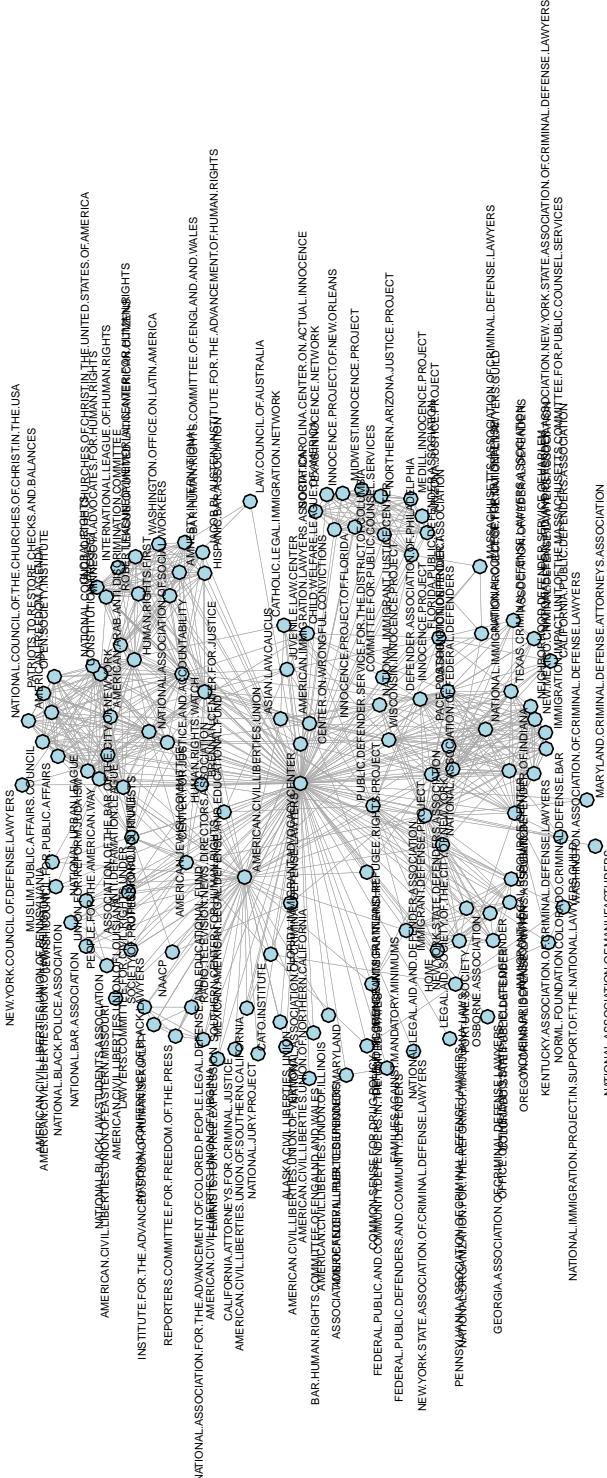
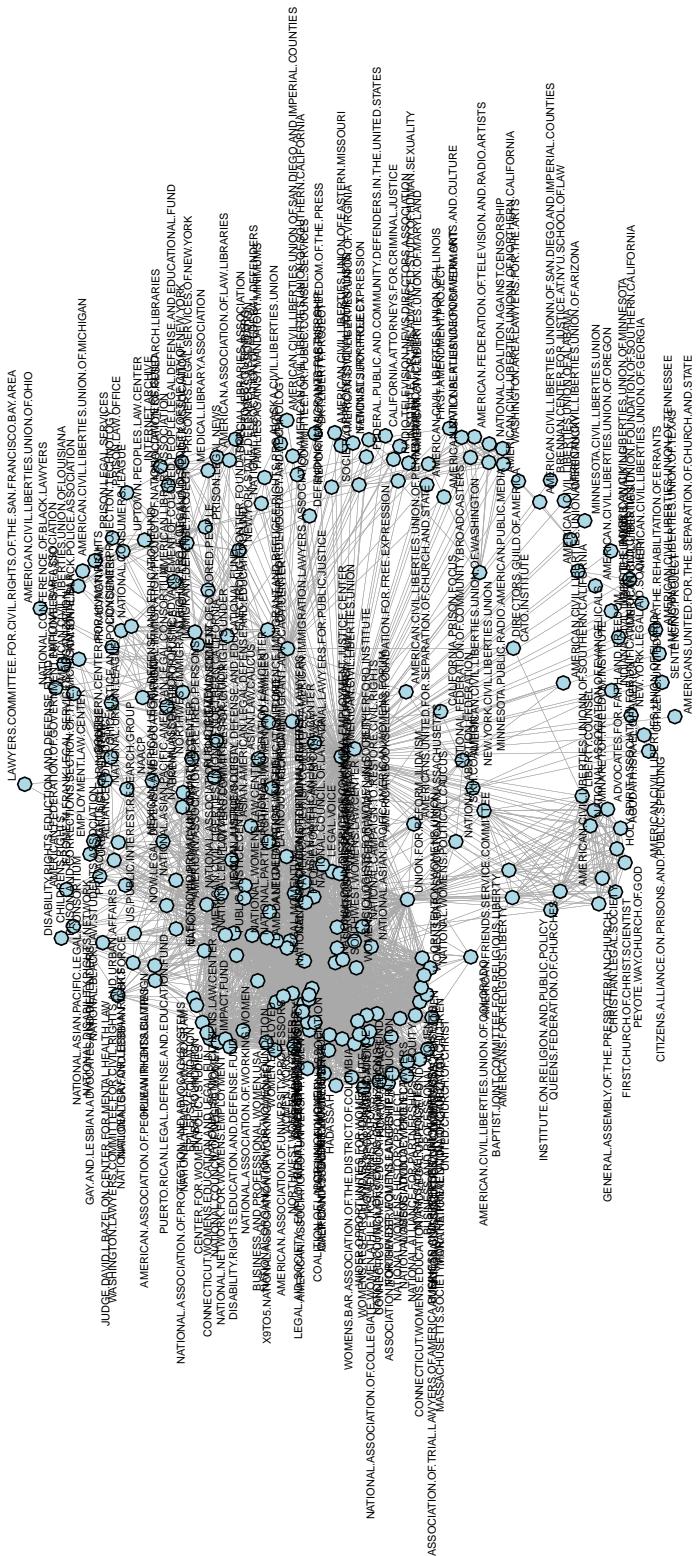Figure 3: Egocentric Network of American Civil Liberties Union

Table 1: ERGMs of Interest Group Coalitions by Decade, 1930s-2000s

	Estimate	Std. Error
1930s		
Density	-7.58E+19	0.00E+00
2-stars	7.97E+13	0.00E+00
Isolates	3.64E+14	0.00E+00
1940s		
Density	-1.56E+05	5.08E+00
2-stars	1.16E-01	3.04E-05
Isolates	3.78E+00	4.11E-02
1950s		
Density	-1.56E+05	3.38E+03
2-stars	7.40E-02	3.06E-03
Isolates	3.92E+00	1.75E-01
1960s		
Density	-1.36E+06	3.17E-01
2-stars	6.11E-02	9.04E-04
Isolates	3.07E+00	4.98E-02
1970s		
Density	-1.59E+07	4.59E+04
2-stars	3.44E-02	2.21E-04
Isolates	3.28E+00	2.35E-02
1980s		
Density	-4.98E+07	4.08E-10
2-stars	1.73E-02	9.64E-05
Isolates	3.24E+00	1.29E-02
1990s		
Density	-6.16E+07	0.00E+00
2-stars	1.35E-02	6.93E-04
Isolates	3.47E+00	6.32E-01
2000s		
Density	-9.54E+07	0.00E+00
2-stars	2.04E-02	4.94E-04
Isolates	3.31E+00	3.27E-01

Table 2: Bipartite ERGM of Interest Group Coalitions, 2000-2009

	Estimate	MCMC Std. Err.
Edges	-8.351	1.591
Interest Group Star 2	0.100	0.402
Interest Group Star 3	-0.001	0.008
Brief Star 2	0.119	0.005
Brief Star 3	-0.002	0.000
Budget	-0.020	0.006
Employees	-0.026	0.004
Sales	-0.017	0.009
Founded	0.009	0.006
SIC	0.074	0.004
Members	-0.125	0.001
Plant Size	-0.020	0.004