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Organizational Sets, Populations and Fields: Evolving Board Interlocks and Environmental NGOs

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Abstract

This paper redirects the study of heterogeneity in field-level studies. Through an empirical examination of board interlocks between non-governmental organizations (NGOs) and corporations and foundations, this paper analyzes changes at three levels – the *organizational field*, *population* and *set*. Our study finds that nearly half of the NGOs in our sample have no interlocks with corporations and foundations, and that there is a strong presence of corporate ties with the remaining NGOs. Between 2000 and 2005, we find that NGO ties with foundations and other NGOs are increasing in number and density, and that the field is showing increasing centralization of a small number of NGOs. We propose that attention to these micro-levels of the organizational population and set provides a more nuanced understanding of how change occurs at the macro level levels of the organizational field.

INTRODUCTION

In recent decades, non-governmental organizations (NGOs) have played an increasingly influential role in the definition and alteration of market and policy domains (Waddell, 2005; Brugmann and Prahalad, 2007; Detomasi, 2007). This activity has garnered growing attention in both the policy (e.g. Banuri and Najam, 2002) and academic literature (e.g. Powell and Steinberg, 2006). Of particular note has been the growing collaboration between NGOs and various types of organizational actors (Selsky and Parker, 2005; Warner and Sullivan, 2004; Detomasi, 2007) including corporations (Westley and Vredenburg, 1991; de Bruijn and Tucker, 2002; Rondinelli and London, 2003; Pearce and Doh, 2005, Galaskiewicz and Sinclair-Colman, 2006) and foundations (Brulle and Jenkins, 2005; Westhues and Einwiller, 2006; Prewitt, 2006). These collaborations can take many forms, including philanthropic (giving money to NGOs), strategic (event sponsorships and donations of products/equipment), commercial (cause-related marketing, licensing of names and logos, and scientific collaborations) or political (policy-marketing and lobbying) (Galaskiewicz and Sinclair-Colman, 2006).

What we find of interest among these types of collaboration is the extent to which they exert regulative, normative or cognitive influence (DiMaggio and Powell, 1991; Scott, 2001; Hoffman and Ventresca, 2002) on the behavior, agenda setting and mission of organizations in the NGO community (Scott and Davis, 2007; Minkoff and Powell, 2006). In this paper, we study the channels of information flows (Davis, 1991) by which this process takes place by tracking board interlocks (Burt, 1983; Pfeffer, 1987; Mizruchi, 1996; Davis, 1996) between environmental NGOs and corporations or foundations. Using

the tools of social network analysis (Wasserman and Faust, 1994; Borgatti, Everett and Freeman, 2002), we show how these interaction patterns can be articulated at various levels of granularity and demonstrate how they change over time – between 2000 and 2005.

In so doing, we add to the emergent and as yet incomplete empirical research on governance structures within the NGO literature (Ostrower and Stone, 2006). Further, this paper extends models of field level dynamics within the institutional literature (Scott, 2001; DiMaggio and Powell, 1991). Moving beyond the “master hypothesis” within institutional theory of isomorphism and stasis (Hoffman and Ventresca, 2002), this paper examines a richly developed conception of the organizational field as complex, heterogeneous, multi-layered and dynamic (Hirsch and Lounsbury, 1997). Anchored on early notions that the field is a community of organizations “whose participants interact more frequently and fatefully with one another” (Scott, 1995: 56), this paper presents fields as “relational spaces” (Wooten, 2006); domains that provide organizations with the opportunity to involve themselves with one another in an effort to develop collective understandings regarding matters that are consequential for on-going activities (Wooten and Hoffman, 2007). Formed around “issues” of importance (Hoffman, 1999) and open channels of dialogue, disparate organizations involve themselves in richly contextualized and diverse environments where dialogue takes place at multiple levels.

To conceptualize these multiple levels, this paper reintroduces the concepts of the organization set and organizational population (Scott, 1998) to explain the complexity of

field-level interaction; who is engaged within them, how they are configured and how they change. In the end, this paper examines the micro-level patterns of field level engagement to provide a more sophisticated explanation about how macro-level changes in field structure can be understood (DiMaggio and Powell, 1983; DiMaggio, 1995).

ORGANIZATIONAL FIELDS

The central organizing unit for this paper is the organizational field, “a community of organizations that partakes of a common meaning system and whose participants interact more frequently and fatefully with one another than with actors outside the field” (Scott, 1995: 56). It may include constituents such as the government, critical exchange partners, sources of funding, professional and trade associations, special interest groups, and the general public — any constituent which imposes a coercive, normative or mimetic influence on the organization (DiMaggio and Powell, 1991; Scott, 1991). For early neo-institutional theory (Meyer and Rowan, 1977; DiMaggio and Powell, 1983; Powell and DiMaggio, 1991; Scott, 1991), the organizational field was a domain in which unified or monolithic institutional forces created isomorphism – uniform organizational responses (DiMaggio and Powell, 1983). Individual actors conformed to these forces for reasons of legitimacy, such that the drive for collective rationality ultimately led to homogeneity in the aggregate. Diversity of organizational types was deemphasized.

But critics of this line of research (e.g. Hirsch, 1997; Hirsch and Lounsbury, 1997) argued that the literature placed too much emphasis on stability and inertia as its central defining characteristics (DiMaggio, 1995; Greenwood and Hinings, 1996). Rather than

exploring the homogeneity of organizational populations, they argued, attention should focus on the processes that may or may not create this outcome. They called for efforts to “end the family quarrel,” resurrecting agency, politics and change from the earlier traditions of macro-organizational literature (e.g. Selznick, 1957) and bringing them “back” into the institutional literature (DiMaggio, 1988; Brint and Karabel, 1991; Hirsch and Lounsbury, 1997). In all, these criticisms were aimed at redressing the over-socialized view that depicts recipients of field level influence as a homogenous collection of organizational actors, each behaving according to a social script designed by the social environment (Granovetter, 1985).

As a result, more recent research has treated the organizational field as a center of common channels of interaction and dialogue. Fields bring together various constituents with disparate purposes (Hoffman and Ventresca, 2002). Rather than locales of isomorphic dialogue (DiMaggio and Powell, 1983), they are highly contested “field[s] of struggles” (Bourdieu and Wacquant, 1992) or “arenas of power relations” (Brint and Karabel, 1991: 355) where disparate organizations involve themselves with one another in an effort to develop collective understandings regarding matters that are consequential for organizational and field level activities.

Diverse constituents are often armed with opposing perspectives rather than a common rhetoric. Constituents act with self-interest and agency (Covaleski and Dirsmith, 1988; DiMaggio, 1988; Perrow, 1986), able to respond strategically to institutional pressures (Oliver, 1991) or act as “institutional entrepreneurs” (DiMaggio, 1988; Fligstein, 1997;

Zucker, 1988; Lawrence, 1999) by seeking to shape the discourse, norms and structures in ways that match their individual interests and objectives (Maguire, Hardy and Lawrence, 2004). Defining the field in terms of contestation and debate has introduced notions of change, organizational self-interests and most importantly for this paper, diversity within field structures (Covaleski and Dirsmith, 1988; DiMaggio, 1988; Perrow, 1986). But, in conceptualizing this diversity, new issues emerge around field boundaries.

Defining Boundaries of the Field

“Boundary defining processes are among the more important subjects confronting organizational theorists” (Scott and Davis, 2007: 251). Attention to field-level boundaries is an overlooked aspect of institutional analysis; one of many that have allowed the repeated claims that institutional arguments reduce to “isomorphism.” From DiMaggio and Powell’s classic 1983 statement and since, there have been underlying concerns for power and the social structuring of fields, identity categories and segments, and the imagery of social network structures, flows of information, and resource contingencies. More explicit attention to field-level boundaries is central to defining the field as a more heterogeneous domain of contestation and debate, and to analyzing institutional change.

In heterogeneous fields of debate, attention must be given to the smaller clusters of debate within the broader field. In the past, classifications of such field level clusters have generally been ill-defined, often resting on simplifications of field level membership through a distillation of the number of participants, or simple classifications such as the government, critical exchange partners, sources of funding, professional and trade associations, special interest groups, and the general public (DiMaggio and Powell, 1991;

Scott, 1991). Many of these a priori classifications may be less meaningful attributions than the organization's role, purpose and interests within field level dialogues. Instead, the presence of field level structures should be analytically detected, not through the tangible aspects of organizational forms, but through an increase in the information load which they share, and; the development of a mutual awareness that they are involved in a common debate (DiMaggio, 1983).

The field forms around "issues" which bring together various field constituents with disparate purposes (Hoffman, 1999). As such, the field becomes a "relational space" (Wooten, 2006), developed around communication channels that allow members to make sense (Isabella, 1990; Thomas, Clark, and Gioia, 1993; Gioia and Thomas, 1996) of turbulent and uncertain "problem domains" (Trist, 1983). These are issues or events that are too extensive and multi-faceted to be addressed by any one organization, but instead require some collective form of engagement to both understand and respond (Emery and Trist, 1965). Disruptive events such as the threat of hostile a takeover (Davis, 1991), regulatory changes (Edelman, 1992), or environmental catastrophes (Hoffman and Ocasio, 2001) create contradictions within the environment (Seo and Creed, 2002) and force organizations to (re)analyze their surroundings. Fields serve as the sites in which organizations come together to do this sense-making work. Issues and problem domains become the central units around which the field coalesces. But not all issues engage the entire field in debate. Some issues can become central units around which smaller clusters within the field coalesce.

A Multi-Layered Conception of the Field

We contend that predefined organizational categories (such as Fortune 500 firms, non-profit organizations, or liberal arts colleges) do not accurately represent essential constituencies of an organizational field. Instead, we posit that field level structures and constituencies emerge from issues, drawing linkages that may not have been previously present. Issues differentiate among various types of actors that are engaged within field level debate and influence the form of that engagement. Organizations may make claims about being or not being part of such field level activities, but their membership is defined through social interaction patterns around issues of relevance.

By defining the bounds of field level membership in this way, this paper will include a larger number of organizations than typically found in institutional analyses. This increased scale requires a new and more finely grained structure and nomenclature for delineating the levels on which field-level debate occurs. Toward that end, this paper (re)introduces two concepts to give greater clarity to the types of field level interaction: the organization set and the organizational population. Each of these constructs is presented as a concept nested within the organizational field.

The organization set is the smallest cluster of field level activity. It has roots that date back to early organizational analysis (Blau and Scott, 1962; Evan, 1966) and builds upon the notion that a given organization does not perform a unitary role, but rather is associated in a variety of relations with other organizations (e.g. suppliers, customers etc.). Central to this concept is “that it views the environment from the standpoint of a

specific (focal) organization” (Scott, 1998: 125). This paper develops the organization set as centered on a focal organization, (Levine and White, 1961; Thompson, 1967). Much like the concept of the “ego-network” in network analysis (Wasserman and Faust, 1994), its direct cluster of relations has theoretical and empirical importance for information and resource flows.

The organizational population represents the intermediate type of field level activity, broader than the set but more tightly linked than the field. The concept “identifies aggregates of organizations that are alike in some respect” (Scott, 1998: 125). The ways in which organizations are “alike” can vary and multiple populations in the field can overlap and interpenetrate. Hannan and Freeman (1977) noted that genetic structure defines commonality among biological species and that some sort of a similar organizational analogue such as a “blueprint for organizational action, for transforming inputs into outputs” was in order (1977: 935). McKelvey (1982) suggested that organizations in a population share a common technical core. Ultimately, organizations within a population “share similar interests and may, under appropriate circumstances, band together to protect them” (Scott and Davis, 2007: 117). This paper presents the organizational population as a cluster that shares common forms of dialogue around specific issues and interests that are more narrowly defined than those in broader field-level debates. While there are many ways in which “alikehood” can be defined to articulate populations, this paper will use two: organizational type (NGO, corporation and foundation) and organizational attributes (issue keywords for NGOs, SIC codes for corporations and legal status for foundations).

The organizational field then becomes the overall domain in which organization sets and populations are nested. At the level of the field, sets and populations accumulate and overlap to form an aggregate “community of organizations that partake in a common meaning system and whose participants interact more frequently and fatefully with one another than with actors outside the field” (Scott, 1995: 56) and represent a recognized area of institutional life (DiMaggio and Powell, 1983). Using this multi-layered structure, this paper challenges typical notions of field level contest, offering more developed, empirically-grounded evidence of who is engaged in field level debates and how the debates and the linkages among the actors themselves are configured.

EMPIRICAL CONTEXT

To examine these multiple arenas of field level interaction, this paper studies a sample set of NGOs focused on environmental issues and the ties they have with corporations and foundations. What may be alternatively referred to as a social movement industry (McCarthy and Zald, 1977; Strang and Soule, 1998; Campbell, 2005) or an organizational field, this is an interesting empirical domain for study as the environmental debate often takes multiple and overlapping issue frames (e.g. ecosystem protection, diversity loss, climate change, energy efficiency, ozone depletion, and many others). Each of these frames draws in differing and interconnected constituencies.

The Environmental Movement

In the aggregate, the constituencies around environmental issues are often less well-defined than that of some other policy issues with strong social movement stakeholders. Membership in the environmental movement is indeterminate (Beck, 1992; Egri and Pinfield, 1994). Whereas other public issues (such as minority or women's movements) have a more clearly-specified constituency, environmentalism has no single demographic or well-structured political constituency, neither among proponents nor opponents of particular environmental policy initiatives. In fact, opposition to environmentalism on the grounds of threatened material interests or aversion to state intervention would be easier to explain than environmental advocacy (Buttel, 1992). A high quality environment tends to be a public good, which when achieved cannot be denied to others, even to those who resist environmental reforms.

As such, the field-level actors that engage on environmental issues are extremely diverse and heterogeneous. To some in fact, the term "environmentalist" serves as a misnomer, lumping many organizations with varied interests into one category.

"The term 'environmentalist' was not chosen by the individuals so described. It was seized upon by members of the popular press as a means of labeling a newly prominent segment of society. . . not only have the labelers forced an artificial association on a very diverse group of individuals, but they have also given a terse public statement of what 'those people' are presumed to want. Environmentalists want environment — obviously. But this may be entirely wrong, a possibility that few environmentalists have contemplated even though many have lamented the term itself." (Evernden, 1985: 125).

In defining the constellation of NGOs related to the environment, 6,493 organizations identified themselves as environmental groups in 2005 (Gale Research, 2005). And,

while they share common attributes regarding the issue of the environment, they differ in how that issue is operationalized or framed, with implications for the goals they strive for and the location of their supporters within the social structure (Zald and McCarthy, 1987). For example, some NGOs seek completely non-confrontational means to achieve their goals of protecting ecosystems for conservation purposes (e.g. The Nature Conservancy). Some NGOs seek to protect these habitats for the purposes of sport (e.g. Trout Unlimited, Ducks Unlimited). Some are staffed with lawyers and scientists and work within existing institutions to bring about corporate and social change (e.g. the Natural Resources Defense Council, Environmental Defense). Others prefer to remain outside those institutions, relying on less professionally oriented staff and working in a more confrontational style (e.g. Greenpeace USA). Still others prefer to engage in acts of sabotage and deliberate violation of the law, leading government agencies to label them terrorist groups (e.g. Earth First!, the Earth Liberation Front).

The indeterminate nature of the constellation of environmental NGOs and the environmental policy issues and solutions they engage also means that they attract a wide range of other field-level participants, including employee groups, labor unions, community groups, consumers, environmental activists, investors, insurers, the government, industry competitors, internal managers (Morrison, 1991; Hoffman, 2000; Brulle, 2000) and religious groups (Rockefeller and Elder, 1992).

Most notable for this paper is the evolving engagement between NGOs and corporations and foundations. While such interaction is not new – philanthropic giving between

businesses and NGOs began in the nineteenth century with the U.S. Congress allowing a federal income tax deduction for such activity in 1953 (Galaskiewicz and Sinclair-Colman, 2006) – the form of this collaboration became more strategic, commercial and political in the 1990s (Galaskiewicz and Sinclair Colman, 2006). At that time, more structured alliances between environmental NGOs and corporations (Westley and Vredenburg, 1991; Rondinelli and London, 2003; Orti, 1995) and between foundations and environmental NGOs (Parker and Selsky, 2004; Brulle and Jenkins, 2005) began to take shape.

Studies have shown that the consequences of such alliances can be multiple and complicated for both parties to the alliance. While very little has been written about the related issues of NGO/foundation alliances, corporate/NGO alliances have a growing literature. On the one side, corporations make concessions to adopt more environmentally beneficial practices (Esty and Winston, 2006). On the other, NGOs begin to emulate the strategies, management style and goals of their for-profit partner (Galaskiewicz and Sinclair-Colman, 2006), often creating clashes between the differing cultures and purposes of the alliance partners (Powell and Owen-Smith, 1998; Bowie, 1994). This can ultimately lead to mission drift (Young, 2001) where the NGO “loses sight of its tax exempt purpose and focuses on commercial activities and cost saving [or profit enhancing] measures” to the exclusion of its community oriented purpose (Galaskiewicz and Sinclair-Colman, 2006: 196).

NGO Board Interlocks

In this paper, we look more deeply at the patterns of these types of interactions using board interlocks as channels of institutional influence within organizational fields. Boards are charged with the “ultimate responsibility for the non-profit organizations that they oversee” and serve as an important channel for “connecting individual institutions to their larger context” (Ostrower and Stone, 2006: 612). Correspondingly, board interlocks are mechanisms for gaining access to critical resources such as information and, of particular importance to NGOs, funding “both because individual board members will influence their corporations’ giving and because the closer connections they have to others will also raise overall giving levels” (Marquis, Glynn, and Davis, 2007). But such access creates “difficulties of juggling fidelity to a mission with achieving fiscal stability” (Minkoff and Powell, 2006: 592). An NGO’s action set may become constrained, leading it to take on “second-best” environmental projects in terms of its environmental values to satisfy its funders. As a result, studies have found “mission deflection” as organizations seek to satisfy the interests of key benefactors (Scott, 1967). Board interlocks thus become mechanisms for cooptation by incorporating “representatives of external groups into the decision-making or advisory structure of an organization” (Scott and Davis, 2007: 235).

METHODOLOGY

In this study, we utilize patterns of board interlocks as a proxy for institutional channels of influence that take place within organizational fields, populations and sets. More specifically, we use these patterns to study (a) board interlocks between NGOs and corporations and foundations, (b) the field, population, and set levels on which they take

place, (c) the character of such interactions based on attributes of the players involved and (d) how those patterns of interaction changed between the years 2000 and 2005.

Data Collection

Initial NGO sample set. Our initial NGO sample was gathered from the 6,493 environmental organizations that identified themselves as environmental groups in the *Encyclopedia of Associations* (Gale Research, 2005). From this list, we selected a subset of the largest national and international environmental groups (those with budgets over \$1 million). We removed trade organizations, professional organizations and those that did not have a board of directors (such as intergovernmental panels) resulting in an NGO sample of 55 organizations. These groups ranged in size from 100 members to 1.2 million (average 136,000), in budget from \$1 million to \$245 billion (average \$18.5 million) and in date of formation from 1875 to 1995 (average 1958). Overall, while the sample is biased towards large national and international groups, it will allow the development of our analysis of multiple levels of field level engagement.

Board member data. Lists of the boards of directors for these NGOs were generated from a combination of sources. The bulk of the data was derived from IRS 990 forms filed for the 2000 and 2005 tax years. In cases where the forms were unavailable, the NGOs were contacted directly and asked to provide this information, or in some cases the necessary historical data was available on the NGO's website. We were unable to collect the 2000 board data for one organization – N8 – and therefore were forced to exclude it from our sample. This resulted in a sample set of 54 NGOs (see Appendix) with 1336 directors in the year 2000 and 1526 directors in 2005 (a 14% increase).

We then cross-referenced this list of NGO directors with the 2003 board membership of public U.S. companies found in *Compact Disclosure*[®], a database that provides access to SEC-filed financial and other information contained within Annual Reports, Proxy Statements, and 10-K/20-F filings for over 12,000 companies.¹ We chose the year 2003 as the middle of the two NGO data sets, both because the size of corporate boards remained relatively stable over this time period and the tenure of a board member averages roughly six to nine years (Hermalin and Weisbach, 1988; Kosnick, 1990). According to *Compact Disclosure*[®], these 12,000 corporations had 38,850 directors in 2003.

Lastly, we generated a list of foundations that had donated more than \$100,000 in any given year between 1999 and 2004 to any of the 54 NGOs on our list through *GuideStar*[®], a database that compiles financial information from the IRS Business Master File of exempt organizations and IRS Forms 990, 990-EZ, and 990-PF (Philanthropic Research, Inc., 2007). This resulted in a list of 309 foundations. The list of board members for each of these foundations was generated from their websites, annual reports and IRS 990 forms for the year 2003 (to match the year of our corporate board data set). This resulted in a sample set of 2,233 foundation directors. In order to better identify individual board members, we also collected organizational or professional affiliations if this information was listed in the IRS 990 forms or on the websites.

¹ We wish to thank Jerry Davis for providing us with a cleaned version of this dataset.

Identifying interlocks. To determine the interlocks between the NGO, corporate and foundation board sets, we designed an algorithm to identify possible matches based initially on last name and first initial. We then undertook an extensive internet search for each possible match looking for corporate, foundation or NGO biographies or news stories that conclusively demonstrated that this particular person served on the boards of the organizations in question. Only those board members who could be conclusively identified in this manner were included in our sample. This resulted in a data set consisting of 422 individual board members that served on both an NGO and corporate and/or foundation board in our 2000 and 2005 datasets (roughly 30 % of the NGO board member sample).

Attribute data. To assign attributes to delineate NGO mission and focus, we used keywords assigned by the *Encyclopedia of Associations* (Gale Research, 2005). The editorial staff of the *Encyclopedia* assigns keywords to each organization based on their assessment of the overall objectives and goals of the organization and the subject code(s) under which users would expect to find the organization. Within the sample set of this study, 28 total keywords were identified by members (with a range of 1 to 5 keywords per NGO). Keywords included: “agriculture,” “bird,” “conservation,” “deer,” “education,” “energy,” “environmental protection,” “fish,” “forestry,” “health,” “international development,” “law,” “marine biology,” “natural resources,” “nuclear weapons,” “paper,” “parks and recreation,” “politics,” “pollution control,” “primates,” “rain forests,” “rangeland,” “tropical studies,” “water,” “wetlands,” “wildlife,” “wood,”

and “world affairs.” We also added one additional keyword – “sporting groups” – to identify those groups focused on fishing or hunting.

For attributes of each of the corporations in our sample, we identified the 2-digit standard industrial classification (SIC) Code using the *Hoover*[®] database and then assigned broader industry classifications used by the Bureau of Economic Analysis.²

For attributes of each of the foundations in our sample, we identified their foundation type (independent, corporate, community or operating) using *Foundation Directory Online*[®], a database of over 230,000 IRS 990s for private foundations, community foundations, and grant-making public charities.

Data Analysis

For our network analysis, we made use of two social network analysis software packages: UCINET[®] (for quantitative analysis) and NetDraw[®] (for visualization) (Borgatti, Everett and Freeman, 2002). In this network dataset, the “nodes” were the individual NGOs, corporations and foundations. The “ties” were the individual board directors that shared membership between two or more boards. We treated these ties as non-directional, assuming that the form of influence was between organizations and not just from one organization to another. Further, we dichotomized the data to remove duplicate ties for the same pair of organizations. While multiple ties are important for understanding the level or strength of the ties between organizations, dichomization allowed us to work with a non-valued network set and create network and node specific data that focused on

² See <http://www.bea.gov/regional/gsp/readmeSIC.cfm> for the classification scheme of the Bureau of Economic Analysis, U.S. Department of Commerce.

discrete ties between and among organizations. In order to present this data in the most objective way possible, we deliberately used organization codes and not names so as not to bias our analysis.

We examined the network data set at three levels. First, we examined the network of the *organizational field* by including all data in our analysis. We examined *organization sets* by focusing on the ego-networks of individual NGOs using the egonet function in NetDraw[®]. Finally, we examined *organizational populations* by focusing on the networks formed around NGOs with common keyword interests. Our key variables are described below.

For each network, we studied four key variables. **Density** is the ratio of the number of actual ties in a network to the maximum possible. Values can range from zero (no ties present) to one (all possible ties are present).³ **Centralization** (similar to hierarchization) is the difference between the number of links for each node divided by the maximum possible sum of differences. A centralized network will have much of its links dispersed around one or a few nodes, while a decentralized network is one in which there is little variation between the number of links each node possesses. A centralization value of one means that one node completely dominates the network. The average **distance** (also called the geodesic) of a network is a measure of the average shortest path between nodes (measured as an integer of the number of nodes one must pass through to get from node

³ $Density = \frac{\# \text{ of actual ties}}{\# \text{ of possible ties}} = \frac{\text{total ties}}{[g*(g-1)]/2}$

Where g is the number of actors (or nodes).

n_i to n_j). **Heterogeneity** is a measure of the diversity of types of nodes in a given network based on network attributes such as those listed below.

For each node, we studied four key variables, each focused on some aspect of the importance or centrality of a node to the network. **Degree** is the actual count of the number of ties connecting a node to other actors in the network. (The ego-network is a map of a node's degree – all of a node's direct contacts.) **Closeness** is the mean geodesic (e.g., the shortest path) between a node and all other nodes reachable from it. Closeness can be regarded as a measure of how long it will take information to spread from a given node to others in the network. **Betweenness** is the extent to which a node is directly connected only to those other nodes that are not directly connected to each other. Therefore, it's the number of nodes that a node is connected to indirectly through its direct links. Finally, the **eigenvector** is a measure of the importance of a node in a network. It assigns relative scores to all nodes in the network based on the principle that connections to high-scoring nodes (on degree, closeness and betweenness) contribute more to the score of the node in question than an equal number of connections to low-scoring nodes. For example, Google's Page Rank is a variant of the eigenvector measure.

RESULTS

Organizational Field

Using the aggregate network data as a depiction of the organizational field, we found an interconnected constellation of actors: 54 NGOs, 425 corporations, and 156 foundations sharing communication ties through 422 common board members for the combined years

2000 and 2005 (361 common board members in 2000 and 383 common board members in 2005). The makeup of these organizations, based on attribute data shown in table 1, shows that the NGOs in the sample were heavily weighted towards issues of conservation, wildlife and environment. The corporations in the sample were heavily weighted towards manufacturing, finance, insurance and real estate, services and transportation and utilities. The foundations were heavily weighted towards individual organizations. (We note a disproportionate representation of corporate and community foundations compared to national averages. Corporate foundations made up 14% and 13% of the ties in 2000 and 2005 compared to their comprising 4% of foundations overall (in 2000); community foundations made up 11% in both years compared to 1% national average (Lawrence, Atienza and Marino, 2003).

Insert Table 1 about here

A comparison of the 2000 and 2005 data (see figure 1) shows multiple constructs by which the field is growing more interconnected. First, the overall number of board level ties increased by 3.49%.⁴ Second, mean degree, closeness, betweenness and eigenvector all increased, suggesting an increase in ties between nodes. Similarly, the average distance between reachable pairs decreased, suggesting that the nodes are becoming more closely tied. But this increase in field level connections is not uniform or homogenous. Centralization within the field increased by 54% suggesting that there are certain areas within the field where clustering among organizations is growing more acute. To get a

⁴ The average number of boards per director decreased negligibly from 2.68 in 2000 to 2.64 in 2005, with the maximum number of boards per director at 11 (2000) and 12 (2005) and the median remaining constant at 2.

better sense of what is happening, we must look deeper at the organizational populations and sets.

Insert Figure 1 about here

Organizational Populations

There are a number of ways that we can conceptualize the many organizational populations within the field: that is, “aggregates of organizations that are alike in some respect” (Scott, 1998: 125). We use two definitions in this paper.

First, we start with the most basic form of the constituents present and the domains in which they interact. With this conceptualization, we can think of the field forming at the intersection of common channels of dialogue and discussion among our three populations: NGOs, corporations and foundations, as shown in figure 2. Within this figure, we can graphically observe the four NGO related domains of engagement that are of most interest to us in this study. In domain “A” we find a population of NGOs that were isolates⁵ and having ties only with other NGOs⁶. In domains B, C, and D, we find varying types of engagement among NGOs, foundations and corporations.

Insert Figure 2 about here

⁵ 33.33% in 2000 and 35.19% in 2005.

⁶ 7.41% in 2000 and 12.96% in 2005.

Looking more specifically at the types of the changing tie patterns in these populations, table 2 shows that NGOs are becoming more interconnected with other members of the field -- an 18.58% increase. Given our methodology, we would not expect significant increases in corporate or foundation ties as we were not analyzing interconnections between and among these two sets of actors.

Insert Table 2 about here

Table 3 demonstrates this increase in NGO ties, which manifests itself primarily in a 44.44% increase in ties between NGOs and a 25.49% increase in ties between NGOs and foundations. Similarly, the density of ties between NGOs increased by 44.44% and the corresponding measure between NGOs and foundations increased by 23.05%. A modest 4.00% increase in ties between NGOs and corporations was also detected (N to C tie density increased by 4.90%).

Insert Table 3 about here

Second, we also identified organizational populations based on keywords for NGO focus. We treated these keywords as issues critical to the interests of field level actors, and thus more likely to draw in certain types of actors for dialogue and debate. Shown in table 4, we find variations in the makeup of these issue populations. For example, the population centered on sporting groups was the least connected to corporations and foundations; and was more likely to be an isolate than other populations. Conversely, the population

centered on natural resources was the most connected to corporations and foundations. The population around the issue of wildlife showed the most dramatic decline in corporate and foundation engagement while the population around the issues of natural resources and environment showed the largest increase in corporations and foundations per NGO. The population around conservation showed a decline in corporate ties, but the highest increase in foundation ties. We can think of these changes as shifts in the localized channels of influence of through which NGOs, corporations and foundations interact regarding key issues within the larger organizational field.

We also note that certain types of companies and foundations engaged certain population issues or avoided others. Compared to the field level average, manufacturing companies were more heavily involved in the environment, water and pollution populations. Forest related manufacturing did not engage with the populations of sporting groups, water, education and pollution. Compared to field level averages, community foundations were more present in populations around natural resources than other issues. Corporate foundations were more heavily involved with populations around the issues of environment and natural resources. Thus, these characteristics serve as indicators of the types of debates that are taking place within the organizational field and the types of influence that may be present to shape these debates. But, to understand the changes that are occurring around these populations more deeply, we must also investigate the organizational sets that exist within them.

Insert Table 4 about here

Organization Sets

At the level of the organization set, we can see the micro-level activity of field level participants by analyzing the ego-networks of individual NGOs. In particular, we were interested in several variables for determining the centrality of certain NGOs and how those characteristics changed between 2000 and 2005. Shown in table 5, we found that NGO degrees ranged from zero ties (isolates) to as many as 43 ties (heavily linked to others within the field).⁷ Changes in degree centrality between 2000 and 2005 were observed both positively (e.g. N34 moving from 28 to 43) and negatively (e.g. N24 moving from 23 to 9).

A second measure of centrality, the eigenvector, identifies the NGOs that were more effectively linked to others within the field, and therefore more central to the network. Looking at the normalized eigenvector centrality data for the organization sets in Table 4 shows that the community of NGOs is highly centralized around a small number of centrally dominant actors⁸: N32 was singularly most central in 2000. In 2005, both N32 and N38 shared that centrality dominance. These measures of eigenvector centrality were orders of magnitude higher than the next highest values and vastly higher than the NGO averages.

⁷ Within these “ego networks” (Scott and Davis, 2007) we found NGOs that ranged from having ties with only one type of organization (N, C or F), to two types, to having ties with all three.

⁸ Which corroborates the increased centralization detected at the field level in figure 1.

We can think of these NGOs, due to their centrality as playing the role of a “bridge” (Brown, 1991; Westley and Vredenburg, 1991; Sharma, Vredenburg and Westley, 1994; Lawrence and Hardy, 1999; Garcia and Vredenburg, 2003), a “pipe” (Scott and Davis, 2007) or a “portal” where influences from other populations within the field – corporations and foundations—can exert their influence on the NGOs and visa versa. These portals can expand –as in the case of N38—or contract –as in the case of N24.⁹

Insert Table 5 about here

Playing the role of a portal can be accomplished in more or less efficient ways. An NGO has limited resources with which to create ties with other organizations. By choosing those ties carefully so as to link with more organizations through extended ties, an NGO can maximize its centrality. For instance, from 2000 to 2005 N38 efficiently increased its centrality by increasing its degree by 68% and increasing its eigenvector by 428%. Conversely, N15 increased its degree by 8.70% but decreased its eigenvector centrality by 54.57%.

Shifting attention from the NGOs in the field to the other actor types, tables 6a and 6b show the most central corporations and foundations (respectively) within the field by degree and normalized eigenvector. In the aggregate, corporations show much higher average and maximum eigenvector centrality than foundations. But, consistent with the finding that N to C ties grew only modestly and N to F ties grew significantly, the

⁹ N24’s eigenvector centrality decreased by 93%, becoming one of the least central NGOs in the field in 2005.

average eigenvector centrality of corporations also grew only 6.5% while that of foundations grew 127%. Foundations, whose centrality is lower than the other two actor types, are growing in prominence and position as central actors. Similarly, we can see that the most central corporations remained fairly constant from 2000 to 2005¹⁰ while the most central foundations showed large variation. The central foundation players are in flux while the central corporations are more stable.

Insert Tables 6a and 6b about here

DISCUSSION

Empirical and theoretical gaps exist in the study of governance structures of NGOs (Ostrower and Stone, 2006). The largest study of NGO boards to date looks only at gender, race, ethnicity and age (National Center for Nonprofit Boards, 2000). This study introduces demographic considerations for NGO board interlocks with corporations and foundations and shows how they are changing over time. Our results reveal a complex network of interactions among NGOs, corporations and foundations. Specifically, we find direct board interlocks among the largest 54 environmental NGOs with 425 corporations and 156 foundations. These NGOs have a predominant focus on issues related to conservation (87%); the corporations are focused in the SIC categories of manufacturing (27%), finance, insurance and real estate (18%), general services (14%) and transportation and utilities (13%); and the foundations are predominantly are legally

¹⁰ Two actors stand out in table 6a for having high degrees and low eigenvectors: C244 and C83 (eigenvectors of 1.642 and 0.351 respectively). This suggests that these two corporations were not developing their network ties strategically.

classified as individual based organizations (75%) but we also find that corporate foundations are represented at a rate more than three times the national average (14%) and community foundations are represented more than eleven times the national average (11%).

The longitudinal data demonstrate that the ties between NGOs and these organizations are growing between 2000 and 2005. In particular, we observe a strengthening of ties among NGOs and each other and also among NGOs and foundations. Corporations remained an on-going and powerful presence in the governance of NGOs, but their tie patterns did not grow as rapidly as those for foundations.

But the data also show a split in the NGO community on these results. Forty-one percent (2000) and 48% (2005) of our NGO sample maintained no ties to corporations and foundations through their boards. We also found that certain issue populations were more likely to avoid such ties. In particular, the population around the issue of sporting groups was the most disconnected from the field of corporations and foundations vis-à-vis their board ties. Conversely, the population centered on natural resources was the most connected to corporations and foundations and the population around the issue of wildlife showed the most dramatic shift, with corporate and foundation ties dropping off precipitously between 2000 and 2005.

Finally, we studied the organization sets of each NGO and found that the Wilderness Society (N32, 2005 budget of \$17 million) was the central NGO in 2000 and both the

Wilderness Society and the World Wildlife Fund (N38, 2005 budget of \$60 million) shared that centrality in 2005. This centrality in terms of both degree and eigenvector suggests that these two organizations act as “portals” through which the institutional influence of corporations and foundations can be channeled into field level dialogues. This portal can allow the flow of resources such as money as well as information. Using least squares regression, we found a correlation between the number of corporate and foundation ties and the size of an NGO’s budget in both 2000 ($p < 0.001$) and 2005 ($p < 0.01$). This effect was much stronger for corporate ties than for foundation ties. We were surprised to find that the most central corporations within the field were an array of actors with less than familiar names – Seagate Technology, Gemplus International, Denbury Resources, Paradyne Networks Services, Ducati Motor Holdings, Oxford Healthplans, Costar Group, Continental Airlines and Raynair Holdings. We were not surprised at the familiar names of the list of most central foundations: Dodge, Heinz, Duke, Rockefeller, MacArthur, Packard, Tisch, Ford, Hearst, Wilson, Catto and Citigroup.

The Strategic Aspects of Board Development

We decided to discuss our results with senior managers in several NGOs, those involved with board selection and operation. We found that some of these organizations made a conscious choice not to include corporate or foundation employees on their boards. For some, such an inclusion would amount to a conflict of interest. One stated categorically that her organization (N32, the Wilderness Society) avoids accepting any notable amount of corporate money and finds that foundations prefer to keep an arm’s length from NGOs they may fund. Another manager described how his organization recently accepted the

presence of corporate board members only after exhaustive and anguished debate in meetings. Many within the organization felt that their inclusion would be some form of sell-out or leave the organization open to the cooptation of its mission. This tension highlights the significance of board membership for mission and agenda setting within NGOs.

But, this study looked beyond board member employment affiliation to consider board member ties. This was something that seemed to create less tension for organizations. For example, the Wilderness Society representative pointed out that the selection process seeks out individuals with a strong philanthropic history regardless of affiliation (and friends with similar histories). She admitted that by definition, this drew in people with some form of ties to corporations. In particular, she pointed out that a significant number of the interlocks her organization shares with corporations (after we showed her the data) occur through one or two board members. Indeed, our data show that one board member had ties with this NGO and ten companies (depicted by the flat clusters to the left of the central node in figure 3).

Insert Figure 3 about here

The Nature Conservancy (N24, the largest 2005 budget of any NGO: \$245 million) reduced its board member ties from 23 to 9 over the period of our study, which contracted its organization set, resulting in a contracting portal of institutional influence on the field over this period. In discussing this changing role in the movement with

managers at TNC, one of the primary explanations was that the change was the product of increased scrutiny in the wake of several high profile corporate governance scandals where the NGO was accused of being too closely connected with corporations (Ottaway and Stephens, 2003). This resulted in a decision to develop a detailed conflict of interest policy, reduce some obvious links to corporations on the board and, as a result, reduce the overall board size from 38 to 21. The NGO had not historically pursued foundation interlocks at the board level, fearing similar perceptions of conflict of interest.

The decision to reduce corporate ties did not come without a cost. Our contact at TNC noted that the current board has less influence and in particular, less convening power than before. As a result, the NGO is again searching for high status corporate board members that have been vocal in their commitment to environmental causes in order to increase the board's convening power. Second, TNC is looking to add some globally high status policy actors to increase its influence within world governments. The NGO views itself as bridging organization and stresses that an influential and connected board is necessary to pursue this role effectively.

Finally, we were interested in gaining greater insights as to why the population of sporting groups would be less tied to corporations and foundations than other populations. We discussed this with a former executive at Trout Unlimited (N33, 2005 budget of \$10,000,000) and his explanation focused on history and social connections. Sporting groups have formed historically at the grass roots level, with boards traditionally comprised of volunteers that moved up the ladder. The focus of these groups remained

local. In the early 1990s, many of these groups faced fiscal challenges and recognized that they needed a more sophisticated way to raise money. They decided to make the boards more professional. Today, TU has a board made up of “grass-roots trustees” that were elected from the ranks of the volunteers and “at-large trustees” that were officially nominated by the board. And, like the Wilderness Society, members of this latter group were sought out for their philanthropic history and were often located through the social ties of existing board members. And like The Nature Conservancy, TU has begun to search for board members that have some past experience with government to increase their influence in lobbying activities.

While our study did not measure the outcomes of board interlocks directly – that is, the normative and cognitive influence they create – these recent efforts to use boards to influence specific political domains suggests that board interlocks are a reasonable proxy for such influence. Many studies have identified the relation between board interlocks and the diffusions of specific strategies within corporate communities (Davis, 1991; Davis and Greve, 1997; Davis and Mizruchi, 1999). Boards may cause similar influences in NGO communities.

Theoretical Implications

By examining a social movement industry (McCarthy and Zald, 1977; Strang and Soule, 1998; Campbell, 2005) from the perspective of field level dynamics, this study was able to make needed contributions to conceptualizing organizational fields as contested, heterogeneous and dynamic. To capture this heterogeneity of the field, we offer a

nomenclature for delineating the multiple levels on which field level participants engage: the organizational field, organizational population and organization set.

Our study does not deviate from accepted notions of the field. Consistent with Scott (2001), we define the field as a community of organizations that partake in a common meaning system and whose participants interact more frequently and fatefully with one another than with actors outside the field. And consistent with DiMaggio and Powell (1983), we define the field as those organizations that in the aggregate represent a recognized area of institutional life. The field is noted by an increase in the extent to which certain organizations interact; an increase in the information load which they share, and; the development of a mutual awareness that they are involved in a common debate (DiMaggio, 1983).

But while these definitions treat the field as a collective of organizations, they also present an underlying notion that represents a field as a locale in which organizations relate to or involve themselves with one another. Fields are not containers for the community of organizations, but instead are richly contextualized “relational spaces” (Wooten, 2006) that provide organizations with the opportunity to involve themselves with one another in an effort to develop collective understandings regarding matters that are consequential for organizational and field level activities. Capturing this complexity is the goal of this paper.

White suggests we “think of the institutional field, not as some tidy atom or embracing world, but rather as complex striations, long strings rotating as in a polymer goo, or in a mineral before it hardens” (1992: 127). This is hardly a useful construct for measurement, but it highlights the complexity and amorphous nature of the organizational field we are trying to capture. The field is a contested domain where constituents engage in “a war or, if one prefers, a distribution of the specific capital which, accumulated in the course of previous wars, orients future strategies” (Calhoun, 1993: 86). Fields are robust articulations of network populations (Baker, 1990; Burt, 1992; Granovetter, 1985) that invoke story sets across disparate members of the field. They are highly complex spaces, where field members need to reconcile contradictory institutional arrangements. Organizational fields are connected to and embedded within other and conflicting institutional systems (Seo and Creed, 2002).

In this study, we provide a more nuanced appreciation for these interconnected systems, and a desire to understand how patterns of dialogue take place at both micro and macro levels. Through such an appreciation, we can develop a better understanding of how change occurs over time. At the field level, we find a constellation of actors with a broadly common issue that brings them together for mutual dialogue. The overarching debate over the environment encompasses many issues with a diverse set of constituents. Consequently, within the larger the field, smaller locales of debate form around more tightly defined issues. To capture this level of engagement, we (re)introduce the notion of the organizational population. We identified populations both in demographic terms of organization type and keyword attributes. We find that these populations bring together

varied constituents for debate and discussion on similar but distinct issues of relevance. These populations will expand (such as the population surrounding the issues of natural resources or environment) or contract (such as the population around the issue of wildlife) with differing levels of engagement across the organizational field.

We also find that the interconnections between standard population labels such as NGO, corporation and foundation lead to more hybrid field level descriptions, where certain actors engage in population level debate and others do not. It is significant that some NGOs are isolates while others engage with corporations and foundations. Similarly it is significant that some corporations engage NGOs and foundations while others do not. In the end, certain NGOs, corporations, and foundations may have more in common with those within its issue-based populations than with those that share its organization type. The terms “environmentalist” or “corporation” may serve as misnomers, lumping many organizations or clusters of organizations with varied interests into one category. This has been empirically illustrated in recent corporate actions related to climate change, with some companies taking proactive action to reduce greenhouse gas emissions and calling for federal regulation, while other companies resent these actions and deride others for taking them (Murray, 2005; *Wall Street Journal*, 2007). Theoretically, this distinction is a highly relevant point for reexamining field level boundaries.

Going further, we find small constellations of actors that share very tightly defined common meaning systems. To capture this level of engagement, we (re)introduce the notion of the organization set which calls attention to the idea that a single role-set like

NGO, corporation and foundation is actually a cluster of relations (Merton, 1957). Only by attending to these overlooked structures of the field can we gain a greater understanding of the interests, activities, resources and information flows among field level constituents. Like “long strings rotating ... in a mineral before it hardens” (White, 1992: 127), we can observe the genesis of change within the micro-structure of organizational fields. But, unlike White’s colorful description, the field does not generally “harden,” particularly in evolving and contested domains.

Organizations play differing roles in the change processes that occur at the broader field level. Conceptualizing the field as a relational space dictates that we take a closer look at the way in which actors relate to one another, especially the roles that certain members adopt to advance the field. Lawrence and Suddaby (2005) offer one typology of the different types of activities that actors engage in to create, maintain, and disrupt institutions. With greater focus on the different types of activities that actors perform within the field comes a need for a language to articulate these distinct institutional roles. General terminology like buyer, supplier, or regulatory agency will no longer provide a sufficient explanation of the role organizations adopt or the work they perform within the field. Labeling organizational roles will provide deeper clarity on the individual and collective dynamics by which rationality is defined and understood (DiMaggio, 1995).

In this study, we identified NGOs as “portals” through which the institutional influence of corporations and foundations could pass and through which the NGOs themselves could exert influence on the corporations and foundations to which they were linked. The

World Wildlife Fund (N38), for example, has an expanding organization set, representing a growing portal through which this NGO can exert its influence on the broader field and through which corporations and foundations can influence the agenda and mission of this NGO. As discussed earlier, the Nature Conservancy had a contracting organization set, representing a closing portal through which institutional influence can enter the field. Changes such as these are critical for understanding how institutional influences among populations within a field take place. It is equally important for understanding the processes that allow a practice to take hold and become “entrenched” within that organizational field (Zeitz, Mittal, and McAulay, 1999). By observing the changing patterns of dialogue at the micro-structures of the field –the set or population– we can better understand the genesis of change processes within broader field structures. Like a crystalline forming around a spec of material, field change processes form around a change in the micro-structures of the field.

Limitations and Future Directions

This study has several weaknesses and exposes further questions which serve to guide future research. First, we studied interlocking board members as a channel of institutional influence. We did not study the outcomes of such channels; the regulative, normative, and cognitive influence within organizational populations. Further study will examine how various populations within the field differ in managerial practices, strategies, agenda setting and mission as a result of the populations we have identified.

Next, we studied only the presence or absence of ties and did not delve into the nature or attributes of the ties themselves. A future area of research is to explore the attributes of particular actors (in this case board members), the directionality of their influence and the role that these different actors play in extending and influencing patterns of dialogue within these organization sets, organizational populations, and by extension, across the organizational field.

Further, we have only defined the centrality of organizational types based on eigenvectors, or the structural holes (Burt, 1992) they occupy (or do not occupy) within the field. Further study should examine the varying types of structural positioning that players occupy (e.g. bridging, enabling, limiting, etc.). This could include an examination of the perceptions of other field level actors as to the role they and others play. Labeling each organization in this manner will provide a deeper clarity on the collective understanding held by each field member regarding which actors perform what roles within the field. Just as organizational members can reduce uncertainty by engaging in field level dynamics, they can also reduce uncertainty by developing agreement about the responsibilities that come with organizational roles and a corresponding understanding of what type of work each field member is responsible for given their role within the field.

Additionally, we found it very interesting that NGOs still have the most ties with corporations, but these ties are not growing as significantly as those with foundations or between NGOs. This may refute claims that the environmental movement is being increasingly co-opted by the private sector. A future area of study would be to take the

analysis further back in time to see “when” the growth of N to C board interlocks began and grew most rapidly. This was our original intention but found it tremendously difficult to reliably identify NGO board membership prior to 2000. It is possible that corporations had already co-opted NGOs by 2000. It is also possible that NGOs are responding to this cooptation by increasing the number of N to N affiliated board members to offset the influence of firms. It is worth considering that the large increase in N to N board ties is a strategic move. Given that the largest increase in ties was found in N to N relations, some strategic buffering may be occurring within NGOs to both increase centrality and buffer themselves from other types of influences. Our interview data seem to support this story.

CONCLUSION

Recent discussions in institutional theory have followed two important directions, each of which is addressed in this paper. First, recent attention to the role of the institutional entrepreneur (Lawrence, 1999; Beckert, 1999; Lounsbury and Glynn, 2001; Maguire, Hardy, and Lawrence, 2004) has emphasized that these change agents do not act alone or in isolation. Individual agents form political networks and coalitions to act as “important motors of institution-building, deinstitutionalization, and reinstitutionalization in organizational fields” (Rao, Monin and Durand, 2003: 796). This conception provides a bridge between institutional theory and social movement theory (Davis, McAdam, Scott and Zald, 2005), focusing attention on the ability of social movements to give rise to new organizational fields and change the demography of existing organization fields (Rao, Morrill, and Zald, 2000). This paper seeks to give greater appreciation to the new types of

bridges that are formed between traditional social movement actors (e.g. NGOs) and the corporations and foundations that assist them in achieving their goals.

Secondly, this paper follows a recent trend in organizational theory to move away from being paradigm driven research to being problem driven (Davis and Marquis, 2005). This work addresses an important area of changing organizational interaction within increasingly globalized and complex social and economic domains. It investigates fields as sites where problems of organizing are debated among disparate actors in new forms of alliances. As such, it adds to the notion that the field remains integral to understanding how organizations construct solutions to the problems of the twenty-first century (Biggart and Lutzenhiser, 2007). This moves beyond notions of institutions as barriers, as always taken-for-granted and as leading towards isomorphism. Instead, it refocuses on field level dynamics, collective rationality within these fields and the behavior of individual organizations as integral parts of these processes.

REFERENCES

- Baker, W.
1990 "Market networks and corporate behavior." *American Journal of Sociology*, 96:589 - 625.
- Banuri, T. and A. Najam
2002 *Civic Entrepreneurship: A Civil Society Perspective on Sustainable Development*. United Nations Environment Programme. Islamabad, Pakistan: Gandhara Academy Press.
- Beck, U.
1992 *Risk Society: Towards a New Modernity*. London: Sage.
- Beckert, J.
1999 "Agency, entrepreneurs, and institutional change: The role of strategic choice and institutionalized practices in organizations." *Organization Studies*, 20:777 – 799.
- Biggart, N. and L. Lutzenhiser
2007 "Economic sociology and the social problem of energy inefficiency," *American Behavioral Scientist*, 50(8): 1070-1087.
- Blau, P. and W.R. Scott
1962) *Formal Organizations: A Comparative Approach*. San Francisco: Chandler Publications.
- Borgatti, S., M. Everett, and L. Freeman
2002 *UCINET for Windows: Software for Social Network Analysis*. Harvard, MA: Analytic Technologies.
- Bourdieu, P. and L. Wacquant
1992 *An Invitation to Reflexive Sociology*. Chicago: The University of Chicago Press.
- Bowie, N.
1994 *University-Business Partnerships: An Assessment*. Lanham, MD: Rowman and Littlefield.
- Brint, S. and J. Karabel
1991 "Institutional origins and transformations: The case of american community colleges." In P. DiMaggio and W. Powell (eds.), *The New Institutionalism in Organizational Analysis*:337-360. Chicago: The University of Chicago Press.

- Brown, D.
1991 "Bridging organizations and sustainable development." *Human Relations*, 44: 807-831.
- Brugmann, J. and C. K. Prahalad
2007 "Cocreating business's new social contract." *Harvard Business Review*, 85: 80-90.
- Brulle, R.
2000 *Agency, Democracy, and Nature*. Cambridge, MA: MIT Press.
- Brulle, R. and J. Jenkins
2005 "Foundations and the environmental movement: Priorities, strategies and impact." In D. R. Faber, and D. McCarthy (eds.), *Foundations for Social Change: Critical Perspectives on Philanthropy and Popular Movements*: 149-174, Lanham, MD: Rowman & Littlefield Publishers, Inc.
- Burt, R.
1983 *Corporate Profits and Cooptation*. New York: Academic Press.
- Burt, R.
1992 *Structural Holes: The Social Structure of Competition*. Cambridge, MA: Harvard University Press.
- Buttel, F.
1992 "Environmentalism: Origins, processes, and implications for rural social change." *Rural Sociology*, 57(1): 127.
- Calhoun, C.
1993 "Habitus, field, and capital: The question of historical specificity." In C. Calhoun, E. LiPuma, and M. Postone (eds.), *Bourdieu: Critical Perspectives*: 61-88. Chicago: University of Chicago Press.
- Campbell, J.
2005 "Where do we stand? Common mechanisms in organizations and social movements research." In G. Davis, D. McAdam, W. R. Scott, and M. Zald. (eds), *Social Movements and Organization Theory*: 41-68. New York: Cambridge University Press.
- Covaleski, M. and M. Dirsmith
1988 "An institutional perspective on rise, social transformation and fall of a university budget category." *Administrative Science Quarterly*, 33: 562-587.
- Davis, G.
1991 "Agents without principles? The spread of the poison pill through the intercorporate network." *Administrative Science Quarterly*, 36(4): 583-613.

- Davis, G.
1996 "The significance of board interlocks for corporate governance." *Corporate Governance*, 4: 154-159.
- Davis, G. and C. Marquis
2005 "Prospects for organization theory in the early twenty-first century: institutional fields and mechanisms." *Organization Science*, 16(4): 332-343.
- Davis, G. and H. Greve
1997 "Corporate elite networks and governance changes in the 1980s." *American Journal of Sociology*, 103:1-37.
- Davis, G. and M. Mizruchi
1999 "The money center cannot hold: Commercial banks in the U.S. system of corporate governance." *Administrative Science Quarterly*, 44(2): 215-239.
- Davis, G., D. McAdam, W. R. Scott and M. Zald (eds.)
2005 *Social Movements and Organization Theory*. New York: Cambridge University Press.
- De Bruijn, T. and A. Tukker (eds.)
2002 *Partnership and Leadership: Building Alliances for a Sustainable Future*. Norwell, MA: Kluwer Academic Publishers.
- Detomasi, D.
2007 "The multinational corporation and global governance: Modeling global public policy networks." *Journal of Business Ethics*, 71: 321-334.
- DiMaggio, P.
1983 "State expansion and organizational fields." In R. Hall & R. Quinn (Eds.), *Organizational Theory and Public Policy*: 147-161. Beverly Hills: Sage Publications.
- DiMaggio, P.
1988 "Interest and agency in institutional theory." In L. Zucker (ed.), *Institutional Patterns and Organizations*: 3-21. Cambridge, MA: Ballinger.
- DiMaggio, P.
1995 "Comments on 'What theory is not'." *Administrative Science Quarterly*, 40:391 - 397.
- DiMaggio, P. and W. Powell
1983 "The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields." *American Sociological Review*, 48:147-160.

DiMaggio, P. and W. Powell

1991 "Introduction." In P. J. DiMaggio and W. W. Powell (eds.), *The New Institutionalism in Organizational Analysis*: 1-40. Chicago: The University of Chicago Press.

Edelman, L.

1990 "Legal environments and organizational governance: The expansion of due process in the American workplace," *American Journal of Sociology*, 95: 1401-1440.

Egri, C. and L. Pinfield.

1994 "Organizations and the biosphere: Ecologies and environments," in S. R. Clegg, C. Hardy, and W.R. Nord (eds.), *Handbook of Organization Studies*. Thousand Oaks, CA: Sage Publications.

Emery, F. and E. Trist

1965 "The causal texture of organizational environments." *Human Relations*, 18: 21-32.

Esty, D. and A. Winston

2006 *Green to Gold*. New Haven, CT: Yale University Press.

Evan, W.

1966 "The organization set: Toward a theory of interorganizational relations." In J. Thompson (ed.), *Approaches to Organizational Design*: 173-188. Pittsburgh: University of Pittsburgh Press.

Evernden, N.

1985 *The Natural Alien*. Toronto: University of Toronto Press.

Fligstein, N.

1997 "Social skill and institutional theory." *American Behavioral Scientist*, 40:397-405.

Galaskiewicz, J. and M. Sinclair-Colman

2006 "Collaboration between corporations and nonprofit organizations." In W. Powell and R. Steinberg (eds.), *The Non-Profit Sector: A Research Handbook*: 180-206. New Haven, CT: Yale University Press.

Gale Research

2005 *Encyclopedia of Associations*. Detroit: Gale Research Co.

Garcia, P. and H. Vredenburg

2003 "Building corporate citizenship through strategic bridging in the oil and gas industry in Latin America." *Journal of Corporate Citizenship*, 10: 37-49.

Gioia D. and J. Thomas

1996 "Identity, image, and issue interpretation: Sense-making during strategic change in academia." *Administrative Science Quarterly*, 41: 370-403.

Granovetter, M.

1985 "Economic actions and social structure: the problem of embeddedness." *American Journal of Sociology*, 91:481-510.

Greenwood, R. and C. Hinings

1996 "Understanding radical organizational change: Bringing together the old and the new institutionalism." *Academy of Management Review*, 21:1022-1054.

Hannan, M. and J. Freeman

1977 "The population ecology of organizations," *American Journal of Sociology*, 82: 929-964.

Hermalin, B. and M. Weisbach

1988 "The determinants of board composition," *Rand Journal of Economics*, 19 (4): 589-606.

Hirsch, P.

1997 "Sociology without social structure: Neo-institutional theory meets a brave new world." *American Journal of Sociology*, 102:1702 - 1723.

Hirsch, P. and M. Lounsbury

1997 "Ending the family quarrel: Toward a reconciliation of 'old' and 'new' institutionalisms." *American Behavioral Scientist*, 40:406 - 418.

Hoffman, A.

1999 "Institutional evolution and change: Environmentalism and the U.S. chemical industry." *Academy of Management Journal*, 42:351-371.

Hoffman, A.

2000 *Competitive Environmental Strategy: A Guide to the Changing Business Landscape*. Washington, DC: Island Press.

Hoffman, A. and W. Ocasio

2001 "Not all events are attended equally: Toward a middle-range theory of industry attention to external events," *Organization Science*, 12 (4): 414-434.

Hoffman, A. and M. Ventresca (Eds.)

2002 *Organizations, Policy, and the Natural Environment: Institutional and Strategic Perspectives*. Stanford, CA: Stanford University Press.

Isabella, L.

- 1990 "Evolving interpretations as a change unfolds: How managers construe key organizational events." *Academy of Management Journal*, 33: 7-41.
- Kosnick, R.
1990 "Effects of board demography and directors' incentives on corporate greenmail decisions." *Academy of Management Journal*, 33(1): 129-150.
- Lawrence, S., J. Atienza and L. Marino
2003 *Foundation Yearbook: Facts and Figures on Private and Community Foundations*. New York: Foundation Center.
- Lawrence, T.
1999 "Institutional strategy." *Journal of Management*, 25:161 - 188.
- Lawrence, T. and C. Hardy
1999 "Building bridges for refugees: Toward a typology of bridging organizations." *Journal of Applied Behavioral Science*, 35: 48-70.
- Lawrence, T. and R. Suddaby
2006 "Institutions and institutional work." In S. Clegg (ed.), *The SAGE Handbook of Organization Studies*: 215-254. Thousand Oaks, CA: SAGE Publications.
- Levine, S. and P. White
1961 "Exchange as a conceptual framework for the study of interorganizational relationships," *Administrative Science Quarterly*, 5: 583-601.
- Lounsbury, M. and M. Glynn
2001 "Cultural entrepreneurship: Stories, legitimacy, and the acquisitions of resources." *Strategic Management Journal*, 22:545 - 564.
- Maguire, S., C. Hardy, and T. Lawrence
2004 "Institutional entrepreneurship in emerging fields: HIV/AIDS treatment advocacy in Canada." *Academy of Management Journal*, 47:657 - 679.
- Marquis, C., M. Glynn, and G. Davis
2007 "Community isomorphism and corporate social action." *Academy of Management Review*, (forthcoming).
- McCarthy, J. and M. Zald
1977 "Resource mobilization and social movements: A partial theory." *American Journal of Sociology*, 82:1212-1240.
- McKelvey, B.
1982 *Organizational Systematics*. Berkeley: University of California Press.
- Merton, R.

- 1957 Social Theory and Social Structure. Glencoe IL: Free Press.
- Meyer, J. and B. Rowan
 1977) "Institutionalized organizations: Formal structure as myth and ceremony."
 American Journal of Sociology, 83:41-62.
- Minkoff, D. and W. Powell
 2006 "Nonprofit mission: Constance, responsiveness, or deflection?" In W. Powell and R. Steinberg (eds.), The Non-Profit Sector: A Research Handbook: 591-611. New Haven, CT: Yale University Press.
- Mizruchi, M.
 1996 "What do interlocks do? An analysis, critique and assessment of research on interlocking directorates," Annual Review of Sociology, 22: 271-298.
- Morrison, C.
 1991 Managing Environmental Affairs: Corporate Practices in the US, Canada and Europe. New York, NY: The Conference Board.
- Murray, A.
 2005 "Will 'social responsibility' harm business?" Wall Street Journal, May 18: A2.
- National Center for Nonprofit Boards
 2000 The Nonprofit Governance Index. A joint project with the Sanford University Graduate School of Business. Washington DC: National Center for Nonprofit Boards.
- Oliver, C.
 1991 "Strategic responses to institutional processes." Academy of Management Review, 16:145-179.
- Orti, L.
 1995 Environmental Alliances: Critical Factors for Success. New York, NY: The Conference Board.
- Ostrower, F. and M. Stone
 2006 "Governance: Research trends, gaps and future prospects." In W. Powell and R. Steinberg (eds.), The Non-Profit Sector: A Research Handbook: 612-628. New Haven, CT: Yale University Press.
- Ottaway, D. and J. Stephens
 2003 "Nonprofit land bank amasses billions; Charity builds assets on corporate partnerships" Washington Post, May 4: A1.
- Parker, B. and J. Selsky

- 2004 "Interface dynamics in cause-based partnerships: An exploration of emergent culture." *Nonprofit and Voluntary Sector Quarterly*, 33(3): 458 - 488.
- Pearce, J. and J. Doh
2005 "The high impact of collaborative social initiatives." *Sloan Management Review*, 46: 30-39.
- Perrow, C.
1986 *Complex Organizations: A Critical Essay*. New York: Random House.
- Pfeffer, J.
1987 "A resource dependence perspective on intercorporate relations." In M. Mizruchi and M. Schwartz (eds.), *Intercorporate Relations: The Structural Analysis of Business*: 25-55. New York: Cambridge University Press.
- Philanthropic Research, Inc.
2007 "GuideStar[®]" www.guidestar.org Williamsburg, VA.
- Powell, W. and P. DiMaggio
1991 *The New Institutionalism in Organizational Analysis*. Chicago, IL: University of Chicago Press.
- Powell, W. and J. Owen-Smith
1998 "Universities as creators and retailers of intellectual property: Life sciences research and commercial development." In B. Weisbord (ed.), *To Profit or Not: The Commercial Transformation of the Nonprofit Sector*: 169-193. New York: Cambridge University Press.
- Powell, W. and R. Steinberg (eds.)
2006 *The Non-Profit Sector: A Research Handbook*. New Haven, CT: Yale University Press.
- Prewitt, K.
2006 "Foundations." in W. Powell and R. Steinberg (eds.), *The Non-Profit Sector: A Research Handbook*: 355-377. New Haven, CT: Yale University Press.
- Rao, H., C. Morrill, and M. Zald
2002 "Power plays: How social movements and collective action create new organizational forms." *Research in Organizational Behavior*, 22:239 - 282.
- Rao, H., P. Monin, and R. Durand
2003 "Institutional change in Toque Ville: Nouvelle cuisine as an identity movement in french gastronomy." *American Journal of Sociology*, 108: 795 - 843.
- Rockefeller, S. and J. Elder

- 1992 *Spirit and Nature: Why the Environment is a Religious Issue*. Boston: Beacon Press.
- Rondinelli, D. and T. London
 2003 "How corporations and environmental groups cooperate: Assessing cross-sector alliances and collaborations." *Academy of Management Executive*, 17: 61-76.
- Scott, R. A.
 1967 "The selection of clients by social welfare agencies: The case of the blind." *Social Problems*, 14: 248-257.
- Scott, W. R.
 1991 "Unpacking institutional arguments." In P. J. DiMaggio and W. W. Powell (eds.), *The New Institutionalism in Organizational Analysis*: 164-182. Chicago: The University of Chicago Press.
- Scott, W. R.
 1995 *Institutions and Organizations*. Thousand Oaks, CA: Sage Publications.
- Scott, W. R.
 2001 *Institutions and Organizations*. Thousand Oaks, CA: Sage Publications.
- Scott, W.R.
 1998 *Organizations: Rational, Natural and Open Systems*. Upper Saddle River: Prentice Hall.
- Scott, W.R. and J. Davis
 2007 *Organizations and Organizing: Rational, Natural and Open System Perspectives*. Upper Saddle River, NJ: Prentice Hall.
- Selsky, J. and B. Parker
 2005 "Cross-sector partnerships to address social issues: Challenges to theory and practice." *Journal of Management*, 31 (6): 849-873.
- Selznick, P.
 1957 *Leadership in Administration: A Sociological Interpretation*. Berkeley, CA: University of California Press.
- Seo, M. and W.E. Creed
 2002 "Institutional contradictions, praxis, and institutional change: A dialectical perspective." *Academy of Management Review*, 27: 222 – 247.
- Sharma, S., H. Vredenburg and F. Westley
 1994 "Strategic bridging: A role for the multinational corporation in third world development." *Journal of Applied Behavioral Science*, 30: 458-476.

- Strang, D. and S. Soule
1998 "Diffusion in organizations and social movements: From hybrid corn to poison pills." *Annual Review of Sociology*, 24:265-290.
- Thomas, J. S. Clark, and D. Gioia
1993 "Strategic sense-making and organizational performance: Linkages among scanning, interpretation, actions, and outcomes." *Academy of Management Journal*, 36: 239-270.
- Thompson, J.
1967 *Organizations in Action: Social Science Bases of Administrative Theory*. New York: McGraw Hill.
- Trist, E.
1983 "Referent organizations and the development of inter-organizational domains," *Human Relations*, 36: 269-284.
- Waddell, S.
2005 *Societal Learning and Change: How Governments, Business and Society are Creating Solutions to Complex Multi-Stakeholder Problems*. Sheffield, UK: Greenleaf Publishing.
- Wall Street Journal
2007 "If the cap fits." *Wall Street Journal*, January 26: A10.
- Warner, M. and R. Sullivan
2004 *Putting Partnerships to Work: Strategic Alliances for Development between Government, the Private Sector and Civil Society*. Sheffield, UK: Greenleaf Publishing.
- Wasserman, S. and K. Faust
1994 *Social Network Analysis: Methods and Applications*. Cambridge: Cambridge University Press.
- Westhues, M. and S. Einwiller
2006 "Corporate foundations: Their role for corporate social responsibility." *Corporate Reputation Review*, 9: 144-153.
- Westley, F. and H. Vredenburg
1991 "Strategic bridging: The collaboration between environmentalists and business in the marketing of green products." *Journal of Applied Behavioral Science*, 27: 65-90.
- White, H.
1992 *Identity and Control: A Structural Theory of Social Interaction*. Princeton, NJ: Princeton University Press.

Wooten, M.

2006 "The evolution of the black higher education field, 1854 - 1996." Unpublished dissertation .Ann Arbor, MI: University of Michigan.

Wooten, M. and A. Hoffman

2007 "Organizational fields: Past, present and future." In R. Greenwood, C. Oliver, R. Suddaby and K. Sahlin-Andersson (eds.), *Handbook of Organizational Institutionalism*. Thousand Oaks: Sage Publications (forthcoming).

Young, D.

2001 "The influence of business on nonprofit organizations and the complexity of nonprofit accountability," *American Review of Public Administration*, 32(1): 3-19.

Zald, M. & J. McCarthy

1987 *Social Movements in an Organizational Society*. Oxford: Transaction Books.

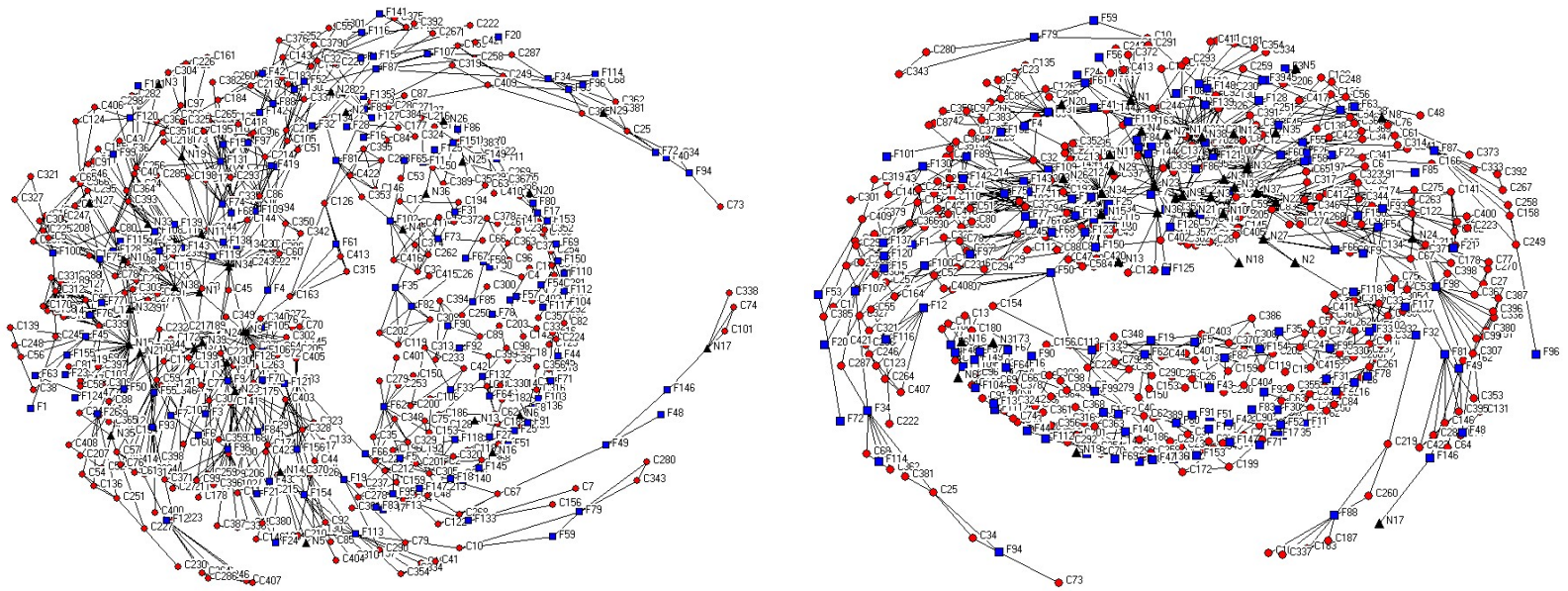
Zeitl, G., V. Mittal, and B. McAulay

1999 "Distinguishing adoption and entrenchment of management practices: A framework for analysis." *Organization Studies*, 20: 741 – 776.

Zucker, L. (Ed.)

1988 *Institutional Patterns and Organizations*. Cambridge, MA: Ballinger.

Figure 1
Organizational Field Data, Network Map, 2000 and 2005



2000 Field, all ties

2005 Field, all ties

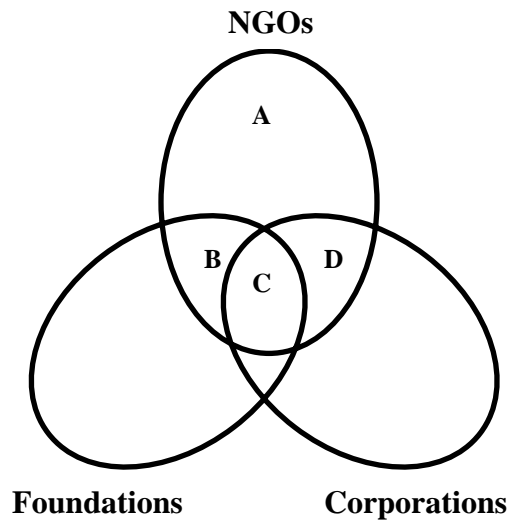
Nodes:	617
Ties:	1,948
Density:	0.51 %
Centralization:	4.32 %
Heterogeneity:	0.33 %
Mean Degree:	3.252
Average Distance: ¹¹	5.286
Mean Closeness: ¹²	0.377
Mean Betweenness: ¹²	0.315
Mean Eigenvector: ¹²	1.092

Nodes:	617
Ties:	2,016
Density:	0.53 %
Centralization:	6.66 %
Heterogeneity:	0.37 %
Mean Degree:	3.371
Average Distance: ¹¹	5.072
Mean Closeness: ¹²	0.406
Mean Betweenness: ¹²	0.316
Mean Eigenvector: ¹²	1.332

¹¹ Among reachable pairs.

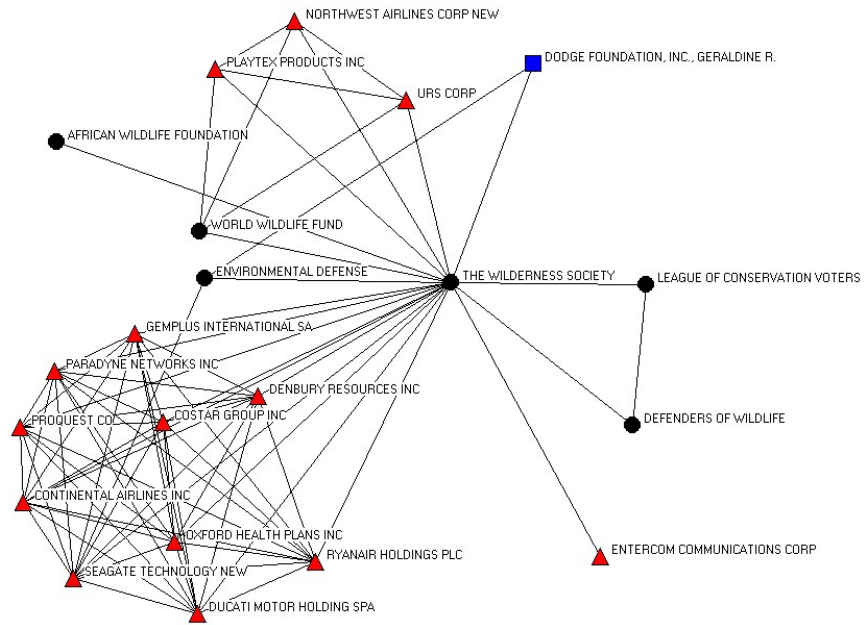
¹² Normalized.

Figure 2
The Field as an Intersecting Domain of Organizational Populations

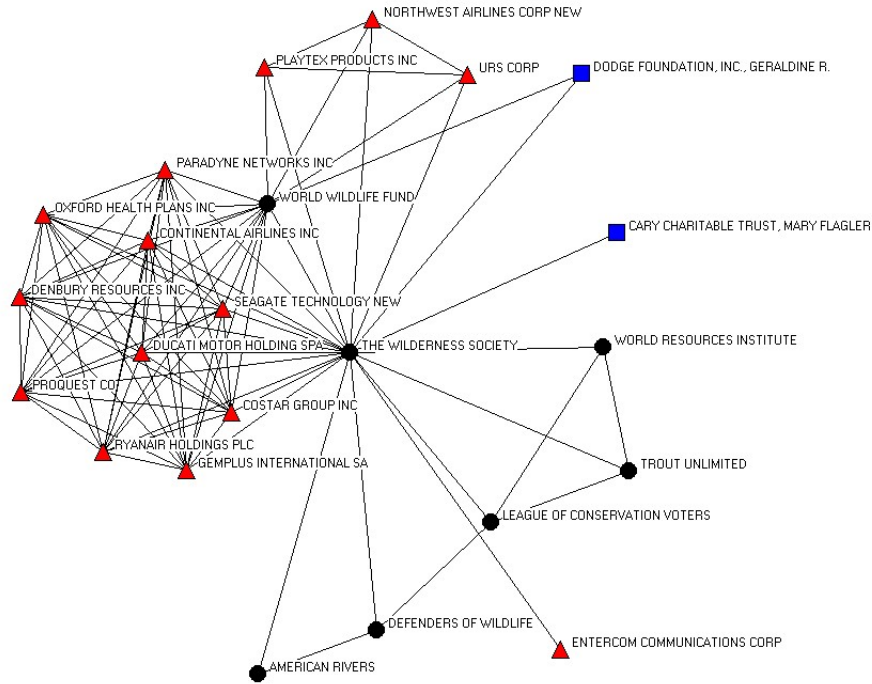


	2000	2005
A	40.74%	48.15%
B	7.41%	11.11%
C	25.93%	27.78%
D	25.93%	12.96%
Total	100%	100%

Figure 3
N32 (The Wilderness Society) Organization Sets, 2000 and 2005



2000



2005

Table 1
Organizational Field Data,
NGO, Corporate and Foundation Type, 2000 and 2005

NGO Keyword	2000	2005
Conservation	87%	87%
Wildlife	39%	39%
Environment	28%	28%
Natural_Resources	19%	19%
Sporting Groups	18%	18%
Water	13%	13%
Education	13%	13%
Pollution	11%	11%
Forestry	7%	7%
International Development	6%	6%
Total Number	54	54

Industry Breakdown (SIC code)	2000	2005
Manufacturing (20-23, 31-39)	27%	27%
Finance, Insurance & Real Estate (60-67)	18%	19%
Services (70-88)	14%	15%
Transportation & Utilities (40-49)	13%	13%
Manufacturing Chemical Related (28-30)	8%	8%
Manufacturing Forest Related (24-27)	6%	6%
Retail Trade (52-59)	6%	6%
Mining (10-14)	3%	3%
Wholesale Trade (50-51)	3%	3%
Agriculture Forest & Fishing (01-09)	0.50%	0.50%
Construction (15-17)	0.50%	0.50%
Total Number	414	412

Foundation Breakdown	2000	2005
Individual	74%	75%
Corporate	14%	13%
Community	11%	11%
Total Number	149	151

Table 2
Organizational Field Data,
Aggregate Field Membership, 2000 and 2005

	2000			2005		
	Corporations	Foundations	NGOs	Corporations	Foundations	NGOs
Total org.	414	149	54	412	151	54
Total ties	1226	449	273	1230	462	324
Max ties/org.	13	14	29	14	15	43
Min ties/org.	1	1	0	1	1	0
Ave ties/org.	2.96	3.01	5.06	2.99	3.06	6.00
Mean ties/org.	2	2	2	2	2	2

Table 3
Organizational Field Data,
Organization, Tie and Density Measures, 2000 and 2005

	2000			2005			Percent Change		
	# orgs	# of ties	density	# orgs	# of ties	density	# orgs	# of ties	density
N to N	54	72	2.52%	54	104	3.63%	0.00%	44.44%	44.44%
N to F	203	102	0.25%	205	128	0.31%	0.54%	25.49%	23.05%
N to C	468	300	0.14%	466	312	0.14%	-0.67%	4.00%	4.90%
C to F	563	676	0.21%	563	676	0.21%	0.00%	0.00%	0.00%
C to C	414	738	0.43%	412	736	0.43%	-0.48%	-0.27%	0.70%
F to F	149	60	0.27%	151	60	0.26%	1.34%	0.00%	-2.64%

Where N=NGO, C=corporation and F=foundation

**Table 4
Organizational Population Data, 2000 and 2005***

	Conservation (47 NGOs)		Wildlife (21 NGOs)		Environment (15 NGOs)		Natural Resources (10 NGOs)		Sporting Groups (8 NGOs)		Water (7 NGOs)	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
CORPORATIONS												
Manufacturing (20-23, 31-39)	23.58%	26.92%	18.03%	50.00%	32.43%	38.64%	21.43%	26.32%	14.29%	33.33%	38.46%	38.46%
Finance, Insurance & Real Estate (60-67)	11.38%	11.54%	9.84%	0.00%	10.81%	9.09%	14.29%	5.26%	14.29%	16.67%	15.38%	7.69%
Services (70-88)	15.45%	17.31%	21.31%	0.00%	16.22%	22.73%	10.71%	7.89%	14.29%	16.67%	7.69%	7.69%
Transportation and Utilities (40-49)	17.07%	11.54%	18.03%	0.00%	13.51%	6.82%	14.29%	18.42%	28.57%	0.00%	7.69%	7.69%
Manufacturing, Chemical Related (28-30)	13.01%	9.62%	13.11%	0.00%	8.11%	6.82%	10.71%	7.89%	14.29%	33.33%	7.69%	23.08%
Manufacturing, Forest Related (24-27)	5.69%	5.77%	4.92%	0.00%	5.41%	2.27%	3.57%	10.53%	0.00%	0.00%	0.00%	0.00%
Retail Trade (52-59)	4.07%	8.65%	3.28%	50.00%	5.41%	11.36%	7.14%	7.89%	0.00%	0.00%	0.00%	7.69%
Mining (10-14)	4.88%	5.77%	8.20%	0.00%	2.70%	2.27%	10.71%	10.53%	0.00%	0.00%	0.00%	7.69%
Wholesale Trade (50-51)	4.07%	1.92%	3.28%	0.00%	5.41%	0.00%	7.14%	5.26%	14.29%	0.00%	15.38%	0.00%
Agriculture, Forest and Fishing (01-09)	0.81%	0.96%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Construction (15-17)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Number of Corporations	123	104	61	2	37	44	28	38	7	6	13	13
Corporations/NGO	2.62	2.21	2.90	0.10	2.47	2.93	2.80	3.80	0.88	0.75	1.86	1.86
FOUNDATIONS												
Individual	88.89%	84.44%	100.00%	100.00%	86.67%	78.95%	81.00%	73.68%	0.00%	100.00%	100.00%	100.00%
Corporate	5.56%	11.11%	0.00%	0.00%	13.33%	15.79%	6.00%	15.79%	0.00%	0.00%	0.00%	0.00%
Community	5.56%	4.44%	0.00%	0.00%	0.00%	5.26%	13.00%	10.53%	0.00%	0.00%	0.00%	0.00%
Total Number of Foundations	32	45	19	1	15	19	16	19	0	3	2	4
Foundations/NGO	0.68	0.96	0.90	0.05	1.00	1.27	1.60	1.90	0.00	0.38	0.29	0.57
Isolates	29.79%	34.04%	19.05%	28.57%	53.33%	40.00%	50.00%	50.00%	62.50%	75.00%	28.57%	42.86%

* Only the keyword populations with more than 6 NGOs are listed.

Table 5
Organization Set Data, NGOs, 2000 and 2005

	2000					2005				
	Degree	Type of Ties	Close-ness (norm)	Between-ness (norm)	Eigen-vector (norm)	Degree	Type of Ties	Close-ness (norm)	Between-ness (norm)	Eigen-vector (norm)
N1	7	NC	0.486	3.88	5.23	6	NCF	0.518	1.596	4.636
N2	2	CF	0.169	0.004	0	3	NF	0.517	1.794	0.514
N3	3	C	0.483	0	0.023	6	NC	0.519	0.279	5.775
N4	3	NC	0.479	0.66	0	5	NC	0.518	0.587	0.691
N5	2	NC	0.483	0	0.016	1	C	0.516	0	0.689
N6	1	N	0.167	0	0	1	N	0.168	0	0
N7	1	N	0.485	0	0.436	2	NF	0.518	0.455	0.383
N9	29	NCF	0.487	15.949	2.075	36	NCF	0.519	9.964	4.978
N10	9	NC	0.485	1.618	5.83	6	N	0.519	2.039	5.274
N11	6	NC	0.486	1.668	0.967	5	NC	0.519	1.343	0.898
N12	2	C	0.168	0	0	3	NF	0.518	0.673	1.087
N13	1	F	0.167	0	0	1	N	0.517	0	0.538
N14	9	NCF	0.484	2.646	0.138	10	NCF	0.519	1.852	8.492
N15	23	NCF	0.486	8.089	13.695	25	NCF	0.519	9.381	6.221
N16	1	N	0.167	0	0	1	N	0.168	0	0
N17	4	CF	0.478	0.66	0	1	F	0.51	0	0
N18			<i>isolate</i>			1	N	0.517	0	0.506
N19	3	NC	0.484	0.44	0.097	1	C	0.168	0	0
N20	1	C	0.167	0	0	1	N	0.517	0	0.057
N21	7	NCF	0.485	1.254	5.946	6	N	0.519	1.69	5.843
N22	6	NCF	0.485	2.995	0.22	9	NC	0.518	2.864	0.731
N23	16	NCF	0.486	5.142	1.207	20	NCF	0.52	8.385	4.392
N24	23	NCF	0.486	7.325	1.262	9	CF	0.516	1.094	0.089
N25	1	C	0.167	0	0			<i>isolate</i>		
N26	1	C	0.167	0	0	2	NC	0.518	0.228	0.264
N27	1	N	0.484	0	0.571	7	NCF	0.518	1.488	0.619
N28	1	F	0.167	0	0			<i>isolate</i>		
N29	2	CF	0.48	0.221	0	4	NF	0.518	0.918	0.654
N30	5	NC	0.486	0.221	0.848	9	NCF	0.519	3.882	6.956
N31			<i>isolate</i>			2	CF	0.168	0.001	0
N32	20	NCF	0.486	4.324	47.376	22	NCF	0.519	3.047	43.211
N33	5	NC	0.485	0.878	0.535	13	NCF	0.519	1.846	5.864
N34	28	NCF	0.487	16.678	1.768	43	NCF	0.52	18.507	3.031
N35	3	NC	0.484	0.221	0.652			<i>isolate</i>		
N36	2	NF	0.478	0.221	0	7	NCF	0.518	2.714	0.45
N37	19	NCF	0.486	9.778	4.455	16	NCF	0.519	8.271	6.43
N38	22	NCF	0.486	5.088	9.612	37	NCF	0.519	9.164	50.782
N39	4	NF	0.485	0.371	1.522	3	NF	0.518	0	0.888
N40-55			<i>isolate</i>					<i>isolate</i>		
Ave.	5.06		0.270	1.673	1.935	6.00		0.310	1.742	3.166

Table 6a
Organization Set Data, Corporations, 2000 and 2005

	2000 Eigenvector (normalized)		2005 Eigenvector (normalized)		2000 Degree		2005 Degree
C339	43.273	C339	38.431	C339	13	C339	14
				C244	11	C244	11
C170	40.948	C170	37.261	C170	10	C170	11
C114	40.948	C114	37.261	C114	10	C114	11
C289	40.948	C289	37.261	C289	10	C289	11
C127	40.948	C127	37.261	C127	10	C127	11
C288	40.948	C288	37.261	C288	10	C288	11
C100	40.948	C100	37.261	C100	10	C100	11
C312	40.948	C312	37.261	C312	10	C312	11
C95	40.948	C95	37.261	C95	10	C95	11
C331	40.948	C331	37.261	C331	10	C331	11
				C83	10		
<i>Average C</i>	<i>1.244</i>		<i>1.325</i>		<i>2.96</i>		<i>2.985</i>

Table 6b
Organization Set Data, Foundations, 2000 and 2005

	2000 Eigenvector (normalized)		2005 Eigenvector (normalized)		2000 Degree		2005 Degree
F45	6.31	F45	8.481	F131	14	F131	15
F77	1.887	F113	8.229	F98	12	F98	11
F75	1.814	F60	5.693	F62	11	F62	11
F76	1.703	F139	5.46	F113	10	F113	11
F50	1.59	F86	4.9	F143	9	F143	9
F60	1.569	F119	4.881	F74	8	F74	8
F26	1.391	F108	4.854	F109	8	F75	8
F155	1.341	F128	4.395	F75	8	F60	8
F23	1.341	F148	4.395	F74	8	9 NGOs¹³	7
F139	1.277	F22	3.768	F60	8		
<i>average F</i>	<i>0.233</i>		<i>0.529</i>		<i>3.01</i>		<i>3.059</i>

¹³ F106, F100, F45, F89, F106, F34, F50, F109, F142 each had 7 ties.

Appendix: Sample Set Coding Scheme

Environmental NGOs

N1	African Wildlife Foundation	N28	River Network
N2	American Forests	N29	Scenic Hudson
N3	American Rivers	N30	Student Conservation Association
N4	Bat Conservation International	N31	The Land Institute
N5	Center for Clean Air Policy	N32	The Wilderness Society
N6	Clean Water Action	N33	Trout Unlimited
N7	Coalition for Environmentally Responsible Economies	N34	Wildlife Conservation Society
N8	Coastal Conservation Association (removed)	N35	Wildlife Habitat Council
N9	Conservation International - USA	N36	Wildlife Trust
N10	Defenders of Wildlife	N37	World Resources Institute
N11	Dian Fossey Gorilla Fund International	N38	World Wildlife Fund
N12	Ducks Unlimited	N39	Worldwatch Institute
N13	Ecological Society of America	N40	Center for Ecoliteracy
N14	Environmental and Energy Study Institute	N41	Center for Health, Environment And Justice
N15	Environmental Defense	N42	Community Environmental Council
N16	Friends of the Earth	N43	Delta Waterfowl Foundation
N17	Greater Yellowstone Coalition	N44	Earth Island Institute
N18	Greenpeace USA	N45	Fauna And Flora International
N19	Jane Goodall Institute for Wildlife Research, Education, And Conservation	N46	Fish America Foundation
N20	Land Trust Alliance	N47	Forest Guild
N21	League of Conservation Voters	N48	Global Warming International Center
N22	National Audubon Society	N49	Izaak Walton League
N23	Natural Resources Defense Council	N50	National Wildlife Federation
N24	Nature Conservancy	N51	Rainforest Action Network
N25	Pheasants Forever	N52	Sierra Club
N26	Rainforest Alliance	N53	Soil and Water Conservancy Society
N27	RARE	N54	Whitetails Unlimited
		N55	Wildlife Forever

Corporations

C1	21st Century Insurance Group	C212	ITT Educational Services Inc
C2	3d Systems Corp	C213	ITT Industries Inc
C3	Aaron Rents Inc	C214	J P Morgan Chase & Co
C4	Abercrombie & Fitch Co De	C215	John H Harland Co
C5	Abn Amro Holding Nv	C216	John Hancock Financial Services Inc
C6	Advanta Corp	C217	Johnson Outdoors Inc
C7	Advent Software Inc	C218	Juniper Networks Inc
C8	AES Corp	C219	Kansas City Southern
C9	Aetna Inc Pa	C220	Kellogg Co
C10	Agilent Technologies Inc	C221	Kerr Mcgee Corp
C11	Airgas Inc	C222	Keynote Systems Inc
C12	Alcoa Inc	C223	Kforce Inc
C13	Alexander & Baldwin Inc	C224	Kinder Morgan Inc New
C14	Allegheny Corp	C225	Korn Ferry International
C15	Allegheny Technologies Inc	C226	Kroll Inc
C16	Altria Group Inc	C227	La Z Boy Inc
C17	Aluminum Corp Of China Ltd	C228	Lance Inc
C18	Amazon Com Inc	C229	Leapfrog Enterprises Inc
C19	Amerada Hess Corp	C230	Legg Mason Inc
C20	American Express Co	C231	Leggett & Platt Inc
C21	American International Group Inc	C232	Leucadia National Corp
C22	Ampco Pittsburgh Corp	C233	Level 3 Communications Inc

C23	AMR Corp	C234	Lexicon Genetics Inc
C24	Anteon International Corp	C235	Liberty Media Corp New
C25	Anthem Inc	C236	Limited Brands Inc
C26	Ap Pharma Inc	C237	Lincoln National Corp
C27	Applied Materials Inc	C238	Liz Claiborne Inc
C28	Aquantive Inc	C239	Loews Corp
C29	Aramark Corp New	C240	Louisiana Pacific Corp
C30	Avery Dennison Corp	C241	Lowrance Electronics Inc
C31	Avon Products Inc	C242	Macromedia Inc
C32	Bank Of New York Co Inc	C243	Manugistics Group Inc
C33	Bank One Corp	C244	Marriott International Inc New
C34	Banknorth Group Inc Me	C245	Marsh & McLennan Cos Inc
C35	Bassett Furniture Industries Inc	C246	Marshall & Ilsley Corp
C36	Becton Dickinson & Co	C247	Martha Stewart Living Omnimedia Inc
C37	Biocryst Pharmaceuticals Inc	C248	Maxcor Financial Group Inc
C38	Biogen Inc	C249	Mbia Inc
C39	Bioreliance Corp	C250	Mcclatchy Co
C40	BKF Capital Group Inc	C251	Mcgraw Hill Cos Inc
C41	Blockbuster Inc	C252	Meadwestvaco Corp
C42	Blount International Inc	C253	Medcath Corp
C43	Blue Rhino Corp	C254	Medicis Pharmaceutical Corp
C44	Boeing Co	C255	Medtronic Inc
C45	Boise Cascade Corp	C256	Mellon Financial Corp
C46	Borgwarner Inc	C257	Merck & Co Inc
C47	Boston Scientific Corp	C258	Mgic Investment Corp
C48	Bowne & Co Inc	C259	Mgm Mirage
C49	Briggs & Stratton Corp	C260	Mgp Ingredients Inc
C50	Brinker International Inc	C261	Michael S Stores Inc
C51	Bristol Myers Squibb Co	C262	Midwest Express Holdings Inc
C52	Brookfield Properties Corp	C263	Mirant Corp
C53	C2 Inc	C264	Modine Manufacturing Co
C54	Cable & Wireless Plc	C265	Nacco Industries Inc
C55	California Water Service Group	C266	Nashua Corp
C56	Cambrex Corp	C267	Navigant Consulting Inc
C57	Cantel Medical Corp	C268	NCR Corp
C58	Capital Southwest Corp	C269	Neogen Corp
C59	Carmike Cinemas Inc	C270	Netro Corp
C60	Catalina Marketing Corp	C271	Neuberger Berman Inc
C61	Catalytica Energy Systems Inc	C272	Nextel Communications Inc New
C62	Cell Genesys Inc	C273	Nicor Inc
C63	Cellstar Corp	C274	Nordstrom Inc
C64	Cemex Sa De Cv	C275	Norfolk Southern Corp
C65	Centex Construction Products Inc	C276	Northrop Grumman Corp New
C66	Central Pacific Financial Corp	C277	Northwest Airlines Corp New
C67	Chemical Financial Corp	C278	Nstar
C68	Chesapeake Corp	C279	Nucor Corp
C69	Chicago Mercantile Exchange Holdings Inc	C280	Nvidia Corp
C70	China Unicom Ltd	C281	Oakley Inc
C71	Chiquita Brands International Inc	C282	Office Depot Inc
C72	Chiron Corp	C283	Oil States International Inc
C73	Chittenden Corp	C284	Olin Corp
C74	Church & Dwight Co Inc	C285	Oracle Corp De
C75	Cigna Corp	C286	Oshkosh Truck Corp
C76	Cinergy Corp	C287	Owens & Minor Inc New
C77	Cisco Systems Inc	C288	Oxford Health Plans Inc
C78	Cit Group Inc New	C289	Paradyne Networks Inc
C79	Clorox Co	C290	Payless Shoesource Inc New

C80	CNA Financial Corp	C291	Peabody Energy Corp
C81	CNET Networks Inc	C292	Penn Virginia Corp
C82	Coach Inc	C293	Pepco Holdings Inc
C83	Coca Cola Co	C294	Pepsi Bottling Group Inc
C84	Coca Cola Enterprises Inc	C295	Pepsico Inc
C85	Coca Cola Femsa Sa De Cv	C296	Pharmacyclics Inc
C86	Comcast Corp New	C297	Philadelphia Consolidated Holding Corp
C87	Comerica Inc	C298	Phillips Van Heusen Corp
C88	Computer Associates International Inc	C299	Photonics Inc
C89	Conagra Foods Inc	C300	Pinnacle West Capital Corp
C90	Concord Communications Inc	C301	Pitney Bowes Inc
C91	Concorde Career Colleges Inc	C302	Pixar
C92	Conocophillips	C303	Playtex Products Inc
C93	Consol Energy Inc	C304	Pnc Financial Services Group Inc
C94	Consolidated Edison Inc	C305	Pogo Producing Co
C95	Continental Airlines Inc	C306	Polo Ralph Lauren Corp
C96	Convera Corp	C307	Polycom Inc
C97	Convergys Corp	C308	Powerwave Technologies Inc
C98	Copper Mountain Networks Inc	C309	Priceline Com Inc
C99	Corning Inc	C310	Pricesmart Inc
C100	Costar Group Inc	C311	Procter & Gamble Co
C101	Crane Co	C312	Proquest Co
C102	Crawford & Co	C313	Protective Life Corp
C103	Crown Castle International Corp	C314	Proton Energy Systems Inc
C104	Crown Media Holdings Inc	C315	Prudential Financial Inc
C105	CSX Corp	C316	Qualcomm Inc
C106	Ct Communications Inc	C317	Questar Corp
C107	Cummins Inc	C318	R R Donnelley & Sons Co
C108	Dana Corp	C319	Raven Industries Inc
C109	Danaher Corp	C320	Rayonier Inc
C110	Datawatch Corp	C321	Reader S Digest Association Inc
C111	Deere & Co	C322	Rohm & Haas Co
C112	Delphi Financial Group Inc	C323	Rollins Inc
C113	Delta Air Lines Inc	C324	Roper Industries Inc
C114	Denbury Resources Inc	C325	Ross Stores Inc
C115	Devry Inc	C326	Royal Caribbean Cruises Ltd
C116	Diamond Offshore Drilling Inc	C327	Royal Dutch Petroleum Co
C117	Diebold Inc	C328	Rpc Inc
C118	Digitas Inc	C329	Ruddick Corp
C119	Ditech Communications Corp	C330	Russell Corp
C120	Dominion Resources Inc Va	C331	Ryanair Holdings Plc
C121	Doral Financial Corp	C332	Saks Inc
C122	Dow Chemical Co	C333	Sanders Morris Harris Group Inc
C123	DPL Inc	C334	Savient Pharmaceuticals Inc
C124	DGE Inc	C335	Schering Plough Corp
C125	Drugstore Com Inc	C336	Schlumberger Ltd
C126	DTE Energy Co	C337	Scs Transportation Inc
C127	Ducati Motor Holding Spa	C338	Seabulk International Inc
C128	Ducommun Inc	C339	Seagate Technology New
C129	Dun & Bradstreet Corp De New	C340	Seminis Inc
C130	E I Du Pont De Nemours & Co	C341	Sensytech Inc
C131	Eastman Kodak Co	C342	Sequa Corp
C132	Ecollege Com	C343	Siebel Systems Inc
C133	Edison International	C344	Skywest Inc
C134	El Paso Corp	C345	Snap On Inc
C135	Electronic Data Systems Corp	C346	Solutia Inc
C136	Eli Lilly & Co	C347	Sonic Corp

C137	Energizer Holdings Inc	C348	Sonoco Products Co
C138	Entercom Communications Corp	C349	Sony Corp
C139	Enzon Pharmaceuticals Inc	C350	Sotheby S Holdings Inc
C140	Eog Resources Inc	C351	Soundview Technology Group Inc
C141	Equifax Inc	C352	Southwall Technologies Inc
C142	Equitable Resources Inc	C353	Southwest Bancorporation Of Texas Inc
C143	Ethan Allen Interiors Inc	C354	Southwest Water Co
C144	Ethyl Corp	C355	Speechworks International Inc
C145	Expedia Inc	C356	Staples Inc
C146	Expressjet Holdings Inc	C357	Starbucks Corp
C147	Exult Inc	C358	Steelcase Inc
C148	Fairchild Corp	C359	Sun Microsystems Inc
C149	Fairmont Hotels & Resorts Inc	C360	Sunoco Inc
C150	Family Dollar Stores Inc	C361	Synovus Financial Corp
C151	Fannie Mae	C362	Sysco Corp
C152	Firepond Inc	C363	T Rowe Price Group Inc
C153	First Charter Corp	C364	Take Two Interactive Software Inc
C154	First Data Corp	C365	Tarragon Realty Investors Inc
C155	First Investors Financial Svcs Group Inc	C366	Teledyne Technologies Inc
C156	First Republic Bank	C367	Teletech Holdings Inc
C157	Firstfed Financial Corp	C368	Tellabs Inc
C158	Fiserv Inc	C369	Temple Inland Inc
C159	Fleetboston Financial Corp	C370	Tenet Healthcare Corp
C160	Fnb Corp Va	C371	Tennant Co
C161	Foamex International Inc	C372	Texas Industries Inc
C162	Fomento Economico Mexicano Sa De Cv New	C373	Texas Regional Bancshares Inc
C163	Ford Motor Co	C374	Tibco Software Inc
C164	Fortune Brands Inc	C375	Tiffany & Co
C165	Franklin Resources Inc	C376	Timken Co
C166	Gabelli Asset Management Inc	C377	Tommy Hilfiger Corp
C167	Gannett Co Inc	C378	Topps Co Inc
C168	Gap Inc	C379	Transatlantic Holdings Inc
C169	Gartner Inc	C380	Tribune Co
C170	Gemplus International Sa	C381	Trigon Healthcare Inc
C171	General Electric Co	C382	Trinity Industries Inc
C172	General Motors Corp	C383	Trust Co Of New Jersey
C173	Gentiva Health Services Inc	C384	Tyco International Ltd Bermuda
C174	Genuine Parts Co	C385	Union Pacific Corp
C175	Georgia Pacific Corp	C386	Unionbanal Corp
C176	Gilead Sciences Inc	C387	United Technologies Corp
C177	Globalsantafe Corp	C388	Unitedhealth Group Inc
C178	Goldman Sachs Group Inc	C389	Universal Display Corp Pa
C179	Goodrich Corp	C390	Univision Communications Inc
C180	Graco Inc	C391	URS Corp
C181	Granite Construction Inc	C392	USG Corp
C182	Graphic Packaging International Corp	C393	Vail Resorts Inc
C183	Great Plains Energy Inc	C394	Valmont Industries Inc
C184	Greater Bay Bancorp	C395	Varco International Inc De
C185	Griffin Land & Nurseries Inc	C396	Varian Medical Systems Inc
C186	Guidant Corp	C397	Veritas Software Corp New
C187	H & R Block Inc	C398	Verizon Communications Inc
C188	H B Fuller Co	C399	Viacom Inc
C189	H J Heinz Co	C400	Visteon Corp
C190	Handleman Co	C401	Wachovia Corp New
C191	Harte Hanks Inc	C402	Wal Mart Stores Inc
C192	Hartford Financial Services Group Inc	C403	Walt Disney Co New
C193	Hasbro Inc	C404	Washington Mutual Inc

C194	Hawaiian Electric Industries Inc	C405	Washington Post Co
C195	Hearst Argyle Television Inc	C406	Water Pik Technologies Inc
C196	Hershey Foods Corp	C407	Wausau Mosinee Paper Corp
C197	Hexcel Corp	C408	Wellchoice Inc
C198	Honeywell International Inc	C409	Wells Fargo & Co New
C199	Hughes Electronics Corp	C410	Westamerica Bancorporation
C200	Hughes Supply Inc	C411	Weyco Group Inc
C201	Illinois Tool Works Inc	C412	Weyerhaeuser Co
C202	Impac Medical Systems Inc	C413	Whirlpool Corp
C203	Insight Communications Co Inc	C414	Wiltel Communications Group Inc
C204	Interactive Data Corp New	C415	Wind River Systems Inc
C205	Interactivecorp	C416	Wisconsin Energy Corp
C206	Intergroup Corp	C417	Wm Wrigley Jr Co
C207	International Business Machines Corp	C418	Wyeth
C208	International Flavors & Fragrances Inc	C419	Xerox Corp
C209	International Speedway Corp	C420	Yahoo Inc
C210	Ionics Inc	C421	Zimmer Holdings Inc
C211	Irwin Financial Corp	C422	Zions Bancorporation
		C423	Zymogenetics Inc

Foundations

F1	Ahmanson Foundation, The	F79	Hewlett Foundation, William And Flora, The
F2	Alcoa Foundation	F80	Hilfiger Family Foundation, Inc., The
F3	Aria Foundation, Inc.	F81	Houston Endowment Inc.
F4	Atlantic Foundation Of New York, The	F82	Irvine Foundation, James Jane Goodall Institute For Wildlife Research, Education, And Conservation
F5	Bank Of America Foundation, Inc.	F83	John Merck Fund
F6	Bauman Family Foundation, Inc.	F84	Johnson Fund, Edward C.
F7	Beldon Fund	F85	Johnson Fund, Inc., Sc
F8	Blank Family Foundation, Arthur M., The	F86	Joyce Foundation, The
F9	Bobolink Foundation, The	F87	Kansas City Community Foundation, Greater
F10	Bodman Foundation, The	F88	Kellogg Foundation, W. K.
F11	Boston Foundation, Inc.	F89	Kiewit Foundation, Peter
F12	Bradley Foundation, Inc., Lynde & Harry, The	F90	Kirby Foundation, Inc., F. M.
F13	Bradley-Turner Foundation, Inc.	F91	Knafel Family Foundation
F14	Brainerd Foundation, The	F92	Kresge Foundation, The
F15	Bristol-Myers Squibb Foundation, Inc., The	F93	Libra Foundation
F16	Brown Foundation	F94	Lincoln Financial Group Foundation
F17	Bush Foundation	F95	Luce Foundation, Henry
F18	Cain Foundation, Gordon And Mary, The	F96	Lucent Technologies Foundation
F19	California Endowment, The	F97	Macarthur Foundation, John D. And Catherine T.
F20	California Wellness Foundation, The	F98	McCormick Foundation, Chauncey And Marion Deering
F21	Campbell Foundation, J. Bulow	F99	Mellon Foundation, Andrew W.
F22	Cary Charitable Trust, Mary Flagler	F100	Mellon Foundation, Richard King
F23	Catto Charitable Foundation	F101	Milwaukee Foundation, Greater
F24	Chartwell Charitable Foundation	F102	Minneapolis Foundation, The
F25	Christensen Fund, The	F103	Mobil Foundation
F26	Citigroup Foundation	F104	Moore Family Foundation
F27	Clark Foundation, The	F105	Moore Foundation, Gordon And Betty
F28	Coca-Cola Foundation, Inc., The	F106	Mott Foundation, Charles Stewart
F29	Columbia Foundation	F107	New York Community Trust, The
F30	Columbus Foundation And Affiliated Organizations, The	F108	Noble Foundation, Edward John
F31	Communities Foundation Of Texas, Inc. Community Foundation For The National Capital Region, The	F109	Northeast Utilities Foundation, Inc.
F32	Community Foundation Of Greater Birmingham,	F110	Olin Foundation, Spencer T. And Ann W.
F33		F111	

	The		
F34	Community Foundation Serving Richmond & Central Virginia, The	F112	Overbrook Foundation
F35	Community Foundation Silicon Valley	F113	Packard Foundation, David And Lucille, The
F36	Compton Foundation, Inc.	F114	Parsons Foundation, Mary Morton, The
F37	Cox Foundation Of Georgia, Inc., James M., The	F115	Pattee Foundation, Inc., The
F38	Cunningham Foundation, Inc., Laura Moore	F116	Peninsula Community Foundation
F39	Danforth Foundation, The	F117	Penn Foundation, William
F40	Davis Foundation, Shelby Cullom	F118	Pew Charitable Trusts, The
F41	Delta Waterfowl Foundation	F119	Phipps Foundation, Howard
F42	Denkers Family Foundation, Stephen G. & Susan E.	F120	Pittsburgh Foundation
F43	Disney Company Foundation, Walt, The	F121	Pritzker Foundation
F44	Dodge Foundation, Cleveland H.	F122	Procter & Gamble Fund, The
F45	Dodge Foundation, Inc., Geraldine R.	F123	Prospect Hill Foundation, Inc., The
F46	Donnelley Foundation, Gaylord And Dorothy	F124	Public Welfare Foundation, Inc.
F47	Donner Foundation, Inc., William H., The	F125	Rasmussen Foundation, V. Kann
F48	Dow Chemical Company Foundation	F126	Resnick Family Foundation
F49	Dow Foundation, Herbert H. And Grace A., The	F127	Richardson Foundation, Inc., Smith
F50	Duke Charitable Foundation, Doris	F128	Richardson Foundation, Sid W.
F51	Dyson Foundation	F129	Robertson Foundation
F52	Eccles Charitable Foundation, Willard L.	F130	Rockefeller Brothers Fund, Inc.
F53	Eccles Foundation, George S. And Dolores Dore, The	F131	Rockefeller Foundation
F54	Ellis Foundation, Joseph H. & Barbara I.	F132	San Diego Foundation, The
F55	Energy Foundation	F133	San Francisco Foundation, The
F56	Engelhard Foundation, Charles, The	F134	Schiff Foundation, The
F57	Exxonmobil Foundation	F135	Schwartz Foundation, Marvin And Donna, The
F58	Fidelity Foundation	F136	Shell Oil Company Foundation
F59	Flora Family Foundation	F137	Starr Foundation, The
F60	Ford Foundation, The	F138	Steinhardt Foundation, Judy And Michael, The
F61	Ford Motor Company Fund	F139	Summit Charitable Foundation
F62	Foundation For The Carolinas	F140	Tellabs Foundation
F63	Fund For New Jersey, The	F141	Tiffany & Co. Foundation, The
F64	Gates Foundation, Bill & Melinda	F142	Tinker Foundation, Inc., The
F65	Gerbode Foundation, Wallace Alexander	F143	Tisch Foundation
F66	Gerstacker Foundation, Rollin M.	F144	Tishman Fund, Inc., John & Daniel
F67	Gimbel Foundation, Inc., Bernard F. And Alva B.	F145	Town Creek Foundation
F68	Goldman Fund, Richard & Rhoda	F146	Towsley Foundation, Harry A. And Margaret D., The
F69	Goldsmith Foundation, Horace W.	F147	UMB Financial Corp
F70	Grand Victoria Foundation	F148	Vidda Foundation, The
F71	Halsell Foundation, Ewing, The	F149	Wallace Research Foundation, The
F72	Harriman Foundation, Gladys And Roland	F150	Walton Family Foundation, Inc.
F73	Hawaii Community Foundation	F151	Warwick Foundation Of Bucks County, The
F74	Hearst Foundation, William Randolph	F152	Waterfowl Research Foundation, Inc.
F75	Heinz Endowment, Howard	F153	Wege Foundation
F76	Heinz Endowment, Vira I.	F154	Weingart Foundation
F77	Heinz Family Foundation	F155	Wilson Charitable Trust, Robert W.
F78	Hess Foundation, Inc.	F156	Woodruff Foundation, Inc., Robert W.