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**SOCIAL MOVEMENTS, FIELD FRAMES AND INDUSTRY EMERGENCE:  
A CULTURAL-POLITICAL PERSPECTIVE ON U.S. RECYCLING\***

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**ABSTRACT**

This article examines how social movements contribute to institutional change and the creation of new industries. We build on current efforts to bridge institutional and social movement perspectives in sociology and develop the concept of field frame to study how industries are shaped by social structures of meanings and resources that underpin and stabilize practices and social organization. Drawing on the case of how non-profit recyclers and the recycling social movement enabled the rise of a for-profit recycling industry, we show that movements can help to transform extant socioeconomic practices and enable new kinds of industry development by engaging in efforts that lead to the deinstitutionalization of field frames.

## **SOCIAL MOVEMENTS, FIELD FRAMES AND INDUSTRY EMERGENCE: A CULTURAL-POLITICAL PERSPECTIVE ON U.S. RECYCLING**

“We have to realize that there is a certain ironic, wry success in that nonprofits all over the country have test-piloted it [recycling] so successfully that big capital has come in and taken over” (quoted in Weinberg, Pellow & Schnaiberg, 2000: 95).

How do marginal practices become the foundation for the emergence of new economic institutions such as industries? While the study of how industries and markets emerge has received little attention in economics (Granovetter & Swedberg, 2001), sociologists have directed increasing attention to such questions over the past couple of decades (e.g. Hollingsworth & Boyer, 1997; Fligstein, 2001; White, 2002). Sociological approaches to industry emergence are varied, but have highlighted the importance of studying how economic institutions are embedded in wider fields of interaction that include professional and trade associations, governmental agencies, and other non-profit and for-profit actors (e.g. DiMaggio & Powell, 1983; Campbell, Hollingsworth & Lindberg, 1991; Schneiberg, 1999). Extant constructionist accounts, rooted in organizational and economic sociology, focus on tracking the processes and mechanisms by which economic activities and practices take shape as an industry as a result of the development of a supporting organizational infrastructure, the creation of symbolic boundaries that define appropriate industry activities, and the attainment of legitimacy (Aldrich & Fiol, 1994; Granovetter & McGuire, 1998; Ventresca & Porac, forthcoming). However, these accounts tend to neglect how the fate of industries is bound up in broader field-level political struggles over meanings and resources (Zelizer, 1979; Stryker, 1994; Schneiberg and Bartley, 2001; Lounsbury and Ventresca, 2002). We develop the case of the rise of the recycling industry in the U.S. solid waste field to contribute to the development of a broader and more dynamic approach to socioeconomics that takes the study of cultural processes seriously.

We build on recent efforts to bridge ideas in institutional analysis and social movement theory in sociology (e.g. Clemens, 1997; Rao, 1998; Strang & Soule, 1998), and introduce the

concept of “field frame” to focus attention on how cultural meaning systems shape important socioeconomic processes and outcomes such as industry emergence (Espeland & Stevens, 1998; Lamont & Molnár, forthcoming; Stinchcombe, 2002). Institutional theories of change in organizations and industry have highlighted how transformations or shifts in cultural belief systems or logics often enable the emergence of new practices, strategies, and forms (e.g. Haveman & Rao, 1997; Thornton & Ocasio, 1999), but since logics are conceptualized as exogenous to actors (Friedland & Alford, 1991), they are analytically removed from the more active struggles over meaning and resources. Social movement scholars alternatively emphasize how the intentional crafting of strategic frames that align the goals of the movement with those of potential adherents can mobilize collective action (e.g. Snow et. al., 1986; Snow & Benford, 1988). Social movement frames, however, tend to be conceptualized as highly malleable and movement-centric. Our notion of field frame connotes the durability and stickiness of an institutional logic, but akin to the strategic framing concept, it is endogenous to a field of actors and is subject to challenge and editing.

We illustrate the utility of field frame by tracking the practice of resource recycling from its origins in grass roots reformism to its contemporary status as a for-profit industry.<sup>1</sup> The efforts of recycling movement pioneers, after attracting initial bursts of attention in the late 1960s and early 1970s, failed to achieve their goal of establishing recycling as a set of non-profit, volunteer-organized practices aimed at community-building. We argue that the potential for recycling to become a mainstream practice before the 1980s was limited by the presence of a dominant field frame that symbolically grouped recycling and waste-to-energy (W-T-E) incineration together as generic “resource recovery” practices. Industry wisdom and convention valorized W-T-E incineration over recycling as a standard solid waste management solution, and the “resource recovery” field frame

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<sup>1</sup> The *Recycling Advisory Council* (1994: 1), an affiliate of the *National Recycling Coalition*, the main trade association for recycling advocates, has defined recycling as “the result of a series of activities by which materials that would become or otherwise remain waste are diverted from the waste stream for collection, separation, and processing, and are used as raw materials or feedstocks in lieu of or in addition to virgin materials in the manufacture of goods sold or distributed in commerce or the reuse of such materials as substitutes for goods made from virgin materials. *Recycling* does not include burning municipal solid waste for energy recovery.”

restricted debate about the development of a recycling infrastructure and focused attention away from the opportunity to build a recycling industry.

Congressional hearings and eventual passage of the Resource Conservation and Recovery Act (RCRA) in 1976, however, shifted attention in the solid waste field towards the problem of hazardous waste (Szasz, 1994) and generated political opportunities for claims-making about the legitimacy of practices such as recycling and incineration. In particular, this state action fostered the emergence of new environmental social movement organizations that became key players in the erosion and recombination of the elements in the then standard resource recovery frame. Social movement activism focused on ending the construction of W-T-E incinerators and was crucial to the eventual deinstitutionalization of the dominant resource recovery field frame, enabling recycling to become transformed into a mainstream economic institution.

In the next section, we overview recent developments in social movement and institutional theories in sociology. We highlight how field frames can illuminate industry emergence. Next, we chronicle the early centralization of the solid waste management field and consolidation of a dominant resource recovery field frame and detail how erosion of a working consensus about optimal solid waste strategies and decoupling of elements from the frame aided emergence of recycling as a mainstream solid waste practice and a for-profit opportunity. We conclude with a discussion of how institutional and social movement approaches in sociology can help researchers connect the study of markets, socioeconomic dynamics and broader social change.

#### INTEGRATING SOCIAL MOVEMENT AND INSTITUTIONAL PERSPECTIVES: FIELD FRAMES AND SOCIOECONOMIC DYNAMICS

Recent dialogue between researchers of social movements and institutions has contributed to the development of more multi-layered approaches to longstanding problems having to do with the relationship between agency, culture and social structure (e.g. Clemens, 1997; Mische & Pattison,

2000; Moore & Hala, 2002). From the late 1960s until the 1990s, social movement researchers in sociology focused on the dynamics of relatively intentional attempts to change elements of the social structure and/or reward distribution of a society (McCarthy & Zald, 1977). This literature tracked how movements mobilize resources, organize and recruit participants, and systematically aim to maintain activist energy. Early observers noted that as the initial ferment of movements becomes packaged into more bureaucratically structured social movement organizations, mainstream institutions often co-opt movement leaders and participants and subvert the original goals and ideals of movements (Michels, [1911] 1962; Selznick, 1949; Zald & Ash, 1966). While this stream of research tended to concentrate on social movements as dependent variables, recent attention has shifted towards understanding how movements simultaneously alter and become altered by extant social policies and institutions (McAdam, McCarthy & Zald, 1996; Tarrow, 1998).

In addition to the focus on the dynamic relationship between movements and institutions, social movements research also experienced a "cultural turn" with much attention to cultural frames, meaning, and identity (Zald, 2000). The New Social Movements tradition shifted attention away from material conflicts and class analysis to focus on issues of identity (Laraña, Johnston & Gusfield, 1994); other researchers did conceptual development of framing in fields of activity (e.g. Snow et. al., 1986) and on the cultural construction of repertoires of contention (Tilly, 1978) and mobilizing structures (Useem & Zald, 1982). This effort to incorporate the study of culture combined with an interest in broader scale institutional change processes has paved the way for a fuller dialogue between social movements research and culturally-oriented institutional perspectives in sociology (e.g., Rao, 1998; Armstrong, 2002).

The primacy of culture is vivid in the claims contemporary institutional theorists make about how social structures of resources and meanings shape practices and behavior (Douglas, 1986; Meyer, Boli & Thomas, 1987; Lounsbury & Ventresca, 2002). This perspective points to a conception of institutions as generative of interests, identities and appropriate practice models that take shape in wider sociocultural contexts (Dobbin, 1994; Espeland, 1998; Frank, Hironaka &

Schofer, 2000). While emphasizing the importance of culture, institutionalists are also attentive to more traditional social structural considerations such as resource flows, competition and social conflict (Campbell & Pedersen, 2001; Schneiberg & Clemens, forthcoming).

In the institutional literature, however, cultural beliefs have been typically theorized as logics that are exogenous to the actions of organizations that are subject to their influence (Friedland & Alford, 1991; Thornton & Ocasio, 1999). While the emergence of new cultural beliefs may result from some sort of institution-building process (Scott, 2001), once in place, it is assumed that such beliefs become taken-for-granted. This approach to culture has been useful, but it has inhibited the development of theories about how cultural beliefs can become deinstitutionalized or change once they achieve taken-for-granted status (Tolbert & Zucker, 1996; Hirsch & Lounsbury, 1997; Clemens & Cook, 1999).

We build on the idea of cultural frames that has gained currency in the social movements literature to develop an approach that links cultural analysis and political action to investigate institutional conflict and change. Goffman (1974: 21) defines frames as “schemata of interpretation” that help actors reduce socio-cultural complexity in order to perceive, interpret and act in ways that are socially efficacious. Benford & Snow (2000: 614) argue that “frames help to render events or occurrences meaningful and thereby function to organize experience and guide action”. While social movements scholars have demonstrated the importance of framing processes in facilitating collective action (see McAdam, McCarthy & Zald, 1996), there has been little research on how frames work as more durable *field-level* ordering mechanisms or express alternative, potentially competing conceptions of control that shape economic action (Fligstein, 2001). Institutionalists have pioneered field analytic approaches to provide an intermediate level of analysis between organizations and industries on the one hand and society on the other (see Scott, 1994).<sup>2</sup> Focusing on the embeddedness of organizations in their broader socioeconomic context, field approaches

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<sup>2</sup> Fields have been defined as both the organizations that produce common outputs (whether these are automobiles, social services, or spiritual salvation) as well as the organizations that supply resources, effect constraints, or pose contingencies, particularly government agencies, trade associations and professions (DiMaggio, 1983: 149).

depart from early organization-environment approaches (Dacin, Ventresca, and Beal, 1999) by making struggles over both ideas and resources central (Bourdieu, 1984).

We offer the concept of field frame to focus attention on how broader structures of cultural meaning help to stabilize power arrangements, interaction patterns, resource allocations, and particular arrays of practices, thus limiting the possibility for change. Unlike the notion of institutional logic, we conceptualize field frame as a component of discourse that can be altered as a direct or indirect result of political action. More concretely, we define field frames as political constructions that provide order and meaning to fields of activity by creating a status ordering for practices that deem some practices as more appropriate than others. Field frames emerge as a result of efforts by producers, trade associations, professions and government actors to make sense of practices and define norms of appropriateness. Field frames are forged, maintained and eroded through discourse in policy forums such as Congressional hearings as well as in industry media and events such as trade association annual meetings.

Empirically, we study the ways the early social movement promoting recycling practices contributed to basic changes in field structure and discourse that altered an existing U.S. solid waste management field frame, and enabled the emergence of a for-profit recycling industry. Following Fligstein (1996), we argue that frame challengers engage in political struggles to either establish dominance within a frame or to alter or deinstitutionalize a frame in order to more easily attain their interests. Hence, status changes of practices can be facilitated through efforts that lead to the redefinition or destruction of extant frames. To wit, we focus attention on how marginal practices promoted by fringe actors can provide the basis for a new industry as a result of political mobilizations that alter established structures of meaning and resources that are upheld by field frames.



## METHODS AND DATA

We use a field analytic approach (Scott et. al., 2000) to track changes over time in a system of meaning, what we refer to as a “field frame,” associated practices and their social organization. The study identifies the factors that contributed to the development of an initial field frame, “resource recovery,” then the variety of challenges that resulted in the erosion of that common understanding about appropriate solid waste management practices and the rise of a new configuration of meanings, resources, actors, and standard industry practices. We use historical evidence to chart key events, legislation, coalitions, and changes in the social organization of the U.S. solid waste management field from the 1960s to the mid-1990s.

To explore the relationship between the recycling social movement and eventual industry emergence, our research included over thirty in-depth interviews with recycling activists and solid waste management field insiders as well as extensive primary and secondary historical research and analysis. Formal interviews were conducted with recycling activists who were involved in efforts to promote non-profit recycling since the 1970s, current and former leaders of the National Recycling Coalition (NRC), the main industry trade association, leaders of solid waste management conglomerates and their trade association, and government officials who have been involved in solid waste public policy issues over the past three decades. Further analyses used primary and secondary archival sources such as Congressional Hearings, governmental reports, industry reports issued by solid waste trade associations and consulting firms, as well as coverage of industry developments in the media, industry trade presses and at industry trade association annual meetings.

As part of this project, we analyzed Congressional hearings leading to the passage of the Resource Recovery Act of 1970. We coded the testimony of all 128 witnesses at the hearings along several dimensions in order to capture as much detail as possible on solid waste practices such as incineration, recycling and landfilling. This enabled us to systematically assess how different solid waste solutions such as recycling, landfilling and waste-to-energy incineration were conceptualized and discussed in the early moments of solid waste field consolidation.

We also obtained all annual meeting brochures from the Solid Waste Association of North America (SWANA), a key national solid waste trade association, since the late 1960s that detailed technical papers given at each of the meetings. We coded all annual meeting technical papers and content streams in order to systematically track all the issues that were discussed and debated, indicating what kinds of problems and solutions were most salient to solid waste field insiders. We use this data to analyze the saliency of recycling as a valorized solid waste solution among SWANA members as well as the rise and fall of the resource recovery frame.

In addition, we content analyzed all issues of *Waste Age*, the main solid waste management trade magazine, from its inception in 1970 until 1995 when recycling had become a mainstream solid waste solution. We analyzed every article in *Waste Age* to determine whether recycling, waste-to-energy incineration, or resource recovery was discussed. These data enabled us to track the growth or decline in popularity of recycling and incineration as solid waste management solutions as well as shifts in prominence of the resource recovery frame.

While the analysis of primary documents described above provides evidence about the historical evolution of recycling practices and their eventual transformation into a for-profit industry, systematic data on the scale and scope of the recycling industry do not exist before the late 1980s when industry trade magazines began to develop comprehensive surveys on recycling. The government only began to track the broader environmental industry in 1996, but has not gathered nor compiled detailed data on the recycling industry. Even the Environmental Protection Agency does not collect its own data on the recycling industry, instead relying on industry media or consulting firm surveys. While we have access to all publicly available data and some private data on the recycling industry, the scarcity of data on recycling before the 1990s provides an indicator of the fact that the recognition of recycling as an industry distinct from other solid waste management segments is a very recent development.

Since our main interest is in developing a theoretical account of how the recycling movement gave rise to the recycling industry, the focus of our fieldwork and historical research was to probe

the black box of the recycling industry's origins and to develop a grounded perspective of how it emerged. In turn, our empirical case is used to highlight the importance of field frames to the efforts of social movements to alter established practices and economic institutions. In the next two sections, we provide our historical account and evidence by first focusing on the processes by which the resource recovery frame came to be established and then how it became deinstitutionalized, enabling the rise of the U.S. recycling industry.

### SOLID WASTE FIELD CENTRALIZATION, THE RESOURCE RECOVERY FRAME AND THE MARGINALIZATION OF NON-PROFIT RECYCLING

In the first half of the 20<sup>th</sup> century, the disposal of solid waste was primarily a local affair, lacking in national regulation or oversight. Waste removal and disposal was organized through formalized public works, city sanitation and refuse removal departments, often linked to small family-owned business organizations (Hays, 1979). Local solid waste infrastructures were unstandardized and limited (Miller, 2000). Open landfill dumps were the primary end points for disposal operations. Since mid-century, the social organization of solid waste collection and disposal changed dramatically, becoming more hierarchically ordered at the national level. This shift was driven by a number of factors including the rapid growth of mass consumerism and discards (Packard, 1960) as well as the increased public and political scrutiny generally directed towards environmental issues (e.g. Carson, 1962; Crenson, 1971). Here, we sketch out efforts that contributed to the centralization of the solid waste field by the federal government and new field-level organizations such as associations of private solid waste management companies and municipal governments. This centralization enabled the establishment of the resource recovery frame and the concomitant marginalization of recycling practices.

## Field Centralization

Beginning in the early 1960s, a variety of actors and initiatives coalesced to promote more systematic and centralized approaches to solid waste management. In 1961, a variety of municipal government officials in charge of solid waste management throughout California created the Solid Waste Association of North America (SWANA), an important solid waste trade association whose membership became nationally representative by the mid-1960s.<sup>3</sup> On the private side, for-profit corporations engaging in the collection and disposal of garbage formed the National Solid Waste Management Association (NSWMA) in 1963 to provide a forum for communication and an interest group for lobbying purposes.

At around the same time, the federal government also began to focus explicitly on rationalizing solid waste practices. In 1964, the Senate Committee on Public Works held hearings on solid waste and their relation to air and water pollution. These hearings highlighted how the extant decentralized system of small local haulers led to the poor servicing of lower income and rural areas, and how communities surrounding open dumps were susceptible to deleterious health consequences (U.S. Senate, 1964). The problems raised by these Congressional investigations became tangibly addressed when the Solid Waste Disposal Act was passed in 1965.

This Act encouraged the closure of unsanitary landfills, the consolidation of knowledge about solid waste practices, and the emergence of a broader national dialogue about solid waste problems and solutions. One of the limitations of this Act, however, was that there was no governmental authority given powers to enforce landfill closure or provide leadership in the development of a new solid waste infrastructure. Instead, the federal government took a more passive role, emphasizing the organization of demonstration projects through grants to individual communities. Nonetheless, the 1965 Solid Waste Act encouraged efforts to create a more hierarchically organized solid waste management field by focusing attention on the need to consolidate and standardize solid waste management practices. As part of this process, new debates

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<sup>3</sup> The *Solid Waste Association of North America* (SWANA) was initially named the *Governmental Refuse Collection and Disposal Association*. The name of the association changed to SWANA in 1991.

emerged about what kinds of solid waste management solutions could provide a complement to landfilling.

In 1969 and 1970, Congress held hearings to focus exclusively on various solid waste solutions, resulting in the passage of the Resource Recovery Act of 1970. In those hearings, there was virtually unanimous consensus that unsanitary open dumps had to be shut down and that solid waste management had to become much more standardized across the country. In addition, a broad array of possible complements to landfilling were discussed including waste-to-energy incineration (W-T-E), resource recycling, deep-sea disposal (ocean dumping), ocean incineration, composting, underground disposal, grinding and disposal in sewers. Testimony reveals that there was great discord about which of these potential solutions, or combinations of potential solutions, would be most efficacious (Lounsbury, Geraci & Waismel-Manor, 2002). Aside from landfills, the two solutions that were discussed the most were waste-to-energy incineration (W-T-E) and recycling. W-T-E is a solid waste solution that involves capturing usable energy from the burning of trash while recycling involves the breaking down of certain kinds of discards into materials such as paper and glass that can be remanufactured into consumer products. Since both W-T-E and recycling focus on the recovery of used resources, they became conceptualized as core elements of a “resource recovery” field frame.

In 1970, the Environmental Protection Agency (EPA) was created to spearhead the development of national policy and regulation for a broad array of environmental issues including solid waste practices. Joining the EPA and the federal government in constructing field-wide solid waste solutions were two main constituencies: private solid waste management companies and state and municipal governmental agencies charged with the responsibility of ensuring the timely, sanitary and cost-effective removal of waste within particular geographic boundaries. By the early 1970s, field-wide centralization efforts encouraged private sector haulers to consolidate, enabling the creation of very large, national solid waste management conglomerates. Between 1968 and 1974, for

instance, waste companies such as Browning Ferris and Waste Management more than doubled in size, largely through acquisitions (Waste Age, 1974).

### The Early Non-Profit, Community-Building Recycling Movement

Amidst efforts to create a more centralized solid waste management infrastructure, a recycling movement took shape and found expression in the creation of non-profit recycling centers that relied on volunteerism and ideas about ecological sustainability. While recycling has a long history in the U.S., including federally sponsored efforts to collect used metals to manufacture armaments during World War II, efforts to conceptualize how to construct an infrastructure that would enable recycling to become a mainstream solid waste management solution did not begin until the late 1960s (Hoy & Robinson, 1979). Even though recycling was considered as a potential solid waste management solution by some mainstream solid waste actors in the late 1960s and early 1970s, it was always viewed as a marginal practice. This is mainly because recycling was associated with a social change agenda advocated by “radical” activists (Nader, 1972).

In the late 1960s and early 1970s, numerous local antipollution and antidevelopment volunteer organizations arose to reform and reorganize the functioning of their communities and national level lobby organizations such as Environmental Action were formed to help coordinate these multi-local activities (Brulle, 2000). The first Earth Day, organized on April 22, 1970, marked the popularization of the environmental movement and catalyzed greater participation in environmentally-oriented activities. For ground level eco-activists, the creation of voluntary, non-profit community recycling programs became one of the key expressions of this nascent environmental movement (Schnaiberg, 1973). Most entrepreneurs that created non-profit recycling centers were motivated by a broader set of anti-institutional ideals that were part of the late 1960s environmental movement (DeBell, 1970; Gottlieb, 1993). It is estimated that approximately 3,000 non-profit recycling centers were created in the six months following Earth Day (Hanson, 1972).

Family station wagons began hauling newspapers to recycling centers; college students wore buttons and hung posters encouraging citizens to protect the environment; high school

groups organized trash collection outings on many of the nation's highways; and "environmentalist" magazines and newsletters were put into print almost overnight (Hoy & Robinson, 1979: 1).

This loosely structured recycling movement was informed by a community-building ethic that critiqued the extant social organization of society. Recycling was envisioned as a key component of efforts to reinvigorate communities and achieve social justice, while at the same time restructuring capitalist forms of production.

Recycling was practical and educational. It was a vehicle for restructuring our thinking about the determinants of waste in our society. It was a path away from the concentration of political and economic power which treated virgin resources as a grand barbecue of the American continent, and similarly exploited the resources beyond our borders. We began to think about decentralized methods of production with closed-loop production/re-use/recycle systems (Seldman, 1986: 6).

Volunteer community-based recycling experiments in the late 1960s and early 1970s helped to raise environmental consciousness and make the connection between local actions and global processes. Recycling was conceived of as a non-profit local effort that could bring members of a community together—to foster person-to-person communication and provide a mechanism for the development of trust and cooperation among citizens in a community. In urban areas, recycling programs were also viewed as opportunities to provide less well-off individuals with jobs and decrease the social distance between the inner city and surrounding suburbs (Weinberg, Pellow & Schnaiberg, 2000). Finally, recycling was seen as having the potential to build communities that were more self-sufficient. That is, recycling would enable use-value production and consumption flows to be contained more exclusively within a particular community, and thereby reduce a community's connection to broader scale exchange-value commodity production systems that featured manufacturing conglomerates and multinationals (Schnaiberg & Gould, 1994).

This form of recycling, however, was not supported by mainstream solid waste actors, making the broader diffusion of community-building recycling practices virtually impossible. Recycling as a mechanism for the radical restructuring of capitalist forms of production never achieved broad popularity. Instead, recycling practices were bound up in broader political negotiations among local and national governmental agencies and large for-profit organizations that

were in the solid waste handling and disposal business. The creation of the EPA and emergence of a national dialogue on environmentalism channeled environmental protest into policy negotiation through the 1970s (Hoffman, 1997). Local grassroots activists and their ideals became ever more marginalized.

By the dawn of the 1980s, many early experiments with non-profit, volunteer recycling were considered failures and recycling had virtually disappeared from national level discussions about how to manage the country's solid waste problems. Due to the lack of markets for recycled materials, recycling centers were soon faced with stockpiles of materials to be recycled, but with no outlets for those materials once recycled. Community-based recycling centers and student initiated recycling efforts on college campuses began to cease operations during the 1974 recession and market realities continued to overwhelm this form of environmental enthusiasm (Kimball, 1992: 23). Further, recycling had become subsumed in the resource recovery frame that field actors and convention widely equated with W-T-E practices that had become valorized by the late 1970s.

### The Resource Recovery Frame and the Valorization of W-T-E Incineration

Our main argument thus far has been that while recycling and W-T-E were both considered to be resource recovery solutions, solid waste insiders that constructed the resource recovery frame ensured that the voices of recycling activists would be absent from mainstream discourse. This enabled W-T-E to become valorized as a mainstream solid waste solution while non-profit recycling remained marginal. While the passage of the Resource Recovery Act in 1970 provides an important indicator about the emergence of the resource recovery field frame that had emerged, we conducted content analyses of SWANA trade association annual meeting agendas and *Waste Age*, the main trade magazine for the solid waste management field since its creation in 1970, to investigate the saliency of that frame and associated practices in the discourse of solid waste field insiders.

SWANA annual meetings, first held in 1965, became the premier venue for elite actors in the solid waste management field to come together to share information and discuss and debate the



future of the field. We can gain insight into the early temporal dynamics of W-T-E and recycling and the emergent resource recovery frame by tracking the kinds of technical papers that were presented at SWANA annual meetings. In the early 1970s, after the passage of the Resource Recovery Act, recycling and W-T-E were discussed equally at SWANA meetings. Recycling was first discussed at the 1970 SWANA annual meeting at a workshop entitled, “the practical potential for recycling solid waste.” It was again discussed in 1971 and 1972, but then disappeared as a paper topic throughout the rest of the 1970s. A similar pattern was found in our analysis of Waste Age. Articles discussing W-T-E were robustly published throughout the 1970s and much of the 1980s, while articles on recycling dropped off to a trickle by the mid-1970s. Resource recovery was an often used phrase in industry discourse up until the mid-1980s, but became widely equated with W-T-E incineration by the early 1970s. What happened?

In the early 1970s, the pro-incinerator lobby essentially co-opted the resource recovery frame. In 1969, the National Center for Solid Waste Disposal, formed as a spinoff from the Keep America Beautiful organization, set out to promote W-T-E as the premier solid waste management solution of the future. In the early 1970s, that organization changed its name to the National Center for Resource Recovery in an effort to align incineration more exclusively with the resource recovery frame. In fact, virtually all articles in Waste Age that discussed resource recovery focused on W-T-E to the neglect of recycling.

By the late-1970s, there seemed to be broad consensus among solid waste management field actors that W-T-E was the technology to solve the country’s solid waste management problems. The emergence of W-T-E as a mainstream solid waste solution was propelled by four main factors: technological development, public policy changes, endorsement by federal government agencies, and the appeal of large capital spending projects. Beginning in the late 1960s, a number of manufacturing companies in Europe and America began to develop a new generation of incinerators that had the ability to convert garbage into electrical energy. This technological achievement became particularly attractive in the 1970s when America experienced two oil shocks and the production

and consumption of energy became an important public policy issue. The passage of the Public Utilities Regulatory Policies Act (PURPA) in 1978 that forced electric utilities to purchase energy from producers such as W-T-E facilities further enhanced support for W-T-E.

In addition to the development of W-T-E technology and the passage of favorable legislation, a wide variety of actors became advocates of W-T-E because of the potential gains that could be achieved through the financing of such large-scale W-T-E facilities. The construction of these incinerators cost upwards of \$100 million, often requiring complex financial arrangements, leading to the development of a broad and powerful coalition of W-T-E supporters that included incineration vendors, investment banking houses, engineers, consultants, law firms, as well as the companies that were to manage the proposed incinerators and haul garbage to those facilities. The broad coalition of private and public supporters of W-T-E were united through the National Resource Recovery Association, formed in 1982 as an arm of the U.S. Conference of Mayors. A further blending of public and private support for incineration occurred when many local governmental officials left governmental positions to gain lucrative fees as solid waste management consultants to government, facilitating the approval of W-T-E construction projects (Cocco, 1989; Fee & Firstman, 1989). Between 1982 and 1987, \$13.5 billion in bonds was underwritten to finance the construction of incinerators (Fee & Firstman, 1989: 191).

Finally, federal government agencies began to actively promote the W-T-E solution. In 1979, the Environmental Protection Agency, in an agreement with the Department of Energy, agreed to endorse W-T-E as a solid waste solution. “These agencies teamed with industry to promote waste incineration through a comprehensive set of commercialization programs and regulatory adjustments, including grants, below market rate loans, loan guarantees, arbitrage and municipal bonding rules, price supports, energy entitlements, guaranteed resale of electricity (PURPA rates), and the reclassification of ash as a nonhazardous material” (Seldman, 1995: 2354). Further, the Department of Energy created the Office of Commercialization of Municipal Waste to Energy to oversee and promote the creation of 200 to 250 W-T-E plants between 1980 and 1992. The EPA

was to provide technical assistance to municipalities interested in building such facilities.

Hence, W-T-E had become virtually synonymous with the resource recovery frame by the end of the 1970s. Developments beginning in the second half of the 1970s, however, would eventually challenge this frame. Since recycling was perceived to be a marginal resource recovery solid waste solution by most solid waste management field actors, recycling proponents had to challenge the constitutive primacy of the resource recovery frame as a way to open up the possibilities for recycling to gain status.

## THE DEINSTITUTIONALIZATION OF THE RESOURCE RECOVERY FRAME AND THE RISE OF A FOR-PROFIT RECYCLING INDUSTRY

While the 1979 agreement between the DOE and the EPA seemed to seal the fate of recycling and guarantee the dominance of W-T-E, the passage of the Resource Conservation and Recovery Act (RCRA) in 1976 facilitated developments in the solid waste management field that would eventually undermine the resource recovery frame and enable the creation of a recycling industry. RCRA focused attention on the problem of hazardous waste disposal, but in doing so, made the closure of unsanitary landfills a much higher priority than earlier legislative acts. In addition, RCRA's Subtitle D, for the first time, directly involved the federal government in the permitting and regulation of waste facilities, specifically landfills. As a result, the number of landfills in the U.S. decreased from over 16,000 sites in 1979 to around 5,500 by 1988 (Brown, Flavin and Postel, 1990).

While this legislation would spur the “landfill crisis” of the 1980s, a couple of inconspicuous sections of RCRA (sections 5003 and 6002) that called for the development of new uses for recovered materials and the establishment of federal procurement guidelines favoring recovered materials, provided the impetus for a revived recycling movement. In 1978, Cliff Case, a New York City lawyer, created the National Recycling Coalition (NRC), a social movement organization, with the intent of enabling recycling proponent voices to be heard in broader political debates in the solid

waste field. Case aimed to establish a broad coalition along the lines of the Sierra Club that would include for-profit solid waste actors, union representatives, community recycling advocates, and all individuals and organizations with an interest in recycling. By participating in mainstream solid waste field discourse, the NRC importantly facilitated the subsequent proliferation of recycling practices through the creation of a for-profit recycling model.

The renewed recycling movement, formally organized through the National Recycling Coalition, provided a way for recycling advocates at both the grassroots and policy levels to undermine and erode the coherence that mainstream solid waste actors in industry and government had forged through the creation of the resource recovery frame. Case's initial vision for the NRC was to work together with government and industry to build recycling markets by passing laws and mandates forcing governmental agencies at all levels to purchase goods that contained a high degree of secondary material content. To do this, he forged alliances with industrial groups and representatives such as the American Paper Institute, private solid waste management actors and their trade group NSWMA, the EPA, and municipal and state solid waste leaders and their trade association SWANA. NRC's collaborations with large waste haulers and the NSWMA was particularly crucial because they produced a viable for-profit model of recycling to guide the mass implementation of recycling practices.

Instead of the labor-intensive and often ad hoc nature of non-profit voluntary recycling efforts, the for-profit model promoted the creation of curbside collection organized by extant solid waste haulers that would rely on free household labor to clean and sort waste, lowering the overall labor input and cost of the recycling system (Weinberg, Pellow & Schnaiberg, 2000). While non-profit recyclers emphasized community-building and their participation in the community, the for-profit model facilitated a reinterpretation of households as service recipients as opposed to collaborators or stakeholders. Ironically, the non-profit model of recycling helped to institutionalize a set of understandings and practices among consumers and communities about how to recycle that were key to the creation of this for-profit model. That is, industry actors who created the for-profit

model of recycling were able to piggyback on the fact that non-profit recycling centers had already trained large numbers of people to wash and sort recyclables. This free labor stemming from the participatory legacy of non-profit recycling was key to the eventual profitability of recycling for waste conglomerates such as Waste Management and Browning-Ferris that invested resources in the building of recycling markets in the 1980s and 1990s.

### Grassroots Activists, W-T-E, and the Deinstitutionalization of the Resource Recovery Frame

As has been found in the U.S. Civil Rights movement (Haines, 1988) as well as a variety of environmental campaigns throughout the world (della Porta & Rucht, 2002), one key to the eventual success of the recycling movement's efforts had to do with its ability to be effective at both mainstream policy negotiation as well as grassroots activism. While recycling advocates affiliated with the NRC worked to construct a for-profit recycling model and change federal, state and local laws to advantage recycling, some grassroots recycling activists were somewhat resistant to collaborations with mainstream solid waste actors. These grassroots activists were mainly organized at the state level through state recycling associations, but were also more loosely organized through various ecologically-oriented activist organizations.

Neil Seldman, co-founder of the Institute for Local Self-Reliance (ILSR), was a central node in the national grassroots recycling movement. ILSR, formed in 1974, was founded as part of the community-building movement to work with local citizens to promote equity, full-employment, and the creation of closed-loop production-consumption systems within small, bounded geographic areas. In the early 1980s, ILSR brought grass-roots energy and membership into the NRC. In 1980, supported by a grant from the National Science Foundation, ILSR worked with the NRC to organize the first National Recycling Congress in Fresno, California. The second National Recycling Congress, sponsored by the NRC, was not held until 1983, but was subsequently organized as an annual event.

The honeymoon between grassroots activists and national policy advocates in the recycling

movement, however, was short-lived as controversy over W-T-E created a chasm among these two general constituencies. The policy advocates within NRC such as Cliff Case were committed to a strategy of engaging in mainstream dialogue about how recycling could contribute to the development of a new solid waste infrastructure that would also include new sanitary landfills and W-T-E incinerators. To do this, Case focused on developing a workable for-profit approach to recycling that would be promoted by solid waste management conglomerates and would not offend the consensus in the solid waste field that supported W-T-E and landfilling. Case, therefore, courted W-T-E supporters and assured them that the NRC saw recycling practices as a complement, not an alternative, to incineration.

Seldman and other grassroots recycling advocates rejected this official NRC position because it neglected the community-building, non-profit roots of recycling and embraced W-T-E incineration. Grassroots recycling advocates believed that W-T-E (1) was bad for the environment due to its air emissions and production of toxic ash and (2) would eliminate the potential for recycling because waste-to-energy incineration is generally a directly competing solution to recycling. For incineration to be profitable and efficient, a steady flow of garbage is required, especially garbage such as paper that burns well. This has led to the establishment of flow-control laws in many municipalities where waste-to-energy facilities have been built. These laws guarantee that a certain number of tons of garbage per year will be hauled to the incinerator. In some cases, this can completely preclude the possibility of recycling. In Hempstead, NY in the late 1980s, for example, the local incinerator required 750,000 tons of garbage per year, while the town itself was predicted to generate only 640,000 tons of burnable garbage (Besset & Bunch, 1989: 232). Seldman left the NRC in the mid-1980s as a result of this conflict and decided to focus his complete attention on protesting the proliferation of incinerators.

Figure one tracks the number of foundings of waste-to-energy incinerators in the U.S. from 1967-1995. While some incinerators were created before 1980, the valorization of W-T-E by the end of the 1970s enabled the construction of new incinerators to become a major growth industry by

the mid-1980s. By the late 1980s, however, the popularity of W-T-E was undermined by the efforts of Seldman's ILSR and other environmental groups such as Sierra Club affiliates, New York Public Interest Research Group, and Northern California Resource Recovery Association that organized local communities to defeat the construction of incinerators. These local protest campaigns came to be pejoratively known as "Not In My Backyard" (NIMBY) movements (Freudenberg & Steinsapir, 1992).

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INSERT FIGURE 1 ABOUT HERE  
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Blumberg & Gottlieb (1989: 71) reported that NIMBY movements in the late 1980s successfully blocked the creation of 28 out of 34 proposed waste-to-energy plants. These grassroots protests coupled with the efforts of the NRC to construct a for-profit recycling model combined to clear a path for the widespread diffusion of recycling practices and the development of a new recycling industry. Our main argument is that an important element of this institutional transformation, catalyzed by the recycling social movement of the 1980s, involved altering cultural beliefs about both W-T-E and recycling that were embedded in the resource recovery frame. We contend that the mainstream acceptance and diffusion of recycling practices could only occur after the resource recovery frame was effectively dismantled.

Interviews with recycling advocates, especially grassroots recycling activists, indicated that they believed that recycling would not become a prevalent mainstream practice unless it was disassociated from the resource recovery frame. According to Neil Seldman, the fight against incineration had as much to do with stopping W-T-E facility construction as the deconstruction of solid waste discourse to enable recycling to become a national agenda item. We can gain insight into the demise of the resource recovery frame by analyzing shifts in field-level discourse at the Solid

Waste Association of North America (SWANA) annual meetings and in *Waste Age*.

Beginning in 1980, officials organizing the SWANA annual meetings began to code all meeting paper presentations into formal discourse categories that were published in annual meeting agendas. At the SWANA annual meetings in 1985, the “resource recovery” discourse category was changed to “resource recovery and recycling,” highlighting the emergence of recycling as a unique socially legitimated solid waste solution. Recycling finally achieved the distinction of a separate discourse category at the SWANA annual meetings in 1988 and the category of “resource recovery” was changed to “waste-to-energy” in 1989.

Similar to the coding of agenda topics at SWANA annual meetings, *Waste Age* began coding their articles into discourse categories by the 1980s. These categories were prominently used in the *Waste Age* table of contents to organize articles, expert commentaries, and speeches by industry insiders and government officials. These categories not only helped to structure the magazine, but were important constitutive elements that provided a cognitive representation of how key industry issues were to be thought about and discussed. In November 1984, the discourse category of “resource recovery” in *Waste Age* was modified to be “resource recovery and recycling”. Recycling became a separate category in the November 1985 issue of *Waste Age*, three years earlier than at SWANA meetings. Finally, the category “resource recovery” was dropped altogether by August 1986 and replaced by the category “Refuse-to-Energy”.

We also content analyzed all articles in *Waste Age* from 1970 through 1996, focusing on the percentage of articles that discussed recycling on the one hand and resource recovery or W-T-E incineration on the other. We found that virtually all articles using the phrase resource recovery were focused on technological or practical aspects of W-T-E incineration, and so we combined them for the purposes of illustrating general patterns. Figure 2 shows the results of this analysis in the context of some of the key historical events we have highlighted.<sup>4</sup> In accordance with our SWANA

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<sup>4</sup> We also conducted analyses of the number of articles on recycling in the *Wall Street Journal* and *Business Week*. These analyses indicated the same general patterns of the ebb and flow of attention to recycling as were found in our *Waste Age* analysis.



analysis, recycling was a relatively popular article topic from 1970-1972, but remained virtually undiscussed until the mid-1980s. By the late 1980s and continuing into the 1990s, however, after the resource recovery frame was eliminated from *Waste Age* and SWANA meetings, there was a continually high percentage of articles published in *Waste Age* focused on recycling. In contrast, the percentage of articles discussing W-T-E incineration remained reasonably steady, accounting for between five and twenty percent of all articles published up until 1989, and then declined when the future of W-T-E began to look much less promising.

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Hence, by 1989, resource recovery as a discourse category was obsolete in the two most prominent sites where solid waste management field discourse took shape and became codified. To wit, the absence of resource recovery discourse provides evidence that the resource recovery frame had also become deinstitutionalized as a symbolic ordering device. The overall shift in attention away from W-T-E and towards recycling happened as the resource recovery frame was eschewed beginning in the mid-1980s in *Waste Age* and then at the SWANA annual meetings. This helped to enable a new recycling industry to emerge and grow in the 1990s.

### The Rise of a For-Profit Recycling Industry

As an indicator of the rise of a for-profit recycling industry, the number of curbside recycling programs increased almost nine-fold from 1988-2000, from 1,042 to 9,559.<sup>5</sup> Similarly, the percentage of the national waste stream that is recycled has increased from four to thirty-three over the same time period. The size of the recycling industry was estimated to be approximately \$16

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<sup>5</sup> Systematic data on recycling do not exist before 1988.

billion in 2000 (U.S. Department of Commerce, 2001). *Waste News* (1998) estimated that Browning-Ferris and Waste Management, the dominant solid waste management companies, each generated around \$600 million in revenues from their recycling activities. Before the late 1980s, recycling profits were virtually non-existent.

While our interviews with recycling activists, government officials and industry insiders all emphasized the importance of the recycling movement in facilitating the deinstitutionalization of the resource recovery frame and the rise of the recycling industry, our argument is bolstered by the fact that the EPA was noticeably absent from the shift towards recycling in the 1980s. After RCRA was passed in 1976, the EPA had shifted almost all its attention towards the problems of hazardous waste, and had signed an agreement with the Department of Energy to support the proliferation of W-T-E incinerators. It was the NRC, state recycling associations and other recycling and environmental activists that lobbied tirelessly in an effort to convince the EPA to shift their attention away from W-T-E incinerators and promote the recycling alternative by the late 1980s.

Finally, in 1989, the EPA published *The Solid Waste Dilemma: An Agenda for Action* that argued that recycling provided an important solution to a perceived landfill shortage. Subsequent research has shown that there was never any real landfill shortage—while many smaller dumps had been closed in the wake of RCRA legislation, much larger capacity landfills were constructed that more than made up for any landfill capacity lost due to closures (Gottlieb, 1993). Nonetheless, in the 1990s, recycling began to be aggressively promoted by the EPA at the national level, providing more resources and legitimacy for the proliferation of recycling practices. By 2002, forty-four state governments have restructured their solid waste programs and set goals for how much of their solid waste stream should be recycled as opposed to burned or dumped in landfills.

In addition, governmental actors at all levels began to focus on building a secondary materials market to ensure that recycled materials could be sold. That, of course, was Cliff Case's original mission when he created the NRC. In 1993, President Clinton signed a landmark executive order that established a minimum recycled content requirement for all federal government agencies.

Further, in October 1995, The Chicago Board of Trade and the NRC sponsored the development of an exchange to buy and sell glass, paper, plastic and other recycled materials in order to reduce variability in information flows and to facilitate standardization of recycled commodities.

While it is clear that the deinstitutionalization of the resource recovery frame predated the recognition of and rapid development of the U.S. recycling industry, it is doubtful whether a recycling industry would have emerged without the support of major solid waste conglomerates and the NSWMA, their trade association. Firms such as Waste Management and Browning-Ferris came of age in the 1970s as the solid waste management field became more centralized. At the time, however, they were mainly in the business of collecting and hauling trash. Through the 1970s, they grew those businesses nationally through acquisition and increasingly got into landfill construction and ownership. By the 1980s, they were in the process of becoming larger scale solid waste management conglomerates that offered a vertically integrated set of waste management solutions. They saw recycling as a natural extension of this vertical integration strategy. Recycling offered the promise of creating additional revenue out of the garbage they already collected and hauled to dumps they owned. Further, since the solid waste conglomerates did not have the technical expertise to get into the W-T-E business, they became less and less supportive of that technology as a solid waste solution.

As the solid waste conglomerates gained in power, they also engaged in direct efforts to shape solid waste field discourse. In 1980, the NSWMA actually purchased the trade magazine *Waste Age*. It was shortly after this purchase that recycling success stories began to be published in *Waste Age*. Most of the success stories in the early 1980s focused on non-profit organized recycling programs. By the mid-1980s, however, stories on recycling began to feature for-profit solid waste conglomerates that were developing curbside recycling programs. Hence, it was in the interest of the NSWMA and its members to eschew the resource recovery frame in their effort to build a for-profit recycling industry. As we mentioned earlier, the resource recovery frame ceased to be used in *Waste Age* earlier than at SWANA meetings. This is not surprising given the material

interests in recycling that solid waste conglomerates had developed.

As social movement scholars have noted, elite sponsorship is a key element that shapes the extent to which social movements can actually influence changes in societal institutions (Tarrow, 1998). In our case, it was the alliance between recycling movement activists associated with the NRC and the NSWMA that proved to be the crucial link that fostered both the deinstitutionalization of the resource recovery frame and the rise of the recycling industry. The recycling industry did not emerge because it was inherently efficient (Gandy, 1994). It was recycling advocates that gained the attention of mainstream solid waste actors and brought public attention to the pitfalls of incineration, enabling an infrastructure to be constructed that then allowed recycling to become a profit-generating industry. Without these movement efforts and the “unholy” alliance with solid waste management conglomerates, incinerators would have continued to be built and resource recovery would have most likely remained a robust field frame.

## DISCUSSION AND CONCLUSION

This study directs socioeconomic research on industry emergence in a broader and more dynamic direction by highlighting how the fate of industries is bound up in political struggles over social structures of meanings and resources (Stryker, 1994; Schneiberg & Bartley, 2001; Lounsbury & Ventresca, 2002). More specifically, we set out to advance socioeconomic theory by integrating ideas from institutional and social movement analysis in sociology and focusing on the conditions that foster the emergence of a new industry. We introduced the concept of “field frame” and highlighted how social movements can facilitate the creation of new economic institutions by constructing practice models and deinstitutionalizing dominant field frames. Through an investigation of the case of recycling in the U.S. solid waste field, we showed how the ability of the recycling movement to engage in both grassroots action and mainstream policy negotiations was a

crucial factor that enabled recycling to emerge as a core solid waste solution and industry by the 1990s.

Lawyers and staff of the National Recycling Coalition as well as affiliated state recycling associations were effective at working with mainstream solid waste management conglomerates and governmental actors to construct a for-profit model of recycling. While early social movement-inspired non-profit recycling centers were never seriously considered as a form that could effectively support a national infrastructure for recycling, they provided a foundation for the successful creation of a new recycling industry since for-profit solid waste conglomerates could rely on the free labor of citizens who continued to clean and sort discards in the spirit of ecological goodwill—the legacy of early nonprofit recyclers and the practical basis for both new cultural understandings and formal organization. At the same time that a new for-profit model was being forged, grassroots recycling activists opened up critical discursive and practical space for recycling to reappear on the national scene by the late 1980s through their efforts at halting W-T-E incinerator construction. While many grassroots activists looked upon the mainstream political negotiations of the NRC with disdain, the NRC did provide a successful fulcrum for linking conventional and contentious politics.

Theoretically, we believe this case highlights how the concept of field frame can contribute to our understanding of institutional change and related socioeconomic processes and outcomes. Field frames provide the context within which shared and cognitively meaningful models of appropriate action are constructed and diffused (Hirsch, 1986; Hoffman and Ventresca, 1999). It is important, however, to realize that frames are always embedded in power relations that authorize certain actors and perspectives, while neglecting others (Lukes, 1974). We argue that in addition to mobilizing resources, activists must be able and willing to become part of the broader dialogue that shapes the range of possibilities. We suggest that shifts in field frames importantly enable institutional changes in practices, and that more complete explanations of institutional change such as the emergence of new industries and markets require more detailed attention to the processes by

which culture and social structure interpenetrate (Breiger, 2000).

Emphasizing the politics of social structure, the concept of field frame draws attention to the broader infrastructure of organizational actors whose interactions with state actors and social movements provide a ground-level interaction dynamic that drives social change. Over the past two decades, institutionalists have increasingly focused on the role of the state and wider contexts of interaction (e.g. DiMaggio, 1983; Dobbin & Dowd, 1997; Kelly & Dobbin, 1999), even though much of contemporary organizational analysis remains relatively disconnected from the broader study of society and social change (Stern & Barley, 1996). We believe that there is much to be gained by connecting the study of organizations, politics, social movements and institutional change (Davis & McAdam, 2000; Rao, Morrill & Zald, 2000). While a few sociologists have begun to traverse these boundaries (e.g. Clemens, 1997; Minkoff, 1997; Lounsbury, 2001), there is still little work on how social movements contribute to the shifts in economic organization (Davis & Thompson, 1994; Fligstein, 1996).

We believe that the most useful work will not just invoke the idea of a social movement as a metaphor, however, but take the actors and activities of movements seriously. Through a more comprehensive understanding of how economic action is embedded in broader social and political structures of meanings and resources, we may also be able to shed light on important issues having to do with democratic participation and the relationship between political systems and economic development (e.g. Etzioni, 1999). In this sense, this paper advances an economic sociology that is historically rich and attentive to the political and cultural context of economic life (Stinchcombe, 1983; Granovetter & Swedberg, 2001).

Future research combining the study of social movements and institutions could also benefit by attending to how societal stratification systems shape the relationship between social movements and socioeconomic structures (Bourdieu, 1984; Tilly, 1998). Does institutional change merely involve a reconfiguration of elite resources, or do social movements offer any possibilities for altering cultural conceptions of privilege? Another important question that should be investigated

has to do with the relationship between contentious and routine politics and the study of social movement outcomes (Giugni, McAdam & Tilly, 1998). Do institutional challenges by disenfranchised groups merely dissipate or get co-opted, or do they lead to successful reformist social movement organizations? More generally, what is the scope for alternative forms of social organization that involve citizen action and widely varying mixes of governmental, non-profit, and for-profit activity (Powell & Clemens, 1998; Hicks, 1999; Schneiberg, 1999)? To address such questions, we believe that research approaches that traverse the sociological subfields of social movements, organizations and institutions will prove to be particularly fruitful and lead to a richer and more comprehensive understanding of socioeconomic change.

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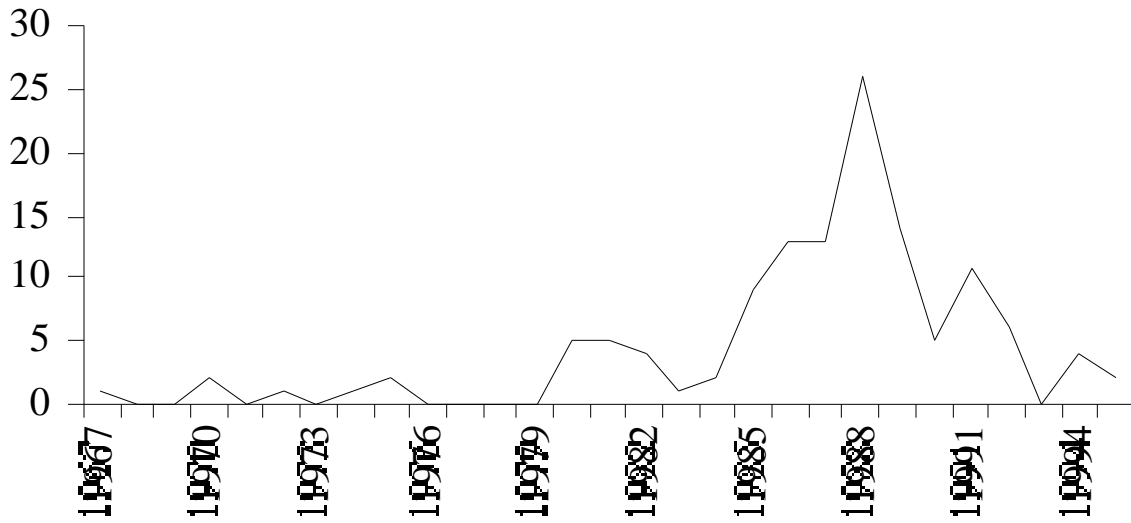
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FIGURE 1  
NUMBER OF WASTE-TO-ENERGY INCINERATORS  
CREATED IN THE UNITED STATES, 1967-1995\*



\* Data provided by the *Environmental Protection Agency*