RESOURCE MOBILIZATION AND ORGANIZATIONAL MORTALITY IN THE NORTH CAROLINA ENVIRONMENTAL MOVEMENT, 2003-2009

by

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Professionalization is pointed out as one of the most salient trends that contemporary advocacy groups have experienced. The previous literature has focused largely on descriptive characteristics of professionalization of social movement organizations (SMOs) or major impacts of professionalization on movement operations. Little systematic attention has been paid to the implications of contemporary trends of professionalization on organizational mortality. In this research, I take two approaches in order to elaborate the relations of professionalization and mortality. First, my analysis integrates both the selective and adaptive mechanisms from perspectives of organizational ecology and resource mobilization perspectives, and hypothesize that both offer important explanations on organizational mortality. Second, I maintain that diverse types of resources and structural attributes generate asymmetrical effects on the persistence or mortality of SMOs, and these impacts are to be explained differently depending on whether it is grassroots or professionalized SMOs.

This research utilizes a unique empirical data set of local environmental advocacy organizations in North Carolina. Original organizational survey conducted in 2003 and follow-up

survey confirming the organizational existence in 2010 offer rich and rigorous measurements of population- and organizational-level characteristics of the North Carolina environmental SMOs. I use logistic regression models to analyze statistical predictors in explaining organizational mortality. Based on the split-data approach that reveals the differential impacts of organizational demography, bureaucracy and membership structures, human and material resources, movement tactics on organizational mortality depending on whether the SMO is grassroots or professionalized, I find the mortality predictors are strikingly different depending on it is professionalized or grassroots SMOs, concluding that both organizational ecology and resource mobilization perspectives provide complimentary explanations on nuanced effects of professionalization of environmental SMOs on the local profile of environmental movement organizations.

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Resource Mobilization and Organizational Mortality

in the North Carolina Environmental Movement, 2003-2009

by

Hyun Woo Kim, 2012

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INTRODUCTION

Over the last several decades, the importance of social movements in American politics, society and culture have become widely recognized and accepted by the researchers who have analyzed extensively their emergence, mobilization, or growth and paid far less attention to social movement demobilization and decline. During that same period, two seemingly contradictory trends took place among social movement organizations (SMOs). *Professionalized* advocacy organizations came to play a prominent role in social movements of all kinds (Skocpol 2003; McCarthy and Zald 1973), while *grassroots*, local social movement organizations run entirely by volunteers are far more numerous (Edwards and Foley 2003). Such changes in the profile of local advocacy groups in the United States prompted researchers to examine local advocacy groups in terms of their structural diversity (Andrews and Edwards 2004), membership composition (McPherson and Rotolo 1995), the roles played by local voluntary groups for issue emergence (Carmin 1999), and organizational disbanding.

Organizational disbanding [1] has been an important topic in the sociology of organizations, particularly in organizational ecology. This strand of organizational theory has examined various types of advocacy organizations [2] and has demonstrated its usefulness as an analytical paradigm. However, the nonprofit or advocacy organizations that have been examined are usually large with a national scope of operations. Relatively little analytical attention has been paid by organizational ecologists to small, local organizations, especially those run entirely by volunteers

[1] I use organizational disbanding and mortality interchangeably.

[2] For example, labor unions (Hannan and Freeman 1988), trade associations (Adlrich et al. 1990), and public affair groups (Walker et al. 2011).

despite their far greater numbers among social movement industries (SMIs). Given the specific character of small, local advocacy groups, it is necessary to examine the mechanisms of organizational disbanding in terms of internal as well as environmental [3] factors that appropriately considering the demographic characteristics of SMIs. In addition to the local dynamics of SMOs, it is necessary to consider the trend of professionalization among SMOs to gain a more comprehensive understanding of the factors affecting the demobilization or disbanding of SMOs, especially concerning differences between professionalized and grassroots SMOs.

In this thesis, I examine the disbanding of local environmental movement organizations in North Carolina, focusing on the impacts of organizational demography, bureaucracy, membership structures, human and material resources, and organizational tactics. Particularly, assuming that professionalization affects mortality rates differently among local SMOs, I examine the differential impacts of professionalization on mortality rates by separating the data into organizations run entirely by volunteer (grassroots SMOs) and those operated by professional paid-staff partially or entirely (professionalized SMOs).

[3] In this thesis, because I analyze North Carolina environmental movement organizations focusing on the interaction with the organizational environments, I use the term *environment* in two ways: one for the general aggregate of surrounding conditions and one for the ecological sense.

THEORETICAL FRAMEWORK: ORGANIZATIONAL ECOLOGY AND RESOURCE MOBILIZATION THEORY

Organizational Ecology and Resource Mobilization

Mortality is a vital event for organizations and has been discussed intensively in the research literature of organizational ecology and the sociology of organizations (Freeman et al. 1983; Hannan et al. 1998; Hannan and Freeman 1984, 1988; Stinchcombe 1965). Organizational ecology has applied the basic argument of population ecology from the natural sciences to understand and explain variations over time in key demographic changes in whole populations of organizations. For example, the impact of population level characteristics like organizational density, niche width or carrying capacity (Carroll 1985; Baum and Mezias 1992; Baum and Singh 1994), and organizational framework (Kitts 2009) have all been used to explain variations over time in rates of organizational founding, mortality, or merger. In doing so, organizational ecology emphasizes the impact of population-wide selection processes that favor specific forms of organization over others, rather than the capacity of specific organizations to adapt to changing circumstances.

In tradition of organizational ecology, Hannan and Freeman (1984) proposed the age dependence model to explain variations in mortality by arguing that organizational age is negatively associated with mortality, which implies a *liability of newness* (Stinchcombe 1965). According to them, structural inertia increases monotonically as an organization gets older, and population selection processes favor inert structures rather than flexible ones due to the higher level of reliability and predictability that inert structures tend to have. Their argument contrasts sharply with the more common expectation that inertia inhibits an organization's ability to adapt

to changing circumstances and that failure to adapt would lead to demise. According to Hannan and Freeman (1984), the liability of newness principle implies that structural inertia and stability promote the longevity of organizations.

Organizational ecologists also present a density dependence model maintaining that the density of organizational populations affects their rate of mortality in complex (and seemingly contradictory) ways (Carroll and Hannan 1989). In their analysis of national labor unions, they found that as the population of unions becomes more dense the rate of organizational mortality decreases up to a point that could be called moderate density. Up to that point, they argue, the benefits of increased legitimation outweigh the competitive pressures of increasing population density. However, once the niche space on which organizations are based reaches a critical density, intensifying competition in the same niche undermines survival capacity and subsequent density leads to increased mortality.

Following the basic assumptions of organization ecology, population-level selection processes drive organizational changes more so than do any adaptive process engaged in by individual organizations. Thus, organizational forms that do not fit the environment well are founded at lower rates and have higher rates of mortality, and by so doing, the profile of organizational populations like SMIs changes over time. For the same reason, organizational ecology barely considers why some organizations facing the same population-level conditions fail, while others succeed (Flamholtz and Aksehirli 2000; Torres 1988). Likewise, relatively little attention has been paid to how differences in vital events of specific organizations, e.g., founding or disbanding, are shaped by complex internal dynamics. This creates a theoretical gap in which the attributes, strategies and leadership in individual organizations are typically ignored or

presumed to be relatively inconsequential by organizational ecology. This oversight is partially theoretical, yet it is also closely related to empirical limits placed by the lack of appropriate organization-level variables and the limited availability of historical data for organizations.[4] As Minkoff and McCarthy (2005: 304) persuasively point out, empirically insufficient information on the internal processes of organizations has prevented researchers from studying the impact of internal dynamics at the organization-level.

Resource mobilization theory (McCarthy and Zald 1977; Zald and Ash 1966) offers a complementary perspective that fills this gap by theorizing the relationship between internal characteristics and process of SMOs and their capacity to engage in adaptive behavior and remain active in a changing environment. The earlier version of resource mobilization theory before 1990s identified the main characteristics of SMOs to be rational social actors which are marginalized from the polity and mobilize in pursuit of large social changes (Gamson 1975; McCarthy and Zald 1977; Oberschall 1973; Staggenborg 1988; Tilly 1978; Zald and Ash 1966). Resource mobilization shares the *rational* perspective of organizations (Selznick 1948; Scott 2003), but it obviously rejects both functionalist and pluralist views that had long dominated the classical understandings on collective behavior and interest group representation.

The development of this theoretical strand was attentive to the contemporary trend toward increasing professionalization among national SMOs (see McCarthy and Zald 1973; Walker 1983). Yet, this perspective was not complete in that there have emerged a lot of more or less small SMOs that operate locally and regionally since 1970s (Edwards and Foley 2003).

[4] Hannan and Freeman (1988) complain of their difficulty to collect the historical data about union organizations throughout the whole of their research periods, 1836-1985.

More recent applications of resource mobilization theory put more emphasis on the diversity of organizational forms in SMIs (Edwards and McCarthy 2004a) and the collective dynamics of SMOs in a given mobilizing structure (McCarthy 1996). The purpose of SMOs is defined to change some structural elements or reward distribution of a society through tactics and strategies, overcoming hostile environments and uneven distribution of resources (Edwards and McCarthy 2004a). In doing so, newer articulations of resource mobilization theory have also sought to understand organizational changes including founding and mortality as being shaped by a combination of the internal adaptive dynamics of SMOs interacting with changes in external environments (Cress and Snow 1996; Edwards and McCarthy 2004b; Edwards and Marullo 1995; Minkoff 1993, 1999; Walker and McCarthy 2010; Weed 1991).

Why Professionalization Matters

Professionalization has been examined in various ways in the social movement research literature since McCarthy and Zald (1973) introduced the historical trends of professionalization among SMOs. In the early 20th century history of the women's movement, Rupp and Taylor (1987) find evidence that women's organizations employing professional staff were robust against the "doldrums" of feminist movements (see also, Taylor 1989). More specifically, in cases of environmental movement organizations, Mitchell et al. (1991: 229-31) summarize three processes and impacts of professionalization among national advocacy groups. According to their analysis, first, "[o]rganizations of amateurs" were fully capable of dealing with traditional environmental issues, but contemporary environmental issues that require a high level of legal and scientific expertise have advocacy groups recruit professional staff. Increasing complexity of

environmental science and knowledge necessitates the environmental advocacy groups to hire paid employees specializing in disciplines varying from biology to environmental science.

Second, the management and financial capacities of environmental SMOs were strained by the rapid membership growth and increase in internal diversity following Earth Day in 1970. Such strains were a driving force in their adoption of increasingly professionalized forms. Last but not least, the nonprofit tax status and the disclosure procedure for keeping this status (McCarthy et al. 1991) require advocacy groups to adopt complex organizational arrangements by well-trained professional staff. As advocacy politics developed further, environmental organizations began to rely more and more on institutionalized tactics such as litigation and lobbying in order to overcome the "bureaucratic labyrinth" in Washington (Mitchell et al. 1991: 229). They also argue that these changes lead the national advocacy groups in Washington to successful institutionalization of environmental issues.

If professionalization is seen by some as an effective adaptation to an increasingly complex political and advocacy environment, other scholars argue the opposite. Piven and Cloward (1977) maintain that professionalization (although it is interchangeably used with bureaucratization) weakens movement capacity by spending precious resources on organizational maintenance that could be spent on direct action. In a different ideological position, Putnam (2000) and Skocpol (2003), respectively, argue that the trend of professionalization has replaced the universe of more participatory civil society organizations relying on citizen volunteers with member-less organizations run entirely by paid-staff. According to their arguments, the declines of face-to-face civic engagement in combination with

the disappearance of federated membership organizations have resulted in the depletion of social capital and eroded society's capacity to pursue progressive social change.

The previous discussions of professionalization have two limitations. First, they tend to focus on advocacy organizations located in Washington, DC with a national scope of operations (but see Staggenborg 1988; Kliedman 1994; and Swanson 1995). The lack of systematic empirical studies of professionalized and grassroots SMOs operating at the state and local levels leaves several important questions unanswered. Does the profile of state and local social movement industries resemble miniature version of their national counterparts? Or does scope of operations (national v. state/local) affect organizational dynamics in different ways, or to a greater extent than organizational form (professionalized v. grassroots)?

Second, professionalization has been discussed mainly in terms of its social and political implications on the effectiveness of the social movement sector or the civil society more generally, and not directly regarding specific SMOs (except Torres 1988 and Swanson 1995). The few studies examining the relationship between professionalization and organizational mortality offer mixed results. Walker and McCarthy's (2010) study of poor people's organizations found no significant relation between the number of paid-staff and the mortality rate. For women's and racial-ethnic movement organizations, Minkoff (1993) also found no significant relationship between the two variables. Edwards and Marullo (1995) found, contrary to their expectations that professionalization is negatively associated with mortality, that among small, local peace movement organizations those that were moderately professionalized were more likely to die than those run entirely by volunteers. Torres (1988) is to my knowledge the only study that directly examines the relationship between professionalization and organizational

disbanding. Based on content analysis and a case study of funeral service industry, he theorizes the institutional forces that facilitate or prohibit the adoption of certain organizational forms prior to a competition based selection process. Specifically, he finds that professionalization led to increased homogenization of organizational forms among funeral service providers and argues that professionalization promotes persistence by cutting off competitive pressures with non-professionalized service providers.

In sum, despite the amount and intensity of debate over the impact of professionalization on social movements, there are no systematic studies of the relationship between the adoption of professionalization and organizational demobilization or disbanding. Nevertheless, existing literature implies that the theoretical relationship between professionalization and organizational disbanding has two distinct attributes in terms of resource provision. First, paid-staff are expected more skillful and more able to devote more time than either volunteers or individual members (Carmin 1999; Alonso and Maciel 2010). Paid-staff are expected to plan strategies and organize activities from broader range of experience in order to maintain the organization and pursue its goals (Cress and Snow 1996: esp. 1100-01). Thus, in professionalized SMOs, the better skills of staff in accessing resources, organizing activities, and managing the organization are expected to enhance the organization's effectiveness and persistence.

Second, given the national trend toward professionalization, adopting this isomorphic organizational form is expected to benefit local SMOs though increased cognitive legitimacy and institutional trust (DiMaggio and Powell 1983). This would lead professionalized, state and local SMOs to be less likely to demobilize or disband than those not professionalized. Despite such benefits, it is also noteworthy that professionalized, local SMOs are expected to pay for hiring

paid staff, which is undoubtedly burdensome for many small-sized, local SMOs. Because professionalization is both costly and beneficial at the same time, it is important to elaborate the specific, differential mechanisms of how professionalize operations affect the disbanding of local SMOs. Will professionalization create and mediate differential impacts of organizational demography, bureaucracy, and membership structures, human and material resources, and movement tactics on SMO mortality? In what follows, I describe the data and measurement of major variables used in this analysis as well as the theoretical rationale for specific hypotheses tested.

THE DATA AND RESEARCH DESIGN

Data Collection and Basic Characteristics

I use a unique data set based on a comprehensive list of North Carolina environmental organizations compiled in 2002 by Kenneth Andrews and Bob Edwards (2005). This comprehensive list relied upon twenty-seven major sources including state- and national level directories covering a broad range of nonprofit, voluntary associations, and SMOs. Five major criteria were employed in constructing the sampling frame: (1) groups having a North Carolina mailing address; (2) local organizations including multiple subunits as separate organizations from a national organization; (3) groups making public interest claims unlike an industry group; (4) non-state or non-governmental actors; (5) groups managed by adults, excluding high school and college student groups. The data set also includes local chapters of national groups with a national or international scope of operations beyond the state of North Carolina. The sampling frame is not limited to groups that made exclusively environmental claims and included groups making other claims.

In all 738 environmental organizations in North Carolina were identified and were used as the sampling frame for a survey. A simple random sample of 400 groups was selected to participate in an in-depth, structured telephone interview. After making appropriate exclusions for groups that were no longer active at the time of the survey or were upon further investigation found to not meet one of the five criteria listed above, the response rate for the survey was 59.2% with 187 organizations responding to the survey (see Andrews and Edwards 2005 for methodological details). For analysis, I use 177 cases dropping 10 cases which included serious

missing values. Most questions were in a closed-ended format and asked to single individuals who are organizational leaders or persons engaged in organizational operations.

The Strength of Organizational Survey: "Looking Inside the Organizations"

Organizational survey offers an important analytic tool for understanding theories about organizational profiles. Many researchers have conducted quantitative and qualitative analyses examining the characteristics of organizational population utilizing organizational surveys (Brüderl et al. 1992; Edwards and Marullo 1995; Marsden et al. 1994; McCarthy and Wolfson 1996; McPherson and Rotolo 1995; Smith 1997; Walker 1983).

In organizational survey, respondents were individuals knowledgeable of the group and its operations who held a variety of positions in their respective organizations: In my sample, more than half (54%) were Executive Directors or Program Directors, 22 percent was a staff position, 19 percent was board members; and only 6 percent was in position of volunteer. Although Pugh et al. (1973) identified some possible biases in organization level data that relies on a single individual to report on organizational characteristics, when testing some of those concerns, McPherson and Rotolo (1995) found that survey strategy to be reliable for collecting data on local, voluntary associations.

One may also argue that cross-sectional design of organizational survey is too crude to measure population- and organizational-level attributes that predict organizational mortality because all variables used in the cross-sectional research does not vary over time. Yet much population ecology literature, however, uses a data set collected based on discrete (and

sometimes different) data sources that have time gaps of a few years (often even longer than 5 year-intervals or even irregular year-interval) in order to reduce the coding overload as well as the limit of source availability. In this point, given the single, short interval of mortality analysis in my research (from 2003 to 2009), I believe this limit of data format does not critically defect my research purposes beyond common criticisms in cross-sectional research design.

In spite of a few of potential weakness, it is obvious that organizational survey provides very rich, highly diverse measurements on organizational attributes. Organizational surveys can include a variety of questions of the organization's philosophies, issues, strategies and activities, leadership, budgets, membership and other various organizational attributes with basic information about the respondent and the organization represented by him or her. Likewise, many variables used in my analysis also come from the questionnaire having a lot of questions with information of population-level characteristics originated in the sampling frame. I believe this advantage in indicator construction is valuable trade-off to time-varying covariates.

Research Design and Variable of Interest: Organizational Disbanding

Social movement or SMO demobilization could be conceptualized variously as a decline in activities, public support or a loss of human, social or financial resources. Here organizational mortality is used as the indicator of demobilization and state or local level environmental organization active in 2003, but inactive by 2010 are considered to have demobilized or disbanded entirely. The first part of the analysis presented here utilizes organizational characteristics measured in 2003 to explain patterns of demobilization among state and local environmental organizations by 2010. The second part of the analysis then answers the broad

question of whether predictors of demobilization differ for grassroots SMOs run entirely by volunteers and professionalized SMOs that rely upon paid staff.

In order to confirm whether local environmental SMOs in North Carolina had disbanded or were still active by 2010, follow-up research was conducted to confirm the status of each organization that had completed the survey. It was determined that about 20% (n=35) groups had become inactive at some point between 2003 and January 2010. If the group was inactive on January 2010, the dependent variable is coded 1, otherwise 0. The mortality rate, 0.20, is calculated based on seven years (from January 2003 to January 2010). Because the disbanding of the North Carolina environment movement organizations on January 2010 is the dependent variable of this research, I use logistic regression to estimate the effects of selected organizational characteristics on the odds of mortality or disbanding. Moreover, I use the Huber-Sandwich standard errors for conservative estimations that will minimize geographically-correlated bias. Given the relatively small sample size (n=76 for grassroots SMOs and n=101 for professionalized SMOs), I will present the results of multivariate analyses dividing by conceptual blocks, then construct preferred models rather presenting an integrated model at once.

VARIABLES AND HYPOTHESES

Organizational Demography

Several measures of organizational demography and related hypotheses are included in this analysis: age, whether or not a SMO emerged from a previous organization, and measures of environmental organization density in each group's home and contiguous counties. Much organizational ecology research emphasizes age and density dependent processes in order to explain the likelihood of mortality among organizations. Stinchcombe (1965) and Freeman et al. (1983) both argue for a liability of newness such that the older the organization is, the lower its risk of disbanding (negative age dependence). Following their argument, I hypothesize the negative age dependent process. To examine my hypothesis, organization age is calculated from the year in which each organization was founded. In cases where the organization is the local chapter of a national organization (for example, the Cumberland Chapter of Ducks Unlimited) the founding date of the local chapter is used and not the founding date of the affiliated national association (Ducks Unlimited). Furthermore, age is log-transformed (Hannan and Freeman 1988).

The liability of newness, however, will be lessened by the amount of resources endowed to organizations at the time of their founding (see Hannan 1998). In other words, in their earliest stages of operation organizations benefit from an initial store of resources and enthusiasm that helps sustain them (Edwards and Marullo 1995). Similarly, Brüderl and Schüssler (1990) and Fichman and Levinthal (1991) argue that mortality rates may be exceptionally low immediately after founding and then follow the negative age dependent process which has been called a *liability of adolescence* (see also Hannan 1998). Fichman and Levinthal (1991) explain such a

reduced mortality risk at the earliest stages as a "honeymoon period." According to their argument, the endowment of resources and the strong commitment of volunteers or employees create this "honeymoon" effect which in time wears off and leaves organizations subject to the effects of age dependence

Social movement researchers have argued that organizations emerging from pre-existing organizations tend to have greater levels of endowed resources of this kind (McCarthy 1996; Edwards and Marullo 1995; Edwards and McCarthy 2003). Rao (1994) has argued that the same effect offers protection from the liabilities of newness and benefits organizations that make a lateral entry into an organizational population or industry. Such lateral entries to the U.S. auto industry were less likely than startup, *de novo* firms to confront liabilities of newness (see also, Shane and Stuart 2002; Carroll et al. 2007). In order to examine their argument, I assume that North Carolina environmental organizations that emerged from a previous group had a greater endowment of resources at founding than those founded independently[5] and that their odds of mortality will be lower. To test this hypothesis a dummy variable *emerged from previous organization* is coded 1 if the organization emerged from a previous group and 0 if it was not.

Effects of density dependence have been widely researched in organizational ecologists and I will examine its effects at two scales, SMO density in the residence county and that in neighboring counties. I expect the legitimation effects and competition effects will also hold regarding environmental SMOs. Growth in organizational density at the lower level decreases

[5] I directly examine the predictor of whether or not emerged from a previous group, instead of indirectly introducing the squared term of organizational age (Kitts 2009). The squared term of organization age was not a significant predictor (not shown in Table 5 or 6) and the step-wise function form of organizational age also supports the monotonous negative age-dependence.

the mortality rate of SMOs in the residence county. Yet, further growth in density beyond the moderate level increases the mortality rate of SMOs in the residence county.

Also, effects of the density of organizations in neighboring areas on organizational mortality have been examined sporadically and I assume its effects on mortality will be similar. Greve (2002) analyzes the models of spatial competition, contagion, and density dependence respectively to specify the changing directions of growth of other organizations in neighboring areas. Previous models of spatial competition (Hotelling 1929) and spatial contagion (Hedström 1994) have implied a linearly negative or positive effect between the growth of other organizations and organizational persistence. By contrast, the density dependence model claims that a curvilinear relationship exists between them. He proposed the spatial density dependent model expecting that at low levels of density, growth in the number of other organizations in residence area or in adjacent areas will produce positive effects on the organizational founding; Yet, given that carrying capacity of resources available to individual organizations in a specific area, increased density in adjacent areas will eventually strain available resources, increase competitive pressure and result in increased risk of mortality. Following him, I overall expect that spatial density dependence of local SMOs in neighboring counties will hold: in a lower density level, organizations with higher levels of density in neighboring counties will have lower odds of mortality than organizations with fewer environmental organizations in neighboring counties; yet, in a higher density level, organizations with higher levels of density in neighboring

counties will have greater odds of mortality than organizations with fewer environmental organizations in neighboring counties.[6]

In order to test these hypotheses, I calculate the organizational densities using the sampling frame based on county-level boundary.[7] I measure the whole number of local SMOs engaged in environmental issues in the county, regardless of their types or niches, as a unitary measurement of organizational density.[8] A squared term of organization density is included to examine the curvilinear effects. To test the spatial effects of density dependent process, I also include the organizational density of all counties which are adjacent to the each county. Likewise, a squared term of this density is included.

[6] Previous literature on the mortality of social movement organizations (Edwards and Marullo 1995; Edwards and McCarthy 2004b; McCarthy and Walker 2004; Walker and McCarthy 2010) has not discussed the population density of organizations, unlike the population ecology studies. In my research, I calculated the population density from the sampling frame (based on twenty-seven major sources) which virtually covers the whole population of environmental movement organizations in the North Carolina State (See Andrews et al. 2012).

[7] I had calculated and examined the effects of organizational density based on various geographical scopes. In the previous literature of organizational (or community ecology), various geographical levels of organizational density have been employed. For example, Paruchuri et al (2009) and Matthews et al. (2011) used zip-code-level density, Barnett and Carroll (1987) used county-level density, and Hannan et al. (1998) used country-level density. The five-digit zip codes, city/town, and county-level density were specifically examined and in baseline models I found out all density indicators consistently support the density dependent process of mortality. I finally decide to use county-level density due to this measurement is intuitively more persuasive than the others.

[8] Some studies examine the density dependent process with more nuanced measurements of density such as local/diffuse density, overlap/nonoverlap density (Baum and Singh 1994), type/local density (Kitts 2009), or generalist/specialist density (Carroll 1985). I recognize it might produce different results if I use more sophisticated indicators for measuring organizational density; however, I use a single measurement due to a limit of data I use.

Bureaucracy of Organization

Bureaucracy refers to organizational forms or styles in regards to decision-making procedures, rules of operation, and formal-authoritative regulations among members (Blau and Meyer 1988; Weber 1964). Bureaucracy (or bureaucratization) has particularly been one of the central issues of conceptualization and measurement in the previous literature on the sociology of social movement organizations (Edwards 1994, 1995; Gamson 1975; Jenkins and Eckert 1986; Smith 2000; Staggenborg 1988). Bureaucratic forms are widely assumed to be necessary tools for effectively managing organizations of all sizes (Merton 1957; Weber 1964; Scott 2003). Yet, the relations of bureaucratic structure and organizational effectiveness have been contentious in the literature on social movements with some scholars arguing against them in out of a moral or ideological preference for more participatory, horizontal or decentralized forms (Gerlach and Hine 1967; but see Freeman 1972-73). Others like Piven and Cloward (1977) and Frey et al. (1992) have made a more practical argument that bureaucracy, like professionalization, makes social movements less effective. By contrast, the effectiveness of bureaucratic operations is supported by Gamson (1975) and McCarthy and Zald (1977).

In organizational ecology, Hannan and Freeman (1984) also argue that bureaucracy promotes effectiveness and longevity as inertia makes organizations reliable and predictable to external supporters, although they do not specify the bureaucratic characteristics of organizations empirically. On the contrary, Kitts (2009) argues that bureaucracy may have negatively associated with organizational persistence, resulting in a positive age-dependence or *liability of senescence* that is created by increasing overhead costs and unadjusted fitness of organizational form with the environment.

In order to measure more specifically the impacts of bureaucracy, I disaggregate the conceptual elements of bureaucracy broadly into *structural formality* and *procedural formality*,[9] utilizing previous discussions.[10] I measure the degree of minimal structural formality as the number of attributes that promote formally clear responsibility and authority, based on the concept and measurement of minimal or threshold levels of formal organization. I use the minimalist criteria in order to measure the degree of structural formality because the structural diversity of local organizations (Edwards and Foley 2003). Procedural formality is defined as the number of decision-making and evaluation processes that make formally clear responsibility and authority (Edwards 1994, 1995). Procedural formality also measures the extent of the division of labor in terms of role differentiation or functional specialization by counting the number and type of task committees within the SMO (Pugh et al. 1973). Five and seven variables are combined on average to construct two predictors of bureaucracy—*threshold level of formal structure* and *procedural formality*, which vary 0 to 1, respectively. Both are multiplied by 10 for better legibility of coefficients (see Table 1).

[9] This disaggregation reflects theoretical considerations as much as empirical results. In the preliminary stage of this research, I tested various elements (not shown here, but for example, accountability, role differentiation or specialization) in measuring the bureaucracy, and concluded that two sets of variables are the fittest conceptual elements of bureaucracy with the least number of variables. The concept of semi-formality presented by Edwards (1994, 1995) is the same with structural formality in this analysis, although there is a slight difference in measurements (see Table 1).

[10] Based on Weber's definition of bureaucracy, Clegg (1990: 38-41) points out fifteen tendencies of bureaucratization—in largely overlapped concepts: *specialization, authorization, hierarchization, contractualization, credentialization, careerization, stratification, configuration, formalization, standardization, centralization, legitimization, officialization, impersonalization,* and *disciplinization*. In the same vein, Smith (2000: 167ff) points out that increasing *complexity* is the core of bureaucratic changes in voluntary organizations.

Membership Structure

Many observers seem to hold a common, and mistaken, assumption that advocacy and social movement organizations all have formal members and that those members are individuals. Yet, nonprofit organizations have diverse membership structures that may lead to different access to resources and organizational effectiveness (Andrews and Edwards 2004). In broader sense, membership structure consists of two conceptual elements: external and internal. *External membership* refers to affiliations an organization may have with larger bodies including informal membership in coalitions or being a local or state level member of a national organization. Formal affiliation with larger organization reflects the membership to which the organization itself belongs. For example, Foothills Group, which is formally affiliated with the Sierra Club, has disparate membership structure with Carolina Kids Conservancy, which is an independent local nonprofit.

Internal membership refers to the composition of an organization's own members. The internal membership composition of SMOs has can be categorized into four distinct categories: First, some nonprofit advocacy or social movement organizations have no formal members of any kind. Second, some are organizations of organizations and have no individual members. Third, some have only individual members with no organizational members. Finally, some have a mixed membership structure with both individual and organizational members (see Andrews and Edwards 2004).

In this analysis, among the categories discussed above, I focus on groups that have also organizational members (either with individual members or only organizational members) in comparison to groups that operate without any members or only individual members. The

importance of organizational membership has been discussed in terms of effectiveness of mobilizing pre-existing social networks or groups. Coleman (1988) argues that appropriable social organizations are a form of social capital that enables organizations to share individual members and other organizational resources in pursuit of the same collective goals. Organizations with such resources are expected to be more effective in mobilizing collective behaviors than those without any organizational members. Among national women's and racial-ethnic organizations, Minkoff (1993) found no significant relationship between organizational membership and the rate of organizational mortality. Nevertheless, having organizational members seems to be a very effective way for local movement organizations to extend their membership boundary and resource pool compared to recruiting individual members face by face. Thus, in order to measure the membership structure of having organizational members, a dummy variable was constructed with 1 referring to groups with any organizational members and 0 for those with no members or only individual members, expecting that having organizational members will be negatively associated with organizational mortality.

As for member composition, one of the key arguments of resource mobilization theory is that as the amount of discretionary resources possessed by members and constituents increases, SMOs are expected to be able to mobilize more financial resources and thereby be more likely to persist. McCarthy and Zald (1977: 1221-22) maintain that the rise of professionalized SMOs since the 1960s was closely associated with the post-war affluence and expansion of middle-class liberals or conscience constituents who gave discretionary incomes to support causes they support, but might not directly benefit from (see Minkoff et al. 2008). They also argue that discretionary incomes are core resources for the vitality of contemporary organizations.

Following their logic, it is reasonable to assume that state and local environmental SMOs in which the majority of their individual members are middle-income would be less likely to disband than those not. To test this idea, the respondent SMOs were asked whether or not the majority of their individual members were middle-income. A dummy variable included in the analysis below is coded 1 if the SMO reported that the majority its members were middle-income.

As discussed above, sometimes SMOs belong to another larger organization as an affiliate. Weed (1991) argues that formal affiliation with a larger group is usually similar to franchise system in which the umbrella group cannot usually exercise direct control over its local SMO affiliates. Affiliated organizations can benefit from additional access to resources and information sharing through their affiliation with a larger organization and its network of affiliates. By contrast, Edwards and McCarthy (2004a, 2004b) imply that local organizations relying on external resources from affiliated larger organizations are exposed to a risk of sudden resource withdrawal or unwanted intervention by the larger organization or national office. McCarthy (2005) also points out that organizational conflicts over authority can take place between local chapters and affiliated nationals, despite the merits of federated structures. Affiliated nationals need to take the responsibility of securing their tax-exempt/tax-deductible status that are possibly affected by political activities of their affiliated locals, and a top-down process in order to minimize the risk of losing this status can lead to organizational conflicts over administrative intervention between two. Evidence on the effects of organizational affiliation on survival is mixed and inconclusive.

Walker and McCarthy (2010) found partial evidence that affiliation with an organizing network has a positive effect on organizational persistence while Minkoff (1995) found no significant relationship. Conversely, Weed (1991) found that local MADD chapters, with strong influence from the central office in local operations were more likely to disband than those with more autonomy. He explains this by arguing that local chapters are more informed about local circumstances than the national office so those operating more on their own initiative would more capable of adapting to local changes than those chapters that were overly dependent on national office staff to direct local operations (1991: 856). In this analysis, the effect of formal affiliation on mortality risk is assessed with a dummy variable coded 1 for affiliated SMOs and 0 for independent or unaffiliated ones.

Table 1 describes how the empirical measurements of bureaucracy, membership structure, membership composition and affiliations.

Table 1. Index Construction of Bureaucracy and Membership Structure

Concept	Index	Items
Bureaucracy	Threshold Level of Formal Structure (or scale of semi-formality) (.72)	Has a board
		Incorporated as a nonprofit
		Has a nonprofit tax status
		Formal annual budget plan
		Employ at least a paid-staff
	Procedural Formality (.78)	Does group have a well thought out fundraising plan
		Internal accounting procedures in place
		Does group have an ongoing process of organizational evaluation
		Standing committees with chairs and specific responsibilities
		Committee or individual specifically responsible for media and PR
		Committee or individual specifically responsible for fundraising
		Committee or individual specifically responsible for membership, recruitment and outreach
Membership Structure	Formal Affiliation	Formal affiliation with larger organization (0/1)
	Membership Type	Have at least an organization plus individual members (0/1)
	Middle-Income	Middle-income as majority members (0/1)

Cronbach's alpha in the parentheses.

Human and Material Resources

Human and material resources have long been emphasized as important predictors of organizational survival (Carroll 1985; Edwards and Marullo 1995; Minkoff 1993; Minkoff and McCarthy 2005; Walker and McCarthy 2010). As the main tenet of resource mobilization theory clearly maintains, collective action cannot be maintained without access to a threshold level of resources that sustain the infrastructure of its collective claims. Yet, while the importance of resources has been a main tenant of the resource mobilization theory, it is the case that resources have not yet been clearly defined and measured (Cress and Snow 1996; Edwards and McCarthy 2004).

In the analysis, I define and measure the extent of human and material resources available to local SMOs. Human resources are conceptualized here as the number of individual members, paid-staff, and volunteers.[11] To reduce heteroscedasticity from skewed distributions, all three measures are log-transformed. Two indicators of material resources are measured. First, annual revenue or budget size and whether or not the organization has an office which provides them with a physical place to meet. Annual budgets are measured as dollars in continuous variable, then log-transformed. Organizations with access to an office from which to conduct their affairs are coded as 1 and those lacking that resource as 0.

[11] The membership sizes or the number of paid-staffs (or employees) are often interpreted as the organizational size in many strands of organizational studies. Yet, it is important to remind that it also refers to as the extent of human resources to which the organization can utilize.

SMO Tactics

Resource mobilization theory maintains that SMOs attempt to change society or resist social changes by utilizing resources which are often external to the organizations themselves. SMOs also use a specific set of tactics in order to fulfill their goals. As discussed above, tactical choice is believed to influence the effectiveness and impact of social movements and following a similar logic may also affect the likelihood of organizational mortality. The effects of movement tactics are related to how much costly they are to utilize and how effectively they contribute to maintaining the organizations (McCarthy and Wolfson 1996). The impacts of several types of tactics on the risk of mortality are examined in the analysis below.

Along with rapid growth of local, grassroots environmental organizations, as discussed previously, U.S. environmental politics became institutionalized into national government since the 1970s (Sale 1993; Mitchell et al. 1991). The environmental movement in the 1960s and 1970s was accompanied by creation of new federal agencies, particularly, such as the Environmental Protection Agency (Dunlap and Mertig 1991). Thereby, national institutional activities became important repertoires for environmental movement organizations, and environmental SMOs used both the extra-institutional activities and institutional activities in order to achieve their goals (Johnson et al. 2010; Soule and Olzak 2009).

During the last 25 years the trends in federal policy toward increasing deregulation and increasing devolution to state and local government have shifted the center of gravity in environmental policy making away from the national level and toward lower level state and local government. Post-Watergate political reforms require local public participation in many national

environmental legislations, and such local initiatives played a pivotal role in (re)shaping the national movement priorities (Carmin 1999).

Although relatively little systemic research has examined the impacts of institutional tactics on organizational disbanding thus far, there are several useful studies with relevant theoretical implications. Edwards and Marullo (1995) examined the impacts of national, state/local legislative activities, and party electoral activities and found that the state or local legislative activities were associated with reduced a likelihood of organizational disbanding, while involvement in party electoral activities increased it. Walker and McCarthy (2010) also looked at the impacts of various institutional activities on organizational mortality in language of local and extra-local legitimacy seeking. In particular, they found that public accountability sessions that help construct ties to local officials were associated with reduced odds of mortality among poor peoples' organizations.

Besides institutional activities, local environmental movements feature various tactical repertoires. As noted by many researchers, SMOs employ several activities in pursuit of organizational management (Edwards and McCarthy 2004; Walker and McCarthy 2010). Based on the criterion in which the boundary of organized efforts, organizational management consists of two sorts of activity: organizing and networking. While organizing activities mean collective tactics pursuing the internal maintenance of organization, networking activities refers to the organized efforts for building extensive relationships among other, external organizations. Also, in pursuit of attracting attentions of people and putting pressure on formal institutions, many environmental SMOs have employed direct actions engaging in boycott, rally/demonstration, or confrontational protest, as well as litigations involving in individual lawsuits or class actions.

Usually direct actions necessitate labor-intensive efforts such as coordinated plans for inducing mass participation; on the contrary, litigation needs a huge amount of budget to continue the lawsuit that may be prolonged.

In order to examine systematically these under-researched impacts, I measure six types of tactics: organizing, networking, environmental direct action, environmental lawsuits, local/state institutional activities, and national institutional activities. As shown in Table 2, each tactical playlist consists of several items. The respondents are asked to reply 1 if they used specific activities in the past year, or 0 if they do not. Then these were combined on average to construct concepts of specific tactics (varying 0 to 1) and multiplied by 10 for better legibility of coefficients.

Table 2. Scale Construction of Tactical Playlist

Tactical Playlist	Items
Organizing (0.61)	Newsletter
	Maintain a website
	Place an advertisement or PSA in media
	Post announcement on a listserv
	Have informational booths at local events
Networking (0.59)	Hosted or met with environmental leaders from other parts of US
	Hosted or met with environmental leaders from outside the US
	Had a member or staff person travel to other countries for env. events where they met with other activists
	Had a member or staff person travel to other states in the US for env. events where they met with other activists
Direct Action (0.72)	Participate in local rally or demonstration
	Participate in rally or demonstration in Raleigh
	Engage in confrontational protest
	Participate in vigil or prayer service
	Participate in boycott of a company or product
	Sponsor in boycott of a company or product
Environmental	Been plaintiff or defendant in an environmental lawsuit

Lawsuits (0.70)	Consulted with or supported groups involved in an environmental law
Local/State Institutional Activities (0.86)	Contact staff of local government agency
	Make a presentation at local advisory commission
	Have members or staff appointed to local advistory commission
	Contact local elected officials
	Consult with local governmental official to plan legislative strategy
	Help draft local legislation, regulations or ordinances
	Monitor debates and decisions on local legislation
	Contact staff of state government agency
	Make a presentation at regional or state advisory commission
	Have members or staff appointed to regional or state advistory commission
	Contact members of NC legislature
	Consult with state governmental official to plan legislative strategy
	Help draft state legislation or regulations
	Monitor debates and decisions on state legislation
National-level Institutional Activities (0.70)	Contact staff of fed government agency
	Contact members of congress
	Speak at congressional hearing
	Consult with national governmental official to plan legislative strategy
	Help draft national legislation
	Monitor debates and decisions on national legislation

Cronbach's alpha in the parentheses.

Differential Impacts of Professionalization: Explanatory Approaches

In previous literature, professionalization generally refers to the degree to which the organizational labor force consists of professionals as opposed to either volunteers or unskilled employees (see also, Pugh et al. 1973; Minkoff 1993, 1999). In this study, professionalization specifically refers to the *substantial governing* of organizations by paid-staff and not simply how paid-staff are employed in the SMO. Pugh et al. (1973)[12] use the proportion of paid-staff over total members to continuously measure the degree of professionalization. Edwards (1995) develop a similar measure from the ratio of paid-staff over the number of volunteers who donate at least 8 hours per month to the organization. Instead, in contrast, I will qualitatively categorize professionalization into two types—*grassroots* and *professionalized organizations*. Grassroots organizations are those reporting that they were run entirely by volunteers, while groups indicating that they were run partly or entirely by paid staff are considered to be professionalized. This measure is conceptually consistent with that of Smith (2000) or Edwards and Marullo (1995). As discussed above, it is expected that the impact of various organizational attributes on mortality risk will be different for grassroots groups and professionalized groups. Expected differential impacts mediated by the professionalization of SMOs can be explained in relation to four organizational characteristics discussed above.

[12] I do not accept Pugh et al. (1973)'s standardization method, partly because (1) meanings of individual members, organizational members, and volunteers are different in case of nonprofit advocacy organizations. More specifically, it is hard to impute the number of individual members in case of non-membership organizations; (2) further, in my data set, the huge gap between the number of paid-staff and volunteers among nonprofit organizations weakens the practical meaning of the ratio, regardless of mathematical meaning. Therefore, the degree of professionalization is divided into two or three categories according to my analytic purposes. Likewise, Smith (2000) puts strong emphasis on division between grassroots and paid-staff organizations.

Organizational Demography: Professionalized SMOs are expected to react to the impacts of organizational demography differently. In organizational ecology, the negative age-dependence which implies a liability of newness is variously explained by Stinchcombe (1965), Freeman et al. (1983) and Carroll and Delacroix (1982). According to their explanations, younger SMOs will suffer a lack of external/internal trust, and social networks. Younger SMOs will also not have had enough time to learn and coordinate various organizational roles effectively. By contrast, professionalized SMOs are expected to be less likely to face such troubles because of their social capital and the influence of paid staff. Therefore, I expect that any liability of newness will be stronger among the grassroots SMOs than among professionalized ones.

Hypothesis 1: Grassroots SMOs will experience a liability of newness, that is, a negative relation between organizational age and the mortality rate of SMO.

I also expect that endowment of founding resources available to SMOs that emerged from pre-existing organizations will affect the mortality risk of professionalized groups differently than for grassroots ones. As implied by age-dependence hypothesis, endow resources enable SMOs to avoid the liability of newness at an initial stage. This is particularly critical for the survival of professionalized SMOs because they need to hire better-qualified paid-staff at a launching stage. On the contrary, grassroots SMOs are not expected to be affected by endowment of founding resources, due to relatively spontaneous operations and minimal requirement of founding resources at a launching stage. Following Rao (1994) and Shane and Stuart (2002), I assume the SMOs that emerged from a previous group endow have higher endow resources. Therefore,

Hypothesis 2: Professionalized SMOs that emerged from a previous group will be less likely to disband than those not emerged from a previous group.

The density of other environmental organizations in a SMO's home and neighboring counties will have be associated differently with mortality risk. Following Carroll and Hannan (1989) and Greve (2002), I expect that density-dependent process of mortality will hold both for grassroots SMOs and professionalized SMOs with respect to density in their home counties. However, neighboring county density will only be associated with the mortality of professionalized groups, given that grassroots SMOs are usually smaller both in organizational size and scope of operations than professionalized ones, grassroots SMOs will be less likely to be affected by density of other SMOs in neighboring counties. Therefore, I expect that spatial density-dependent model proposed by Greve (2002) will hold only for professionalized SMOs. In other words, relations between organizational density and mortality are expected to be curvilinear such that as total density of local SMOs in the county increases, the mortality rates of professionalized SMOs will decrease until a modest level of density is reached after which additional increases in density will lead to higher mortality rate of professionalized SMOs.

Hypothesis 3a: The mortality rate of grassroots SMOs will be associated with the density of other SMOs in the same county in a curvilinear relationship, but will be unrelated to that in neighboring counties.

Hypothesis 3b: The mortality rate of professionalized SMOs will be associated with the density of other SMOs in the same county and in neighboring in a curvilinear relationship.

Bureaucracy: Bureaucratization is expected to reduce the risk of mortality for grassroots SMOs. Threshold levels of minimally bureaucratic structure will be facilitate the persistence of grassroots SMOs by promoting the effective accomplishment of organizational tasks. As discussed above, having at least a minimal level of structural formality is a highly important task for grassroots SMOs because it they make it easier to attract external resources through greater accountability and legitimacy. Therefore,

Hypothesis 4: Among grassroots SMOs, threshold levels of structural formality will be associated with lower odds of organizational mortality than those with lower levels of structural formality.

Membership Composition: A stable supply of sufficient financial resources is critical for both types of local SMOs, yet more so for professionalized ones that have taken on the responsibility of raising enough funds to support paid-staff. Given that professionalized SMOs need greater inputs of financial resources for employing paid-staff and supporting more bureaucratized organizations, having middle-income members is particularly important for them compared to grassroots SMOs. If the majority of membership is middle-income, it will particularly prolong the organizational life of professionalized groups due to relatively stable budgetary supply in forms of membership due or contribution.

Hypothesis 5: Among professionalized SMOs having a majority of middle-income members will be associated with lower odds of mortality while no relationship is expected among grassroots groups.

Affiliation: Two faces of affiliation are discussed above in detail and I expect that the negative impacts of affiliation will be specifically stronger for grassroots SMOs, while the positive impacts will be so for professionalized SMOs. The organizational conflicts, as pointed out by McCarthy (2005) will be better managed by paid-staff who are devoted to organizational maintenance and have more experience working with nationally affiliated groups. On the contrary, grassroots SMOs will be less likely to have this resource. The benefits of affiliation are comparable for both grassroots and professionalized SMOs, yet professionalized SMOs are expected to be better equipped to deal with the negative aspects of affiliation. This leads me to two expectations:

Hypothesis 6a: Among grassroots SMOs, those formally affiliated with a larger group will be more likely to disband than unaffiliated grassroots groups.

Hypothesis 6b: By contrast, among professionalized, SMOs those that are formally affiliated with a larger group will be less likely to disband than those that are unaffiliated.

Human and Material Resources: By demonstrating the sheer number of their members, local SMOs can sometimes affect the decision-making of legislators. Alternatively, local SMOs can achieve their goals by devoting their efforts to lobbying or litigation. Given the strategic orientations discussed by previous literature on professionalized SMOs (Alonso and Maciel 2010; Carmin 1999; Kleidman 1994; McCarthy and Zald 1973; Staggenborg 1988), professionalized SMOs tend to rely more on the latter than the former. This is based on having paid-staff equipped with political and legal skills (Pagnucco 1994). This idea leads me to expect that human resources will be more important for predicting the mortality of grassroots SMOs and material resources more important for professionalized ones. It is hypothesized that grassroots

SMOs are more dependent on the commitment of individual membership. Because grassroots SMOs are less likely to have rich financial resources decreases in individual membership can be expected to lead directly to higher mortality rates among grassroots SMOs. By contrast, professionalized SMOs are considered to be less dependent on the labor of individual memberships so a decrease in individual membership is not expect to affect the mortality rate directly. When it comes to material resources, I expect that professionalized SMOs are more likely to rely on formal budgets for organizational survival than grassroots organizations do (Weed 1991). Therefore, decrease/increase in organizational budget will directly lead to higher/lower mortality rate of professionalized SMOs. In sum,

Hypothesis 7: The size of individual membership will be negatively associated with the odds of among grassroots SMOs.

Hypothesis 8: The size of formal budget will be negatively associated with the odds of mortality among professionalized SMOs.

Tactical Playlist: When it comes to SMO tactics, I expect the impact of public-interest lawsuits will be different depending on the types of local SMOs. Lawsuits are likely to involve high costs over long time than any other movement tactics. To endure the use of lawsuit, regardless of its result, SMOs should endure the war of attrition that consumes a lot of organizational resources. Professionalized SMOs are superior in a long-term strategic planning and resource management of organizations for rationally calculating the benefits/costs of specific tactics, while grassroots SMOs are less likely to possess such organizational strength. Even when professionalized SMOs use environmental litigation as movement tactics, paid-staff will not prolong the lawsuit as bad as it destroys the organizational persistence. Consequently,

Hypothesis 9: Grassroots SMOs involved in public-interest lawsuits will be more likely to disband than those uninvolved in such litigation.

Likewise, I argue that institutional activities are particularly effective for professionalized groups. Professional paid-staff are usually more informed about and capable of working in what Mitchell et al. (1991) called the "bureaucratic labyrinth." Given that the effectiveness of institutional activities depends on knowledge and experience regarding a specific area, professionalized SMOs are expected to achieve their goals effectively, resulting also in a greater likelihood of persistence by the organization. Meanwhile, among grassroots groups, institutional activities will not help the organizational persistence due to the relative lack of volunteers' understanding on institutional mechanisms.

Hypothesis 10: Professionalized SMOs that use institutional tactics, regardless of their geographic scope, will be less likely to disband than those that do not use institutional tactics.

Table 3 summarizes the hypothesized predictors and expected directions depending on grassroots or professionalized SMOs.

Table 3. Hypothesis Table

Hypothesis No.	Predictor (Sets)	Expected directions towards the mortality rate	
		Grassroots	Professional
Organizational Demography			
1	Organizational Age	(−)	n/s
2	Emerged from a previous group (1=yes; 0=otherwise)	n/s	(−)
3	Organizational density in the county in which the organization is located	(−) / (+)	(−) / (+)
	Organizational density in adjacent counties	n/s	(−) / (+)
Bureaucracy and Membership Structure			
4	The threshold level of formal structure	(−)	n/s
5	Middle-income as majority members (1=yes; 0=otherwise)	n/s	(−)
6	The affiliated with a larger organization (1=yes; 0=otherwise)	(+)	(−)
Human and Material Resources			
7	The number of individual members	(−)	n/s
8	The size of organizational budgets	n/s	(−)
Tactical Playlist			
9	Public-interest lawsuits	(+)	n/s
10	Institutional activities	n/s	(−)

Notes: (−) means a negative relation between the predictor and the mortality rate of SMOs: To say, "as X increases, the mortality rate of SMOs declines." (−) / (+) refers to the first-order term being negative and the second-order term being positive.

RESULTS AND FINDINGS

Descriptive Statistics

Descriptive statistics of all variables used in my research are presented in Table 4, which also presents descriptive statistics separately for grassroots and professionalized local and state environmental groups. First of all, it is important to note that professionalized SMOs are found to have lower mortality rates than grassroots SMOs. As for organizational demography, no predictors are found to be significantly different between grassroots SMOs and professionalized SMOs. Structural and procedural formalities are higher in professionalized SMOs. Professionalized SMOs are also more likely to have at least one organizational member. Yet, grassroots organizations are more likely to be formally affiliated with larger organizations. There are no significant difference in having middle-income individual members as majority members between grassroots SMOs and professionalized SMOs. As for human and material resources, professionalized SMOs are better-resourced than grassroots SMOs in all aspects, sizes of individual membership, paid-staff, formal budgets, and likelihood of having office. Professionalized SMOs are more likely to employ organizing, networking, and institutional activities, while grassroots SMOs are more likely to use direct actions.

Table 4. Descriptive Statistics

	All SMOs				Grassroots SMOs		Professionalized SMOs		Differ-ence
Variables	Mean	SD	Min	Max	Mean	SD	Mean	SD	Ratio GR/Prof
Dependent Variable									
Organizational Mortality	0.20	0.40	0	1	0.28	0.45	0.14	0.35	1.99**
Organizational Demography									
Organizational Age	22.99	14.71	6	99	22.43	13.67	23.42	15.50	0.95
Emerged from a Previous Group	0.33	0.47	0	1	0.33	0.47	0.34	0.47	0.97
Organizational Density in the County	28.85	27.55	1	83	26.91	26.77	30.32	28.16	0.88
Organizational Density in Adjacent Counties	53.03	36.47	1	179	51.88	36.67	53.90	36.48	0.96
Bureaucracy and Membership Structure									
Threshold Level of Formal Structure	8.31	2.47	0	10	6.63	2.51	9.56	1.51	0.69***
Procedural Formality	6.01	3.14	0	10	5.00	3.14	6.78	2.93	0.73***
Having Organizational Member	0.41	0.49	0	1	0.28	0.45	0.50	0.50	0.54***
Middle-Income as Majority Members	0.47	0.50	0	1	0.46	0.50	0.49	0.50	0.94
Formally Affiliated with Larger Org.	0.40	0.49	0	1	0.51	0.50	0.32	0.47	1.61***
Human and Material Resources									
Size of Membership (1000s)	1.13	3.27	0	26.5	0.57	1.67	1.56	4.03	0.36**
Number of Paid-Staff	3.60	7.53	0	49.5	0.16	0.57	6.18	9.16	0.02***
Number of Volunteers	25.54	31.18	0	102.3	21.31	25.03	28.72	34.89	0.74*
Mean Budget Size (1000s)	669.29	3812.58	0	50000	83.46	309.59	1110.11	5005.40	0.07**
Median Budget Size (1000s)	60				5		260		0.01
Having Office	0.67	0.47	0	1	0.32	0.47	0.93	0.26	0.33***
Tactical Playlist									
Organizing	7.90	2.52	0	10	7.26	2.79	8.38	2.19	0.86***
Networking	2.95	2.83	0	10	2.17	2.59	3.54	2.88	0.61***
Direct Action	1.81	2.37	0	10	2.08	2.50	1.61	2.26	1.29*
Lawsuit	2.29	3.65	0	10	2.30	3.60	2.28	3.71	1.01
Local/State Institutional Activities	5.71	2.79	0	10	5.34	2.56	5.99	2.94	0.89*
National Institutional Activities	3.92	2.59	0	10	3.42	2.27	4.30	2.75	0.79**
Number of Observations	177				76		101		

Notes: Student's t-test compares two groups (run entirely by volunteers versus not run entirely by voluteers). In the rightmost collumn, ratios between two groups are presented with mean differences (t-value) calculated based on Satterthwaite's degrees of freedom if it violates the equi-variance assumption. Numbers rounding up in the third place. One-tail estimations. *** p<0.01, ** p<0.05, * p<0.1.

Comprehensive Analysis

The results of multivariate logistic regression models using the full sample are presented in Table 5. Separate models for conceptually defined blocks of variables are presented for organizational demography, bureaucracy and membership structure, human and material resources, and tactics. In the leftmost column, the results of bivariate model are shown to be compared. Then a preferred model is presented in the rightmost column.

Table 5. Odds Ratio Resulted in Logistic Regression of Selected Covariates on the disbanding of the NC Environmental SMOs (all SMOs are regressed)

	Bivariate	Organizational Demography (Model 1)	Bureaucratic and Membership Structure (Model 2)	Human and Material Resources (Model 3)	Tactical Playlist (Model 4)	Preferred Model
Organizational Demography						
Organizational Age (ln)	0.216***	0.203***				0.490
	(0.0823)	(0.0866)				(0.303)
Emerged from a Previous Group	1.233	0.878				1.324
	(0.486)	(0.387)				(0.670)
Organizational Density in the County	0.917**	0.912**				0.915*
	(0.0312)	(0.0328)				(0.0433)
Organizational Density in the County (sq.)	1.001**	1.001**				1.001
	(0.000392)	(0.000404)				(0.000536)
Org. Density in the Adjacent County	0.995	1.003				n/s
	(0.0069)	(0.0201)				
Org. Density in the Adjacent County (sq.)	1.000	1.000				n/s
	(0.0001)	(0.000135)				
Bureaucracy and Membership Structure						
Threshold Level of Formal Structure	0.723***		0.832**			0.894
	(0.0543)		(0.0658)			(0.108)
Procedural Formality	0.738***		0.795***			
	(0.0480)		(0.0578)			
Having Organizational Member	0.296***		0.424			
	(0.135)		(0.222)			
Middle-Income as Majority Members	0.368**		0.442*			0.725
	(0.151)		(0.188)			(0.445)
Formally Affiliated with Larger Org.	1.539		1.503			2.707*
	(0.586)		(0.671)			(1.614)
Human and Material Resources						
Size of Membership (ln)	0.682***			0.662***		0.661***
	(0.0476)			(0.0585)		(0.100)
Number of Paid-Staff (ln)	0.471**			0.754		
	(0.139)			(0.319)		
Number of Volunteers (ln)	0.857			1.211		
	(0.114)			(0.213)		
Budget Size (ln)	0.839***			0.889*		0.940
	(0.0378)			(0.0561)		(0.0775)
Having Office	0.445**			0.784		
	(0.172)			(0.422)		
Tactical Playlist						
Organizing	0.712***				0.723***	
	(0.0504)				(0.0574)	
Networking	0.870**				0.897	
	(0.0590)				(0.0875)	
Direct Action	1.071				1.151	
	(0.0847)				(0.130)	
Lawsuit	1.114**				1.262***	1.307***
	(0.0532)				(0.100)	(0.122)
Local/State Institutional Activities	0.817***				0.750***	0.792**
	(0.0535)				(0.0745)	(0.0736)
National Institutional Activities	0.878*				0.996	
	(0.0688)				(0.0999)	
Professionalization						
Partly or Entirely Run by Paid-staff	2.373**					1.135
	(0.918)					(0.708)
Constant	n/a	66.23***	4.971**	2.821	6.193***	94.47**
		(92.04)	(3.388)	(1.838)	(3.666)	(176.9)
Observations	n/a	177	177	177	177	177
Model chi-square		22.60	33.11	30.88	31.65	48.22

Degree of freedom	n/a	6	5	5	6	12
Log-Likelihood	n/a	-76.51	-68.52	-66.65	-66.49	-52.82
Pseudo R-squared		0.131	0.221	0.243	0.245	0.400

Notes: Coefficients presented are exponentiated odds ratios. Odds ratios less than 1 indicate a negative effect of the explanatory variable on SMO mortality (i.e., a positive effect on SMOs survival). Robust standard errors in parentheses. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Demographic factors of environmental organization are found to be significant predictors in explaining organizational mortality in Model 1, consistent with ecological models of organizational mortality and consistent with a liability of newness. Organizational age is negatively associated with the odds of organizational disbanding. However, the hypothesis stating that SMOs that emerged from a previous group will be less likely to disband is not supported. The density-dependent model about the SMOs home county is found to be also supported: As the density of organizations within a specific region increases up to a moderate level, newly-established organizations can take more advantage of legitimacy in terms of mainstreaming themselves. However, once the population of organizations outgrow the resource capacity the limited region has, the demerits of resource competition outweigh the merits of legitimation. This finding reconfirms that the density-dependence model of organizations holds true among North Carolina environmental SMOs. However, contrary to my hypothesis of spatial density-dependent (Greve 2002), organizational density in adjacent counties is found to be not significantly related to organizational mortality.

Results for bureaucracy and membership structure are presented in Model 2. We can see that the degree of structural and procedural formality is found to be negatively associated with organizational mortality. These results are partly consistent with Edwards and Marullo (1995) who found that among peace movement organizations of the 1980s structural formality was associated with lower odds of mortality. As for membership structure, having organizational members and being formally affiliated with a larger organization are not significantly associated with organizational mortality. By contrast, local and state environmental organizations with a majority of middle-class members were less likely to disband by a factor of .442 than those with fewer such members.

Results for human and material resources are presented in Model 3. I find out the size of individual membership is negatively associated with organizational mortality such that environmental SMOs with more members were less likely to disband. Logged budget size is negatively associated with the odds of mortality, and this effect differs from zero significantly in 90 percent confidence level. However, neither the numbers of paid-staff, nor volunteers are significantly related to organizational disbanding. Having office is found to be also non-significant.

Model 4 presents results for SMO tactics. As hypothesized, organizing strategies are important to encourage environmental organizations to depress the odds of mortality. Environmental lawsuits are shown to undermine organizational persistence. Note that a unit-increase in lawsuit activities leads to increases in the odds of mortality by 26.2 percent. Last but not least, local/state institutional activities are found to be significant and reduce the odds of mortality, while networking activities, direct action, and national institutional activities are not significant.

Preferred Model

The preferred model is presented in the last column of Table 4. In this combined model, I selected thirteen predictors in order to assess the impacts of population- and organization-level covariates on the odds of mortality across the conceptual blocks. When organization-level covariates were included, the initial effects of age-dependence disappeared here. Because the first-order term of density in the home county was the only coefficient which was significant, this seems not to be consistent with the expectation of density-dependent model that predicts the

first-order term with negative value and second-order term with positive value. Regarding bureaucracy and membership structure, formally affiliated organizations are found to have 2.7 times higher odds of mortality than those not affiliated. The effect of the size of individual membership remains significant as it is in Model 3. The budget sizes are now insignificant. Also, the negative impact of lawsuit and positive impact of local/state institutional activities remain the same with Model 3. In the Preferred Model, I also examine the impact of being professionalized on the odds of mortality. This was significant predictor in accounting for the organizational disbanding in descriptive statistics (Table 4).

Throughout the comprehensive analysis, I found several predictors which successfully explain the organizational disbanding. Given the purposes of my research, I first found no evidence to support that professionalized SMOs were less likely to disband than grassroots SMOs. This finding implies that the basic proposition of organizational ecology about diversity of organizational population as the result of accumulated vital events does not hold in accounting for the trends of professionalization of environmental SMOs in North Carolina. I found that the trend of professionalization is not simply explained by the differential mortality rate among professionalized SMOs and grassroots SMOs. In order to do a more sophisticated analysis to better understand the trends and mechanisms of professionalization of SMOs, now I will split my data into two groups—grassroots SMOs (run entirely by volunteers) and professionalized SMOs (run partly or entirely by paid-staff) and examine the differential impacts of organizational demography, bureaucracy and membership structure, human and material resources, and movement tactics that are created by the professionalization of SMOs.

To sum up my findings so far, local environmental SMOs in North Carolina which were formally affiliated with their national centers tend to have higher mortality rates than those not affiliated. I also found that having a larger number individual member was associated with lower odds of mortality. Also, local/state institutional activities were reduced the odds of disbanding, while pursuing environmental litigation has the opposite impact. Results from the preferred model which includes predictors from all conceptual blocks fail to support core organizational ecology arguments about the effects of age- and density-dependence.

Comparison between Grassroots SMOs and Professionalized SMOs

Professionalization is hypothesized to be a structural pivot that differentiates the impacts of organizational structures and resources by defining the fundamental characteristics to access the other types of resources (Edwards and McCarthy 2004a; McCarthy and Zald 1973; Smith 2000). Table 6 presents the results of a series of multivariate logistic regressions and shows clear differences in what predicts organizational disbanding between grassroots and professionalized SMOs. I present these results next.

Table 6. Odds Ratio Resulted in Logistic Regression of Selected Covariates on the disbanding of the NC Environmental SMOs (grassroots SMOs and professionalized SMOs are separately regressed)

	Grassroots SMOs (Model 1)	Professionalized SMOs (Model 2)
Organizational Demography		
Organizational Age (ln)	0.202**	0.958
	(0.161)	(1.054)
Emerged from a Previous Group	3.717	0.965
	(5.017)	(0.943)

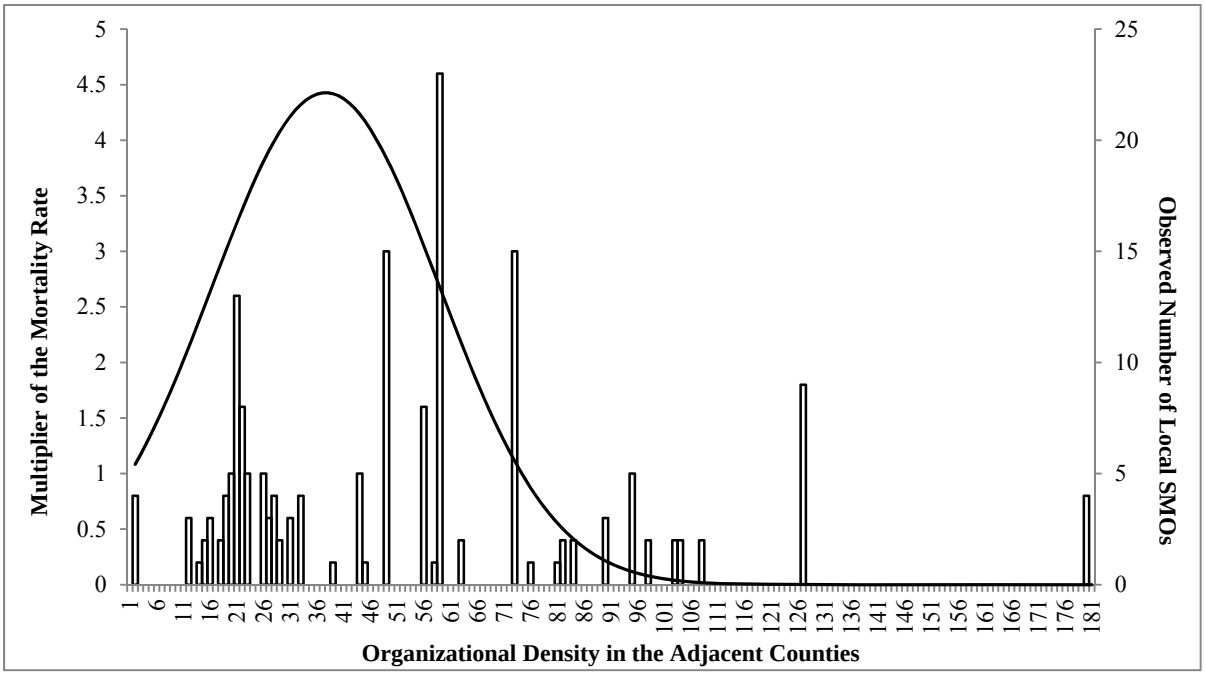
Organizational Density in the County	0.970**	1.007
	(0.0140)	(0.0164)
Organizational Density in the County (sq.)	n/s	n/s
Org. Density in the Adjacent County	1.019	1.085
	(0.0138)	(0.0545)
Org. Density in the Adjacent County (sq.)	n/s	0.999**
		(0.000429)
Bureaucracy and Membership Structure		
Threshold Level of Formal Structure	0.795	1.290
	(0.140)	(0.466)
Middle-Income as Majority Members	2.952	0.0560**
	(3.957)	(0.0690)
Formally Affiliated with Larger Org.	19.51	11.82**
	(49.52)	(12.68)
Human and Material Resources		
Size of Membership (ln)	0.305*	0.794
	(0.206)	(0.214)
Budget Size (ln)	0.867	0.699*
	(0.140)	(0.136)
Tactical Playlist		
Lawsuit	1.591**	1.176
	(0.355)	(0.174)
Local/State Institutional Activities	0.717**	0.674***
	(0.115)	(0.100)
Constant	2,244***	3.111
	(5,897)	(12.14)
Observations	76	101
Model chi-square	17.97	37.99
Degree of freedom	11	12
Log-Likelihood	-15.68	-22.39
Pseudo R-squared	0.650	0.449

Notes: Coefficients presented are exponentiated odds ratios. Odds ratios less than 1 indicate a negative effect of the explanatory variable on SMO mortality (i.e., a positive effect on SMOs survival). Robust standard errors in parentheses. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

In Model 1 which only includes the sample of grassroots SMOs, organizational age is negatively associated with the odds of organizational mortality, which implies negative age-dependence. Age dependence is, however, not significant among professionalized SMOs in Model 2. As Hannan and Freeman (1988) and Hannan et al. 1998) point out, the positive age-dependence implies the unstable organizational field, because by definition older organizations are more likely to disband and the organizational population is to be quickly displaced with newer organizations. In this point, my finding of negative age-dependence means the organizational field of the local grassroots SMOs is relatively stable and do not change quickly. Contradicting my hypothesis, emergence from a previous group is found to be non-significant in accounting for the mortality of local SMOs regardless of type.

Among grassroots SMOs (Model 1), the first-order coefficient of SMO home density is significant, but the second-order coefficient is not significant. Therefore, theory of density-dependence as a combination of the benefits of legitimation giving way to the liability of increased competition does not hold. In this analysis I find support for only legitimation or contagion effects, but not for increased competition at higher levels of density. Interestingly, among professionalized SMOs (Model 2), organizational density in the county the SMOs locate is not significant. Instead, density of adjacent counties is found to have curvilinear relationship with the odds of mortality. Yet, the direction of the squared term of density of adjacent counties is negative (see Figure 1), contrary to expectations based on Greve (2002).

Figure 1. Estimated Effect of other SMOs Density in the adjacent counties on the mortality rate of local SMOs.



Notes: Estimated based on Model 2 in Table 6.

This finding is not unprecedented among the previous literature examining density-dependent processes. Hannan and Carroll (1992) argue that the left-truncation of data used in some studies resulted in biased findings that suppressed the impact legitimation process. From a different perspective, Carroll and Hannan (1989) and Swaminathan and Wiedenmayer (1991) point out that setting of geographical boundaries inappropriately (local, state, or nation-state) may cause lack of significant results supporting density-dependence hypotheses. Despite efforts to defend the density-dependent process, various counterexamples were found and ideas to explain them have been proposed in order to explain the non-significant or unexpected direction of coefficients of the second-other density term. For example, Barnett (1990) failed to reproduce the density-dependent process of the early history (1900-29) telephone industry in southeast Iowa. Delacroix et al. (1989) argue that individual indicators measuring the prior founding and disbanding of organizations in the California Wine industry (1940-1985) are superior for measuring legitimation and competition respectively to a summed measurement of organizational density. From a more aggressive perspective, Baum and Singh (1994) maintain that density-dependent process only take into account cognitive legitimacy, which refers to gaining the status of being taken-for-granted, and therefore, it is necessary to employ more direct and multiple measurements to incorporate other form of legitimacy, for example strategic or moral, into explanatory models.

In Models 1 and 2, the significant first-order coefficient of organizational density in the county implies there are only legitimation relations among grassroots SMOs, although my data is left-truncated. Also, in my previous finding that support density-dependent process in Table 5, the unexpected directions of organizational density in the county and in adjacent counties should be interpreted based on the characteristics of professionalized or grassroots SMOs. As many

social movement researchers maintain (McCarthy and Zald 1973; Staggenborg 1988), the trend of professionalization has been an important aspect of institutional environment (Selznick 1948) facing the SMOs. Therefore, local SMOs taking the professionalized form of governance will enjoy additional cognitive and mimetic legitimacy in this trend (DiMaggio and Powell 1983). As Figure 1 shows, the density terms in adjacent counties implies that for professionalized SMOs competition process come earlier, then legitimation processes begin when the number of other SMOs in adjacent counties is larger than 37. This impact seems to virtually disappear when this number outgrows 100. The effects of density-dependence modeled here are contrary to the conventional density-dependence model of Hannan and Freeman, but more similar to Swaminathan and Wiedemayer (1991). Note also that my overall findings on legitimation process among SMOs are partially implied by Zucker (1989) who emphasize the importance of legitimation process in the later stage. She points out that declines of the fur industry in the Netherlands are due to the animal rights activism that robs the industry of legitimacy later. Further research is necessary to clarify this unexpected pattern of density-dependence among the nonprofit advocacy organizations examined here.

Next, regarding the impacts of bureaucracy, I found no evidence that grassroots SMOs equipped with formal structures live longer than those not. I primarily expected that having minimal levels of formal structure is an important threshold for the persistence of grassroots SMOs. Yet this is not supported by the results. Professionalized SMOs in which the majority of individual members are middle-income have 94.4 percent lower odds of mortality than those not. This is consistent with my hypothesis. However, professionalized SMOs affiliated with a larger group are found to be 11.82 times more to disband than those not. I find no statistical evidence of this among grassroots SMOs.

These findings are not consistent with my hypothesis about the impacts of affiliation. Why professionalized SMOs become vulnerable when they are affiliated with a larger group, while grassroots SMOs do not? This difference may be caused by unexpected resource withdraw from the core goals by an affiliated, larger group. Because professionalized SMOs are particularly sensitive to stable resource supply, this withdraw by an affiliated group can be destructive to professionalized SMOs rather than grassroots SMOs. This could happen especially when the affiliated, larger group experiences a critical change such as leadership turnover, and the new leader is less sympathetic to the affiliated SMOs (Edwards and McCarthy 2004). Note that affiliation has no impact on the grassroots SMOs, which implies that the federated grassroots SMOs are not likely to disband as easily as Skocpol (2003) speculates. Rather, federated, professionalized SMOs seem to be more vulnerable.

My hypotheses regarding human and material resources are largely supported, but also found to have more nuanced meanings than I expected. First, the size of individual membership is significant predictor of organizational disbanding among grassroots SMOs. Given the reliance on individual members by grassroots SMOs, this finding seems very reasonable. The odds of mortality among professionalized SMOs are found to decrease by a factor of .699 as logged budget increases by one-unit. On the contrary, budget size was not found to be significant among grassroots SMOs. Therefore, it is necessary to understand the relative importance of budget size budget depending on types of SMOs: Additional increase in budgets does not depress the likelihood of disbanding among grassroots SMOs having more than a threshold level of budget size. However, it does for professionalized SMOs.

Last but not least, environmental litigation is found to be detrimental to grassroots SMOs. When grassroots SMOs engage in lawsuits, the odds of mortality are 1.7 times higher than those not engage in lawsuits. This negative impact is not found among professionalized SMOs. The impacts of local/state institutional activities on organizational disbanding are found to significantly differ from in 95 percent confidence level. I primarily expected that this impact will be only significant among professionalized SMOs due to the levels of knowledge and experiences required to take part in institutional activities, and only professionalize SMOs will meet these requirements. Why are institutional activities also helpful not only for professionalized SMOs, but also for grassroots SMOs that usually tend to be less qualified in knowledge and experience? It might be due to the characteristics of *local*- and *state-level* institutional activities. Local/state institutional activities are usually less hardy for grassroots SMOs to use than national institutional activities. As Table 4 shows, the gap between using local/state institutional activities between two types of SMOs is larger than the gap between using national institutional activities, implying that local/state institutions may offer some good points of contacts to enhance the organizational effectiveness that are useful even for grassroots SMOs.

SUMMARY AND CONCLUSION

This research is intended to specifically explain the determinants of organizational disbanding among local and state level environmental organization operating in North Carolina paying particular attention to how the factors affecting organizational mortality differ between professionalized and grassroots SMOs Two strands of theorizing in the sociology of organizations and social movements are particularly useful for this research purpose: organizational ecology and resource mobilization. Organizational ecology maintains that the diversity of organizational forms is primarily motivated by selection processes in terms of organizational founding and mortality, proposing a set of persuasive theories that explain the different rates of organizational vital events. This idea offers a good broad picture, but is incomplete to fully understand the diversity of the local environmental SMI. I argued that resource mobilization perspective provides good alternatives for better understanding of organizational disbanding of the local SMOs.

In explaining the organization mortality, organizational ecologists maintain that the diversity of organizational forms is primarily motivated by selection processes in terms of organizational founding and mortality, proposing a set of persuasive theories that explain the different rates of organizational vital events. As I presented above, there is no statistically significant evidence about difference in the mortality rate between professionalized SMOs and grassroots SMOs on a local/state scope, and this suggests that the difference of the crude mortality rate between professionalized SMOs and grassroots SMOs is not enough to explain the diversity of local SMOs.

The conceptual tool, dubbed *organizational form as frame* proposed by Clemens (1996) provides an interesting implication for understanding the trends of professionalization. Once the local SMOs adopt the professionalization as an organizational form, this creates further differentiation originated in the present organizational demography, bureaucracy and membership structures, human and material resources, and tactical playlists. As resource mobilization perspectives suggest, the trends of professionalization on a local scope are the simultaneous results of demographic forces as well as the organizational-level attributes, and it is found to work even differently depending on whether it is professionalized SMOs or grassroots SMOs.

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RX: Your Exempt study has been approved
umcirb@ecu.edu
Sent: Wednesday, February 08, 2012 08:42 AM
To: Kim, Hyun Woo

EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board Office
1L-09 Brody Medical Sciences Building· Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office **252-744-2914** · Fax **252-744-2284** · www.ecu.edu/irb

Notification of Exempt Certification

From:	Social/Behavioral IRB
To:	Hyun Woo Kim
CC:	Bob Edwards
Date:	2/8/2012
Re:	UMCIRB 11-001428 Resource Mobilization and Organizational Mortality in the North Carolina Environmental Movement, 2003-2009

I am pleased to inform you that your research submission has been certified as exempt on 2/8/2012. This study is eligible for Exempt Certification under category #4.

It is your responsibility to ensure that this research is conducted in the manner reported in your application and/or protocol, as well as being consistent with the ethical principles of the Belmont Report and your profession.

This research study does not require any additional interaction with the UMCIRB unless there are proposed changes to this study. Any change, prior to implementing that change, must be submitted to the UMCIRB for review and approval. The UMCIRB will determine if the change impacts the eligibility of the research for exempt status. If more substantive review is required, you will be notified within five business days.

The UMCIRB office will hold your exemption application for a period of five years from the date of this letter. If you wish to continue this protocol beyond this period, you will need to submit an Exemption Certification request at least 30 days before the end of the five year period.

The Chairperson (or designee) does not have a potential for conflict of interest on this study.
