PART 2:
POLITICS AND ORGANIZATIONS

2. ORGANIZATIONAL HETEROGENEITY AND THE PRODUCTION OF NEW FORMS: POLITICS, SOCIAL MOVEMENTS AND MUTUAL COMPANIES IN AMERICAN FIRE INSURANCE, 1900–1930

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ABSTRACT

What are the social, political and institutional conditions for organizational heterogeneity and the production of new organizational forms? I address this question using historical methods and time series analyses of 3145 mutual fire insurers – important cooperative alternatives to markets and hierarchies. Developing politically oriented neo-institutional arguments, I show that mutuals were vehicles by which property owners and agrarian interests resisted corporate consolidation and secured conditions for autonomous economic development. Mutuals embodied a vision of a decentralized, "cooperative commonwealth" of farmers, merchants and independent producers. And they rested on a socio-industrial order characterized by political struggles against corporations; anti-monopoly social movements; immigrants and other cultural carriers of mutual organizing templates; and an institutional infrastructure of protestant churches and local movements.

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INTRODUCTION

Analyzing mutual companies in American fire insurance, this chapter addresses three related questions: When do new organizational forms emerge? Under what conditions do alternatives to dominant organizing practices arise and proliferate? When can actors institute cooperative alternatives to markets, hierarchies and the corporate form? This analysis flows from an interest in economic form, collective self-organization, and their social and institutional foundations. It also flows from historical interests in both the rise of mass markets and giant corporations as the dominant organizing logics in the U.S., and the extent to which cooperative alternatives emerged during the late nineteenth and early twentieth centuries. A more general concern here is to move beyond the focus in much neo-institutional research on isomorphism and institutional coherence to identify the conditions for heterogeneity and alternative organizational forms (Powell, 1991; Scott, 1995). As Jepperson and Meyer (1991) suggest, societies vary in the extent to which they support organizational diversity and the production of new organizations.

Mutuals occupy an ambiguous status in organizational research. Economic analyses of organization view mutuals and other alternatives to corporate or state hierarchy in terms of their problem-solving capacities, their relative costs and benefits, and the intra-organizational dynamics of agency, enforcement and incentive (Hansmann, 1987; Weisbrod, 1988; Ware, 1989; Bonin et al., 1993). This approach is quite helpful in fire insurance, where mutuals were a recognized and viable alternative to joint stock companies, competing successfully with corporate forms. These successes rested, in part, on the economics of organization, that is, on how the internal structure of mutuals altered incentives, solved moral hazards, and created advantages for insureds (Heimer, 1985; Hansmann, 1995). Yet, economic analyses also stress how the costs of collective action and enforcement limit the efficacy of cooperative forms, conferring them to a small role or fleeting existence. Such emphases render economic analyses less useful for insurance, where mutuals faced these problems and costs, but proliferated by thousands, enjoyed remarkably high rates of survival, and lasted for a half-century or more.

Drawing on Stinchcombe's classic 1965 essay, I confront this puzzle by examining how rational-adaptive solutions are socially embedded, and by analyzing the social structural conditions for self-organization and new organizational forms. Cited for its treatment of founding effects and the liabilities of newness, the 1965 essay actually begins with a question that now preoccupies new institutional research: What shapes actors' incentives or capacities to create new organizations and organizational forms? Moreover, armed with the political-economy

sensibilities of classical institutionalism, Stinchcombe answers his question by invoking the social structures within which actors craft new forms, and by linking the construction of organizations to broad conflicts between elites and challengers over dominance, dependency and social stratification. Here, producing new forms rests on the presence of "organization creating organizations," and whether actors can piggyback on the resources and trust generated by existing associations. It rests on social relations, including networks for learning about alternatives, and the absence of strong ties binding consumers to old organizations. It rests as well on political factors, like whether the founders of new organizations are sufficiently powerful to resist elites with vested interests in existing regimes.

Elsewhere, Stinchcombe analyzed organizations in terms of micro, organizational-level conditions of uncertainty, incentive and information. Such work yielded its own classics – from the 1959 essay on bureaucratic and craft administration to the 1990 collection, Information and Organizations – so we might proceed with care regarding which of "the two Stinchcombes" we invoke or deny. In fact, this diversity of approaches suggests that the greatest gains analytically will come from resisting the temptation to reduce institutions to the purely symbolic and from carefully re-coupling organizational forms to concrete economic problems, politics and actors with intentions (Stinchcombe, 1997; Mizruchi & Fien, 1999). But in 1965, the main focus was contextual, turning from the immediate coordination problems organizations face to the social and historical settings within organizations are built.

This chapter analyses the proliferation of mutuals as alternative organizational forms using historical materials and a seven-panel data set of 3145 fire insurance mutuals reported in operation from 1903 to 1929. Part I describes the types and distribution of these mutuals. Parts II and III develop and partially integrate economic theories of mutuals with neo-institutional arguments about the social and political embeddedness of mutual forms. Parts IV and V assess this embeddedness view, identifying the political and institutional conditions for alternative forms via a state-level analysis of mutuals from 1903 to 1930.

As I show, mutuals were solutions to immediate and pressing coordination problems. Yet their proliferation ultimately rested on broader political struggles over economic organization, and on a supportive institutional infrastructure or socio-industrial order (Herrigel, 1994; Berk, 1994). Fire insurance mutuals were vehicles by which merchants, manufacturers, and agrarian interests resisted economic centralization, using consumer self-organization to secure for themselves and their local communities a measure of independence and some critical conditions for economic development. Mutuals arose from anti-company politics, agrarian protest, and successful struggles against corporate consolidation in the U.S. They resulted from social movement activity, emerging in force

where populist organizations like the Grange were well developed and could forcefully articulate alternative models of economic order. And they were imported into the fray by social, immigrant and religious groups with established templates for self-organization, as part of their existing cultural repertoires of organizing forms.

In presenting this study, I confirm our growing sense of the possibilities for alternatives and organizational diversity in the American economy. Cooperative alternatives to hierarchies and mass markets emerged in far greater numbers and were far more durable than organizational histories of the U.S. economy commonly allow. In addition, I extend in directions suggested by Stinchcombe's 1965 essay more recent neo-institutionalist research on institutional change and organizational form (DiMaggio, 1991; Berk, 1994; Fligstein, 1996; Clemens, 1997; Davis & Thompson, 1994; Haveman & Rao, 1997; Schneiberg, 1999; Dobbin & Dowd, 2000). Looking to political process and state policy, struggles over competing models of order, and supporting conditions and coalitions within fields, neo-institutionalists have begun to bring society and politics back in, analyzing new organizational forms as the product of institutionalization projects or social movements undertaken by entrepreneurs, challengers, or aspiring professionals. Infusing this work with Stinchcombe's old institutionalist sensibilities, I pursue a multi-level approach – one that acknowledges the insights of market failure theories while showing how social and institutional embeddedness (Dacin, Ventresca & Beal, 1999) decisively shapes the possibilities, tradeoffs and relative costs of markets, hierarchies and cooperative forms.

I. THE CHARACTER AND DISTRIBUTION OF AN ALTERNATIVE ORGANIZATIONAL FORM

Organizations in their various forms are the primary means for doing work in modern societies, be it economic, political or cultural. Indeed, once produced, new organizations and forms can reshape the broader social landscape, providing elites and challengers with weapons for political or economic warfare, while affecting community solidarity and social stratification (Stinchcombe, 1965, 1997). Organizations are often vehicles for reproducing social relations, concentrating power or fostering dependency (Perrow, 2002). Yet they also serve as platforms for contesting or transforming social structure. New forms are carriers of alternative models of order. They can provide challengers with resources and social space for combining logics, forging new identities, and building new relations (Clemens, 1997; Armstrong, 2002; Moore & Hala, 2002). They can

transform market dynamics and create new kinds of political access. In addition, they can open possibilities for alternative, more autonomous paths of economic development.

Mutuals constitute a "third way" between markets and hierarchy. Like corporate hierarchies and states, mutuals are a non-market form of organization. However, mutuals are membership-based, mutual benefit associations of consumers that eliminate the distinctions between stockholders and consumers, ruler and ruled. Like cooperatives, mutuals unify these roles, fostering some degree of member control and making consumer-owners the residual claimant. Mutuals return profits or savings generated by their operations to their consumer-members. Mutuals also replace a market relation between buyer and seller with an ownership relation, representing a form of backward collective vertical integration by consumers (Sichel, 1966; Heflebower, 1980; Hannmann, 1995; Furlough & Strikwerda, 2000).[1]

Consumers use mutuals to eliminate middlemen, to obtain goods not otherwise available, or to pursue strategies of economic autonomy or collective self-supply that opt out of market or state provision. In all of these cases, mutuals are formed for consumers' rather than stockholders' benefit. They rest on collective action by consumers, at least during their formation, and involve some degree of member participation in the organization's governance.

In fire insurance, there were two variations on the mutual organizational theme. Efforts by industrialists to secure low cost insurance gave rise in the decades around the Civil War to a factory mutual movement, producing a small number of large insurers based primarily in the northeastern U.S. But in terms of numbers, mutual fire insurance was largely a late nineteenth and early twentieth century movement of small, locally operating class mutuals associated with farmers, merchants and small manufacturers in the Midwest and the rural counties of a few eastern states. Both variants formed a well-defined and recognized alternative to the for-profit, joint stock corporation. In fact, the line between stock companies and mutuals represented the pivotal axis of competition in fire insurance markets until World War II.

Factory mutuals first appeared in New England in the 1830s, and were formed by textile mill owners to reduce premium rates through aggressive, individualized and systematic loss cost reduction (Atkinson, 1900; Oviatt, 1905; Bainbridge, 1952; Heimer, 1985). These principles distinguished mutuals from stock insurers, who took risks "as is," maintained arm's length relations with insureds, issued standard policies, and proved indifferent to reducing fire losses. Instead, factory mutuals sought to *transform* risks, forging ongoing cooperative relations with insureds over fire prevention. They worked closely with property

owners to identify and eliminate hazards, redesign plants, develop new fire fighting technologies, and reduce losses, returning savings in loss costs to consumers via dividends and low insurance prices.

Factory mutuals continued to emerge through the middle of the nineteenth century, with company formation peaking in the 1870s and 1880s and falling off rapidly during the century's last two decades. Over a quarter of the factory mutuals alive in the mid-1910s were organized before 1870, over half before 1880, and 80% before 1890 (*Best's*, 1914, p. 539). In total, factory mutuals were few in number, amounting to 29 recognized "senior" and "junior" mutuals in the early twentieth century (*Best's*, 1914, p. 539). Yet they were large in size, operated on multi-state or even nationwide basis, covering over $2 billion of property by 1909, and held substantial cash assets (*Merritt Report*, 1911, p. 110).[2]

Also formed to obtain low cost insurance, class mutuals were typically small, local operations organized by farmers, merchants, or small manufacturers working in the same trade. Like factory mutuals, class mutuals adopted loss prevention as a fundamental principle and first emerged in the 1830s (Bainbridge, 1952, p. 189). However, class mutuals were organized in great numbers, and often operated in a limited area, like a single town or county. There were 2165 fire insurance mutuals operating in 1903, and a total of 3519 mutuals reported in operation during some or all of the 1903–1929 period. Barely two score were factory mutuals.

Class mutuals were also overwhelmingly small-scale operations. The average class mutual was less than one-tenth the size of the average factory mutual in 1903, holding only $35,860 in cash assets. In addition, the asset distribution is quite skewed. As Fig. 1 shows, most class mutuals had little or no assets in 1903: Nearly 15% reported no cash assets; over a quarter had less than $100 in assets; and roughly half had less than $500 in assets. About 90% of the class mutuals were smaller than the *smallest* factory mutual; over 98% were smaller than the average factory mutual. These figures highlight class mutuals' scale and operating principles. Class mutuals often worked on advanced premium plans, building reserves out of regular premium payments, and returning their surplus to insureds via policy dividends. Yet, many were run as assessment plans, comprising little more than exchanges of promises among members of the community to cover one another's losses. Members opted for a certain amount of coverage. Premiums were assessed when a member experienced a loss, and were levied in proportion to members' insurance coverage, up to a certain amount per person. Some mutuals used a mix of plans, limiting assessments to a small multiple of annual premiums.

Relative to factory mutuals, class mutual formation peaked late in the century, amounting to a "veritable tidal wave" between 1870 and 1900 (Bainbridge,

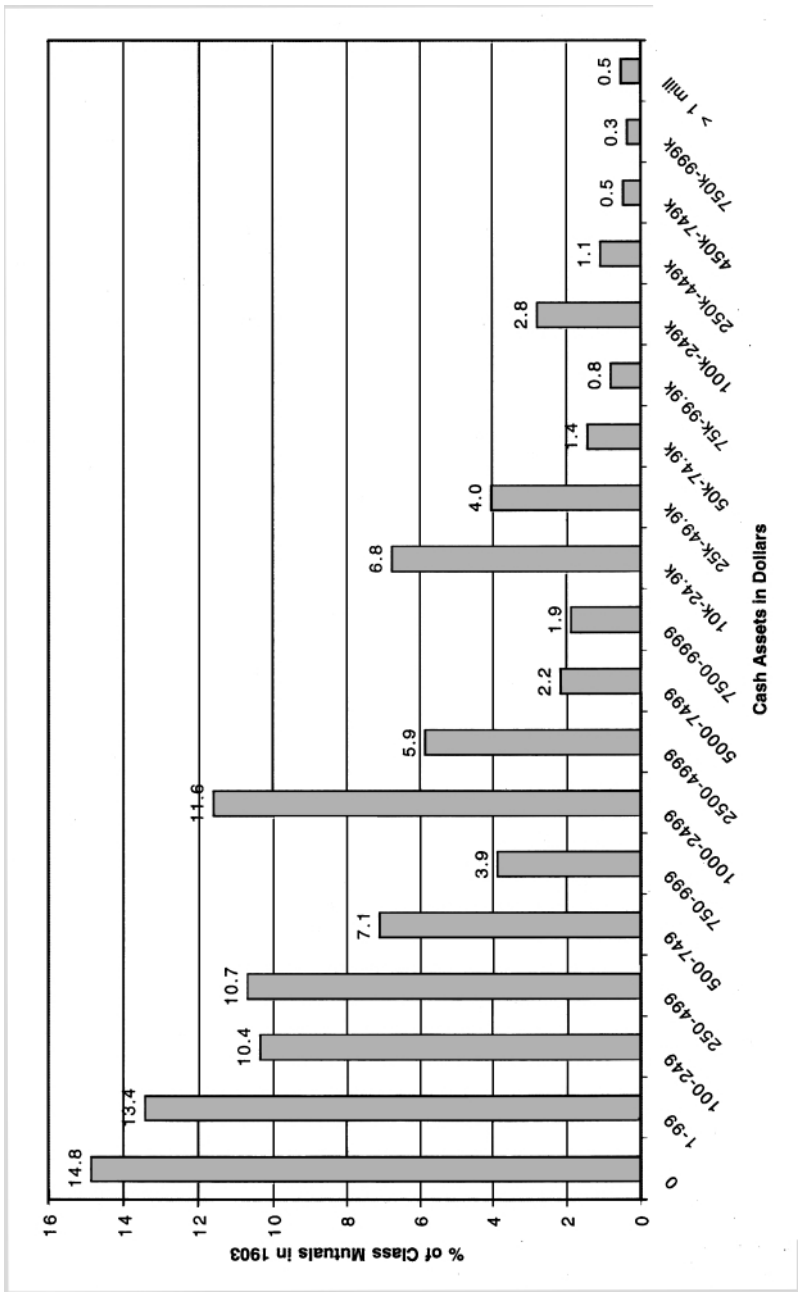

Fig. 1. Assets of Class Mutuals in 1903.

1952, p. 161), and remaining strong through 1920. Of the class mutuals operating in the 1903 to 1929 period, nearly half (47.4%) were formed between 1870 and 1899, and one third (33.1%) appeared between 1900 and 1919 (See Fig. 2). At least 848 new class mutuals appeared between 1900 and 1929.[3]

Mutuals were also differently distributed across socio-economic locations. Mutuals generally specialized in particular classes or types of risks. Yet factory mutuals specialized in insuring heavy industry, beginning with textile mills (Cotton and Woolen Manufacturers' Mutual), and branching out into other sectors (Rubber Manufacturers, Paper Mill Mutual) and industrial factories in general (Phildadelphia Manufacturers' Mutual). In contrast, class mutuals specialized in farms, small manufacturers and merchants, or did a general business in a single town or county. A content analysis of company names highlights these features. (See Table 1). First, 44% of the class mutuals named a specific class of risk, occupation or trade. Of this group, 82% named farmers as the trade served, like the Creamerymens Mutual of New York or the Farmers Mutuals in Kansas. After farmers came merchants (e.g. the Iowa Merchants, the Mercantile Town Mutual of Missouri); retailers, grocers, hardware and druggists (e.g. the American Hardware Mutual of Minneapolis); and the lumber industry (e.g. the Retail Lumber Dealers of Sauk City, Wisconsin). Second, 56% of the mutual specialized by location, with 83% of this group serving a city, town, county or few contiguous counties (e.g. the Washington County Mutual of Nebraska). Third, over 6% of the class mutuals were affiliated with an immigrant group, with the Germans (German Farmers) and Scandanavians (Scandanvian Mutual Fire, Swedish Farmers Mutual) accounting for most of this category. Finally, nearly 160 or 5% of class mutuals were associated with agrarian protest organizations – the Grange, Farmers' Alliance or Farmers Union – affiliations quite foreign for factory mutuals.[4]

But perhaps most striking was a marked regionalism in the distribution of mutuals, one that mirrored sectional conflicts over industrial order and corporate consolidation (Berk, 1994; Sanders, 1999). The largest *numbers* of mutuals, reflecting the proliferation of class mutuals, were disproportionately concentrated in relatively sparsely populated mid-western states. (See Fig. 3). In 1903, Nebraska and Missouri were home to over 80 mutual companies each; Michigan, Ohio and Minnesota contained 115 to 150 mutuals each; Illinois and Iowa held 223 and 226 mutuals respectively; and Wisconsin topped the list at 266 mutuals. Numbers remained heavily concentrated in these regions through 1930. In contrast, mutual *assets*, largely reflecting factory mutuals, were concentrated in the northeastern industrial core, with Massachusetts, Pennsylvania, New York and tiny Rhode Island standing well out from the pack. (See Fig. 4). Most factory mutuals were based Providence, Boston and Philadelphia (*Best's*, 1914, p. 539).

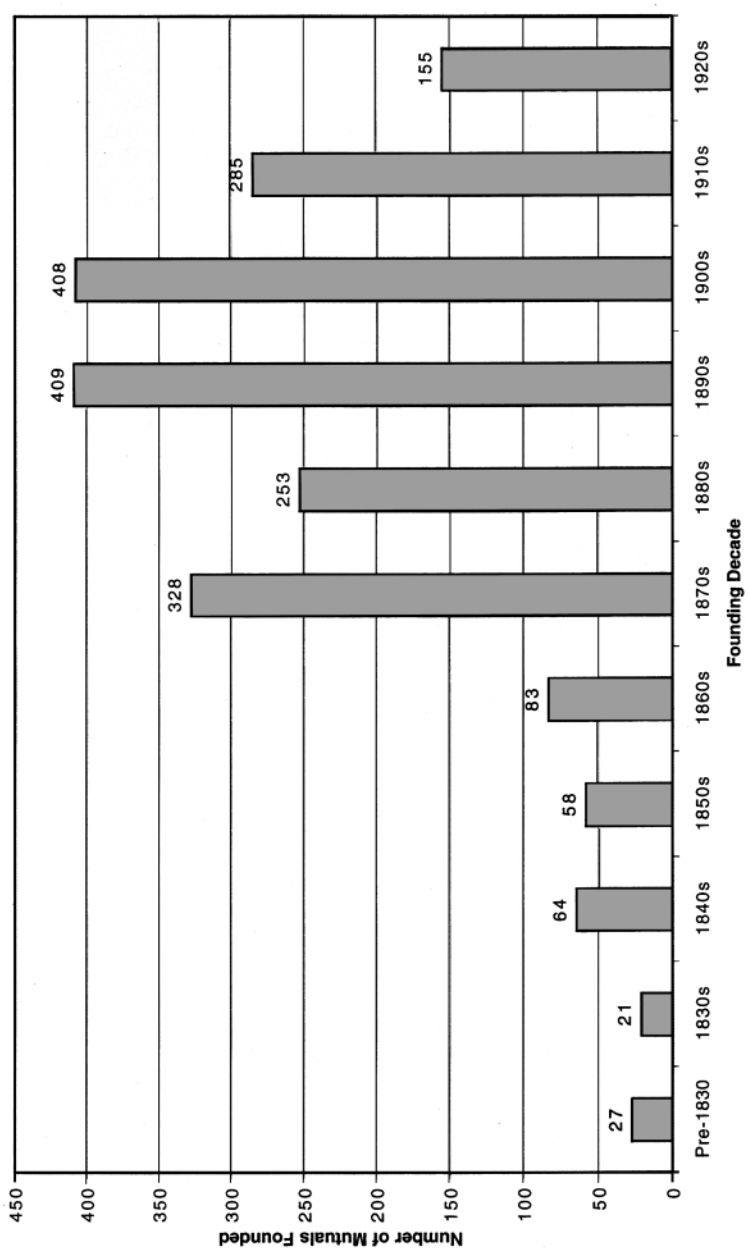

Fig. 2. Founding Dates of Class Mutuals in Operation in 1903–1929.

Table 1. Distribution of Class Mutuals by Type.

Specialized by Occupation, Sector or Trade (44% of total)

- Farm (82% of group)
- Non-Farm (18%)
  - ◊ Merchants (23% of non-farm)
  - ◊ Retailers, grocers, hardware and druggists (18%)
  - ◊ Lumber (8%)

Specialized by Region or Locale, Excluding "National" (56% of total)

- City, Town and Country (54% of the group)
- County (29%)
- State or region in a state (15%)
- Multi-state region (3%)

Ethnic/National Affiliation (6.2% of total)

- German (74% of group)
- Scandanavian (18%)
- Other (11%)

Political Affiliation/"Cooperative" (5%/8% of total)

- Patrons or Grange (76% of first group)
- Farmers Alliance (4.4%)
- Farmers Union (19.6%)

These differences notwithstanding, both variants of the mutual form flourished in fire insurance. Based on their ties to insureds and distinct operating principles, mutuals could supply insurance at 25% to 75% below stock company prices (Bissell, 1904, pp. 122–123; *Merrit Report*, 1911, pp. 112–114; Bainbridge, 1952, pp. 102–103). By 1900, mutuals in the Midwest captured some or nearly all of the grain and flour mill business, the traction and power industries, the lumber trade, and the hardware and drug retail sectors (*Western Underwriter* April 23, 1903, p. 12; February 15, 1904, p. 13; August 25, 1904, p. 9; February 15, 1906, p. 21; Bainbridge, 1952, pp. 222–244). Farm, town and county mutuals also wrote large volumes of business not just in Illinois, Iowa, and Wisconsin, but also in upstate New York and rural Pennsylvania, holding 40% of the nation's farm business by 1921 (*Western Underwriter* February 21, 1901, p. 12; November 24, 1904, p. 13; Merrit Report 1911, p. 118; Heflebower 1980, p. 167). And for their part, factory mutuals captured commercial lines in the industrial belt, serving a roster of notables, including Deering and McCormick, Allis Chalmers, Western Electric, Armor and

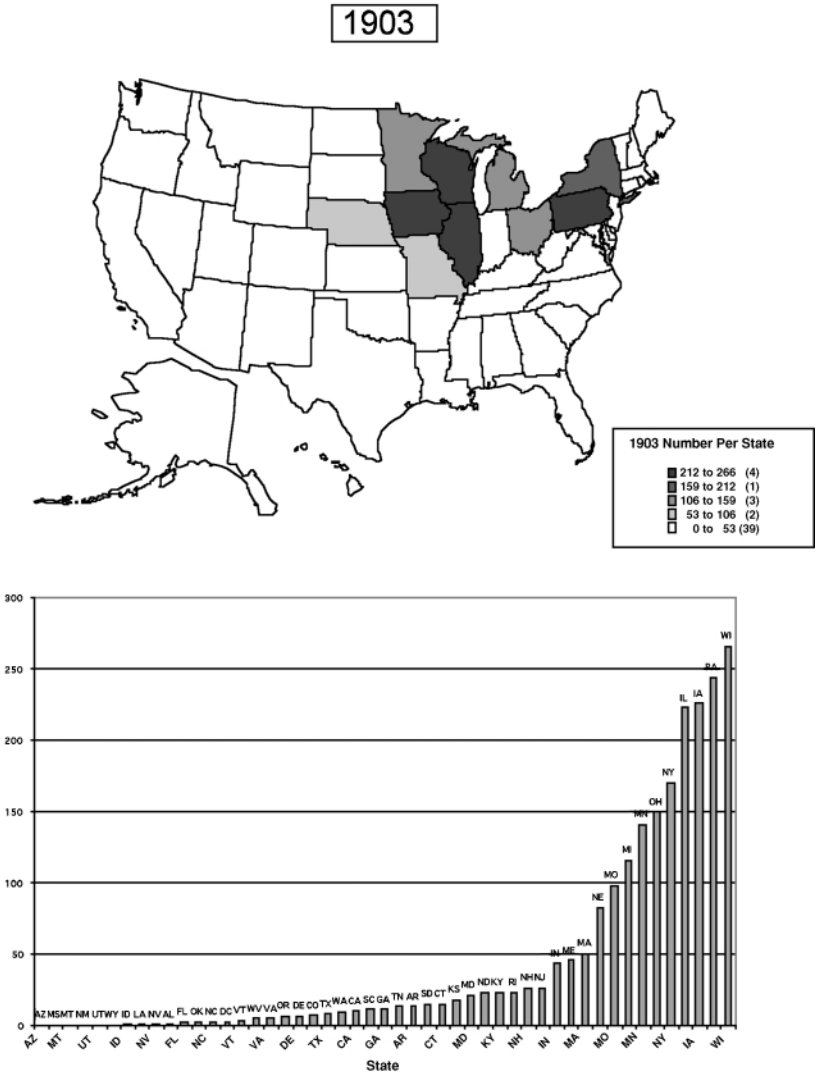

Fig. 3. Geography of Number of Mutuals.

American Radiator (*Western Underwriter* May 23, 1901, p. 8; March 17, 1902, p. 9; May 7, 1903, p. 9). During the first 20 years of the twentieth century, 11% of the nation's fire insurance business was written by mutuals, excluding farm, town and county mutuals (Heflebower, 1980, p. 167). With those firms

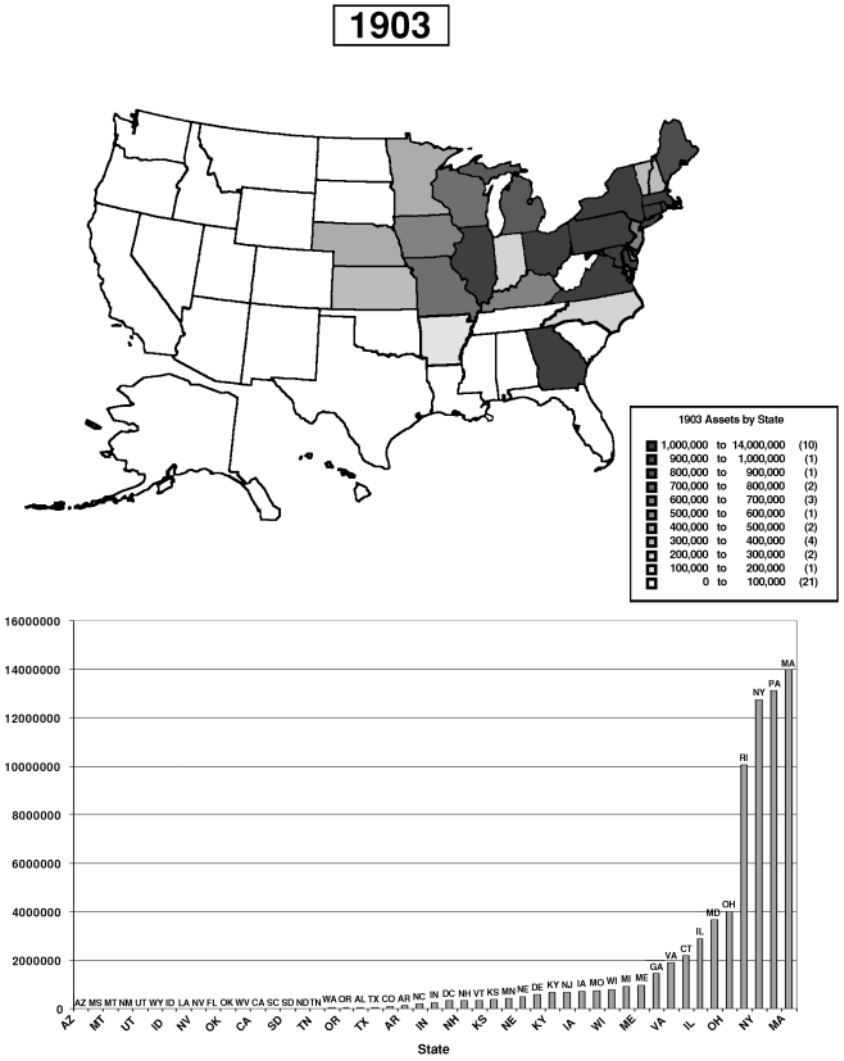

Fig. 4. Geography of Mutual Assets.

included, mutuals' market share increased, reaching 35% of the insurance in force in 1911 in Wisconsin (Wisconsin 1913, p. 22).

Mutuals also transformed the dynamics of competition in insurance markets, shifting the sector from a competitive game based on price warfare toward a new form of rivalry in which firms vied with one another on the basis of improving risks, reducing hazards, and preventing fires (Atkinson, 1901; Bissell, 1904, pp. 127–128; Brearly, 1916, pp. 78–79; Bainbridge, 1952; Heimer, 1985; Hansmann, 1995). Mutuals relentlessly reduced rates by reducing losses and loss costs, and produced a steady stream of improvements and innovations, including the automatic sprinkler, the elimination of Mansard roofs, the redesign of building support posts, and a revolution in factory layout. In so doing, mutuals introduced a new principle of competition into insurance markets, eventually forcing stock companies to reorganize themselves and follow suit. "To mutuals belongs most of the credit," one observer noted in 1910, for

> what is being done to-day toward the prevention of fire. The stock companies are now thoroughly committed to this work themselves, but they have been largely driven into to it by the competition and example of the . . . mutuals (*Merrit Report*, 1911, p. 111).

Qualitatively and quantitatively, mutuals represented a viable and successful alternative to the joint stock corporate hierarchy in American fire insurance.

II. EXPLAINING MUTUAL FORMS: THE ECONOMICS OF ORGANIZATION

These successes rested partly on the economics of organization, that is, on the relative costs, monitoring capacities, and incentive properties of hierarchies and cooperatives (Alchian & Demsetz, 1972; Williamson, 1986; Rothburd, 1986; Weisbrod, 1977; Elster, 1989; Putterman, 1993; Hansmann, 1995). Ironically, the simplest economic argument about the viability of cooperatives emphasizes the costs of mutuals and was routinely made by stock firms. By spreading residual claims among many individuals, mutuals diffuse responsibility, and eliminate incentives for improvement, monitoring insureds, and developing financial expertise. Further, as voluntary compacts, mutuals create incentives for free riding, incentives which are particularly strong when the claims or assets involved are substantial, and in assessment plans, where members can collect on a loss and then renege on agreements when an assessment is due. As such, mutuals will suffer from incompetence, internal conflicts and high mortality. At best, mutuals will be viable when they are small enough for easy monitoring and involve relatively small claims and assets. But their survival

rates will fall as they grow since increasing size magnifies incentives for defection while making enforcing compacts increasingly costly.

More sophisticated arguments emphasize a *tradeoff* between the incentive and collective action costs of mutuals, and the efficiencies mutuals can yield by eliminating moral hazards that result from separating the roles of owner and consumer (Hansmann, 1985, 1995; Heimer, 1985; Weisbrod, 1977). Here, too, enforcement problems would generate relatively high failure rates, small firms, homogenous membership, and a positive relation between size and mortality. But subject to those constraints, we would expect some mutuals to emerge where consumers are particularly vulnerable to morally hazardous behavior by companies and their stock-owners, that is, under conditions like information asymmetry, small numbers exchange, or longer term contracts in which companies hold resources in trust for consumers.

Economics of Mutual Organization in Fire Insurance

This more sophisticated view affords substantial leverage in explaining the emergence of mutuals in fire insurance (Grant, 1979; Heimer, 1985; Hansmann, 1995; Schneiberg, 1999). In the market, stock companies economized on their insurance operations at policyholders' expense. Consumers needed steady supplies of fire insurance – it was a condition for credit – and paid premiums expecting that firms would accumulate reserves to pay claims. Yet, stockowners made money not from companies' insurance operations, but from investing premiums in real estate and securities. Facing limited liability and prospects of sizable returns, companies had incentives to make risky investments and to compete for premiums almost without limit in order to secure income for investments. Firms often sought premiums by relaxing underwriting standards and cutting rates. Such strategies cannibalized company reserves, but consumers had neither the expertise nor information to assess firms' financial status. Thus, when major fires occurred, firms lacked resources to pay claims. They limited payouts, using restrictive claims practices, partial payments and other legal measures. And they failed in droves, leaving insureds without coverage, and creating severe shortages of a critical commodity.

In addition, stock companies solved market failures via data-pooling and rate-making cartels. Cartels stabilized prices, reducing incentives for owners to generate banking profits at the expense of reserves. But with market control came new opportunities and capacities for stock companies and their agents to benefit themselves at insureds' expense. Cartels exposed consumers to two new forms of company opportunism. First, agents used price controls to increase

their commission rates, which insurers passed on to consumers. Second, granting firms the ability or authority to control prices created incentives for those firms to exploit their market power to subject insureds to regular, across the board rate advances or "adjustments."

Moreover, whether in markets or cartels, stock companies proved persistently indifferent to loss prevention during the nineteenth century. On their own, stock companies had little or no incentive to invest in inspections, research, and fire prevention (Heimer, 1985; Hansmann, 1985, 1995). Fire prevention was very much a public good, particularly when conducted on a community level. In addition, when prevention involved a particular property, warehouse or plant, most or all of the benefit of investments in inspection and improvement fell to consumers in the form of lower losses. Such investments were transaction- or consumer-specific, leaving stock companies vulnerable to losing their investment as consumers could exit the relation after properties have been improved to search for lower rates from other companies.

These are the precisely the dynamics that an economic analysis of organization would expect to produce significant numbers of mutuals. Standing between markets, corporations and combinations, consumers used mutuals to solve the problems they faced in their dealings with stock companies and their cartels. Integrating backwards, consumers eliminated the insurance middleman, ending their vulnerability to opportunistic agents and lowering distribution costs. And in unifying owners and consumers, mutuals eliminated incentives for owners to benefit themselves at customers' expense, either by raising prices, under-investing in prevention, or sacrificing reserves for financial profits. In fact, consumers routinely flocked to mutuals when shortages and restrictive claims practices occurred after conflagrations, or when existing boards sought to raise or "adjust" rates (*Western Underwriter*, May 22, 1902, pp. 9–10; September 10, 1903, p. 11; Bissell, 1904, pp. 128–129; Oviatt, 1905: 82–83; Brearely, 1916, pp. 8–10; Grant, 1979, pp. 96–99).

Furthermore, mutuals were clearly subject to the costs and the collective action problems stressed by economic analyses. Assessments, reneging, and internal conflict were central issues for mutuals. Moreover, as economic analyses expect, many mutuals were small, local operators, and most restricted their operation to single class of homogenous risks. Small size and local character were vital both for monitoring and maintaining members' commitments to pay and for avoiding assessments by prompting diligence among members to prevent losses.

> [A] man would naturally prefer not to make his neighbors pay his loss, and particularly pass upon it, when he could as easily work a corporation, which would send a stranger to make the adjustment. A farmer's character is usually well known to his neighbors, and if

> not of the best, he would be more inclined to excite suspicion if they had to pay his loss (*Ohio Underwriter*, January 19, 1899, p. 5).

"The policyholders, in a sense, constitute a family," wrote another commentator, "They are bound together by neighborly ties, and this almost eradicates the moral hazard" (*Western Underwriter*, December 28, 1899, p. 8). Here, too, the economics of organization figure centrally.

Two Limits of an Economic Approach

An economic analysis of organizations provides critical insight into the emergence of fire insurance mutuals. Yet this approach faces two difficulties. First, contrary to expectations, the survival rates of mutuals were remarkably high – *1541 or over 70%* of the mutuals operating at the turn of the century survived at least until 1929. The average founding date of the survivors was 1878, implying an average age in 1929 of 50 years for that group. These are hardly fleeting operations. Likewise confounding core expectations about survival are the results of an analysis of whether mutuals alive in 1903 survived to 1929. (See Table 2). For economic theories of organization, increasing the size of mutuals would decrease their odds of survival, as monitoring costs and incentives to cheat increase. Yet by itself, the size of a mutual, measured by cash assets in 1903, had no effect on the odds of its surviving until 1929 (model 1).[5] In fact, adding a squared term to detect non-linear effects shows that increasing size increases the odds of survival, although at a decreasing rate, even when controlling for age and density (models 2–4).[6]

These findings indicate that economic analysis alone is insufficient. *At a minimum, the striking viability of mutuals suggests that, in some places, external supports were present that tempered tradeoffs, reduced the costs of organizing and enforcing mutual plans, or made consumers much more willing to pay or discount the costs of collective self-organization.* Other considerations likewise suggest the effects of broader political and institutional supports for mutual organization. These include the social distribution of mutuals, the parallel between the geography of organizational form and political conflicts over corporate consolidation, the positive effects of the number of mutuals per state on survival, and the association of class mutuals with anti-corporate protest movements like the Grange. At the very least, the anomalous data about the internal tradeoffs insurance mutuals experienced provides us with the first warrant for looking outward, at whether or not mutuals rested on political struggles against the corporation, social movements, cultural carriers, and

Table 2. Logistic Regression Models of the Effects of Assets, Age and Density on the Odds of Survival to 1929.

	Model 1	Model 2	Model 3	Model 4
Constant	0.8465***	0.7941***	0.1485***	–0.02313
Variables				
Assets in 1903	5.24e–8	2.77e–6***	1.64e–6*	1.61e–6**
Assets^2		–5.27e–13**	–1.68e–13**	–1.75e–13**
Age in 1903			0.06402***	0.05779***
Age^2			–0.0006584***	–0.000558***
Density in 1903				0.01346***
Density^2				–0.000033**
N observations	1785	1785	1015	1015
–2 log likelihood	2179.8	2161.0	884.13	856.7

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

other institutional supports for launching collective alternatives to market and hierarchies.

The second warrant for looking outward comes from the observation that mutuals were subject not just to internal tradeoffs: Competition *within* insurance markets translated into political conflicts over organizational form and the constitution of those markets, multiplying the costs of organizing mutuals. Joint stock corporations dominated the fire insurance industry. Yet mutuals were a competitive threat, so stock insurers tried to drive them from the industry.

Stock firms waged continuous propaganda campaigns, using pamphlets and the press to publicize assessments and failures, while spreading rumors to provoke consumer anxiety about mutuals. One 1906 report detailed the "expensive wind-up" of an Ohio mutual, describing its inability to pay $1400 in losses, the resulting assessments, and the ensuing internal conflicts.

> [A]fter almost six years of desperate defense on part of the policyholders, fighting jointly and severally, the solvent policyholders footed the bill . . . This association in its palmy days did considerable business under the specious claim of furnishing "cheap insurance" or "at cost." [B]ut the court records show the costs of receivership to have been several times the actual loss assessments and further show that a policyholder fighting off assessments, in part fights himself, has doubly to pay the fiddler and can't quit while the engagement is on (*Western Underwriter*, March 8, 1906).

Nor were commentaries confined to the trade papers. After a "deep gash" from mutual competition, stock insurers inaugurated a "vigorous campaign against mutual companies [and the] market [was] flooded with anti-mutual literature"

(*Western Underwriter*, February 7, 1907, p. 5). According to a pamphlet distributed at a 1909 address to Chicago business men,

> When he takes a policy he does not know what his insurance will cost him. If losses are light he has easy sailing, but they are not always light and then trouble comes. His fellow members may be unable to meet their assessment and then he and other solvent members must make up the deficit. . . If he sustains a loss himself he may be required to wait until an assessment has been collected . . . and it may happen that not enough can be collected to pay his losses in full. He cannot even retire from the company by the cancellation of his policy until every pending loss has been paid (Johnson, 1909, p. 19).

"Our opponents and competitors are waging a bitter war against us," the president of one mutual observed in 1901, "and declare that they will see to it that we do not make the progress in Washington that we did with the Oregon Fire Relief Association" (Bertholf, 1951, p. 32, also pp. 27–29; *Merrit Hearings*, 1909–1910, pp. 3201–3202; Bainbridge, 1952, p. 173; Bissell, 1904, pp. 122–124).

Stock insurers also excluded mutuals from the sector's governance machinery, rate bureaus and actuarial boards (*Merrit Hearings*, pp. 1909–1910, 1215–1220, 2624–2629, 3293–3294; Lockwood, 1922, pp. 212–227). Boards limited membership to stock insurers, admitted mutuals only if they charged board rates and suspended policy dividends, and banned agents from reinsuring risks with mutuals. Such strategies denied mutuals access to accumulated loss data, inspection services and other collective goods that are critical inputs for the insurance function

> Rate-making upon the endless items of property that enter into the insurance business is exceedingly difficult and expensive. It requires a large organization and expert knowledge and experience. No single company . . . can afford to make rates for itself alone [so] companies combine in . . . rate-making bodies. Refusal of access to the rates virtually means exclusion of the Company from competition (*Lockwood Report*, 1922, p. 224).[7]

Finally, stock firms tried to regulate mutuals out of existence. These efforts included laws that banned mutuals from other states, prohibited mutuals from extending operations to an entire county, and limited the size of risks that a mutual could cover. They also included laws that banned mutuals from soliciting risks while in formation, and required regulatory approval for dividend payments (*Western Underwriter*, March 5, 1903, p. 5; February 18, 1904, p. 7; February 9, 1905, p. 12; March 30, 1905, p. 13; Lockwood, 1922, pp. 204–207, 230–233). Some measures were vital for mutuals' solvency. Others were clearly discriminatory. As one investigator asked:

> Why should a Mutual Company that has assets ten time greater than a Stock Company in the proportion of its liabilities . . . be prevented from writing the same . . . policies that a Stock Company is permitted to write?; or why should the proportion of profits it may see

> fit to redistribute to its *policyholders* be subject to the approval of the Superintendent of Insurance so long as there is no question of the impairment of its solvency, whilst the dividend of a Stock Company, which it pays to *stockholders*, are not subject to any such supervision? (*Lockwood Report*, 1922, pp. 232–233; emphases added).

Mutuals thus faced a profoundly hostile environment – one where competition in the market was closely and potentially fatally linked to political struggles over the constitution of the market and the range of acceptable organizing forms. In this context – where economics and politics are inextricably bound – the need for hypotheses that embed the economics of mutuals in a broader socio-industrial order is acute. As institutionalists point out, forms are not chosen or forged in a social vacuum, but have to be argued over, imported or invented, and fought for.

III. EXPLAINING MUTUAL ORGANIZATIONAL FORMS: POLITICS, INSTITUTIONS, INDUSTRIAL ORDER

While market and hierarchy failures matter, actors' capacities to pursue mutual solutions and manage their internal tradeoffs hinged on politics, institutions and a supportive socio-industrial order. Mutuals emerged from political struggles against corporate consolidation and the concentration of economic power. During the latter nineteenth century, concentration increased markedly in the U.S., as financial and state institutions channeled development toward the north-eastern metropoles, and as firms pursued corporate combination, first in infrastructure sectors and then in heavy industry (Chandler, 1977; Lamoreaux, 1985; Fligstein, 1990; Roy, 1997). Concentration devastated the economies of the Midwest and South. It squeezed farmers, manufacturers and merchants between combinations on all sides. It deprived regions of credit, access to markets and opportunities for development. Moreover, it sparked protests, social movements, and populist revolt, fueling theorizing, debate and political conflict over the constitution of American economic order. In fact, protests and populist revolts generated sustained innovation – in the states, and at the national level, in railroads, in the processing and trade of cotton, grain and dairy, in oil, and in insurance – ranging from anti-trust laws, rate regulation and changes in corporate law to new theories of markets and new organizational forms (Buck, 1913; Goodwyn, 1978; Grant, 1979; Berk, 1994; Dobbin, 1994; Sanders, 1999).

Like anti-trust law, populist regulation, and calls for cooperative or public ownership, fire insurance mutuals were part of a broader movement, based largely in the Midwest and South, to reverse the regional concentration of economic power, capture some benefits of industrialization, and contain the

predatory behavior of corporate combinations. Yet, mutuals were more than just redistributive mechanisms or safeguards against rent-seeking combinations. They were also an effort by farm and business groups to institute a model of order, one that rejected dependency and the "corporate liberal" ideal of national markets and autonomous corporations in favor of a producerist or regional republican vision of a regionally based, cooperatively organized economy of farmers, small manufacturers and independent producers (Hattam, 1992; Berk, 1994; Voss, 1996). Emphasizing local development and economic self-sufficiency, such a project almost inevitably came to insurance, since banks and other lenders typically required fire insurance on collateral before extending mortgages or commercial credit (Mowbray 1946). *In a credit dependent economy, adequate supplies of reasonably priced insurance were essential for production, commerce and trade*. In this context, fire insurance mutuals were both an expression of cooperative vision, and a strategy by which groups in the Midwest and South tried to secure for themselves a critical condition for economic development. And in the end, their ability to pursue this strategy hinged on a supportive industrial order.

The concept of industrial order is a way of thinking about macro-embeddedness (Dacin, Ventresca & Beal, 1999) and refers to the "background architectures" of institutions, social structures and political arrangements that make particular organizations or governance arrangements possible (Herrigel, 1994, p. 99; also Berk, 1994). As Herrigel points out, industrial orders are analogous to constitutions insofar as they constitute actors and identities, embody general principles about the nature and boundaries of industrial community, and define ground rules for acceptable practice. Here, I highlight two additional features of an American industrial order. First, it is a federated order whose architectures and basic principles vary significantly across regions and states. This is important as insurance was, and remains, regulated by the states. Second, industrial orders vary in the extent to which they support organizational diversity and cooperative alternatives to hierarchies. Four characteristics of industrial order figure centrally in this regard:

(a) a balance of power where anti-corporate forces possess sufficient political resources to contest corporate dominance and protect organizational alternatives;
(b) institutional actors or social movements that can articulate and defend theories of economic order, conceptions of control or systems of "moral sentiments" that call for, authorize or legitimate alternative organizational forms (Jepperson & Meyer, 1991; Meyer et al., 1997; Haveman & Rao, 1997);

(c) a supporting ecology of already existing associations that could serve as a platform for theorizing and launching alternative forms (Edelman, 1990); and,
(d) cultural carriers who can import or transpose specific organizing templates into the conflicts over corporate consolidation (Fligstein, 1990).

The role of a supportive infrastructure or industrial order in the production of cooperative alternatives to hierarchies cannot be overestimated (Rothburd, 1986).

Anti-Corporate Politics, Anti-Corporate Victories

Generally speaking, the balance of power within an institutional field can decisively shape the possibilities for alternative organizational forms. In the fire insurance case, these possibilities rested on successful political struggles against corporate combination and the centralization of economic power.

Combination, whether by cartel or merger, fueled three responses: anti-trust laws, state regulation that displaced private with public decision making, and the creation of local firms (Keller, 1981; McCraw, 1984; Sklar, 1988; Fligstein, 1990; Dobbin, 1994; Sanders, 1999; Schneiberg, 1999; Schneiberg & Bartley, 2001). Anti-trust laws and regulation were direct political assaults on combinations, and used the state against concentrated private power. The third response involved counter-organization in the market, and sought to subvert concentrated power by creating alternatives to for-profit firms. States could create public corporations, as in workers' compensation (Pavalko, 1989; Fishback & Kantor, 1998). Or producers and consumers could pursue a private, self-organizing path, rejecting states and corporations and managing market dependence by creating their own alternatives. In the U.S., private strategies of collective self-supply were a common response to the high prices, discriminatory practices and arbitrary policies of trusts and middlemen, and appeared in a range of sectors, such as cotton, dairy, farm implements, banking and insurance (Buck, 1913; Goodwyn, 1978; Grant, 1979; Sanders, 1999).

To the extent that fire insurance mutuals emerged as part of broader struggles against corporate combinations, I expect them to proliferate in states where consumers, farmers, and manufacturers could achieve political victories against corporations and combinations. Such victories reflect a specific balance of power in a state between corporate interests, on the one hand, and challengers, protest groups and champions of alternatives, on the other. At a minimum, such victories signal the presence of powerful anti-corporate forces, replete with critiques of the corporate order, and theories of other types

of organization. They also signal that anti-corporate forces have the capacity to form coalitions and act on these visions. In effect, these victories indicate that challengers possess the political resources to create legitimacy crises, that is, to subject corporate combinations to public scrutiny, debate and bans against specific practices (Aldrich & Fiol, 1994; Suchman, 1995; Scott et al., 2000; Styker, 2000). Further, laws that break-up combinations or ban certain practices indicate that challengers have the capacities to defend anti-corporate measures and alternative organizational forms against political counter-attacks by corporate forces. In fact, anti-corporate victories can reflect and create supportive environments for alternatives, leaving important legacies, including an institutionalized hostility toward combinations, theories of markets, cooperative traditions, regulatory agencies, and other platforms for nurturing new forms. Thus, states where anti-corporate forces could secure political victories should be hospitable settings for mutual insurers.

To the extent that anti-corporate victories reflect an overall balance of political power within a state or leave enduring legacies, mutuals would be associated with such victories in both fire insurance and other industries. Within insurance, stock companies and their combinations faced three forms of hostile state legislation from 1885 through 1910 – anti-compact, valued policy and anti-coinsurance laws (Merritt Report, 1911; Grant, 1979; Heimer, 1985; Schneiberg, 1999). Each of these laws was vigorously opposed by stock companies, and represented a clear political victory by consumers, reformers and populists against corporate interests. Anti-compact laws attacked stock companies' methods of market organization, banning cartels and cooperative rate-making. Valued policy and anti-coinsurance laws targeted insurers' claims settlement and contracting policies, and regulated stock company efforts to limit payments on losses.[8] All three laws touched precisely the same nerves that drove consumer groups to mutuals – exorbitant or discriminatory prices, and arbitrary contracting practices – so I would expect the proliferation of mutuals to be positively associated with the passage of each law.

Outside insurance, it was the railroad industry that was most likely to generate outcomes that affect other sectors. No other sector figured more centrally in the political struggles over the development of the American corporate order in the nineteenth and early twentieth centuries (Berk, 1994; Dobbin, 1994; Dunlavy, 1994). Moreover, struggles over the railroads produced the Granger laws of the 1870s. These laws created strong, as opposed to merely advisory, regulatory commissions, subjecting the railroads to public controls on rates and company practices. While scholars debate whose interests were served by railroad regulation in general, they nonetheless agree that the Granger laws represented an important victory of populist, anti-corporate interests (McCraw,

1975; Kanazawa & Noll, 1994). As such, Granger laws signal the presence of anti-corporate interests in a state with the capacities to contest corporate order via political means. Furthermore, the Granger laws left important legacies, shaping industrial order within the states and the development of national regulation. Those who struggled against combinations in insurance and other industries drew analogies among infrastructure sectors, using railroad regulation as a model for their own efforts (Grant, 1979). I thus expect Grange states to be particularly fertile soil for the production of fire insurance mutuals.

Social Movements and Agrarian Protest SMOs

The dependence of mutuals on political victories against corporate combination suggests that social movements play a pivotal role in producing alternative organizing forms. Two late nineteenth century movement organizations figured centrally in the U.S., both in contesting economic centralization and in promoting cooperative alternatives to markets and corporations – the Patrons of Husbandry or Grange and the Farmers' Alliance (Buck, 1913; Bainbridge, 1954; Kimball, 1961; Goodwyn, 1978; Grant, 1979; Sanders, 1999).[9] Peaking, respectively, in the 1870s and 1890s, the Grange and Alliance represented the two principal waves of agrarian protest in the U.S., and were followed by the less influential Farmers Union in the early 1900s, and the influential, but hardly radical American Farm Bureau in the 1920s. All of these movements reflected and transformed American industrial order.

Neo-institutionalists have likewise begun to emphasize the role of movements in producing new organizational forms (Davis & Thompson, 1994; Fligstein, 1996; Voss, 1996; Lounsbury et al., 1999; Rao et al., 2000; Moore & Hala, 2002). Movements and developed SMOs may be critical for organizational heterogeneity and alternative organizations, and can function as an incubator or platform for launching new forms in a variety of ways. First, they can help create networks and political resources for contesting corporate dominance, overcoming resistance to new forms, and securing enabling legislation. Second, SMOs can promote general critiques of the emerging corporate order, and alternative visions of economic order – frames (Snow & Benford, 1986; Rao, 1998), industrial cultures (Dobbin, 1994) or conceptions of control (Fligstein, 1990) like producer republicanism – that call for, legitimate, and authorize new organizational forms. Third, like professional associations, they can develop and diffuse specific organizational templates, providing technical support, legitimacy and credibility, as well as venues or protected social spaces for discussing, theorizing or transposing organizational practices outside established channels

(DiMaggio & Powell, 1983; Edelman, 1992). Finally, movements can directly reduce the collective action costs of organizing alternative forms by creating selective incentives, monitoring agreements, or providing other resources for enforcement. For cooperative alternatives to markets and hierarchies, the ability to piggy-back on an organizing infrastructure or an existing ecology of movement organizations and private associations to manage internal tradeoffs could prove decisive.

Both the Grange and the Farmers Alliance played critical roles in these respects, serving as important political supports for new organizational forms (Clemens, 1997; also Buck, 1913; Bainbridge, 1954; Knapp, 1969; Goodwyn, 1978; Sanders, 1999). At its 1875 peak, the Grange could count over 450,000 *families* as members, with over three quarters of those members hailing from the Midwest and South. The Farmers' Alliance peaked at over twice that amount, embracing 1,053,000 families in 1890 (Tonz, 1964, p. 147). Both articulated theories of economic order that rejected corporate liberalism, and highlighted the devastating effects of economic centralization. That is, both movements used anti-monopoly frames to cast the *problems* facing the economies of the Midwest and South as a product of corporate combination, the economic power of the railroads and "middlemen," and the stranglehold placed on independent producers by financiers, furnishing men, and "eastern interests." At the same time, both groups framed the *solutions* in terms of two strategies: (1) a program of autonomous regional development based on a "cooperative commonwealth" of farmers and producers organized in purchasing groups, processing coops, joint ventures, and state exchanges, and (2) a program of state and national political struggles against monopolies and middlemen to secure the institutional and regulatory conditions for that cooperative order.

Furthermore, both the Grange and the Alliance promoted cooperatives and mutuals as specific organizational forms, providing the farm and business citizens of these imagined commonwealths with detailed templates, by laws and operating plans.[10] And both helped create a supportive ecology of organizations or infrastructure, directly, by forming state and local chapters, and indirectly, by promoting cooperative traditions and organization in other sectors. The Patrons alone organized nearly 22,000 local Granges (Buck, 1913, pp. 58–59), and the locals of both SMOs often survived their parent movements' defeats, leaving behind remnants and resources for subsequent organization (Clemens, 1997, p. 147).[11]

The Grange was particularly active in combining anti-monopoly politics and economic self-organization, placing great emphasis on cooperative stores, co-operative manufacturing, joint processing of farm produce – and fire insurance

mutuals (Buck, 1913, pp. 270–275). The Grange had a direct impact on mutual development, according to leading historian of insurance.

> Profit-seeking insurance companies were often linked with railroads in Granger demonology; it was explicit Granger policy to encourage the formation of cooperative mutuals. In [various] states, these companies were often organized under the aegis of the Grange . . . Granger bulletins published town mutual laws and advocated organization: "Patrons, you cannot afford to pay these high premiums to joint stock companies. Insure yourselves and keep some money at home. Commercial companies wasted seven tenths of the premiums: This immense sum is an annual gift from the hard working people to a set of sharpers who ridicule us for our stupidity while reveling in luxury on our hard earnings" (Kimball, 1961, p. 45).

Nor were these calls for self-organization unheeded, as indicated by a Wisconsin newspaper.

> Enough is being paid to [stock] fire insurance companies by the village of Waukesha . . . every year to cover the average annual losses of the village by fire, four or five times over, whereas it ought not to pay out more than twice as much as it receives, at most, in order to cover all the margins of expenses . . . Waukesha would be richer by eight or ten thousands dollars a year [with a mutual]. With such a saving of outgoes, the village could afford to be more liberal to its fire department (cited in Grant, 1979, p. 97).

And while insurance mutuals figured less centrally in its program (but see Goodwyn, 1978, pp. 103–105), the Farmers' Alliance was no less committed to an anti-monopoly frame, self-sufficient development, and a cooperative commonwealth, and was a prodigious generator of cooperatives. I thus expect a strong association between mutuals and the strength of anti-corporate agrarian movements, notably the Grange, Alliance and perhaps the Farmer's Union, but no such association with the influential, but neither radical nor producerist Farm Bureau.

Blocked Political Access; Mutuals as a Third Way Between Market and State

Viewing mutuals as a "third way" raises the possibility, stressed by the literature on non-profits (Powell, 1987; Wiesbrod, 1988; Clemens & Powell, 1998), that mutuals emerged in a context of anti-corporate activity as an *alternative* to the state and the use of public power against corporate consolidation. Mutuals may have been a *private* strategy of collective self-organization that anti-corporate forces pursued *instead* of anti-trust policies, regulation or public corporations. Such a strategy could arise from a principled rejection of corporations and states, a distrust of politics, or from cases where unsympathetic courts or

corporate control of legislators blocked efforts by challengers to use state power to contain corporate concentration. For example, Hattam (1989) finds that the AFL abandoned politics for business unionism and private market controls after its early political victories had been overturned by the pro-corporate courts (see Orloff & Skocpol, 1984 and Weisbrod, 1988 for "state failure" arguments). Similar strategies and circumstances might have characterized fire insurance: Rejecting politics, fearing corruption by corporations, or denied access to the state, consumers, farmers and other groups might have turned instead to mutuals or private self-organization to contest concentrated private power. Here, I would expect stronger positive effects of agrarian protest movements on mutual organization in the absence of anti-corporate legislation.

Two pieces of historical evidence lend plausibility to this notion. First, class mutuals proliferated in large numbers both in upstate New York and in rural Pennsylvania – two states that probably best exemplified blocked political access. Both states were sites of large numbers of Granges. And with Connecticut, both states housed the nation's major stock insurers. New York was the "home of the insurance combine;" and neither state passed any of the anti-corporate measures noted above, despite efforts to do so (Merrit Report, 1911; Grant, 1979). In fact, upstate New Yorkers' experiences with corruption in railroad regulation led them to distrust the state and oppose commission regulation in insurance. As one merchant wrote in 1905,

> I do not cherish government by commission. The Board of Railroad Commissioners for more than twenty years has been an outstanding example of the ineffectiveness of such bodies to curb practices that they were empowered to correct (quoted in Grant, 1979, p. 92).

Second, agrarian movements were ambivalent toward politics, at least at certain points in their histories. For Sanders (1999, p. 107), the Grange "declared itself a "non-political" organization and discouraged partisan pronouncements, but it encouraged members to be politically active as individuals." Indeed, the Grange "oscillated between fraternalism and political organization," sparked, in part, by the political defeats of populist parties and an internal shift of control to the northeast, which led the National Grange to resist local efforts to join insurgent politics (Clemens, 1997, pp. 148–143). Here, too, anti-corporate forces might devote their resources to private self-organization as an alternative to politics or state intervention.

In this scenario, strong anti-corporate SMOs would be most likely to foster mutuals in states where anti-corporate political victories did not occur. It is the *combination* of strong movements and an absence of policies that use the state against corporations that form the most fertile soil for mutuals.

Cultural Carriers, Immigrants and Other Institutional Conditions for New Forms

Analyzing SMOs and the political configuration of forces can provide insights into the industrial orders that support alternative organizational forms. Yet questions remain about where and how those forms originated. Were the mutual templates created *de novo* in the struggles over the corporation? Or were they transposed into the fray from another field as a part of newcomers' cultural repertoires of organizing forms? Were other institutional conditions for self-organization important for using mutuals as weapons against corporate combinations? In general, the presence or inflow of cultural carriers may powerfully shape the extent to which industrial orders support diversity or innovation.

Prior research and the analysis of company names suggest that the proliferation of mutuals depended on cultural carriers – previously marginal immigrant groups who imported the mutual template from their home countries into political battles here over economic order. Neo-institutionalist have found that change and the rise of new organizational forms often begins with champions of alternatives operating at the peripheries of established fields, where social control is generally weak and actors are exposed to multiple models (e.g. Clemens, 1993; Schneiberg & Clemens, 2001; Morrill, 2001). There is also historical evidence that American advocates of cooperatives looked to the Rochdale experiments in England, and that immigrant groups to the Midwest, notably Germans, Swedes and other Scandinavians, brought with them experiences with mutuals and cooperatives in their home countries (Ford, 1913, pp. 34–35; Steen, 1923, p. 3; Knapp, 1969, pp. 30–31; Grant, 1979, pp. 97–98). An early industrializer, England was a uniquely important source of models. Producer cooperatives appeared there in the late eighteenth century and reached important milestones in the 1820s, under the Owenites, and in 1830s and 1840s, as the Rochdale Friendly Cooperative Society and the Equitable Pioneers elaborated working models that rapidly diffused across the continent (Furlough & Strickwerda, 1999; Woeste, 2000). Scandinavians also embraced cooperatives, including the Swedes, who first experimented with Rochdale principles in 1850s, formed workers' societies and a cooperative movement during the 1860s, and developed this "middle way" to new heights after Social Democrats incorporated cooperatives into their program in the 1890s (Childs, 1923; Alex, 1999).[12] As did Germany, which also looked to Rochdale, and is considered the home of cooperative banking, a movement which began in the 1840s (Fay, 1908, pp. 19–36; Gide, 1922, pp. 53–54; Cassau, 1925, pp. 1–14).

In short, immigration to the U.S. from England, Germany and Sweden may have been a key mechanism for carrying the mutual template into the fray as

an organizational weapon in the struggles against corporate combination. I thus expect a positive association between immigration from those countries and the proliferation of insurance mutuals.

Researchers have also identified churches as platforms for launching social movements, and some have suggested that Protestant churches and religions promote varying capacities for self-organization (Morris, 1981, 1993). In fact, there is evidence that the Farmers' Alliance both used churches as vehicles for spreading the cooperative word and modeled their system of traveling lecturers after the Methodist circuit riders (Sanders, 1999, p. 118).

> In county after county, Alliance meetings began in prayer and ritual ended in political speeches, many of them delivered by the suballiance chaplain, who frequently doubled as lecturer and organizer in spreading the new social gospel (Goodwyn, 1978, p. 46).

Arguments like these suggest that extensive Protestant churches may be important institutional conditions for self-organization, including cooperative alternatives to hierarchy.

Factory and Mill Mutuals: Exceptions that Prove the Rule?

What then of the second branch of mutual organization in American fire insurance? The preceding hypotheses conceptualize class mutuals as a product of anti-corporate political struggles, the development of the Grange and Farmers Alliance, and cultural carriers and other institutional conditions for launching new forms. However, *factory* or *mill* mutuals arose on different social and political roots. They stemmed not from historical struggles *against* trust and combinations, but as an *adjunct* to the development of large industrial corporations, involving the assimilation of alternative organizing principles to support the needs of the emerging corporate order.

Should factory mutuals represent an exception that proves the mutual rule, they will neither require nor rest on the characteristics of industrial order identified above. On the contrary, factory mutuals would rest on an infrastructure, industrial order or organizational ecology characterized by large, capital intensive firms – the kinds of organizations and systems contemplated by a mass production or corporate liberal model of economic order. Two expectations follow. First, I expect there to be no association between the proliferation of factory mutuals and the factors identified above, including anti-corporate political victories, strong agrarian protest SMOs, and so on. Second, I expect factory mutuals to be positively associated with large firm, capital-intensive production, and the share of that form of manufacturing within a state's economy.

IV. ASSESSING HYPOTHESES ABOUT INDUSTRIAL ORDER: DATA SETS AND METHODS

I assess these hypotheses and identify the conditions for the rise of mutuals as alternative forms via a pooled time series analysis of the *number* and *total assets* of mutuals per state from 1903 through 1930. I also use company-level data for some preliminary purposes, but a state level analysis is more appropriate for the case and questions at hand. Insurance was and remains governed by the states, not the federal government (Patterson, 1927; Lilly, 1976).[13] Moreover, there was substantial variation across states in the number and assets of mutuals. Following established practice in insurance research (Harrington, 1984; Meier, 1988; Pavalko, 1989; Fishback & Kantor, 1996), and on public policy (Soule & Zylan, 1997; Amenta, 1998), I treat states as the main units of analysis, and examine how the production of new organizational forms was nested within state-level political and institutional fields.

Dependent Variables and Data Sets

I separately model the *number* and *assets* of mutuals to analyze, respectively, the two lines of mutual development in fire insurance, class and factory mutuals. Overall, the numbers of mutuals reflect the emergence and proliferation of class mutuals. As noted above, mill or factory mutuals were very few in number, so variations in the number of mutuals per state were overwhelmingly driven by cross state differences in the prevalence of class mutuals. In contrast, factory mutuals accumulated substantial surpluses, dwarfing class mutuals in assets, and many class mutuals were operated on assessment bases. Variation in mutual assets per state was thus driven largely by differences in the presence of factory mutuals, making assets a reasonable measure for factory mutuals, particularly when I control for the number of mutuals.[14]

To measure the number and assets of mutuals per state as well as selected company-level characteristics, I used information from Best's *Insurance Report* and Spectator *Insurance Year Book*, annual reports on nearly every fire insurance company operating in the U.S., including their states of origin. These two publications represent the only centralized listings of insurance companies doing business in the United States in existence. Together, they provide the best available census of mutual insurers in the U.S.

I used these sources to build a data set in two steps. First, I combined the two reports and compiled a listing of mutual companies in operation for 1903, 1905, 1909, 1914, 1919, 1924 and 1929, creating a seven-panel time-series *company*-level data set. The choice of time periods was driven largely by data

availability. A substantial number of the mutuals in our list were formed before the first period of observation, and some unknown number of mutuals were formed and disappeared before that time. However, Best's only began its *Reports* in 1900, and 1903 was the earliest year for which both Best's and Spectator could be obtained. As such, the data set is "right censored" and thus not suitable for sustained ecological analyses of company births and deaths. Nevertheless, the central interest here is in cross-state, rather than over time variation, and the numbers and state rankings of mutuals by number and assets changes relatively little over 1903–1930 period. This suggests that the observed distribution of mutuals reflect a fairly stable and enduring system of mutual formation – a geography of organizational form – that existed before and through our period of observation.

Combining the reports generated a list of 3145 mutual companies. For each company, we entered the company name, state of origin, and home city and founding dates, if ever reported. I also entered a code for whether or not the company was reported in operation by either Best's or Spectator for each of the seven years, and the amount of cash assets, if any, reported for each company for each of the seven years. This data set was used to create the company-level descriptions of mutuals, that is, the overall number and types of mutuals, their assets and size distribution, their founding dates, socio-economic locations, and survival rates.

I then used this data set to create, for each state, a list of mutuals in operation that had been organized in that state, the assets of each company, and the city and date of organization. While some mutuals operated in more than one state, each mutual with its assets was assigned to its state of origin. Listing mutuals by their home state is warranted, as the central concern here is in the propensity of states toward mutual organization, and the extent to which states represent hospitable soil for organizing those forms. Moreover, most mutuals reported appeared to be small, local operations that did all or most of their business in one state.[15] Compiling these lists for 1903, 1905, 1909, 1914, 1919, 1924 and 1929 produced a seven-panel time series data set on the number and assets of mutuals per state. This state-level data set was used describe the geographical distributions of mutual companies presented in parts I and II, and is the foundation for the analyses below of the political and institutional determinants of mutual organization.

Independent Variables, Controls and Models

Anti-corporate political victories. To measure anti-corporate political victories, I used: (1) a dummy variable for whether a state enacted Granger railroad

regulation during the 1870s, and (2) dummy variables for whether a state passed anti-compact, valued-policy or anti-coinsurance laws between 1885 and 1910. I include the Granger laws to assess the balance of political forces in an infrastructure industry closely related to insurance, and to tap the more generalized capacities of anti-corporate interests within a state to contest corporate order via political means. As noted, the Granger laws of the 1870s represented a victory of populist, anti-corporate interests and produced arguments and structural arrangements that affected struggles over corporations and combinations in other sectors. I coded states for Granger laws using Buck's (1913) classic study. In contrast, the anti-compact, valued policy and anti-coinsurance laws reflected the balance of political forces specific to the fire insurance industry itself. Each represented an unambiguous political victory by consumers, reformers and populists against insurance interests. I coded states for each of these three laws using Spectator, *Fire Insurance, Laws, Taxes and Fees* – an annual report by states of insurance laws and regulation – and the table of laws compiled by the New York legislative investigating committee during its analysis of the industry in 1909 and 1910 (Merritt Investigations, 1909–1910: Exhibit I).

Agrarian protest movements. To examine the effects of movements on mutuals as alternative forms, I developed six measures of the strength or organizational development of agrarian protest SMOs at the state level. I measured the organizational strength of the Patrons using: (1) the number of families in a state who were members of the National Grange; (2) the number of individual members in a state's Grange organizations; and (3) the number of local Grange organizations in a state. The number of Granges warrants special attention, as it taps the presence of an ecology of already formed local associations on which mutual organizers could piggyback their efforts. All three variables were measured at the peak of Grange strength in 1875 and 1876 and were constructed using the tables provided by Tonz (1964, p. 154) and Buck (1913, pp. 58–60). Following Sanders (1999, p. 122), I measured the strength of Alliance using the number of members per state in 1890 reported in *Appleton's Annual Cyclopedia and Register of Important Events of the Year 1890* (1891, p. 301). The Grange and Alliance measures were time invariant and tap the legacies of these pivotal SMOs. I measured the strength of the Farmer's Union and the Farm Bureau using Tonz's (1964, pp. 155–156) listings of the number of family members in each organization per state. Both organizations emerged after 1900, so both measures were time varying factors. I used linear interpolation on the membership data to obtain values for each of the seven panels. All of these variables were measured in the 1000s.

Cultural carriers, immigrants, and churches. To address the effects of immigrants as cultural carriers on the proliferation of mutuals, I use the decennial

Census to measure for each state of the number of immigrants from Germany, Sweden, Norway, and England. I created these measures for 1870, 1880 and 1890, entering them into models separately as time invariant factors, and for 1900 to 1930, using linear interpolation on the Census data provided for 1900, 1910, 1920 and 1930 to create a time varying measure for the panels between 1900 and 1930. To assess the role that churches and religious groups played in the mutual movement, I used the 1890 census of religious affiliations to measure the number of individuals in each state who were members of the following denominations: Catholic, Episcopalian, Presbyterian, Methodist, Baptist, Lutheran, Congregationalist, and the Disciplines of Christ.

Large-firm industrial order. To determine whether factory mutuals rested on a large firm industrial order, I used the decennial census to construct six measures of the weight of large industrial corporations in a state's economy: (1) three measures of capital intensity based on the value added in manufacturing; (2) two measures of the size of the manufacturing firm (the number of workers per establishment and the percent of manufacturing establishments with 500 or more workers); and (3) the number of manufacturing establishments in a state.

Controls. To eliminate confounding factors, models controlled for a measure of the total value of property in a state, the number of farmers relative to insurance agents, and the number of manufacturing employees relative to insurance agents. The total property measure combined the value of farm property and the value added by manufacturing for each state reported in the U.S. Census and interpolated linearly to get values for the years in the seven panels. I include this measure because the number and assets of mutuals might increase, independently of politics or institutional factors, as a function of the total value of insurable property. I include measures of the relative numerical superiority of farm and manufacturing interests to assess whether anti-company political victories and social movements affect mutual proliferation net of the numbers or resources of farm or manufacturing groups who could participate in those movements or victories. Research from an interest group perspective shows that resources and numbers are sources of power in insurance regulation (Schneiberg & Bartley, 2001), potentially confounding the effects of other power bases.

Models. I used random effect time series methods as the models estimated contained a mix of time varying and time invariant independent variables. I am particularly interested in time-invariant cross-state differences, including the effects or legacies of organizational processes or events that began or occurred before 1900. Fixed effect models would simply fold those differences into the intercept. I used standard pooled time series regression for the assets per state, after logging the assets to correct for skewness. I used negative binomial models for the number of mutuals per state, as those methods for count data make less

restrictive assumptions about the variance of the dependent variable than poisson regression. I fit these two sets of models using the xtreg and xtnbreg procedures in STATA.

As historical analyses suggest that class and factory mutuals have different roots, I expect that different factors will affect the number and assets of mutuals per state. I expect the number of mutuals, but not assets per state, to depend on anti-company politics, and the development of anti-corporate social movements. I focus first the proliferation of class mutuals and the number of mutuals, and then on factory mutuals and mutual assets per state.

IV. RESULTS

Anti-Corporate Politics

Table 3 examines the effect of anti-corporate political victories on the number of mutual insurance companies within a state. Model 1 is the baseline for all subsequent analyses, and includes controls for the total value of property, as well as the number or size of farmers and manufacturing interests relative to insurance interests. Models 2 through 5 add the measures of anti-corporate

Table 3. Random Effects Negative Binomial Models of the Effects of Anti-Corporate Political Victories on the Number of Mutuals Per State.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Constant	2.9793***	2.6032***	2.9332***	2.5959***	2.7349***	2.5000**
Controls						
Value of property	5.53e-8*	7.17e-9	4.92e-8	6.00e-8*	4.83e-8	5.73e-9
Rel. size farmers	–0.00193**	–0.00177***	–0.00291***	–0.00205**	–0.00201**	–0.00201***
Rel. size manufacturers	0.00122**	0.00179***	0.00091	0.00139**	0.00112**	0.0064***
Anti-Corporate Political Victories						
Granger regulation		2.7778***				2.640***
Anti-compact			0.7062**			0.6232**
Valued policy				0.5305		
Anti-coinsurance					1.236***	
Number of obs.	141	141	141	141	141	141
Number of groups	48	48	48	48	48	48
Log likelihood	–554.31	–541.658	–550.365	–553.388	–541.658	–538.616

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

victories. Model 6 examines the possibility that anti-company victories in insurance and in other spheres might have independent effects on mutual forms.

The results confirm the importance of politics and a favorable balance of power for the proliferation of mutuals. Controlling for the value of property and the numbers of farmers and manufacturers, passing Granger regulation, anti-compact laws and anti-coinsurance measures had significant, positive effects on the number of mutuals per state. The coefficient for the valued policy law was positive, but not significant. Moreover, the effects of anti-company politics on mutuals reflect both a legacy of the battles over railroad regulation or a generalized capacity to contest corporate power, and a balance of political power specific to insurance. The coefficients for the Granger and anti-compact laws remain positive and significant when included in the same model.[16] Further, these effects were quite substantial. Passing an anti-compact law nearly doubles the expected number of mutuals (percent increase = 86), and the Granger law increases the expected number of mutuals by over an order of magnitude (percent increase = 1300).[17] Mutuals were a product of political struggles over corporate consolidation, and emerged in force when anti-corporate interests were able to use the state against concentrated private power.

Agrarian Protest Movements

Table 4 presents a first look at the relationship between mutuals and the strength of agrarian protest organizations. Models 1 through 3 add to the baseline model three measures of the development of the Grange in a state. Models 4 through 6 add measures of the strength of the Farmers' Alliance, Farmer's Union and Farm Bureau, respectively.

The results support arguments that the Grange and the Alliance created a supportive industrial order for mutual organization. Controlling for the value of property and the relative numbers of farmers and manufacturers, increasing the number of Granges and the number of Alliance members had significant, positive effects on the number of mutuals within a state. Neither the Union nor the Farm Bureau variable had an effect on mutual organizations. While the Union was committed to cooperative organizational forms, it was markedly less radical, anti-corporate in orientation and influential than the Grange or Alliance. The Farm Bureau, while highly influential, was neither a vehicle for anti-corporate politics nor a protest organization. In short, anti-corporate movements are a potentially important institutional condition for the development of new or alternative organizing forms.

Table 5 further explores these effects. Models 1 through 5 re-examine the effects of the Grange and the Alliance by adding controls for anti-corporate

Table 4. Random Effects Negative Binomial Model of the Effects of Agrarian Protest SMOs on the Number of Mutuals per State.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Constant	3.1324***	3.3924***	3.2123***	2.3176**	1.2298	21.4961***
Controls						
Value of property	3.99e-8	5.48e-8**	3.68e-8	3.37e-8	4.53e-7***	1.62e-7*
Rel. size farmers	–0.00152***	–0.00176***	–0.00187***	–0.00333***	–0.000418	–0.0000714
Rel. size manufacturers	0.00109**	0.000556	0.00109**	0.00239***	0.00265	0.001259
Agrarian Protest SMOs						
Peak Nat'l Grange Families	0.0325					
Peak Grange Members		0.0116				
Number of Granges			0.772*			
Nat'l Farmer Alliance				0.0117**		
Nat'l Farmers Union					0.0131	
Farmers Bureau						0.00386
Number of obs.	126	123	123	80	48	67
Number of groups	42	41	41	27	24	37
Log likelihood	–-510.876	–506.169	–504.011	–313.285	–197.207	–268.814

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

victories. The main interest here is to assess whether the Grange and Alliance affected mutual organization independently of any effects they may have had by promoting anti-corporate victories. Models 6 through 8 add interaction terms between SMOs and anti-corporate victories in order to assess whether the Grange or Alliance pursued mutuals as an alternative to politics or response to blocked political access. In both analyses, historical considerations dictated the coupling of anti-corporate victories to movements, the selection of controls and the construction of interaction terms. The railroad laws were called Granger regulation for their political origin, and predated the formation of the Alliance. In contrast, the Grange was well past its prime before the first anti-compact laws were passed, and Alliance groups supported insurance trust busting.

The results from models 1 through 5 confirm the centrality of the Grange for mutual organization. Controlling for the value of property, relative numbers, and the passage of Granger laws, both the members in state Granges and the number of local Granges per state had significant, postitive effects on the number of mutuals. The coefficient for National Grange families was also positive, just missing significance, and the coefficient for local Granges remained significant even when controls for anti-compact laws were also added to the model, indicating a particularly robust effect. Apparently, the ability of mutual organizers to piggy-back on an existing ecology of local Granges was decisive. Similar results appear in model 5 for the Farmers Alliance. Net of the controls and the anti-corporate victory with which the Alliance was associated, Alliance membership had positive effects on mutuals.[18]

Mutuals as Alternatives to Politics

Models 6 through 8 extend this analysis to address whether or not mutuals emerged as an alternative to using public power against corporate consolidations. Such strategies might have stemmed from a principled rejection of states and corporations in favor of local self-organization. Or corporate dominance of the political process might have prompted the Grange and Alliance to abandon politics in favor of mutuals as a private mechanism for counter-balancing concentrated corporate power. In either case, I expect anti-corporate SMOs to be most productive of mutuals in states where anti-company political victories were absent. To assess this possibility, I created interaction terms between anti-corporate political victories and the organizational strength of agrarian protest movements. Specifically, I interacted railroad regulation with the number of Granges and anti-compact laws with Alliance membership. These pairings were dictated by the historical connections between SMOs and anti-corporate measures.

Table 5. Random Effects Negative Binomial Models of the Effects of Anti-Corporate Politics and Agrarian Protest SMOs on the Number of Mutuals Per State.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Constant	2.28453***	2.4267***	2.2470***	2.2911***	2.4018***	2.1415***	2.4261***	2.5594***
Controls								
Value of property	–1.83e-8	1.37e-8	1.11e-8	1.15e-8	3.27e-8	2.03e-8	3.22e-8	2.56e-9
Rel. size farmers	–0.00168**	–0.00236***	–0.00251***	–0.00268***	–0.00334***	–0.00274***	–0.00331***	–0.00303***
Rel. size manufacturers	0.00207***	0.00157***	0.00176***	0.00144***	0.00215**	0.00126**	0.00216***	0.00205**
Anti-Corporate Political Victories								
Granger regulation	1.2551**	2.1361**	1.8829***	1.7866***		3.0186***		2.131**
Anti-compact				0.4635**	0.2479	0.4970***	0.2106	0.4159
Agrarian Protest SMOs								
Peak Nat'l Grange Families	0.0427[+]							
Peak Grange Members		0.0161**						
Number of Granges			1.08***	1.08***		1.38***		
Nat'l Farmer Alliance					0.00961*		0.00810	0.00584
Interactions: Victories by SMOs								
Granger law by Granges						–0.134**		
Anti-compact by Alliance							0.00182	0.00260
Number of Obs.	128	123	123	123	80	123	80	80
Number of Groups	43	41	41	41	25	41	27	27
Log likelihood	–509.454	–489.284	–487.379	–484.513	–313.017	–482.136	–312.997	–309.751

[+] $p = 0.109$, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

The results support this hypothesis for the Grange, but not for the Alliance. The coefficient for the interaction effect in model 6 was negative and significant, signifying that the effect of Granges on mutuals was stronger in states without Granger laws (b = 1.38) that in states with Granger laws (b = 1.25). Granges produce mutuals in greater number in states where farmers were unable to secure political victories. In contrast, the anti-compact by Alliance interactions in models 7 and 8 failed to reach significance.

Immigrants and Churches

Table 6 addresses the role that immigrants and churches played as carriers or supports for the proliferation of mutuals. Model 1 adds to the baseline model the density of German, Swedish and English immigrants per state in 1890. Model 2 adds church membership per state for eight denominations. Models 3 and 4 add political and institutional variables from the prior analysis to assess whether the effects of immigrants or churches were due to their associations with anti-corporate victories or the organizing infrastructure created by movements.

The results support the cultural carrier hypothesis. German and Swedish immigration had positive effects on the number of mutuals per state, suggesting that the proliferation of mutuals rested, in part, on the presence of groups who could transpose or import new organizational forms into struggles against the corporation. Curiously, however, immigration from England had no effect on the proliferation of mutuals. This may reflect the urban location of many English immigrants, their overrepresentation as owners of capital, and interests in supporting rather than opposing corporate capital.[19]

Adding the church variables sheds further light on the social structural conditions for mutual organization. First, examination of model 2 shows that a number of coefficients for the religious denomination variables were significant, including positive effects for Lutherans, Disciples of Christ and Congregationalist, and a negative effect for Catholics. The findings for Lutherans and Congregationalists are particularly robust, remaining significant even when for anti-corporate victories and number of local Granger per state are added (models 3 and 4). Overall, these findings are consistent with expectations about differences across churches in proclivities toward self-organization. Protestant, but not Catholic, churches function as incubators or platforms for organizing mutuals, confirming the role that certain denominations and their institutions can play in supporting movements for change.

Second, a comparison of models 3 and 4 reveals that adding a measure of organizational infrastructure – number of Granges per state – slightly reduces the

Table 6. Random Effects Negative Binomial Models of the Effects of Immigrants and Churches on the Number of Mutuals Per State.

	Model 1	Model 2	Model 3	Model 4
Constant	2.1662***	1.6448***	1.4908***	1.4965***
Controls				
Value of property	2.10e-8	2.40e-8	2.11e-8	2.35e-8
Rel. size farmers	–0.000925*	–0.001234**	–0.001297**	–0.001499***
Rel. size manufacturers	0.000618	0.0007294*	0.0005134	0.000364
Immigrants (density)				
German	9.15e-6***	3.95e-6	–1.68e-7	2.71e-6
Swedish	0.0000184*	6.59e-6	9.09e-6	0.0000101
English	6.54e-6	5.44e-6	0.00011	6.05e-6
Church (denomination density)				
Catholic		–4.25e-6*	–3.68e-6	–2.63e-6
Episcopal		0.0000193	0.0000226*	0.0000159
Methodist		–6.62e-7	–9.85e-7	–8.02e-7
Presbyterian		–3.33e-6	–9.25e-6	–2.57e-6
Baptist		8.27e-7	–1.63e-6	–1.36e-6
Lutheran		0.0000163***	0.0000176***	0.0000124**
Disciples of Christ		0.0000203**	0.0000266***	9.73e-8
Congregational		0.0000297***	0.0000226**	0.0000204***
Political victories				
Granger Regulation			0.10104	–0.24897
Anti-compact Law			0.72119***	0.51899***
SMO organizational infrastructure				
Number of Granges				0.001325 *
Number of obs.	141	128	128	114
Number of groups	48	43	43	38
Log likelihood	–533.074	–485.869	–477.580	–438.609

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

effects of Lutheran and Congregational churches on mutuals, and wipes out the positive effects of Disciples of Christ and Episcopalians. While these results must be interpreted with caution, they suggest that some of the effects of churches on mutuals may have been indirect, working through the formation of local Granges. Such a finding raises the interesting possibilities regarding the

ecologies of existing organizations: There may have been interactions between organizational forms and organizers may have been able to engage in complex forms of piggy-backing among movement organizations, Protestant churches and mutual companies.

Third, a comparisons of models 1 and 2 shows that adding variables for religious affiliation to model 1 wipes out the effects of German and Swedish immigration, suggesting that immigration affects mutual organization indirectly, through the formation of churches. To the extent that Germans and Swedes imported mutual templates into the fray, they did so through their Protestant churches and religious organizations.

Exceptions that Prove the Rule

We turn, at last, to the factory mutuals. If the foregoing analysis is correct, then factory mutuals should display a markedly different pattern than class mutuals. Factory mutuals were not associated with the anti-corporate orders identified above. Instead, they rested on an industrial order or organizational ecology of large, capital intensive firms – the kinds of systems contemplated by a mass production and corporate liberal model of economic order.

Table 7 analyzes the dependence of factory mutuals on anti-company politics, Grange and Alliance, and the interaction between anti-corporate victories and agrarian protest organizations. Here, I essentially replicate for the *assets* of mutuals per state the analyses performed above for the number of mutuals per state. Only one of the coefficients is significant. In striking contrast to class mutuals, factory mutuals are not a product of political struggles over corporate consolidation and economic order. On the contrary, as Table 8 suggests, mutual assets and the factory mutual movement developed as an adjunct to the large industrial corporation. Even with the usual controls for property values and the rest, all but one of the six variables indexing a large firm industrial order had positive and significant effects on mutual assets. Models 6 and 7 represent two stabs at creating a full model for mutual assets and the development of factory or mill mutuals and confirm the general point. Net of the property values, relative numbers and even the number of mutuals per state, the development of factory mutuals proceeds as a state's economy become progressively dominated by increasing numbers of large, capital intensive manufacturing establishments. Far from being a mechanism for resisting the rise of the giant industrial corporation, the factory mutual was instead its handmaiden. An exception that proved the class mutual rule, factory mutuals involved harnessing alternative organizational forms to the emerging industrial order.

Table 7. GLS Random Effects Regression Models of the Effects of Anti-Corporate Politics and Agrarian Protest SMOs on Mutual *Assets* per State.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Constant	11.322***	11.244***	11.329***	11.688***	11.507***	11.431***	11.0804***	11.2526***
Controls								
Value of property	5.17e-7***	5.25e-7***	5.15e-7***	5.47e-7***	5.21e-7***	4.93e-7***	4.88e-7***	4.66e-7***
Rel. size farmers	–0.00098	–0.00133**	–0.00141**	–0.00122	–0.00153**	–0.00585	–0.00156**	–0.000544
Rel. size manufacturers	0.00644***	0.0650***	0.00584***	0.00550***	0.00583***	0.00510***	0.00618***	0.00510**
Anti-Corporate Political Victories								
Granger regulation	0.782						1.581	0.815
Anti-compact		0.472					0.401	0.794
Agrarian Protest SMOs								
Peak Nat'l Grange Families			0.0471*				0.047	
Peak Grange Members				–0.000148				
Number of Granges					0.495			
Nat'l Farmer Alliance						0.00356		–0.00345
Interactions: Victories by SMOs								
Granger law by Granges							–0.096	
Anti-compact by Alliance								0.00280
Number of Obs./Groups	255/45	255/45	234/41	231/39	231/39	141/25	234/41	141/25
Wald Chi-square	154.57	157.56	147.23	133.64	137.75	83.47	151.47	85.09

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 8. GLS Random Effects Regression Models of the Effects of Manufacturer Size, Capital Intensity and Numbers on Mutual *Assets* per State.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Constant	11.0334***	11.579***	11.4389***	11.182***	11.465***	11.221***	10.484***	10.667***
Controls								
Number of mutuals								0.00530***
Value of Property	3.06e-6***	3.92e-7***	3.92e-7***	4.53e-7***	5.42e-7***	4.58e-8***	2.58e-7***	2.66e-7***
Rel. size farmers	–0.00817	–0.00761	–0.000317	–0.000397	–0.00102	–0.0000225	0.000332	0.000190
Rel. size manufacturers	0.00524***	0.00416***	0.0405***	0.00288**	0.00622***	0.00273**	0.00176	0.00136
Size/Composition of Manufacturers								
Value added per worker	0.4171***						0.3749***	0.2784***
Value added per establishment		0.00657***						
Value added per capita			3.5946***					
Workers per establishment				0.03114***				
Number of establishments					–6.43e-6		0.0000825***	0.0000844***
Percent large manufacturers						0.9239***	0.7834***	0.7515***
Number of obs./groups	255/45	255/45	255/45	255/45	255/45	255/45	255/45	255/45
Wald chi-square	197.52	188.15	174.07	188.71	150.47	193.97	236.37	271.42

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

V. CONCLUSION

So why, then, are there sometimes so many different organizational forms? When and where do new organizations and forms proliferate, and alternatives to dominant principles emerge and prosper? Extending recent, politically oriented neo-institutional research in directions suggested by Stinchcombe's classic 1965 essay, the foregoing analysis of fire insurance mutuals moves beyond theories of isomorphism and institutional coherence to shed some new light on the relationships between politics, social structure and organizational form. As alternatives to the joint stock corporation, mutuals emerged from broad political struggles over the constitution of economic order in the U.S. during the late nineteenth and early twentieth centuries. They emerged, in essence, from struggles between two competing models of order and economic development – from struggles between a corporate liberal vision of national markets and bustling urban centers served by giant, autonomous corporations and those who envisioned a more decentralized, regionally based "cooperative commonwealth" of farmers, merchants and independent producers. And in the end, the viability of mutuals depended on political and social structural conditions that enabled advocates of that commonwealth to sustain their vision against both the internal dilemmas of cooperative enterprise and relentless counter-attacks by corporate forces.

As organizational weapons or vehicles for autonomous development, fire insurance mutuals proliferated and endured in surprising numbers, suggesting that alternatives to hierarchies and mass markets were considerably more common than organizational histories of the U.S. economy typically allow. Yet insurance mutuals did develop equally or everywhere. On the contrary, organizational heterogeneity and the proliferation of mutuals rested on particular configurations of power, and on organization-builders' capacities to defend new forms against vested corporate interests in the political arena. They rested also ecologies of existing associations, on "organization creating organizations," and on the development of agrarian protest movements, notably the Grange and Alliance, which vigorously promoted cooperative organizations as vehicles for contesting corporations and fostering local development. They rested still further on cultural carriers, immigrants and indigenous organizations – Germans, Swedes, Protestant churches – who could import or transpose the mutual form into the struggles over corporate consolidation.

Such findings validate both the enduring significance of Stinchcombe's 1965 essay and recent efforts by institutionalists to link politics, social movements, culture and organizational forms. Yet, a word of caution may be in order. In identifying social structural conditions for heterogeneity and new forms, we need not

and should not simply reject economic analyses of organizational level dynamics in favor of a social structural or one sided social-constructionist account. That is not how I read either the letter or the spirit of the 1965 essay. Instead, the challenge at this juncture is to take on the *two* or even *three* Stinchcombes – to develop multi-level analyses of how rational-adaptive solutions are socially embedded, and to integrate market or hierarchy failure theories of organizational forms with analyses of the social and institutional possibilities for pursuing such solutions.

NOTES

1. In a parallel fashion, marketing cooperatives of producers represent a form of forward integration, substituting an ownership for a market relation between producers and processors or distributors. Worker cooperatives substitute ownership relations for employment relations, eroding distinctions between capital and labor.

2. In 1903, factory mutuals held an average of $410,933 in cash assets, with the two smallest holding $33,039 and $84,531 in cash assets, the largest holding $1,411,089, and four mutuals (14% of the group) passing the million-dollar mark The average assets of factory mutuals grew significantly over time, passing the million-dollar mark by 1919, and reached $3,120,094 by 1929, with 78% the group in the million-dollar club.

3. These figures are for mutuals with founding dates listed and should be interpreted with caution, as we lack data on mutuals that failed prior to 1900. If class mutuals formed and failed in numbers before 1900, analysis of firms from 1903–1930 might underestimate the number formed in the early to mid-nineteenth century, overstating the proportion of class mutuals organized after 1880. Nevertheless, the key finding remains: Unlike factory mutuals, class mutuals emerged in large numbers in the last 25 years of the century, and continued to emerge through the first two decades of the twentieth century.

4. Mutuals associated with one or more of these organizations appeared in 26 states, with the largest numbers appearing in the Midwest (28 in Michigan, 10 in Ohio) and the northeast (35 in New York, 14 in Pennsylvania). Three percent of the class mutuals bore a title of "Cooperative," which *might* also signify this kind of affiliation.

5. Further analysis would also include the number of members per mutual as a measure of size, but such data are not available. Absent data to the contrary, we can safely assume that assets and members are positively correlated.

6. Technically, a positive effect coupled with a smaller negative squared term indicates an inverted U-shaped relation between size and the odds of survival. This suggests that increased size will decreases the odds of survival after mutuals reach a certain size. However, taking the first derivative of model four indicates that this inflection point occurs at the $4.6 million mark, well beyond the assets of any mutual operating in the US at the time. Thus, increasing size increases the odds of survival over the entire range of the data. Note also that the effects of age and density remain positive until 52 years old and 204 companies per state, respectively, suggesting that their effects on company survival are also positive, albeit decreasing, over most of the range of data.

7. Such refusals forced mutuals to form separate cooperative systems like the Associated New England Factory Mutuals and the risk pools of the Wisconsin town and county mutuals (Bissell, 1904; Marryrot, 1950; Crane, 1972).

8. Valued policy laws required insurers to pay the full face value of a policy on total losses regardless of the market values of the property insured. Anti-coinsurance laws prohibited companies from requiring insureds to insure their property for their "full" values as a condition for paying claims in full.

9. I leave aside the role that working class groups like the Knights of Labor played in promoting cooperatives or mutuals (Liekin, 1999). There is no evidence in company names or in the historical record that labor organizations fostered mutual fire insurers, which is not surprising as mutual fire insurers were associations of property owners.

10. The Farmers Alliance used an elaborate and very effective network of "lecturers" for purposes of diffusion and continual education regarding these forms.

11. This piggy-backing of organizational forms sometimes went both ways, as fire insurance mutuals functioned as organizational supports and provided incentives for the Grange organization (Clemens, 1997, p. 155) and the Farmers Alliance (Goodwyn, 1978, p. 104).

12. While Denmark extensively implemented cooperative principles in agriculture – its dairy cooperatives were and remain some of the most developed examples of cooperative organization – the exemplars for the Danes came from American dairy farmers (Steen, 1923, pp. 142–143).

13. This jurisdictional settlement was established by an 1869 Supreme Court ruling in *Paul v. Virginia*, and effectively divided the industry into 48 separate insurance markets and 48 separate political-institutional settings. Each state required insurers to obtain a license before doing within the state, and imposed on providers it own set of rules regarding reserves, capital and business organization.

14. Mutual assets per state was highly correlated with the number of *known* factory mutuals per state ($r = 0.68$ for 1914 to $r = 0.78$ for 1919), lending further credibility to using assets to tap the prevalence of factory mutuals.

15. Ideally, we would also like information the total number of domestic and "foreign" or out of state mutuals operating within a state, but neither Spectator nor Best's consistently listed mutuals' states of operation.

16. In model 6, I use the anti-compact law to examine the effects of anti-company politics in insurance versus other spheres rather than using anti-coinsurance law or including both insurance specific measures in the same model. The anti-compact measure was only weakly correlated with Granger laws, and thus a reasonable measure of the separate effect of insurance specific politics. The anti-coinsurance measure was sufficiently collinear with the Granger law variable that including both in the same model left both coefficients positive, but not significant.

17. These results use the coefficients from model 6. The percentage change in the expected count for a one unit change in $X = 100 \times (\exp\{B\}-1)$ (Long, 1997, p. 225). For anti-compact laws, the percentage change in the expected count is $100 \times (\exp\{0.6232\}-1) = 86$. For Granger laws, the percentage change is $100 \times (\exp\{2.64\}-1) = 1301$.

18. While significant, the effect of Alliance membership is clearly weaker than the effect of local Granges. It is also less robust, remaining positive but falling below the significance threshold once the Granger law variable are added to the model (results not shown).

19. Analyses using the number of immigrants for 1870, 1880 and 1900–1930 produce virtually identical results with two exceptions. For the period after 1900, the coefficient for Swedish immigration becomes not significant, and the coefficient for English immigration becomes significant and negative.

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