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Organizing Markets: The Structuring of Neoliberalism in the U.S. Airline Industry

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Organizing Markets: The Structuring of Neoliberalism in the U.S. Airline Industry

A Dissertation Presented

by

DUSTIN ROBERT AVENT-HOLT

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University of Massachusetts Amherst in partial fulfillment
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Sociology

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What seems like to many years ago I started an unpredictable journey into academia because I wanted to understand the world around me and in some way transform that world. Beginning at North Carolina State University in 2003 I could have never imagined the impact of so many people on my intellectual journey. Undoubtedly, among the most central people in that journey has been my advisor, Don Tomaskovic-Devey. After taking me under his wing early on at NC State, he took me with him to the University of Massachusetts. I am indebted to him for countless conversations in not only his office (certainly the hardest place to maintain a conversation) but at countless bars in numerous cities, spanning multiple countries. Don brought me onto his projects and helped me develop my own. His constant pushback against my ideas has helped me develop my own sociological voice. He never asked what he would get out of this, only seeking to ensure that I had everything I needed to develop as a sociologist. For that I am a better sociologist today that I was when I started.

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ABSTRACT

ORGANIZING MARKETS: THE STRUCTURING OF NEOLIBERALISM IN THE
U.S. AIRLINE INDUSTRY

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This dissertation examines the emergence of neoliberalism through an historical analysis of the evolution of the U.S airline industry. In 1938 the basic economic activities of U.S. airlines were placed under the regulatory oversight and control of the Civil Aeronautics Board. This institution of “regulated competition” persisted largely unquestioned until the economic crisis of the 1970s. Out of this crisis the Airline Deregulation Act was passed in 1978, eliminating most of these economic controls. Based on analysis of Congressional hearings, a key industry trade press (*Air Transport World*), the general business press, and financial and labor market data on the airline industry I explain the stable reproduction of “regulated competition” from 1938-1973, the mobilization against regulated competition that began in 1973 that led to the reorganization of the industry in 1978, and the transformation of the market for air travel in the 1980s following the 1978 Airline Deregulation Act. Through analyzing this case of the transition from state

interventionism to neoliberalism I make three interrelated historical and theoretical arguments. First, as an historical object neoliberalism is a contextual and often incoherent political project that to fully understand requires fine-grained analyses of the social spaces in which neoliberalism is inserted and adapted. Second, neoliberal deregulations such as occurred in the airline industry do not translate into a simple self-regulating market. Instead, what we observe in this case is that market actors rebuild institutions and reorganize social relations in order to protect themselves from market competition. Finally, at a theoretical level I argue that while analytically distinct networks and institutions are mutually constitutive of markets and interact with each other in the evolution of a market. This case demonstrates the back and forth dynamics of actors building social relations to transform institutions that then transform existing social relations that is the hallmark of market dynamics. Thus, at a theoretical level I draw out the importance of understanding the relationship between networks and institutions in understanding the evolution of markets as social fields, while at a historical level I argue that focusing on concrete cases of neoliberalism will help us understand the multiplex politics behind producing a neoliberal political economy and the unexpected consequences of it.

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CHAPTER 1

NEOLIBERALISM AND THE SOCIAL ORGANIZATION OF MARKETS

The 1970s mark a watershed moment in the U.S., and global, political economy. This decade brought forth the breakdown of the postwar political economic regime based on the assumption of state intervention in the economy and ushered in a new neoliberal order based on the assumption of unregulated competitive markets. In the U.S. context the first manifestation of neoliberalism was the removal of economic regulations in various industries and sectors of the economy. The airline industry was the first of these industries to be deregulated, with sweeping legislation in 1978 that removed all controls over pricing, route structure, and entry into the industry. This was followed by legislation to deregulate railroads, trucking, finance, and telecommunications. Other industries such as the electric utilities also experienced milder regulatory reform to bring regulations in line with assumptions about competitive markets. By the election of President Reagan the notion that the state should withdraw itself from economic life was the backdrop to virtually all political discourse.

In retrospect it is easy to conclude that neoliberalism had to emerge as it did in the 1970s. The 1970s were plagued by a deep political economic crisis. The 1973 OPEC oil shocks sent the U.S. economy spiraling and sedimented an emerging period of stagflation. As Karl Polanyi (1944) has argued that welfare state protections emerged in the wake of the Great Depression to protect citizens from the vagaries of the market, one could easily read neoliberalism as the pendulum logically swinging back to unregulated

markets in this crisis. But this mechanical metaphor misses the political possibilities that open up in any political economic crisis.

In contrast to airline deregulation, coming out of this crisis six railroads in the northeast were taken over by the federal government in 1976 as they each faced bankruptcy. In this takeover the state subsidized the creation of Consolidated Rail, or Conrail, by merging these failing railroads and put this new railroad under federal receivership until it could become profitable. It was not sold as a public company again until 1987. Had this become the dominant model for handling the political economic crisis of the 1970s the trajectory of the U.S. political economy may have been very different. A state centered response to economic crises could have given legitimacy to existing arguments, which became much more vocal in the 1980s, for industrial policy focusing on state investment in strategic industries and sectors of the economy (Graham 1992). It is worth noting there were at least some calls for such an approach in the airline industry. Senator Vance Hartke of Indiana noted in his opening remarks at an early Congressional hearing on the economic decline of the airline industry, “Few if any options are presently being foreclosed by the Members [of the Senate] to whom I have spoken. Everything from total nationalization to total deregulation is being contemplated” (US Senate, Committee on Commerce, 1971: 2). The creation of Conrail in 1976 demonstrates the political possibility of such an approach in the airline industry and elsewhere in the economy.

If neoliberalism is more than a mere swing of the pendulum, the question then becomes how did a new neoliberal regime emerge in the airline industry and what were

its consequences on the structure of the airline industry? It is tempting in asking this to simply assume that neoliberalism is defined by a singular process of state removal from economic activity, but in numerous instances we observe the uneven, incoherent, and often contradictory transformations that emerged under neoliberalism's banner (Cohen and Centeno 2007; Campbell and Pedersen 2001). Local contexts mediate what neoliberalism means, when it emerges, and how it shapes local political economic dynamics (Fourcade-Gourinchas and Babb 2002; Kjaer and Pedersen 2001). For example, supply-side economic theory was adapted into the Danish neoliberal model because it was understood to facilitate the state's role in achieving economic growth through market coordination not because it was seen as removing the state from economic activity (Kjaer and Pedersen 2001). Further, in many instances rather than reducing the state's role in the economy, neoliberalism has simply changed the form of the relations between the state and the economy. Carruthers, Babb, and Halliday (2001) demonstrate that while bankruptcy laws have been transformed in an attempt to conform to market signals, the actual content of changes in bankruptcy law has focused on helping firms reorganize rather than allowing markets to select out inefficient firms through liquidation.

Given the contextual nature of neoliberal transformations, focusing on the deregulation of the airline industry enables us to examine both how neoliberalism emerged in an early case and how this industry was reconstituted along neoliberal lines. By analyzing a single case we can detail the political process of institutionalizing

neoliberalism in the airline industry, and then examine how airlines reconstructed the industry in the context of a market oriented political economic regime.¹

Neoliberalism and the Sociology of Markets

In order to understand this empirical case of neoliberal market transformation we need theoretical tools to conceptualize and analyze the dynamics of markets. Sociologists studying markets have employed the theoretical concepts of networks and institutions to understand how markets become stable objects over time (Beckert 2009; Fligstein and Dauter 2007). Institutions and networks are conceptualized as the key organizing principles of markets as they govern economic transactions and structure relations and interactions among market participants. Each reduces uncertainty, facilitates trust, and infuses markets with meanings that enable market actors to interact successfully, coordinate their behavior, and make sense of what is happening within a given market (Beckert 2009).

However, sociologists routinely treat institutions and networks as empirically distinct components of markets. Both network analysts and institutionalists often ignore each other in conceptualizing and analyzing market dynamics, leaving each to develop their respective slice of a market without the involvement of the other. While it seems quite reasonable to maintain a theoretical and analytic distinction between networks and

¹ Focusing on a single industry also enables us to understand how airlines as economic organizations transformed themselves internally, redefining the labor process and employment relationship and renegotiating the distribution of wages and profits. This dissertation will not address these organizational transformations leaving this to my future research.

institutions, empirically these phenomena coexist and should be analyzed in light of this coexistence. Scholars, however, have only recently begun to analyze networks and institutions as interrelated phenomena of markets (see Owen-Smith and Powell 2008; Mizruchi, Stearns, and Marquis 2006). In analyzing the neoliberal reorganization of the airline industry I aim to build on this emerging stream by examining how institutions and social relations are built and evolve in tandem over time.

Similarly, the relations of power that infuse networks and institutions are often minimized or treated as exogenous in theoretical accounts of market dynamics. As the central phenomenon to be explained is typically market stability, power and inequality between actors is often muted in analyses of markets that focus on institutions and networks (Fligstein and Dauter 2007). By analyzing the neoliberal transformation of the airline industry I will also demonstrate the centrality of power relations within markets. Markets are defined by institutions and networks, but these networks and institutions emerge out of and are infused with power. Status hierarchies within markets then get reproduced over time by powerful actors constructing and reconstructing institutions and networks to enable them to secure economic resources.

Through analyzing the transformation of the airline industry from a heavily regulated industry in the postwar era to a seemingly “self-regulating” market in the 1980s I will make three interrelated arguments. First, an understanding of the emergence of neoliberalism requires fine-grained analyses of the social spaces in which neoliberalism was inserted and adapted. Because neoliberalism is something that is translated in a concrete social setting rather than a coherent policy package simply adopted in toto (e.g.

Kjaer and Pedersen 2001) I focus explicitly on the processes that institutionalize a neoliberal discourse and policy regime in particular ways into particular places. In doing this, as this case will demonstrate, the rise of neoliberalism cannot be thought of as a mechanical and uniform outcome. Neoliberalism emerged in specific places, in specific forms during the 1970s out of a haphazard political process in which political alliances were forged in the midst of a political economic crisis that created particular manifestations of what we now call neoliberalism.

Second, in focusing on airline deregulation as a case of neoliberalism I will argue that neoliberal deregulations do not translate into a simple self-regulating market. The goal of deregulating the airline industry was to inject competition and in so doing to induce efficient behavior in the airlines themselves. Instead, what we observe in this case is that market actors rebuilt institutions and reorganized social relations in order to protect themselves from market competition. Firm behavior must be understood as a continual attempt to subvert competitive markets rather than an attempt to work within them. The goal of actors is to secure economic resources and competitive markets are a hindrance to this goal. Crucially, market participants do this with the assistance of the state who rather than acting as a neutral arbiter actively participates in constituting a new social order within the market.

Finally, at a theoretical level I will argue that while analytically distinct networks and institutions are mutually constitutive of markets and interact with each other in the evolution of a market. What this case demonstrates is the back and forth dynamics of actors building social relations to transform institutions that then transform existing social

relations. This dynamic relationship between institutions and social networks I argue underlies the evolution of markets generally as actors seek to create a stable market in which they are able to control economic resources. A chief theoretical goal of this dissertation is to illuminate how this process plays out.

An Outline of the Dissertation

Technological developments, the cultivation of skilled aviation personnel, and surplus aircraft in the wake of the First World War enabled the development of a commercial aviation industry in the early 1920s. However, sustained market instability through the mid-1930s combined with the broader interventionist political economic institutions of the post-Great Depression era led airlines to pursue regulation modeled after the railroad and trucking industries. This model of “regulated competition” prevailed in the industry until the 1970s oil shocks and resulting stagflation. Through the 1978 Airline Deregulation Act the airline industry became the model for how to deregulate an industry, ironically creating the opportunity and model for deregulation of the trucking and railroad industries as well as finance and telecommunications. In a broader sense, airline deregulation paved the way for the neoliberal project that has marked the last three decades.

Given this history of the industry I focus on three key moments. First, I examine how the industry was stabilized through the institution of regulated competition in 1938. Importantly, I illustrate how despite some attempts at altering the institution in the 1950s and 1960s, regulated competition persisted into the early 1970s because of deeply

institutionalized cultural understandings of the industry and the marginalization of actors who suggested alternative forms of market organization. Second, I examine how the industry was dramatically reorganized into an “unregulated” market in the wake of stagflation in the 1970s, examining the political process and mobilization that led up to the passage of the 1978 Airline Deregulation Act. Finally, I analyze how airlines built new institutions and network relations in the wake of this significant institutional change.

To develop such an understanding of the organization and reorganization of this industry I employed a variety of historical and archival sources that enable me to follow key actors and their actions in the market over time. I use both primary and secondary historical documents to identify these actors and their actions and trace out how they organized and reorganized the industry. Primary data were obtained from three main sources: Congressional hearings, a leading industry trade press the *Air Transport World* and the general business press of *The Wall Street Journal* and *The New York Times*. These archival data sources are used to observe what actors said and did during this period, tracing out the evolution of the social organization of the industry. Along with these archival data I use economic data on the balance sheets of the population of airlines from the Department of Transportation and labor market data from the Current Population Survey. These data provide a picture of the economic conditions of the industry through much of this period. More information on the data, the methods of collecting the data, and the logic of my use of the data can be found in Appendix A. Some readers may prefer to read this Appendix prior to reading the empirical chapters of the dissertation.

I begin in Chapter 2 by developing the theoretical architecture that will enable us to observe the dynamics of markets. I start by conceptualizing markets as social fields in which actors build institutions and establish network ties that both stabilize the market and provide power for some actors relative to others. Social fields provide stability through producing a local social order that reduces uncertainty and enables calculable market action. In generating this stability fields are infused with a status hierarchy that is reproduced over time. However, much usage of the concept of social fields focuses on what fields do to stabilize markets, leaving little understanding of the essential properties of fields and how actors build them. That is, we know less about how markets as social fields develop local social orders and how those orders evolve. I argue that fields are composed of institutionalized rules and a structure of network relations. These are the stabilizing aspects of social fields and constitute the core of field dynamics and power relations. To talk about shifts in the structure of a market is to talk about shifts in the institutions and networks that underlie markets as social fields.

Importantly, in this chapter I offer a theoretical understanding of how social fields produce market dynamics as well as market stability. I identify exogenous and endogenous sources of field level change and propose them as plausible explanations for understanding the dynamics of markets. Shocks such as wars, economic crises, and supply shortages provide exogenous forces that may lead to the unraveling of field institutions and the reorganization of network structures. This can then lead field actors to build new institutions and network ties to govern the market. Multiple institutional logics, power dynamics, and overlapping fields are potential endogenous sources of

market change that provide the motivation and opportunity for actors to reorganize institutions and network alignments.

The theoretical framework provided in Chapter 2 offers a conceptual toolkit to analyze the evolution of a given market. Importantly, it is not meant to provide testable hypotheses for predicting market evolution, but instead offers the theoretical tools necessary to explain the evolution of a given market. Chapters 3-5 take this conceptual toolkit and analyze the evolution of the U.S. airline industry from 1938-1988. Chapter 3 focuses on the period in which regulated competition was dominant, 1938-1973. In this chapter I demonstrate how the institutional and relational structure of the field acted to preserve regulated competition, even as disadvantaged challenger firms and others in the field mobilized against the advantages powerful incumbent firms obtained through regulation. I argue that it was the institutional content of the mobilization itself that prevented market reorganization, as well as the marginalization of key actors who wanted more radical changes. This chapter demonstrates how fields are reproduced through their institutional and relational structuring.

Chapter 4 shifts our focus from how institutions and network structures stabilized the airline industry to understanding how they were reorganized in the wake of an exogenous shock. In 1973 the combination of the OPEC oil shocks, a slowdown in aggregate U.S. productivity, rising unemployment, and the breakdown of Bretton Woods' pegging of international trade to the US dollar created stagflation and a general sense of political-economic crisis in the U.S. The institutionalized cultural understandings that had previously stabilized the airline industry were called into question as well. It was in

this moment that a coalition of previously disparate actors in the field emerged with an alternative understanding of markets and attacked the legal institutions underpinning the industry. Thus, we see how an exogenous shock altered the network relations within the field to enable the shift in the legal institutions governing the industry embodied in the 1978 Airline Deregulation Act. In a theoretical sense this chapter helps us understand how exogenous shocks affect the evolution of markets by altering the network and institutional structure underneath them.

Chapter 5 examines how actors within the field constructed new institutions and out of these new institutions a new network structure emerged. Far from being a settled self-regulating field after the 1978 Act, actors in the industry institutionalized new practices to reflect the new legal-institutional environment. But these new institutional practices were heavily contested. Thus, the state remains a central part of the “unregulated” industry, defining which new institutional practices are going to be legitimate and which are not. Importantly, here we can see how the settling of political struggles over institutions – that is the institutionalization of new rules – altered the structure of interfirm ties within the industry. Thus, in contrast to the role of emergent networks producing new institutions that we saw in the previous chapter, here we see that new institutions can produce a new network structure. This chapter then highlights the recursive nature of the relationship between institutions and networks.

In the final chapter I conclude with the theoretical and historical lessons we can take from this case. At a theoretical level I draw out the importance of understanding the relationship between networks and institutions in understanding the evolution of fields,

highlighting the importance of their interactive character in producing change within markets. I point further to the interaction between exogenous and endogenous mechanisms in the production of market dynamics. All of this is to argue for a more dynamic conceptualization of markets as social fields. At a historical level I argue that focusing on concrete cases of neoliberalism will help us understand the multiplex politics behind producing a neoliberal political economy and the unexpected consequences of it.

CHAPTER 2

THE RELATIONAL AND INSTITUTIONAL ARCHITECTURE OF MARKETS AS SOCIAL FIELDS

Economies are social spaces in which actors produce, distribute, and consume goods and services. In capitalist economies this process operates through markets organized around a particular good or service where a set of producers meets a set of consumers in an attempt to exchange a good or service for money. In this chapter I develop the theoretical tools to analyze the dynamic organization and reorganization of markets over time. I first argue that we should think of markets as social fields which generate a local social order to stabilize the inherent instability of unregulated markets (Fligstein 2001a). I then specify the basic building blocks of these fields as social relations and institutions. I will conclude this chapter with an exposition of how social relations and institutions might help us move beyond merely understanding the stable organization of markets to understand the dynamic organization and evolution of any given field. The remaining chapters of the dissertation will employ this theoretical heuristic with the empirical case of the organization and reorganization of the U.S. airline industry as a social field. I will conclude the dissertation by reevaluating the conceptualization of markets offered in this chapter.

Markets as Social Fields

Sociologists start from the premise that self-regulating markets are fundamentally implausible economic arrangements. Market participants have heterogeneous and at

times antagonistic interests within the market (Beckert 2009), and unmitigated competition among market participants tends toward self-destruction (Fligstein 2001a; White 1981). Furthermore, the general uncertainty and risk associated with voluntarily exchanging commodities and services to potentially unknown partners suggests producing for one's own consumption rather than exchange is a more viable option (Beckert 1996). Thus, we cannot take the existence of markets for granted and a central task must be explaining the social organization of markets that enables them to emerge and through which they evolve.

Sociologists routinely employ the concept of social fields to understand the social organization of markets (Beckert 2010; Fligstein 2001a). The concept of social fields identifies a socially-bounded space for action. At its most abstract level social fields are simply bounded networks of actors oriented towards each other (Evans and Tamara 2008; Martin 2003; Fligstein 2001b). When we think of fields we are thinking of actors who take each other into account on a routine basis when deciding on and pursuing a particular course of action. In the context of a market these will include the economic actors involved in the production, distribution, and consumption of a good or service, as well as the political actors that legislate and regulate within the field (Fligstein 2001a) and broader societal actors with an interest in the field (Rao 2009; Weber, Rao, and Thomas 2009; Schneiberg and Bartley 2001). To make the point concrete in relation to the empirical focus of this dissertation, the airline industry as a social field is composed of airlines, including boards of directors, owners, stockholders, and varying levels of managers and workers, consumers of air travel and consumer organizations,

manufacturers of aircraft and necessary equipment and parts, Congressional legislators, a regulatory agency (the Civil Aeronautics Board), various state agencies concerned with airlines (e.g. Department of Transportation, Department of Justice), and economists who study the airline industry and provide expert advice. All of these actors take each other into account when defining and pursuing individual objectives within the field. Any given airline will consider what other airlines might do if they begin flying a new route or lower their prices on a given route. If two airlines decide they want to merge they will need the approval of the appropriate regulatory agency (which has varied over time). When new rules are imposed on an industry, state actors will consult industry players and analysts to gauge the effects and efficacy of proposed rules. Thus, these actors are at a minimum bounded through observing each other but often through more explicit social relationships.

Through the interactions between actors in a field sociologists argue a local social order emerges that stabilizes the field (Beckert 2009; Fligstein 2001a; 1996). These local social orders provide the social organization of a given market that enables successful exchange to take place. It is these local social orders that solve the sociological dilemma of the existence of markets.

But what exactly is a local social order? Fligstein (2001a) largely defines it through the lens of institutionalized local cultures. These cultures establish rules governing action and provide a meaning structure to both action and social relations within the market. Importantly, these rules also create and legitimate a status hierarchy defined by incumbent and challenger firms. Incumbent firms are those who benefit from

the current arrangements, while a set of challenger firms exist who either do not benefit or are disadvantaged by the social order. This produces antagonism and political conflict over the existing rules that in certain political moments may erupt into a challenge to the local social order.

Thus, a local social order exists when actors in a field – that is actors oriented towards each other – share a set of understandings about what the field is, how it works, and their position vis-à-vis others in the field. Sharing this set of understandings does not entail a true belief on the part of all actors. In particular, as challengers are disadvantaged they may oppose many or all of these understandings, yet they will still orient their behavior towards it. It becomes a reality that while perhaps taken-for-granted among incumbents, is simply dealt with by challengers.

Field theory then gives us a social mapping of the action space in which markets are organized, and helps to explain how market action takes place. The concept of fields is meant to elucidate the context in which social action occurs to produce specific social organizations. Thus, we can think of markets as social fields that are composed of local social orders that make market activity possible, and in which actors produce, distribute, and consume a particular good or service. This provides what we can call the social organization of markets. But, the question emerges, where do local social orders come from and what are they composed of? I argue in the next section that local social orders emerge out of institutions and social relations. These institutions and social relations then produce the social organization of markets in which market action takes place, and we

can explain the course of market action with reference to the structure of institutions and social relations within the field.

Social Order from Institutions and Social Relations

If fields are defined by the emergence of local social orders we still have to ask where do these orders come from and what are their basic elements. Below I argue that social relations and institutions generate social orders, and that over time they become reified structures that define the local social order itself. In this way, institutions and social relations both create social orders and become them. Crucially, these social orders are infused with relations of power that emerge out of network relations and institutions.

Contemporary analyses of markets have all identified social relations and institutions as key to understanding how markets are organized and operate (Beckert 2009; Fligstein and Dauter 2007). The legal institutions of the state (Krippner 2011; 2001, Fligstein 2001a), institutionalized cultural understandings of political and economic actors (Steensland 2006; Campbell 1998; Block 1990), and social relations between actors (Uzzi 1997; 1996; Burt 1992; Granovetter 1985; Useem 1984; White 1981) have each been profitably used to understand the dynamics of the economy. Thus, much of the process of organizing markets can be reduced to the relations and institutions within them. Scholars typically focus on either institutions or social relations to the exclusion of the other. However, the interaction between relations and institutions is beginning to be explored. Scholars have found that the effects of social networks are contingent on institutional context (Mizruchi, Stearns, and Marquis 2006) and that new

practices and rules are institutionalized through networks (Davis 1991). This suggests it is necessary to analyze the relational and institutional foundations of markets simultaneously to fully understand how fields emerge and organize a given market.

These concepts are meant to provide an initial heuristic for analyzing how markets are organized by parsing out the distinct structural pieces of fields that produce the local social order of a market. At this moment I am not proposing any necessary empirical relationship between institutions and social relations, nor am I suggesting nor inhibiting the development of further concepts within them. Initially all I am suggesting is that these should be used as sensitizing concepts for empirical research into markets as social fields, as they can be fruitfully used a priori to analyze the organization of any market. While I argue this provides initial guidance in analysis, this heuristic could lead to developing theoretical propositions relating to the process through which markets are organized and reorganized over time.

Social Relations

If a field is a social space in which specific actors are attuned to each other, then the relations between those actors must be central to defining the field. While pursuing social action in reference to others in the field, particular network ties will develop between actors and come to define action and the action space of the field. Focusing one's attention on others is likely to lead over time to interaction and the development of a structure of relations among actors in the field. This of course does not mean that all actors have relational ties to all other actors in the field. What in fact develops are actors

developing ties to particular others in the field, producing a relational structure composed of varying social groups in the field with distinctive interests that develop over time. The relational structure of the field then comes to appear as the typical network structure produced in graph-theoretic network analysis.

Markets as social fields then have a relational structure, a core insight of economic sociology. Economic exchange between market participants is embedded in a network of social relationships (Granovetter 1985). These networks produce a stable social structure within any given market that ensures the continuity and reproducibility of markets (White 2002; 1981). Economic sociologists have identified two faces to the operation of social networks in markets: pipes and prisms (Podolny 2005). As pipes social ties generate the flow of information and resources between market participants. Social ties in economic settings produce trust and reciprocity between sellers and buyers (Uzzi 1997; 1996) as well as between competitors (Trapido 2007), which facilitates the flow of crucial tacit information and resources beneficial for actors embedded in those networks (Zuckerman and Sgourev 2006; Baker 1984). As well this relational trust reduces the uncertainty inherent in market exchange that otherwise would move markets toward instability (Guseva and Rona-Tas 2001; Podolny 2001; 1994).

The flow of information and resources across actors can enhance firm performance and the likelihood of survival (Uzzi and Lancaster 2004; Ingram and Roberts 2000; Uzzi 1999; Keister 1998). Uzzi (1997; 1996) found that among garment manufacturers in New York City social ties enabled them to learn about important market shifts and organizational changes among their key suppliers and buyers, tacit information

that would have been unavailable to them had they not been embedded in social relationships. Embedded ties also reduced the pure material exchange logic of the market relationship that enabled firms to weather bad times. Thus, firms with the optimal mix of embedded ties tended to survive and perform better than firms without embedded ties.² Further, being located within a network structure produces material power for market actors who are able to leverage relationships to exploit opportunities and potentially other market participants (Erikson and Bearman 2006; Baker, Faulkner, and Fisher 1998; Burt 1992; Baker 1990).

Networks among market participants however, also act as what Podolny (2005; 2001) has termed “prisms.” While networks as pipes facilitate the flow of information and resources, networks as prisms reflect the status of markets actors, signaling reliability and quality through one’s connection to others. Being connected to already high status actors enhances the status of the focal actor, thereby increasing survival prospects and firm performance. Third parties are more likely to transact with higher status actors and pay more for goods of a similar quality, largely because these actors are seen as reliable partners in the market. And while increasing revenues in terms of volume and price, status through networks also reduces input costs, transaction costs, and the costs of acquiring financing (Podolny 1993). The prism metaphor of networks then enables us to

² Uzzi importantly notes that firms with an abundance of embedded ties but too few arms-length ties traditionally expected in markets had lower survival rates as well. This is because they were unable to acquire important market information regarding prices that arms-length transactions facilitate. Thus, he argues that survival prospects are increased by the optimal mix of arms-length ties characterized solely by price information and embedded ties characterized by trust and reciprocity.

observe how firms navigate the uncertain world of markets by connecting to higher status actors.

It is clear then that networks among market participants help produce a local social order within the market. Trust emerges enabling exchange, information and resources can flow across market participants, and status hierarchies become visible and understandable by participants. However, the field metaphor suggests more than simply market actors organizing a given market. State and societal actors are also theorized as central, though they are often invisible in pure network analyses of markets. Sociologists studying the market have identified markets as sites for alliance building among market, state, and societal actors to achieve their goals (King and Pearce 2010). Thus, the social relations among these actors must also be taken into account.

The state itself can be conceptualized as a bundle of social relations out of which policies and political decisions develop, including those policies that shape the organization of markets (Laumann and Knoke 1987). This means that if the state is in fact inextricably intertwined with the operation of markets and the economy (Block and Evans 2005; Krippner 2001; Fligstein 2001a; Carruthers 1996; Polanyi 1944), then we must conceptualize these bundles of relations called the state as part of markets as fields.

Market actors routinely seek out social ties with potentially friendly state actors to alter regulations in their favor. Challenger firms, often on the margins of a market, attempt to gain allies within the state to undermine dominant incumbent firms (Rao 2009; Winders 2009; Ingram and Rao 2004; Schneiberg, King, and Smith 2008; Schneiberg and Bartley 2001). For example, numerous producers in the grain, dairy, and insurance

industries organized into cooperatives and through organizations such as the Grange and the Farmers Alliance mobilized to the state in attempts to win market access relative to non-cooperative producers (Schneiberg et al. 2008; Schneiberg 2007; Schneiberg and Bartley 2001). Similarly, Winders (2009) documents the shifting coalitions among sectors of agriculture to develop alliances with state actors who can protect them from the vagaries of market prices through various subsidies. Network ties to state actors enhance the prospects of creating a local social order that is more favorable to challengers. At a broader level this is similar, though at times conceptually latent, to research on corporate political lobbying (Burriss 2005; Clawson, Neustadt, and Scott 1992; Mizruchi 1989; Useem 1984), the development of the corporate form (Perrow 2002; Roy 1997), and the development of capitalism itself (Hung 2007; Emigh 2003; Lachman 2000; Brenner 1985). Importantly, some research suggests that market actors developing ties with political and community actors enhances the likelihood of successful founding and survival, at least during the emergence of a field (Baum and Oliver 1992).

Not only do market actors attempt to build ties to the state, societal actors also attempt to find allies in the state in an attempt to mitigate the often socially undesirable consequences of market activity. This is the essence of Polanyi's (1944) double-movement. As markets expand their negative externalities lead societal organizations to emerge and attempt to mitigate such externalities. The temperance movement for example sought and for a time won prohibition of the market for alcohol in the U.S. (Hiatt, Sine, and Tolbert 2009; Gusfield 1986). Regulations on environmental standards were similarly a product of social movements, especially a thriving consumer movement

in the 1960s, mobilizing state actors to limit negative environmental externalities of corporate activity (Vogel 1989). And as with the centrality of social relations between market and state actors, alliances with elites in the state enhance the prospects of successfully limiting market externalities (Amenta, Caren, and Olasky 2005). Importantly, networks spanning across distinctive but overlapping fields can reshape the local social order of a market. Such field overlap led to the success of environmental protections within the North American Free Trade Agreement (NAFTA), and the lack of such field overlap led to the failure to obtain similar labor protections (Evans and Kay 2008).

Finally, social relations between societal actors and market actors may also shape markets as fields. This has become particularly true during the neoliberal era as the legitimacy of the state to directly intervene in markets for societal interests has diminished. However, little research has found direct social relations between societal and market actors, in part because economic activity is considered private and therefore not necessarily subject to public scrutiny (King and Pearce 2010). Despite this, less direct relational links have been found in some cases. For example, anti-biotechnology movements in Germany were unable to directly access pharmaceutical companies developing biotechnology but nevertheless undermined biotechnological innovations through winning sympathy among elites within dominant pharmaceutical firms (Weber, Rao, and Thomas 2009). Similarly, King and Soule (2007) found that protests against companies can reduce their stock price by influencing investors and other private legitimating audiences. Thus, societal actors may not be able to easily establish direct

relations with market actors but they may be able to win indirect allies through other means, establishing pseudo-relations that are similarly influential on the local social order of a market.

Thus, there are numerous cross-cutting social networks among and between market, state, and societal actors that define markets as social fields. These include relationships between exchange partners, competing producers, employers and employees, actors in state agencies and policy-making bodies, and extra-state actors such as social movements. This partially defines a market as a local social order because these actors take these relations into account as they define and pursue action within the market. Taking social relations into account stabilizes the market from an unstable hypercompetitive situation as actors are forced to think through how political and social relationships will be affected by their actions. Thus, social relations are at least one piece of the field landscape that defines markets, and provides a social architecture to economic activity.

Institutions

Were we to stop here the concept of field would become redundant with network structure. However, social relations do not operate in a vacuum but have defined institutional content flowing through and around them (Powell and Smith-Doerr 1994). In the broadest sense institutions define the rules of the game, specifying what action will be accepted as legitimate within the field. This includes both the formal and the informal

rules, and it constitutes both external regulations over actors by others in the field as well as internalized taken-for-granted cognitive assumptions.

Early usages of the concept of institutions focused on rules backed by institutional staffs, what is now referred to as “old institutionalism” (Stinchcombe 1997; Selznick 1996). Institutions in this respect are binding rules imposed on and routinized through specific actors, described by Stinchcombe (1997) as institutional staffs, in a defined social field. These institutional staffs provide the organized enforcement of those rules to ensure compliance. Institutional staffs may or may not be legally sanctioned by the state. They could be regulatory bodies governing a field or they may simply be professionals within the field who have defined what is appropriate. Thus, compliance could be attained through legal action but may similarly work through other actors withholding resources from non-compliant actors. Thus, in old institutionalism institutional rules are not merely floating around in cognitive space, but are backed by some authoritative or legitimating capacity to ensure that actors within the field comply with institutionalized rules.

Scholars in the 1970s began to recognize however, that some of these rules existed in principal but operated more as myth and ceremony rather than being enforced by institutional staffs (Meyer and Rowan 1977). Complying with these rules on paper was still necessary for attaining legitimacy, but actual practice in the organization may diverge from the formalized rules with no institutional staffs enforcing actual compliance, what is known as loose coupling (Weick 1976). This broadened the concept of institutions beyond its initial focus on rules backed by institutional staffs to include

institutionalized expectations and taken-for-granted assumptions (Schneiberg and Clemens 2006; Fligstein 2001a; Scott 1995; Meyer et al. 1997; Powell and DiMaggio 1991; DiMaggio and Powell 1983). Actors within a field may recognize a set of institutional expectations and taken-for-granted assumptions that are not codified in law and that may even exist in contradistinction to formal laws. This enables us to observe both a loose coupling between institutions within a field and action within a field, and a set of informal rules that guide behavior with no institutional staff backing them. In this “new institutionalism” institutional staffs become unnecessary or at most supplementary as actors share a kind of mental map, or cognitive schema, that tells them how a social field works and what is appropriate behavior within it.

Whether through institutional staffs, shared expectations, or taken-for-granted assumptions, sociologists have defined four general areas in which institutions enable markets to emerge and establish local social orders (Fligstein 2001a; 1996). Markets become local social orders in part by field actors defining rules for 1) who can legitimately control property, on what grounds producers can 2) compete and 3) cooperate, and 4) how sellers and buyers go about exchanging the rights to goods and services.

Rather than being based on natural rights, private property is a recent social construction, being constituted and enforced by the state (Roy 1997; Campbell and Lindberg 1991). In the U.S. for example, the corporate form of private property developed out of railroad industrialists backed by politicians mobilizing to legalize limited liability and define the corporation as a person with its own rights (Perrow 2002;

Roy 1997). Corporations were originally quasi-government agencies, and were only adopted into a newly defined public sphere after being developed for more generic associational and state purposes (Kaufmann 2008). They were privatized as the anti-corporate political movement became factionalized and proponents of the private corporation used the depression of 1837 to attack the public ownership of corporations (Roy 1997). Over time this form of corporate property rights has become the taken-for-granted backbone of American capitalism, upheld in the recent Supreme Court decision to allow unlimited political spending by corporations on first amendment grounds that they have the same rights to free speech as persons (Liptak 2010).

Beyond the explicit notion of private property, various commodities have to be institutionalized within markets as they are not simply taken-for-granted objects of exchange. Polanyi (1944) noted that certain commodities necessary for capitalism, what he refers to as “fictitious commodities” (land, labor, and money), must be reconstructed as objects for exchange and require institutional staffs within states to define them as commodities for their very existence. Money requires a legitimate government to print and circulate it, as well as to ensure its reliability. Absent social institutions governed by the state the basic means of exchange in modern economies would be implausible. Land must be privatized, divided into parcels, and allocated amongst a citizenry for its use. States maintain the security of these lands through militaries, provide rules through which land will be transferred across persons, and can define the appropriate uses of various land types. Labor as a human activity must be bought and sold, and there are various rules over what types of labor can and cannot be bought and sold (child and slave labor),

skill certification (legal monopolies and restrictions on types of labor), when employers can require work (hour and vacation laws) and for what price money can be exchanged for labor (minimum wage laws). Thus, prior to any economic activity, there must be institutions around property rights to make that activity possible.

What we see in the constitution of commodities of exchange within markets is that states can define the legal institutions around commodities but everyday market actors must also come to redefine specific objects as something to be exchanged for money. With the introduction of the factory in early capitalism workers strongly resisted exchanging their labor power for a wage, coining the term “wage slavery” to describe its perceived injustice (Voss 1993; Thompson 1964). Only after years of prolonged battles between factory owners and workers did workers come to accept the exchange of their labor power for money as legitimate, making it a taken-for-granted reality (Jacoby 1985). Similarly, market actors were initially reluctant to place a price tag on their own lives and organs, yet after mobilization on the part of institutional entrepreneurs these have become taken-for-granted parts of reality (Healy 2006; Zelizer 1979). We observe the question turn from can and should we exchange this commodity to how much should we exchange it for (Almeling 2009; 2007)?

Institutionalized cultural understandings as well as institutional staffs then are constructed to identify given products and their importance, particularly amongst new commodities. Building these institutions is thus a key component of ensuring that a market as a field can sustain itself. These institutionalized rules provide a rubric for what action is possible, but also provide meaning to markets themselves. Scholars for example

have pointed to the importance of cognitive categories within markets, once the problem of commodification has initially been solved. The question here is what is a legitimate part of this market? Coherent cognitive categories for products, for example, increase the likelihood that actors will invest in companies selling those products (Zuckerman 2004; 1999). As well, media discussion of firms and their rivals increase the survival prospects of firms in the early development of a market as a field by legitimating emerging market categories (Kennedy 2008).

Thus, markets work because of the institutionalized cultural understandings and rules across participants that emerge out of repeated interactions and transactions between state, societal, and market actors within the field (Abolafia 1998). These cultural understandings and rules, however, are not inevitable but emerge over time. Key actors develop cultural understandings about how particular markets work, and they mobilize within the field to bring markets into line with those schemas by providing cultural materials for constructing and enacting markets. Lounsbury and Rao (2004) for example found that dominant firms can manipulate the categories of commodities used in a market through shaping how media discuss actors in the market. This enables dominant firms to shape the field to their advantage. Similarly, MacKenzie and Millo (2003) demonstrate how financial derivatives pricing came to resemble the economists' model (the Black-Scholes pricing model) *after* it became institutionalized in the market. Thus, the market conformed to the cultural assumptions about how prices should behave once the cultural tools were diffused throughout the Chicago Board of Exchange. Actors

within a given field can shape the cultural understandings of the field, often constructing the institutions of the field to their own advantage.

It is important in this discussion to recognize that there is an interaction between the informal taken-for-granted rules of field actors and the formal legal rules regulated by institutional staffs. A useful example comes from the development of anti-trust law. Anti-trust laws define appropriate relations between economic actors, thereby shaping the form of cooperative and competitive relations between firms in a market. However, these rules have changed over time, and producers within fields have adjusted their shared informal models for interfirm cooperation based on state-defined and backed rules. When the Supreme Court upheld anti-trust laws in 1897 this eliminated the dominant form of interfirm relationships among railroads – the cartel – leading them to develop new forms of interfirm relations (Dobbin and Dowd 2000). And when the Celler-Kefauver Act of 1950 discouraged within-industry mergers, firms turned to merging across industries (Fligstein 1990). State policy shapes the rules of exchange, which in turn shapes firm behavior and thus the dynamics of markets (Dobbin and Dowd 1997). However, states do not merely define the rules of exchange, but can enforce them to greater or lesser degrees. For example, lax enforcement of anti-trust law under the Reagan administration enabled a wave of mergers in the mid-1980s. Thus, as the enforcement of anti-trust law has ebbed and flowed over time, mergers and acquisitions ebb and flow with it (Stearns and Allen 1996; Davis and Stout 1992). Institutionalized rules and their enforcement provide the parameters around which market participants

engage in the production and exchange of goods and services, and shape the informal models of legitimate market activity.

Institutions then provide the formal and informal rules of markets as fields, constituting the second element of the local social order of markets. They provide legally-binding rules and mental models of legitimate action within the field, generating both resources for and constraints on action within the field. Actors must take into account the consequences of illegitimate behavior in deciding to pursue a particular course of action. As well, actors can use the threat of legal sanctions or tap into the legitimacy of cognitive schemas in the strategic pursuit of their goals.

Institutions, Networks, and Power

While institutions and networks operate to stabilize markets as fields they are also infused with relations of power. Power as traditionally defined developed from Weber's notion that central was the capacity to accomplish one's agenda even against the resistance of others. Markets as social fields are defined by relations of power in which some market actors are able to structure the field in such a way to enable them capture more economic resources, producing the status hierarchy of incumbents versus challengers mentioned above (Fligstein 2001a). This power means that incumbents in a field are able to construct institutions and networks in a way that enables them to capture more economic resources. This could occur through locking others out of their network, making themselves central to the network structure, or creating rules that advantage themselves.

Powerful incumbents in a field then are those that structure the institutions and networks within that field. In the definitions laid out earlier incumbents are the powerful actors in a field because they are able to structure rules, taken-for-granted meanings, and networks of relations to secure economic resources within the market for themselves. Incumbents are not incumbents then simply because the field is structured to their advantage, but they become incumbents because they are able to create local social orders that advantage them.

This capacity to construct local social orders to their advantage reproduces the status hierarchy of the field over time. Status hierarchies are not merely self-reproducing structures, but are actively maintained and reproduced by powerful incumbents. This means that social fields, stabilizing though they are, are sites of power struggles between incumbents and challengers over defining institutions and networks and thus over inequalities that permeate the market.

Conclusion

In elucidating these concepts we can begin to formulate the theoretical process through which institutions and networks interact to organize and reorganize markets as fields. Thinking of markets as fields means that markets contain local social orders, defined by social relations and institutions, which provide stability to the market, ensuring market participants can produce, distribute, and consume goods and services. These local social orders solve the sociological puzzle of how markets can exist. Social relationships and institutions reduce uncertainty, enable trust to form between actors, and

provide the shared meanings that enables market participants to engage in economic exchange. Local social orders ensure the reproducibility of the field itself, pointing to the stabilizing aspects of markets as social fields. Actors understand themselves and the field and so can more easily engage in social action and more readily predict how that action will turn out. In the classic Weberian sense the world becomes rationalized and calculable, which is of course central for market activity.

However, the theory of fields is useful not only because it solves the sociological riddle of private economic exchange, but also because it enables us to understand the dynamic evolution of markets over time. That is, understanding markets as social fields enables us to understand both the stability and dynamics of markets. We routinely observe both large scale and smaller-scale reorganizations of markets, so fields obviously evolve. Scholars propose that fields can evolve from exogenous and endogenous sources. Initial attempts to explain the evolution of fields and field changes were that forces exogenous to the bounded field could disrupt the local social order of a market (Fligstein 2001a; 1996). Economic crises, wars, and demand or supply shocks may potentially disrupt a market providing a political opportunity for mobilizing new institutions and building new social relations from the margins of a field. In particular, challengers may see an avenue for challenging incumbent power by reorganizing the social order of the market itself, mobilizing a new set of institutions and social relations as plausible.

Recently scholars have suggested endogenous processes may also play a role in the reorganization of local social orders. One potential source of endogenous change is the coexistence of institutional logics within a single field. Schneiberg and colleagues

have found in American manufacturing as well as agricultural and insurance industries the presence of coexisting organizational forms operating under distinctive institutional logics within the same field (Schneiberg, King, and Smith 2008; Schneiberg 2007). This suggests multiple local social orders coexisting and potentially coming into conflict with one another in a field as a potential source of endogenous change.

Similarly, the inherent instability of unequal power relations within the field as it is defined suggests a second potential source of endogenous field-level change. Incumbents and challengers have an inherently antagonistic relationship, and pushes from challengers at the margins that lead to market reorganization are always a possibility under such a social organization (King and Pearce 2010; Sorensen 2000; 1997).

A third plausible source of endogenous change within fields is suggested by Evans and Kay's (2008) theorization of field overlap. To the extent that actors in a field are exposed to institutional rules and have social ties with actors in other fields, the taken-for-grantedness of their own local social orders becomes weakened. New ideas can diffuse into the field through relational ties at the overlap of two fields enabling actors to challenge the existing local social order within a given field. Moreover, resources from actors in other fields may provide the political capital necessary to successfully reorganize the social order of a market.

A key question for understanding the dynamics of markets is to understand the endogenous and exogenous processes that play out in changing the local social orders of markets. While scholars have pitted endogenous and exogenous sources of market change against each other, it is quite possible that these processes interact in producing

market dynamics. How they interact is a crucial question left unanswered, and to some extent unasked, in the current debate.

Thus, conceptualizing markets as social fields enables us to theorize the process through which markets are both organized into stable social structures and reorganized over time. One could imagine, however, other theoretical imagery to understand the social organization of markets rather than fields. Conceptualizing markets as ecologies is perhaps the most plausible alternative conceptualization to the field metaphor (e.g. Abbott 2005; Hannan, Carroll, and Polos 2003). Understanding markets as ecologies starts from the premise of a population of organizations producing substitutable goods. Producers then move themselves into niches within the ecology around substitutable goods of a similar quality (White 1981). This imagery would be sufficient were the only actors, or even the main actors, involved in the organization of a market the producers of a given commodity. Ecologies tend to limit us to thinking about producer behavior (e.g. White 1981), but the field concept broadens our image of the organization of markets to include state and societal actors as well as buyers and suppliers.

It is my position that the field metaphor, as elucidated above, is the best theoretical tool to understand both the stabilizing aspects that make market exchange socially possible, as well as the potential exogenous and endogenous sources of market reorganization. Taken together social relations and institutions define the social architecture of fields. Each of these distinctive elements constitutes the field, and through them the field is reproduced and can be reorganized.

The real sociological test for this theoretical framework is in its usefulness for understanding cases of market organization and reorganization. The job of the analyst is to first identify the boundaries of the fields in question. What is the market and who are the actors? What are the relevant policy domains for this market? Demarcating the boundaries of fields is a challenging task as in practice fields routinely overlap and members, and potentially networks of relations themselves, cross field boundaries (Evans and Kay 2008). Defining these boundaries is largely an empirical task, but in doing this the analyst should be looking for where a coherent local social order exists. In markets the analysis is made somewhat easier by identifying a particular good or service that is produced, distributed, and consumed. At a more theoretical level the boundaries of the field however, can be delimited as the social space through which social relations and the institutionalized rules and shared meanings are defined, accepted, and contested as actors pursue individual and collective goals. In markets that goal is the production, distribution, and consumption of a good or service. No theoretical solution can exist except to look for coherent local social orders and a set of actors taking each other into account.

Mapping the social structure of the field is the necessary next step. What are the existing institutions, cognitive schemas, and networks that shape social actions? What are the specific laws that govern the field? There can of course be multiple mental maps of the fields, so which is the dominant one? Who is connected to whom? Once we understand the social structure of the field and who the actors are within it, we can watch over time the sequences of action between various actors, relating them back to the social

relations and institutions of the market. The subsequent chapters will empirically examine this through the case of the U.S. airline industry. Appendix B provides a table of the actors in the airline field under both the regulatory and deregulatory periods.

CHAPTER 3

REGULATED COMPETITION AND THE POLITICS OF THE REGULATORY ERA, 1938-1973

The previous chapter outlined the concept of fields as local social orders emerging out of and defined by social relations and institutions, providing a theoretical heuristic to analyze the organization, reproduction, and reorganization of markets as fields. Importantly, we want to understand how social relations and institutions interact in the evolution of a field. I begin analyzing this interaction in this chapter by asking how the formal institution of a regulatory regime was reproduced in the airline industry from its inception in 1938 until 1973 when an exogenous economic crisis destabilized the institution. It is in this period that an interventionist regime dominated the U.S. political economy and manifested in the airline industry through “regulated competition.” My goal in drawing out the narrative of this period is to see if and how social relations and institutions interact to reproduce the institution of regulated competition.

I will begin with a brief history of the inception of airline regulation and an overview of the industry structure this regulation produced along with its distributional consequences. I then focus on the relational contestation within the regulatory institution. My observational strategy is to follow actors over time to observe their interactions and how they jointly reproduce the local social order in the field. I draw on the secondary histories of the industry as well as the general news press (Wall Street Journal and New York Times) to identify and follow these actors and their activities within this field over time. With this I observe how this political contestation was embedded in the institution

of regulated competition, leading to a network of actors in the field who routinely questioned how the state should intervene but not whether or not it should intervene. The dominance of this institution shaped the parameters of political struggles within the industry constituting a network of actors whose actions legitimated regulation as an institution, even as they fought over the proper regulatory strategy for the industry.

Organizing the Airline Industry

The airline industry barely existed until WWI, when the war-making needs of the U.S. government led it to invest in aircraft technology. During WWI Congress established an Aircraft Production Board to fund and oversee the construction of military aircraft (Vietor 1994: 24). As the war came to a close it became clear that these machines had civilian uses, and the U.S. Post Office established scheduled air mail service for its required mail delivery. Thus, the early days of the industry were largely organized around transporting mail, though by the 1930s a very small luxury travel market had emerged. Such usefulness for military and civilian activities elevated the industry to the status of an important developing industry by the 1930s.

In 1925 Congress passed the Kelly Airmail Act to enable the Post Office to contract its airmail service through a competitive bidding process among private airlines. This established a competitive unregulated market for contracts to transport mail for the Post Office. However, during the mid-1930s the industry began experiencing declining profits and high rates of firm failure. It was then that the organization of the airline industry as an unregulated market was questioned. The competitive bidding process was

now being blamed for the instability of the industry. A consensus emerged between the state and the airlines that unregulated competitive bidding was creating “destructive competition” as they observed airlines undercutting each other through below-cost bids that led to declining profits for all airlines. Bidding wars between airlines were producing a downward spiraling of prices and it was feared that this would leave only one or a few firms to survive and monopolize the market in the long run.

Given the perceived imminence of destructive competition the alternative of state management of competition in the industry emerged as a viable solution. Under such a regime competition would be allowed but it would be managed by the state to ensure that it did not become destructive.³

The broader context in which regulated competition developed in the airline industry was the politics of the Great Depression. It was during the Great Depression that policy-makers, bureaucrats, experts, activists, and even some in the business community turned away from a liberal political economy toward accepting the state as the steward of the economy, overseeing its health and vitality. In fact, the airline industry’s central trade association at the time, the Air Transport Association (ATA), took the lead in the mid-1930s in lobbying for regulated competition administered by an independent commission (Viator 1994; Behrman 1980; Caves 1962). At a macroeconomic level the state’s stewardship led to the embrace of Keynesian-style demand management and fiscal

³ It should be noted that the benefits of competition were never questioned, only the capacity for unregulated competition in this industry. The significant departure from the previous regime is that the state would allow competition to exist when and where it would be beneficial but manage that competition to ensure it did not lead to undesirable outcomes.

spending, but the microeconomic corollary was industry level regulation. It was in the same political moment of airline regulation that controls over other industries such as the banking and trucking industries emerged. This was a dramatic departure from the until then dominant 19th century liberal notions that the state will only hinder economic progress through regulation as the economy operates best when the invisible hand of the market is allowed to operate unobstructed. It should be remembered that liberal ideal of an unregulated market has never existed as economies are always at some level organized by the state (Krippner 2001; Block 1990; Polanyi 1944). This, however, is not to undermine the point that in this period economic intervention increased as it became legitimate, and to some extent desired by most actors, for the state to overtly manage the economy.

The Emergence of the Regulatory Institution

The crisis in the airline industry coupled with the shift toward state stewardship of the economy led Congress to pass the Civil Aeronautics Act in 1938. The Act's Declaration of Policy was to provide the basic framework of regulation in the industry for the following forty years:

Sec. 2(c). The promotion of adequate, economical, and efficient service by air carriers at reasonable charges, without unjust discriminations, undue preferences or advantages, or unfair or destructive practices;

Sec. 2(d). Competition to the extent necessary to assure the sound development of an air transportation system properly adapted to the needs

of the foreign and domestic commerce of the United States (cited in Vietor 1994: 30).

Thus, the decisions of the Board were, according to the statute, to promote the “sound development” of an economically viable industry in the public interest. Competition was to be allowed “to the extent necessary” to achieve this goal. To ensure this the Act institutionalized a five-member independent regulatory commission initially called the Civil Aeronautics Authority, shortly thereafter renamed the Civil Aeronautics Board (CAB) under a Reorganization Plan from President Roosevelt in 1940.

With this statute the CAB produced a system of what came to be known as “regulated competition,” controlling the fundamental economic features of the airline industry, including industry entry and exit, fares, route awards, and mergers. Under regulated competition the CAB employed a petitioning process to decide who could enter and exit the industry and which routes they flew on. In order to begin flying a potential airline had to first petition the CAB to obtain a certificate of “public convenience and necessity” to fly a regular schedule on a regular set of routes. No firm could start providing flights without the CAB’s approval. Certification was not merely a formality, as the CAB certificated no new trunk airlines⁴ after 1941. Similarly, no firm could stop providing service without their approval. The CAB typically ensured that no major carrier went out of business, through merger if necessary but more typically through providing subsidies or manipulating route awards.

⁴ I will detail the structure of firms in the industry shortly, but trunk carriers are the large national carriers whose history dates to the emergence of regulation. They are the incumbents in this industry.

Once an airline obtained a certificate to fly they had to then petition the CAB for particular routes to fly on.⁵ No airline could fly from one airport to another without authorization from the CAB. This is crucial because the industry is composed not of a single market but numerous city-pair routes each of which constitutes distinct markets. Thus, a firm's goal once allowed to fly was to capture and control profitable markets. Exiting a route was also quite difficult and direct subsidies from the government, a unique feature of the airline regulatory regime likely derived from its historical connection to transporting mail, were until 1954 used to subsidize airlines on less profitable routes to smaller communities (Rose, Seely, and Barrett 2006). Routes were constantly contested, especially as the industry expanded, and there was a continual process of airlines petitioning to enter and exit routes. Control over route awards provided the primary regulatory tool that the CAB used, and not coincidentally was the central point of contention in debates over the CAB's control of the industry. The issues around entry onto and exit from routes would more or less define the debate around regulatory reform in the 1970s.

The regulation of fares was a little more complicated than entry and exit, and most clearly reflected the ambiguities in the 1938 Act that provided a flexible interpretation by the CAB. The Act gave the CAB the power to disallow fares it deemed unreasonable or harmful to either the industry or the public. One can immediately see the

⁵ I am separating the two functions of entry into the industry and onto specific routes for analytical purposes. In the actual process the petition for initial service always specified the routes the proposed firm would fly on. However, it is important to remember that this process of petitioning for routes continued after a certificate to fly was obtained as airlines attempted to expand their route structure.

problems inherent in such a formulation. Defining what is unreasonable is complicated, but defining what harms neither the industry nor the public poses an even greater challenge as the public would presumably always prefer lower fares while the industry would always prefer higher fares. The CAB's initial response was to monitor rather than set fares. Airlines had to file tariffs with the CAB stating their fares for every route and the Board had the power to force an airline to change a fare if they deemed it in violation of the Act. However, by the mid-1950s they shifted toward setting target rates of returns on investment and establishing fares for airlines that attempted to achieve this rate of return.

The regulation of industry and route entry and exit and of fare-setting provided the framework through which the CAB would manage competition in the industry and led to the particular structure of the industry I will outline below. Thus, it was the particular institution of regulated competition underpinning the industry, developed out of the broader institution of state interventionism developed in the 1930s, that generated a distinctive industry structure and its consequences for the distribution of economic value within the field.

Structuring a Regulated Industry

At the onset of regulation, the 16 existing carriers were grandfathered in as certificated carriers, holding on to their existing route structures (Frederick 1961: 77). These carriers were American, Braniff, Chicago and Southern, Continental, Delta, Eastern, Inland, Mid-Continent, National, Northeast, Northwest, Pennsylvania-Central,

Transcontinental and Western (TWA), United, Western, and Wilmington-Catalina. Pan American (Pan Am) was also grandfathered in as the flagship overseas airline. After certificating two additional carriers in 1941 – All American Aviation and American Export Airlines – the CAB decided that “In the absence of peculiar circumstances presenting an affirmative reason for a new carrier, there appears no inherent desirability of increasing the present number of carriers...” (cited in Frederick 1961: 150). These 18 carriers became known as the trunk airlines, though eventually their ranks would be reduced to 11 through the merger of the less financially sound carriers into the other trunks. By the onset of deregulation the remaining eleven remaining trunk airlines were American, Braniff, Continental, Delta, Eastern, National, Northwest, Pan Am, TWA, United, and Western.

The trunks dominated the industry, holding route certificates for the major national markets. For a brief period in the early 1940s they were the only certificated carriers. They used this status and power throughout the tenure of regulation to maintain their dominance in the industry, often using the CAB to lock other firms out of their markets.

It should be recognized at the outset that regulated competition did not mean the elimination of competition between airlines for passengers it simply meant this competition was to be regulated. In fact there was often more than one airline on a given route, though it rarely exceeded more than three (Caves 1962: 20, Table 3). But the regulation of fares in the airlines prevented direct competition around prices. Thus, in many markets there was competition between airlines to attract passengers, and thereby

obtain more revenue, but the form of competition was organized around service quality. Airlines sought to attract passengers primarily through better in-flight services (e.g. meals and entertainment) and more frequent flights for customers to choose from on a given day. This of course ratcheted up the costs incurred for every flight, but was seen as necessary in the absence of price competition.

Under regulated competition we can think of the trunk airlines as the principle incumbents of the industry, yet over time CAB decisions produced several classes of challenger firms. Returning to the discussion in chapter 2, challenger firms are those who are disadvantaged by the existing institutions of a market (Fligstein 2001a; 1996). Typically, they are confined to less profitable niches in an industry or market and unable to capture the profits that incumbents get from controlling more profitable niches. As we will see below, challengers in this industry were confined to specific niches within the industry, and thereby unable to directly compete with incumbent airlines. Two decisions by the CAB provided for the emergence of a set of challengers. First, shortly after its formation the CAB exempted certain airline types from regulation, allowing an airline to fly without a certificate but only if the airline did not operate on a regular schedule. These carriers came to be known as the “irregulars”⁶ as they did not fly regular schedules as did the certificated carriers. The goal was to enable a set of carriers who could supplement the trunks during peak times or when the scheduled carriers could not provide enough service. Second, in 1943 the CAB further expanded the number of

⁶ In 1955 after a prolonged battle over rules related to the irregulars (discussed below) the CAB renamed this class the supplementals (Frederick 1961: 187). Others in the industry and press also referred to them as non-scheduled airlines to distinguish them from the scheduled airlines, both trunks and locals.

challengers by beginning to award certificates to a new class of “local carriers.”⁷ This established a new class of service within the regulatory institution to provide service on short-haul routes that fed into the trunks long-haul routes. The Board nurtured the development of this challenger class by channeling mail subsidies to it and by 1949 certificating 21 additional local carriers. Nevertheless, they were segmented onto less profitable routes with little direct competition with the trunks. By the mid 1950s only 13 of the 22 local carriers had survived (Viotor 1994: 33).⁸

In addition to the locals and irregulars the rules spelled out in the 1938 Act also enabled another set of challengers to emerge: the intrastate airlines. The Act specified that the CAB was to regulate all “interstate” airline operations, leaving open the possibility for the development of non-CAB regulated carriers as long as they flew only within the borders of a given state. Not surprisingly these markets emerged primarily in California and Texas, but also to a lesser extent in Florida, where there were multiple airports and a large geographic landscape. Intrastate airlines could directly compete with scheduled airlines on routes within those states without any interference from the CAB. State regulatory commissions did emerge to regulate intrastate airlines, but arguably under significantly less stringent rules than the CAB, typically allowing more pricing and route flexibility.

The existence and expansion of the locals, irregulars/supplementals, and intrastates did not fundamentally undermine the restrictive entry practices of the CAB

⁷ These were also often referred to as “feeder lines” because they were designed to feed traffic into the major routes of the trunks.

⁸ When these local airlines died other locals typically petitioned to obtain their routes, and the subsidies that were often attached to them.

that would be the contentious hallmark of the regulatory institution. The CAB allowed non-trunks to fly but segmented them into specialized markets thereby protecting the trunk airlines. At no point after the early 1940s did the CAB grant a certificate to a new trunk airline, and never permitted challenger firms into direct competition with the trunks. The locals were only allowed onto short-haul, less profitable routes that the trunks did not want. The supplementals were limited in the number of flights on any given route, and the intrastates were geographically limited to a single state. Despite sporadic instances of certificating second-class carriers such as the locals in the 1940s and 23 large irregulars in 1959, the CAB remained true to their 1941 decision that the number of existing trunk carriers was sufficient to ensure the public convenience and necessity. Appendix C provides a table of incumbent and challenger airlines over the regulatory and deregulatory periods.

The Distributional Consequences of Regulated Competition

While the stated goal of regulated competition was to ensure adequate service to the public and a “reasonable” rate of return for firms while avoiding destructive competition that was argued to plague the industry before regulation, it also produced an oligopolistic industry structure. Through its enactment of regulated competition the CAB produced a stable market structure, but it also created route-linked oligopolies and monopolies for existing firms by erecting legal barriers to entry and constructing an explicitly political process for market organization. Data on the population of airline firms from the Department of Transportation Form 41 Forms, aggregated to annual firm-

years, enable us to observe the balance sheets of airlines during both the late regulatory and early deregulatory periods (1968-1988). This allows us to uncover the distributional consequences of regulated competition across airlines in the industry and observe the extent to which regulated competition provided not only a stable market but power to incumbent airlines.

Below I detail measures of market share, consumer rents, and airline profits across challenger and trunk airlines under regulated competition and after deregulation to understand the extent to which regulated competition protected the market power and status of trunk airlines. I follow the population of airlines from 1968-1988, using 1968-1977 as an indicator of the distributional structure of the industry during the regulatory period and 1978-1988 to understand how the distributional structure changed immediately following deregulation. All of the trunk airlines are included, and from 1968-1978 all challenger airlines holding scheduled certificates (primarily local airlines) are included. After 1978 all airlines except the smallest commuters are included. All financial data are reported in 2005 dollars.

Figure 3.1 plots two measures of market share – revenue share and passenger share – controlled by the eleven trunk airlines to assess the extent to which the industry was organized into an oligopoly through the regulatory period. Each share measure was calculated as the proportion of revenue and passengers trunks collectively captured. Here we see that in 1968 incumbent airlines controlled 93 percent of the revenue generated in the industry, and 83 percent of the passengers. While their share of the market declines to 86 percent of the revenue and 78 percent of the passengers by 1978, we still observe a

substantial oligopoly position for incumbents under regulated competition. This oligopolistic structure was created by the entry control mechanism the CAB employed. The denial of challenger entry into the industry except into small niche markets successfully protected the incumbents from competitive incursion onto their routes.

However, the steady decline in market share for incumbent trunks over the period indicates a real and increasing market threat that challengers posed to incumbent airlines as challengers were increasingly capturing more of both the total revenue and passengers in the industry over this period. Because of the CAB control over entry onto routes much of this decline is attributable to the expansion of traffic on niche markets that challengers controlled. After 1978 when the industry was deregulated we of course see the further decline of trunk market share as challengers were now able to directly challenge trunk airlines in their own markets. There is a noticeable uptick in market share for trunks that began in 1985 and leveled off in 1988. As later chapters will demonstrate this was due to the consolidation of the industry that began in 1985 as trunks developed new institutions and social relations in the mid-1980s to protect their market position.

It is clear that the CAB's control over entry into the industry enabled an oligopoly, even if a modestly declining one at the industry level. The consequence of this institutional structuring was that it enabled substantially higher rent extraction from consumers for trunk airlines. Figure 3.2 documents the consumer rents for incumbent trunk airlines and challengers from 1968 to 1988. While the data do not possess specific information on fares, I constructed an aggregate measure of revenue per passenger by calculating the aggregate revenue derived from transporting passengers divided by total

number of passengers flying on each airline in each year. I then took the median of these revenues for trunk and challenger firms. These measures then represent the average revenue that is extracted from individual passengers by trunk and challenger airlines, respectively. In this way it is a measure of the rents paid to airlines by consumers when flying on trunk airlines.

We can compare trunks' passenger revenues to challengers' in both the regulatory and deregulatory periods to assess the extent of rent extraction from consumers by trunks. On average trunks were able to extract substantially more revenue from each passenger than challengers during the regulatory period. From 1968 to 1978 trunk revenue per passenger averaged \$118.76 more than challengers, compared to an average of \$99.03 premium from 1979-1988. This suggests that trunks were able to both negotiate higher fares with the CAB on their routes as well as monopolize the most lucrative, high fare routes. The former mechanism is most plausible in the early regulatory period before the General Passenger Fare Investigation (GPF) that concluded in 1960. Out of the GPF the CAB constructed a set of utility-like ratemaking standards that specified a "reasonable" rate of return on investment for airlines to which fares were to be set – 10.25 percent for the four largest trunks and 11.25 percent for the remaining eight (Viotor 1994: 38).

Comparing consumer rents in the regulatory period to those after deregulation in 1978 we observe an immediate increase in the rents extracted from consumers by trunks followed by a steady decline.⁹ Rents captured by challengers remain relatively stable

⁹ This decline continues throughout the 1990s and 2000s as well.

throughout, but trunk fares slope steadily downwards. This downward trend has been identified at the industry-level (collapsing challengers and trunks) going back to 1938 (Borenstein and Rose 2008: Figure 3), but in distinguishing between trunk and challenger airlines we see this is likely the product of a steady decline in the trunks' capacity to extract rents over time. Thus, it is not clear that it was deregulation's breaking of the monopoly power of incumbents that directly led to destroying their capacity to extract rents from consumers. However, research on fares across city-pair routes also shows an overall decline in average fares on routes as competition increases on them (Borenstein and Rose 2008; Morrison and Winston 1995; Borenstein 1992). Thus, the increase in competition that deregulation generated likely had some effect on breaking the monopoly rents trunks extracted from consumers.

The revenue extracted from consumers generated a stable flow of excess profits to trunks. Figure 3.3 graphs the collective profits of trunks and challengers in this period, constructed by simply summing operating profits every year for all airlines in each class of airlines. For ease of interpretation and to reduce the cyclical effects of the business cycle on profits the trends are presented as three year moving averages. However, the numbers discussed are the real numbers for a given year rather than the averages. The monopolization of high fare routes produced significantly higher aggregate profits for trunk airlines than for challengers during the regulatory period, despite being numerically smaller than the challengers (11 trunks vs. 24 challengers in 1978). This suggests that trunk profits were enabled and protected by the structure of regulated competition that protected incumbent markets and generated substantial rent extraction from consumers.

This interpretation is bolstered by the change in profit distributions after deregulation in 1978. After 1978 trunk profits plummeted, dropping below zero by 1980. By 1982 this reversed again and by 1984 trunk profits were again higher than challengers. As with market share this is again due to the consolidation of the industry and the reconstruction of institutions and social relations by the mid-1980s. Thus, the shift in the institutions underpinning the industry destroyed the stable profits that were generated from CAB protection of the most lucrative markets for trunks and extraction of rents from consumers therein. However, new institutions built by the mid-1980s helped maintain the power of incumbents.

It is clear then that the institution of regulated competition produced a monopolistic position for trunk airlines in the industry enabling them to extract more revenue from consumers than challengers were able to capture. Regulated competition advantaged incumbent airlines at the expense of both consumers and challengers. It should also be noted that incumbent airlines shared their rents with their unionized employees. Figure 3.4 documents the income rents for airline workers from the 1968-1988 using data from the Current Population Survey. Income rents are measured as the wage premium that airline workers receive compared to similarly skilled workers. This premium is calculated by regressing annual earnings on a standard set of human capital measures (age, age-squared, education, and weekly hours worked) along with a dummy indicator for whether or not the respondent worked in the airline industry or not (more information on this model can be found in Appendix A). The wage premium for airline workers is then represented by the coefficient for the airline industry dummy. The figure

demonstrates a substantial wage premium for airline workers that rose in the late 1960s and began a steady decline from the mid-1970s onward. The steady decline beginning in the 1970s is likely a result of the rapid inflation of the period. Interestingly, the rent for workers does not dissipate with the onset of deregulation, at least not rapidly.¹⁰

The distributional structure of the industry helps us make sense of the political maneuvering and mobilization of the regulatory period. As we will see challengers mobilized against being locked out of trunk routes, and consumers mobilized against the high fares they paid on these routes. As challengers and consumers mobilized to destroy the monopoly rents of incumbent trunks, the trunk airlines sought to maintain this distributional structure and the rents it produced for them. However, I will show how the institutional legitimacy of regulated competition channeled this political mobilization in such a way as to reproduce rather than eliminate regulated competition. Thus, a power imbalance in a given field is not likely to be sufficient by itself to enable the reorganization of that field. Political mobilization around distributional inequality is equally likely to reproduce the institutional arrangements of a field.

The Reproduction of the Regulatory Institution

Institutionally Embedded Mobilization

The starting point for understanding the reproduction of regulation up to the 1970s is the embeddedness of regulated competition in the institutionalized understandings of industry participants, regulators, policy-makers, and experts. By the

¹⁰ Extending the earnings premium for airline workers into the 1990s and 2000s shows it is in the 1990s that we begin to see a more rapid decline in the premium.

1940s in the airline industry “regulated competition” was at the height of its legitimacy. At this point even the pro-business, pro-markets *Wall Street Journal* noted in an editorial that “this newspaper has from the first pointed out that neither monopoly nor unbridled competition are tolerable in air transportation” concluding that “our policy as to domestic services is settled in favor of regulated competition” (Wall Street Journal 1943). This did not mean that there was an acceptance of anything the state did in regulating the airlines, but the fundamental assumption was to allow regulation where it seemed appropriate, and for airlines everyone, even the *Wall Street Journal*, thought it appropriate.

Only when regulatory actions were identified to have negative consequences were they questioned. And even then the idea of regulation itself was not in question. For example, testifying on monopoly and competition in the airline industry before the House of Representatives Committee on the Judiciary in 1957, University of Illinois economist Horace M. Gray after documenting several problems with the CAB stated, “I am not advocating that you destroy regulatory commissions. I am advocating that you change their functions and the assignment of responsibility” (U.S. House of Representatives, Committee on the Judiciary 1957: 85). Regulation was legitimated through being understood as either necessary or inevitable.

Academic writings as well offered little in the way of opposition to the institution of regulated competition. A substantial number of professional economists supported regulated competition as necessary as competition was believed to be unworkable in the airline industry (e.g. Richmond 1961; Bluestone 1953; Gill and Bates 1949; Healy 1945). However, several economists argued that competition was actually feasible and would

generate a more efficient industry than could regulation (e.g. Caves 1962; Keyes 1951) but these analysts typically failed to see their alternative as a politically plausible reality. Caves (1962) for example made clear that while economics suggested that competition was workable and potentially beneficial in the airline industry, "...the decision [to regulate or not] is ultimately a political one and [the economists'] role is only to inform" (449). Regulation of airlines was seen as more or less inevitable by economists with links to the airline field and out of their appropriate jurisdiction by others.

This is a marked departure from the liberal presumption that unless it could be proven that intervention was necessary and not harmful it should be avoided. Even when the CAB was suspected of a dereliction of its duties, actors in the field continued to assume the CAB was necessary to manage competition. As the Wall Street Journal critiqued the CAB in 1949 for awarding mail subsidies to airlines with the poorest financial records, they traced the poor financial record of these airlines to "mistakes by the Board itself in awarding too many competing routes...and other circumstances beyond the control of management" (Wall Street Journal 1949a). As well, the Journal praised the CAB's acceptance of the innovative coach and discount fares that diffused through the industry in the late 1940s, noting that while the Board allowed the fares they were simultaneously "preserving safeguards against the spread of [these fares] to an uneconomical level" (Wall Street Journal 1949b). They concluded that the Board had studied the issue and allowed the new competitive fares after "a full weighting of the facts, rather than on the doctrinaire basis which has often marked the decisions of

powerful government agencies” (Wall Street Journal 1949b). This was evaluated as the proper management of competition.

The legitimacy of regulated competition had clear consequences for political mobilization within the industry. Several investigations into the CAB and the institution of regulated competition were conducted by Congress and agencies in the Executive throughout the existence of the institution. By the mid-1940s discontent from economic decline in the industry and safety concerns led President Truman to establish in 1947 a Presidential Air Policy Commission to investigate potential problems in air transportation. At the same time Congress established a Congressional Aviation Policy Board for a similar probe into the airline industry and the CAB. However, when these ad hoc groups released their reports neither were critical of the Board, but endorsed the necessity of using the CAB to improve the situation in the airlines (Caves 1962: 274-275).

Further investigations as we will see were similarly aimed at improving the administration of “regulated competition” towards the agenda of specific actors. The Eisenhower administration took an early and particularly active role in assessing the performance of regulatory agencies. Secretary of Commerce in the Eisenhower administration, Sinclair Weeks, organized a Commission designed to investigate whether or not there was a need for altering the regulation of the transportation industries. Weeks was clearly interested in introducing price competition to the trucking and railroad industry, but wanted to leave the airline industry intact because of its relation to

defense.¹¹ However, there were very few Congresspersons interested in restoring competition to either of these industries (Rose et al. 2006). What ultimately emerged from the Weeks Commission was the Transportation Act of 1958, which reorganized the regulation of the railroads and trucking by the ICC but did not substantially deregulate them. The airlines were not addressed. The Transportation Act of 1958 proposed minor changes in the administration of the Interstate Commerce Commission (ICC), the independent commission that regulated the railroads and trucking.

Around the same time as the Weeks Commission the Senate Anti-trust subcommittee of the Judiciary Committee began investigations into the issue of monopoly and competition in regulated industries, but virtually no one at this hearing suggested any form of deregulation of the airline industry even while advocating that more competition be allowed by the CAB. In 1958 airline industry regulations were reorganized under the Federal Aviation Act, but the notable achievement of this act was to transfer the regulation of airline safety to a new Federal Aviation Agency. Under the Kennedy Administration discussions of what would be the most dramatic regulatory era proposal began, continuing after Kennedy's death in the Johnson Administration. This proposal sought to unify the regulation of all transportation industries under a "Federal Transportation Commission." This was not successful, with Johnson only being able to develop a Department of Transportation to advise the Executive on transportation policy (Rose, Sealy, and Barrett 2006). While some of these proposals were aimed at reducing regulatory burdens over the industry and enhancing competition, the notion of full

¹¹ The airlines had been central to transporting military personnel and cargo during World War II and the more recent Korean War.

deregulation was never identified as a potential policy option, and even these limited proposals never generated much Congressional support (Rose et al. 2006).

Challenger Mobilization: The “3 and 8 Rule”

Perhaps the most powerful evidence of the institutionalization of regulated competition in political mobilization is that even when challenger firms mobilized in the 1950s against the rents that the CAB generated for trunk airlines they sought to be brought into the fold of economic regulation rather than to dismantle it. In 1946 a glut of post-WWII aircraft and pilots expanded the number of irregular carriers. A CAB investigation into the exempted large irregular carriers¹² concluded that many of them rather than providing supplemental service to the scheduled carriers were actually providing service that approximated the regularity of scheduled trunks.¹³ Upon its investigation the CAB removed its blanket exemption of large irregulars in May of 1949 and a year later announced what became known as the “3 and 8 rule” (Vietor 1994: 33). Under this rule the CAB restricted the number of flights that large irregular airlines could fly in a month to 3 on 13 high-density routes and 8 on the remaining routes. Demonstrating that this was not a mere formality, in 1951 the CAB began denying exemption rights to previously exempted carriers (Behrman 1980). This obviously led to

¹² A distinction was made by the CAB amongst the irregular carriers based on the size of the aircraft the airline used. Large irregular carriers were defined as those using individual aircraft with gross take-off weights of 12,500 pounds or fleets with an aggregate gross take-off weight of over 25,000 pounds (Frederick 1961: 182).

¹³ From the inception of regulation the rules for the irregular carriers exempted from CAB regulation were ill-defined. All that was necessary for carriers with this exemption was that they file operating reports with the CAB to identify their activities.

substantial declines in market share for these carriers as they were formally blocked from capturing many passengers.

This rule restricted these challenger airlines' access to incumbents' markets, and the irregulars began referring to it as a "death edict" (New York Times 1951). They responded by organizing themselves into trade associations and mobilizing to reverse the CAB restrictions. In June of 1950 twenty-seven irregular carriers formed a new trade association, the Air Coach Transport Association (ACTA), to fight the CAB's efforts to in their words "force us out of business" (New York Times 1950a). The broad goals of the ACTA were identified by Philip Mann, their newly elected President, to the New York Times as "...to resist efforts of the Civil Aeronautics Board to 'force us out of business' and to fight regularly scheduled airlines for the air-coach business developed by the smaller carriers" (New York Times 1950a). That same month fifteen irregular carriers pledged a total of \$50,000 to fight the CAB's "3 and 8 rule" (New York Times 1950b).

A month later a second organization representing 17 of the irregulars, the Independent Military Transport Association (IMTA), was established (New York Times 1952).¹⁴ In 1952 the IMTA increased the pressure on the CAB by releasing a policy statement demanding a Congressional inquiry into the alleged improper practices of the CAB towards the irregulars. The statement is quite revealing of the legitimacy of the underlying institution of regulated competition in which this political struggle was being

¹⁴ These two trade associations actually had some overlapping membership, but the latter focused on irregulars specializing in military transportation, both personnel and cargo. These two associations merged in 1957 to form the Independent Airlines Association (IAA).

fought. The IMTA proposed eliminating all subsidies (which few of them received), the creation of an agency to assist the irregulars in financing the purchase of aircraft,¹⁵ and the reorganization of the CAB to provide for special representation to the Board for irregular carriers (New York Times 1952). Notably, among these three proposals only the first reduces the CAB's role, while the remaining two simply attempted to redirect regulation to assist the irregular carriers.

This statement was partially responsible for the organizing of Congressional hearings into the relationship between the CAB and the irregular carriers. At these Congressional hearings the irregulars accused the CAB of protecting trunk airlines from competition with irregulars that would ultimately benefit the public (U.S. House of Representatives 1957). Importantly, the irregulars argued they had developed coach fares, offering fewer frills at a lower ticket cost to spur more traffic onto routes. This was seen as an attack on trunk carriers, leading trunks to file for similar discount fares when they could not eliminate the fares altogether. Irregulars argued that the trunks would soon abandon such service if they were forced out of business. This issue over coach service was central as the decision to reject irregular carriers petitions for certification were couched in the assumption that the scheduled carriers were already able to provide this service desired by the traveling public (CAB Reports 1951). Some members of Congress, particularly those on the Senate Select Committee on Small Business also

¹⁵ Because of the irregular structure of their operations the irregular carriers had a harder time than certificated airlines of obtaining private financing for the expansion of their operations.

applied pressure on the CAB to remove what they perceived to be anti-competitive restrictions (Wall Street Journal 1951a).

At no point in this battle over the “3 and 8 rule” did the irregulars seek the elimination of the CAB, or even alterations to its present statute. These challengers could have sought to dismantle the regulatory structure that blocked their full and equal participation in the market. Subsequent deregulation in the 1980s suggests such an attack might have more forcefully attacked the rent-maintenance of the scheduled airlines generated from the regulated industry structure, but deregulation was never on the table as no actors in the field were calling for it. Instead the irregulars sought to gain access to the regulatory institution and the rents that inhered in the CAB regulation. Through this struggle they partially achieved that goal. In 1955 the CAB certificated 16 previously nonscheduled carriers as “local service” airlines. Then in 1959 23 of the large irregulars were granted certificates to fly regular schedules as a new class called the “supplementals” (Behrman 1980: 88; Frederick 1961: 187), but these certificates were fought in court by the trunks who won the revocation of the certificates in 1960 (Frederick 1961). Nevertheless, challenger actions suggest they interpreted regulated competition as either legitimate or inevitable and therefore framed their mobilization around its legitimacy.

Political struggles over competition with challengers would continue into the 1960s. The trunk airlines had fought to prevent the CAB from certificating the irregulars in 1959, and immediately upon the certification of the new supplemental airlines they filed suit against the Civil Aeronautics Board to have the certificates thrown out (United

Air Lines, Inc. v. Civil Aeronautics Board 1960). The supplemental airlines fought back, eventually winning permanent certification in 1962 (Wall Street Journal 1962). Thus, despite being routinely blocked entry into regular service and frequently attacked by scheduled airlines and the CAB with attempts to limit what service they could provide, their consistent strategy was to get certificated so that they could be near-equal participants with scheduled carriers (Wall Street Journal 1962; Wall Street Journal 1952; Wall Street Journal 1946). Despite noting that many of the regulations may potentially harm them, their mobilization suggests they believed the CAB could assist them in developing their markets and were not particularly interested in or could not conceive of unregulated market competition.

The Anti-Monopolist Challenge: Consumers and Politicians Attack Monopoly Rents

By the mid-1960s a political backlash to the CAB itself emerged in a growing consumer movement backed by a set of pro-consumer politicians, an alliance that challenged the monopoly rents of airlines through the CAB. This was a broad-based movement in which consumers and anti-monopolist politicians were attacking what were seen as monopolistic practices of big business during the period (Vogel 1989). The target here was not regulation per se, but regulation that benefitted large monopolistic firms at the expense of consumers. Airlines were targeted as such monopolistic firms.

Part of the stated goal of the CAB was to foster the development of the industry beyond mail subsidies to expand it into transporting more passengers. The CAB's actions to allow the emergence of coach fares in the 1940s were part of this effort.

Consumers in the airline industry were generating an increasing amount of revenue for scheduled carriers beginning in the 1950s. However, the expansion of mass passenger travel was not coupled with a break in the monopolies of incumbents or a general decline in fares. Thus, many pro-consumer politicians began to see the CAB as protecting airline monopolies rather than consumer interests.

There were general attacks on the CAB in the mid-1960s, such as Senator Edward “Ted” Kennedy’s statement on the Senate floor calling for investigations into the potentially monopolistic practices of Eastern Airlines in his constituencies’ Boston market (Wall Street Journal 1965; Kennedy 1965). And in 1967 Senator Philip Hart, Chair of the Senate’s Antitrust Subcommittee, called for Senate staff investigations into the potentially monopolistic practices of several regulated industries, including the airline industry (Wall Street Journal 1967). This political backlash to the CAB heated up however after the CAB’s response to an economic downturn that began in the late 1960s. As airline profits began to fall the CAB restricted competition in the industry through a series of actions that appeared to be blatantly protectionist. In 1969 Secor Browne became the chair of the CAB and immediately his administration began an unofficial policy of not accepting any new applications for route awards, what became known as the “route moratorium” (Viotor 1994: 46). The goal of this action was to improve airline profits by reducing competition and increasing the number of passengers on each flight (Behrman 1980: 97). At the same time the CAB met secretly with several airlines and agreed to a general fare increase across airlines of 6.35% (Wall Street Journal 1970a). Finally, in the summer of 1970 the CAB allowed three trunk airlines - TWA, United

Airlines, and American Airlines – to hold private meetings to arrange for coordinated reduction in capacity on their overlapping routes (Vietor 1994: 44; Behrman 1980: 98). This would allow the trunk airlines to reduce what they considered “excess competition” on their shared routes (Wall Street Journal 1970b).¹⁶

Each of these actions appeared to consumer activists and anti-monopolist politicians in the field to be collusion between airlines that was either facilitated or accepted by the CAB. Rueben Robertson, a leading lawyer for the newly founded airline consumer advocacy organization the Aviation Consumer Action Project (ACAP), suggested that the CAB is “an instrument of the airline industry cartel” (Lydon 1971) while consumer advocate Ralph Nader in a letter to the CAB chairman Secor Browne referred to the CAB as “a minion of the airline industry, rather than an agency designed to protect the public” (New York Times 1972). In responses to the fare increase, in particular the secretiveness of its arrangement, California Democrat John E. Moss in the House of Representatives filed a formal petition signed by 31 other members of Congress protesting the increase. Within a year a federal appeals court overturned the fare increase mandating that all fare decisions be determined through public hearings, raising in their written decision the question of whether or not industry regulations provided protection for consumers or the airlines (Wall Street Journal 1970a; Moss v. Civil Aeronautics Board 1970).

¹⁶ In most industries this would be considered illegal price fixing. However, the 1938 Act gave airlines anti-trust immunity, placing all authority over anti-competitive behavior in the hands of the CAB. Such immunity enabled these instances of price fixing.

Politicians' willingness to critique the CAB's seeming protectionist policies emboldened consumer groups critical of many of the CAB actions they perceived to be benefiting airlines at the expense of consumers. Joining ACAP were other consumer groups in the airline industry, such as the Airline Passengers Association and the Americans for Charter Travel, as well as general consumer groups like the Consumer Federation of America, the Consumers Union, the National Consumers' League, and the Cooperative League of the USA. These groups largely acted as consumer watchdogs and lobbyists for consumers. As consumer watchdogs their central tactics were lobbying around specific regulatory issues, filing lawsuits against the CAB for regulatory practices not in consumer interests, filing complaints against specific airlines to the CAB in order to enforce better regulation, and publicly denouncing specific practices of the CAB and airlines that harmed consumers. Thus, when Nader uncovered that airlines were charging interstate passengers more than intrastate passengers on the same flight, presumably to compete with the lower fares of intrastate airlines, he filed a complaint with the CAB (Wall Street Journal 1971b). When the Consumers Union found that airlines were charging more than the CAB approved fares for connecting flights involving multiple carriers they published a report in *Consumer Reports* and threatened along with other consumer groups to file a class action lawsuit against the airlines (Wall Street Journal 1972). In 1973 when the ACAP alleged that some airlines were not flying their required minimum number of flights to small towns they filed a complaint to the CAB (Wall Street Journal 1973). When in the midst of a gas shortage the CAB allowed airlines to raise their prices while they simultaneously cut their number of flights the ACAP filed a

complaint to the CAB (Reisig 1973). None of these actions sought the dismantling of regulated competition, but fought to adjust or enforce regulations in the interest of consumers.

Thus, as with challenger's mobilization against incumbent airlines in the 1950s and early 1960s, consumers and anti-monopolist politicians embedded their political mobilization *within* the dominant institution of regulated competition. Consumers during this period sought regulation in their own interests, i.e. regulation that would eliminate airlines' monopoly rents but not an end to regulation itself. Their primary goal was to ensure regulatory agencies served consumers' interests, rather than act as an "instrument of the airline industry." This was after all the presumed purpose of regulation. So, rather than argue for total deregulation consumer organizations and anti-monopolist politicians argued for representation of consumer interests to and within the CAB. Similar to the limited success of the challenger airlines in the 1950s and 1960s, in 1972 the CAB created the "Consumer Advisory Commission" (Rose et al. 2006). Even as deregulation proposals were emerging in 1975 Ralph Nader called deregulation a "consumer fraud" (Nader and Green 1975) and urged that even while reducing economic regulations Congress must include tough consumer protections (New York Times 1977).

Conclusion

In spite of political attacks from challengers, consumers, and anti-monopolist politicians the proposals developed to challenge the market power of trunks were geared toward changes in how regulation was administered, not its fundamental existence. This

chapter demonstrates one mechanism through which markets as fields are reproduced over time. Fields are organized through institutions that the majority of actors in the field accept as either legitimate or inevitable. These actors then use these institutions as resources in pursuing their own strategic goals. Throughout the postwar period state intervention in the economy was legitimated as either necessary or inevitable. This at least partially enabled the Civil Aeronautics Act of 1938 that produced a regime of “regulated competition” in the airline industry. Actors through the postwar period into the early 1970s then embedded their political mobilization in the assumption of regulated competition. Incumbents used the CAB to lock challenger firms out of their markets. Challenger firms then attempted to gain access to markets by gaining access and status within the regulatory structure. Consumers sought lower fares and the elimination of monopolistic practices by airlines not by seeking the elimination of the CAB but by seeking to use it to protect consumers. Even when anti-monopolist politicians critiqued the CAB they accepted some form of regulated competition, but sought to alter it to benefit consumers rather than airline monopolies.

Through accepting the underlying premise of the necessity of regulated competition actors in the airline field contributed not only to reproducing state intervention in the airline industry but to the interventionist regime of the U.S. political economy. Just as regulated competition was one manifestation of the unique role of the state in the postwar economy, not questioning regulated competition legitimated the underlying cultural understanding that the state should play an active role in maintaining a healthy economy. This then sat alongside the legitimacy of other interventions such as

Keynesian fiscal policy and regulatory controls on capital flows. The reproduction of regulated competition in the airline industry was then one component of reproducing an interventionist political economy in the U.S. during the postwar years.

It should be noted that it is not possible to observe here whether or not these actors actually believed in regulated competition. We do not know if individual challengers, consumers, or politicians actually believed regulated competition was the best way to organize the industry or if they simply assumed that it was going to exist and therefore should be molded to conform to their particular agenda. It is likely that many did truly believe in the necessity of regulating competition in the industry, but some may have simply assumed it was inevitable and therefore mobilized under that assumption. A focus on belief, however, misses the broader sociological point about the legitimacy of institutions. As a broader cultural construct, regulated competition defined the parameters of political debate within the industry and therefore actors used its legitimacy as a resource in pursuing their own agenda. Two key points emerge from this insight. First, institutions exist within fields, not within individual actors. Institutions are a field-level phenomenon and constitute action regardless of the legitimacy held by the individual actor. We see actors using these institutions as resources in pursuit of an agenda because they are legitimate within the field, regardless of whether or not the actors actually believe in the institutions. Second, institutions rather than constituting unreflexive actors are used by those actors in pursuing their agendas (Johnson 2007). Challengers and consumers sought to use regulation and mold it toward their own

agenda. In this way institutions provide resources for actors rather than simply constituting and limiting their action.

In the next chapter we will see how an exogenous shock opened the way for a delegitimation of regulated competition. The key mechanism we will see operating to reorganize the industry is the transformation of social relations within the field that enabled a previously peripheral set of actors to mobilize alternative institutions for organizing the airline industry.

CHAPTER 4
THE NEOLIBERAL TURN IN THE AIRLINE INDUSTRY, 1973-1978

For over three decades regulated competition in the airline industry worked well enough that actors in the field reproduced it largely without question. Challengers, consumers, and pro-consumer politicians at times challenged the operation of the CAB but did not challenge the underlying regulatory structure. The legitimacy of the institution for organizing this field led even actors who were locked out of markets or paid rents to incumbent firms to accept it as either necessary or inevitable. Thus, they embedded their mobilization within the taken-for-granted legitimacy of regulated competition.

However, the legitimacy of regulated competition was destabilized by the onset of the economic crisis of the mid-1970s. I mark the beginning of this crisis as 1973 when the oil embargo from the Arab countries in OPEC turned the recession that had stagnated the economy into a full-blown crisis. We will see that this destabilization of regulated competition enabled a reorganization of the social relations within the field and the birth of a new cultural institution that presumed unregulated markets, later called neoliberalism, to be the most successful form of economic organization.¹⁷

Developing Neoliberalism at the Periphery

¹⁷ Here I do not mean to suggest that unregulated markets are in fact the most successful form of economic organization, only that the cultural understanding being mobilized in this era made this assumption.

The prior chapter relied heavily on an institutional analysis to understand the reproduction of regulated competition. However, as discussed in chapter 2 legitimate institutions often coexist with alternative ones, even if they exist on the periphery of a field. Thus, it is important in any institutional analysis not to overstate the predominance of any one institution. At least since the 1950s we can find some set of actors who did not accept the dominant institution of regulated competition. We can also observe alternatives in the politics of the airline industry even before the economic crisis. But it was primarily in the halls of academia where a small cadre of economists called for more radical reorganization of the industry even when the rest of the airline field still embraced regulated competition. Testifying before the Senate Anti-trust subcommittee in 1955, economist Walter Adams referred to the CAB as a “monopoly-minded agency” that “strangles competition” as he argued for the certification of a large supplemental North American Airlines (Wall Street Journal 1955c). Although voiced by Adams this was certainly not the dominant position, even in the discipline of economics at this time.

Free market economists were a minority in the discipline in the 1950s, but beginning in the 1960s the discipline of economics shifted from the Keynesian paradigm that had dominated academia and policy-making since at least the end of WWII towards a new neo-classical paradigm in which unregulated markets were increasingly believed to produce the most efficient allocation of resources (Fourcade 2009; Bernstein 2001; Morgan and Rutherford 1998). The disciplinary shift was eventually nearly complete, so that by the 1970s the mainstream of the discipline began to cohere around this paradigm

and its associated preference for unregulated markets.¹⁸ This shift in the economics discipline became central to how the airline field would be reorganized after the 1973 crisis.

By the 1970s anti-regulation arguments within academia were becoming stronger and moving toward a fully deregulatory stance even before the slowdown became a crisis. It was in 1971 that George Stigler published what became perhaps the most influential attack on regulation, articulating the concept of *regulatory capture* in which industries control the regulatory agencies supposedly regulating them and use them for their own private benefit. His article, “The Theory of Economic Regulation,” begins, “The state – the machinery and power of the state – is a potential resource or threat to every industry in the society” and goes on to argue “*as a rule*, regulation is acquired by the industry and is designed and operated primarily for its benefit” (Stigler 1971: 3, emphasis added). Stigler finds no benefit to anyone, save the industry being regulated, of economic regulation. This is a significantly stronger critique than those that came before. In 1962 Harvey Averch and Leland L. Johnson critiqued regulation in an article published in the *American Economic Review* – “Behavior of the Firm under Regulatory Constraint” – but concluded that “a misallocation of economic resources *may* result from the use by regulatory agencies of the rate-of-return constraint for price control” (Averch

¹⁸ It is of course true that no discipline, including economics, is uniform in its approach. There were critiques of the shift towards a neoclassical paradigm. In particular, a “New Left” within the discipline cohering around Marxist and other heterodox approaches were strong, if not numerous, critics of the new paradigm (Lifschultz 1974). However, this variation does not undermine the well-accepted point that the most prestigious schools and journals clearly shifted toward a focus on neo-classical theory (Fourcade 2009; Bernstein 2001; Morgan and Rutherford 1998; Coats 1993). It was these schools and journals that defined the mainstream of the discipline from which policy would be drawn.

and Johnson 1962: 1068, emphasis added). This was hardly a clarion call for economic deregulation.

This disciplinary shift within economics had clear effects on the economic literature around airline regulation. While some early work demonstrated that economic regulation of the airline industry might need reevaluation (see Caves 1962), by the 1970s economists had amassed a wealth of studies of regulation in the airline industry almost all of which concluded that regulation created inefficiencies and higher prices than would exist under a competitive industry structure (see especially Douglas and Miller 1974; Eads 1972; Keeler 1972; Jordan 1970).

A central idea in these studies was Stigler's concept of regulatory capture. For example, York economist William Jordan's (1970) book *Airline Regulation in America* concluded that the CAB generated a cartel that he argued was being used against the interests of consumers. This cartel provided protection from competition which created fares higher than what they would be in the absence of regulation. He demonstrated this through a comparison of intrastate airlines, who were not regulated by the CAB, to the CAB-regulated interstate airlines. While the intrastates were regulated by state-level regulatory agencies (such as the California Public Utilities Commission and the Texas Aeronautics Commission) the regulations permitted much greater flexibility for firms in setting fares and entering markets. Jordan used this as a quasi-experimental condition to test the idea that regulation created higher air fares through monopolies, comparing the fares of CAB regulated and state-regulated airlines flying in the same markets within California or Texas.

This methodology became the standard for analyses of the effects of regulation in the airline industry (and eventually a crucial component of the mobilization against regulation) and each economist that used it found that the intrastate airlines charged significantly lower fares, and in fact pushed down the fares of interstate carriers in those markets. As well, economists showed that the intrastate airlines had higher “load factors” than the regulated interstates, that is more seats were filled on a given flight. Thus, economists used this quasi-experimental condition to suggest that the CAB was producing artificially high fares by protecting incumbent firms’ monopolies. By the mid-1970s this critique would provide the intellectual bridge between the core anti-monopolist political critique from anti-monopolist politicians and consumer advocates to the core inflationary concerns of bureaucrats that emerged after the onset of the economic crisis.

Along with developing the idea of regulatory capture, the central notion that the airline industry was plagued with destructive competition was eventually delegitimated by economists. Regulation was enacted and rested on the premise that state intervention was necessary to prevent monopolies from developing out of destructive competition. As we will see this was in fact an argument used by some of those opposing deregulation, as it had been used by those crafting the regulatory institutions in the late 1930s (Ben-Yosef 2005). Thus, to be effective economists needed to delegitimize this idea that was at the core of the legitimacy of the regulatory institution.

Economists did this by importing the theory of *contestable markets* (Ben-Yosef 2005). Rather than assume that the presence of one or a few firms in a market is

evidence of monopoly status, contestable markets theory argues that markets with low barriers to entry and minimal sunk costs are disciplined by “potential competitors” who can easily and quickly enter a market to compete with a monopolist (for an overview of contestable market theory see Baumol, Panzer, and Willig 1982). Thus, in the airline industry, a single airline may fly on a route, but if other firms are able to easily enter that route the monopoly firm is unable to attain monopoly rents. It is the threat of competition rather than actual competition that drives these prices. The conclusion was that through regulating firm entry and their route structure the CAB was all that was hindering competitive threat effects.¹⁹ Although this theory had not been empirically evaluated it provided legitimacy to the notion that deregulation would not create destructive competition or monopolies but would in fact ensure competitive prices.²⁰ The idea of destructive competition that previously legitimated regulation was delegitimated and unregulated competition was reframed as plausible in the airline industry.

Moving Neoliberalism to the Core

¹⁹ Given the development of the industry, and the apparent costliness of acquiring and flying airplanes, it may seem implausible to think of airlines as having minimal sunk costs and low barriers to entry. But it should be kept in mind that the concern is entry onto a route, not simply entry into the industry. For airline analysts at this time, the point was that routes could be contested, as it was assumed that it was relatively easy and costless to transfer or expand onto new routes. What analysts missed in this assumption were limited ground space at airports, limited airspace for actually flying on routes, and the ability of firms to dominate hubs, locking other firms out of particular routes. While limited ground and air space seem like natural limits, they did not envision firms dominating hubs. As we will see in chapter 5 this became a defining feature of the post-deregulation strategy of firms to retain their market power.

²⁰ When the contestable markets theory was subsequently tested years after deregulation there was very little empirical evidence to support it, at least for the airline industry (Borenstein 1992).

Thus, by the early 1970s a handful of economists had developed ideas, regulatory capture and contestable markets, that challenged the foundation of regulated competition in the airline industry. This created an emerging neoliberal understanding of the economy, but one that to this point existed primarily within the field of academic economics, and thus largely on the peripheries of the airline field. In the 1960s few of these economists had developed significant relations with state actors, or with challengers and consumers mobilizing against rents. Since at least WWII economists were key advisers within the federal government, but most of the economists through the 1960s, trained during the Great Depression, were thoroughly immersed in the Keynesian paradigm and its model of state interventionism. The Council of Economic Advisers was populated by Keynesian luminaries such as James Tobin, Leon Keyeserling, and Walter Heller. James Tobin for instance is widely known for proposing the “Tobin tax,” a tax on each financial transaction designed to minimize financial speculation. Walter Heller was a staunch critic of the ideas of Milton Friedman, and helped President Johnson develop the “War on Poverty.” Thus, through the 1960s Keynesian economists predominated in political circles.

However, by the early 1970s market-oriented economists made inroads into central command posts of the state, taking positions on the Council of Economic Advisors and other federal agencies as well as utilizing research institutes and think-tanks to advise the President and Congress. Pro-deregulation economists staffed the Department of Transportation, the Antitrust Division of the Department of Justice, the Federal Trade Commission, the newly organized Council on Wage and Price Stability,

and the Office of Management and Budget (Derthick and Quirk 1985). By the mid-1970s the Council of Economic Advisers became populated by free-marketeers most famously Alan Greenspan and Charles Schultze. As well, in 1977 President Carter appointed pro-deregulation economist Alfred Kahn to chair the CAB and Kahn staffed the agency with other market-oriented economists.

Economists were also central and vocal in the various task forces and working groups on regulatory reform in the Ford and Carter White Houses, becoming central players within administrative debates on deregulation (Derthick and Quirk 1985). When the Ford Administration began work on its proposed bill for regulatory reform it formed the Domestic Council Review Group (DCRG) on Regulatory Reform, which brought together officials from each of the already economist-dominated agencies mentioned above to draft legislation on airline deregulation. Even before the formal creation of the DCRG the Department of Justice, Council of Economic Advisers, Council on Wage and Price Stability, and the Office of Management and Budget collectively drafted a general proposal for airline deregulation, the “Justice/CEA/COWPS/OMB Proposal for Airline Regulatory Reform,” in which they noted a broad consensus across these agencies for substantial if not total deregulation of the airline industry (Canedo 2008: 214).

Within these circles economists’ formal academic training was significant. Agencies such as the Department of Transportation, the General Accounting Office, and even the CAB commissioned studies on the effects of airline regulation, and leading these studies were economists who had already produced academic research suggesting deregulation of the airline industry. The DOT study was headed by James C. Miller III

and the GAO report used econometric estimates earlier produced by economist Theodore Keeler. And when the CAB set out to examine airline regulation in 1976 they called on one of the earliest proponents of airline deregulation, economist Lucile Keyes who published one of the first books by an economist on airline regulation (Keyes 1951).

These appointments moved pro-deregulation economists closer to the central networks of power in the state, enabling them to indirectly, and occasionally directly, institutionalize unregulated markets. What this created was a set of actors with a neoliberal understanding of the economy developing social relations with key actors in the state. Thus, the periphery of the field was moving closer to the center, bringing a neoliberal understanding of the economy with it. Whether these economists were sought out by state actors or simply were in the right place to influence them is not clear. However, what is of importance is that the networks shifted in such a way to enable the mobilization of new institutions. The success of these newly established relationships in transmitting these new ideas however, was contingent on a crisis where the neoliberal model of markets could be mobilized and diffused to actors in need of a solution. The economic crisis in 1973 provided such a moment.

Destabilizing Regulated Competition

While the first major post-war recession is typically identified as beginning in the 1970s, the U.S. economy actually began stagnating in the mid-1960s (Bowles, Gordan, and Weisskopf 1990). By 1965 inflation was on a clear upward trend, reaching a peak of almost 12 percent in 1979. The growth of productivity and profits also slowed around

this same time. Between 1966 and 1973 virtually all sectors of the economy achieved lower annual rates of growth than the twenty years preceding it (Bowles et al. 1990: Table 4.1). Similarly, profits in the economy began to fall around 1966. The rate of profit for nonfinancial corporate businesses peaked at around 10 percent in 1965 and precipitously fell through the 1970s (Bowles et al. 1990: Figure 4.4). The same is true of the rate of capital accumulation (Bowles et al. 1990: Figure 4.5). These trends for businesses led to a growth in unemployment and declining real wages by the 1970s. After trendless fluctuation of the unemployment rate from the end of WWII to the mid-1960s, unemployment began increasing rapidly through the 1970s, peaking at over 8 percent in 1975 (Bowles et al. 1990: Figure 4.1). Similarly, incomes for workers began to stagnate in the early 1970s (Bowles et al. 1990: Figure 4.2). Thus, the 1970s economic state came to be known as stagflation, defined by the simultaneous rise of inflation and unemployment.

These trends were driven at least in part by intensifying global competition which weakened in particular export-oriented industries (Miller and Tomaskovic-Devey 1983). They were also fueled by changes in the global financial regime. Attempting to manage increasing competition and a weakening domestic economy Nixon took the U.S. off the gold standard in 1971, devaluing the dollar and bringing an end to the Bretton Woods system that had governed international finance. This led to a series of domestic currency crises across the globe, intensifying global competition that was already pressuring U.S. industries, particularly manufacturing, to reduce costs.

However, it was the OPEC-induced oil shocks in 1973 that turned a recession into a crisis. In October of 1973 the oil-producing countries in the Middle East imposed an embargo on the trading of oil with the U.S. because of the U.S.'s support of Israel during the Yom Kippur War in that same year. This led to a dramatic, immediate increase in oil prices that affected global economic growth as a whole. Importantly, it made the gradual economic decline an immediate political problem, and inflation took center stage. A sense of panic and fear amongst politicians and citizens alike emerged over the future of the economy. Such concerns born out of economic crisis opened the way for a shift in dominant economic ideas from state interventionism to the unregulated economy of neoliberalism (Harvey 2005; Useem 1984; Miller and Tomaskovic-Devey 1983).

This broader economic crisis facilitated a crisis in the airline industry. This is not surprising given the influence of the business cycle in the industry. As a downturn in the economy reduces the productive activity of firms fewer business trips become necessary and possible (given lower revenues for the firm). As well, leisure travel declines as the income stream to households declines. Rather than flying to vacation people stay at home. Thus, beginning in at least the early 1970s the airline industry recognized it was losing revenue and profits. The CAB responded with attempts to reduce capacity and limit competition to ensure existing firms were able to generate a profit. Hearings were called to discuss what the industry should do to turn the crisis around (U.S. Senate, Committee on Commerce 1971). It was recognized by industry participants, the CAB, federal agencies, and politicians that the airline industry was immersed in an economic

crisis alongside the crisis in the broader economy.²¹ The only question was how to solve the crisis?

Mobilizing the Neoliberal Solution

Economists' coherence around the neo-classical paradigm would ultimately resolve the economic crisis by transforming economic policy at two levels. The first is the well-documented shift from Keynesian fiscal spending to supply-side monetarism (Campbell 1998; Hall 1989). At the second level there was a shift toward opposing any form of state regulation of the economy, or of industries and sectors within it. This second level is what shaped the market reorganization in the airline industry, as in the U.S. neoliberalism was institutionalized in specific markets through the enactment of economic deregulation.

On September 27 and 28 of 1974, not quite a year after the OPEC oil shocks, President Ford held a "Summit Conference on Inflation" in which he brought together numerous constituents and experts, including corporate executives and industry leaders, trade union representatives, finance leaders, and economists, to discuss and attempt to find solutions to the economic crisis. The Summit itself was the culmination of several pre-summit conferences that had occurred throughout the month of September in 1974. Economists held their own summit, business and industry leaders had a summit, the

²¹ These of course are not two separate crises but are linked such that the crisis in the airline industry was a product of stagnation and decline in the overall economy. However, as the economy is fragmented into specific fields I argue that economy-wide solutions are typically emergent products of specific fields that diffuse to other fields.

finance sector had a summit, the transportation industry had a summit, and several other constituencies and experts held their own summits.

The pre-summit conferences produced a plethora of ideas on the problem and how to solve it, which was reflected in the general lack of coherence at the summit itself. A wide array of potential solutions emerged from both the financial sector and business community conferences, with little that all participants agreed on (The Business and Industry Conference on Inflation: 11; The Financial Conference on Inflation: 4-9). However, more than any other group economists emerged from their summit with a coherent position on the solution to inflation: lessen if not altogether eliminate economic regulations. Emerging out of their second meeting twenty-one of the twenty-three economists signed a resolution – proposed by Professor Thomas Moore of Michigan State University who would later testify at Congressional hearings advocating deregulation of the airline industry – to eliminate a number of regulatory programs and agencies including the CAB, with the explicit goal of enhancing competition to reduce inflation (The Economists Conference on Inflation: 11). While some business leaders, financiers, and others did suggest less regulation, among these groups less economic regulation was not a major theme. Economists were the only group that generated a specific resolution, and one to which the overwhelming majority of economists agreed. Their disciplinary coherence and institutional linkages were now paying off.

Bureaucratic agencies were receptive to the idea of unregulated competition in the airline industry. Even in the 1971 hearing on the economic conditions of the airline industry one (of 2 present) bureaucrat – Charles Baker of the Department of

Transportation – argued for less regulation and more competition in the industry (U.S. Senate, Committee on Commerce 1971). Perhaps this is not surprising since some departments were already predisposed toward preferring policies geared toward competition, given that many of them, the Department of Justice Antitrust Division and the Federal Trade Commission most clearly, were designed toward ensuring a competitive economy (Brown 1987). However, these organizations were not new, and while they did occasionally oppose CAB actions they had not heretofore supported massive curtailing of the board’s regulatory authority. Something within these agencies must have changed, and it seems obvious that the rise of pro-deregulation economists in these agencies were part of that change. When these agencies were in need of a solution to the problem of inflation they were able to turn to the economists amongst them to find that solution.

By the 1975 Kennedy hearings on the airline industry most of the bureaucratic agencies within the Ford administration related to the airline industry had adopted economists’ solution of competition for the economic crisis. In the 1975 hearings of the Senate Sub-committee on Administrative Practice and Procedure, Secretary of the Department of Transportation John Barnum opened his remarks to the committee by stating “...the Department has been a strong advocate of improving the economic performance of air transportation through increased reliance on competitive market forces” (U.S. Senate, Committee on the Judiciary 1975: 4). Lewis Engman, chair of the Federal Trade Commission, followed Barnum stating, “The Federal Trade Commission is committed to the principle that people are best served by the effective operation of a free

and competitive open market” (U.S. Senate, Committee on the Judiciary 1975: 23). Later in this hearing the Deputy Assistant Attorney General of the Antitrust Division in the Department of Justice, Donald Baker, argued that “...the public interest in efficient and economical air transportation would be better served by freer competition within the general bounds of antitrust law than by comprehensive economic regulation.” (U.S. Senate, Committee on the Judiciary 1975: 1751). Thus, by 1975 bureaucratic officials had developed a clear stance in favor of substantial deregulations of the airline industry.

By 1976 we even see the regulatory agency itself turn toward competition as a solution. Chair of the CAB John Robson opened his testimony before the Senate Commerce Committee in 1976, “...economic regulation should be redirected so domestic air transport is, in time, essentially governed by competitive market forces” (U.S. Senate, Commerce Committee 1976: 346). And by the 1977 appointment of economist Alfred Kahn as Chair of the CAB the Board took a fully deregulatory stance, ultimately seeking to replace itself with a competitive marketplace.

Bureaucrats also routinely connected this to the problem of inflation, a key concern after the oil shocks. In the Kennedy hearings in 1975 Barnum also noted that introducing more competition would benefit the public “...through decreased inflationary pressures caused by needless regulation” (U.S. Senate, Committee on the Judiciary 1975: 2154). Later hearings saw a similar theme. Council of Economic Adviser Chair Charles Schultz’s noted before the Senate Committee on Commerce, Science, and Transportation in 1977 that President Carter is in full support of regulatory reforms to increase competition in the airline industry as a means to address the problem of inflation (U.S.

Senate, Committee on Commerce, Science, and Transportation 1977). Robert W. Crandall, Acting Director of the Council on Wage and Price Stability, argued that reducing the price of air travel was essential in an economy with inflation that continues to spiral upward (U.S. Senate, Committee on Commerce, Science, and Transportation 1977). Thus, bureaucrats in the post-1973 oil shock environment had clearly adopted economists' neoliberal political solution to address their concerns with rising inflation, a solution which took shape with economists' resolution at Ford's Inflation Summits for reducing regulation.

We can clearly see the diffusion of economists' neoliberal solution to bureaucrats in need of a solution to the problem of inflation. As well, this solution also diffused from economists to consumer groups such as the Aviation Consumer Action Project (ACAP) who began joining economists in calling for more competition in consumers' interest. Attorney Reuben Robertson of ACAP testified before the Senate that "...the best mechanism in the long run, would be basically a competitive market system" (U.S. Senate, Committee on Commerce 1976: 1061). ACAP's Mimi Cutler further argued that "CAB policies and procedures have become mired in allocating markets and maintaining minimum prices in an *intrinsically competitive industry*" (U.S. Senate, Committee on Commerce 1976: 1058 emphasis added). Thus, destructive competition was no longer the problem, and the best thing for the industry was to ensure competition that was by now understood as natural in the industry. Fred Wertheimer of the consumer organization Common Cause highlighted the importance of using markets in consumer interests, describing deregulation as an effort to "to substitute market decisions for

Government decisions...” in order “...to provide both industry and consumers with an atmosphere more conducive to growth, equity, and freedom of choice” (U.S. Senate, Commerce, Science, and Transportation Committee 1977: 1079). By the mid-1970s consumer groups were routinely using market competition as the panacea to high fares. Market competition ideas diffused from economists to consumer advocates and state agencies becoming the generic solution to the industry’s problems.

The diffusion of the market model created a neoliberal coalition between progressive *consumer activists* and *politicians*, rooted in an antitrust logic to prevent rent-creation, *federal bureaucrats*, rooted in a pragmatic concern to reduce inflation, and conservative *economists*, rooted in a disciplinary consensus that deregulation would promote economic efficiency. Economic crisis created by the 1973 oil shocks destabilized the regulatory institution, opening space for new models of organizing the airline industry. This moved arguments once peripheral within the field to the core. Pro-deregulation economists’ new centrality in the policy-making arena established elite alliances for consumer groups and challenger firms mobilizing for rent destruction, and provided a solution to bureaucrats’ recent political problem of inflation. This alliance between intellectuals, consumer organizations, anti-monopolist politicians, and federal bureaucrats provided a crucial voice and pressure on Congress to implement deregulation as a solution to rising prices and economic stagnation. It legitimated deregulation as a strategy of reform in the public’s interest, and fostered a link between those fighting to eliminate rents and the institutional power of the state.

The core of the neoliberal coalition was composed of economists, consumers, anti-monopolist politicians, and bureaucrats, but they had support from other sectors of the field as well. While challenger firms were less united than consumers, some also mobilized economists' ideas for more competition at these same Congressional hearings. In particular, the emerging charter airlines became vocal proponents of deregulation, as were many intrastate airlines. The commuter carriers were more or less split over the question of deregulation. However, these challenger firms found price competition to be a plausible strategy for destroying incumbent firms' rents, which they suggested were a product of regulation in the interest of trunk airlines. Thus, we see Lewis Burwell, President of the charter carrier Pinehurst Airlines, argue, "...I think if a guy is in the marketplace and if he hasn't got the reputation and the expertise and ingenuity to get business, then he doesn't deserve to fly" (U.S. Senate, Committee on Commerce, Science, and Transportation 1977: 740).

The distribution of witnesses with a neoliberal frame in Congressional hearings on airline regulation provides further evidence on the extent to which economists' institutional linkages were paying off, demonstrating the diffusion of neoliberal ideas to other actors in the field. To follow these actors over time I read the seven major Congressional hearings (from 1971 to 1978) that led to the Airline Deregulation Act of 1978, coding each witness who testified for their stance on deregulation, or what was often called regulatory reform, as well as coding them into positions within the field. I identified incumbent firms, challenger firms, consumer groups, economists, federal bureaucrats, the CAB, labor unions, and financial analysts as the key positions within the

field. If a witness did not fit into any of these groups they are coded into a residual category. A total of 313 witnesses across the seven hearings were coded with coherent frames.²² Any witness who favored reducing the role of economic regulation in the industry by introducing more competition was coded as having a neoliberal frame. To argue for more competition in place of economic regulation, regardless of exactly how far you wanted deregulation to go, constitutes a neoliberal frame as the witness is locating the solution to the industry's problems in the introduction of market competition.

Table 4.1 presents the percentage of each actor group with a neoliberal frame, across the seven major hearings.²³ Each cell represents the percentage of actors in the specified actor-group who articulated a neoliberal frame at the specified hearing. In a 1971 hearing on the conditions of the airline industry no economists were present and only one consumer group and one bureaucrat can be identified with a neoliberal frame (representing 33 percent of consumers and 50 percent of bureaucrats present). However, after the crisis developed in 1973 we see the growth in the mobilization of a neoliberal coalition of consumers, economists, and bureaucrats, with challenger firms increasingly joining the coalition. Beginning in the 1975 Kennedy hearings fully one hundred percent

²² I could not discern either a neoliberal frame or a pro-regulation frame from fifty-four (14.7 percent) of the witnesses at these hearings. These actors are excluded from the analysis below.

²³ Omitted from the table is the residual category. As it contains a diverse array of actors (local and state officials, local and state politicians, travel agents, etc.) it represents an increasing percentage of the distribution, ranging from none in 1971 to 21 percent in 1975 to 47 percent in 1977. It however, dropped to 11 percent in 1978. This more or less reflects the growing legitimacy of deregulation after its initial mobilization from the neoliberal coalition. However, in order to focus on the actors of interest in the initial and persistent mobilization of airline deregulation the residual category is not presented or discussed.

of bureaucrats and economists adopted a neoliberal frame at every hearing, and well over 50 percent of consumers adopted a neoliberal frame. As well, by 1978 60 percent of challenger firms had adopted a neoliberal frame and by 1977 the CAB is always articulating a neoliberal solution. Thus, over time these actors become a coalition articulating a consistent framing of the problem as one of regulation and the solution of reducing if not altogether eliminating those economic regulations. Collectively these actors were mobilizing for the neoliberal solution that economists had brought from the academic field of economics into the airline field.

The Influence of Economists

The neo-classical, free-market ideas of economists were the central underpinning of this neoliberal coalition. Specific ideas originally produced by economists such as regulatory capture, potential competition, and the crucial intrastate comparison were used by the neoliberal coalition to legitimate the neoliberal cognitive schema in the airline industry.

The coalition argued that airlines used the CAB to lock out competitors and thereby extract monopoly rents (regulatory capture). George C. Eads, economist at the Council on Wage and Price Stability, testified that "...the [CAB] acts in a manner consistent with the view that its real loyalty is to the scheduled carriers for whom it seeks the highest possible fares" (U.S. Senate, Committee on the Judiciary 1975: 1215). Non-economist bureaucrats also adopted this idea. Earlier in the same hearing we find Thomas Kauper, Assistant Attorney General of the Antitrust Division at the Department of Justice

and Professor of Law at the University of Michigan, arguing that the CAB “protects carriers rather than the traveling public” (U.S. Senate, Committee on the Judiciary 1975: 47).

Consumers were unrelenting in their attacks on the protectionism they saw from the CAB. In testimony prior to Eads, Ralph Nader, consumer advocate and founder of ACAP, argued, “...the [CAB] has sacrificed the public’s needs and rights to the short-term desires of a handful of scheduled airlines” (U.S. Senate, Committee on the Judiciary 1975: 1150). Nader’s associates furthered this idea. Mimi Cutler proposed that “...the Board has acted more like a government-sponsored trade association than a regulatory agency” (U.S. Senate, Committee on the Judiciary 1975: 791). In a later hearing Fred Wertheimer, Vice President of the consumer organization Common Cause, argued, “[Regulation] can often serve as a vehicle for vested interests to protect the status quo against those who might offer better services or lower prices” (U.S. Senate, Committee on Commerce, Science, and Transportation 1977: 1080).

This continued through the remaining hearings, and was adopted by challenger firms as well. Alan Heath President of the non-scheduled carrier Pacific American Airlines suggested that “[The major airlines] have muddled along for such a long period of time with ‘womb to tomb’ protection from the Government that they now fear deregulation will leave them emaciated and unable to compete...” (U.S. House of Representatives, Public Works and Transportation Committee 1976: 960). Thus, across the neoliberal coalition the idea that regulation was protecting monopolist firms had

clearly diffused from economists to consumers to state bureaucrats to challenger firms, and eventually to the CAB itself.

The central idea of potential competition, part of the contestable markets hypothesis, was also routinely used by the neoliberal coalition. Secretary of Transportation John Barnum suggested that the regulatory institution is failing because it “...does not recognize the importance of *potential competition* as an economic force” (U.S. Senate, Committee on the Judiciary 1975: 12). In later testimony he reiterated this, arguing “It is the realistic threat of new entry that provides the market place discipline...” (U.S. House of Representatives, Committee on Public Works and Transportation 1977: 2162). His colleague from the Department of Transportation, William E. Simon, noted that “If competition truly exists, then companies cannot earn excessive profits for very long before other firms will enter the market” (U.S. Senate, Committee on Commerce 1976: 281).

Potential competition was particularly powerful in delegitimizing the notion of predatory pricing behavior that had been assumed to lead to destructive competition. Donald Baker, the Assistant Attorney General of the Antitrust Division at the Department of Justice, explains, “Predatory pricing is not profitable unless the predator is able to raise prices after it has driven its competitors out of the market. But if the predator knows that his rivals can reappear simply by routing airplanes to the market and selling tickets, it will see that exploitation of the monopoly position is impossible. Economists have concluded that the prospects for profitable predatory conduct are poor in unregulated air transport markets” (U.S. Senate, Committee on Commerce, Science, and Transportation

1977: 1387). Again we even see some challenger firms using the idea of potential competition to argue for reducing or eliminating regulation on entry into the industry. Paul Barkley, CEO of intrastate carrier Pacific Southwest Airlines, argues that "...while the actual new competition may be fairly limited, the influence of potential competitors will spur all carriers on a great many routes to provide the best possible service to ward off new entry" (U.S. House of Representatives, Committee on Public Works and Transportation 1977: 601).

The impact of the idea of potential competition should not be underestimated. This example was so powerful that it was placed in the declaration of policy for one of the final deregulation bills discussed in the latter stages of the deregulation debate. The Air Service Improvement Act of 1978 stated its intent as "...the placement of maximum reliance on competitive market forces and on actual and *potential competition* (a) to provide the needed air transportation system and (b) to encourage the efficient and well-managed carriers to earn and equate profits and to attract capital" (U.S. House of Representatives, Public Works and Transportation Committee 1978: 223; emphasis added). Economists' notion of potential competition clearly shaped the debate around airline deregulation, providing important rhetorical legitimacy to the neoliberal coalition despite the absence of empirical work by economists demonstrating the effectiveness of potential competition.

The centrality of economists' ideas is most clearly seen in analyzing the diffusion of a key empirical component from their research: the intrastate comparison. Consumer advocates and federal bureaucrats consistently cited economists' work in key

Congressional hearings, and much of what they cited used the intrastate comparison (U.S. House of Representatives, Committee on Public Works and Transportation 1976; U.S. Senate, Committee on the Judiciary 1975; U.S. Senate, Committee on Commerce 1971). This legitimated the possibility and desirability of unregulated pricing by airlines and open entry into the industry and onto specific routes, and was routinely used by the neoliberal coalition to argue for deregulation. Senator Kennedy devoted an entire day to the question of the intrastate carriers at his 1975 hearings. Throughout every hearing economists, in and out of the state, presented a united front in attributing the lower prices of the intrastate carriers to the absence of CAB regulation. At the panel of economists in the 1975 Kennedy hearings every economist testifying cited intrastate markets as an example of the need for and possibility of unregulated markets in airlines.

Even in the absence of economists the rest of the coalition used the intrastate carrier case to articulate and legitimate a deregulatory frame, as these studies had diffused to federal officials and consumer groups. Table 4.2 documents the percentage of witnesses in the neoliberal coalition that used the intrastate comparison.²⁴ To calculate this number for each hearing I divide the number of actors in an actor-group who used the intrastate comparison to justify less regulation and more competition by the number of actors in that actor-group who articulated a neoliberal frame. This gives us the percentage of actors in the neoliberal coalition from each actor-group who used the intrastate comparison. Fully one hundred percent of economists used this example in the

²⁴ I do not list the incumbents', financial analysts', or labor unions' citations of the example because they deployed the comparison in reaction to the neoliberal coalition and exclusively to counter it as not real or irrelevant.

1975 hearings, but more strikingly by 1976 all federal bureaucrats were using the example when no economists were even present. Later in 1976 we see that all consumer groups were using the example to mobilize for neoliberal deregulation.

In 1971 only Reuben Robertson III of ACAP uses Jordan's work comparing the regulated interstate airlines to the relatively unregulated intrastate airlines to demonstrate that open entry and unregulated pricing would benefit the traveling public with lower prices (U.S. Senate, Committee on Commerce 1971). By the 1975 Kennedy hearings numerous officials within the administration were using this economic research to argue for less regulation. Secretary of Transportation William T. Coleman testified that "The California and Texas aviation experience demonstrates that with more flexible regulation the prices tend to be lower" (U.S. House of Representatives, Committee on Public Works and Transportation 1976: 4). This resurfaced in later hearings where for example, economist and director of the Council on Wage and Price Stability, Robert W. Crandall²⁵, argued "...consumer losses can be gauged by the fact that less regulated intrastate air carriers in California and Texas, which do not fall under Federal regulation, have been able to provide high-quality air service at prices that are as much as 50-percent lower than fares charged by federally certificated carriers operating on comparable routes..." (U.S. Senate, Committee on Commerce, Science and Transportation 1977: 280-281).

When several federal agencies commissioned studies of regulation in the airline industry they relied on this methodology. The Department of Transportation used the intrastate markets comparison, concluding the same as had most academic economists,

²⁵ He is not to be confused with Robert L. Crandall, CEO of American Airlines during this period, an arch opponent of deregulation.

submitting this study for the record at several hearings alongside actual journal articles written by economists on the intrastate markets. As well, the General Accounting Office and the CAB commissioned their own studies using the intrastate comparison. This is evidence of the power of economists within these agencies. Not only were their ideas adopted, but the very methodologies they developed were employed to generate scientific evidence within the federal bureaucracy.

Countermobilization: The Industry Coalition

The airline industry did not simply ignore this increasingly powerful mobilization against their monopoly privilege. Returning to figure 4.1, no incumbents adopted a neoliberal frame until 1977 when United – the largest and most economically secure – began arguing for deregulation, and United remained alone in this position through the rest of the debate. Aligned with the incumbent airlines were labor unions such the Air Line Pilots Association, the Association of Flight Attendants, the Transport Workers Union, and the International Association of Machinists. This may seem odd to some class theorists, yet it speaks to the central concern of both airline firms and airline workers: economic rents. As was demonstrated through Figure 3.4 in chapter 2, airlines shared their monopoly rents with unionized workers. These rents served as the basis for a cross-class alliance between airline workers and airline firms, making clear the rent-based nature of interests in maintaining a regulated institutional structure. Competition threatened to destroy airline firms' rents and with it the capacity of unionized workers to maintain relatively high wages.

Along with airlines and their workers, initially at least, most financial analysts from institutions such as Citibank as well as some challenger firms opposed deregulation. In particular local airlines such as North Central Airlines, Allegheny Airlines, and the Association of Local Transport Airlines as well as some of the commuter airlines such as Air New England, Aspen Airways, and Altair Airlines opposed deregulation. And while the supplemental carriers such as those in the National Air Carrier Association wanted reform that would grant them access to more markets they did not view deregulation as the way to achieve this, opposing the abolition of regulations over fares and entry. Together these actors from the industry produced a coalition that attempted to beat back the tide of the emerging neoliberal coalition.

This industry coalition articulated a story about the chaos, predatory behavior, and ultimate reconcentration of the industry that would ensue from deregulation. Airlines predicted that new carriers would be able to enter the market and capture their market share through luring consumers with lower prices than existing firms could afford. Price wars and constant price undercutting would then lead to declining profit for firms which would threaten the stability of the entire industry and ultimately lead to monopoly. This was clearly an attempt to maintain the legitimacy of the destructive competition thesis.

Speaking for the incumbent airlines generally, the Air Transport Association – the industry association representing the scheduled airlines – opposed Congressional attempts to ease regulations arguing it would, among other things, “endanger the financial integrity of the nation’s vital airport system” (Wall Street Journal 1975). Testimony in Congressional hearings made evident the concerns of the industry. In the view of

Raymond Rasenberger, President of local carrier North Central Airlines, “Market forces in our judgment can work against competition, as well as for it” (U.S. Senate, Committee on Commerce, Science, and Transportation 1977: 969). CEO and Chair of the Board for National Airlines L.B. Maytag testified “Any major revision in the fundamental rules which have successfully guided the development of our airline system for 40 years will generate vast uncertainty” (U.S. Senate, Committee on Commerce, Science, and Transportation 1977: 1219). He went on to suggest that, “Rather than creating a more competitive and healthy environment, this legislation will produce a climate designed to favor big airlines...lead[ing] to increasing concentration” (U.S. Senate, Committee on Commerce, Science, and Transportation 1977: 1220). Robert Six, CEO of Continental Airlines, argued, “I have never been afraid to face competition, but open entry is a road to monopoly not to competition” (U.S. Senate, Committee on Commerce 1976: 426). Echoing this Frank Borman of Eastern Airlines reiterated the public utility logic, testifying before the Senate Commerce Committee in 1976, “I think we have to accept the fact that the industry is a quasi-utility, and it demands some sort of regulation” (U.S. Senate, Committee on Commerce 1976: 585).

Despite firms’ attempts to reinvigorate the destructive competition thesis, the neoliberal coalition effectively countered it with economists’ research on intrastate carriers and the idea of potential competition. In response to a plea from an attorney with Continental Airlines that deregulation would lead to ruinous competition, CAB chair Alfred Kahn responded “if every other carrier...will feast on Continental, does the public interest demand that we protect you?” (Karr 1978).

The industry's own oppositional articulations, however, reveal not simply their vested interests in the regulatory system, but more fundamentally the centrality of economists' ideas in the neoliberal coalition. Incumbents routinely referred to deregulation proponents as "theoreticians" and "academicians" and referred to deregulation itself as an "experiment" or "hypothesis" based on "untested theories." Throughout his testimony Chairman of the Board for TWA Charles Tillinghast repeatedly referred to deregulation as the "proposal of the theorists," suggesting that "the proposals of our current theorists are all theory and utterly lacking in experience – anywhere" (U.S. House of Representatives, Committee on Public Works and Transportation 1976: 529). Tillinghast saw deregulation proposals as a farce propped up by economists' research, testifying that "Typical of the Alice in Wonderland character of deregulation propaganda, [economists'] studies purport to show that just about everybody would be better off under deregulation" (U.S. Senate, Committee on Commerce 1976: 651). President and Chair of the Board for Braniff Airlines, Harding Lawrence raised similar concerns. He testified, "Senators, I believe I have found a single word which describes what the various pieces of legislation propose to do with the air transportation system and airline regulation. That word is 'experiment!'" (U.S. Senate, Committee on Commerce, Science, and Transportation 1977: 1205; exclamation in original). As well, R.S. Mauer, a senior Vice President of Delta, argued in testimony that "...there is very little public, in the sense of letter writing or chamber of commerce or civic support for change. But there is a great deal of what I would call...academic clamor for change." (U.S. Senate, Committee on Commerce, Science, and Transportation 1977: 871-872).

As long-time leaders of the industry the incumbent airlines suggested that economists were trading their experience for an “untried theory.” After a series of economists testified on the merits of deregulation George W. James, Senior Vice President of the Air Transport Association, commented that he had never seen such bad economics and that one must have experience in the industry to understand the importance of regulation and what would happen under deregulation (U.S. Senate, Committee on the Judiciary 1975). Paul Ignatius, President of the Air Transport Association, argued, “...proven concepts [should] not be traded for untested theories – that regulation in the public interest will continue to be necessary for air transportation in the future just as it has been in the past” (U.S. House of Representatives, Committee on Public Works and Transportation 1976: 624). Further, Raymond Rasenberger of local carrier North Central Airlines argued “...[air transportation] is too important to gamble on untested economic theories that may not work” (U.S. House of Representatives, Committee on Public Works and Transportation 1976: 721). Noting that economists were pursuing deregulation, Albert Casey, President of American Airlines, quipped that “Some supporters of deregulation seem mesmerized by computer models, created by academics without airline management experience, that tell them what they want to hear” (U.S. Senate, Committee on Commerce, Science, and Transportation 1977: 1394). Arthur Kelley, CEO of Western Airlines, further testified that “[The airline industry] is not an academic exercise, it is a real, living, dynamic part of America and should not be tampered with to test an academic theory” (U.S. Senate, Committee on Commerce, Science, and Transportation 1977: 547).

Even labor unions and financial analysts framed their counterattack around economists. Francis O’Connell of the Transport Workers Union testified, “It seems that theoretical economists are attempting to launch a full-scale, real-life experiment to test the soundness of their financial hypotheses... [and] our members and other workers are the guinea pig who will suffer from this experimentation” (U.S. House of Representatives, Committee on Public Works and Transportation 1976: 1256). Frederick Bradley of Citibank suggested that “...the theorists present a very nice package but experience has been the opposite” (U.S. Senate, Committee on Commerce, Science, and Transportation 1977: 695).

Incumbents also spent much of their testimony rebutting the intrastate comparison that economists used. During discussions at the Kennedy hearing over the intrastate comparison Andrew De Voursney of United Airlines stated, “We believe it would be unwise to endanger the quality of an excellent system in the pursuit of hypothetical gains which may be unattainable in actual practice” (U.S. Senate, Committee on the Judiciary 1975: 635). The industry coalition countered that economists’ comparison of interstate to intrastate carriers was not valid because the interstate airlines flew in a national system while the intrastate carriers had only a few routes to fly. Morton Ehrlich, Vice President and chief economist at Eastern Airlines, and Randall Malin Vice President of American Airlines each suggested there were too many variables beyond regulation that differentiated the CAB regulated carriers and the intrastate carriers to conclude from these studies that under deregulation the national air transportation system would mimic the intrastate carriers (U.S. Senate, Committee on the Judiciary 1975). Thus, Frank

Borman of Eastern suggested the intrastate experience of Pacific Southwest Airlines in California was simply a “special situation” (U.S. Senate, Committee on Commerce 1976: 587) and Emory Ellis of Texas International suggested “...the significance attributed to [the intrastate] experience far exceeds its actual meaning” (U.S. Senate, Committee on Commerce 1976: 717).

Incumbents also noted that the intrastate carriers were no longer unregulated but were now heavily regulated by state-level regulatory agencies. Paul Ignatius of the Air Transport Association suggested that in fact it was unregulated competition in the California market prior to 1966, with the chaos he alleged it produced, that led to monopolization of the industry from 16 carriers to 2 and ultimately to state regulation of these carriers (U.S. House of Representatives, Committee on Public Works and Transportation 1976). Francisco Lorenzo of the local carrier Texas International, challenged the intrastate comparison stating, “Southwest’s low fares are not related to the free market, because there is no free market in the State of Texas” (U.S. Senate, Committee on Commerce 1976: 507). In later testimony Ellis argues that “...open competition does not exist in either California or Texas, and it could not be responsible for the lower fares in certain markets in those States” (U.S. House of Representatives, Committee on Public Works and Transportation 1976: 762).

By the time of the passage of the Airline Deregulation Act of 1978 the only opposition to deregulation left was among industry participants (incumbent airlines excepting United, labor unions, financial analysts, and some challenger airlines). In their view economists had built a coalition to test their pet theories. Raymond Rasenberger

from the local carrier North Central Airlines sums up the oppositional blocs position, “...it takes no student of economics to see that the ‘invisible hand’ favored by economists has not been a great success in other industries in achieving the benefits we are told to expect in air transportation” (U.S. Senate, Committee on Commerce 1976: 714). An interestingly similar point was made by William G. Mahoney from the AFL-CIO when referring back to the onset of regulation noted that “Many years of tragic experience led to the absolute discredit of the laissez-faire theory of economics” (U.S. Senate, Committee on Commerce, Science, and Transportation 1977: 1278). The economists’ hypothesis was seen as just that, a hypothesis, and potentially one that had already been disproven.

But by 1978 the idea of deregulation had become so legitimate that incumbent’s concerns were falling on deaf ears. The countermobilization of the industry coalition was quickly beaten back by the political proponents of deregulation. By the mid-1970s deregulation proponents had been appointed by both Presidents Ford and Carter to the CAB, and they were already beginning to ease regulations. This began the process of deregulation which culminated in the 1978 Airline Deregulation Act. This Act set in motion the systematic elimination of the CAB’s regulatory functions and by 1985 the abolition of the CAB itself.

Conclusion

The neoliberal reorganization of the airline industry was made possible by the destabilization of the regulatory institution that resulted from an economic crisis. This

enabled the mobilization of an alternative institutional understanding of the economy – now called neoliberalism – which undermined the kind of regulatory market structure the airline industry was fighting to preserve. In 1973 immediately following the OPEC-induced oil shocks bureaucrats and politicians began searching for a solution to the inflation it was producing. Consumers saw fares they found excessively high in the midst of rising prices elsewhere in the economy. Both sets of actors found a solution to their problems in the neoclassical agenda of academic economists.²⁶ Economists had become overwhelmingly oriented to the neoclassical theoretical framework that suggested the less regulated a market the more efficient it will be. Their mobilization into key state agencies gave them an institutional voice when the economic crisis destabilized regulated competition. Economists' emerging coherence around the neoclassical framework led them to easily produce a solution that seemed viable to both consumers and bureaucrats, and eventually many challenger firms, generating a neoliberal coalition mobilizing for lessening if not eliminating regulations over price, entry, and route structure in the airline industry.

In the previous chapter we saw the legitimacy of the institution of regulated competition as the key mechanism reproducing the regulatory institution, and here we see

²⁶ At the time leftist commentators and analysts, including left-wing economists, attributed part of the economic crisis to monopoly rents in concentrated industries, including rents to their workers (e.g. O'Connor 1973; Miller and Tomaskovic-Devey 1983). However, their solution would tend toward industrial policy or nationalization, neither of which were ever dominant within economics or policy-circles (Graham 1992). One can imagine here how if the chief advisory economists were these economists and they developed relationships with politicians and bureaucrats and consumer organizations the outcome may have been different. Thus, had the key field overlapping with this one pursued a different trajectory the trajectory of the U.S. economy may have looked different.

its destabilization as the starting point for the reorganization of the industry. But, what happens during the period of instability is crucial for the birth of a neoliberal market for air travel. Actors within the field are searching for ways to eliminate crisis-generated uncertainty, and it is the emergence of a new set of social relations within the industry that brings neoliberalism to the fore. Thus, while markets are held together by the legitimacy grants of field participants to institutions, new institutions are built out of the emerging social relations that develop over time in the market. In this case we see an exogenous shock destabilizing the institutional materials of the field, and a new set of social relations developing to institutionalize a new cultural understanding of the field. While institutions represent the mechanism reproducing markets over time, social relations represent the mechanism reorganizing them.

CHAPTER 5

DEREGULATION AND THE TRANSFORMATION OF INTERFIRM RELATIONS, 1979-1988

Airlines awoke to a new and more uncertain world on October 25, 1978. The cloak of protection created by the Civil Aeronautics Board was signed away the day before by President Carter. The Airline Deregulation Act of 1978 specified a timetable for gradually releasing CAB control over the industry.²⁷ Airlines were free to enter only one route per year through 1981 when the CAB's right to control entry onto routes terminated leaving airlines free to enter any routes they wished. CAB control over domestic fares terminated at the end of 1982 leaving airlines free to charge any fares on any routes they wished beginning in 1983. Until that time however, a fare flexibility plan was put in place allowing airlines to adjust their fares upward by five percent or downward by 50 percent.²⁸ Finally, on January 1, 1985 the sunset provision of the 1978 Act scheduled the CAB to officially disband unless Congress reauthorized it, which they did not. These defined the basic provisions, although the Act also placed airlines under

²⁷ While this marks the formal-legal move away from regulated competition, it should be noted that a process of administrative deregulation began around late 1976 and early 1977. Under administrative deregulation the CAB still had formal control over entry and pricing but was allowing more price competition through approving discount fares and approving more route authority (Baily, Graham, and Kaplan 1985). Nevertheless, deregulation really only took hold after the 1978 Act.

²⁸ In June of 1980 however, the CAB briefly liberalized this provision by creating a tiered system of upward fare flexibility based on the mileage of the route. Airlines were free to increase their fares by 30 percent on routes over 400 miles, 50 percent on those between 200 and 400 miles, and were unlimited in fare increases on routes less than 200 miles (Air Transport World 1980). In November the same year they rescinded this new formula (Air Transport World 1980).

the same anti-trust laws and procedures as other industries beginning in 1985,²⁹ outlawed a Mutual Aid Pact among airlines that enabled them to collectively share – and thus individually maintain – revenue in the event of a strike, established a vague set of protections for employees who could convincingly claim they were dislocated because of deregulation, and enabled charter airlines to enter scheduled service immediately and scheduled airlines to enter charter service in 1982 (Air Transport World 1978). By the sunset of the CAB in 1985 the only remnant of regulated competition remaining was embodied in the “Essential Air Service” Program, which maintained a subsidy for airlines who provided a minimum of service to selected small communities.³⁰

The deregulation of the airline industry created a neoliberal industry, yet it in no way specified what neoliberalism was to look like in this industry. In removing certain powers from the state to organize the structure of the industry deregulation supposedly left the airlines free to build and institutionalize new practices and interfirm relations within the industry as they saw fit. As we will see not all airlines were equally capable of defining the new institutions and social relations that would constitute this neoliberal industry. This chapter develops an analysis of how incumbent airlines institutionalized a particular set of social relations, called codesharing alliances, within the airline industry

²⁹ Airlines however, successfully lobbied to transfer anti-trust authority to the Department of Transportation rather than the Department of Justice (who oversees most other industry’s anti-trust issues) in 1985, extending their anti-trust immunity until 1989 when it finally would expire and authority was in fact transferred to the DOT (Feldman 1984).

³⁰ Under Section 419 of the 1978 Airline Deregulation Act service was guaranteed to all communities that were currently part of the certificated route network, whether or not these routes actually had service. This program was scheduled to be terminated in 1988. However, Congress reauthorized it in 1988 to extend it for ten more years, and in 1998 Congress removed the sunset of the program altogether ensuring its continued existence until legislation is introduced to remove it. Such legislation has never been introduced.

in response to the breaking of their state-sanctioned oligopolies through the 1978 Airline Deregulation Act.³¹ While the previous chapter provided a narrative of how transformations in social relations produced a transformation in the legal institutions underpinning the airline industry, this chapter will highlight how this institutional transformation reshaped social relations within the airline industry. The analysis will demonstrate three mechanisms through which institutions shaped the emergence of this new network form in the airline industry. First, institutions shape the incentives that guide firms' decisions to form particular types of relational ties. Second, institutions shape the legitimacy of firms' decisions to form particular types of relational ties. And finally, institutions shape the content flowing through and reflected in relational ties.

Aside from these three mechanisms through which institutions shape the formation of networks, this chapter also highlights both the political process through which new institutions and new relational forms emerge and the path dependence of institutions and social relations. While institutionalists often focus on the taken-for-granted nature of institutional practices, this chapter will illustrate the politics through which institutionalized practices emerge. Here we see powerful incumbents mobilizing to institutionalize practices that would preserve their control over economic resources. A struggle developed among the former trunk airlines over what practices were to be institutionalized and in this institution-building process we will see that despite suppositions that it would be able to wash its hands from actively participating in the

³¹ While this chapter focuses on how airlines reorganized markets, a key part of adapting to a deregulated environment was also renegotiating the labor process and the employment contract. As noted in Chapter 1 I will address these processes in future work.

organization of the industry, the state was routinely called upon to arbitrate disputes around emerging practices and social relations. Thus, the state did not act as the passive night watchman (Block 2005), but actively intervened in the political struggle among competing incumbents and thus shaped the emergent organization of the industry.

Moreover, the emergence of institutions and relational forms has a specific character to them that we can fully understand only when we place them in their temporal context within the evolution of a field. As was true of most of the emergent practices in the industry (e.g. computerized reservations systems, hub-and-spokes route structure, discount fares), the relational form that came to dominate the industry was not a brand new innovation of the deregulatory period but emerged under a different institutional logic during regulation and diffused widely only after deregulation. We will see that such a network structure existed under regulation for a different reason and only at the margins of the field. This was then replicated on a wider scale under deregulation, illustrating that field innovations are often reworkings of existing practices rather than born of whole new cloth.³²

The chapter will proceed by describing the uncertainty that deregulation created among airlines and the destruction of market power that ensued. I then turn to analyzing the diffusion of codesharing feeder networks as a form of interfirm relations that emerged to reduce this uncertainty and recapture market power. To do this I analyze quantitative

³² Scholars have noted that many seemingly innovative ideas are actually the result of reworking existing ideas (Dobbin 2009; Tilly 1998). Organizational scholars often refer to this as bricolage, in which actors take multiple existing social and organizational materials to “invent” a new practice (Baker and Nelson 2005; Campbell 2005). Tilly (1998) points out that this may in fact be more efficient than attempting to rationally construct an entirely new practice to match the new environment.

data on the institutionalization of the postderegulation network structure collected from the major industry trade press –*Air Transport World (ATW)* – and interpret the emergence of this structure through qualitative data from articles in both the *ATW* and the general business press (*New York Times* and *Wall Street Journal*).

I began by coding institutional and network information from the *ATW*. From this press I coded annual information on the development of firm-to-firm market ties from 1980 to 1988. I then supplemented these network data with qualitative institutional information I gathered from reading every article (totaling 340 articles) on major topics and airlines in the domestic U.S. aviation field from *ATW* during the period.³³ The industry trade press data were supplemented by data from the general economic press, specifically the *New York Times* and the *Wall Street Journal*. More information on the coding of network ties and my use of the trade presses to gather institutional information can be found in Appendix A.

Below I provide a historical analysis of the evolution of the industry, presenting quantitative data on the institutionalization of the post-deregulation network form interpreted through qualitative data from trade press articles.

Deregulation and Hypercompetition

Upon the signing of the 1978 Act, most airlines engaged in a significant expansion of their route network. While airlines were only free to file for one new route

³³ These articles were also used to confirm and supplement information coded from the World Market Report. For example, the development of the first commuter network in the 1970s at Allegheny Airlines was compiled from an article that listed the starting dates of those network ties which preceded the 1980 start date of my data (Lefer 1981).

per year, under Section 10 of the Act airlines were able to file for authority to fly on an unlimited number of dormant (unused) routes. This still however, required authorization from the CAB. The CAB instructed airlines to line up outside their office on the day of President Carter's scheduled signing of the Act, and they would begin granting such route authority on a first come, first served basis (Beyer 1979). While a handful of carriers applied for only a few new routes (e.g. United and National) most carriers attempted to dramatically expand their network structure. By June 15 of 1979 the trunk airlines had applied for an average of 34 dormant routes (calculated from Beyer 1979: 33), with Braniff leading the pack at 195 applications for dormant route authority. While formal authority of the CAB over airlines' route selection was not to be eliminated until the beginning of 1982, and the CAB did not approve all applications, this was clearly a massive expansion of airlines throughout the existing route structure of the industry.

This route expansion was coupled with a wave of new carriers entering the industry as the CAB's test of "Public Convenience and Necessity" for certification as an airline was replaced with the "fit, willing, and able" criterion. Rather than requiring airlines to prove to the CAB that the public needed their service, they simply had to prove they had the financial and technical capability to provide safe air service. Figure 5.1 documents the number of certificated airlines in the industry from 1968-1988. There is a clear and dramatic spike in the number of airlines in the industry in 1979. This was primarily driven by the entrance of new low-cost challenger firms. These challengers were both new startups and existing firms who were locked out of incumbent firms' markets under regulation. Existing airlines such as Southwest Airlines and Pacific

Southwest Airlines had been confined to intrastate routes under regulation (within Texas and California, respectively), but were able to expand onto intrastate markets with deregulation. Other challengers emerged out of deregulation, such as New York Air, Southeast Airlines, Altair, Empire Airlines, and the low-cost, non-union start-up People Express founded by former Texas International executives and modeled after Southwest Airlines (Lefer 1981). This industry expansion continued until the mid-1980s when a wave of mergers, acquisitions, and bankruptcies reconcentrated the industry.

The expansion of competition in the industry and onto routes coincided with the second oil shock in 1979 and the subsequent recessions in the early 1980s. This produced a dwindling consumer resource pool for airlines to tap in to. A rising number of competitors in the midst of a dwindling resource pool produced hypercompetition on many major routes that generated recurrent outbreaks of price wars between carriers. A simple count of the number of articles between 1978 and 1990 mentioning airlines and “price wars” or “fare wars” that appeared in either the Wall Street Journal or the New York Times suggests the most intense period of price wars in the immediate post-deregulation history of the industry occurred in the early to mid-1980s (Figure 5.2). The highest counts in both publications occur between 1982 and 1986, ranging from 34 to 69 articles each year during this period in the New York Times and 31 to 38 in the Wall Street Journal. This is compared to an average of 27 and 19 articles across the period in

the New York Times and the Wall Street Journal respectively.³⁴ Clearly, airlines were facing intense competition during this period.

Fare wars often emerged when a low-cost challenger entered incumbent markets. No airline embraced the predatory spirit of challengers more than People Express. People began in 1981 as the quintessential low-cost start-up airline of the deregulatory period. Based out of Newark they began flying to local destinations such as Buffalo, New York offering fares 65 percent below existing airlines (Lefer 1981b). People Express became very aggressive in the mid-1980s, directly and explicitly attacking incumbents in their key markets. Most notably they entered the lucrative transcontinental market in 1984 challenging the largest incumbents in the industry (United, American, Pan Am, and TWA) for market share (Rustin 1984). Similarly, they attacked Continental's and United's control of routes into and out of Denver in 1985 (Mosteller and Henderson 1986).

While these fare wars largely emerged from the entrance of low-cost carriers, who were able to offer lower fares because of their lower cost structure, wars were also routinely fought among incumbents and among challengers not just between them. Price wars flared up routinely on numerous routes in the early 1980s. Because of their profitability, the transcontinental routes were among the most embattled. American led the war with its "Super Saver" discount introduced in 1977 on routes from New York to Los Angeles or San Francisco. This was followed by matching discounts from TWA,

³⁴ This intensity only occurs again during the early 1990s as airlines were deregulated globally, and a new set of challenger firms entered the U.S. industry after the late 1980s, early 1990s recession.

United, and the former supplemental airline World Airways (Carley 1977a; 1977b; Zonana 1978). Despite periods of respite, price wars on these transcontinental routes routinely flared up throughout the early 1980s (Blum 1979; Lefer 1980; Wall Street Journal 1981a; 1981c; 1982a; Carley 1981a; Curley 1981). American's expansion of its Super Saver onto various East coast routes brought matching discounts from Allegheny Airlines (Carley 1977b). Similarly, TWA, Eastern, Delta, Pan Am and former intrastate carrier Air Florida all battled over controlling the New York-Miami vacation route (Carley 1981), and Continental, United, Eastern, and Frontier battled in Denver (Burroughs 1984a).

Fare wars in 1983 led to industry-wide operating losses of \$650 million (Finn and Harris 1984), and there were constant fears among the airlines that these would become nationwide fare wars (Burrough 1984b; Finn and Harris 1984). Several airlines called on the Congress, the Department of Transportation, and the Civil Aeronautics Board to stop what they argued were "predatory" practices during fare wars. Former supplemental airline World Airways for example sought government assistance to stop what they viewed as predatory attempts by major airlines to put them out of business (Harris 1982). Similarly, President Daniel May of the former local carrier Republic Airlines called for a Presidential Commission to investigate the problem of predatory pricing in the industry (Feldman 1983).

Incumbent airlines felt the immediate pressure of this hypercompetition as they observed the erosion of both their profits and market share. Returning to figures 3.1 and 3.3 from chapter 3, we observe the erosion of the former trunk airlines' profits and

market share, respectively, in the post-deregulation period. The profits for the average trunk carrier fell dramatically after 1978, and became much more unstable. It was not until 1983 that trunks began averaging profits greater than zero again. A similar downward trend exists for incumbent market share, however, market share had been declining for the trunks since well before deregulation. The collective share of revenue captured by incumbents declined steadily from near complete control over the market in 1968 (93%) to a low of controlling only 73 percent of the industry in 1985. In 1985 the trunks began capturing an increasing percentage of the market again. We see then that hypercompetition in the early 1980s created significant pressure on airlines to reduce costs and competition in order to fight challenger airlines who were eroding the profitability of incumbent airlines. Importantly, we also see in both cases that something happened in the mid-1980s to enable a recovery for the incumbents. As I will demonstrate below, the institutionalization of particular social relations – codesharing feeder networks – beginning in 1984 gives us leverage to understand this reversal in the distribution of profits and market share in the industry.

Responding to Hypercompetition

As incumbent airlines observed the erosion of their profits and market share they initially sought short-run tactical solutions. Analysts of competitive rivalry distinguish between competitive tactics and competitive strategies (Baum and Korn 1996; Miller and Chen 1994; Chen and MacMillan 1992; Smith, Grimm, Gannon, and Chen 1991). Competitive tactics are short-run changes in behavior that require very little investment

and are typically easily reversible. Competitive strategies on the other hand involve longer-range planning and tend to require investments that are not easy to reverse. Discount fares and capacity shifts were competitive tactics in the industry through which incumbent airlines initially attempted to oust competitors, in particular challengers.

Discount fares were one tactic incumbents adopted to temporarily match low-cost competitors, and at times were used to attack existing competitors. Discount fares are fares significantly below the regular full fare an airline charges on a given route, often at or below 50 percent of the regular full fare. The aim of discount fares is to preserve or stimulate the leisure travel segment of a given market who were understood to be the most plausible segment for low-cost airlines because of their price sensitivity. Through a variety of restrictions (e.g. advanced purchases, minimum lengths of stay) discounts were explicitly designed to retain regular business travelers at higher prices while capturing travelers who might not otherwise fly or might fly a low-fare competitor's airline.

Capacity increases were a second tactic airlines routinely invoked on embattled routes. Often in addition to discount fares incumbents would increase the number of flights or seats available for discount on the embattled route in order to minimize the number of passengers that would be diverted to the new entrant (Carley 1983). When People Express reduced its fare on the Newark-Buffalo route dominated by USAir in 1983, not only did USAir match their prices but they also increased the number of daily flights from 9 to 12 (Williams 1983). Similarly, United, American, Pan Am, and TWA increased the number of seats available for discount fares when People Express entered the transcontinental market (Rustin 1984). It is worth noting that capacity increases were

the primary strategy of service competition in the regulation period, and here they are being used to weather price competition.

Incumbents achieved some limited success with these tactics for two primary reasons: market status and cash reserves. Markets as fields contain status orders that shape the capacity of market actors to obtain revenue and profits and ultimately survive (Podolny 2005; Fligstein 2001). The status order of the airline industry continued to advantage incumbents even after deregulation, largely because of the reputational advantages conferred on them in the regulatory period. The consumer choice between two airlines offering the same low, discounted fare was between an unknown start-up who often had self-proclaimed “no-frills” service and a fifty-plus year old airline who promised a spacious seat with meal service. Thus, institutions imprint a status hierarchy that lingers even after the reorganization of those institutions. Status orders may operate through networks (Podolny 2005), but an a priori hierarchy is required and that hierarchy is institutionally defined.

But, price wars still required extensive periods of diminished revenue for incumbents, which only airlines with a stockpile of cash to fund operating costs could weather. The larger cash reserves of some incumbents enabled them to outlast smaller challengers, as well as cash-strapped incumbents. These reserves were a product in part of the substantially larger route networks of incumbents, an advantage carried over from the institution of regulated competition. Larger carriers such as United and American were in a far better position to outlast rivals – whether startups like Air One or financially strapped incumbents like Braniff – in extensive price wars (Burrough 1984b).

These competitive tactics however, did not alleviate the sociological problem of the chaotic conditions of hypercompetition and the resulting diminished profits that result from unregulated markets (Fligstein 2001). Tactics enable firms to make it through the day, but strategies provide long-term solutions to competitive rivalry. For strategies to work they must stabilize the market and therefore they require institutional practices and sustaining relations that are invested in by firms. Incumbent airlines needed to build new institutions and new social relations that would protect them from the profit-reducing and survival-diminishing effects of hypercompetition.

Institutionalizing Networks as Strategic Response

As price wars took their toll airlines sought the stabilizing effects of institutions and social relations. Transformations among airlines at Denver's Stapleton International Airport provide a useful window into the relationship between hypercompetition and the building of new institutions and social relations (Mosteller and Henderson 1986). Stapleton was the hub of several airlines in the early 1980s, including two incumbents – Continental and United – as well as the former local airline Frontier, and with the exception of Pan Am every domestic airline had at least one route into Denver. In the fall of 1983 Continental declared bankruptcy and within three days reemerged having abrogated its union contracts. Despite a cross-occupation strike Continental was able to hire strike-breakers and continue operations at Denver, reorganizing itself into a low-cost, low-fare airline. They immediately introduced a \$49 fare from Denver to anywhere in the Continental system, creating fare wars on numerous routes into and out of Denver.

Frontier immediately matched the discount, and while United waited within a few months they were matching Continental's fares. Low fares persisted with Continental as the faresetter. By 1985 People Express entered Denver by acquiring Frontier as a wholly-owned subsidiary and established fares around \$39 to most major cities with a rock bottom fare of \$9 to Colorado Springs. People Express turned Frontier into a no frills service that was no match for Continental's and United's full service flights at the same fares.

Thus, we can observe a low-fare challenger in the reorganized Continental and later in People Express that led to fare wars. The wars led to the attrition of some firms. Unable to weather the storm Frontier decided to sell to People Express in 1985. In 1986 People Express was acquired by the Texas Air Corporation, the holding company of Continental and New York Air. Long-time Denver-based commuter Pioneer Airlines closed its doors in May of 1986, unable to financially make it through such low profit margins or shift their operations beyond Denver. These wars led other firms to avoid Denver altogether. Southwest chose to exit routes into and out of Denver when they were unable to maintain reasonable profits. American Airlines had intended to make Denver a hub but given the intensity of competition reversed course and withdrew its standing order for 25 gates when they became available.

Thus, one consequence of these fare wars was consolidation, a trend we can see replicated at the industry level in Figure 5.1. By 1985 a downward trend in the number of firms emerged across the industry that persisted until the early 1990s. However, what is more important for understanding the emergence and institutionalization of practices

and social relations that mitigated hypercompetition is how those airlines who stayed in Denver weathered the storm in the long-run. The large incumbent airlines – United and Continental – and the local airline Frontier transformed Denver into a central hub, through which they could lock out competitors. These three controlled access to the majority of gate and terminal space such that the only way challenger People Express could enter the market was to acquire Frontier and its gate space. Hubbed incumbents then developed ties with commuters to feed their respective flights in the Denver hub and thus maintain traffic on their routes. Smaller commuters and regionals became dependent on these larger carriers for obtaining traffic into and out of Denver. In 1983 Denver-based commuter Rocky Mountain Airlines saw that it was unlikely to survive on its own and began a partnership with United Airlines, leaving them in 1986 to join a web of commuter airlines feeding Continental flights into and out of Denver (Moesteller 1986). Trans-Colorado followed suit joining the “Continental Express,” while Aspen Airways began feeding flights for United in their “United Express” commuter network.

This new network form that linked commuters feeding flights into hubs for major airlines became the defining feature of social relations between fledgling commuter airlines and embattled incumbent airlines in both Denver and eventually across the domestic U.S. market, and has become the defining feature of airline networks in the global airline industry to this day. However, it is not the case that this network form had to emerge, nor was it uniformly accepted as a legitimate solution to the uncertainty problem in the industry. Rather, the feeder network was the reworking of a pre-existing

relational form that existed under regulation and this network structure was strongly contested by several actors in the industry.

“Inventing” the Feeder Network

The feeder networks that developed under deregulation were a product of the reworking of a common practice under regulation called interlining, and the blending of this with elements of a commuter network form that existed on the margins of the industry around Allegheny Airlines. As discussed in Chapter 3, under regulation airlines had little control over which routes they flew on and how much they charged on these flights. Thus, they could not increase their market share through entering new markets and competing on price. The methods they developed for capturing profit were to maximize the number of passengers they could capture through offering better service. Interlining was a central component of service competition.³⁵

Interlining was the practice of airlines sharing resources to facilitate passenger transfers at connecting points on their trip. Airlines involved in interlining would agree to share passenger-related services across airlines, such as writing tickets for passengers on the other airline and transferring the passenger’s baggage to their final destination, as well as sharing key resources such as gate space. This practice was understood as the provision of a service to the customer. It enabled a passenger to easily transfer from one airline to another at connecting points on a single trip. Rather than purchase multiple

³⁵ Other elements of service competition included providing better meals, roomier seating, and as Hochschild (1983) noted “friendlier” service. In some cases airlines put piano lounges in their cabins to attract customers.

tickets from each of the airlines involved and reclaim bags at each connecting point to then recheck them onto another airline, all of which would increase the time and cost of flying for the passenger, interlining allowed passengers to simply purchase a single ticket with airlines handling the transfers of people and baggage (Grimes 1981).

Interlining provided a convenience to the customer – the basis for competition during the regulatory period. Under regulated competition virtually every airline agreed through multilateral agreements established with the Air Traffic Conference (ATC) to interline with all of the airlines who had connecting points to their routes (Donoghue 1982). The ATC was established in 1938 as a wing of the Air Transport Association of America (ATA) to discuss major traffic and sales related activities (Graham 1941). It was through the ATC that airlines collectively – and jointly with travel agents accredited through the ATC – constructed industry-wide practices related to the distribution of airline tickets. Under standard antitrust law meetings to discuss and establish industry-wide practices such as this would be illegal, but the blanket anti-trust immunity over the airline industry enabled the ATC to develop multilateral agreements through which participating airlines agreed to share significant resources.

Multilateral interlining then formed the basis of interfirm relations in the regulatory period and can be understood as institutionalized reciprocal gift exchange (Polanyi 1957). Although the data are not available, multilateral interlining no doubt produced a very high level of network density in the industry since most airlines were connected to each other. An airline would incur the cost of writing tickets for other airlines and transferring baggage because it believed the airline would return the favor,

and through this gift exchange airlines sought to maximize their passenger loads and thus their revenue.

Under the uncertainty of deregulated competition however, multilaterally interlining gave way to bilateral agreements in which two airlines specify the contractual conditions through which they will share resources. One important reason for this is that some challenger firms, most notably People Express and Southwest, refused to interline (Donoghue 1982). Those who were interlining realized that if some airlines were not going to return the favor then multilateral arrangements were going to have to give way to bilateral agreements. More importantly, airlines discovered that interlining costs more with some airlines than others, and in the midst of price wars cutting costs was key to survival. United Air Lines was among the first to make this switch. In 1982 they reported to the *ATW*, “We write and book more [tickets] for other carriers than we get in return. In the past this was viewed as a cost of doing business. We can’t do that anymore” (Donoghue 1982: 17). United was clearly the largest carrier going into deregulation, and one can glean from this statement the centrality of size where larger carriers do more interlining than they get in return. When they were protected by the CAB United viewed it as not unreasonable to incur additional costs to maintain interlining relationships. But with the increase in competition spurred by the dismantling of the legal institutions that protected United’s incumbent position they decided they could not maintain a competitive advantage if they continued simply interlining with just any airline. United was soon followed by Delta, Pan Am, and others and the multilateral system quickly gave way to bilateral contracts.

With bilateral contracting incumbents began developing strategic relationships with smaller regional and commuter airlines that could feed their emerging hub and spoke route systems. Rather than flying directly to every city in their network as they had done under regulated competition, in the aftermath of deregulation incumbents developed hubs to fly passengers on many more indirect flights to their final destination (Donoghue 1988). An airline would typically select one or two major hubs and a few smaller hubs and then design routes to feed into the hubs where passengers seeking a non-hub destination would transfer to another flight enroute to their destination city. Hubs produced a more efficient route system, but also generated monopolistic barriers to entry into particular cities. Part of the logic behind hub and spoke networks is that they minimize the cost per passenger by reducing the total number of flights necessary to get the maximum number of passengers to their respective destinations. All passengers can be routed through a single point and then reshuffled onto connecting flights to their final destination rather than numerous flights from every city to every other city. Flight schedules can be arranged to maximize passenger transfers and thus passenger loads.

However, hubs developed into monopolistic barriers to entry as incumbents at a hub typically control much of the terminal and gate space (Borenstein 1989; Donoghue 1988). Part of the lease agreements between local municipalities (who control airports) and airlines specifies control over gate space. Incumbents who were typically the early movers into hubs – such as Delta in Atlanta, American at Dallas-Fort Worth, and United at Chicago – were able to specify long-term lease contracts (typically around 25 years) that gave them control over gate space, terminals, and landing/takeoff slots. They could

then use this to lock out competitors who wanted entry into their hub airport. In this way hubs were designed to reinstate monopolies in particular cities and to some extent entire regions. Thus, American Airlines' Vice President of Marketing Thomas Plaskett noted, "The hub-and-spoke protects us against competitive incursions [as] our route network becomes a self-supporting fortress" (Malcolm 1984: SM48). These fortress hubs enabled incumbent airlines to retain market share and protect themselves from hypercompetition.

With monopoly hubs in place airlines then transformed their alignments with smaller regional and commuter airlines to focus on which regionals and commuters could maximize passenger feed into their "fortress hubs." These bilateral feeder arrangements came to define the social relations between airlines in the post-deregulation world, protecting incumbent hubs and generating access to those same hubs for regional and commuter airlines.

In what follows I document the evolution of these bilateral feeder relationships, mapping the structure of the network over time. Each airline in the industry represents a node and the existence of a feeder relationship represents an edge. See appendix A for more information on the coding process.

The Diffusion of the Feeder Network

To capture the diffusion of feeder network ties Figure 5.3 measures the percentage of airlines with any alliances from 1980 to 1988. We can see that an increasing percentage of airlines have one or more alliances with other airlines. Slightly more than 10 percent of airlines in 1980 had feeder alliances. By 1984 the percentage of

firms with alliances has tripled to just over 30 percent and by 1986 the diffusion of this practice saturates at just below 50 percent of airlines with such alliances. Importantly, the most rapid growth in this practice comes in 1986 when the percentage of airlines with alliances jumped almost 15 percentage points.

Figures 5.4 and 5.5 provide a graphical depiction of the development of these feeder networks. Panel A in Figure 5.4 depicts the bilateral feeder networks in 1980. Here we see that the only extensive network in existence is that of USAir, the successor to the local carrier Allegheny Airlines after a name change in 1979 (Lefer 1981). USAir developed its commuter system in the late 1960s and early 1970s under the regulation of the CAB. In order to fulfill the “public convenience and necessity” requirement of the 1938 Act the CAB disallowed airlines leaving a route without their permission. Most airlines, including trunks, had certificates that required them to provide scheduled flights on routes to small towns that were unprofitable using their larger aircraft. Despite receiving subsidies for this service trunk airlines minimized their losses on these routes by providing a minimum of service, often as little as a single flight a day. In contrast Allegheny Airlines adopted a unique solution to this problem by developing a network of small commuters, called the Allegheny Commuter Network, who specialized in short-haul service and utilized smaller aircraft who could then feed into Allegheny’s longer routes. This relieved Allegheny from the task of incurring costs to serve unprofitable routes, and it gave a set of commuter airlines access to markets. Each new commuter

agreement had to be approved by the CAB, but by 1973 the Allegheny Commuter Network involved 12 commuter airlines (Higdon 1986a).³⁶

By 1980 Air Florida was mimicking USAir with its own much smaller feeder network. No other airlines, however, were involved in creating feeder networks at this point. Looking at Panel B, which shows feeder networks in 1982, we see incumbent airlines beginning to develop USAir-like feeder networks. A large network has now developed around Delta with emerging relations developing around Piedmont, Pan Am, United, and TWA.

Figure 5.5 maps the bilateral feeder relations in 1984 (Panel A) and 1986 (Panel B) and demonstrates that starting in 1984 feeder network relations began diffusing rapidly. In 1984 all of the existing feeder systems expanded (Delta, United, TWA, Pan Am, and Piedmont, alongside the stable network of USAir) and Eastern, Frontier, American, and Republic each began to develop their own feeder network systems. By 1986 we even begin to see smaller regional airlines developing their own feeder systems with even smaller commuters. Tennessee Airways developed a codesharing relationship with Iowa Airways, Midway with Chicago Air, and Presidential Airways with Gull Air. In each case the idea was for the smaller commuter to feed into the larger regional's hub, and in the case of the Presidential-Gull Air tie Presidential would then feed Continental flights.

³⁶ AeroMech, who joined the network in 1978, and Air North both left the network in 1979 leaving only 11 nodes connected to USAir in 1980, the time point of Panel A in Figure 3.

Not only does a graphical depiction present a picture of the changes in the structure of the network, it provides important insights into the institutional nature of the network. Through these graphs we see the centrality of the hub and spoke system as there are a handful of airlines with many ties to other airlines who tend to be connected only to that airline. In almost all cases this represents a large, major airline with ties to multiple smaller commuter airlines. Thus, the institutionalization of the hub and spoke system not only led to the diffusion of a network feeder system but also organized that system as one in which a dominant major airline has connections to many smaller airlines who have few to no connections with other airlines. This reinforced the status and power of the dominant airlines in the industry and facilitated the use of hubs as monopolistic barriers to entry.

Figure 5.6 further confirms that the diffusion escalated between 1984 and 1986. This figure plots the density of the network structure in the industry, measured as the number of ties between airlines relative to all possible tie connections (Friedkin 1981). This is calculated as:

$$D = \frac{2(\textit{Airline Ties})}{\textit{Airlines}(\textit{Airlines} - 1)}$$

With this measure we can see a steady increase in the existence of ties in the industry, but an exponential increase beginning in 1984. Thus, it is clear that something happened by 1984 to rapidly diffuse this model of interfirm relations in the industry.

The Institutional Politics of Networks

Why did the network expand so suddenly in 1984? Answering this question provides insights into both the interaction between networks and institutions and the political contestation of network structures themselves. The diffusion of feeder ties was not an uncontested process, and as the content of these relationships developed politics within the industry centered on their legitimacy. With the exception of USAir's feeder network, relational ties initially involved simply marketing contracts. Alliances with Delta in 1981 and 1982 involved only joint-marketing and the sharing of frequent flyer programs. This differed from the codesharing arrangements of USAir. When Allegheny developed their commuter network in the early 1970s the CAB enabled them to list their commuter partners in the Official Airline Guide (OAG) – which travel agents used to reserve tickets for passengers on scheduled flights – as an Allegheny flight (Higdon 1986a). This meant that a flight that was provided by their commuter Henson Airlines was listed using the same 2-digit code for Allegheny, and would therefore appear to passengers as a flight operated by the legal entity of Allegheny Airlines. Detecting the difference between Allegheny and its commuters became even harder as many of the commuters in the network adopted the Allegheny livery (the logo and paint scheme) on their airplanes and their flight and passenger service crews wore Allegheny uniforms (Higdon 1986a). Despite their uncertainty about the competitive impacts of this practice, the CAB authorized codesharing for Allegheny Airlines because they were using the commuters to maintain service to Allegheny's CAB-required routes.

However, by 1984 many more airlines began utilizing the codesharing scheme of the Allegheny Commuter Network,³⁷ in which the smaller commuter would be listed under the code of the major airline. Delta redesigned its commuter arrangements to include codesharing in 1984 (Air Transport World 1984), while commuter alliances with Continental and with Eastern in 1984 included codesharing agreements (Feldman 1984b). These took on names such as “Delta Connection,” “Pan Am Express,” and “Northwest Airlink” with commuters at times dissolving their entire identities to adopt the alliance identity, often replacing their own logo and livery on their aircraft with that of the incumbent’s commuter network name.

As the practice of codesharing diffused in 1984 it became enmeshed in the broader politics of the computerized reservations systems (CRS) of United and American. By the early 1980s both United and American had transformed their CRSs from internal reservation management programs into tools for market monopolization. While most of the other incumbent airlines had similar CRSs, in the 1980s only United and American (and to a far lesser extent TWA) developed these into external marketing systems (Copeland and McKenney 1988).

Under deregulation CRSs replaced the OAG (which is privately owned by a non-airline entity) as the predominant method travel agents used to book passengers onto their preferred flights. Now, rather than perusing through a physical copy of all the flights available, travel agents could simply type in the destination points on a computer terminal and obtain a list of the available flights on a computer screen. Importantly, however,

³⁷ Despite the name change to USAir they continued to refer to their feeder system as the Allegheny Commuter Network.

because American and United were the first to retool their CRSs into market management systems about 80 percent of travel agents that used CRSs used either American's or United's system (Rotbart 1983; New York Times 1983). This reinforced the capacity of these two airlines to use these systems as tools to capture and protect market share.

The primary mechanism by which American and United used CRSs to maintain monopolies was to bias the display of flights in their respective favor, displaying their own flights before other airlines' flights even if those flights might be cheaper or a better match for customers preferences (e.g. shorter flight time, fewer connections, etc.). The mechanism for biasing their CRSs was enacted through the programming of the systems. They programmed a very specific preference of flights where the host airline (either United or American) was listed first followed by co-hosts, non-competitors, competitors not seen as direct threats, and then direct competitors (Copeland and McKenney 1988). Flight types also had a preference ordering in which non-stop flights were listed first followed by online connections (where the passenger does not change airlines at a connecting point) and then interline connections (where the passenger changes airlines at a connecting point) (Friedman and Nissenbaum 1996). In addition to display bias, United and American were also accused of burying direct competitors so far down the list that travel agents were unlikely to see them, restricting access to their systems from direct competitors, and charging competitors higher fees for accessing their CRS (Wall Street Journal 1982b).

Both United and American were forthcoming about biasing their systems, arguing that it was necessary for them to recoup their investment in the technology. However, it

became a contentious practice as the bias disadvantaged their competitors, creating the perception that United and American were manipulating markets to capture market share. This is where the politics of codesharing became intertwined with the politics of CRS bias. United and American were very vocally opposed to codesharing, refusing to engage in it with their own commuter partners. They framed their opposition in terms of consumer interest, arguing that codesharing was deceptive to the consumer by misinforming them about who was really servicing their flight. However, it is hard to square their stated desire to not deceive consumers through codesharing with their practice of deliberately biasing their CRSs to deceive consumers regarding which flights best matched their stated preferences. It is more probable that American and United opposed codesharing because it distorted the CRS bias that enhanced and protected their market share. Because the CRSs listed codesharing interline connections as if they were online connections, interline flights involving the host airline were listed below codesharing flights of a non-host airline. United and American could not identify codesharing flights and thus could not prevent codesharers moving up the flight display list without their knowledge. Thus, codesharing removed some of the control over flight displays that United and American used to marginalize competitors, challenging a central part of their respective strategies to maintain their monopolies in a deregulated environment.

Several commuters joined United and American in opposing codesharing. The central commuter trade association, the Regional Airline Association (RAA), was effectively split over the issue (Higdon 1985b), but many commuters perceived it as the

absorption of their identities into the incumbent's and feared a loss of control over their own airlines. These commuters claimed that their larger partners wrote contract provisions that enabled them to control the commuters, such as forcing the commuter to fly certain routes while preventing them from flying others, and enabling the major to terminate the contract if the commuter's balance sheet fell below a specified threshold (Moorman 1988). Upon Bill Britt selling his commuter airline Britt Airways in 1986 to People Express he stated, "When becoming a dual designator [codesharing partner], the larger airline uses your assets, runs your schedules, determines your pricing and decides what the feed schedule should be" (Davis 1986: 76-77). As well, over time many of the majors eventually took ownership stakes in their commuters. Delta for example wrote most of its contracts to allow it to obtain a 20 percent stake in the commuter if Delta wished, which it usually exercised (e.g. Davis 1987; Reingold 1987; Henderson 1988). Thus, codesharing relationships appeared woefully unequal to many commuter airlines.

Despite an initial statement from the CAB that United's and American's use of these systems was not unduly anticompetitive (New York Times 1983a), external pressure from the Department of Justice as well as non-CRS-owning airlines (Karr and Taylor 1983; Donoghue 1983; Wall Street Journal 1982b) eventually led the CAB to invoke a rulemaking procedure in which they would establish rules governing the usage of CRSs (Noble 1984; Donoghue 1983). Beginning in August of 1983 the CAB decided to establish new rules governing how CRSs were to be operated (Rotbart 1983; New York Times 1983). Final rules were in place by mid-1984 and set to go into effect in 1985. In these rules the CAB specified that CRSs had to organize flights by some

objective criteria (e.g. flight schedule, price, etc.) rather than pushing the CRS owner to the top (Aviation Week 1984). They also identified codesharing as a legitimate practice and not unduly deceptive to consumers (Air Transport World 1985b).

Several commuters along with United and American continued to fight codesharing even after the new ruling. In 1984 American petitioned the CAB to disallow the practice, while United threatened to remove all codeshare flights from its Apollo system (Kilman 1984). United fought the ruling in a Court of Appeals but was unsuccessful (Feldman 1984b). Several commuter airlines also petitioned the CAB to eliminate the practice of codesharing (Air Transport World 1984), and upon the Department of Transportation (DOT) taking over CAB functions in 1985 eight regional airlines unsuccessfully attempted to persuade them to eliminate the practice (Air Transport World 1985a). By the end of 1985 the writing was on the wall that codesharing was an institutionally legitimate practice.³⁸

Institutional Legitimacy and Diffusion

The institutional legitimacy of codesharing feeder relationships made them an essential strategy to successfully navigating the competitive terrain of the deregulated airline industry for both incumbent and commuter airlines. Even airlines that detested them came to adopt them as a necessary evil. United and American both established codesharing commuter networks despite their opposition to the practice because they

³⁸ In December of 1985 the DOT passed a rule that required all flights operated by a codesharing commuter to be marked with an asterisk in the CRSs, however, this rule was ignored by airlines and unenforced by the DOT (Moorman 1988).

each felt it was a necessary competitive strategy. They could not compete with other airlines who hid their commuter relationships through codesharing. United's Vice President of Governmental Affairs Monte Lazarus warned members of the Regional Airline Association in the spring of 1985 that "United tried to get CAB to ban [codesharing], but CAB couldn't bring itself to protect the consumer. If something is not done soon, United is going to join this practice, and when that happens, don't complain because a lot of you are hurting" (Higdon 1985).

Commuters saw their survival as at stake much more than did United and American. Passengers increasingly needed to feed into hubs to get to their final destination, providing a strong niche for commuters in a hypercompetitive environment where incumbents controlled access to key hubs. The Regional Airline Association estimated that in 1985 70 percent of the regional/commuter airline traffic was feeder traffic on carriers aligned with majors (Higdon 1986c). Such relationships gave them access to markets that incumbents would lock them out of otherwise.

Further, through codesharing commuters were able to tap into the status of the larger incumbent airlines (Podolny 2005). As passengers could not tell the difference between Delta and its relatively unknown commuter Ransome Airlines, Ransome was able to capture passengers (even if unwittingly) by being seen through the lens of Delta, a name people trusted. Sharing a code with a major meant that your flight would be evaluated by passengers and travel agents as a reliable, safe bet, a reputation that the new entrant commuters had trouble establishing as many of them died overnight and their safety was routinely called into question (Davis 1983).

Several cases of commuters who lost their codesharing relationships and failed brought this survival concern into sharp focus. As several majors began to realize they had developed too many commuter relationships they began to drop some of them (Moorman 1988b). And as they did so, several of those commuters filed Chapter 11 bankruptcy.³⁹ Royale Airlines simultaneously lost its codesharing agreement and filed bankruptcy (Thomas 1987). In March of 1987 Gull Air lost its relationship with Continental, filed Chapter 11, and then proceeded to sue Texas Air Corporation (the holding company of Continental) for allegedly restraining competitive behavior and renegeing on its contractual obligations (Moorman 1988b). Maintaining a good relationship with a major airline at a hub became understood as essential for survival. This led Gary Adamson, former President of the commuter Air Midwest, to state that “the only thing worse than codesharing is to not codeshare” (Moorman 1988b: 193).

By 1986 codesharing relationships were institutionalized practice within the industry, and by the late 1980s were diffusing to the international arena (Feldman 1988). Their institutionalization directly led to the substantial expansion explained above, and they are by now a taken-for-granted part of the reality of the industry.

Institutionalizing Networks

Deregulation marked a dramatic reorganization of the legal institutions underpinning the airline field, sparking hypercompetition and destroying the monopoly

³⁹ This may be a function of selection effects. Incumbents likely dropped the commuters who were in the worst financial shape, only expediting their death. Regardless, commuters and industry analysts saw this as a sign of the real importance of having and maintaining a codesharing relationship.

rents of incumbent trunk airlines. To solve the uncertainty and profitability problems generated by hypercompetition several incumbents reorganized their relations with smaller commuter and regional airlines into codesharing feeder networks organized around monopoly hubs. Incumbents who politically mobilized to institutionalize this system sought to stabilize the unmitigated competition on numerous city-pair markets and re-established their dominance in the industry.

How can we know that this relational restructuring actually stabilized the market? Returning to figure 5.2 on the citation of fare wars in the airline industry, it is clear that by 1986 these were declining and by 1988 the mention of price wars in the New York Times and the Wall Street Journal looked as it did before the recession began in 1981. Clearly, after the institutionalization of the feeder network system the uncertainty indicated by constant references to price wars had left the industry.

Further, we can look at the failure rate of airlines to gain a sense of how stable the industry was over this period. Figure 5.7 documents the trend in the percentage of airlines who failed by the end of the year relative to the number of firms that existed in that year, from 1978-1988. Here we see that the failure rate rises dramatically after 1980, peaking at 25 percent in 1982, and beginning a steady decline after 1986. While the measure tends to rise and fall from year to year, the failure rate only rises above 15 percent in one year after 1988 (1994).

Taken together it seems clear that the relational reconstitution of the industry that the feeder network system represents did in fact mitigate the hypercompetition that generated uncertainty in the early 1980s. Newspaper cites of price wars in the industry

fell after 1986 suggesting hypercompetition was no longer a perceived threat to the industry, and the declining failure rate of airlines suggests actual stability in the industry profile.

More than stability however, the institutionalization of the feeder network reconstituted the power of the dominant airlines in the industry to control economic resources. Market share is a key measure of the control over economic resources as it indicates which actors in the market are able to capture the revenue flowing through the market. We can see incumbent's reassertion of dominance by tracing the ranking of firms in terms of market share and profitability from the beginning to the end of this period. Table 5.1 ranks the top ten airlines in terms of market share, measured as an airline's revenue as a percentage of the total revenue in the industry, for every other year between 1978 and 1988.⁴⁰ Perhaps the most striking feature of this graph is the stability of the positions of American and United as number one and number two throughout this period. Though they occasionally flip-flop between these two positions, the top two firms in terms of market share remained American and United from 1978 to 1988. While there is some instability at the bottom half of this list, one can see both Delta and Northwest rising from the bottom half of this list to the top by 1988. Importantly, Delta sediments its position in third by 1988, a position it has since retained. In every year since 1988 the top four airlines in terms of market share have been American, United, Delta, and Northwest.

⁴⁰ I only display every other year for reasons of space and readability.

While market share is a key measure of control over markets, and was the dominant measure of firm success before deregulation, turning market control into profits is key. Table 5.2 ranks firms by profits, measured as total revenue minus operating expenses, every other year from 1978 to 1988. This is much more dynamic than the measure of market share, pointing towards the need for airlines to continually fight for translating market position into profits. Particularly during recessions challenger firms are able to climb towards the top of this list. While American, United, and Delta, are routinely in the top three of this ranking their position there is much less secure. Thus, the relational reconstitution of this field into a feeder network structure may have been less capable of maintaining profit positioning for incumbents. The fact that incumbents were able to use this network structure to maintain their market shares but could not translate this into profits is likely a function of their relative inability to reorganize the employment contract in ways that would ensure profitability. To this day, firms from the regulated era tend to have powerful unions and substantially higher labor costs.⁴¹

While the institutional and relational reorganization of the post-deregulation airline industry clearly induced stability and enabled dominant firms to retain control over at least some aspects of the market, as this chapter has shown this relational reorganization of the airline industry was not inevitable. It was neither the efficiency of the networks nor the universal desirability for them that led to their diffusion. Rather this chapter has demonstrated that they were the product of a reworking of existing social

⁴¹ These are impressionistic arguments that I will examine more fully with the airline balance sheet data in later research.

relations and the mobilization for institutions that would support them. In this narrative then we see how network forms are often path dependent innovations that emerge from specific politically contested institutional arrangements.

Institutional reorganization led to a transformation in the network relations between airlines, the reverse causal pathway that led to deregulation itself that we saw in chapter 4. In both the diffusion figure and the network diagrams it is evident that bilateral feeder networks emerged in the early 1980s, and that 1984-1985 is the watershed moment for the diffusion of this network form. This pattern of diffusion is best explained by reference to key institutional changes in the industry and the politics over those institutional shifts. In particular, three mechanisms can be identified through which institutions constituted networks in this case. First, institutions provide incentives to develop particular network forms by shaping what strategies are most beneficial for different firms. Deregulating entry and price controls incentivized cost reduction by generating price competition. The uncertainty of hypercompetition forced airlines to focus on strategies of survival. Thus, airlines realized it was not equally beneficial and quite costly to interline with everyone leading them to abandon multilateral agreements for bilateral agreements. They reorganized their relationships around the emerging hub and spoke route structures that incumbent airlines were developing to reduce flight costs and organize regional monopolies. Thus, bilateral feeder arrangements emerged in which incumbent airlines contracted with particular commuters to feed traffic into their hubs, sharing resources exclusively with their partners to achieve this.

While incentives are important they are ineffective unless institutions enable firms to act on them. Thus, the second mechanism through which institutions shape networks is by legitimating particular network forms and thereby creating the capacity to develop network structures. As feeder networks emerged as a potential solution to the uncertainty of competition they were contested within the field. Their emergence generated a political struggle between a set of actors who saw social relations between incumbents and commuters as beneficial to accessing and controlling markets and those who saw it as detrimental to their own control over markets. However, the legitimation of codesharing feeder ties by the CAB in 1984 generated the exponential growth of these relationships. It was this legitimation that enabled airlines to form such network ties, and in many cases led airlines who had once opposed them to enter such relationships. Thus, institutions generated the perception that codesharing networks were both inevitable and necessary and as a result the new relational form rapidly diffused after 1984.

Finally, it is through analyzing changes in the resources flowing through these ties that we can observe how institutions shape not only the network forms that emerge, but the content flowing through network ties. In the early 1980s as feeder networks were developing, they were primarily marketing arrangements. However, modeled after the Allegheny Commuter Network, these ties increasingly included codesharing in which the commuter airline would be listed in Computerized Reservations Systems under the code of the larger incumbent partner. This practice undermined the reservation data manipulation strategy that the two largest airlines were pursuing to create their own market advantages. After codesharing was legitimated by the CAB and the DOT,

virtually every airline translated their network ties into codesharing arrangements and eventually even American and United capitulated to the new system. So, while the number of ties increased, the content changed as well, even among those who previously opposed codesharing. Thus, institutions do not merely enable network ties, they also define what is exchanged. Furthermore, institutions reinforced the status hierarchy through which quality is signaled, cementing the market power of incumbents (Podolny 2005). Forming a network tie was a strategy through which commuters enhanced their status in a moment when the reputation of commuters was generally poor. Thus, in both the ways scholars have conceptualized network ties – as pipes and prisms (Podolny 2001) – institutions shape the content that flows through and is reflected in social relations.

It is with the last two mechanisms, legitimation and defining what is exchanged, that we can most clearly observe the political underpinnings of network formation. As the content of the ties changed from marketing agreements to codesharing agreements a segment of commuters joined with the CRS-owning airlines of American and United to oppose this emerging relational form. Institutional conflict ensued as the remaining incumbent airlines sought to overturn the CRS dominance of American and United. Airlines, both those opposing and those supporting codesharing networks, did not sit by idly waiting for institutional legitimacy. They actively sought it or fought against it. This conflict brought the legitimacy of codesharing networks and reservation systems into question, forcing a resolution from regulatory agencies (the CAB and the DOT) in the field. It was the CAB's legitimation of the networks that ultimately led to their diffusion as the solution to the problems of hypercompetition and unprofitability. And in the end

these relationships enabled the reconcentration of the industry and the protection of incumbent dominance through the regional monopolies they reinforced. The ensuing structure of this neoliberal field was then not the outcome of market competition but of political competition. Thus, rather than simply being taken-for-granted, there is much political maneuvering to define what network forms will be legitimate within the field.

We can say then that social relations within a field are politically and institutionally constituted, yet as numerous institutional scholars have noted institutions are path dependent (Dobbin 2009; Johnson 2007; Schneiberg 2006; Tilly 1998; Stinchcombe 1965). As fields evolve they bring with them certain elements from former institutional arrangements, and this is no different when analyzing the evolution of network forms in the airline industry. While institutions informed the development of relational forms in the airline industry we can clearly see the lingering legacy of institutional innovations from the regulatory period. It is not that codesharing networks were invented in the midst of price wars because they provided the clearest solution. Rather, airlines adopted a network form that existed under regulation and reworked it for a distinctive purpose. Multilateral interlining did not simply dissolve under cost pressures from price competition after deregulation, but became fragmented as incumbents simply selected the most strategic partners for maintaining their monopolies. They then infused the networks with codesharing, a solution adopted from Allegheny Airlines' solution to a different problem in the 1970s. Codesharing was a product of regulated competition that later provided a model that became the solution to a different set of market problems after deregulation.

In this way we can observe the path dependence of relational forms. Rather than rationally working through the most efficient solution to the problem (assuming one exists and could be identified) airlines drew on existing institutional and relational materials to improvise a solution that enabled them to retain market share and stabilize the industry. Numerous innovations of the deregulatory period possess this quality. The physical technologies that emerged in this period have a similar quality. CRSs can be traced back to the 1940s as systems of internal reservations management (Copeland and McKenney 1988). It was not until deregulation that airlines began using these systems to manage their markets. Thus, it is not so much that deregulation spurred innovations but that deregulation spurred a retooling of institutions and social relations.

Conclusion

The analysis of the post-deregulation airline industry pushes our understanding of markets beyond what the tools of standard economics can provide. A simple focus on efficiency and supply and demand misses how actors within markets actively construct the market in which they live. Economic actors are not simply constrained by competitive markets, but as we have seen in the airline industry actively seek to shelter themselves from competition. What this analysis shows is that they do this by building institutions and social relations to mitigate competition and protect themselves from it. Competition then is never achieved through a stable equilibrium of demand and supply, but instead actors seek to achieve a social order from social institutions and social relations. While economists have argued that the hub-and-spokes system was developed

because it was a more efficient way to organize an airline's flights (e.g. Morrison and Winston 1995), my analysis suggests it was done to maintain monopolies. Dominant airlines at the time referred to these as "fortress hubs" and they actively sought long-term leases at these hubs with control over gate and terminal space. Thus, actually observing actors in real situations seems to suggest more than a concern with efficiency.

Thus, modeling economic action as if all firms do is adjust output and prices in accordance with demand leads to the assumption that all that is needed is for firms to be free to make output and pricing decisions, precisely the conclusion of pro-deregulation economists in the 1970s. What these economists failed to see, however, was the way in which dominant airlines would institutionalize hubs and create networks to retain their monopolies and maintain their position in a status hierarchy. If we are going to understand the dynamics of markets we must "model" more realistic economic actors whose main goal is profit through avoiding competition.

Moreover, the tools of sociology enable us to understand how the institutional and relational structures constructed at one moment in time shape the institutional and relational structures produced at another moment. Feeder networks, codesharing, and computerized reservations systems were not simply selected into the industry after deregulation because they provided efficient solutions. Each of these were part of the relational and institutional structure of the regulated industry, and were repurposed after deregulation to solve new competitive problems. In focusing on actors selecting the most efficient solution to their present problems the standard model of economic action ignores

the path dependent process through which actors define and construct both organizationally and politically salient solutions in the first place.

What we have seen in this chapter is the process through which airlines stabilized the industry by establishing codesharing feeder networks. These networks protected incumbent airlines' control over markets, which the mid-1980s reversal in market share and to some extent profits for former trunks suggests. However, this was neither the most evidently efficient solution nor was it an uncontested one. Rather it was the retooling of relational forms from the regulatory era that only became the solution when the CAB legitimated it and thereby resolved conflicts over it.

This resolution paved the way for the current organization of the industry into three dominant international codesharing networks, the SkyTeam, Star Alliance, and One World. Each of these is organized around one remaining incumbent from the U.S. and several geographically dispersed carriers from around the globe. Thus, the SkyTeam partners Delta (U.S.) with KLM (the Netherlands), Aeroflot (Russia), AeroMexico (Mexico), AirFrance (France), Alitalia (Italy), China Southern (China), Czech Airlines (the Czech Republic), Kenya Airways (Kenya), Korean Air (Korea), Vietnam Airlines (Vietnam), Air Europa (based in Spain, but marketed as a European airline), and Taron (Romania). Similarly, the Star Alliance partners United and US Airways with twenty-four non-U.S. airlines and OneWorld is organized around American with 11 non-U.S. airline partners. These alliances provide a web of networks that now define the airline industry, and arguably create and sustain global airline monopolies (Stellin 2011).

CHAPTER 6

NEOLIBERALISM AND THE SOCIAL ORGANIZATION OF THE U.S. AIRLINE INDUSTRY

In this dissertation I have pursued the dual objective of understanding a crucial case of neoliberalism – the deregulation of the U.S. airline industry – and in doing so to develop a theoretical understanding of evolution of local social orders within markets more generally. I stated at the outset that I will make three interrelated arguments. First, we must examine concrete cases of neoliberalism to understand how neoliberalism arises in and transforms particular social fields. Second, rather than neoliberalism removing all institutional and social relational underpinnings of markets, it simply leads actors – both economic and political – to reorganize them. Finally, institutions and networks are not merely constitutive components of static markets but they interact with each other in producing market dynamics. In this chapter I will use the historical narrative of the last three chapters to pursue these arguments.

Historicizing Neoliberalism

Neoliberalism is the idea that unhindered market forces are by default the proper means to achieve economic growth and prosperity (e.g. Babb 2007). It is inherently a context-dependent political category in which actors can reconstitute the social, political, and economic world in various ways (Mudge 2008). Thus, what neoliberalism means and how it is institutionalized can vary across social fields.

In the economic deregulation of the airline industry we have a case in which dramatic market-based reforms were institutionalized relatively extensively. Controls over what airlines charged and where they flew were completely abandoned. The logic justifying this was to reduce prices paid by consumers through market discipline over airline behavior. Such extensive market-based reforms were possible given the development of a political coalition within the airline field arguing for economic deregulation to jumpstart a fledgling industry.

Even before the economic crisis, consumer groups were organizing against what was perceived as anti-consumer policies within regulated competition in the airline industry. Consumer organizations had a material stake in reducing the price of air travel and perceived various practices of the CAB as enabling airlines to gouge consumers. Thus, they were in search of ways to transform regulated competition into an institution that would protect consumers. Their concern over high airline prices was heightened when stagflation eroded the value of consumers' dollars. It was in this moment that their interests aligned with bureaucrats who were by 1973 desperately seeking ways to solve the economic crisis by reducing inflation. Thus, material and bureaucratic interests converged in the wake of the 1973 oil shocks that sent the U.S. political economy into an inflationary spiral.

However, finding a solution to this political economic crisis was less clear-cut. State-centered models existed and could have been employed as they were in the Conrail experiment. Working with bureaucrats and consumers however, neo-classical economists were able to develop and diffuse deregulation as the solution to the perceived

regulatory problems and their inflationary effects. The inroads they had made into the central command posts of the federal bureaucracy facilitated links with bureaucrats in need of a solution to the problem of inflation. Economists were able to use their burgeoning research on regulation in the airline industry to effectively delegitimize the postwar regime of regulated competition and legitimate the notion of unregulated competition, both at Congressional hearings and within state agencies and ad-hoc committees on regulation in the airline industry.

Taking this as a story of the institutionalization of the first neoliberal sector of the economy, we note a distinctive picture that emerges relative to existing accounts of the rise of neoliberalism. Neoliberalism is often described as either the reassertion of the material interests of capitalists (Harvey 2005), the product of unique economic ideas (Blyth 2002), or the outcome of distinctive political institutional trajectories (Prasad 2006). In focusing on this case however, we see how material (and bureaucratic) interests (though not of capitalists), economic ideas, and to some extent political institutions each shaped the emergence of a neoliberal airline industry. Consumers had an interest in finding ways to lower the price of airline tickets, but this did not translate automatically into a neoliberal deregulation. Bureaucrats needed to reduce inflation, but this too did not automatically mean deregulation. Such a translation required economists who could make market competition a panacea that both consumers and bureaucrats had been in search of. And neither consumer and bureaucratic interests nor economic ideas for deregulation would have had much effect had they not operated within a political system in which political entrepreneurs such as Senator Kennedy can hold high-profile

Congressional hearings as a means to make legislation, allowing this coalition of economists, consumers, and bureaucrats to mobilize directly to legislators.

Thus, when attempting to understand the institutionalization of neoliberalism in specific social fields it is crucial to focus our attention on the transformation of material interests, ideas, and institutions into specific political coalitions in specific fields. Existing accounts of neoliberalism then are not per se wrong, but are specific to the coalitions that develop in unique fields such as labor and consumer legislation (Akard 1992) and welfare and tax reform (Prasad 2006). Understanding the political coalitions that institutionalize neoliberalism within social fields requires attention to the overlap of ideas, interests, and institutions that make these coalitions possible and set fields on particular neoliberal trajectories.

It is important to remember that the airline field was an early case of neoliberalism, when the future historical trajectory of the U.S. political economy was undetermined. Thus, attempting to inject market forces into regulated industries was a new political experiment, at least for the actors involved. In part this means that extensive though this neoliberal deregulation may have been there were limits to neoliberalism's reach even here. Scholars have demonstrated that neoliberalism is uneven, contradictory, and incoherent (Cohen and Centeno 2007; Campbell and Pedersen 2001; Carruthers, Babb, and Halliday 2001; Kjaer and Pedersen 2001). However, much of this has been through comparing social fields rather than observing incoherence within them. The airline case shows that neoliberalism was not a consistent injection of market forces, but this injection was mediated by the need to obtain political allies in Congress.

The best example of this is the inclusion of section 419, the Essential Air Services provision, in the 1978 Act. This provision provided for continued subsidies to airlines who flew to predetermined small cities and towns, where service was thought to be unsustainable at a profit. Despite objections from economists that this was completely unnecessary from an economic standpoint (and potentially counterproductive), it was necessary in order to ensure the votes from rural Congresspersons. Thus, the numerous veto points in U.S. politics required the inclusion of a thoroughly protectionist measure within an otherwise quintessentially neoliberal bill. Perhaps even more telling, to this date the Essential Air Services program has been reauthorized by Congress more than once, maintaining economic protection for these cities and airlines even in the neoliberal era.

This case then demonstrates that neoliberalism is not a uniform market structure, but a historically contingent political project. It is institutionalized in various ways depending upon the political circumstances under which neoliberalism as a political form emerges. Consistent with historical institutionalist understandings of political processes, neoliberalism is not something that diffuses through the U.S., or global, political economy but is translated to fit into the social orders of the numerous existing social fields within that political economy.

Reconstituting Institutions and Social Relations in a Neoliberal Era

Neoliberalism is typically argued to produce competitive markets that discipline firms. This was the core of what the coalition arguing for deregulation wanted, and was

explicit in the justifications for economic deregulation. If you have an industry able to use their personal connections and the existing institutions to their advantage all you have to do is restructure the industry to induce price competition and firms will adjust their behavior to a world in which only prices, not institutions or social relations, matter. Certainly in this story we observe airline firms adjusting to a neoliberal world, but far outside of the boundaries in which the economists who legitimated deregulation presumed they would. Instead of accepting the conditions of market competition we see airlines rebuilding social institutions and renegotiating social relations to mitigate this competition. I argue that this is a function of the threat that market competition poses to the stability of the market and the power of dominant actors within it.

The fundamental flaw in a neoliberal view of the world, carried over from neo-classical economics, is that it presumes that asocial markets devoid of social institutions and social relations are both desirable and possible. The project of economic sociology was built around dispelling this assumption (e.g. Fligstein 2001; Granovetter 1985). Economic sociologists argue that social institutions and social relations are not peripheral or counterproductive within markets but facilitate market activity through reducing uncertainty and creating the trust that is necessary for stable markets (Beckert 2009; Fligstein 2001; Guseva and Rona-Tas 2001; Podolny 2001; Uzzi 1996; 1997). Crucially, institutions and social relations accomplish stability through mitigating competition (Fligstein 2001; White 1981). In this way institutions and social relations provide the stability that makes it possible for market participants to engage in key market activities such as calculating risks.

The analysis of the post-deregulation airline industry suggests this stability was a central outcome of the social organization of markets. A deregulated world in which old institutions and social relations were no longer sufficient to stabilize the market led to recurrent price wars, generating a sense of uncertainty, and a rash of firm failures. It was through innovating the hub and spoke system and the feeder network structure that price wars were reduced and firm failures began a downward trend.

However, the analysis of airline deregulation also proposes a second reason for the institutional and relational underpinnings of markets: power. One of the striking features of the post-deregulation airline industry is that the hierarchy of firms by the end of the 1980s closely resembled the hierarchy of 1978. The two dominant firms in terms of size and market share in 1978, American and United, were the dominant firms in terms of market share by 1988 (and still are). By 1988 Delta and Northwest had also secured the third and fourth spots. Using market share to secure profit was a little less effective, but American, United, and Delta are routinely able to make it into the most profitable firms, with notable challengers such as Southwest often not far behind.⁴²

However, the control over markets that the feeder network system produced suggests that the institutional and relational structures built in the neoliberal era did not merely stabilize the market but also reproduced its status hierarchy. It was the incumbent former trunk airlines who politically pursued new institutions and social relations,

⁴² As I noted before the failure to use market share to realize profits may be a result of the internal organizational practices developed in the post-deregulation era.

fighting at times amongst themselves over the new institutions and relations (e.g. computerized reservation systems vs. codesharing). Actors seek in moments of uncertainty to rebuild institutions and social relations to enable them to preserve or extend their political and economic advantages. Powerful actors, of course, have advantages in this process, but outcomes are not determined solely by actor power but also by the emergence of political coalitions.

While some recent work in economic sociology has examined status hierarchies within markets (Podolny 2005), much of this has fallen back on highlighting the role that status hierarchies play in reducing uncertainty. The central insight is that status hierarchies are reproduced over time because high status actors are seen as more reliable exchange partners (Podolny 1994; 1993). While the developments of the airline industry in the neoliberal era support this interpretation, I argue that we can also see how status hierarchies are built and sustained as a means for dominant actors to secure and maintain control over economic resources (Sorensen 2000; 1996).

Certainly the classical image of a market comprised of autonomous competing actors is nowhere to be found in the neoliberal era of the airline industry. Just as soon as we see unbridled market competition we find market actors attempting to circumvent the market by institutionalizing social practices and relations with each other to protect themselves from market competition. The airline industry is perhaps the place where we should expect to see this neo-classical imagery most clearly, as there are few sunk costs in a given market and after deregulation few barriers to entry. That we cannot find an asocial, self-regulating market here is telling evidence of the centrality of institutions and

social relations even in the neoliberal era, and their centrality in stabilizing markets and reproducing power and status hierarchies.

From Institutions to Networks and Back

As well as the historical nature of neoliberalism, the case of the airline industry has highlighted the role of institutions and networks in the evolution of markets, and their interaction with each other. Most sociologists studying markets isolate either networks or institutions in analyzing a given market. While this has been fruitful in theoretically understanding institutional and relational dynamics in markets, recently scholars have argued that institutions and networks interact with each other in markets (e.g. Owen-Smith and Powell 2008; Mizruchi et al. 2006). This dissertation advances this theoretical agenda by highlighting the reciprocal nature of these two elements of markets. Institutions and networks are organizing principles that evolve over time, reciprocally shaping the emergence of each other and thereby co-constituting markets as social fields. We can see this interaction by following the mechanisms through which the airline industry was deregulated and how the market was rebuilt after deregulation.

Deregulation can be understood as a reorganization of the legal institutions underpinning the airline industry. This institutional shift occurred through a realignment of social relations within the field that emerged out of the weakening of existing institutions from the onset of the 1970s economic crisis. Regulated competition as a market institution was destabilized by the mid-1970s and a coalition of actors emerged in the field who then mobilized to successfully institutionalize deregulation as the solution

to instability in the industry. Thus, we can see how weakening institutions led to new network ties in the field that then led to new institutional arrangements. In this process we observe the dynamic interaction between institutions and networks and how institutional instability led to network reorganization which led to institutional change. Importantly, for deregulation it was a transformation in networks that led to a reconstitution of institutions.

After deregulation we see the reciprocal nature of institutions and networks as new institutions shaped the reorganization of relations between airlines. Deregulation as a legal-institutional shift undermined the dense network structure that had developed among airlines during the regulatory period. Multilateral interlining between airlines that existed under regulated competition could no longer be maintained in the midst of intense price wars. Thus, airlines began developing strategic partnerships with airlines who could feed their emerging hub and spokes system. In this we can see the impact of both formal and informal institutions on networks. First, the shift in the legal institutions marked by deregulation opened up price competition which transformed the strategic concerns of all airlines. With the emergence of low-cost competitors, incumbent airlines had to find ways to attract market share at a lower cost. This led them to reorganize their relational ties with other airlines, selecting only partners who could feed passengers into their route structure at minimal cost. Second, the emergence of an informal institution – the hub and spoke system – shaped who was defined as a strategic partner. The goal of alliances was to feed traffic into a major carrier's hub in order to transfer them onto the major carrier's flights. Thus, it was a way of expanding the effective route network of

the major carrier via network partners. In the absence of the hub and spoke network we would have likely seen social networks in the airline industry take a different form, with different alliances emerging.

The further development of informal institutions guided the evolution of these networks. The practice of codesharing emerged within these bilateral feeder alliances. Initially this practice was contested by airlines who had made their investments in controlling markets through computerized reservation systems (American and United). Codesharing undermined their capacity to control these systems, and they therefore sought to eliminate it. Thus, the state was called upon to intervene in this “free market,” and their legitimation of codesharing led to the rapid diffusion of this practice along with the bilateral feeder networks that accompany it, even among airlines that had formerly opposed it. Here we can see how the legitimation of informal institutions shapes the development of networks within the market.⁴³

This case illustrates the centrality of both networks and institutions to the social organization of markets as fields, and the importance of recognizing their co-constitution of markets. Had the institutions in the airline industry been different the networks would have been different, and had the networks been different the institutions would have been different. Had a different coalition emerged in the wake of the oil shocks we could have seen the emergence of a different response to economic crisis, and thereby a different set

⁴³ In this case legitimation came from the state. In other cases legitimation may come from high status actors outside of the state (e.g. Podolny 2005). I am not arguing that the legitimacy of institutions must come from the state, only that it did in this case.

of institutions governing the industry. Had deregulation not been the response to economic crisis, hub and spoke networks may not have become a key institution and codesharing feeder networks may not have come to define the industry's relational structure. This case demonstrates that we cannot understand the pipes and prisms of networks in a market without understanding the institutions of that market, and vice versa.

From Statics to Dynamics

In understanding the co-constitution of markets through networks and institutions this case also moves us from a static to a dynamic understanding of markets. One of the problems with the standard deployment of the markets as fields metaphor is the focus on market stability at the expense of market dynamics. The typical concern of analysts approaching markets as social fields is with understanding how trust forms and uncertainty is reduced enough to enable successful market exchange. In this sense the standard question for those approaching markets as social fields is how do markets become stabilized? In this dissertation I have sought to expand this conceptualization of markets as stable social organizations into understanding the dynamic features of markets. Importantly, I employ the same conceptual framework of market fields defined by institutions and networks to do so.

At the outset of this dissertation I identified potential exogenous and endogenous mechanisms through which social change might occur within markets. Exogenous shocks offer one potential explanation of the reorganization of markets in which some

change outside of the field disrupts the existing institutions and networks, providing a catalyst for reorganizing the field. Three endogenous sources were also identified: multiple institutional logics, field overlap, and power dynamics. Rather than a single, unified institutional logic underpinning the actions of all market participants, multiple – even contradictory – logics can coexist in a given market to guide action. The interaction and conflict between these competing logics could potentially produce market reorganization. Similarly, a market can overlap with other fields, providing new institutional models and network ties through which new institutions might diffuse and become legitimated. Finally, as fields generate winners and losers power dynamics between incumbents and challengers engender political struggles that generate market reorganization.

The timing of the reorganization of the airline industry suggests an exogenous shock was the proximate source of market change in this field. Deregulation emerged only after the oil shocks and the onset of stagflation. The centrality of exogenous shocks is further bolstered by the series of reorganizations that swept through various industries in this period including trucking, railroads, finance, electric utilities, and telecommunication. This suggests that exogenous shocks are not merely correlates with market reorganization but central causes.

Nevertheless, we see through this case the important ways in which exogenous shocks interact with endogenous sources of change. It is quite clear that all three endogenous sources of change were present in the airline industry. While the logic of “regulated competition” was dominant, models of less heavy handed regulation existed

on the margins of the field primarily from economists. Economists such as Richard Caves and Lucile Keyes did not necessarily oppose all regulations over the industry, but they did argue that not all existing regulations were necessary and many were inefficient. In particular, they argued that the heavy-handed entry and price controls were not warranted in what was essentially a workably competitive industry. Regulated competition was embedded in the idea that the airline industry was a natural monopoly, however, Cave and Keyes each argued that the industry was naturally competitive. Thus, we can see the co-existence of multiple institutional logics in the regulated airline field.

The existence of economists in this field with an anti-regulatory frame points to the existence and power of field overlap. The notion that the airlines were in fact a naturally competitive industry emerged from theoretical and econometric analyses within the discipline of economics. Moreover, as the discipline of economics moved toward a neo-classical microeconomics focused on unregulated markets in the 1960s, economists within the airline field became more consistently pro-deregulation. Considering economics as a distinctive social field we can see economists as actors operating in the interstitial space between economics as a field and the airline industry as a field. It is through this positioning of economists that we observe the emergence of an anti-regulatory frame at the margins of the airline field.

We can finally observe the extent to which a power imbalance existed within the field enabling the extraction of rents by incumbent airlines and producing a set of actors in the field opposing those rents. Regulated competition operated to protect the markets of incumbent trunk airlines, locking out potential new entrants and siphoning off

challenger airlines into niche markets. Further, these oligopolistic markets led to higher prices for consumers, creating a set of consumer organizations who actively opposed the excessive prices they were paying. Thus, regulated competition effectively created economic rents for trunks that challenger airlines were unable to capture and consumers paid in the form of higher ticket prices. These rents generated antagonism between incumbents and challengers as well as incumbents and consumers.

It is clear then that conditions in the field were ripe for endogenous change. However, analysis of the evolution of the airline industry case suggests that endogenous conditions in which a field overlaps with multiple other fields, there is a substantial power imbalance, and multiple institutional logics co-exist may be necessary but insufficient for market reorganization. These endogenous conditions existed in the airline field for decades prior to actual change. It was only when conditions outside the structure of the field itself changed that these internal conditions led to market reorganization. As the field was not reorganized until the oil crisis and ensuing stagflation in the 1970s, it seems clear that an exogenous shock was necessary to translate multiple institutional logics, field overlap, and existing power struggles over economic rents into market reorganization. This shock actually set in motion the mobilization of new networks among those actors operating at the interstices of the economics profession and the airline industry, enabling them to mobilize and eventually institutionalize their competing institutional logic. It also enabled challenger firms and consumers to embed themselves in this emergent coalition and mobilize to destroy the rents of incumbent trunk airlines.

Thus, exogenous shocks provide the crucial catalyst for transforming internal conditions into actual market change.

What we see in this case is that market reorganization operates through the interaction between endogenous and exogenous agents, but the process of change begins when an exogenous shock destabilizes existing institutions. Perhaps, to the extent that there are alternative institutional logics, overlap with other fields, and/or a power imbalance we can expect that these shocks may be translated into market reorganization. The presence of multiple institutional logics provides ready-made alternatives to the existing institutions. As the dominant logic becomes unstable, new institutions do not have to be invented but can be borrowed and so more easily institutionalized, and we should expect one of these existing alternatives to define the new institutional arrangements. This process of institutionalizing alternative institutional logics becomes more likely when there is a power imbalance in the field and overlap with other fields. Power imbalances generate a set of actors who are disadvantaged by the dominant institutions and therefore have a material interest in mobilizing for an alternative set of institutional arrangements in the field. Similarly, field overlap creates a set of actors who have the skills and knowledge developed in other fields on how to mobilize for new institutional arrangements.

A power hierarchy combined with field overlap then generates a set of actors in the field with the desire and institutional knowledge to mobilize to reorganize the market. Thus, multiple logics provide new cultural materials to remake the field, while power structures and field overlap, respectively, provide the incentives and knowledge to do so.

These can coalesce into a transformation of social relations in the field in which actors seeking alternative institutional arrangements develop ties with actors who have viable alternatives. Thus, we should expect that industries that did not reorganize during this period, such as electric utilities, lacked field overlap, coexisting institutional logics, and/or power imbalances. Perhaps such cases can further specify the historical conditions under which each of these three endogenous sources of change becomes crucial to market transformation.

What is clear from this case is that endogenous and exogenous pressures operate together in producing field dynamics. This moves our understanding of markets as fields from the static stabilizing forces of fields into understanding how they evolve over time. Importantly, we see that exogenous shocks provide the catalyst for change while endogenous conditions define what this change looks like. Rather than trying to determine whether endogenous or exogenous conditions are determinative of institutional transformations within markets (e.g. Schneiberg 2007; Fligstein 1996), we should focus on the intersection of endogenous and exogenous conditions in particular historical moments.

Conclusion

In analyzing the historical trajectory of the U.S. airline industry as a crucial case of neoliberalism this dissertation helps sociologists rethink what neoliberalism means as the fundamental orienting principle of the U.S. political economy. I sought to show that neoliberalism takes specific forms in defined social fields within any political economy.

We have seen that in the airline industry neoliberalism meant the removal of direct controls over pricing and entry, but this did not entail the removal of institutions and networks from the market. Powerful actors in the field built new institutions and networks in an attempt to preserve their market power, to some extent successfully. Thus, institutions and networks are not the outcome of regulated markets, but define even the most neoliberal of markets.

Of central importance, eliminating an explicitly political process from regulating markets did not eliminate politics and the state from organizing and regulating markets. Sociologists have noted that the state is fundamental to organizing markets (Block and Evans 2005; Krippner 2001), and here we have seen the centrality of the state even in the most touted of neoliberal fields within the economy. Economists proposing deregulation argued that the airline industry was the clearest case of an industry that needed no involvement from the state and could self-regulate. However, the price wars that emanate from unregulated competition led firms, both incumbents and challengers, to seek the assistance of the state in settling the field. This points to the inevitability of the state's role in organizing economic activity. My hope is that we can use this case to reframe the existing debate about the role of the state in the economy from "should the state intervene" to "how should the state intervene." Modern economies are not faced with the choice of regulated or unregulated markets, but the complexity of coordinating market activity forces us to ask how should we regulated markets.

In analyzing this case from the vantage point of economic sociology's focus on institutions and networks we also see the centrality of institutions and networks, and their

interaction, not just for stabilizing markets as fields but for explaining change within those fields. Threaded throughout this narrative has been the central role that power plays in defining markets as fields, a concept that seems to have bypassed much of economic sociology's toolkit. The structure of networks that was institutionalized was not preceded by a democratic institution-building process in which all airlines, let alone all participants in the airline field, participated in creating equally. It emerged out of a fight among the already dominant airlines as they sought to preserve their dominance. Thus, the concept of power must be placed alongside the concepts of institutions and networks in any toolkit designed to explain markets as fields. These fields are containers of economic resources that are unequally divided, and actors will seek ways to capture and maintain control over those resources. These power dynamics are the bedrock of any market, even the most seemingly neoliberal of markets such as the airline industry.

AFTERWORD

WHAT NEXT?

The goal of this dissertation has been to understand the social organization of markets. However, understanding the social organization of markets is merely the beginning, as the point of understanding how markets work is to gain a sense of what the consequences are of the ways in which we organize markets. This is to say, we want to understand the organization of markets because we want to understand how markets influence our lives, individually and collectively. In doing this, we can better understand how we *should* organize markets to obtain the kinds of outcomes we may find desirable.

Understanding the consequences of markets requires first delineating what consequences we care about. Thus, I will begin by identifying what kind of economic outcomes we might want so that we can then specify whether or not a given market organization lives up to these goals. This dissertation will of course not be able to specify whether or not the airline industry lives up to any or all of these goals, but it will point the way towards how we may do so. Below I argue that to be socially and economically effective a market should be equitable, efficient, and innovative. I will take each in turn.

A central question for the study of economic organization is, what does the distribution of resources look like in a particular market and why? We can think through issues of distributional inequality in both product markets and the division of labor within the firm. In reference to product markets the central resource can be defined as the market share, or the amount of income coming into the firm relative to the total income in

the market. To the extent that some firms capture greater market share we can say there is distributional inequality within the product market. Within firms the problem is the same even if the actors are different. The central resource within firms is the distribution of the revenue that the firm gets among various economic classes, where these classes are defined as positions within the division of labor. This takes the form of income shares, whereby we can observe the relative proportion of total revenue going to particular classes. To the extent some classes capture a greater share of the income stream within the firm we can say there is distributional inequality.⁴⁴

Why should we care about distributional inequality? Income shares are a concern within markets for both moral and consequential reasons. Distributional inequality is morally problematic to the extent that some actors in a market or firm benefit materially at the expense of others, or to the extent that some actors can close off opportunities for capturing income from others – exploitation and social closure, respectively (Tilly 1998).⁴⁵ In this sense, when actors in markets capture income we must investigate the sources of this inequality to determine if it was gained through exploitation or social closure.

⁴⁴ Between-firm and within-firm inequality are likely empirically linked. Research in new structuralism found this to be the case, whereby firms with substantial market power tended to distribute some of the rents obtained in markets to members of the non-propertied classes (DiPrete 1990; Hodson 1983; Kalleberg, Wallace and Althausser 1981). Nevertheless, little of this research specifies which classes among the non-propertied are likely to capture higher incomes, and thus does not fully explicate the full distributional impact of these links.

⁴⁵ Tilly (1998) uses the term opportunity hoarding in lieu of social closure. However, I prefer the Weberian term social closure given its more standard usage in sociology (e.g. Weeden 2002; Tomaskovic-Devey 1993; Reskin 1988; Murphy 1988; Parkin 1979; Weber 1978 [1922]).

Scholars have more recently come to understand that inequality is not merely morally problematic but can have negative consequences for markets and society (Kenworthy 2004; Krueger 2003). One of the most cited reasons for allowing distributional inequality within markets is that it actually has positive consequences for the operation of markets. The argument is that equality, particularly that which arises through economic policy, will reduce the incentives to work and invest creating less efficient markets and lower overall economic growth. Economist Arthur Okun (1975) referred to this as the equality-efficiency trade-off, in which we have to choose between either efficient markets or equitable markets. However, research has found that equality does not reduce economic growth or standards of living (Kenworthy 2004), while inequality may in fact have negative effects on growth (Persson and Tabellini 1994). Thus, from a consequentialist perspective inequality may in fact be harmful to the creation of effective markets. Further, inequality appears to impede political efficacy and democracy (Skocpol 2004; Clawson, Neustadl, and Weller 1998), lower rates of educational attainment (Ellwood and Kane 2000), and increase rates of bankruptcy, divorce, and debt within households (Frank 2005). Thus, distributional inequality creates negative externalities that are not overcome by the theoretically presumed growth-enhancing effects of inequality.

Despite the failed equity-efficiency trade-off, markets still require an efficient allocation of resources, the second component of effective markets. Efficiency captures the extent to which the maximum number of goods are being produced in a market using a given amount of resources. Sociologists have historically been less likely to be centrally

concerned with issues of efficiency, having largely left this to the province of economists.⁴⁶ The logic, however, for desiring efficient markets is that efficiency enables us to choose between increasing the overall size of the economic pie or pursuing leisure activities.⁴⁷ Thus, having an efficient market means that it is possible, though not inevitable, that more participants will be able to increase their standard of living through either more goods or more time outside of work. More goods can be produced, creating the possibility that if combined with equality more individuals will have access to satisfying their needs and desires. Moreover, an efficient allocation of resources means that the total cost of acquiring resources in the market is lowered, freeing up resources for other uses or for leisure. The importance of efficient markets is all the more compelling when we recognize that there is no clear trade-off to be made between efficiency and equality.

The final component of an effective market is innovation. Innovation is the transformation of existing materials to produce something new. Innovation, alongside efficiency, actually produces a dynamic economy that routinely produces more goods that fulfill more human needs and desires. In this sense, innovation is the defining characteristic of rising standards of living. Sociologists have tended to underscore the social organization of innovation and its diffusion, but have perhaps taken-for-granted its

⁴⁶ This may be a result of the presumed association between the managerial goal of efficiency and the exploitation of workers, perhaps most clearly embedded in the rise of the Fordist assembly line. However, historical research has shown such techniques are not as much about inducing efficiency as they are about controlling workers and the work process (Meyer 1981; Montgomery 1979). In any case, one can seek efficient markets even within the boundaries of socially desirable production methods.

⁴⁷ This decision I mean to be made at the collective rather than the individual level.

importance for effective markets. However, to be effective markets must generate the kinds of goods desired by individual participants. An effective market will then be capable of creating new products that enrich our lives, and markets should be organized to ensure this capacity exists.

The goal in delineating these characteristics of effective markets of course is to understand how we can organize markets that are equitable, efficient, and innovative. In my future research I plan to move toward understanding how such markets can be constructed out of particular configurations of market networks and institutions. The key questions to address once we understand these organizational principles are what kinds of institutions and what kinds of networks produce equitable, efficient, and innovative economic activity. Experiments, quantitative observational analysis, historical case studies, and contemporary ethnographies can all be effective tools in uncovering these institutional and relational determinants of effective markets. In explicating how markets become organized in particular ways this dissertation then contributes to our understanding of the political process through which we can build effective market institutions and networks. Understanding this is a necessary first step in actually creating such markets.

APPENDIX A

DATA SOURCES AND METHODS

For this dissertation I have drawn on three archival sources of historical data and two quantitative sources of economic data. Collectively, these sources are Congressional hearings, the *Air Transport World* trade press, the general business press in the *New York Times* and the *Wall Street Journal*, Department of Transportation Form 41 data from 1968-2005, and the Current Population Survey from 1968-2005. I will describe each of these sources and the logic of collecting data from them below, but my basic strategy in utilizing such data has been to generate an historical narrative of the process through which actors organized and reorganized the airline field and the political economic conditions in which they did so.

The basic process for developing the historical narrative was to begin by reading through the extant histories of the industry and then moving to the primary materials. The U.S. airline industry has a well-developed secondary literature. Useful comprehensive histories of the U.S. airline industry include Heppenheimer (1995), Peterson and Glab (1994), Vietor (1994) Chapters 1 and 2, Petzinger (1995), and Rose et al. (2006). A comprehensive overview of the emergence and functions of the regulatory body of the domestic airline industry, the Civil Aeronautics Board, can be found in Behrman (1980). Important analyses of the early regulatory period include Caves (1961) and Richmond (1961). The events leading up to airline deregulation are well-documented in Derthick and Quirk (1985), Brown (1987), and Canedo (2008). Finally, authoritative analyses of the transition to deregulation from economists include Morrison

and Winston (1995) and more recently Ben-Yosef (2005). Beginning the project by reading each of these secondary sources provided me with a historical and conceptual framework and a set of sensitizing concepts with which to engage the primary materials.

Archival Data

For the basic historical narrative I rely on Congressional hearings, the *Air Transport World*, and the general business press as published in the *New York Times* and the *Wall Street Journal*. The Congressional hearings provided primary materials for understanding the process of deregulation, while the *Air Transport World* was used to understand how actors rebuilt institutions and social relations after deregulation. The business presses were employed throughout the dissertation to both elaborate and confirm the other data sources. They also became a key source in their own right, particularly for understanding key events leading up to deregulation.

Congressional Hearings

For some of Chapter 3 and most of Chapter 4 I rely on Congressional hearings to identify key actors in the airline field and their political mobilization. To do this I read the population of hearings related to regulatory reform of the airline industry. My strategy for obtaining the appropriate hearings was to obtain a list of all hearings connected to the Airline Deregulation Act of 1978 from the CIS Index. Among other things, the CIS Index publishes a list of the hearings that led up to the passage of a particular Bill in Congress. Each Bill is assigned a code in the Index and all hearings related to that Bill

are listed under the code (the code for the Airline Deregulation Act of 1978 is *PL95-504*). This list generated twenty-six hearings. Of these twenty-six hearings seventeen either addressed narrow issues within regulatory reform, such as the impact of interlining on commuters or aviation safety, or addressed issues broader than airline regulation but of which airline regulation is a part, such as the impact of overregulation on small businesses. Such hearings generally included either only a small subset of the airline field or actors beyond the airline field. As my concern is mobilization of the full set of actors in the field – in particular their mobilization vis-à-vis others in the field – and the general issue of regulation and regulatory reform of the airline industry, I only included hearings directly related to the reform of economic regulations exclusively within the airline industry. This produced seven hearings to analyze, each containing the full set of field actors discussing the general issues of economic regulation and potential deregulation of the airline industry. The first hearing was in 1971 just as economic conditions in the industry began declining and the final hearing was in 1978 only several months before passage of the Airline Deregulation Act.

With this list of hearings I obtained hard copies of each hearing from the Library of Congress. The hearings ranged from 269 pages to over 6,000 pages in length, with most around 1,000-2,000 pages. I read all testimony given in each hearing, noting who was the speaker, what was their affiliation, and taking notes on what they were arguing for in reference to regulatory reform of the airline industry. I analyzed these data to identify the political mobilization of actors, including how they framed the issues and their arguments. They were also useful in identifying emergent coalitions of actors

sharing a similar framing of regulatory reform. In chapter 4 I analyze the distribution of framings at these hearings to document which actors were making what kinds of arguments over the 1970s. The analysis of the distribution of framings allows me to observe the development of a coalition of actors mobilizing for deregulation. Chapter 4 details the coding process further.

In addition to the verbal testimony given at hearings, numerous actors and constituencies submitted written statements or materials to be included in the record. These typically included written statements from witnesses who testified and supporting materials for their testimony such as econometric studies from economists, reports from state agencies, and financial data from companies. Less typical information included things like membership lists of airline associations and ad hoc working groups. In reading these materials I quickly realized that most of the written statements were essentially the same as their verbal statements, but in some cases there were written statements from persons or groups who were not present to give oral testimony. While I read these statements I did not include them in the distributional analysis as I wanted to only include those actors who were actively mobilizing around the issue and therefore present to provide statements and answer questions from Congresspersons.

The Air Transport World

The bulk of the historical narrative and the mapping of the network structure developed in chapter 5 comes from a key trade press in the industry, the *Air Transport World* (ATW). Trade presses are key sources of institutional knowledge as they transmit

information about legal actions within the organizational field as well as providing cultural accounts of the field from various actors within it. They also routinely provide information on alliances and other networking strategies firms use, enabling the observation of a network structure over time.

The most useful aspect of this trade press compared to others in the industry – most notably *Aviation Daily* and *Aviation Week* – is that *ATW* provides a comprehensive annual list, called the “World Markets Report,” of every airline in the industry coupled with a synopsis of the activities of that airline in the previous year. As these lists included any alliances the focal airline formed with other airlines, I coded annual information on the development of firm-to-firm market ties from 1980 to 1988. For each airline I was able to determine from the synopsis on a given airline in the *ATW* if an alliance was formed with any other airline. If so this was cross-referenced with the receiving airline to ensure that the alliance did happen. When the synopsis of both airlines identified an alliance I coded an alliance as having been formed, creating an edge. Thus, each tie (or edge) represents a contractual alliance between two airlines. In practice this is almost always an alliance between one of the former trunk airlines and a smaller regional or commuter airline. I stopped in 1988 because this is the year that the key network form – codesharing feeder networks – diffused globally and thus beyond the scope of my analysis.

I then supplemented these network data with institutional information I gathered from reading every article (totaling 340 articles) on major topics and airlines in the domestic U.S. aviation field from *ATW* during the period. Major topics can be broken

down into the following: airline regulation and deregulation, anti-trust issues, price wars, fuel and oil prices, bankruptcy, hub and spoke networks, computers and computerized reservation systems, marketing strategies, codesharing and interlining, airport access, and service to small communities. These were major issues that I developed in the context of reading the existing airline histories and that emerged in the process of reading through the trade press. Reading through these articles also confirmed and supplemented information coded from the World Market Report. For example, the development of the first commuter network in the 1970s at Allegheny Airlines was compiled from an article that listed the starting dates of those network ties which preceded the 1980 start date of my systematic coding on World Market Report data.

By beginning the process coding information from the World Market Report I was able to cross-check developments detailed in this report with the developments discussed in the articles. When an alliance was discussed in an article I would check my alliance data coded from the World Markets Report. On all occasions these confirmed the existence of the alliance, though at times I had to adjust the year I coded the alliance as having formed. This is because the World Markets Report was often unclear as to whether a development happened in the year the Report was published or the previous year.

General Business Press

Throughout Chapters 3, 4, and 5 I supplemented the Congressional hearings and *ATW* with data from the *New York Times* and the *Wall Street Journal*. The bulk of

Chapter 3 however, relies primarily on these general business press sources. I collected data from these two newspapers because they are and were the largest and most widely read sources of day-to-day business and industry information for market, state, and societal actors within most economic fields including the airline field. Further, numerous key actors in the airline field appear in articles in the *New York Times* and the *Wall Street Journal*, both as commentators and as actors being commented upon. My strategy for gathering data from the business presses was targeted keyword searches. As I would learn from secondary sources or primary materials of an important event, institutional development, or network structure (e.g. the imposition of the 3 and 8 rule, computerized reservations systems, and codesharing alliances) I used ProQuest's Historical Newspapers database to search through the *New York Times* and *Wall Street Journal* in the appropriate time period for any articles mentioning the keyword. Thus, when I discovered through secondary sources that price wars were central and prevalent in the early 1980s I searched "airlines" and "price wars" and "fare wars" through both the newspapers from the period 1978 to 1990. This specific search was also used to produce figure 5.2 documenting the prevalence of price wars during the period.

My use of the business press was self-consciously iterative. I would routinely go back to Proquest as I read through both the secondary and primary materials and gathered new data. This helped to both confirm other data I collected and provide additional analytical leverage when existing sources were sparse.

Economic Data

The archival material gave me data on the actors and their actions within the airline field over time. I used financial data from airlines and labor market data from the Current Population Survey to understand the economic conditions of the industry and its firms and workers over the period. In both cases I was limited to data beginning in 1968, confining any direct measurement of these conditions to begin in the very late regulatory period.

Form 41 Data

Each quarter the Department of Transportation collects detailed financial data from the balance sheets of every domestic U.S. airline operating with a certificate to fly scheduled service. These data include profits and losses, debts and liabilities, and wages among other things. As the Department of Transportation only made these data available in electronic format going back to 1990, I obtained the data in electronic format going back to 1968 from a management consulting firm, BACKAviation Solutions. BACKAviation created electronic spreadsheets of the data going back to 1968 and I was able to obtain the data through 2005. I converted these data from Excel spreadsheets into STATA data files for use in analyses.

In this dissertation I primarily use these data to understand the general market positioning of incumbent and challenger firms. I defined incumbents for this dissertation to be the eleven trunk airlines that existed by the end of the regulatory period, with all other airlines defined as challengers. This is the most plausible classification system for the purposes of understanding political action to organize the field as these were the

airlines whose monopoly was supposed to be destroyed by deregulation. Thus, these are the airlines capturing economic rents through regulation. It is important to recognize however, that in 1980 the industry abandoned the regulatory classification scheme of trunks, locals, and supplementals/irregulars.⁴⁸ Industry analysts and regulators began classifying airlines instead on the basis of revenue with the term “major” airline describing the highest revenue category (now over \$1billion in annual revenue). The problem that emerges with this classificatory system for purposes of this dissertation is that it creates a potentially shifting set of categories in which airlines can from year to year change classifications. For example, three former local airlines, Piedmont, Republic, and USAir, moved into the major category in some years during the 1980s. Incumbents then become a shifting category with no empirical basis in the status hierarchy of the field. Thus, for both theoretical and practical reasons I classified incumbents as the former trunks and all other airlines as challengers.

Current Population Survey

For figure 3.4 I used the Current Population Survey from the U.S. Census Bureau to calculate the economic rents that airline workers receive as a function of working in the airline industry. Using samples of employees who worked the week prior to the survey, I regressed annual inflation-adjusted earnings on a simple human capital model that includes age, age-squared, education, weekly hours worked, and a dummy variable indicating whether or not the employee is employed in the airline industry for each year

⁴⁸ This industry structure and classification scheme is detailed in Chapter 3, pages 39-43.

from 1968-2005.⁴⁹ This is the standard human capital model developed by Jacob Mincer that is commonly used in the economics literature but also includes the airline industry dummy. The inclusion of this dummy is used to estimate the premium or discount airline workers receive relative to similarly-skilled workers in other industries. Age is measured as a continuous variable from 14-80 years of age.⁵⁰ Education is measured as a categorical variable, ranging from 1-9, based on the highest degree earned. Using degrees obtained rather than years of education better captures the completion of some level of training and thus the acquisition of some skill-set. Weekly hours worked is measured as the number of hours worked last week to capture the degree of work effort. The airline industry dummy was measured from self-reports of the industry in which the respondent worked. Airline is one and all other industries are zero. I ran a separate model for each year to calculate the wage premium for airline workers each year. Importantly, the number of airline workers in each annual sample is large enough to calculate an average premium, ranging from a low of 238 airline workers in 1974 to a high of 601 in 2002.

The logic of this model is not to provide a causally sound model of earnings, but to describe the premium that workers are able to capture given the skills they bring to the labor market. That is, it is not my goal to exhaustively account for the variation in

⁴⁹ I only use workers who worked the week prior to the survey because the measure of hours worked, which is central to the human capital model I use, is measured as the number of hours worked in the prior week. Including workers who may be employed but were on vacation the week prior would have distorted effects of hours worked in the model.

⁵⁰ Only 5.79 percent of this sample across years is either under the age of 18 or over the age of 65, the prime working ages in the U.S.

earnings across workers but to compare the earnings that airline workers receive to other workers of a similar skill profile. As with work in any industry some skills are general and others industry-specific. Pilots represent the most industry-specific skills, while perhaps baggage handlers or ticketing agents represent the most generic skill-sets. This is a problem that cannot be overcome in any earnings model, but the human capital model is the most widely accepted model of measuring and comparing workers with distinctive general skill-sets.

A reasonable concern with this model is that it is underspecified. Certainly earnings models in sociology would include race and gender, and marital status. I did not include these variables because they are outside of the scope of the descriptive concern of comparing similarly-skilled workers in different industries. However, I did run a supplementary analysis to test the possibility that some of the airline premium was a function of race, gender, or marital status. In this model I included dummy variables for whether or not the individual was male, white, black, or another racial group, and whether or not the individual was married, never married, or widowed/divorced/separated. In these models the airline premium was lower in each year, but the reduction of the premium was quite modest. With the original premium varying from a high of \$21,102.56 in 1973 to \$3,034.16 in 1999, the inclusion of these variables to the model reduced the premium by eight to twenty-six percent across these years. This amounted to a premium reduction ranging from \$2,832.57 in 1973 to \$784.95 in 1999. We can then say that the premium is largely a function of working in the airline industry, and not driven by the widespread premiums for race, gender, and marital status.

This confirms the use of the human capital model to model the rents that airline workers received in the regulatory period.

APPENDIX B

LIST OF FIELD ACTORS

Table B.1 provides a list of the major actor groups in the airline field during the regulatory and post-deregulation periods.

APPENDIX C

INCUMBENT AND CHALLENGER AIRLINES

Table C.1 provides a list of incumbent airlines and challenger airlines over the regulatory period and into the immediate post-deregulation era. The list was derived from the Department of Transportation Form 41 data, except where noted. Under the regulatory period the list represents only airlines flying under certificates granted by the CAB, which provides a full list of all trunk and local airlines. However, because only a small number of supplemental and commuter airlines received certificates from the CAB during the regulatory period this represents an incomplete list of these classes of carriers. Under deregulation, those who did not last long enough to either begin operations or file reports did not make it into the dataset and are therefore not included.

I have broken down the various classes of carriers into incumbents and challengers. During the regulatory period (1938-1978) trunk airlines are the dominant incumbents. Their central challengers are the locals, supplementals/irregulars, and intrastates. The locals category includes four airlines (Aspen, Wright, Air Midwest, and Air New England) who operated as commuters but were among the few commuters who held certificates from the CAB. Some analysts refer to the trunks and locals together as “legacy carriers” (e.g. Borenstein and Rose 2008) or “original airlines” (Jordan 2005). I have chosen to retain the distinction between trunks and locals because locals provided a key group of challenger airlines in the regulatory period and fit the fundamental criteria of being locked out of the monopoly routes. The typical intrastate airline did not operate

under a certificate from the CAB and is therefore not listed in the Form 41 dataset. However, I obtained a list of these carriers from Jordan (2005). Four intrastate carriers did operate under certificates from the CAB. Alaska Airlines and Wien held certificates that enabled them to fly within the state of Alaska, and Hawaiian Airlines and Aloha held certificates that enabled them to fly within the state of Hawaii.

Under deregulation the official classification by the CAB and DOT into trunks, locals, and supplementals was replaced by a system of classification based on airline revenue size. The largest are classified into “majors” followed by “nationals”, “large regionals” and finally “small regionals/commuters.” The size cutoffs for each category have varied over time. In 2005 majors were defined as having over 1 billion dollars in annual revenue, nationals between 100 million and 1 billion dollars, large regionals between 20 million and 100 million dollars, and small regionals/commuters below 20 million dollars. However, this classification does not specify any set of relations between incumbents and challengers. Successful challengers such as Southwest, who retain a distinctive business model from the trunks and often behave as challengers invading markets, are included in the majors category thereby conflating the key distinction between producers in field theory. I have therefore decided to retain the local and trunk distinction of the former industry structure with the categories “former trunks” and “former locals” in the deregulatory period. As locals had been locked out of the trunks’ markets under regulated competition, I classify them as challengers under deregulation.

Two new classes of challengers emerge under deregulation that I refer to as the regionals/commuters and low-cost carriers. Regionals/commuters were what the supplementals, charter, and commuter airlines of the regulatory era morphed into. This group typically flew smaller aircraft on a small number of short-haul routes. Low-cost carriers represent a distinctive business model within the regional/commuter class that emerged after deregulation and was more or less pioneered by the former intrastate carrier Southwest Airlines. This model includes a no-frills service (e.g. no meals, no reserved seating, no checked baggage, etc.) operated by non-union workers and therefore a lower fare. I separate regionals/commuters and low-cost carriers here only to mark their distinctive business models. It is important to recognize that many regionals/commuters, such as Air Midwest and America West, operated full-service, full-fare flights during this period. While the former trunks and former locals represent complete lists, the regionals/commuters and low-cost carrier categories are too numerous to provide a complete list. I therefore provide a list of exemplar airlines in these categories.

Figure 3.1: Incumbent Market Shares

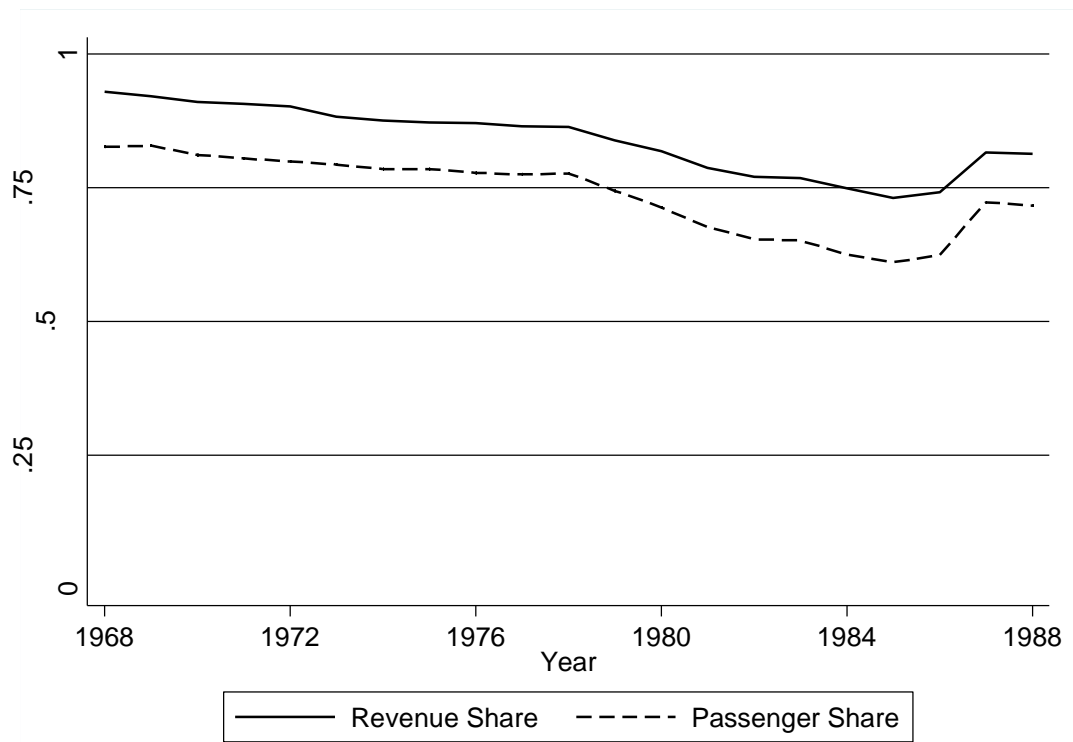


Figure 3.2: Rents from Consumers for Incumbents and Challengers, 1968-1988

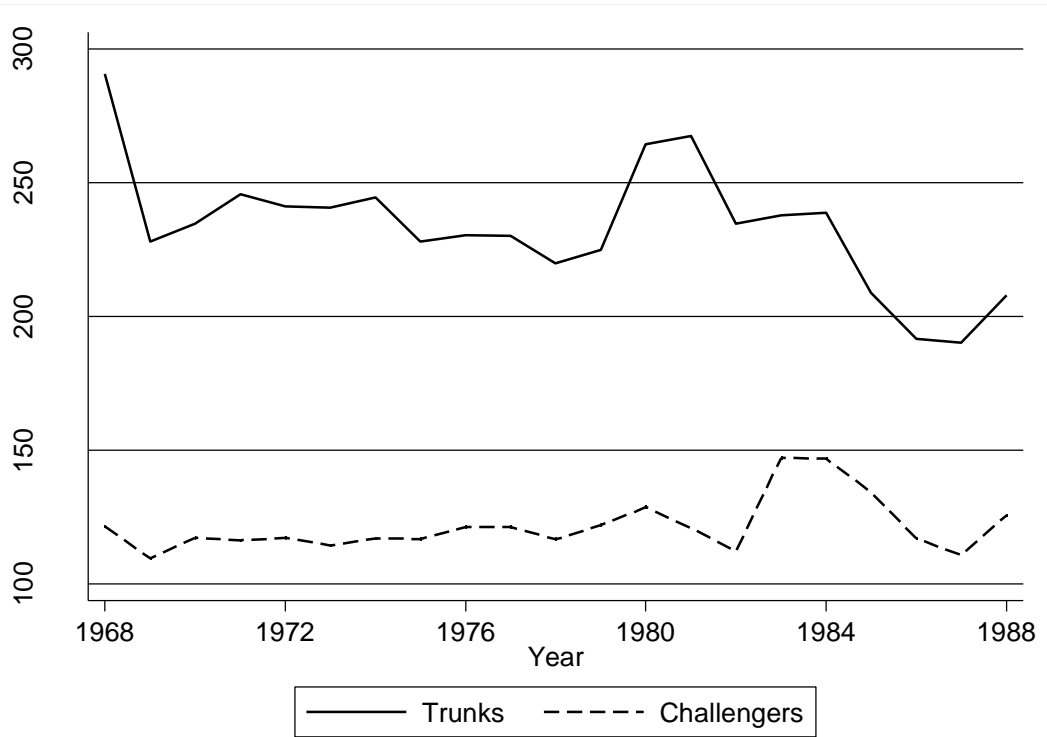


Figure 3.3: Trunk and Challenger Airline Total Profits, 1968-1988

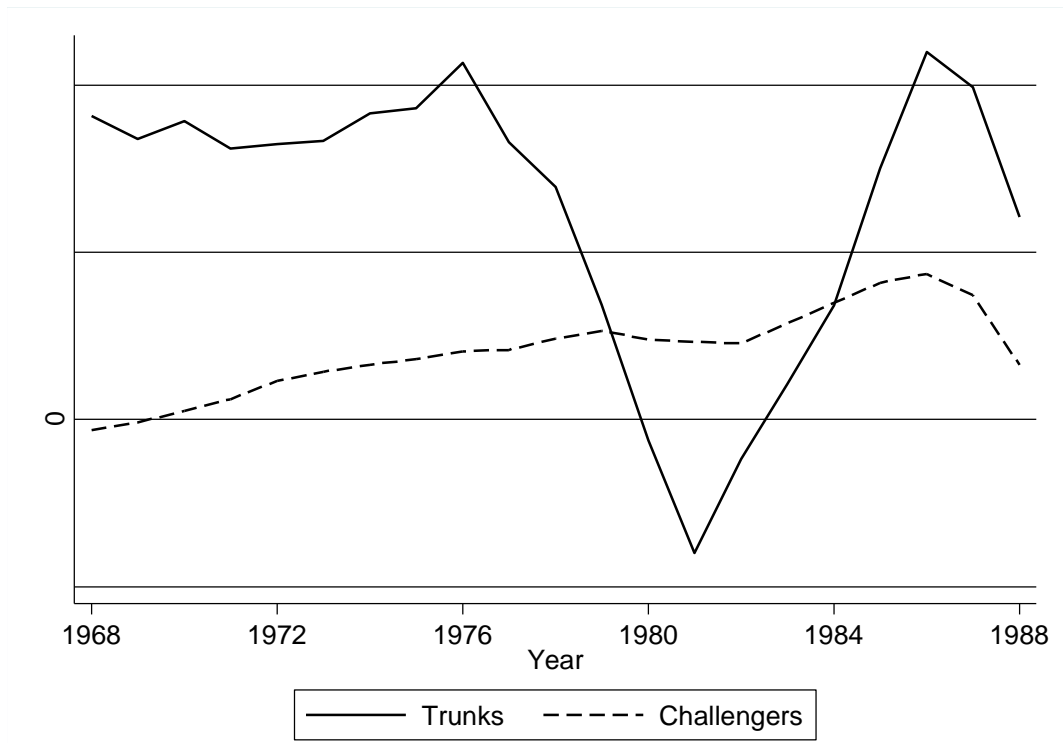
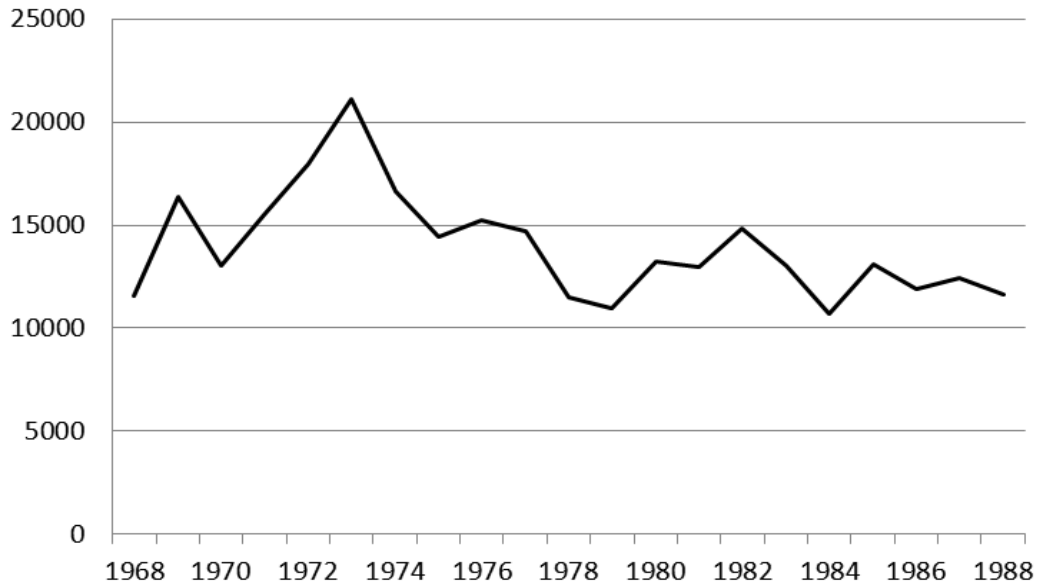


Figure 3.4: Predicted Rents for Airline Workers (adjusted to 2005 dollars)



Model controls for Age, Age-Squared, Educational Attainment, and Weekly Hours Worked.

Table 4.1: Percent of Each Actor-Group Employing a Neoliberal Frame

	1971	1975	1976a	1976b	1977a	1977b	1978
Incumbents	0 (6)	0 (5)	0 (8)	0 (10)	8.33 (12) ^a	15.38 (13) ^b	25 (4)
Challengers	0 (2)	20 (5)	55.56 (9)	36.36 (11)	69.57 (23)	54.55 (33)	60 (5)
Consumers	33.33 (3)	100 (3)	--	100 (1)	66.67 (6)	100 (2)	100 (1)
Economists	--	100 (4)	--	--	100 (2)	100 (3)	--
Federal Bureaucrats	50 (2)	100 (6)	100 (6)	100 (3)	100 (6)	100 (3)	100 (1)
CAB	0 (1)	0 (1)	100 (1)	50 (2)	100 (1)	100 (3)	100 (1)
Financial Analysts	--	--	0 (2)	--	33.33 (3)	--	--
Labor Unions	--	--	0 (2)	0 (1)	20 (5)	0 (6)	0 (1)

Note: Entries are percentages. The number of witnesses from each actor-group in a given hearing is in parentheses. Unmarked entries represent the absence of witnesses from the specified actor-group in that particular hearing.

^a All 11 trunk airlines testified plus the trunk trade association the Air Transport Association of America.

^b Some trunk airlines testified twice in this hearing.

Table 4.2: Percentage of Neoliberal Coalition using the Intrastate Comparison, by Actor-Group

	1971	1975	1976a	1976b	1977a	1977b	1978
Economists	--	100 (4)	--	--	0 (2)	100 (3)	--
Consumers	100 (1)	66.67 (3)	--	100 (1)	25 (4)	50 (2)	100 (1)
Federal Bureaucrats	0 (1)	66.67 (6)	100 (6)	100 (3)	50 (6)	100 (3)	100 (1)
Challengers	-- (0)	0 (1)	0 (5)	0 (4)	18.75 (16)	22.22 (18)	0 (3)
CAB	-- (0)	-- (0)	0 (1)	0 (1)	0 (1)	66.67 (3)	0 (1)

Note: Entries are percentages. The number of witnesses from each actor-group who articulated a neoliberal frame in a given hearing is in parentheses. Unmarked entries represent the absence of witnesses articulating a neoliberal frame from the specified actor-group in that particular hearing.

Figure 5.1: Number of Firms in Airline Industry, 1968-1988

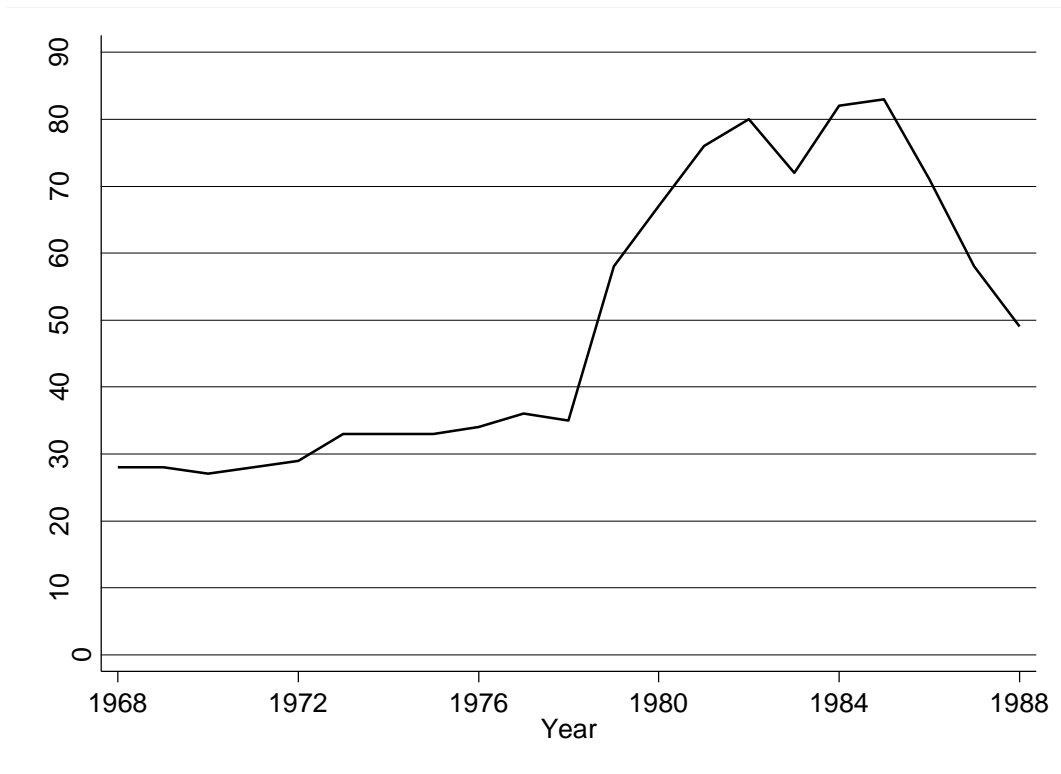


Figure 5.2: Number of Articles Citing Fare Wars in the Airline Industry, 1978-1990

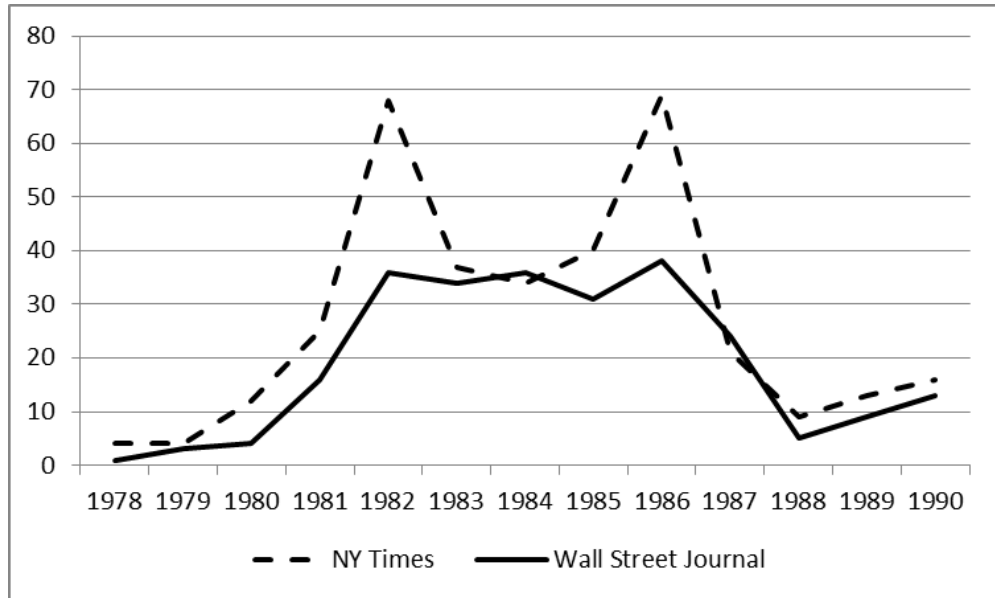


Figure 5.3: Diffusion of Feeder Network Alliances

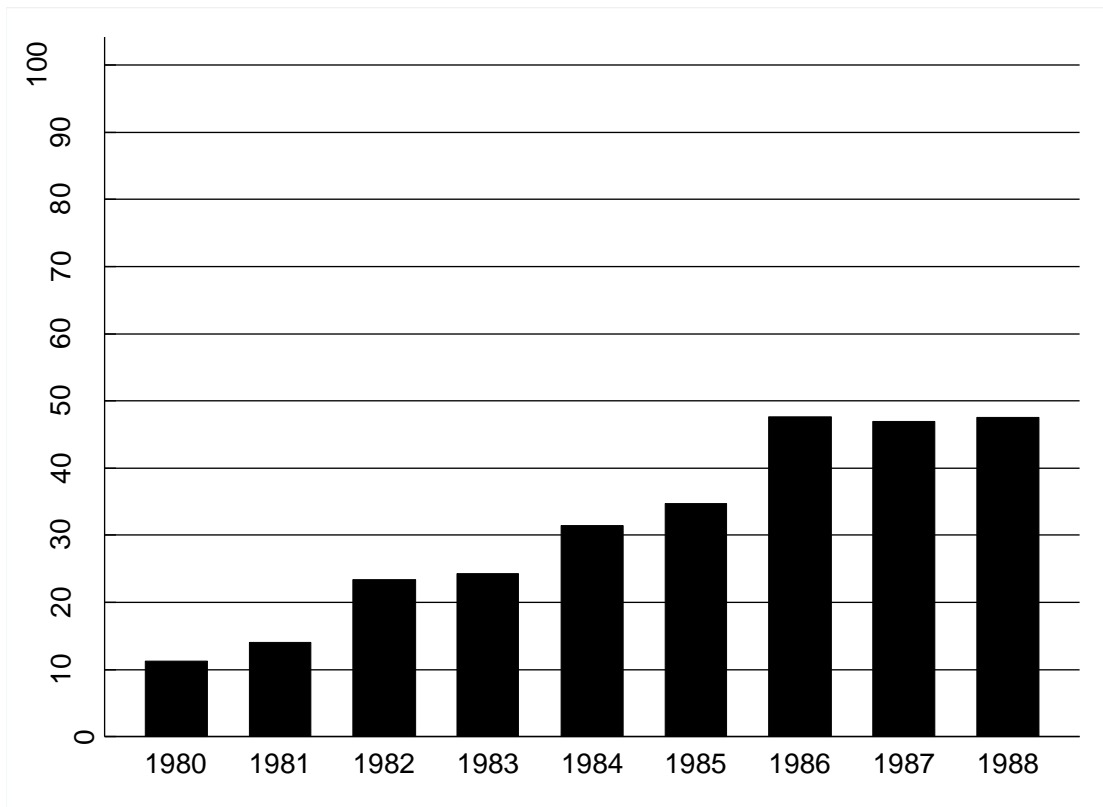
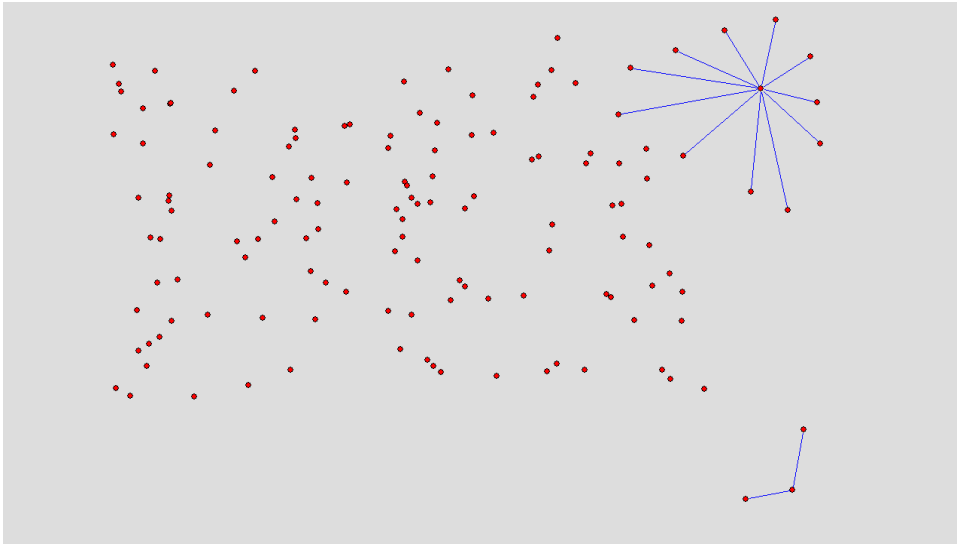


Figure 5.4: Airline Feeder Networks, 1980-1982

Panel A: 1980



Panel B: 1982

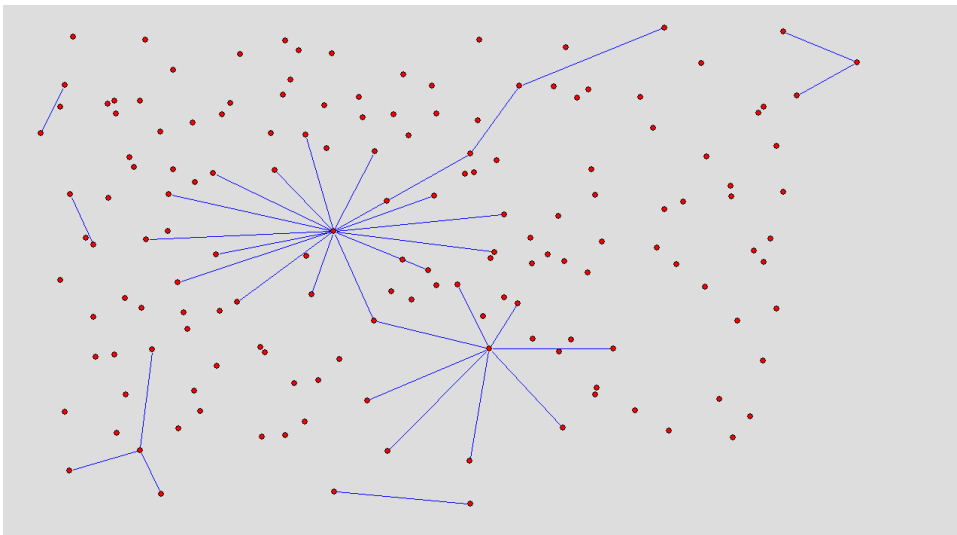
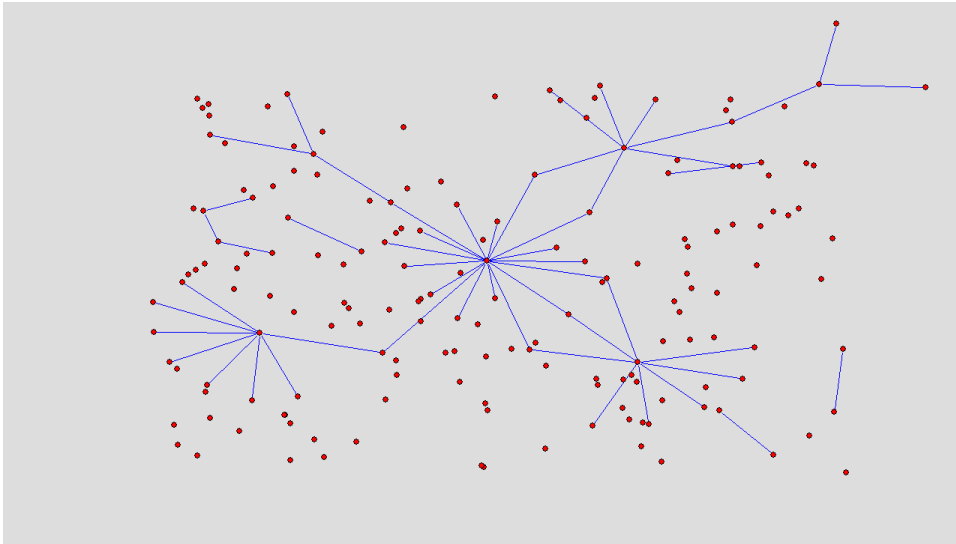


Figure 5.5: Airline Feeder Networks, 1984-1986

Panel A: 1984



Panel B: 1986

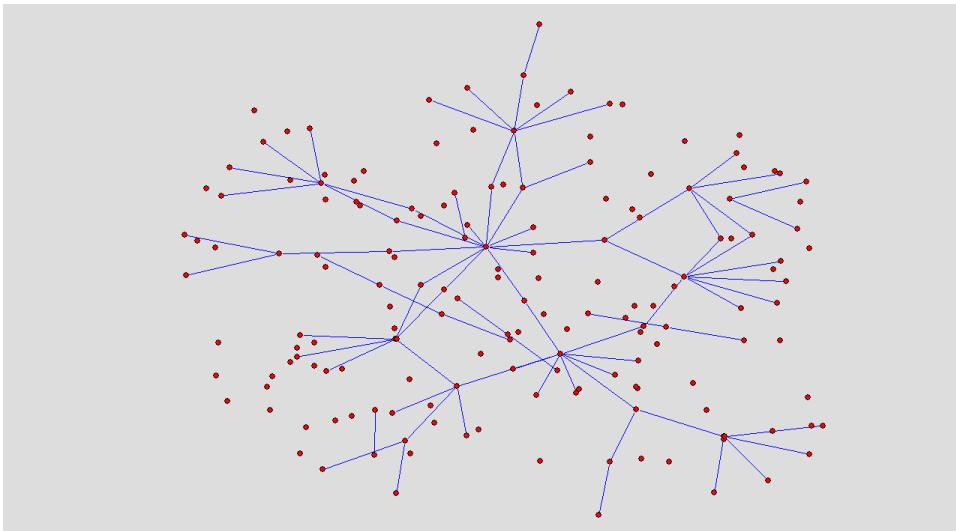


Figure 5.6: Network Density of Feeder Alliances

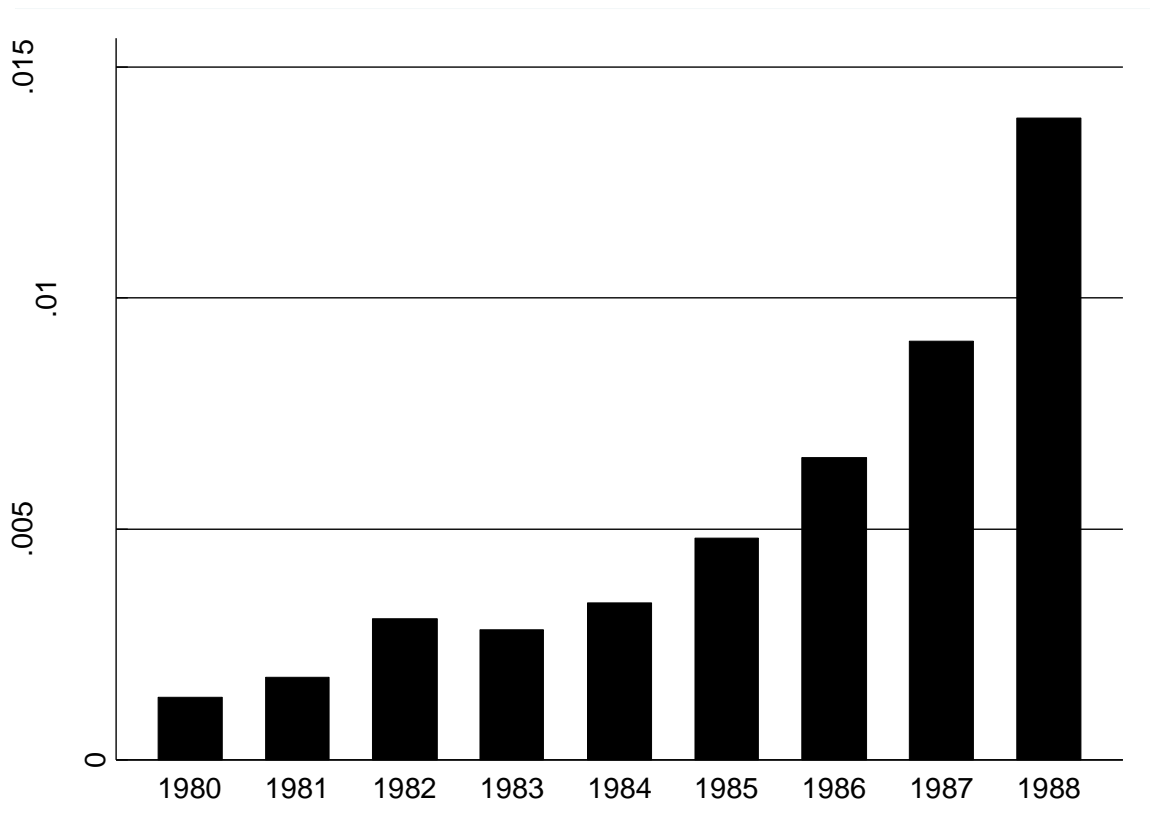


Figure 5.7: Percentage of Firms that Failed Each Year, 1978-1988

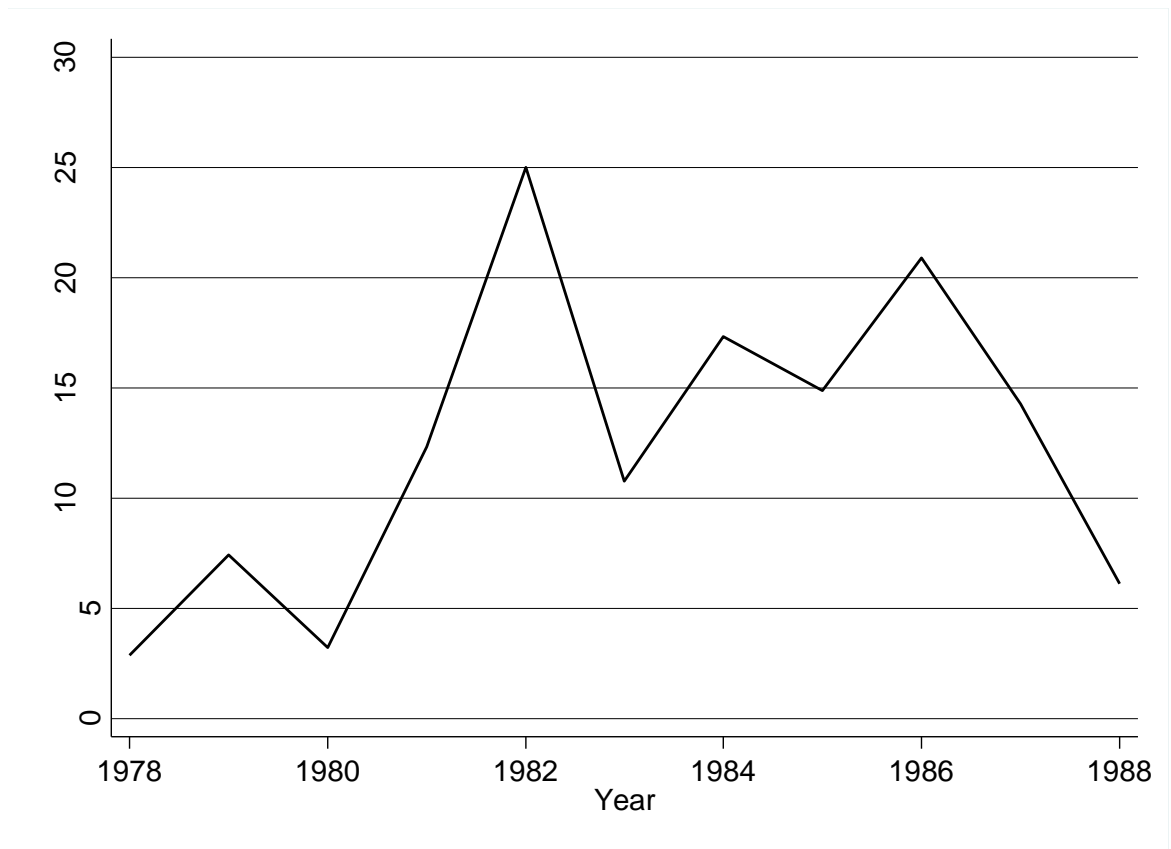


Table 5.1: Ranking of the 10 Airlines with the Highest Market Share

1978	1980	1982	1984	1986	1988
United 15.49 (3.52)	United 13.36 (4.61)	United 13.08 (6.10)	United 14.30 (6.10)	United 14.57 (6.69)	United 15.31 (8.80)
American 12.03 (2.74)	American 11.23 (3.68)	American 11.28 (3.98)	American 11.93 (5.09)	American 12.76 (5.86)	American 14.89 (8.55)
TWA 10.88 (2.47)	Pan Am 11.11 (3.64)	Eastern 10.69 (3.77)	Delta 10.55 (4.50)	Eastern 9.85 (4.52)	Delta 12.87 (7.39)
Eastern 10.46 (2.38)	Eastern 10.55 (3.45)	Delta 10.30 (3.63)	Eastern 10.23 (4.36)	Delta 9.80 (4.50)	Northwest 9.73 (5.59)
Pan Am 10.03 (2.28)	Delta 10.09 (3.30)	Pan Am 9.84 (3.47)	TWA 8.55 (3.65)	Northwest 7.14 (3.28)	Continental 7.93 (4.55)
Delta 9.85 (2.24)	TWA 10.01 (3.28)	TWA 9.17 (3.24)	Pan Am 7.93 (3.38)	TWA 6.93 (3.18)	TWA 7.59 (4.36)
Braniff 4.25 (0.966)	Northwest 4.97 (1.63)	Northwest 5.35 (1.89)	Northwest 5.78 (2.46)	Pan Am 5.95 (2.73)	Eastern 6.77 (3.89)
Western 3.67 (0.835)	Braniff 4.41 (1.44)	Republic 4.34 (1.53)	USAir 3.82 (1.63)	Continental 4.47 (2.05)	Pan Am 6.25 (3.59)
Northwest 3.49 (0.794)	Western 3.04 (0.966)	USAir 3.61 (1.27)	Republic 3.63 (1.55)	USAir 3.89 (1.79)	USAir 4.88 (2.80)
Continental 3.39 (0.772)	Continental 3.02 (0.988)	Continental 3.29 (1.16)	Continental 2.81 (1.20)	Piedmont 3.61 (1.66)	Piedmont 4.11 (2.36)

Note: Entries are the percent of industry revenue captured by the airline. The airline's nominal annual revenue (in billions) is listed in parentheses.

Table 5.2: Ranking of the 10 Airlines with the Highest Profits (in millions)

1978	1980	1982	1984	1986	1988
United 289.4	Delta 164.2	USAir 79.3	United 550.0	American 392.1	American 801.0
Delta 216.2	USAir 91.4	Southwest 39.2	American 339.1	Delta 225.0	United 628.3
Pan Am 143.7	Southwest 48.8	Republic 37.3	Delta 287.3	USAir 164.1	Delta 524.6
American 97.2	Frontier 34.5	Trans- America 26.3	USAir 192.7	Piedmont 149.9	Piedmont 277.4
Eastern 96.8	Trans- America 34.3	Piedmont 22.0	Eastern 189.6	Continental 143.2	TWA 259.4
Braniff 76.6	Piedmont 26.6	Alaska 21.3	Piedmont 125.8	Northwest 136.5	Northwest 195.6
Northwest 67.9	Republic 13.3	Ozark 18.1	Continental 107.5	Republic 116.9	USAir 143.7
Western 50.7	AirCal 12.2	People Express 10.5	Republic 100.0	Southwest 81.3	Southwest 86.1
TWA 49.1	Air Florida 9.50	Air Wisconsin 9.10	Northwest 96.8	Eastern 65.0	Continental 78.5
Continental 42.7	Wien 9.28	Markair 6.85	TWA 75.1	Alaska 31.4	Alaska 61.9

Note: Entries are the airline and its nominal annual profits (in millions).

Table B.1: Actors in the Airline Field during Regulation and Deregulation

	Regulatory Period	Post-Deregulation
Market Actors		
Producers	<i>Incumbent Airlines</i> Trunks	<i>Incumbent Airlines</i> Former Trunks
	<i>Challenger Airlines</i> Locals Irregulars/Supplementals Intrastates	<i>Challenger Airlines</i> Former Locals Regionals/Commuters Low-Cost Carriers
Consumers	Business Travelers (Majority)	Business Travelers (Minority)
	Leisure Travelers (Nascent) Aviation Consumer Action Project (ACAP)	Leisure Travelers (Majority) Aviation Consumer Action Project (ACAP)
Workers	Air Line Pilots Association Transport Workers Union International Association of Machinists Association of Flight Attendants	Air Line Pilots Association Transport Workers Union International Association of Machinists Association of Flight Attendants
State Actors		
Regulatory Agencies	Civil Aeronautics Board (est. 1938) Dept. of Transportation (est. 1967) Dept. of Justice	Civil Aeronautics Board (ended 1985) Dept. of Transportation Dept. of Justice
Political Entrepreneurs	Sen. Edward "Ted" Kennedy Rep. John E. Ross	-----

Societal Actors		
Academics	Economists	-----

Table C.1: Incumbent and Challenger Airlines, 1938-1988

	1938	1968	1978	1983*	1988**
Incumbent	<i>Trunks</i>	<i>Trunks</i>	<i>Trunks</i>	<i>Former Trunks</i>	<i>Former Trunks</i>
Airlines	American Braniff Chicago and Southern Continental Delta Eastern Inland Mid-Continent National Northeast Northwest Pennsylvania- Central Transcontinental and Western (TWA) United Western Wilmington- Catalina Pan American (Pan Am)	American Braniff Continental Delta Eastern National Northwest TWA United Western Pan Am	American Braniff Continental Delta Eastern National Northwest TWA United Western Pan Am	American Continental Delta Eastern Northwest TWA United Western Pan Am	American Continental Delta Eastern Northwest TWA United Pan Am
Challenger Airlines*		<i>Locals</i>	<i>Locals</i>	<i>Former Locals</i>	<i>Former Locals</i>
		Allegheny Airlines Aspen Frontier	Allegheny Airlines Aspen Frontier	US Airways ⁺ Frontier Ozark	US Airways Piedmont

	Hughes Airwest North Central Ozark Piedmont Southern Texas International	Hughes Airwest North Central Ozark Piedmont Southern Texas International Wright Air Midwest Air New England	Piedmont Republic ⁺⁺	
	<i>Supplementals</i>	<i>Supplementals</i>	<i>Regionals/Commuters</i>	<i>Regionals/Commuters</i>
	Kodiak New York Reeve	Kodiak New York Reeve Rich International Transamerica World Capitol Overseas	Air Midwest Air Wisconsin America West Aspen Capitol Emerald Empire New York Air Northeastern Reeve World	Air Wisconsin America West Aspen Emerald Presidential Reeve
	<i>Intrastates</i>	<i>Intrastates</i>	<i>Low-Cost Carriers</i>	<i>Low-Cost Carriers</i>
	Southwest Pacific Southwest Air California Air Florida Alaska Airlines Wien	Southwest Pacific Southwest Air California Air Florida Alaska Airlines Wien	Air Atlanta Pacific Southwest People Express Southwest	Pacific Southwest Southwest

	Hawaiian Airlines Aloha	Hawaiian Airlines Aloha	
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*Braniff Airlines was the first trunk airline to file Ch. 11 bankruptcy in 1982. National merged into Pan Am in 1980.

**Western Airlines merged into Delta in 1987.

+US Airways is the successor to Allegheny Airlines after a name change in 1979.

++Republic was formed in 1979 by the merger of three local airlines: Southern, Hughes Airwest, and North Central.

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