John F. Kennedy School of Government
Harvard University
Faculty Research Working Papers Series

Employers, Public Policy, and the Politics of Decentralized Cooperation in Germany and France

Pepper D. Culpepper

January 2001

RWP01-002

Forthcoming in Peter A. Hall and David Soskice, eds., Varieties of Capitalism: The Institutional Foundations of Comparative Advantage, *Oxford University Press, 2001.*

Employers, Public Policy, and the Politics of Decentralized Cooperation in Germany and France

Pepper D. Culpepper*

Introduction

The analytical framework of varieties of capitalism can be grim reading for public policymakers. If their countries lack the institutional framework necessary for sustaining non-market coordination, then the counsel of many of the chapters in this volume is simple: stick with the policies that are compatible with the existing institutional framework of your country, even if that means abandoning goals that could improve both the competitiveness of firms and the wages of workers. In this chapter I argue that the *diagnosis* generated by the varieties of capitalism framework is indeed compelling; many modern problems of economic and social policymaking are in fact problems of coordination among companies, such that the goals of state policymakers will frequently involve convincing actors to act in concert to achieve desirable social ends. Yet the *prognosis* of this chapter is rather more hopeful than others in this volume for political initiatives that aspire to create coordination in policy areas where it has previously not existed. Such initiatives *can* succeed, even when countries lacking the framework of a coordinated market economy attempt to create non-market coordination *de novo*.

The empirical case through which I demonstrate this proposition is the showpiece of the coordinated market economies: their system of vocational education and training. The German dual system of apprenticeship training has confounded predictions that companies will not invest in the transferable skills of their employees, since other companies should then free-ride on these investments by poaching the newly minted skilled workers (Becker 1964; Harhoff and Kane 1997; Acemoglu and Pischke 1998). If enough companies can be persuaded to invest in transferable skills, the German case demonstrates that it is possible to sustain a 'high-skill

* This chapter has been improved thanks to the comments of Peter Hall, Bob Hancké, Peter Katzenstein, two anonymous reviewers, and participants in panel discussions at the Twelfth International Conference of Europeanists and the 1997 Annual Meeting of the American Political Science Association. I bear full responsibility for any remaining shortcomings. The author gratefully acknowledges financial support from the National Science Foundation, the Center for European Studies at Harvard University, the Wissenschaftszentrum Berlin, the Social Science Research Council, and the Bourse Chateaubriand.

equilibrium' through institutions of employer coordination: associations can negotiate the content of skill qualifications with unions, while circulating information about training behavior that is necessary to ensure that firms continue to invest heavily in apprenticeship training (Soskice 1994). Once established, the system is also stabilized by a number of self-reinforcing incentives and constraints. Individual young people, knowing that the path to lucrative firm-internal labor markets runs through apprenticeship, will have an incentive to work hard in school to get the best available apprenticeships (Finegold and Soskice 1988). Companies, which know that they can count on a supply of young people with a broad base of transferable skills willing to work for lower wages than a skilled worker, can invest in an organization of production that maximizes the comparative advantage of their skilled workforce (Culpepper and Finegold 1999). Unions and employers can divide the lucrative product of the performance of these companies in export markets, so that the high-skill equilibrium is also a high-wage equilibrium (Streeck 1997).[1] Moreover, the German model of apprenticeship training has captured increasing international attention as a way to provide intermediate skills relevant to the working world while simultaneously creating a smooth transition to work, which keeps German youth unemployment relatively low (OECD 1994; BMBW 2000).

Yet for those countries not already in possession of a high-skill equilibrium, it is extremely difficult to get there from here. If any individual company attempts to invest heavily in the provision of transferable skills, it leaves itself open to predation by those companies that do not make such investments. So governments that want to emulate the high-skill equilibrium established in western Germany have to devise some method of persuading employers to move *en masse* to initiate such training practices. Public policy, in other words, must find a way to convince firms to coordinate their actions. Yet governments that have tried to convince employers to make such a move, in the absence of the institutions of the coordinated market economy, have typically failed (Layard et al. 1994; Boyer 1995).

[1] As argued in the chapter by Estevez-Abe et al. in this volume, the character of the welfare state can also provide additional incentives for workers to invest in different sorts of skill sets. Yet these policies are only capable of *stabilizing* an existing high-skill equilibrium, rather than convincing companies to *establish* a high-skill equilibrium. The structure of the welfare state does not in itself enable employers overcome the problem of coordination at the heart of apprenticeship training, which is the analytical problem addressed in this chapter.

Both Germany and France confront this stylized problem of transition to a high-skill equilibrium: the German government in transferring the dual apprenticeship system to the new federal states of eastern Germany, and the French government in its attempts to overhaul the in-firm youth training system in France since 1984.[2] Prior to embarking on their reforms, neither economy had any of the institutions of a coordinated market economy. The reforms in eastern Germany were of course more daunting, because they involved the transformation of a command economy to an advanced capitalist economy; but the eastern Germans also enjoyed the compensating advantage of organizational assistance from western German employers' associations and unions. The French economy, while already an advanced capitalist system, lacks the strong associations of employers and labor that are necessary to sustain a high-skill equilibrium. In both political economies, national governments attempted to develop a self-sustaining system of vocational training loosely based on the model of the western German dual system, in which companies pay the bulk of the costs of in-firm training while public funds support the provision of complementary education in schools.

In this chapter I propose a theoretical framework to explain the causes of success and failure in an attempted transition to a high-skill equilibrium. The argument developed here grows out of a larger research project in which I have argued that we can better understand such attempted transitions as a politics of decentralized cooperation, in which governments try to convince private actors to cooperate with each other (Culpepper forthcoming). In this chapter I focus particularly on the roles that employers' associations and governments can play in facilitating the emergence of decentralized cooperation among companies in different regions. The key to securing decentralized cooperation is the acknowledgment of the central role of uncertainty in blocking change. In such a situation of transition, the uncertainty of how other actors will behave undermines the effectiveness of the tool of sanctioning, either by the state or by private associations. Instead, what is important is to develop policies that target the most likely cooperators in the population, a group I designate as 'waverers.' Designing policies that can disproportionately attract waverers requires inside information about the cooperative proclivities of firms, and this is information that governments will not be able to acquire on their

[2] Throughout this chapter, I use the terms East Germany and West Germany only to denote those independent states before German unification in 1990; I refer to eastern and western Germany when discussing these distinct, geographically defined political economies of the politically unified Germany after 1990.

own. States are good at standardizing measures, not at assessing contextual information (Scott 1998). Such policies can only be crafted if state policymakers incorporate the private information accessible to employers' associations in the design of public policies.

In the second section of the chapter I critique existing approaches that explain the outcome of reforms by focusing primarily on the capacity of employers' associations *or* of the state. In the third section, I suggest a theoretical synthesis and extension of the two approaches, arguing that the two must be articulated in particular ways to maximize the chances for success of an attempted transition to the high-skill equilibrium. From this framework I derive a set of testable hypotheses, and in the fourth section I confront the hypotheses with data from firms in France and Germany. On the basis of this evidence, we can see the two different routes to decentralized cooperation attempted in eastern Germany and France. Employers' associations from the west have succeeded in facilitating the establishment of strong organizational capacity among eastern German associations, but state governments have not all taken advantage of the information to which these associations have access. In France, the general weakness of employers' organizations has hobbled regional policies, but success has been achieved where a strong organization has formulated a program targeting national subsidies at waverers. The final section considers the implications of these findings for broader problems of reform.

The Explanatory Framework

How can companies be persuaded to cooperate with one another to improve the skill level of the workforce?[3] Existing theories in political economy suggest at least two alternative means of encouraging companies to invest in high-skill training practices: private interest governance or the state. Employer-led private interest governance is the most widely accepted model for understanding the functioning of the high-skill equilibrium in western Germany (Finegold and

---

[3] Throughout this chapter, I refer in general to problems of coordination as well as to the specific cooperative structure of the decision facing individual firms in training investment. Coordination problems require that actors come to similar expectations about an iterated interaction, given multiple potential equilibria. For the companies discussed here, the problem of 'decentralized cooperation' requires a cooperative move in a given interaction, i.e., foregoing the possible immediate gains to defection, in view of the long-term benefits to mutual cooperation. Achieving this cooperation over repeated interactions is itself a coordination problem (Calvert 1995).

Soskice 1988; Soskice 1994). The alternative solution to overcoming the coordination problems created by a reform of the skill provision system is for the state to underwrite and regulate the achievement of decentralized cooperation (cf. Reich 1991). Indeed, who better than the state, whose legitimation is much more bound up with the public weal than is that of private employers' associations, to ensure the provision of the 'public goods' that would be provided by large employer investments in vocational training? However, as I will argue in this section, neither a capable employers' association nor active state intervention will suffice for such reforms to succeed in securing decentralized cooperation. Both mechanisms are handicapped by the uncertainty created by a situation of reform, and the key to solving problems of uncertainty is information. What sorts of information are important, and how this information can be incorporated into public policy, are the criteria for developing a theoretical framework capable of explaining when reforms are likely to succeed and when they are doomed to fail.

Employers' Associations, the State, and Problems of Coordination

The premise underlying a model of private interest governance is that employers and unions know best the requirements of a firm-based skill system, so they should be left to regulate it themselves, with minimal state intervention (Ayres and Braithwaite 1992; Cohen and Rogers 1992). Using the schematic division of coordinating functions identified by Hall and Soskice in the introduction to this volume, we can identify four potential roles played by the institutions of employer coordination in vocational training reform: information circulation, deliberation, monitoring, and sanctioning. Capable private interest groups are likely to be better-equipped than the state to fulfill the roles of information-circulation and deliberation, because they have greater access to information about their members. The information to which these groups need access relates to the functioning of training practices, as well as to the predispositions of different groups of member firms. How are existing requirements being taught through in-firm practice? What requirements in the system of training regulations need to be updated to take account of new skill demands in production? Which firms are most likely to find an investment in apprenticeship training beneficial? An association needs to be able to draw this information up, from a wide base of member firms, in order to formulate positions for negotiation on changing the manner in which the system functions, or to create or modify new qualifications. Likewise, the association must be able to diffuse information back down to member companies, so that they are aware of new training regulations and practices, as well as of subsidies or other advantages from which they can benefit.

The *deliberative* function involves capacities for the negotiation and resolution of internal disagreements, and it presupposes an ability for organizations to pursue and modify these collective positions in negotiations with representatives of labor and the state. The deliberative capacity entails, first, a forum for negotiation, where members with different interests can bargain over outcomes that will favor some actors more than others. However, collective position-taking capacity must also include a means for reflection among members as to the strategy to be pursued in a given situation. Deliberation requires that organizations balance the sometimes competing interests of different members in a context in which the outcome of any given strategy to be chosen is uncertain. Thus, deliberation is more than just a forum for bargaining, though it is that, too.

When it comes to the more demanding capacities of monitoring and sanctioning, however, private interest governance often falls short of what the state can provide. Monitoring only has meaning when the association has regularized access to information about company compliance with some regulations or policies for which it is responsible; that is to say, information that it will use to try to exact compliance from companies, which may not be information that the company would voluntarily share with the association. A firm will only allow its association this access when it is confident that other firms are also allowing equivalent access, and that the advantages of mutual verification outweigh the potential benefits of secrecy. Monitoring usually occurs in a context in which sanctions are exacted for non-compliance. Sanctioning obviously requires that the association can credibly threaten to deprive firms of something that they value. For a voluntary organization, this is not easily done, because these organizations are subject to the demands of being able to attract members voluntarily. As Elinor Ostrom's (1990) work has brilliantly shown, graduated sanctions can be very effective in limiting free-riding in common pool resource dilemmas. Yet, sanctioning by private interest organizations is only likely to work well when operating in 'the shadow of the state,' since only the state is likely to be a credible sanctioner of last resort (Scharpf 1997).

The state is strong where private associations are weak, but it is also weak where they are strong. The greatest empirical successes of the state in promoting information circulation and deliberation are those cited in the literature on neo-corporatism, in which states grant employers' organizations and labor unions power over the implementation of policy in return for organizational participation in achieving the goals pursued by the state (Schmitter and Lehmbruch 1979; Goldthorpe 1984; Keeler 1987). Yet the drawbacks of state intervention are readily apparent if we reconsider the functions played by employers' associations in the stylized model of the western German dual system. Information circulation and deliberation only function effectively in this model because employers have confidence that their organizations—that is, organizations ultimately responsive and accountable to them—are the conduits for the flow of information and the arenas for deliberation among firms. An individual company cannot ensure that its own views will prevail within the employers' organization, but the employers' association must have the confidence of companies that it does in fact respond to their demands to enjoy the coordinating capacity exercised by associations in the western German model. In fact, however, an association that ties itself too closely to the state runs the risk of alienating members who perceive it as having been coopted by the state. This problem is exacerbated when it comes to monitoring company behavior. As Soskice (1994) has argued, the ability to monitor requires that companies reveal sensitive inside information to their organizations. When employers believe their organization is as much a creature of the state as of business firms, they will balk at giving that organization access to this information.

While these weaknesses of state intervention are all valid, the state also has some compensating virtues that employers' organizations lack. As noted previously, the state has a greater capacity to sanction companies than do individual associations. Its potential sanctions include imposing (or threatening to impose) more intrusive state regulations on companies, or instituting levies that force non-training companies to pay penalties for not engaging in apprenticeship training. No association has the same sort of capacity to impose costs on companies. Yet, as I will argue below, the capacity for sanctioning to promote cooperative behavior becomes problematic in cases of sweeping policy reform. Thus, in these reform situations, the most important capacity of the state is budgetary: the state has much deeper pockets than any association, which enables it to offer subsidies for cooperative action. The fiscal capacity of governments in the industrialized countries is not limitless, and the goal of the vocational training reforms studied here is eventually to induce companies to make substantial investments in human capital development through in-firm training contracts. Compared to associations, though, the ability of governments to offer transitional subsidies is an important tool that can help encourage companies to begin adopting high-skill training behavior. Finally, although states cannot replace the information circulation function of associations, they can provide a corps of experts at the disposal of companies, associations, and unions, which can make reliable information available to all actors involved about the likely consequences of certain courses of action.

Both the state and private associations find their coordinating capacity reduced under the pressures of sweeping reforms aimed at securing decentralized cooperation. An attempted transition from one skills equilibrium to another creates conditions that make these functions more difficult to fulfill than is the case in an already existing equilibrium. Moving to a high-skill equilibrium requires that firms be convinced to invest in the provision of transferable skills. This problem is overcome by the western German dual system. The fact that the dual system already functions lowers the barriers to cooperation by individual companies: each benefits from the history of cooperation embodied in an already functioning system, in which previous companies have made the investments and derived the rewards of cooperation.

The cooperative dilemmas inherent in changing a training system are concomitantly more difficult, because actors lack the track record of a pre-existing system: there is no history of cooperation on which to build. Even companies that have a pressing need for workers with a higher level of general skills will not want to invest in training apprentices if no other firm is going to make that investment. If they were to do so, other firms could quickly lure away their workers with slightly higher wages, and the first firm would never get the return to its investment in the skills accumulation process. *If* a certain number of firms can be convinced that other firms will respond to the policy reform by investing heavily in apprenticeship training, then (given a sufficiently low discount rate) that equilibrium is also supportable; this is the implication of the folk theorem. Because reform changes the incentives facing companies, individual companies cannot rely so heavily on past experience to suggest how their counterparts will respond. So any attempted policy-led move to the high-skill equilibrium must overcome the uncertainty of companies about how others will behave.

The mechanisms described previously would seem to have a solution to this problem: the coordinating capacities of employers' associations and/or the state would help stabilize the expectations among firms about how other firms will respond. But the fact that these reforms encourage new sorts of training behavior usually means that they require the state and private associations to play roles that they have not ever played before. New institutions, or institutions being called on to play new functions, do not have an established track record of providing these specific collective goods. Thus, even if they are technically capable of providing the goods in question, such as the information circulation that is required for the fine-tuning of a new training program, the institutions have not established a pattern of having done it before, so actors may attach a lower probability to their capability than they would in a situation in which they have seen the institution(s) function normally. If employers' associations and the state are not perceived by potential cooperators as being able to circulate information well, it follows logically that they will not have the access to information that would allow them to be effective monitors.

In the area of sanctioning, both theories suffer from the fact that a new sort of behavior is being called for, and thus a new set of responses is being designated as 'sanctionable.' There is going to be some uncertainty about what exactly constitutes 'defection' and what constitutes 'cooperation'—on the part of both the potential sanctioner and of the sanctionee—in this new realm of cooperation. Consider the case of sanctions as stigma, alluded to by Finegold and Soskice (1988). It is simply not credible in a situation of reform that behavior that has not previously been considered 'out of bounds' instantaneously becomes a subject of social stigma. This is particularly true for employers' associations, which have to maintain the confidence of dues-paying members; if a majority of members deviates from a newly adopted standard, an association cannot risk alienating more than half of its members by trying to sanction them. Thus in times of reform, not only do the institutions lack credibility to monitor deviations from cooperation, but the nature of sanctionable behavior is itself uncertain. In short, the very uncertainty created by governments trying to change the political economic equilibrium drastically reduces the credibility of the institutions that will be called on to facilitate that reform.

Finally, the attempted transition to high-skill creates uncertainty about whether the causal mechanisms that supposedly generate the high payoff to cooperation actually do deliver that outcome. In other words, does cooperation—in the case of vocational training, high-level investment in apprentices—actually produce a higher long-term payoff than defection? Iida (1993) has called this latter concept 'analytic uncertainty' to distinguish it from the more familiar problem of strategic uncertainty, which pertains to uncertainty about the attributes of other actors. Analytic uncertainty refers to the misapprehension of one's own payoff matrix, as well as the opponent's payoff, because the causal mechanisms of the new system are not clear or well understood. A reform of the political economy often asks players to move to a mutually beneficial pattern of cooperation when the actors are skeptical that the causal model of policy-makers accurately predicts the payoff they (the actors) will receive. If the causal mechanisms underlying one's own payoff matrix are uncertain, then there is a problem of 'pure learning' about the real causal mechanisms at work in the world (Iida 1993).

Policy Design and Private Information

The prerequisite to understanding the sources of success and failure in securing decentralized cooperation is the recognition of the central role of information and the reduced role of sanctioning. The synthetic theoretical framework I propose here satisfies these criteria by recognizing the respective strengths of private groups and public policymakers in securing decentralized cooperation. My argument builds in particular on two capacities discussed earlier: the ability of associations to get access to and be able to circulate private information, and the ability of the state to provide transitional aid (subsidies) to hesitant new cooperators. The inside information to which private groups alone are likely to have access is a necessary ingredient to develop policies that can target the most likely potential cooperators in the population. State aid and private information must be articulated so as to create clusters of supported cooperation, in which wavering companies are able to gain confidence not only in the ability of institutions to perform their prescribed roles in supporting high-skill training, but of the training investment itself to provide a positive benefit.

The fundamental importance of employers' associations lies in their access to information about the cooperative propensities of member firms. Depending on the variables of size, product market, and managerial strategy, the propensity of companies to engage in decentralized cooperation is heterogeneously distributed across the economy. Companies are aware of this heterogeneity, and so is their association. Yet companies have an incentive to hide their individual propensities to cooperate from the state, because it is well-known that the state is willing to subsidize potential cooperators. States thus face a problem of asymmetric information in designing their policies, and it is one they cannot overcome on their own. This inside, relational information about company propensities to cooperate is analogous to local information, which states also have a difficult time acquiring and categorizing (Scott 1998).

This general handicap of the state—an inability to get access to reliable inside information from companies—is exacerbated in transitional situations characteristic of sweeping reform. In situations in which the incentive framework facing companies is stable, the state can at least try to predict the future behavior of these companies based on their past responses. When policymakers changes this incentive framework, though they lack any reliable method of predicting how companies will respond to the policy changes. In normal times, companies distrust the state and are leery of sharing information with it; in times of transition, their distrust is only magnified by their uncertainty about the motives of the state in trying to convince them to train.

The employers' association is the only intermediary to which employers will be willing to grant access to their internal information. States do of course have access to formidable technical expertise, through the bureaucracy or special research institutions set up to study a particular policy area. Yet the information the state can acquire by using its own research potential is conditioned by the difficulty a corps of state experts will have in getting access to firm-internal information. Like the drunk in the dark who looks for his keys under the lamppost—because that is where he can see them—the sort of information available to bureaucrats and experts is constrained by what their tools enable them to observe. And what they are very good at observing is aggregate outcomes: How many total apprenticeship contracts were signed in a given area? What occupations are particularly sharply characterized by a shortage of apprenticeship places? What demographic groups have the most difficulty finding apprenticeships? While the advantage of the state in transitional situations is its ability to provide subsidies to promote the sorts of behavior it wants to encourage, the form of subsidies it can craft remains dependent on the information to which it can get access about the obstacles that confront firms that want to begin training. Without access to inside information of companies, the state can only target subsidies at the aggregates it can measure, and none of those provides a clear window into which firms are actually investing (or willing to invest in the future) in training.

The foregoing discussion yields two testable hypotheses relevant to state policies:

H_1 *State policies devised without inside information will target only those aggregate problems that state bureaucracies can measure*.

H_2 *State policies devised with inside information will be designed disproportionately so as to attract the most likely cooperators in the population*.

In addition to its access to inside information, employers' associations will play two further roles that greatly improve the odds of success of encouraging decentralized cooperation: deliberation and mobilization. Rather than a mere compiling of the grievances of companies in the wake of reforms, employers require a collective deliberative capacity that can enable them to make decisions about which grievances to prioritize to suit the broadest constituency of companies. The second, expressly political capacity of employers' organizations is not generally underlined in the varieties of capitalism framework: *to mobilize* companies in favor of positions agreed on collectively, such that those companies begin investing themselves in apprenticeship-style training. In part, the mobilization function represents an extension of the information circulation and deliberation functions. As information flows up, from individual companies to regional affiliates to national organizations, so must information on framework considerations about training and national policy innovations be diffused to the firms for which it is intended. Companies will presumably demand a much greater amount of information when the very framework of the training system is in the process of mutation, especially with respect to special dispensations or programs aimed at firms with particular needs. At the same time that it delivers this information, the association is uniquely well qualified to remind companies of the collective interests of employers in the goal of skill provision. Indeed, the association may have sought the development of a subsidy policy that corresponds to the obstacles encountered by a given firm, which gives the association legitimacy in encouraging the company to begin training, using the available subsidies.

In light of its role in acquiring private information, deliberation, and mobilizing capacity, we have the following general hypothesis:

H$_3$ *The presence of employers' organizations with capacities of information-circulation, deliberation, and mobilization is a necessary condition for reforms premised on securing decentralized cooperation to succeed.*

Moreover, it is equally important to underline the presence of the dog that does *not* bark in the night, according to my theoretical framework: sanctioning. This leads to another testable implication:

H$_4$ *In times of transition, associations possess no credible sanctioning mechanism to deter free-riding*.

What is they hypothesized role of the state in this process? The nature of the reform undertaken is such that the state wants to convince private companies that it is in their individual interest to use apprenticeship training, because it is in the collective interest if enough of them do so. Therefore, what the state most wants to do with its principal tool for encouraging coordination—that is, its ability to subsidize—is to use it to encourage *those* companies to begin training that show promise of being *future* investors in the training system. It does not want to subsidize training permanently; that would vitiate the whole point of adopting the western German model. However, the state wants to encourage firms that acknowledge the promise of apprenticeship-style training, but that remain reluctant to invest in it when they are unsure if other (like-minded) firms will invest in it. It is these firms, the waverers, that the state most wants to convince to engage in high-skill training practices, because they are the ones most likely to be easily convinced of the inherent merits of such training. This suggests a final testable implication of my framework:

H$_5$ *Programs specifically targeted at waverers are likely to succeed, whereas those subsidy policies that distribute aid indiscriminately will fail, in securing decentralized cooperation*.

Two Routes to Decentralized Cooperation

The cases I use to test these hypotheses are the reforms of vocational education and training systems undertaken in France since 1984 and in eastern Germany since 1990. The two cases constitute that most serendipitous of events for a social scientist: roughly contemporaneous reforms motivated by similar rationales and end-points—the West German high-skill equilibrium. We take our experiments as we find them, and there are certainly many dissimilarities between France, which one of the advanced capitalist political economies, and the reforming state-socialist political economy of eastern Germany. In the area of vocational education and training, though, the reforms they attempted are conceptually quite similar, such that comparisons within and between the two cases yield significant new understanding of the dynamics that underlie attempted transitions to a new societal equilibrium.

The securing of decentralized cooperation followed different patterns in eastern Germany and France, and these different patterns reflected the different capacities of employers' associations in the two economies. German employers' associations have succeeded in establishing capable organizations across the new states of eastern Germany; these organizations have access to the private information necessary to target waverers. The divergence in results in eastern Germany grows out of the different extent to which governments have incorporated employers' associations into the policymaking process. The successful German employment zones in my sample are both located in the state of Saxony, and it is the policy of that state that is responsible for those successes. As I demonstrate in the second part of this section, Saxon policymakers drew on the informational resources of employers and unions in designing state subsidies, which allowed them to develop policies that could successfully attract wavering companies on the threshold of cooperation. Saxony-Anhalt, whose policymakers gave little input to representatives of private interest groups, developed policies that did not target aid to the most likely cooperators. The resultant policy mix in the state has failed to secure widespread decentralized cooperation, as indicated by the failures observed in my sample from that state. This policy mix has in fact only encouraged the growth of apprenticeship training in sectors characterized by low investment in skills (Lutz and Grünert 1999).

The major story of the French reforms is one of weak organizations of employers proving unable to serve as interlocutors for regional governments trying to design policies to encourage decentralized cooperation among firms. Although some regions have *attempted* to incorporate private information into the policymaking process, the weakness of these organizations in acquiring this information has undercut that effort (Comité de Coordination 1996). Thus, in the only successful case in my French sample—the Valley of the Arve—a private association has developed its own program for targeting waverers, using the national subsidy programs available to all firms. Unable to influence the shape of policy itself, this organization has influenced the course of its implementation through mobilizing only those companies perceived as most likely to be persuaded of the long-term benefits of investment in youth training. This success case is in many ways idiosyncratic, and it may be difficult to replicate elsewhere in France. But its existence demonstrates that successful reform is indeed possible, even in an economy lacking a history of coordinated action.

An Overview of the Reforms in Eastern Germany and France

The attempted transformation of the training system took place in the context of German reunification after 1990, where training was but one of a multiplicity of institutions transferred to the new federal states of eastern Germany. In focusing on the training practices of companies within certain regions, this chapter does not directly address the sometimes dramatic problems of transferring to eastern Germany the associational infrastructure associated with the operation of the dual system in the west: employers' associations, unions, and chambers. The organizational challenges facing these groups are important, and they have been analyzed elsewhere (Wiesenthal 1995; Fichter 1997). Because the central theoretical issue in this chapter is how employers coordinate their action, I focus on how *companies* perceive the role played by these collective actors, and how this role has influenced firm-level decision-making about apprenticeship training.

The GDR enjoyed an established practice of industrial apprenticeship and shared with the Federal Republic the historical roots of apprenticeship training in Germany. What was radically new in post-unification training, as in many other aspects of life in eastern Germany, was the primacy of the market in the making of company decisions. In highly stylized form, then, the conceptual challenge of apprenticeship training in eastern Germany has been to convince (newly) private firms to invest in the costs of training apprentices, as in any other long-term investment. And it had to persuade them to make this long-term investment despite a context of dramatic economic restructuring that resulted in the bankruptcy of many companies and the unemployment of large portions of the workforce (Wagner 1999).

In the decade since unification, eastern German firms overall have not invested in apprenticeship training at levels that constitute anything like a high-skill equilibrium. Whereas the hallmark of the western German system is that firms pay for the in-firm costs of apprenticeship training, *70 percent of the new contracts signed in eastern Germany in 1998 were subsidized by the federal or state governments*. This raises the question of how to evaluate different types of subsidies that states are offering, and how effectively they are being used as transitional measures to convince firms of the long-term benefits of high levels of investment in apprenticeship training. We return to a reconsideration of these questions below.

In France, too, the challenge of in-firm training is to convince a large number of firms to invest in the development of the skills of their workforces through in-firm youth training contracts. Historically, in-firm training has occupied a much less significant place in the French than in the German political economy: the number of students enrolled in purely school-based professional training routinely exceeds the number of young people trained in company-based training contracts. The challenge in France is not, therefore, to convince companies to invest in a market context, which is nothing new to French companies. It is, rather, to convince them to increase their investment in in-firm training contracts for young people, rather than leaving the provision of general skills exclusively to the educational system (cf. Maurice et al. 1986; Géhin and Méhaut 1993). The governments that introduced three reforms of the training system (in 1984, 1987, and 1993) adopted these laws so as to move away from a system in which apprentices occupy a lowly social and economic position, and do not develop broad, transferable skills, to a high-skill equilibrium *à la française*.

We know that in the period since the passage of the 1993 reform, the number and educational levels of those young people hired by French firms in training contracts have increased (Comité de Coordination 1996). Yet much of this increase is due to the increased state subsidies available for youth training contracts, and it is not clear from aggregate indicators the extent of the *net* investment by companies in the transferable skills of their young employees. Recall that the problem of securing decentralized cooperation is to convince companies to move in a coordinated fashion to high levels of net investment, even though they cannot be protected from poaching by other firms. Thus, to ascertain whether or not France has made the jump to a high-skill equilibrium, we need to know whether or not employers are investing substantially in these contracts as a future means of procuring their skilled labor force. The data I collected from employers in nine employment zones in the two transitional political economies provide considerable insight into these questions.[4]

[Table 1 about here]

Table 1 depicts a summary of the findings across the nine employment zones I studied. Some might argue that the success or failure of high-skill training will be solely a function of the pre-existing demand for skilled labor, and that this in turn is a function of the existing level of unemployment. The figures in the second column, showing unemployment figures around the time the data were gathered, certainly rule out the existence of any mechanistic relationship between unemployment and the presence of high-skill training. The third column shows the degree of employer organizational capacity, which is invariably high in the four German zones but varies quite a bit across the French zones. Finally, we see that subsidies are a constant in these transitional political economies: firms in every employment zone had access to some sort of governmental subsidy aimed at promoting conformity with the training objectives of the government. As we shall see below, however, the design of subsidies varied substantially among zones.

Two results are worth noting immediately. First, success only occurs in one-third of the cases studied. In other words, decentralized cooperation is not easy to secure, and indeed the majority of zones in my sample failed in trying to secure it. Second, the data in Table 1 immediately confirm hypothesis $\mathbf{H_3}$: success is unlikely in the absence of an employers' association with the capacities of information circulation, deliberation, and mobilization. Only those zones credited with high group capacity enjoy the capabilities of information circulation, deliberation, and mobilization of members that I have argued are the prerequisites for success. Yet group capacity is a necessary, but not a sufficient condition: the results in the employment zones of Halle and Sangerhausen testify to the fact that a high degree of employer organizational

---

[4] See the appendix to this chapter for a discussion of the criteria used in assembling and evaluating these data.

capacity does not ensure success in promoting high-skill training practices.[5] As I show in the next section, what distinguished the three success cases from the more numerous failures was the particular blend of private information with public policy.

Eastern Germany

The signal fact of training in eastern Germany is that small and medium-sized firms encounter the most difficulty in trying to begin investing in training. Most of the current apprenticeship places in eastern Germany are subsidized, and almost all the subsidies to firms go to companies in the *Mittelstand*. Most of the large, private firms in eastern Germany are owned by western German companies; these companies have, by virtue of their ownership ties with western German companies, married into the stabilizing influences and rigidities of the classic coordinated market economy model characteristic of western Germany (Culpepper 1999). Their access to the financial and informational resources of their western German ownership has allowed them to move quickly to adopt high-skill training practices. Yet large firms in the western German model comprise a very small proportion of the overall training places in the economy. As the government is well aware, in order for the transfer of the dual system of apprenticeship training to eastern Germany to succeed, it must convince small- and medium-sized companies to invest heavily in youth training through apprenticeship. The question is how.

It is clear from the evidence in my study that private-sector sanctioning will not be sufficient to compel companies to engage in decentralized cooperation. As representatives of firms in my eastern German sample readily volunteered, the employers' association possesses no sanctioning capacity other than expulsion of members, and this was not a plausible avenue to prevent poaching. Even very large firms in my sample admitted to the lack of recourse available through the employers' association to punish firms that poached their most highly skilled workers, thus confirming hypothesis $\mathbf{H_4}$. One very large eastern German firm in my sample was compelled to raise its wages to parity with the western rate in 1991, because it had no other means of holding onto its skilled workers, who were being poached by firms in the west. The association lacked a viable sanctioning mechanism to prevent this problem. Even in the case of

[5] If the theory of transition that I am putting forward is correct, this finding creates particular problems for France, where only one of the five employers' associations studied manifested a high level of organizational capacity; I return to the particular case of the Valley of the Arve below.

collectively bargained wage rates, which is the original *raison d'être* of the employers' association, companies in eastern Germany defy their association with impunity (Ettl and Heikenroth 1995). These associations, concerned with the stagnation of membership numbers in eastern Germany, admit that they have no credible sanctioning mechanism against free-riding companies, and the companies know it.

Faced with the inability of private interest actors to solve the crisis of the eastern German apprenticeship market on their own, state governments have subsidized firms heavily to induce them to hire apprentices. As predicted by hypothesis $\mathbf{H_1}$, these general state policies have targeted those problems which states can easily observe. In particular, there are four sorts of subsidies that dominate state-level aid for in-firm training, which all the new federal states in the east have offered. First, there are subsidies for newly founded firms, or firms that are training apprentices for the first time. From the perspective of the individual states, this seems like an intuitively obvious way to help firms begin training that have not done so before. Second, there are subsidies for firms that hire 'supplementary' apprentices; that is, apprentices they would not normally hire to meet their own needs, but whom they hire to help ease problems on the labor market. Third, and similarly structured, are the subsidies for firms that hire apprentices from other firms that have gone bankrupt. Again, the state is paying for a reduction of the problems on the labor market, and allowing the apprentices to finish their training and receive their certification. Finally there is an almost every state of eastern Germany subsidy money available for firms that hire young women in 'atypical' female professions, which in practice usually means technical, industrial professions.

Rather than trying to determine *which* sorts of firms are likely to be convinced of the merits of investing heavily in training, these subsidies manifest the *inability* of the states to discriminate between firms that are likely to continue training and those that are not. What the state can determine, though, is whether or not a firm is new, and so it imposes that as a criterion for subsidizing firms. The other three common sets of subsidies are targeted at observable social problems that their constituents care about: in the second group, the overall supply of places is recognized as insufficient; in the third, the problem of apprentices in bankrupt firms is acknowledged;[6] and in the fourth, a demographic group particularly affected by the shortage of apprenticeship places is aided. These goals are certainly defensible on social grounds, yet only the first addresses directly the overriding concern of the German government to transfer a system based on firm responsibility for apprenticeship training to the eastern states. And it does so in a way that fails to identify the firms that are most likely to continue investing in training, without subsidies, in the future. Rather, as noted in a report on subsidies commissioned by the government of Saxony-Anhalt, these subsidies are leading to training in qualifications for which there is little future demand and for professions in which subsidies reduce the level of firm investment to almost zero (Lutz and Grünert 1999).

What employers' associations and unions *could* observe, from the vantage point at the firm-level, is that these indiscriminate subsidies were not encouraging companies to invest heavily in apprenticeship training. In 1995, employers and unions lobbied eastern German state governments to adopt the one policy that appeared most likely to target the firms most interested in investing heavily apprenticeship training: the *Verbund* (training cooperative) policy. The *Verbund* policy had two elements that made it especially likely to attract waverers among the firm population. First, it phased the aid over the duration of the apprenticeship contract, with most aid concentrated in the first year of training, which is the year of general training that small and medium-sized firms in Germany find most onerous. Apprentices require an especially heavy net investment in their first year, as they are relatively unproductive for the firm, because they principally receive broad general training. The high cost of this first year of training posed the largest obstacle for the firms that wanted to invest in trainees. While eastern German states had previously experimented with subsidizing partnerships among firms, the *Verbund* laid out for the first time the explicit condition of subsidizing over the course of an apprenticeship, with most aid coming the first year. Those companies seeking the most lucrative subsidy might not choose the *Verbund*, but those closest to being persuaded of the value of high-skill training would. Moreover, once they had chosen the *Verbund*, they were engaged with other companies in training the apprentices, which gave them the opportunity to observe the experiences of other firms investing in apprenticeship training over the three and a half year course during which their

[6] Lest this seem like an isolated phenomenon, recall that between 1989 and 1991 two-thirds of the jobs in the eastern German manufacturing sector had ceased to exist.

apprentices were training.

Employers' associations teamed with unions across eastern Germany to urge adoption of this policy by state governments in 1995. Why, then, did Saxony adopt such a phased *Verbund* program in 1995 when Saxony-Anhalt did not? Both the Saxon and Saxon-Anhalt employers' associations had reliable inside information about the needs of training companies, which informed their advocacy to their respective state governments. The CDU government of Saxony included employers' organizations in working groups tasked with designing a solution to the apprenticeship crisis, and this working group proposed the *Verbund* policy that was eventually adopted. By contrast, the red-green coalition government of Saxony-Anhalt turned a deaf ear to the demands of employers in designing apprenticeship subsidies in 1995, despite the fact that *Verbund* aid was also favored by union representatives.[7] Whereas the Saxon economics minister relied heavily on the informational resources provided by employers' organizations, the employers' representative in Saxon-Anhalt lamented the routine unwillingness of the state government to incorporate its advice (Schramedei 1995).

In my firm sample, several companies received training subsidies of the type discussed previously, some more generous than Saxon *Verbund* aid, but only the *Verbund* aid was cited as leading eastern German firms to train, which would not have otherwise, at levels associated with the high-skill equilibrium in western Germany. One firm in my sample from Saxony-Anhalt, which was not training any apprentices at the time of interview, summarized the uncertainty about the value of training that prevented wavering firms from investing: 'if we were going to train, we would want to be certain that apprentices were learning their craft, and not just being cheap labor. To do that, you need the right equipment and the right personnel….' In focusing aid on exactly the concerns that prevented wavering firms from training, the Saxon *Verbund* succeeded in creating pockets of cooperation. By refusing to adopt such a policy early on, and relying instead on the more traditional, indiscriminate state measures, the government of Saxony-Anhalt has limited the ability of its subsidies to facilitate the emergence of decentralized cooperation. Hypothesis $\mathbf{H_5}$ is confirmed. When the Saxon-Anhalt government commissioned an impartial review of its subsidy policies in 1998, this is the same conclusion to which the

[7] The Saxon-Anhalt government opted to continue its 'cooperation' subsidy in 1995, but it did not concentrate aid in the first year and was one of the least generous apprenticeship subsidy programs in the state, offering a maximum of only one-tenth the aid available in Saxony (1200 DM vs. 12150 DM).

authors came: ‘since apprenticeship *Verbünde* could be extremely important in securing higher quality training in an overwhelmingly small-firm economy, it is recommended that the state look into the low utilization of this policy—especially in comparison to neighboring states—and seek a remedy for it’ (Lutz and Grünert 1999: 88).[8]

Are there alternative explanations that can account for the divergence in policies and outcomes between Saxony and Saxony-Anhalt? Certainly the difference in outcomes observed between the two states has nothing to do with level of the state subsidies for apprenticeship training. Saxony-Anhalt spends more per capita on the subsidization of apprenticeship, and subsidizes more places per capita, than does the Saxon government. It is possible to argue that the CDU majority government in Saxony was more likely to adopt an employer-friendly policy than the SPD-Green coalition government in Saxony-Anhalt. However, a grand coalition government in Berlin and an SPD government in Brandenburg both incorporated employer demands on a *Verbund* policy into their subsidy packages in 1995. Those governments, like the one in Saxony, delegated significant influence to the social partners in designing state policies (Culpepper forthcoming). Finally, some readers might believe that Saxony is in fact far more endowed with social capital than is Saxony-Anhalt. Using the associational density measure of Robert Putnam (1993), though, the differences between the two states are negligible. Moreover, in each state I selected the employment zone with the highest (Plauen, Sangerhausen) and lowest (Leipzig, Halle) density of secondary associations. This difference in social capital had no effect on the propensity of actors to cooperate with each other.

The different policies adopted in Saxony and Saxony-Anhalt were based on the different types of information available to governments in the two states, as predicted by my theoretical framework. In addition, it is clear from the evidence presented above that the *Verbund* policy has been far more effective than other policies in encouraging companies to cooperate with each

---

[8] Once other states began to show the good results from having a *Verbund* policy, the government in Saxony-Anhalt eventually (in 1997) overhauled its existing ‘cooperation’ subsidy to concentrate aid in the first year, while increasing the available amount to 6500 DM over the course of the apprenticeship for firms that wanted to train in cooperation with other firms or training centers. However, the program remains small in comparison with Saxony’s: while Saxony has just over twice the population of Saxony-Anhalt, in 1999 it subsidized more than *nine* times as many apprenticeship places through its *Verbund* program as did Saxony-Anhalt through its cooperation program. The Saxon program, developed with the private information available through employers’ associations, has apparently been better able to attract the firms most interested in investing in high-skill training than the policies on which Saxony-Anhalt has relied.

other through an investment in high-skill training. This success is a function of the policy design, made possible by access to private information, which directly targeted the problems of greatest concern to those small and medium-sized companies most likely to be persuaded of the value of long-term cooperation.

France

The French reforms have largely failed in securing decentralized cooperation. There are two major causes of this failure: the interests of large companies and the organizational incapacity on the part of employers generally. Thanks to the weakness of French unions, French large firms have considerable autonomy in choosing their product market and skill provision strategies. Unlike their large counterparts in eastern Germany, large French firms do not face a regulatory situation that compels them to pursue a strategy of incremental innovation (Regini 1997; Culpepper 1999). Adopting this sort of strategy would require that workers possess the broad, transferable skills taught through the German dual system, which would lead large companies in France to favor the widespread practice of investing heavily in youth training contracts. However, given the inability of the unions to push companies toward a strategy of incremental innovation, large French firms are able to get away with a flexibly Fordist production model, in which they use the education system to provide general skills and then train only in firm-specific skills at the firm-level (Boyer 1995). Thus, French large firms have no interest in investing in high-skill firm contracts, and they have accordingly done nothing to promote the achievement of this goal in the wake of the French training reforms.[9] This assessment is borne out by the empirical data in my firm sample, in which not a single company with more than 500 employees invests in training at levels consistent with western German practice.

---

[9] This view of large-firm activity in France is somewhat at odds with that developed by Hancké in his chapter in this volume. While it is true, as Hancké argues, that large firms are central figures in relations with their suppliers, there is no evidence that they provide any collective benefits for their suppliers in the area of vocational training. In fact, some of the firms in my sample that had moved furthest in the direction of high-level training investment were making training investments so as to enable them to acquire new, better product market niches, as a way of *diminishing* their dependence on large automotive companies.

Thus, as in eastern Germany, the potential cooperators among French companies are to be found among the small- and medium-sized firms.[10] But these companies hesitate to invest in firm-based training when they are uncertain how other companies will react. And it is here that the organizational weakness of French employers has severely undermined the reform project of the French government. Unlike in Germany, French regional governments have no set of organizational interlocutors with the capacities of information-circulation and deliberation that would be necessary to design policies based on private information about the obstacles facing waverers (cf. Bunel 1995). Even in the region in which policymakers have gone to the most exaggerated lengths to incorporate the input of employers—Rhône-Alpes—the regional association has not been up to the task of providing such detailed information about its member firms, and the reforms appear to have had no direct impact on firm training behavior. The regional governments in France have adopted a wide array of policies in the area of training, but none is designed to identify and appeal specifically to the concerns of the most likely cooperators in the population (Comité de Coordination 1996). National aid policy is similarly indiscriminate, being available to any firm that hires trainees. This experience emphatically confirms the predictions of hypothesis $\mathbf{H_1}$: state polices made without inside information about the identity of waverers will target only those aggregate problems they can measure.

The sole case of success in France that I observed in France lies in the Valley of the Arve. The Arve is the heart of the French bar-turning industry: sixty per cent of French bar-turning production comes from the valley, with production dominated by small and medium-sized firms. This density of firms with similar needs for basic and advanced technical skills has led even small firms to develop a close relationship with the national trade association for bar-turning (SNDEC), whose offices are located there (Poleyn 1996). In the mid-1980s the industry had faced a problem of acute labor shortage that led the SNDEC to delegate responsibility for industrial training to its technical center, the CTDEC. The CTDEC, relying on its close contacts with firms and in consultation with the SNDEC, was able to canvass firm needs exhaustively and then provide a site of reflection about how multiple firm needs could be met most efficiently with

[10] Lacking the market power of their large compatriots, French small firms do not have the capacity to force the social partners or the education ministry to tailor degrees narrowly to their firm-specific requirements. They can be convinced to provide transferable skills through training if it helps them attract candidates and also train them in skills specific to the company.

new qualifications. The SNDEC lobbied for these new qualifications at the national level and succeeded in having them adopted. On the basis of the new qualifications, the bar-turning association announced its program to train '1000 Technicians' by the end of the century, and the CTDEC has become an aggressive lobbyist for more training from individual companies to meet this goal. The threshold of 1000 new technicians was surpassed in 1999, one year ahead of schedule.[11]

As we would expect, given hypothesis $\mathbf{H_4}$, the SNDEC had to meet this goal despite the fact that it lacked a credible sanctioning capacity. Given the labor shortage in the industry, the association would have to convince individual companies to invest despite the ever-present risks of poaching. Multiple firms in my sample had themselves poached employees in the past, or lost them to poaching. Yet the CTDEC had no recourse to prevent this poaching. In fact, shortly after beginning the initiative to promote in-firm training, the association sent a delegation to Paris to try to introduce a '*contrat de fidelité*' that would require workers to stay at a company for a certain period of time after their training there. The bar-turning association, in other words, sought legal recourse for its firms to close off the poaching problem, as it lacked an effective means itself to prevent poaching. The proposed amendment was incompatible with French labor law, and so was rejected by the parliament. The '1000 Technicians' program would therefore be forced to succeed without the benefit of any sanctioning capacity, from either the state or private associations.

Only the access to inside information about companies by the SNDEC and the CTDEC enabled the association to use an indiscriminate set of national subsidies to target waverers in the population. As summarized in an interview with the director of the CTDEC, the strategy was explicit and deliberate: 'other places in France, the big firms hire 20 young people and only want to hire one. Our firms hire one person and they want to keep them.' The association targeted the analytic uncertainty of the waverers by investing in the improvement of the training center of the CTDEC, which could then serve a function equivalent to that of German large firms in the Saxon *Verbund*: ensuring SMEs that their investment in training would result in higher level skills of workers. By convincing these companies to work together through the training center, it allowed

[11] The department of Haute-Savoie benefited from this program by showing a substantial increase in the total number of highly skilled workers in the 1990s, whereas this proportion remained unchanged in France as a whole (Poleyn 1996: 2).

them to exchange information with one another, and thereby to be persuaded of the intrinsic value of in-firm training. In other words, the sectoral association was able to take existing national government subsidy programs and propose a clear risk reduction to companies: 'you get some money to cover training, and you know our center has the capacity to produce highly skilled workers.'

As a result, on every available metric of high-skill training, the evidence from my sample of companies shows that the firms in the Arve invest more than other companies of the same size in France. They maintained an average training ratio that was more than twice that of companies of this size in my sample that were not from the Arve. They retained almost ninety percent of those they trained, whereas firms throughout France, in all sectors and size groups, retain only a miserable 29 percent of their trainees after the conclusion of the qualification contract (Charpail and Zilberman 1998). The educational level of the trainees in small firms in the Arve and elsewhere is equally, dramatically different: 70 percent of the trainees in Arve valley firms had at least a *bac*, and over half of those had two additional years after the *bac*; in the small firms in the rest of France, 75 percent of trainees had qualifications below the *bac* level.[12] The sorts of figures that we observe from firms in the Arve are characteristic of western German firms making a substantial investment in youth training. Moreover, company attitudes towards subsidies further support this finding. Four of the SMEs located outside the valley of the Arve—including one firm in the bar-turning industry, but from a different region of France—would train fewer or no young people in the absence of state subsidies; none of the training firms in the valley of the Arve would take on fewer young trainees in the absence of public subsidies to training. These subsidies have helped companies in the Arve to make the decision to begin training, and their experience in cooperative training has already led them to revise upward their estimates of the returns to that investment in human capital development. As predicted by hypothesis $\mathbf{H_5}$, the clever combination of subsidies with private information in the Valley of the Arve has led to a situation of uncommon success in securing decentralized cooperation.

The case of the Arve is, in the French context, somewhat unusual: a territory featuring a high-density of small- and medium-sized firms producing for similar product markets. Yet this

---

[12] The *baccalauréat* (or *bac*) is the general education certificate for the completion of secondary school in France.

is also the case of another French industrial district included in my study, the Vimeu. And, as shown in Table 1, the Vimeu has failed in eliciting high-skill training behavior from its companies. The reason for the difference is that the association located in the Vimeu adopted an indiscriminate strategy of targeting national aid to attract wavering companies.[13] The counter-example of the Vimeu similarly undercuts the explanatory power of social capital, given that the associational density of the two districts is virtually identical. While the general findings support the argument of Levy (1999) about the weaknesses of French regional institutions that require effective secondary associations in order to function, the clear success of the Arve demonstrates that French civic associations are not doomed to fail. It is possible for the coordinating capacity of employers' associations in France to be mobilized effectively to support experiments in decentralized cooperation, in cases where associations develop that capacity. But to be successful, they must find a way to transform indiscriminate policies into targeted policies that will disproportionately attract waverers and persuade them of the benefits of engaging in decentralized cooperation.

Conclusion

An employers' association, or some instrument controlled by employers that can mimic the functions of an association, is a necessary condition to facilitate the emergence of decentralized cooperation in the area of apprenticeship training. Yet it is not a sufficient condition. There is a role for public policy here, and it is not a role that can easily be played by private actors. Associations are uniquely well-suited to acquire private information that is not readily obtained by the state, information about the real barriers that keep firms from engaging in a new system of vocational education and training. The association has insight about which firms are most likely to be candidates for long-term investment in high-skill training, and this information can help policymakers craft policies that target these firms specifically. State policy divorced from this private information can only target the aggregate problems that are easily observed, and such subsidies do not appear to facilitate the transition to durable practices of high-skill training; this is the lesson of French policy in most of the regions I studied. Yet the results

[13] For an extended comparison of the two areas, see Culpepper (2000).

from Saxony-Anhalt show that coordination is not enough: the problems of transition are severe, and even capable employers' associations alone are usually incapable of engineering the transition to a high-skill equilibrium.[14]

These findings provide a way to rethink, in some fundamental respects, the contemporary problems of state intervention in the economy of the advanced capitalist countries. Vocational training reform is one of a subset of policies aimed at promoting economic adjustment on the supply-side of the economy, policies that frequently demand that social actors (especially companies) cooperate not with the state, but with each other (cf. Katzenstein 1985; Garrett and Lange 1991; Boix 1998). Governments that want to adopt such policies must realize that they frequently lack the information necessary to design policies that can solve these problems of coordination. Private associations have access to information the state cannot itself acquire, and this information appears to be a crucial ingredient in formulating the policies that can help convince private actors to begin cooperating with each other. Especially in the political economies that lack the organizational infrastructure characteristic of the coordinated market economies, the role of the state may paradoxically be to encourage the development of associations that it cannot control. Without the assistance of these associations, the state can only rely on its own informational resources, whose limits I have repeatedly underscored.

Two points of general significance for political scientists studying policy reforms should be emphasized here. First, the importance of reliable, credible information is hard to overstate. This is a finding that converges with those of rational choice theorists who have argued that even though talk is cheap, when communication cannot be backed up by sanctions, communication and credible carriers of information are the requisites of any attempt to establish cooperation from scratch (Calvert 1995; Ostrom 1998). It is for this reason that I have laid such a heavy emphasis on the importance of employers' associations in circulating information among companies, as well as on their capability to facilitate deliberation among member companies

---

[14] Although I have not emphasized it in this chapter, there is of course a fundamental prerequisite to convincing firms to invest in high-skill training: they must have a demand for these skills in their production processes. If companies do not need the skills taught through an apprenticeship system, no amount of employer coordination and deftly designed public policy will convince them to invest in the training of apprentices. The difficulty of moving to a high-skill equilibrium when a political economy is not currently in one will therefore be influenced by the pre-existing demand of firms for skills, as well as the alternative means (besides apprenticeship) of procuring skilled workers (Culpepper 1999).

about the best strategies to pursue to assure that company skill needs are met. The capability of associations to facilitate collective deliberation enables them to serve both as a forum for bargaining among different companies about skill needs and as a collective mechanism for devising strategy under conditions in which the boundedness of individual rationality is exacerbated by the uncertainties introduced by the reforms of the training system.

The second point of general interest is that sanctioning is overrated as the ultimate means of resolving problems of decentralized cooperation (cf. Ostrom 1998). Sanctions are only useful when they are credible. This is typically the case in an environment where the rules are clear, expectations are well established, and violations are easily observable. Reforms that require the securing of decentralized cooperation violate, *ex hypothesi*, the first two conditions; and the third is often difficult to measure in practice. As the cases of vocational training reform in eastern Germany and France demonstrate with clarity, the uncertainty created by reforms premised on decentralized cooperation is substantial. An important component of this uncertainty is the estimation by actors of the returns to requited cooperation. Lacking a history of cooperation on which to build, they are unsure not only of the trustworthiness of other players in the game, but also of how they will fare if their cooperative overture is not exploited. It is well-known that many experiments in cooperation fail because people prefer a certain status quo to an uncertain future benefit (Ostrom 1990). The lesson of this study is that policymakers will often be well advised to subsidize potential cooperators—thus offsetting the risk that, according to the status quo bias, keeps these waverers from cooperating. Such an approach provides an opportunity for people to assess the real-world costs of cooperation, which helps to overcome the problem of analytic uncertainty. Adopting such policies will be more effective than devising implausible sanctioning schemes, provided the state is able to procure credible information about how to identify the most likely cooperators in a population.

The analytic toolkit of the varieties of capitalism approach is extremely useful in understanding the challenges posed by the politics of decentralized cooperation. Countries that lack existing mechanisms for achieving non-market coordination face long odds when they undertake reforms premised on convincing private actors to cooperate with one another. To succeed, they will need to invest in building up the power of private associations, associations that they will not be able to control. But, although the odds are long, they are not hopeless. When there are serious gains to be made from cooperation, policymakers have resources they can mobilize to defray risky experiments, and associational actors can be very creative in devising strategies to get the most likely cooperators to take small steps on the road to reform. If private information is prudently used to inform public policy, private actors can be convinced to reap the gains of cooperation from any societal terrain, regardless of its institutional history.

Appendix: Methodological Notes on Measuring High-Skill Training

The high-skill equilibrium is a theoretical construct, not an easily measurable empirical phenomenon: there are no readily available data on the extent of 'high-skill' training behavior by companies, even in western Germany. In order to study the progress toward high-skill training in France and eastern Germany, I assembled my own sample of companies in specific areas in the two political economies studied, such that I could ascertain the level of their investment in youth training and investigate its links with national and state policies. The sample cited in this chapter comes from 52 companies from the metal and electronics industries, all belonging to the chambers of industry and commerce in France and in eastern Germany.[15] As the most significant industrial sector in both political economies, the metal sector is also the sector whose outcomes are most likely to influence the overall success or failure of the reform effort. The central goal of the vocational training reforms attempted in the two political economies was to increase firm participation in apprenticeship training and its equivalents (i.e., the French qualification contract) as paths for the creation of high-skill workers. As western German training is the baseline for assessing these reforms, I used two measures—the ratio of apprentices to total workforce, and the rate of post-apprenticeship retention in a job—to compare training practices in the two countries with those patterns characterizing the western German high-skill equilibrium.

These measures highlight the feature of German training that is most elusive for other political economies, and most difficult to explain: why do western German industrial companies make significant net investments in the costs of conferring both general and firm-specific skills on their workers? The first of these two measures, which I call the training ratio, measures the stock of apprentices currently in training. While the figures vary, depending on a firm's exact market positioning, sector, and phase of growth, a typical training ratio for western German industrial metalworking companies lies somewhere between four and eight per cent. Think of this as the replacement rate of young workers coming in the pipeline to take over new jobs in the wake of departures from the workforce.[16] This ratio assumes a very high rate of retention of

---

[15] Since the metal-working and electronics sectors share a collective bargaining arrangement, it is customary to refer to companies in these sectors as members of the metal industry.

[16] If companies are training at a much higher level, they are either in a period of rapid growth, or they do not retain the large majority of those they train. The latter is typical practice in German craft firms. If companies train at a

apprentices in their training company, which is the second measure I use.[17] *Ceteris paribus*, we would expect that the higher the net investment of companies in the training of their apprentices, the more of their apprentices they will hire into regular employment after the apprenticeship. High retention of apprentices is a signal of the sort of significant firm investment in apprenticeship training that governments have tried to encourage in France and eastern Germany in order to facilitate the move to the high-skill equilibrium. Similarly, having trainees with higher educational backgrounds suggests that companies are likely to invest heavily in their apprentices, since those with higher existing levels of human capital are less likely to be willing to accept an apprenticeship that does not further improve their future earning power.

To test the propositions about the role of employers' associations and public policy in securing decentralized cooperation, I designated the employment zone as the appropriate unit of analysis.[18] There are four eastern German employment zones included in the sample: Plauen and Leipzig are located in the state of Saxony, Halle and Sangerhausen in the state of Saxony-Anhalt. The five French employment zones are located in three regions: Lyon and the Valley of the Arve are situated in Rhône-Alpes, Amiens and the Vimeu are in Picardy, and Strasbourg is in Alsace. For each employment zone I developed a 'high-skill training index,' summarizing the proportion of firms in the sample that trained at levels approximating the western German standard. Only those zones where at least 34 percent of companies were training at this level were classified as successes. This figure is also based the western German standard (Wagner 1999). These criteria are explicated at much greater length in Culpepper (forthcoming).

---

much lower level, they are either shrinking or using other means of recruitment than apprenticeship training to satisfy their labor force needs.

[17] Because retention refers to the hiring of apprentices after their apprenticeship, a large number of eastern German companies (which had only very recently started training again when I conducted my interviews in 1995-96) had no data on retention. Assessment of eastern German training in my sample was made on the basis of the training ratio alone.

[18] In eastern Germany, these sub-national units are delimited by the jurisdictional boundaries of the employment offices (*Arbeitsämter*), while in France they correspond to employment zones as designated by the French statistical service, INSEE.

References

Acemoglu, D., and J. Pischke. 1998. “Why do Firms Train? Theory and Evidence.” *Quarterly Journal of Economics.* 108: 983-1014.

Ayres, I., and J. Braithwaite. 1992. *Responsive Regulation: Transcending the Deregulation Debate*. New York: Oxford University Press.

Becker, G. 1964. *Human Capital: a theoretical and empirical analysis, with special reference to education*. New York: Columbia University Press.

Boix, C. 1998. *Political Parties, Growth, and Equality*. New York: Cambridge University Press.

Boyer, R. 1995. “Wage Austerity and/or an Education Push: The French dilemma.” *Labour* (Special Issue): s19-s66.

Bundesministerium für Bildung, Wissenschaft, Forschung und Technologie (BMBW), ed. 2000. *Berufsbildungsbericht*. Bonn: BMBF.

Bunel, J. 1995. *La Transformation de la représentation patronale en France: CNPF et CGPME*. Paris: Commissariat Général du Plan.

Calvert, R. 1995. “The rational choice theory of social institutions: cooperation, coordination, and communication.” In *Modern Political Economy*, ed. J. Banks and E. Hanushek. New York: Cambridge University Press. Pp. 216-267.

Charpail, C., and S. Zilberman. 1998. “Diplôme et insertion professionnelle après un contrat de qualification.” In *Bilan de la Politique de L’Emploi 1997*. Paris: DARES. Pp. 187-193.

Cohen, J., and J. Rogers. 1992. “Secondary Associations and Democratic Governance.” *Politics and Society*, 20 (4): 393-472.

Comité de coordination. 1996. *Évaluation des politiques régionales de formation professionnelle*. Paris: Government Report.

Culpepper, P. 1999. “Individual Choice, Collective Action, and the Problem of Training Reform.” In Culpepper and Finegold (1999). Pp. 269-325.

Culpepper, P. 2000. “Can the State Create Cooperation?: Problems of Reforming the Labor Supply in France.” *Journal of Public Policy* 20 (3): 247-269.

Culpepper, P. Forthcoming. *Rethinking Reform: The Politics of Decentralized Cooperation in the Advanced Industrial Countries*. Book Manuscript.

Culpepper, P., and D. Finegold, eds. 1999. *The German Skills Machine*. New York: Berghahn Books.

Ettl, W., and A. Heikenroth. 1995. “Strukturwandel, Verbandsabstinenz, Tarifflucht: Zur Lage ostdeutscher Unternehmen und Arbeitgeberverbände.” Working Paper 95/3, Max Planck Gesellschaft, Arbeitsgruppe Transformationsprozesse in den neuen Bundesländern.

Fichter, M. 1997. “Unions in the New Länder: Evidence for the Urgency of Reform.” In *Negotiating the New Germany*, ed. L. Turner. Ithaca, NY: Cornell University Press.

Finegold, D., and D. Soskice. 1988. “The Failure of Training in Britain.” *Oxford Review of Economic Policy* 4 (3): 21-52.

Garrett, G., and P. Lange. 1991. “Political Responses to Interdependence: What’s Left for the Left?” *International Organization* 45 (4): 539-564.

Géhin, J.-P., and P. Méhaut. 1993. *Apprentissage ou Formation Continue?: Stratégies éducatives des entreprises en Allemagne et en France*. Paris: Éditions l'Harmattan.

Goldthorpe, J., ed. 1984. *Order and Conflict in Contemporary Capitalism*. New York: Oxford University Press.

Harhoff, D., and T. Kane. 1997. “Is the German Apprenticeship System a Panacea for the US Labor Market?” *Journal of Population Economics* 10: 171-196.

Iida, K. 1993. “Analytic Uncertainty and International Cooperation: Theory and Application to International Economic Policy Coordination.” *International Studies Quarterly* 37: 431-457.

Johnson, C. 1995. “Die Rolle intermediärer Organisationen beim Wandel des Berufsbildungssystems.” In Wiesenthal (1995). Pp. 126-159.

Keeler, 1987. *The politics of neocorporatism in France : farmers, the state, and agricultural policy-making in the Fifth Republic*. New York: Oxford University Press.

Layard, R., K. Mayhew, and G. Owen., eds. 1994. *Britain's Training Deficit*. Aldershot, UK: Ashgate Publishing Limited.

Levy, J. 1999. *Tocqueville’s Revenge: State, Society, and Economy in Contemporary France*. Cambridge, MA: Harvard University Press.

Lutz, B., and H. Grünert. 1999.“Evaluierung der Vorhaben der beruflichen Erstausbildung.” *Forschungsbeiträge zum Arbeitsmarkt in Sachsen-Anhalt*, 14 (October): 1-128.

Maurice, M., F. Sellier, and J.-J. Silvestre. 1986. *The Social Foundations of Industrial Power*. Trans., A.

Goldhammer. Cambridge, MA: Cambridge University Press.

OECD. 1994. *Apprenticeship: Which way forward?* Paris: OECD.

Ostrom, E. 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. New York: Cambridge University Press.

Ostrom, E. 1998. "A behavioral approach to the rational choice theory of collective action." *American Political Science Review* 92 (1): 1-22.

Poleyn, J. 1996. "L'industrie du décolletage: Au fil de l'Arve." *Le 4 Pages des Statistiques Industrielles* 57 (January): 1-4.

Putnam, R. 1993. *Making Democracy Work*. Princeton, NJ: Princeton University Press.

Regini, M. 1997. "Different Responses to Common Demands: Firms, Institutions, and Training in Europe." *European Sociological Review* 13 (3): 267-282.

Reich, R. 1991. *The work of nations : preparing ourselves for 21st-century capitalism*. New York: A.A. Knopf.

Scharpf, F. 1997. *Games real actors play: actor-centered institutionalism in policy research*. Boulder, CO: Westview Press.

Schmitter, P., and G. Lehmbruch. eds. 1979. *Trends toward Corporatist Intermediation*. Beverly Hills, CA: Sage.

Schramedei, H. 1995. "Ungünstige politische Rahmenbedingungen für die Wirtschaftsentwicklung in Sachsen-Anhalt." *VME Sachsen-Anhalt* 5 (8): 1-2.

Silvia, S. 1997. "German Unification and Emerging Divisions with German Employers' Associations: Cause or Catalyst?" *Comparative Politics* 29 (2): 187-208.

Soskice, D. 1994. "Reconciling Markets and Institutions: The German Apprenticeship System." In L. Lynch, ed. *Training and the Private Sector*. Chicago: University of Chicago Press. Pp. 25-60.

Streeck, W. 1997. "The German Model: Does it Exist? Can it survive?" In *Political Economy of Modern Capitalism: Mapping Convergence and Diversity*, ed. C. Crouch and W. Streeck. London: Sage. Pp. 33-54.

Wagner, K. 1999. "The German Apprenticeship System Under Strain." In Culpepper and Finegold (1999). Pp. 37-76.

Wiesenthal, H., ed. 1995. *Einheit als Interessenpolitik*. Frankfurt: Campus.

Table 8-1: Overall Results by Employment Zone

	Unemployment*	Group Capacity**	Subsidies	Outcome***	N
Arve	9.0 %	High	Yes	*Success*	5
Plauen	16.5 %	High	Yes	*Success*	5
Leipzig	18.0 %	High	Yes	*Success*	7
Strasbourg	8.5 %	Low	Yes	Failure	9
Lyon	12.0 %	Medium	Yes	Failure	4
Vimeu	14.5 %	Medium	Yes	Failure	7
Amiens	14.5 %	Low	Yes	Failure	4
Halle	16.5 %	High	Yes	Failure	5
Sangerhausen	22.0 %	High	Yes	Failure	6

Source: interviews conducted in 1995 and 1996 in France and Germany.

* Unemployment rates are rounded to the nearest half-percent; rates for French employment zones refer to the departmental unemployment level. Rates refer to the period during which interviews were conducted in firms in the respective areas.

** Group capacity is measured by the ability of employers' associations to circulate information, deliberate, and mobilize members; my estimations are based on information collected from firms and associations, and are explained more fully in Culpepper (forthcoming). Associational capacity among eastern German organizations I studied was uniformly high, but the greater variation in French associational capacity required that I designate three categories. Groups in the 'medium' category do not fulfill the requirements of employer coordination described above; however, they demonstrate a limited capacity for information-circulation, which distinguishes them from the exclusive service-provision orientation of the associations categorized as 'low.'

*** Success is measured according to whether or not the proportion of companies training according to the standards of the high-skill training model in western Germany exceeds 34 percent, which the benchmark of the western German model (Wagner 1999). See the appendix to this chapter for a further discussion of these methodological issues.