The Evolution of Central-Provincial Relations in Post-Mao China, 1978-98: An Event History Analysis of Provincial Leader Turnover*

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The decentralized economic reforms in post-Mao China have aroused a debate in the studies of central-provincial relations over whether the center has lost control to the increasingly powerful provinces. This article uses the turnover of provincial leaders as an indicator to reassess the evolution of central-provincial relations. By subjecting contending theories of the debate to a statistical test that covers a time period including both the Deng and Jiang regimes, this study finds that the center was neither gradually losing control over the provinces, nor keeping constantly effective supervision of the provincial leaders with coherent policy criteria. Central-provincial relations in fact varied over time, and their fluctuation was affected by changes in the broader political context, such as succession politics during regime change.

KEYWORDS: Chinese politics; Soviet-type political system; political succession; central-local relations; event history analysis

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"Don't think because you have money now you can bargain with the center. I tell you, although you have money, your appointments are still controlled by the center!"—Jiang Zemin (江澤民), CCP General Secretary, in an internal talk to provincial leaders.

The economic reforms in post-Mao China have endowed the provincial leaders with more economic resources and decision-making power with which to pursue prosperity of their jurisdictions and fortify local patronage networks. Students of central-provincial relations in this time period thus argue that the decentralized economic reforms have made provincial leaders the most conspicuous beneficiaries and constituencies of economic reforms. With increasingly abundant economic resources and complicated local patronage networks on their side, these provincial leaders are endowed with more bargaining power vis-à-vis the central policymakers. They have become the entrenched interest groups blocking any reforms that would hurt their interests. The central policymakers' failed attempts to push forward taxation and state-owned enterprise (SOE) reforms in the late 1980s were cited as the evidence for this line of argumentation.² Some even suggest that as these powerful provincial officials have become the largest power bloc in the selectorate for the central leaders—the Chinese Communist Party (CCP) Central Committee, they can hold the central leaders "reciprocally accountable" when the central leaders are competing for succession and need their political support.³

However, more recent studies find that, despite the devolution of

Chung Hsing-chih, "Step into the Post-Deng Xiaoping Era: The Underlying Power Struggle in Zhongnanhai," *Zhongguo shibao zhoukan* (China Times Weekly) (Taipei), August 21, 1994, 8.

²See, for example, Susan L. Shirk, *The Political Logic of Economic Reform in China* (Berkeley: University of California Press, 1993); David S.G. Goodman, "The Politics of Regionalism: Economic Development, Conflict, and Negotiation," in *China Deconstructs: Politics, Trade, and Regionalism*, ed. David S.G. Goodman and Gerald Segal (New York: Routledge, 1994), 1-20; and Shaoguang Wang, "The Rise of Regions: Fiscal Reform and the Decline of the Central State Capacity in China," in *The Waning of the Communist State: Economic Origins of Political Decline in China and Hungary*, ed. Andrew G. Walder (Berkeley: University of California Press, 1995), 87-113.

³Shirk, *The Political Logic*, 70-91.

economic power, the center still enjoys high autonomy in policymaking, especially in the new round of financial and fiscal reforms that began in 1993. As long as the Chinese leaders still hold a monopoly over provincial personnel allocation, the center can always obtain provincial officials' compliance with unpopular policies by tightening central control over provincial personnel.⁴ Necessary, therefore, is for us to reassess the evolution of central-provincial relations in post-Mao China by using the turnover of provincial leaders as an indicator. Has the center's power over local personnel declined in tandem with its economic power? Or rather, has the center been more willing to exercise this political power in order to counterbalance the effects of economic decentralization? In what ways did the broader political context, such as succession politics, affect central-provincial relations?

The turnover of provincial leaders is an important, although seldom explored, indicator for evaluating the power balance between the center and provinces. On the one hand, the *nomenklutura* system of the Leninist regime makes control over the appointments of local leading cadres the central leaders' primary instrument for maintaining their rule. On the other hand, remaining in office is the prerequisite and thus the first priority for ambitious politicians in pursuit of any political goal. Therefore, one can logically expect the political survival of provincial chiefs to be the major battlefield in the tug of war between the central and provincial governments during the reform era.

This study employs the method of event history analysis to test contending theories of the post-Mao central-provincial relations by using a data set of provincial leader turnover that covers both the Deng (鄧小平) and Jiang regimes. Event history analysis is a statistical method for studying the occurrence and timing of events—in this case, turnover of officials. This approach is designed to analyze the *probability* that an event will

⁴See Yasheng Huang, *Inflation and Investment Controls in China: The Political Economy of Central-Local Relations during the Reform Era* (New York: Cambridge University Press, 1996), and Dali L. Yang, "Governing China's Transition to the Market: Institutional Incentives, Politicians' Choices, and Unintended Outcomes," *World Politics* 48, no. 3 (April 1996): 424-52.

occur to a particular individual at a particular time. In comparison to conventional regression models, this method excels at analyzing the correlation between the probability of leader turnover and the annually different variables—such as the provincial economic performance, revenue contribution, and the numbers of representatives in the CCP Central Committee. With a data set that covers the time period spanning both the Deng and Jiang regimes, we can test the theories that were mostly used to describe central-local relations in the Deng era under a new regime. Moreover, cross-regime observation also allows us to examine the effects of regime change itself on central-provincial relations. The results of this analysis will show that central-provincial relations did vary under different regimes, and that the succession politics among the top leadership indeed affected the fluctuation of central-provincial relations—but in a more complicated way than that predicted by conventional theories.

Theories and Hypotheses About the Political Survival of Provincial Leaders

Studies of central-provincial relations in post-Mao China tend to employ economic indicators—such as revenue distribution and economic policy implementation—to measure the power balance between the center and provinces. This is mainly because the realignment of economic resources and decision-making power between the central and local governments has from the outset been the linchpin of Deng Xiaoping's reform strategy. In order to obtain a more comprehensive picture of the changes in central-provincial relations, we should also bring political indicators into our analyses.

The political survival of provincial leaders can be a good indicator to as sess this relationship. After all, since 1949 the CCP has maintained its rule through control over leadership selection—the *nomenklatura* list—in the party-state system.⁵ Local leaders are held accountable for implement-

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⁵John P. Burns, "China's Nomenklatura System," Problems of Communism 36, no. 5 (Sep-

ing central policies by the center's threat of dismissal from office. In the meantime, remaining in office has always been considered the primary goal of any ambitious politician despite political system. Only when political actors can maintain their own survival can they pursue political goals that reflect their interests and values. Therefore, the political survival of provincial leaders is a good indicator for us to estimate the evolution of relations between the center and provinces in post-Mao China. On the one hand, the central policymakers would have strong incentive to exercise their control over provincial personnel in order to counterbalance the effects of economic reforms. On the other hand, the increasingly autonomous provinces would try any means to keep their leaders in position to pursue local interests.

Most existing quantitative studies of the tenure of Chinese local leadership focus on recruitment, rather than turnover, of local leading cadres. By comparing the attributes of newly recruited local leaders with their predecessors, these studies can trace the transformation of political elites in the political system, and then analyze the relation of these changes to broader social, economic, and political changes. For example, in his systemic study of the transformation of leading cadres in the bureaucratic system from the Mao to the Deng era, Hong Yung Lee finds that, as economic development replaced socialist revolution as the primary goal of the nation, pragmatists and technocrats have largely replaced ideology and party hacks

tember-October 1987): 36-51, and "The People's Republic of China at 50: National Political Reform," *The China Quarterly*, no. 159 (September 1999): 580-94.

⁶Recruitment and turnover are two aspects of one appointment. While the study of recruitment puts emphasis on the compositions of the incoming officials, the study of turnover focuses on the attributes of the outgoing officials. In other words, the study of turnover is more interested in what kind of officials is more likely to be removed from office, and how frequently officials are removed. Here "turnover" simply refers to the removal of an existing provincial leader. We do not make any distinction between promotion and demotion because this is very difficult to judge objectively. For example, Ye Xuanping (葉選半), the former Guangdong provincial governor, was "promoted" to the level of vice-chairman of the Chinese People's Political Consultative Conference (CPPCC) National Committee in 1993, but it is well known that this change was the center's effort to "xiao fan" (刺濤 purge feudalism), and Ye was very reluctant to accept this "promotion." In fact, according to Zhiyue Bo, promotion is very rare for provincial leaders because their positions are already very high in the bureaucratic system. According to his estimation, from 1949 to 1994, only 3 percent of provincial leaders experienced promotion. See Zhiyue Bo, "Economic Performance and Political Mobility: Chinese Provincial Leaders," Journal of Contemporary China 5, no. 11 (1996): 135-54.

in the Deng era.⁷ In their analysis of the demographic composition of the CCP's Thirteenth Central Committee, Li Cheng and Lynn White find that the political elites in the late 1980s were much younger and better educated than their predecessors.⁸ Later in a follow-up analysis of the "fourth generation of leaders" in the 1990s, Li Cheng asserts that these "fourth generation" leaders—defined as leaders born between 1941 and 1956, and sharing similar experiences during the Cultural Revolution—have gradually supplanted the third generation in the leading ranks of the political hierarchy in the late 1990s. This new generation of leaders is "more diversified than previous generations in terms of formative experiences, political solidarity, ideological convictions, career paths, and occupational background."

In addition to demographic composition, various studies of local leadership recruitment also reveal certain political patterns underlying the general trends that reflect the dynamics of central-local relations in the reform era. In their study of the pattern of 247 mayoral appointments in Chinese major cities during the mid-1980s, for example, Li Cheng and David Bachman find that the issue of localism has risen "to a degree of importance perhaps unprecedented in the political history of China." In their estimation, over 70 percent of all mayors in the study were either natives or were born in a neighboring province. However, the increase in the proportion of native sons in the local leadership by itself tells us little about how the center responded to this new trend. Did the center passively accept the trend and appoint more natives to local leadership positions? Has the emergent localism caused tension and conflict between the center and localities that in turn resulted in more frequent turnover of local leaders? Only when we shift our focus from recruitment of the local leading

⁷Hong Yung Lee, From Revolutionary Cadres to Party Technocrats in Socialist China (Berkeley: University of California Press, 1991).

⁸Cheng Li and Lynn T. White, "The Thirteenth Central Committee of the Chinese Communist Party," *Asian Survey* 28, no. 3 (March 1988): 371-99.

⁹Li Cheng, "Jiang Zemin's Successors: The Rise of the Fourth Generation of Leaders in the PRC," *The China Quarterly*, no. 161 (March 2000): 3.

¹⁰Cheng Li and David Bachman, "Localism, Elitism, and Immobilism: Elite Formation and Social Change in Post-Mao China," World Politics 42, no. 1 (October 1989): 86.

cadres to their turnover can we answer these questions.

Frederick Teiwes pioneered the field by using the turnover of provincial leaders to measure conflicts between the Chinese central and local governments in the Mao era.11 In the 1980s, James Tong also used the purge of provincial Party first secretaries to measure the conflicts between the central and provincial governments over revenue distribution in the 1970s. In his analysis of the relation between the political status of provincial Party first secretaries and the fiscal status of the provinces, he finds that, from 1971 to 1982, the Party first secretaries from those provinces that remitted more revenues were purged by the center more often than those from provinces that remitted less. Tong therefore argues that the positive correlation between the purge of provincial leaders and their contribution to central revenues indicated a higher level of conflict between the center and these provinces, and reflected the center's intention to ensure local compliance with central policies by replacing the local leadership.¹² Following in Teiwes and Tong's footsteps, this article intends to use the probability of the turnover of provincial chiefs-provincial Party first secretaries and governors—to examine some propositions derived from the theories of central-provincial relations in the post-Mao era.

Since the late 1970s, under the slogan of "eating in separate kitchens" (fenzao chifan 分灶吃飯), the Chinese local governments have shouldered more spending responsibility and were granted more autonomy to mobilize and allocate financial resources—such as SOE profits, bank loans, budgetary and extrabudgetary revenues, and foreign capital—in order to meet local development needs. The increasing share of spending responsibility gave local governments little choice but to engage in industrial expansion, duplicate investments, and regional protectionism, regardless of their potential consequences (such as economic overheating and macroeconomic imbalance) at aggregate level. Local officials therefore gradually de-

¹¹Frederick Teiwes, "The Purge of Provincial Leaders, 1957-1958," *The China Quarterly*, no. 27 (July-September 1966): 14-32, and "A Review Article: The Evolution of Leadership Purges in Communist China," ibid., no. 41 (January-March 1970): 122-35.

¹²James Tong, "Fiscal Reform, Elite Turnover, and Central-Provincial Relations in Post-Mao China," *The Australian Journal of Chinese Affairs*, no. 22 (July 1989): 1-28.

veloped their own distinct preferences over those of the central policy-makers for the speed and structure of investment expansion, and became more willing to bargain with the center for local interests.

Although there has been no consensus among scholars on whether the redistribution of financial resources actually favored the localities or not, all have agreed that the redistribution made the local governments more self-reliant and created strong incentive for local officials to preserve as much power and resources under their control as possible.¹³ In terms of the political implications of this trend, there are in general two perspectives on how the changes in local incentives and bargaining power have affected central-local relations.

The *bargaining* perspective argues that the devolution of economic resources and decision-making power under Deng's economic reforms has resulted in both the expansion of local economic resources and the fortification of local patronage networks, and has thus bolstered local bargaining power vis-à-vis the central policymakers. ¹⁴ Susan Shirk takes the argument even further, holding that, as economic decentralization endowed provincial governments with more economic resources, the provincial officials—through their holding of an increasingly significant number of seats in the CCP Central Committee—now have both the incentive and the clout to hold top leaders "reciprocally accountable" in the policymaking process.

On the contrary, the *hierarchical* perspective emphasizes the remaining control that the top leaders have over personnel allocation in local officialdom. This view argues that, despite economic decentralization, the central policymakers can still hold local leading cadres accountable in

¹³See Susan Shirk, "Playing to the Provinces: Deng Xiaoping's Political Strategy of Economic Reform," Studies in Comparative Communism 23, no. 3-4 (1990): 227-58; Michel Oksenberg and James Tong, "The Evolution of Central-Provincial Fiscal Relations in China, 1971-1984: The Formal System," The China Quarterly, no. 125 (March 1991): 1-32; Christine Wong, "Central-Local Relations in an Era of Fiscal Decline: The Paradox of Fiscal Decentralization in Post-Mao China," ibid., no. 128 (December 1991): 691-715; Dali L. Yang, "Reform and the Restructuring of Central-Local Relations," in Goodman, China Deconstructs, 59-98; Wang, "The Rise of Regions"; and Le-Yin Zhang, "Chinese Central-Provincial Fiscal Relationships: Budgetary Decline and the Impact of the 1994 Fiscal Reform: An Evaluation," The China Quarterly, no. 157 (March 1999): 115-41.

¹⁴For examples of the bargaining perspective, see Shirk, *The Political Logic*; Goodman, *China Deconstructs*; and Walder, *The Waning of the Communist State*.

policy implementation by exercising their control over the appointment of these local leaders.¹⁵ While the *bargaining* perspective sees the provincial leaders as a political constituency of the central leaders, the hierarchical perspective treats these provincial leaders as the center's policy implementers. In other words, in the delegation relations between the center and the provincial leaders, the bargaining perspective treats the central policymakers as agents of their local constituencies, whereas the hierarchical perspective sees the central policymakers as the *principals* of the local officials in the bureaucratic hierarchy. As Yasheng Huang has argued, the provincial officials, like agents in all hierarchical organizations, have the ultimate goal of remaining in office and "behave strategically and opportunistically" in response to the incentives provided by the institutions. 16 Although economic decentralization has provided strong incentives for provincial officials to pursue economic development and cultivate local patronage, when central leaders tighten their political control, the provincial officials comply with the center's policies in order to remain in office.

Those familiar with the Chinese political system would agree that both the bargaining and hierarchical accounts are true in describing the operation of the current system. The problem thus becomes under what circumstances one mode prevails over the other. As Kenneth Lieberthal observed, the grant of flexibility to localities is conditional, not constitutionally based. He holds that when national leaders are united, the Chinese system thus still functions in a centralized, remarkably disciplined fashion. ¹⁷ In fact, Susan Shirk already recognizes that "when the leadership is unified, the Central Committee normally ratifies the leadership's policy decisions. When the leadership is divided by succession competition, however, the Central Committee may become the bargaining arena." ¹⁸ Yasheng Huang also points out that in inflation control, "[w]hen there are sharp policy con-

¹⁵ The most conspicuous examples of the hierarchical perspective are Huang, *Investment and Inflation Controls*, and Yang, "Governing China's Transition to the Market."

¹⁶Huang, Investment and Inflation Controls, 4.

¹⁷Kenneth G. Lieberthal, "Politics and Economy in China," in *China's Economic Future: Challenges to U.S. Policy*, ed. Joint Economic Committee, Congress of the United States (Armonk, N.Y.: M.E. Sharpe, 1997), 11-12.

¹⁸Shirk, The Political Logic, 91.

flicts at the top, it appears that local officials might doubt the credibility of the central austerity programs and choose to ignore central strictures against investment expansions." The power balance between the central policymakers and the provincial officials seems largely contingent on the unity of the central collective leadership.

Collective leadership in the Leninist system is a special form of political cartel that is unfortunately quite unstable. When ultimate authority is shared by a handful of leaders, rather than monopolized by one dictator, each leader will have the incentive to increase his share of power in the collective leadership. One way to do so is to gain the support of powerful political constituencies in the state hierarchy by satisfying their policy demands. Some such leaders even venture to open the political arena to disenfranchised participants. Therefore, cooperation among members in the collective leadership is hard to sustain, especially in defending policies that will hurt the interests of important constituencies, such as military or local leaders.²⁰

In the history of the Leninist system, the pattern has been that collective leadership is likely to follow the death of a communist dictator. In China's case, Shirk thus argues that succession politics is destined to divide top leadership and make them vulnerable to the demands of local governments, and that contending successors would find rolling back the decentralization reforms quite "unthinkable." However, the 1993 financial and fiscal reforms proved that the post-Deng successors were able to unify themselves to somehow "roll back"—much to the dismay of local officials—the trend of decentralizing the allocation of national financial resources. The effects of succession politics on central-provincial relations seem more

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¹⁹Huang, Investment and Inflation Controls, 5.

²⁰For the sustainability of cooperation in political cartels, see William Riker, *The Theory of Political Coalition* (New Haven, Conn.: Yale University Press, 1967); and Mark Ramseyer and Frances Rosenbluth, *The Politics of Oligarchy: Institutional Choice in Imperial Japan* (New York: Cambridge University Press, 1995). For cooperation among the collective leadership in the Leninist system, see Philip Roeder, *Red Sunset: The Failure of Soviet Politics* (Princeton, N.J.: Princeton University Press, 1993). For the history of factionalism in the Chinese communist system, see Andrew J. Nathan, "A Factionalism Model for CCP Politics," *The China Quarterly*, no. 53 (January-March 1973): 33-66; and Lowell Dittmer and Yu-Shan Wu, "The Modernization of Factionalism in Chinese Politics," *World Politics* 47, no. 4 (July 1995): 467-94.

complicated than Shirk suggested. True, we have witnessed that the contending successors—such as Hu Yaobang (胡耀邦), Zhao Ziyang (趙紫陽), and Li Peng (李鵬)—were eager to earn political support from their predecessors' powerful constituencies in the late 1980s. This study, however, argues that, as long as the succession proceeds into the consolidation stage—that is, when the successors really assumed the power to make policy and personnel decisions, the dynamics are different. The newly inaugurated leaders, in need of confirming to society as well as to the bureaucracy the effectiveness of the leading authorities, will temporarily work together to introduce their own policy platform and replace the power elites left by the old regime with their own loyalists. Deng and his colleagues consolidated their power in this fashion in the late 1970s. Deng's successors in the 1990s would have incentive to do the same thing. 22

The various propositions concerning the evolution of central-local relations in post-Mao China as discussed above should be subject to the same test, with consistent measurements and rigorous methods. This study builds three models to test these theories by event history analysis. In each model, the probability of a provincial chief's turnover, our *dependent variable*, is seen as a function of a set of *independent variables* that were derived from specific theoretical hypotheses. First, the *bargaining model* includes four independent variables: local economic power ("Ecopower"), birthplace of the provincial chief ("Birth"), career path of the provincial

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²¹For more detailed discussion of the stages of political succession in the Soviet-type political system and their effects on political leaders' behavior pattern, see Yi-feng Tao, "Reclaiming the Commanding Heights amid Political Succession: The Political Economy of Financial Reform in Post-Deng China" (Ph.D. dissertation, Columbia University, 2001), chap. 5.

²²Various studies of China's political elite recruitment find that in the late 1970s and early 1980s, Deng and his colleagues, in order to consolidate their power, utilized reforms to set new recruitment criteria to replace the Cultural Revolution beneficiaries with "rehabilitated" technocrats as the new leadership's major constituencies. See Christopher M. Clarke, "Changing the Context for Policy Implementation: Organizational and Personnel Reform in Post-Mao China," in *Policy Implementation in Post-Mao China*, ed. David M. Lampton (Berkeley: University of California Press, 1987), 25-47, and Lee, *From Revolutionary Cadres to Party Technocrats*. In the case of the former Soviet Union, Jerry Hough also finds a correlation between the ascent of new generations of elite technocrats and the successions of Nikita Khrushchev and Leonid Brezhnev. See Jerry F. Hough, *Soviet Leadership in Transition* (Washington, D.C.: The Brookings Institution, 1980).

chief ("Career"), and the number of the province's representatives in the CCP Central Committee (CCPCC). The bargaining perspective generally supposes that the expansion of local economic power bolsters local bargaining position vis-à-vis the center by either providing alternative sources to central grants for local investments or nurturing the development of local patronage networks.²³ Therefore, "Ecopower" should have a negative effect on the probability of a provincial chief's turnover: the more economic power the province possesses, the less likelihood the provincial chief will be removed. Another popular theory from the bargaining perspective is that the increase of local economic power leads to localism as well as immobilism in the appointment of local leading cadres.²⁴ Thus, both "Birth" and "Career" should also have negative effects on our dependent variable: if the provincial chief is a native son/daughter, or has developed his/her career mostly in the province, less likely is that he/she will be removed from the position. Finally, Susan Shirk's controversial theory of "reciprocal accountability" argues that the increase in numbers of provincial representatives in the CCP Central Committee has bolstered the provinces' bargaining position and forced the top leaders to make policies that appeal to this power bloc in their selectorate. Therefore, we can test this theory by exarmining whether the number of provincial representatives in the CCP Central Committee reduces the risk of turnover for provincial leaders. We thus also expect under the bargaining model a negative correlation between the numbers of the CCPCC representatives and the probability of a provincial chief's turnover.

Second, the *hierarchical model* relies upon three independent variables to test whether the central policymakers use their control over personnel allocation to hold provincial leaders accountable in implementing policies that concern the central policymakers. The three variables are chosen according to three different assumptions of the central policymakers' role in the economic reforms. If we assume that the major concern of central policymakers in policy implementation is the provinces' contri-

²³Goodman, "The Politics of Regionalism," 1-20; and Bo, "Economic Performance and Political Mobility," 133-54.

²⁴Li and Bachman, "Localism, Elitism, and Immobilism," 84-93.

bution to central coffers, 25 we should expect provincial leaders' willingness to contribute revenues to the central government ("Revenue") to have a negative effect on the probability of a provincial chief's turnover. That is, the more willing the provincial chief is to compromise with the center in bargaining for revenue distribution, the less likely he/she is to be removed.²⁶ If we assume that the central policymakers' major policy concern in monitoring the behavior of local officials is inflation control,²⁷ we should expect provincial investment growth ("Invgrow") to have a positive effect on the probability of provincial chief turnover. That is, the more rapid provincial investment grows (the less willing the province is to comply with the center's investment control policy), the more likely is that the provincial chief will be removed from his/her position. Finally, if we accept the assumption that the major policy concern of central policymakers is regional disparity,²⁸ we should expect a negative correlation between the provision of public services (such as public health and education) and the probability of a provincial chief's turnover. Unfortunately, we cannot find a measurement for the provision of education with data complete enough to create a testable variable here. We use the growth rate of hospital beds ("Hospbed") as an indicator for the provision of public health. We anticipate the higher growth rate of hospital beds should lead to lower probability for the provincial chief's removal from office.

Third, the *succession model* proposes that provincial chiefs experience a higher risk of removal during succession consolidation periods because the top leaders during this period are more willing to exercise their

²⁵Tong, "Fiscal Reform, Elite Turnover," 2.

²⁶The independent variable here is different from the one in James Tong's model. In Tong's model, the higher the revenue contribution a province made, the more likely the Party first secretary of the given province would face turnover. See Tong, "Fiscal Reform, Elite Turnover," 26. In our model, we test the effect of the *willingness* of the provinces to contribute revenues to central coffers rather than the absolute monetary value. Therefore, the anticipated direction of the correlation between the two variables in our model is different from that of Tong's model. This paper discusses how to measure the willingness of the provinces to contribute revenues to the central government in detail in the section devoted to building the analytical models.

²⁷Huang, Investment and Inflation Controls, 16.

²⁸Shaoguang Wang and Angang Hu, The Political Economy of Uneven Development: The Case of China (Armonk, N.Y.: M.E. Sharpe, 1999).

appointment rights and to replace the political constituencies of the old regime with their own loyalists in order to demonstrate the effectiveness of their authority. Therefore, we expect a succession consolidation period ("Succession") to have a *positive* effect on the probability of provincial chief turnover.

In addition to the above, we also include three control variables that are anticipated to have strong effects on our dependent variable, but are not related to the theories under examination here. Thus, we incorporate them into our model to control for their effects, but do not put particular focus on them when interpreting the test results. These variables include the tenure length of the provincial chief ("Duration"), the legal age for retirement ("Retire"), and whether the provincial chief has a college or higher education ("College"). Intuitively, we can expect a positive effect of tenure length on the probability of a provincial chief's turnover. That is, the longer the provincial leader has served the position, the more likely he/she is to be removed. In 1982, the Chinese central leaders abolished the life tenure system for Party and government functionaries. A retirement age of sixtyfive was thus set for provincial Party first secretaries and governors.²⁹ Therefore, we should add the retirement age of sixty-five ("Retire") into our model as a control variable. We expect those provincial chiefs whose ages are equal to or above sixty-five are more likely to face turnover. Finally, education has generally been seen as an important criterion for leadership recruitment through the reform era. In 1995, the Party center even explicitly stipulated that "candidates for provincial or departmental leading posts should have at least a four-year college education."31 Therefore, we expect provincial chiefs with college or graduate degree to have a lower probability of facing turnover.

²⁹Melanie Manion, "The Behavior of Middlemen in the Cadre Retirement Policy Process," in *Bureaucracy, Politics, and Decision Making in Post-Mao China*, ed. Kenneth Lieberthal and David Lampton (Berkeley: University of California Press, 1992), 234; and Burns, "The People's Republic of China at 50," 588.

³⁰Li and Bachman, "Localism, Elitism, and Immobilism," 70, and Burns, "The People's Republic of China at 50," 587.

³¹Zhiyue Bo, "Selection and Appointment of Leading Cadres in Post-Deng China," *Chinese Law and Government* 32, no. 1 (1999): 7.

Table 1 Summary of Hypotheses

Models	Independent Variables	Predicted Effects
Bargaining Model	Ecopower	Negative
	Birth	Negative
	Career	Negative
	CCPCC	Negative
Hierarchical Model	Revenue	Negative
	Invgrow	Positive
	Hospbed	Negative
Succession Model	Succession	Positive
Controls	Duration	Positive
	Retire	Positive
	College	Negative

Table 1 summarizes the hypothesized effects of all the independent variables on the probability of a provincial chief turnover. We anticipate that those provincial chiefs experiencing higher local investment growth ("Invgrow"), active during succession consolidation period ("Succession"), possessing longer tenure ("Duration"), or at/above the retirement age ("Retire") have higher probability of turnover. Conversely, provincial leaders who are in provinces that have greater economic power ("Ecopower"), possess more representatives in the "CCPCC," were born in the province ("Birth"), developed their careers mostly in the province ("Career"), are more willing to make revenue contributions to central coffers ("Revenue") or provide public health ("Hospbed"), or have obtained a college or graduate degree ("College") are less likely to face turnover.

The Data and Analytical Method

The study compiled a data set of the tenures of both Party first secretaries and governors in all provincial units through the entire reform period —from 1978 to 1998.³² From 1978 to 1987, there were twenty-nine

³²By provincial units, we refer to all province-level administrative units that include cities

provincial units and fifty-eight positions each year. Since 1988, Hainan Island (海南島) has been separated from Guangdong Province (廣東省). adding another independent provincial unit into the data set. As a result, there were thirty provincial units and sixty positions each year from 1988 to 1998.³³ A provincial chief enters our observation once he/she assumes office, and leaves the observation when he/she is removed from office. If the provincial chief assumed office before 1978, we only make observation of the case since 1978. That is, all data compiled for this case—such as the number of CCP Central Committee representatives and revenue contribution to the center—begins from 1978. The only exception is that we code his/her tenure-starting year from the very first year of his/her term. For example, Xu Jiatun (許家屯) served as Jiangsu Province's (江蘇省) Party first secretary since 1977, thus we code his starting year as 1977. However, we observe the effects of our independent variables on the probability of his turnover only since 1978. Conversely, even if the provincial chief continued to serve in the position after 1998, we stop our observation in 1998. In other words, the case is right censored at the point of time because observation is artificially terminated before the case naturally leaves our observation.34 For example, Jia Qinglin (實慶林) has been Beijing city's Party first secretary since 1997 and remains so today. To complete our data set, we must arbitrarily set a point in time to terminate our observation of —i.e., censor—his case. Moreover, if the provincial chief died in office, the case is also treated as being censored, rather than as a removal from office. For example, Tan Shaowen (譚紹文) died in office as Tianjin's (天津) Party first secretary in 1993. We treat the case as a censored case.

like Beijing and Shanghai, provinces like Guangdong and Shandong, and autonomous regions like Guangxi and Tibet.

³³Chongqing (重慶) city was made an independent provincial unit since 1997, but this study does not include Chongqing into our data set because the observation period would be too short.

³⁴Censoring comes in many forms and occurs for many different reasons. An observation on a variable *T* is right censored if all we know about *T* is that it is greater than value *c*. In our case, because we cannot know when the provincial chief will be removed from office after the termination of our observation period in 1998 (most of them are still serving in the position today), the only thing we can do is to arbitrarily *censor* the case in 1998. For more precise definition and detailed discussion of censoring, see Paul Allison, *Event History Analysis: Regression for Longitudinal Event Data* (New York: Sage, 1984).

In total, there are 332 provincial chiefs being observed in the twenty-year observation period.

There are basically two kinds of independent variables in our data set. The first is constant across time throughout our observation period, such as the provincial chief's education, place of birth, and place of primary career development before assuming position as provincial chief. The other type is a variable whose value differs across time, in this case annually. Most of our independent variables—such as the provincial chief's age, length of tenure, the province's economic power, revenue contribution, and investment growth—vary across time. Their values change every year. These time-varying variables need to be handled with special estimate methods.³⁵

The study employs the *event history analysis* method to analyze the data. The method is designed to analyze the *probability* that an event will occur to a particular individual at a particular time. This approach allows for both *censoring* and *time-varying explanatory variables*—the two problems that are difficult to handle with conventional statistical methods. Given that we are interested in observing the probability of provincial chief turnover, and that there are censored cases and time-varying explanatory variables in our data set, this method is best suited to analyze our data.

There are many different methods developed to deal with different data types in event history analysis. Given that our data is discrete-time data with time-varying independent variables, we should use the discretetime method. This involves a shift in the unit of analysis from the individ-

³⁵The information for provincial chief tenure, social background, and career path, and the annual changes in the number of provincial representatives in the CCP Central Committee comes mainly from the following sources: Zhi guan zhi (published by Zhongguo shehui chubanshe, 1996); Zhonggong nianbao (Yearbooks on Chinese Communism, 1978-98) (published by Zhonggong yanjiu zazhishe, Taipei); Zhongguo dangdai mingrenlu (Index of celebrities in contemporary China) (published by Shanghai renmin chubanshe, 1991); Xiandai Zhongguo zhengzhi yaoren zhuanlue daquan (Biographic encyclopedia of important political figures in modern China) (published by Zhongguo guangbo dianshi chubanshe, 1993); Who's Who in China: Current Leaders (published by Waijiao chubanshe, 1994), and Zhonggong renninglu (Who's who in Communist China) (published by the Institute of International Relations, National Chengchi University, Taipei, 1999). The information for provincial economic data is mainly from three sources: the annual Chinese Statistical Yearbook published by the State Statistical Bureau since 1981; China's Provincial Statistics, 1949-1989 (published by Westview Press, 1990); and Xin Zhongguo wushi nian tongji ziliao huibian (Comprehensive statistical data and materials on fifty years of new China) (published by the State Statistical Bureau, 1999).

ual (provincial chief, in this case) to the events that occur at specific points in time. To do so, we transform the 332 observed cases of provincial chiefs into 1,504 person/year spells. The 1,504 person-year spells are treated as distinct observations. Then we estimate logistic regression models to predict the proportional odds for an event to occur in each spell.

The Models

A general model can therefore be built in this form. We let P_u represent the conditional probability that provincial chief i has an event (leaving the position) at time t, given that an event has not already occurred to that provincial chief. The model says that P_u is related to the covariates by a logistic regression equation:

$$\begin{aligned} \text{Log}(\frac{P_{ii}}{1-P_{ii}}) &= \alpha_{t} + \beta_{1} \text{Ecopower}_{t-1} + \beta_{2} \text{Birth} + \beta_{3} \text{Career} + \beta_{4} \text{CCPCC}_{t} \\ &+ \beta_{5} \text{Revenue}_{t} + \beta_{6} \text{Invgrow}_{t} + \beta_{7} \text{Hospbed}_{t-1} \\ &+ \beta_{8} \text{Succession}_{t} + \beta_{9} \text{Duration}_{t} + \beta_{10} \text{Retire}_{t} \\ &+ \beta_{11} \text{College} \end{aligned}$$

where P_{ii} = the probability of a provincial chief i leaving the position in year t; Ecopower_{t-1} = the province's economic power, measured by one-year lagged provincial gross domestic product (GDP) at 1978's constant price; Birth = 1 if the provincial chief was born in the province, and 0 if otherwise; Career = 1 if the provincial chief's political career mostly developed in the province, and 0 if otherwise; CCPCC_t = number of representatives and alternate representatives in the CCP Central Committee from the province where the provincial chief presides in the given year; **Revenue**, = the province's willingness to contribute to central revenues, measured by the ratio of growth of local expenditures in the given year t to its revenue base in previous year t-1: $R_t = (Exp_t - Exp_{t-1})/Rev_{t-1}$, where **R** is the province's willingness to contribute, **Exp** is the province's expenditure, and **Rev** is the province's revenue; $Invgrow_t = the province's investment growth, measured by$ the ratio of growth of local renovation investment in the given year t to its GDP in previous year t-1: $I_t = (RI_t - RI_{t-1})/GDP_{t-1}$, where I is the province's investment growth, and RI is the province's renovation investment; Hospbed_{t-1} = one-year lagged growth rate of hospital beds in the province; Succession = 1 if the observed year is during the succession consolidation periods (1978-83, 1993-98), and 0 if

otherwise; $\mathbf{Duration_t} = \mathbf{year}$ -length of the provincial chief's tenure in the given year t; $\mathbf{Retire_t} = 1$ if the provincial chief's age is equal to or above sixty-five (age for retirement) in the given year t, and 0 if otherwise; $\mathbf{College} = 1$ if the provincial chief received college or above-college education, and 0 if otherwise.

The choices of measurements for some of the independent variables need to be clarified. First, we measure "CCPCC" by the numbers of both representatives and alternate representatives in the committee because the center usually uses more alternate representatives to compensate those provinces who have fewer representatives. To more accurately measure the political weight of each province, more logical is to include both representatives and alternates.³⁶ Secondly, given that we cannot gain access to the exact revenue contribution figures for each province and because the arrangements for revenue remittance in fact differed by region and over time, the ratio of current year expenditure growth to previous year revenue is used to measure the willingness of the province to contribute to central coffers ("Revenue"). Previous studies have adopted two approaches to measuring provincial contribution to state coffers. The first is to use the difference between provincial annual revenue and expenditure; the second is to use the ratio of the former to the latter.³⁷ This study finds that the ratio of current year expenditure growth to previous year revenue may be a better measurement not only because by using ratio of, rather than difference between, revenues and expenditures, we can compensate for the fact that the contributions of richer provinces are inevitably greater in absolute value. The ratio of current year expenditure growth to previous year revenue can also more accurately reflect the result of bargaining between the center and the province in the previous year. This measurement can thus be seen as an indicator for the province's willingness to compromise with the center. Thirdly, because the data for local fixed-asset investment

³⁶We have also tried to use representatives only as a measurement. It does not affect the results of the statistical analysis.

³⁷Tong and Bo used difference, and Huang and Yang used ratio. See Tong, "Fiscal Reform, Elite Turnover," 9; Bo, "Economic Performance and Political Mobility," 141; Huang, *Investment and Inflation Controls*, chap. 8; and Yang, "Governing China's Transition to the Market," 431.

in early reform years is not available, we instead use the rates of renovation investment to measure local investment growth ("Invgrow"). The ratio of current year renovation investment growth to previous year gross domestic product (GDP) is used, because this measurement is better able to reflect the bargaining results of the annual economic plan and thus the provincial leaders' willingness to comply with central policy lines. Finally, we treat the intervals between 1978 and 1983 and between 1993 and 1998—the regular terms for local leaders following the CCP's Eleventh National Congress (1977) and Fourteenth National Congress (1992)—as the two succession consolidation periods during the reform era. In the first period Deng and his cohorts consolidated their newly acquired power, while in the second Jiang and other post-Deng central leaders demonstrated the effectiveness of top authority and replaced powerful constituencies of their predecessors with their own loyalists.

We first construct a general model that includes all independent variables and three theory-driven models (the bargaining, hierarchical, and succession models) for the entire study period (1978-98). In order to further probe the effect of succession consolidation on the political dynamics of central-provincial relations, we divide the study period into three intervals (1978-83, 1984-92, and 1993-98) and estimate a model combining both bargaining hypotheses and hierarchical hypotheses for each interval to determine whether the effects of the independent variables on the probability of provincial chief turnover differ from one interval to another.

Results of the Analysis

Table 2 presents the analytical results of the general model and the three theory-driven models. First of all, in both the general model and succession model, we find that the explanatory variable "Succession"—as our theory predicts—has a positive effect on the probability of a provincial

³⁸According to Yasheng Huang, these two figures are strongly related. In his analysis of local investment behavior, he treats the two figures as two measurements of the same variable. See Huang, *Investment and Inflation Controls*, 270.

Table 2
Regression Coefficients from Logit Models for Discrete-Time Data Predicting
Turnover of Provincial Chiefs in China, 1978-98

Independent	General	Succession	Bargaining	Hierarchical
Variables	Model	Model	Model	Model
CCPCC	.06		.04	
	(.06)		(.05)	
Birth	37*		31*	
	(.19)		(.17)	
Career	26		-33**	
	(.18)		(.16)	
Ecopower	.03		.002	
•	(.03)		(.002)	
Revenue	004			002
	(.03)			(.026)
Invgrow	102			.027
	(1.42)			(1.44)
Hospbed	.02			.016
	(.02)			(.013)
Succession	.32*	.33**		
	(.18)	(.15)		
Duration	.21***	.27***	.27***	.19***
	(.03)	(.03)	(.03)	(.03)
Retire	1.11***	.96***	1.01***	1.17***
	(.18)	(.15)	(.16)	(.17)
College	.02	02	003	.05
	(.18)	(.15)	(.16)	(.18)
Constant	-2.85	-3.05	-2.85	-2.54
Constant	(0.37)	(0.21)	(0.31)	(0.23)
Log Likelihood	-466.0150	-651.5264	-595.4952	-474.3185
Number of Spells	978	1,504	1,386	978
Number of Events	222	294	269	222

Note: Numbers in parentheses are standard errors.

chief's turnover. That is, during succession consolidation periods (1978-83 and 1993-98), the provincial chiefs are more likely to face turnover than the non-consolidation period (1984-92). The logit coefficient of 0.33 shown in the table is counterintuitive because the logit model assumes a nonlinear relationship between the probability and the explanatory variables. By transforming the coefficient into odds ratio ($\beta \Rightarrow e^{\beta}$), we get an odds ratio

p < 0.1; **p < 0.05; ***p < 0.01

of 1.39. This result tells us that the odds of a provincial chief turnover during succession consolidation periods are 1.39 times greater than the odds for the turnover during a non-consolidation period.

In both the general model and bargaining model, we find both "Birth" and "Career" have negative effects on the probability of turnover for provincial chiefs. While the effect of "Birth" reaches a significant level in both models, the effect of "Career" reaches a significant level only in the bargaining model. The slight differences in the value of the coefficients and degrees of significance between the two models may result from two factors. One is the different population size. The general model, which includes some variables (such as "Hospbed" and "Invgrow") that have missing data in the early years, only has 978 observation spells; the bargaining model, however, with less missing data, has 1,386 spells. The other factor may be that slight correlations between some independent variables (such as "Ecopower," "Invgrow," and "Succession") make the coefficients less stable.³⁹ The negative effects of "Birth" and "Career" seem to support the bargaining hypotheses: that those provincial leaders who were born in the provinces and/or developed their political career mostly in the provinces are less likely to be removed during the entire reform era. By transforming the coefficients into odds ratios ($e^{-31} = 0.73$, $e^{-33} = 0.72$), we find the odds for native provincial chiefs to face turnover are 0.73 times greater than the odds for non-natives, and the odds for provincial chiefs who developed their political career mostly in the province they currently served are 0.72 times greater than the odds otherwise. This evidence seems to confirm the arguments for the emergence of localism and immobilism in local leadership during the reform era. 40 However, neither the numbers of provincial representatives in the "CCPCC" nor provincial economic power ("Ecopower") has an effect that is statistically significant. Therefore, the results only partially support the bargaining arguments.

In regard to hierarchical hypotheses, none of the explanatory vari-

³⁹There are slight correlations between some variables in these models, but a tolerance test finds all the correlations are far above tolerance level. This means we can trust that the estimates in these models have no serious multicollinearity problem.

⁴⁰Li and Bachman, "Localism, Elitism, and Immobilism," 84-93.

ables appear important in determining the probability of provincial chief turnover, although provincial chief willingness to contribute revenues to central coffers ("Revenue") affects the turnover probability in the same direction as the hypothesis predicts—that is, willingness to contribute decreases the probability of removal. Nevertheless, this relationship is not statistically significant. Meanwhile, neither local investment growth ("Invgrow") nor the provision of public health ("Hospbed") supports the hierarchical model. According to this evidence, we can tentatively say that the central policymakers did not make provincial revenue contribution, investment growth, and provision of public services the main criteria for evaluating provincial leaders. At least, we may say none was the main criterion through different phases of the reform era. When we estimate the models for different periods later, a different pattern may emerge.

Finally, we find that in all the four models both "Duration" and "Retire" are highly significant in determining the probability of provincial chief turnover. As we expected, both have positive effects on our dependent variables—that is, the longer the provincial chief served in the position, the more likely he/she would face turnover. Once the provincial chief reaches the age of sixty-five, his/her removal becomes more likely. The odds ratio for "Retire" is about three, which means that during the reform era the chance for provincial chiefs over the age of sixty-five to face turnover is three times the chance for leaders under sixty-five. However, to our surprise, college education appears unimportant in determining the survival of provincial chiefs. Education may have become an important criterion for local leadership appointment, but the evidence here shows that this variable was not a major factor in determining the turnover of local leadership.

Table 3 tests the hypotheses derived from both the bargaining and hierarchical models on three different subperiods in the reform era. For the bargaining hypotheses, we find that both "Birth" and "Career" have negative effects on the probability of provincial chief turnover, but only "Career" in Model 2 (1984-92) reaches the level of significance. "CCPCC" and "Ecopower" continue to show no importance in determining the survival of provincial chiefs throughout the three time periods. In regard to the hierarchical model, a very interesting phenomenon is that "Invgrow"

Table 3
Regression Coefficients from Logit Models for Discrete-Time Data Predicting
Turnover of Provincial Chiefs in Different Time Periods during the Reform
Era

Independent Variables	Model 1 (1978-83)	Model 2 (1984-92)	Model 3 (1993-98)
CCPCC	008	.152*	102
	(.177)	(.090)	(.140)
Birth	37	41	395
	(.53)	(.29)	(.345)
Career	.48	44*	353
	(.50)	(.26)	(.319)
Ecopower	044	.051	.036
	(.331)	(.077)	(.753)
Revenue	-2.35	.0002	75
	(1.88)	(.0274)	(.75)
Invgrow	-25.65	27.48***	2.21
	(23.199)	(8.18)	(2.05)
Hospbed	.028	.021	.025
	(.092)	(.035)	(.027)
Duration	.14	.15***	.28***
	(.11)	(.06)	(.05)
Retire	.36	1.30***	1.44***
	(.55)	(.27)	(.37)
College	14	07	.23
	(.47)	(.26)	(.36)
Constant	-1.01	-2.70	-2.22
	(0.98)	(0.54)	(0.71)
Log Likelihood	-61.6659	-261.0101	-172.4759
Number of Spells	104	517	357
Number of Events	33	95	94

Note: Numbers in parentheses are standard errors.

has a highly significant *negative* effect on the probability of provincial chief turnover during the time interval of 1984-92, which means those provincial leaders who presided over a higher rate of local investment had a much better chance of survival during the heyday of Deng's decentralized reforms. However, the effect of "Invgrow" turns positive in the post-Deng era (1993-98)—that is, those who maintained a high rate of local investment growth were more likely to be removed after 1993, although the

^{*}p < 0.1; **p < 0.05; ***p < 0.01

figure does not reach a level of significance. The dramatic change in statistical significance of the effects of "Invgrow" across different time periods is partially caused by the sharp decline of the standard error (as shown in the parentheses). This change may reflect the fact that, as reform proceeded, there was a convergence of the effects of local investment growth speed on provincial leader survival. In other words, the differences between provincial-level investment growth became less of a factor in determining provincial chief survival. Finally, in regard to our control variables, we find the effects of both "Duration" and "Retire" statistically significant only after 1984. The results are consistent with the fact that the Party set sixty-five as the age for retirement in 1983 and the policy of cadre rejuvenation became rigorously implemented in the mid-1980s. 41

Broader Implications for Central-Provincial Relations

The results of our statistical analysis provide mixed evidence for the hypotheses derived from the theories of central-provincial relations that flourished during the Deng era. Although the evidence does not support the hierarchical hypotheses, neither does it support all the bargaining hypotheses. The only thing assured by the analysis is that the effects of various forces on the probability of provincial chief turnover have varied over time, and that succession politics has mattered greatly in determining the fluctuation. In both succession consolidation periods (1978-83 and 1993-98), provincial chiefs faced a higher risk of turnover. During the heyday of Deng's decentralization reforms (1984-92), those provincial chiefs who were native sons and who ran a local economy growing at a high rate had a better chance of survival. However, these trends faded, and even reversed course, after 1993. In general, the findings of this study should not prompt us to conclude which argument—bargaining or hierarchical—prevails in explaining the overall development of central-provincial relations during the reform era. The findings do confirm the proposition, however, that

⁴¹Manion, "The Behavior of Middlemen," 238.

exogenous political dynamics—such as succession politics—are critical in determining the patterns of central-provincial relations.⁴²

Turnover in Local Leadership:

To Embrace or Correct the Decentralization Trend?

Although the findings that those provincial chiefs who were born in the provinces or developed their political careers mostly in the provinces are less likely to be removed from office seem to confirm the arguments for the emergence of localism, they should not lead to the conclusion that economic decentralization has resulted in an increase in local political power and secured the political survival of local leading cadres. As is also revealed by the analytical results, neither local economic power (measured by the one-year lagged provincial GDP) nor local political power (measured by the numbers of provincial representatives in the CCP Central Committee) has any significant effect on the probability of a provincial chief turnover. We thus lack solid evidence here to argue that the correlation between birthplaces and career paths, on the one hand, and the turnover probability, on the other, is caused by an increase of either economic or political power in localities. The correlation may rather result from other factors. For example, central leader intention, rather than the local official design, might explain why those native sons remain in position longer, especially in the 1980s when local autonomy and innovation were considered beneficial to economic growth and encouraged.

In the meantime, although the results of the statistical analysis do not support any of the hierarchical hypotheses, one should not conclude that the central policymakers had no intention to enhance central control by exercising their monopoly over local personnel allocation. After all, the average term for provincial Party first secretaries and governors together

⁴² The findings confirm the conclusions of several recent studies in the field that central-local relations are non-zero-sum, and are highly contingent upon the broader political and economic environments. See Jae Ho Chung, "Studies of Central-provincial Relations in the People's Republic of China: a Mid-term Appraisal," *The China Quarterly*, no. 142 (June 1995), 487-508; and Fubing Su and Dali L. Yang, "Political Institutions, Provincial Interests, and Resource Allocation in Reformist China," *Journal of Contemporary China* 9, no. 24 (2000): 215-30.

in our study period was only 4.2 years, shorter than the regular term of five years for provincial chiefs. The central leaders did reshuffle local leadership more frequently than necessary. The apparent insignificance of the three explanatory variables—revenue contribution, investment growth, and provision of public health—in determining the probability of provincial chief turnover may result from central leader inability to maintain any coherent policy goal throughout the entire reform period. The central leaders may stress inflation control at one point in time, but be concerned about economic growth at another. They may be worried about central revenue collection today, but turn their attention to the provision of public services to the grass roots tomorrow. For example, according to the results of our statistical analysis, local investment growth had a strong negative effect on the probability of provincial chief turnover in the time period 1984-92. However, as the central policymakers put more emphasis on inflation control after 1993, the effect became insignificant and turned positive. Central policymakers have found that adhering to one set of criteria to determine provincial leader turnover is ineffective. This is because the criteria may change given the vicissitudes of the power struggle among factions in the central leadership and the developing external economic situation. Their effects on turnover may thus cancel each other out.

New Constituencies for the New Regime

The results of our statistical analysis show that provincial chiefs faced a higher risk of removal during succession consolidation periods. However, the higher probability of turnover does not mean a generational shift. By itself, this result cannot fully prove our argument that top leaders during a succession consolidation period under a Leninist political system would replace their predecessors' political constituencies with their own loyalists. A comparison of the demographic characteristics and career paths of the provincial chiefs in the post-Deng era with the ones in the Deng regime is needed to examine whether the new regime has really replaced the political constituencies of its predecessor with a new generation of political elites. If the provincial chiefs in the post-Deng era collectively do appear to be a new generation of political elites with distinct backgrounds and experiences from their predecessors, then we can argue that top leaders in the

Table 4
The Demographic and Career Characteristics of the Provincial Chiefs in the Deng Era and Post-Deng Era

_	Deng Era (1978-92)	Post-Deng Era (1993-98)
Average year of birth	1925	1938
Average year of joining the Party	1946	1961
Percentage with college or graduate degree	62%	87%
Percentage of native sons (defined by birthplace)	31%	33%
Percentage of native sons (defined by career path)	55%	44%
Percentage of centralists	13%	21%

post-Deng period have appointed a new generation of political elites to the position of provincial chief to serve as their own constituencies.

Table 4 compares the demographic characteristics and career paths of those provincial chiefs appointed during and after 1993 to those appointed before 1993. First, we find the average year of birth for the post-Deng provincial chiefs is 1938, much later than the average year of birth for their predecessors in 1925. The oldest post-Deng provincial chief, Uliji (烏力書), chairman of the Inner Mongolia Autonomous Region since 1993, was in fact born in 1928, three years later than the average for his predecessors. Second, on average the post-Deng provincial chiefs joined the CCP in 1961, while their predecessors joined in 1946. Actually only one post-Deng provincial chief joined the CCP before 1946. He is Yue Qifeng (岳岐峰), the Heilongjiang Party secretary from 1994 to 1997, who joined the Party in 1945. The more-than-ten-year differences in the time of birth and beginning of political career defined totally different life experiences separating the two groups of provincial chiefs. The findings are consistent with Li Cheng's study of the "fourth generation" political elite. 43

Moreover, the post-Deng provincial chiefs were better educated than the previous generation. Eighty-seven percent of the provincial chiefs appointed after 1993 possessed a college education or higher, in comparison to 62 percent of their predecessors. In regard to the issue of localism,

⁴³ Li, "Jiang Zemin's Successors," 3.

while 33 percent of the post-Deng provincial chiefs were born in the provinces they currently served, slightly greater than their predecessors' 31 percent, 55 percent of them developed their political careers outside the provinces, much higher than the 44 percent among their counterparts. The increase of "outsiders" in the appointment of provincial chiefs is consistent with the "rule of avoidance" restored by the post-Deng central leadership. In addition, career central bureaucrats composed 21 percent of the post-Deng provincial chiefs, an increase from 13 percent prior to 1993. This career background suggests that the new generation of provincial chiefs appointed by the post-Deng central leaders is a group of political elites who have more professional training and a technocratic mentality, but are perhaps lacking in the political experiences and skills needed to handle increasingly complicated local politics, in contrast to their counterparts in the previous regime. Nonetheless, these qualities ensured that they would be the most loyal constituencies of the post-Deng central leadership.

In sum, our statistical analysis of the probability of provincial chief turnover for the entire reform era presents a more complicated picture than that suggested by conventional theories of central-provincial relations. Economic decentralization did not lead central-provincial relations toward greater local bargaining power as asserted by the bargaining perspective. Nor were the central leaders able to maintain coherent policy goals and stringently monitor the behavior of provincial leaders accordingly, as the hierarchical perspective would argue. The effects of the social, economic, and political transformation of Deng's reforms on the survival and, by extension, the bargaining power of provincial leaders are more unstable than we imagined. Moreover, political dynamics in the broader institutional

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⁴⁴The "rule of avoidance" was a well-known practice of the traditional Chinese central government and had been adopted by Mao in the early 1960s to weaken increasingly serious localism. See Frederick Teiwes, *Provincial Party Personnel in Mainland China* (New York: East Asian Institute, Columbia University, 1967), and Ying-Mao Kau, "The Urban Bureaucratic Elite in Communist China: A Case Study of Wuhan, 1949-1965," in *Communist Chinese Politics in Action*, ed. A. Doak Barnett (Seattle: University of Washington Press, 1969), 216-67. In the "Temporary Regulations on Selection and Appointment of Party and Government Leading Cadres" issued by the Party Central Committee in 1995, "avoidance" was made as a primary criterion for selection and appointment of leading cadres. See Bo, "Selection and Appointment," 45-61.

context, such as succession politics, make the situation even more complicated.

Conclusion

This study has tried to contribute to the study of central-provincial relations in Chinese politics by bringing the analysis of the political survival of provincial chiefs into the discussion. Through statistical test of competing hypotheses about the probability of provincial chief turnover during the period 1978-98, the study has extended our discussion of central-provincial relations to three new frontiers. First, this research adds one more indicator for measuring changes in central-provincial relations. Traditionally, revenue distribution and policy implementation are the two most important indicators to measure the power relations between the central and provincial governments. The re-introduction of provincial leader turnover as an indicator to measure the changes (i.e., as done by Teiwes and Tong) enables us to observe the development in a broader context. Second, this paper includes a new time period (1993-98). With few exceptions, most existing studies of central-local relations focus on the time period 1978-93. By including both pre- and post-1993 periods, the study can compare the differences in central-provincial relations under two different regimes and observe the impacts of regime change. Third, this analysis employs a new research method to analyze changes in central-provincial relations. By using the event history analysis method, the study can make observations of both the occurrence and timing of provincial leader turnover. The effects of time-varying variables, such as succession, can be evaluated against the effects of constant variables, such as education and place of birth, in the same model. We thus obtain more precise estimates of the effect of various factors on provincial chief turnover.

Bringing the analysis of the political survival of provincial chiefs into the discussion of central-provincial relations, this paper has uncovered three new findings: (1) The political context (in this case, succession politics) matters in determining the dynamics of central-provincial relations. When the top leaders are in a succession consolidation period, they have

strong incentive to exercise their appointment rights over provincial chiefs more frequently in order to demonstrate their authority and replace political constituencies of the old regime with their own men. (2) The development of central-provincial relations is less predictable than we originally perceived. Namely, the center was neither gradually losing control over the localities, nor constantly maintaining effective supervision of the provincial governments with coherent policy criteria. The relationship varies over time. (3) For the first time, we confirm the implementation of cadre retirement policy since 1983 with evidence obtained from quantitative analysis. The analytical results of our models show that age for retirement has been the most significant factor in determining the turnover of provincial chiefs ever since 1983. The findings confirm the conclusion of previous qualitative studies.⁴⁵

Nonetheless, the study is still exploratory, for it does not make distinction between promotion and demotion in the turnover of provincial chiefs. Although the fact that very few provincial chiefs get promoted from their position can justify the way we deal with the problem, we should strive to find a good criterion for distinguishing promotion from demotion in future studies.

⁴⁵Manion, "The Behavior of Middlemen," 238.