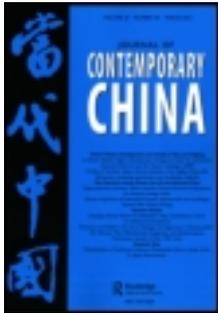


This article was downloaded by: [University of Chicago Library]

On: 25 March 2014, At: 06:52

Publisher: Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



Journal of Contemporary China

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/cjcc20>

A Tragedy of the Nomenklatura? Career incentives, political loyalty and political radicalism during China's Great Leap Forward

Dali L. Yang, Huayu Xu & Ran Tao

Published online: 21 Mar 2014.

To cite this article: Dali L. Yang, Huayu Xu & Ran Tao (2014): A Tragedy of the Nomenklatura? Career incentives, political loyalty and political radicalism during China's Great Leap Forward, Journal of Contemporary China, DOI: [10.1080/13603116.2014.882560](https://doi.org/10.1080/13603116.2014.882560)

To link to this article: <http://dx.doi.org/10.1080/13603116.2014.882560>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

A Tragedy of the *Nomenklatura*? Career incentives, political loyalty and political radicalism during China's Great Leap Forward

DALI L. YANG, HUAYU XU and RAN TAO*

We review James Kung and Shuo Chen's study, published in the American Political Science Review, on the causes of China's Great Leap Famine (1959–1961). Kung and Chen explain the variations in provincial leaders' radicalism on the basis of the career incentives facing the provincial First Secretaries. In this article, we question the validity of their basic assumptions and also uncover serious issues with the Kung and Chen dataset. We conclude that their empirical findings were based on faulty foundations. Our alternative hypothesis instead explains the dynamics of political radicalism during the Great Leap Forward in terms of the provincial leaders' political loyalty to Mao. Our findings point to the significance of political networks in influencing the behavior of elites and, by extension, political and socio-economic outcomes.

A basic premise of the vast literature on the political economy of institutions and organizations is that incentives matter.¹ Regardless of their rhetoric, politicians tend to behave in response to the career incentives facing them.² Such incentives are therefore an important key to a better understanding of policy choices in both democracies and autocratic states.³

The emphasis on how career incentives shape politicians' choices has stimulated a growing body of new research on China's political economy that links the career

*Dali L. Yang is Professor of Political Science and Faculty Director of the Center in Beijing, the University of Chicago; Huayu Xu is a graduate student in the School of Economics, Renmin University of China; Ran Tao is Professor of Economics in the School of Economics, Renmin University of China. The authors wish to thank David Bachman, John Ishiyama, Junyan Jiang, Xin Sun, Daniel Treisman and Lynn White III for helpful comments, and James Kung and Shuo Chen for responding to our query regarding the excess procurement ratio data. The authors can be reached by email at daliyang@uchicago.edu

1. Douglass North, *Institutions, Institutional Change and Economic Performance* (Cambridge: Cambridge University Press, 1990); Oliver Williamson, *The Economic Institutions of Capitalism* (New York: Free Press, 1998).

2. Gordon Black, 'A theory of political ambition: career choices and the role of structural incentives', *The American Political Science Review* 66(1), (1972), pp. 144–159; Margaret Levi, *Of Rule and Revenue* (Berkeley, CA: University of California Press, 1989); Cecil Duncan MacRae, 'A political model of the business cycle', *Journal of Political Economy* 85(2), (1977), pp. 239–263.

3. Milan Svobik, *The Politics of Authoritarian Rule* (Cambridge: Cambridge University Press, 2012).

incentives facing Chinese officials to policy outcomes.⁴ Of particular interest are studies that explain official promotion on the basis of economic performance metrics. In a unitary state dominated by the Communist Party, the career prospects of lower-ranked officials are primarily determined by their superiors in the Party hierarchy, not through the ballot box. Economic growth, some scholars contend, has become the top criterion for promoting local officials in the era of economic reform and development. As a consequence, career-minded officials seek to excel in tournament-like competition for official promotions that tend to focus on developing the local economy.⁵

In a major article published in the *American Political Science Review* in 2011, James Kung and Shuo Chen applied the career incentives logic to their study of the causes of China's Great Leap Famine (1959–1961), the worst famine ever in human history.⁶ Titled 'The tragedy of the *nomenklatura*', the Kung and Chen article seeks to offer a systematic explanation of the variations in provincial leaders' radicalism as measured by the ratio of excessive grain procurement during the Great Leap Forward. In their account, the dynamics that drove China into the abyss of the world's worst famine can be found in the career incentives facing the top provincial officials, especially the provincial First Secretaries (FPS) of the Communist Party, rather than in their ideological positions or personal characteristics.

The Kung and Chen article offers an intuitively appealing framework for examining the causes of the Great Leap Famine. The significance of such an approach is obvious because the Great Leap Forward, unleashed by Mao and embraced by tens of millions of Chinese across the country, has defied easy explanations from a rational perspective.⁷ In view of its significance for understanding the political dynamics in China and more generally in revolutionary regimes, Kung and Chen's approach begs for further discussion and empirical testing.

In this article, we review the logic behind Kung and Chen's basic assumption that provincial leaders who were alternate members of the CCP Central Committee (abbreviated as CC) were most motivated to behave radically and therefore most destructive in causing the subsequent famine. We conclude that the logic of Kung and Chen is partial and *ad hoc* at best and offer historical evidence to suggest that, if their logic stands, then the officials most motivated to 'leap forward' would have been those top provincial leaders who were neither alternate nor full members of the CCP Central Committee. In the second part of the article, we re-examine the empirical foundations of the Kung and Chen article. Using exactly the same reference sources cited by Kung and Chen, we discover serious issues with the Kung and Chen dataset.

4. Susan Shirk, *The Political Logic of Economic Form* (Berkeley, CA: University of California Press, 1993); Pierre Landry, *Decentralized Authoritarianism in China: The Communist Party's Control of Local Elites in the Post-Mao Era* (Cambridge: Cambridge University Press, 2008).

5. *Ibid.*; Hongbin Li and Li-an Zhou, 'Political turnover and economic performance: the incentive role of personnel control in China', *Journal of Public Economics* 89(9–10), (2005), pp. 1743–1762; Ye Chen, Hongbin Li and Li-an Zhou, 'Relative performance evaluation and the turnover of provincial leaders in China', *Economics Letters* 88(3), (2005), pp. 421–425.

6. James Kung and Shuo Chen, 'The tragedy of the *nomenklatura*: career incentives and political radicalism during China's Great Leap Famine', *American Political Science Review* 105(1), (2011), pp. 27–45.

7. Tang Tsou, 'Interpreting the revolution in China: macrohistory and micromechanisms', *Modern China* 26(2), (2000), pp. 205–238.

After correcting for the problems in the Kung and Chen dataset, we reran the regressions used by them and could not reproduce the statistical results that Kung and Chen reported. We conclude that the empirical findings in their article were based on faulty empirical foundations and are not statistically robust.

In the final section, we offer some initial empirical evidence for an alternative hypothesis, namely that the dynamics of political radicalism during the Great Leap Forward were driven by a game of political loyalty to Mao. We demonstrate a pattern of special promotion of provincial leaders in the 1950s and find such a pattern is highly correlated with provincial radicalism. To be more specific, those provincial First Party Secretaries who received special promotions in 1956 and 1958 were found to have behaved more radically than the rest. Our findings not only cast serious doubt on the popular ‘tournament competition thesis’ implicit in Kung and Chen’s study, but also point to the significance of political networks in influencing the behavior of elites and, by extension, political and socio-economic outcomes.

I. The (flawed) logic and the reality of elite promotions in the 1950s

At the time of the Great Leap Forward, most provincial FPSs in China were full or alternate members of the Chinese Communist Party’s powerful Central Committee (CCP CC) but a small number were outside of the Central Committee (hereafter non-members; see [Table 1](#)). Above the Central Committee was the even more powerful elite group known as the Politburo. As the Chairman of the CCP Central Committee, Mao was the towering figure at the pinnacle of power, not only because of his institutional position but also on account of his revolutionary charisma.⁸ Playing to Mao was a central theme of the Mao era.

The premise in the Kung and Chen article was that Chinese politicians in this age of Maoist excesses were no less interested in moving up the ladder of political success than at other times. For members of the Chinese elite, this meant moving up in the Communist Party hierarchy from being outside the CCP Central Committee (CC) to being an alternate or full CC member; it follows that CC members would want to gain entry into the even more exclusive Politburo. As Mao and his colleagues unleashed the unorthodox Great Leap Forward, they also offered an extraordinary opportunity for ambitious politicians in the provinces to promote the Great Leap Forward in a radical fashion that Mao preferred and thus better their own political fortunes. Indeed, those who were picked out as political laggards in successive political campaigns, such as the Anti-Rightist Campaign of 1957, would often suffer grievously.

According to Kung and Chen, even though officials sought career advances, their motivations varied because the likelihood of career advances varied for officials at different ranks. The regime was then not yet a decade old and even the top leaders were still relatively young; there were thus few opportunities for moving up the political ladder on the retirement of one’s superiors. Membership of the Politburo, in

8. Avery Goldstein, *From Bandwagon to Balance-of-Power Politics: Structural Constraints and Politics in China, 1949–1978* (Stanford, CA: Stanford University Press, 1991); Frederick Teiwes and Warren Sun, *China’s Road to Disaster: Mao, Central Politicians, and Provincial Leaders in the Unfolding of the Great Leap Forward 1955–1959* (Armonk, NY: M.E. Sharpe, 1998); Dali L. Yang, *Calamity and Reform in China: State, Rural Society and Institutional Change since the Great Leap Famine* (Palo Alto, CA: Stanford University Press, 1996).

Table 1. Composition of provincial First Party Secretaries, by CC membership (excluding centrally administered municipalities)

Year	(1) CC members	(1a) Of which Politburo member or alternate member	(2) CC alternate members	(3) Non CC members
1956	8	1	9	8
1957	8	1	8	9
1958	9	2	13	3
1959	10	2	12	3
1960	9	2	13	3
1961	8	2	13	4
1962	7	2	14	4
1963	7	2	14	4
1964	7	2	14	4
1965	6	2	14	5
1966	4	2	13	8

Kung and Chen's account, was predetermined by 'revolutionary credentials' earned before Mao led the Communists to defeat the Nationalists and conquer national power in 1949. There were thus extremely high entry barriers for CC full members seeking to advance to Politburo membership on the basis of peace-time effort, political or otherwise. In contrast, as [Table 2](#) indicates, the size of the Central Committee is much larger than the Politburo as is the likelihood for an alternate CC member to achieve full membership based on effort. Thus Kung and Chen hypothesize that for most Chinese elites full membership in the Central Committee represented the ceiling for career advancement. Therefore, alternate members would be more aggressive in pursuing the Great Leap Forward policies than full CC members.

We are not persuaded by the Kung and Chen article's assessment of the motivations facing the top provincial leaders. Even if one agrees that certain 'revolutionary credentials' constituted 'entry barriers' to the Politburo, it seems hard to sustain the argument that the provincial First Party Secretaries who were already full CC members lacked motivation to move further up because of a perceived ceiling. Leaving aside the extraordinary prestige and influence of Politburo membership itself, there are various prominent positions in the Center but outside of the Politburo that these CC members could potentially aspire to. There is also enormous heterogeneity among China's provinces and a seemingly lateral move from

Table 2. Size of the Eighth Central Committee (and Politburo), 1956–1966

	First Plenum September 1956	Second Plenum May 1958	Eleventh Plenum August 1966
No. of Politburo members	23	26	28
No. of CC members	97	97	97
No. of CC alternate members	73	96	90

one province to another as First Party Secretary may well imply a promotion (or demotion) depending on the size, location and economic strength of the provinces concerned.⁹ Finally the provincial officials were subjected to competition among the provinces and would be falling behind on the ledgers of political merit if they were not striving hard to stay in the race.¹⁰ Kung and Chen dismiss the first possibility by saying that ‘To the extent that appointments in the government and the NPC were still firmly under the supervision of the Politburo, they could hardly qualify as likely positions for career mobility’.¹¹ We contend that not only did the Chinese *nomenklatura* contain finer gradations than simply membership on the CCP Central Committee but also that, even if the odds that CC full members would be able to gain further promotions declined, there existed other motivating factors for them not to slacken their efforts. Nonetheless, we see the utility of using CPP CC membership as a yardstick for testing whether such membership served to induce significant differences in political behavior among China’s provincial leaders during the era of the Great Leap Forward.

If one follows Kung and Chen’s analytical framework logically, one needs to ask why the provincial leaders who were not yet CC members would be less motivated than the CC alternate members. Indeed, Kung and Chen themselves ask: ‘Simply, might the nonmembers be equally tempted to enter the Central Committee?’. Kung and Chen’s answer to this question was that, as in the case of Politburo membership, CC membership also depended on possessing certain ‘prerevolutionary (sic) credentials’ that could not be earned in peace time.¹² In other words, memberships of the Politburo and of the Central Committee were forged in revolutionary struggles such as the Long March and the Civil War and once the CCP was governing the country, the pre-PRC experiences constituted high entry barriers to those who lacked the revolutionary credentials. To support their hypothesis, Kung and Chen used regression analyses to examine a sample of political elites (provincial First Party Secretaries and governors) that included both members ($n = 197$) and non-members ($n = 27$) of the Central Committee as of the First Plenary Session of the Eighth Party Congress held in 1956. They found that, compared to the non-members, CC full members (FMs) and alternate members (AMs) were distinguished by their experiences in guerrilla warfare and the Long March.

This effort is not convincing for two reasons. First, Kung and Chen short-circuited their argument by making reference to only 27 non-members in their sample. Even if such ‘credentials’ had existed, as suggested by Kung and Chen, in view of the scale and scope of the Chinese revolution, there were likely many more people outside of the Central Committee (i.e. non-members) who might have possessed such revolutionary ‘credentials’, such as having joined in the Long March or participated in guerrilla warfare, and could have aspired to join the Central Committee. Thus the pool of potential candidates for the Central Committee, based on the criteria as

9. For the sake of brevity, we use ‘provinces’ to refer to provincial-ranked units, including provinces and ethnic autonomous regions.

10. Yang, *Calamity and Reform in China*.

11. Kung and Chen, ‘The tragedy of the *nomenklatura*’, p. 29.

12. *Ibid.*, pp. 39–40.

identified by Kung and Chen, would be much larger than the 27 included in their sample.¹³

Second and equally importantly, Kung and Chen took a static view of the criteria for entry into the Central Committee. Yet, in theory, the criteria for inducting additional members into the Central Committee could be changed. Vacancies may appear on the Central Committee for natural and political reasons—i.e. deaths and purges—or because the top leadership wished to enlarge the organization or because the top leadership decided to recruit a new kind of membership as circumstances changed. In reality, following the 1956 CCP National Congress, Mao as Chairman of the CCP Central Committee would not convene another national Party Congress (the Ninth) until 1969 but there would be numerous purges of CC members. These purges occurred during the Great Leap Forward and even more so in the course of the Cultural Revolution that Mao unleashed in 1966 (most notably President Liu Shaoqi and CC Secretary General Deng Xiaoping). When Mao and his cronies reconstituted the CCP Central Committee in 1969, a remarkably different set of members was inducted.¹⁴

In view of such historical evidence, it is important to consider carefully how Chinese elites might have assessed their chances for promotion in the 1950s, especially around the time of the Great Leap Forward. We assume that Chinese elites, including top provincial leaders, would pick up information (anecdotally or through diligent information gathering) on promotions (and purges) and use such information to assess their chances for further promotion even though such assessments would be facilitated or affected by cognitive heuristics and biases.¹⁵ To better understand how top provincial leaders in China assessed their prospects for further promotion at the time of the Great Leap Forward, we need to first describe the patterns of promotions into the Central Committee from the time of the Communist takeover of power to the Great Leap Forward.

Because Kung and Chen focused their attention on the CC alternate members, let us first take a look at the promotion patterns of the 33 CC alternate members of the Seventh Central Committee (formed in 1945 with 44 full members and 33 alternates), ranked by the number of votes they garnered. Of the 33 alternate members, three were purged (Li Yu, Zeng Jingbing and Liu Zijiu) and thus dropped out of the Central Committee altogether. Four of them were given full CC memberships in March 1949 and another three (Wang Shoudao, Deng Yingchao and Chen Shaomin) in September 1956.¹⁶ Of the remaining 23, all but three were given full CC membership at the Eighth CCP National Congress held in September 1956. These promotion patterns suggest that CC alternate members only needed to wait for their time and were virtually assured of promotion to full CC membership if they could avoid being purged. On the basis of this information, there was little need for CC alternate members to be especially aggressive in seeking promotion, as hypothesized by Kung and Chen.

13. We are puzzled by the reported size of their sample. The Eighth Party Congress produced 97 CCP-CC members and 73 alternate members and the total comes to 170. Table 6a in Kung and Chen includes 105 CCP-CC members and 92 alternate members and the total come to 197. Their Table 1, in contrast, shows 69 CCP-CC members and 72 alternate members only.

14. Roderick MacFarquhar and Michael Schoenhals, *Mao's Last Revolution* (Cambridge, MA: Harvard University Press, 2008).

15. Daniel Kahneman, *Thinking, Fast and Slow* (New York: Farrar, Straus and Giroux, 2011).

16. Even though the CCP did not formally inaugurate the People's Republic of China until 1 October 1949, it controlled northern China by early 1949.

We now turn to the membership of the Eighth Central Committee, installed in September 1956. Compared with the Seventh Central Committee, the Eighth Central Committee was evidently much larger and this expansion in turn offered opportunities for non-members to be inducted (Table 3). Of the 97 CC full members on the Eighth Central Committee, 44 were holdovers from the Seventh Central Committee, 20 were promoted from the ranks of Seventh Central Committee alternate members, and a whopping 33 were previously outside the Central Committee altogether. Nine of the 33, or more than a quarter, were current provincial First Party Secretaries and governors. Of the 73 CC alternate members, only three (Wan Yi, Zhang Zongxun, Gu Dacun) were holdovers from the Seventh Central Committee alternate membership roster and thus 70 of the 73 alternate members were new inductees, including 13 who were serving provincial First Party Secretaries or governors. Moreover, at the Second Plenary Session of the Eighth National Party Congress (八大二次会议, not 八届二中全会) held in May 1958, another 25 new CC alternate members were added.

Altogether, 103 previous non-members became new CC full and alternate members in 1956 and another 25 joined in 1958. The absolute majority of the CC alternate members from the Seventh Central Committee became full CC members and, contrary to Kung and Chen, there were plenty of opportunities for non-members of the CC to join the Central Committee and not infrequently vault into the ranks of full members.

Since Kung and Chen expended much statistical firepower seeking to prove the existence of ‘entry barriers’, we would like to especially highlight the promotion pattern for alternate CC members during one term following the Party Congress. Simply put, within one term the only chance for alternate CC members to get promoted to full CC membership was to replace full members on their retirement or expulsion. Moreover, the list of inductees strictly followed the rank order of the list of CC alternate members based on the number of votes received. Thus the four alternates who filled vacancies in the Second Plenary Session of the Seventh Central Committee (Liao Chengzhi, Wang Jiexiang, Chen Boda and Huang Kecheng) ranked 1–4 on the list of alternate members. Another three (Wang Shoudao, Deng Yingchao

Table 3. Composition of the Eighth Central Committee (September 1956)

CC full members	Number	%	CC alternate members	Number	%
Total	97	100	Total	73	100
7th CC full members (FMs)	44	45.36	7th CC full members (FMs)	0	0
7th CC alternate members (AMs)	20	20.62	7th CC alternate members (AMs)	3	4.11
7th CC non-members (NMs)	33	34.02	7th CC non-members (NMs)	70	95.89
<i>Provincial experience</i>			<i>Provincial Experience</i>		
Current PFS or Governor	11	11.34	Current PFS or Governor	13	17.81
7th CC AM + provincial FPS or Governor	1	1.03	7th CC AM + provincial FPS or Governor	0	0.00
7th CC NM + provincial FPS or Governor	8	8.25	7th CC NM + provincial FPS or Governor	13	17.81

and Chen Shaomin), ranked 5, 7 and 8 respectively (Li Yu, who ranked 6, had been purged in 1950), were promoted to fill CC membership vacancies at the Seventh Plenary Session of the Seventh Central Committee in September 1956. For the Eighth Central Committee, the eight alternate members who filled vacancies on the roster of CC members during the Fifth and Eleventh Plenary Sessions of the Eighth Central Committee also ranked 1–8 on the list of alternate CC members.

If provincial leaders were paying attention to what was going on, it is hard to imagine that provincial leaders on the list of CC alternate members would be highly motivated to act aggressively by the desire to be promoted to full CC membership. If the career incentives rationale had predictive power, we would instead expect CC alternate members to take account of the patterns of promotion to full CC membership and behave cautiously and wait their turn. Because quite a few non-CC members were elevated in September 1956, we would instead expect certain non-members to be highly motivated not just to gain entry as CC alternate members but to vault into the ranks of CC full members. The realities of promotions from alternate CC membership to full CC membership prior to the Great Leap Forward thus lead us to doubt the primary Kung–Chen hypothesis that CC alternate members would be especially motivated to behave radically during the Great Leap Forward.

In addition, political radicalism appeared in a variety of guises during the Great Leap Forward and we have serious reservations about Kung and Chen's decision to use the excessive grain procurement ratio as the main proxy measure of political radicalism and thus the key dependent variable for their study and as the leading cause of the Great Leap Famine. Leaving aside the fact that grain procurement behavior was constrained by local grain productivity (which Kung and Chen control for), we note that more radical leaders might have responded to Mao's call for the Great Leap Forward more aggressively early in the game and thus precipitated sharper declines in agricultural (grain) output, thereby making it difficult to raise procurement subsequently in comparison with the pre-Leap level of grain procurement. As a result, a province that behaved radically may paradoxically not have a higher excess grain procurement ratio. For example, Li Jingquan, the Sichuan First Party Secretary, was well-known for being a zealot during the Great Leap Forward and Sichuan was one of the worst-hit provinces in the subsequent famine. Yet Sichuan's excessive grain procurement ratio, at 9.5% in 1959, was low compared with those in most other provinces, only ranking 12th among the 25 provinces in the sample. The excessive procurement ratios for Henan and Anhui, also among the worst famine-hit provinces, ranked only 23rd and 24th respectively among all provinces.

II. Empirical foundations: a question of data

Kung and Chen include empirical analyses suggesting that provincial variations in excessive grain procurement ratio—their dependent variable—are correlated with differences in the Party rank of provincial leaders. Specifically, the excess procurement ratio of provinces governed by CC alternate members was found to be about 3% higher than in those governed by full CC members, with macabre consequences for the loss of lives in the Great Leap Famine. On the basis of their analysis, Kung and Chen concluded that political rank alone would explain up to

16.83% of the excess death rate. These findings, if true, are extremely important as millions of human lives were at stake.

Given our questioning of the validity of Kung and Chen's main hypothesis about the career incentives for and motivations of the CC members, we are skeptical of the empirical findings Kung and Chen claim to have made. Before we decided to undertake an examination of their empirical analyses, we also noted a puzzling empirical fact that seemed to be at loggerheads with Kung and Chen's central argument. As Table 1 shows, CC alternate members constitute the single largest number among the FPS. Yet, contrary to the Kung and Chen article's emphasis on the role of CC alternate members in promoting radical policies, the Chinese provinces that suffered the most during the famine were actually led by First Party Secretaries who were either full members or non-members of the CCP Central Committee. Among the top ten worst-hit provinces in terms of excessive mortality rates (Sichuan, Guizhou, Anhui, Gansu, Qinghai, Hunan, Henan, Guangxi, Shandong, Yunnan), only the four provincial units of Gansu, Hunan, Guangxi and Yunnan were led by CC alternate members and these four were by no means the most radical provinces during the Great Leap Forward.

Another concern arises from an unexpected quirk of the Kung and Chen dataset. As is well known, after the Chinese leadership adopted a variety of adjustment policies, the Great Leap Famine had subsided by 1962.¹⁷ Therefore, if the Kung and Chen results were robust for the 1956–1966 period, they should be at least equally valid for the 1956–1962 period. To our surprise, when we rerun the Kung and Chen regressions on their own dataset, but using only the data for 1956–1962, most of the regression results ceased to be statistically significant as far as the Kung and Chen main hypothesis was concerned. How could it be that the Kung and Chen hypothesis was valid for 1956–1966 but invalid for 1956–1962?

These and other concerns prompted us to seek to replicate the Kung and Chen article's results. As we detail below, we conclude that the seemingly strong empirical findings in the Kung and Chen article were not robust to our re-examination but were actually driven by faulty data for the key variables *excessive procurement ratio* and *CCP rank* in the Kung and Chen dataset.

II.1. The dependent variable—*excessive procurement ratio*

The Kung and Chen study uses *excessive grain procurement ratio* as the proxy measurement of provincial leaders' political radicalism. According to Appendix 2 of the Kung and Chen article, the formulaic expression of excessive procurement ratio (*EPR*) is given as

$$EPR_{it} = NPR_{it} - APR_i = NPR_{it} - \frac{1}{3} \sum_{t=1955}^{1957} NPR_{it} \quad (1)$$

where i indexes a province, t indexes a year, *NPR* denotes net procurement ratio and *APR* denotes average procurement ratio. They also use *GPR* to denote the gross grain

17. Yang, *Calamity and Reform in China*.

procurement ratio. Hence:

$$NPR_{it} = \frac{AT_{it} + TPG_{it} - RG_{it}}{TGO_{it}}, \text{ while } GPR_{it} = \frac{AT_{it} + TPG_{it}}{TGO_{it}} \quad (2)$$

where AT stands for agricultural tax, TPG stands for total or gross grain procurement, RG grain resale (or subsidy) to the countryside, and TGO total grain output.

We follow the above formulae and collect the relevant grain production and procurement data from exactly the same source as mentioned in the Kung and Chen article in order to rebuild the dataset, namely the *Materials on the Agricultural Economy 1949–1983*.¹⁸ We present our reconstructed excessive procurement ratio (EPR) data in a separate Appendix 1 alongside those from the Kung and Chen dataset. Appendix 1 indicates that the excessive procurement ratio (EPR) data in the two datasets match for eight provinces (Anhui, Guangxi, Hunan, Hebei, Hubei, Heilongjiang, Qinghai and Sichuan) but, to our surprise, there are significant differences for the rest of the provinces.¹⁹

In Table 4, we include the excessive procurement ratio data points where there are significant differences between the Kung and Chen dataset and our reconstructed data as well as the Party rank for the relevant provinces. We note that the Kung and Chen EPR numbers for certain provinces led by FPSs who were alternate CC members (Gansu, Henan, Jilin, Shaanxi, Shanxi, Yunnan) tend to be significantly higher than ours and those for provinces governed by CC full members and non-members (Inner Mongolia and Ningxia) tend to be lower than ours.

II.2. The key independent variable—Party rank

The career incentives framework in the Kung and Chen article also requires quality data on the ranking of Chinese provincial officials (Party rank data). As is common in studies of Chinese elites, Kung and Chen code the ranks of officials from various biographical sources but we have found the Party rank data in the Kung and Chen dataset contain some coding errors that detract from the quality of their analyses. These coding errors fall into three categories.

(1) Data imputing errors and confusion

The Kung and Chen Party rank data appear to contain multiple data imputing mistakes that could have been avoided with greater care. Take Hebei province (denoted as $pro = 9$ in the KC dataset), for example. According to the *Organizational History Material of Communist Party of China* (中国共产党组织史资料) and corroborated by other sources, Lin Tie (林铁) served as the FPS of Hebei from July

18. Kung and Chen, 'The tragedy of the *nomenklatura*', p. 35.

19. In private communication, Kung and Chen did not show us how they generated their data on the extra grain procurement ratio but graciously offered that their data on this variable contained data entry errors and also comingled data from the *Statistical Compendium on Fifty-five Years of New China, 1949–2004* [新中国55年统计资料汇编]. After making corrections, they provided us with revised data on the extra procurement ratio that is strikingly similar to what we have reconstructed using *Materials on the Agricultural Economy 1949–1983*. Appendix 1 is available at: www.daliyang.org.

Table 4. Comparing excessive procurement ratio data: major differences between Kung/Chen and reconstructed data

Year	Province code	Province name	FPS name	Party rank–KC	Extrap	Extrap–KC
1960	1	Gansu	张仲良	1	-7.301	3.313
1961	1	Gansu	汪锋	1	-8.192	3.410
1962	1	Gansu	汪锋	1	-11.521	-3.533
1963	1	Gansu	汪锋	1	-11.439	-1.450
1964	1	Gansu	汪锋	1	-7.205	-1.198
1965	1	Gansu	汪锋	1	-8.204	-0.202
1966	1	Gansu	汪锋	0	-9.372	-3.384
1962	8	Henan	刘建勋	1	-3.406	-1.406
1963	8	Henan	刘建勋	1	-9.763	-0.763
1964	8	Henan	刘建勋	1	-12.641	-0.641
1965	8	Henan	刘建勋	1	-5.133	-1.133
1965	11	Jilin	吴德	1	-5.097	0.102
1960	12	Inner Mongolia	乌兰夫	2	0.731	-1.931
1964	16	Ningxia	杨静仁	0	-3.554	-7.179
1961	17	Shaanxi	张德生	1	3.727	4.218
1960	19	Shanxi	陶鲁笏	1	-0.281	1.274
1961	19	Shanxi	陶鲁笏	1	3.175	4.135
1965	20	Yunnan	阎红彦	1	-3.674	1.672
1966	20	Yunnan	阎红彦	1	-0.864	0.866
1963	21	Liaoning	黄火青	1	8.436	3.139
1958	24	Shandong	舒同	2	-0.522	3.148
1965	24	Shandong	谭启龙	1	-0.873	-1.567

Note: ‘Extrap–KC’ is the extra procurement ratio in the Kung and Chen dataset. ‘Extrap’ is the excessive procurement ratio data we reconstructed. ‘Party rank–KC’ is the political rank of the FPS as coded by Kung and Chen (2 stands for CC full membership; 1 for alternate membership; 0 for non-membership). Only the most significant differences are shown here. The full comparison is in the appendix.

1949 to August 1966. Therefore there was no turnover of the Hebei FPS during this period. Yet the information for the variables *CCP rank*, *age*, *years of Party standing* in the Kung and Chen dataset appear to include two turnovers in Hebei FPSs: from a CC non-member in 1956 to a CC alternate member in 1957 and a non-member again in 1960. Meanwhile, the age and Party standing (i.e. years of having been a CCP member) of several FPSs, especially for the provinces of Gansu, Guizhou, Shaanxi and Shanxi, were also inaccurate.²⁰

A similar issue pertains to the coding of promotions. There is confusion of how to code those who rose from being non-members to full or alternate CC memberships in the Eighth Central Committee in September 1956. Kung and Chen coded Jiang Weiqing in Jiangsu, Lin Tie in Hebei, Pan Fusheng in Henan and Wu De in Jilin as

20. The Party standing of Wang Feng in Gansu (1961, pro = 1) was off by four years. The age and party standing of Jia Qiyun in Guizhou were off by 11 and 14 years, respectively (1965–1966, pro = 3). The party standing of Zhang Desheng in Shaanxi (1956, pro = 17) was off by seven years. The age and party standing of Wei Heng in Shanxi (1965–1966, pro = 19) were off by eight and three years.

non-members for 1956, and the rest (12) as either full or alternate CC members as of September 1956. In retesting the Kung and Chen thesis, we follow Kung and Chen's main coding pattern and code all of these appointments by their membership status as of September 1956.

While most of the CC alternate members in the sample were inducted during the first plenary meeting of the Eighth CCP Central Committee in 1956, several did not attain their alternate CC member status until the Second Plenary Session of the Eighth National Party Congress (八大二次会议) in 1958: Zhang Zhongliang in Gansu (1956–1957; pro = 1), Liu Jianxun in Guangxi (1957; pro = 5), Zhou Xiaozhou in Hunan (1956–1957; pro = 7), Wang Renzhong in Hubei (1956–1957; pro = 10) and Tao Lujia in Shanxi (1956–1957; pro = 19). These five cases should obviously be coded as non-members for 1956 and 1957 yet the Kung and Chen dataset coded them as alternate members for 1956 and 1957.

Another interesting observation is Ningxia, which was incorporated into Gansu Province on 19 June 1954 (with a portion going into Inner Mongolia) and did not regain its status as a separate provincial unit (autonomous region) until 25 October 1958. The FPS of the new Ningxia was Wang Feng (汪锋), who served from 1958 to 1961. For 1956–1958, because Ningxia was part of Gansu, it would have been logical to treat Zhang Zhongliang, then the FPS of Gansu, as the FPS of Ningxia as well. However, somehow the Kung and Chen dataset had Wang Feng as the FPS of Ningxia from 1956 to 1958, even though he was then still working in Beijing.

(2) *Data inconsistency and mix-up*

In a variety of cases, the Kung and Chen dataset appears to have mixed up information for different individuals. For example, there was a turnover from Zeng Xisheng to Li Baohua in Anhui (pro = 2) in 1962 but the age and Party standing data for Anhui were not modified accordingly and remained those for Zeng. There are similar problems for Hunan (1959, 1966, pro = 7), Henan (1961, 1966, pro = 8), Hubei (1966, pro = 10), Inner Mongolia (1966, pro = 12), Jilin (1966, pro = 11), Shandong (1961, pro = 24) and Yunnan (1959, pro = 18).

(3) *Coding rules for leadership turnovers*

Over the period covered by the Kung and Chen dataset, there were leadership turnovers in most provinces. Whenever a turnover occurs in a province, it means that there was more than one FPS who served in the province that year and this poses a challenge for data coding because with annual data (rank*province*year) each province can only count one FPS in any calendar year. This means we need to have a clear coding rule for political turnovers. Different coding rules can result in data variations that affect the results of empirical analyses.

The Kung and Chen article did not spell out the criteria for coding such turnovers and we did not seem to find an implicit and consistent rule from examining the Kung and Chen dataset. For example, in Henan Wu Zhipu replaced Pan Fusheng as the FPS in August 1958 and Kung and Chen recorded Pan as the observation for the year. This seemed to be the logical choice as Pan served in the province for most of the year. Yet if we follow this pattern in recording turnovers, it would be hard to explain how the

Kung and Chen dataset recorded the turnovers that took place in late 1966 in Gansu and in October 1964 in Guizhou. In these cases, they picked the successors Hu Jizong and Li Dazhang as the observations, even though Hu and Li were in their posts briefly in these years.

To ensure consistency in coding turnovers, we adopt the following rules in rebuilding the Party rank data: (1) there can be only one provincial Party Secretary for each province-year observation; (2) if there was a turnover in a year, the Party Secretary coded for that year is the one who served as Party Secretary for more than six months in that year; (3) if there were multiple turnovers in a year and no leader stayed for over six months, we code the Party Secretary with the longest duration of service during that year. These are imperfect rules but at least we can maintain consistency in coding.

III. Hypothesis retesting: the main regressions of the Kung and Chen article

The main regression results in the Kung and Chen article can be found in their [Tables 4 and 5](#). Because of the number of discrepancies and inaccuracies we have uncovered with the data for the main variables, we shall proceed with the replication and retesting process in two steps.

First, we reran the main regressions in the Kung and Chen article by only correcting the most obvious inaccuracies in the Kung and Chen dataset. For this, we use the corrected data for the *excessive procurement ratio*. In the case of the *CCP Party rank* variable, we correct only the most obvious data imputing errors and the inaccurate observations for the CC alternate members who attained their CC alternate membership status in 1958 (*zengxuan* alternate members). Following these corrections to the dataset, we report the rerun regression results, in the same format as in the Kung and Chen article, in [Table 5a](#). We find that the coefficients for the key independent variable AM, standing for alternate membership, are now statistically insignificant in all but one of the regressions. We also find no evidence showing that there exist significant differences between AMs and NMs.

In our next step, in addition to the corrections implemented in the last step, we also adjust the data for the Party rank variable following the coding rules we have enumerated. The amended regression results are presented in [Table 5b](#). Again we are unable to reproduce the regression results linking political rank to the excessive procurement ratio.

[Table 5](#) in the Kung and Chen article purportedly controls for the ‘personalities’ of the provincial First Party Secretaries as well as their ages and their lengths of tenure in the Party. With our corrected dataset, we also reran the relevant regression analyses and present the results in our [Table 6](#). Yet again we were unable to generate the sort of statistically significant relationships between the alternate CC membership and the excessive procurement ratio.

Because the Great Leap Famine had subsided by 1962, it is possible that the regression results are sensitive to the time period used for regression analysis. Kung and Chen use the 1956–1966 time period and our tests so far have also covered the same period. Yet the results may be different if the post-famine years (1962–1966) are excluded. In [Table 7](#), we further run a two-way fixed effects estimation to

Table 5a. Two-way, fixed-effects model: replication of Kung and Chen Table 4: Version 1

Dependent variable: excessive procurement ratio	(1)	(2)	(3)	(4)	(5)	(6)	(7)
A province's FPS was							
NM	1.472 (1.425)	0.641 (1.661)	1.298 (1.682)	1.181 (1.638)	1.613 (1.760)	1.120 (1.707)	-0.260 (1.556)
AM	1.273 (1.136)	2.103* (1.227)	1.527 (1.201)	1.534 (1.182)	1.787 (1.241)	1.699 (1.223)	1.315 (1.053)
A province's governor was							
NM					-1.814 (2.235)	-1.402 (2.165)	-1.749 (1.621)
AM					-2.013 (2.591)	-1.346 (2.554)	1.356 (1.638)
PM							-1.742 (2.386)
MAG		8.275** (3.626)	11.97*** (3.931)	9.144** (3.914)	8.932** (3.939)	8.793** (4.048)	3.573 (2.864)
NDCs			-0.0739** (0.0289)	-0.0588** (0.0285)	-0.0579** (0.0286)	-0.0609** (0.0302)	0.0223 (0.0389)
GDP per capita (log)				9.800*** (3.579)	9.302** (3.649)	8.691** (3.956)	0.939 (1.610)
Proportion of agricultural income				0.133** (0.0657)	0.136** (0.0662)	0.0662 (0.0735)	-0.0157 (0.0652)
Agricultural satellites/number of communes						0.983*** (0.309)	-0.141*** (0.0312)
Share of cadres with CCP membership							-18.42 (16.76)
Constant	-3.503*** (1.108)	-47.63** (19.53)	-66.49*** (21.07)	-109.5*** (25.40)	-104.5*** (26.28)	-88.40*** (30.23)	
Observations	264	216	196	196	196	174	125
R-squared	0.496	0.547	0.513	0.546	0.548	0.623	0.550
Number of provinces	24	24	24	24	24	24	
P value of AM = NM	0.847	0.271	0.871	0.802	0.904	0.686	0.276

Notes: Reference group is full member (FM) of the Central Committee. Standard errors in parentheses. NM, non-member; AM, alternate member; MAG, two-year moving averages of per capita grain output; NDC, natural disaster calamity. Following Kung and Chen, provincial fixed-effects are not controlled in regression (7).

* Significant at 10%; ** significant at 5%; *** significant at 1%.

Table 5b. Two-way fixed-effects model: replication of Kung and Chen Table 4: Version 2

Dependent variable: excessive procurement ratio	(1)	(2)	(3)	(4)	(5)	(6)	(7)
A province's FPS was							
NM	2.164 (1.513)	0.624 (1.921)	0.876 (1.938)	0.712 (1.886)	1.132 (2.016)	0.890 (1.957)	-0.260 (1.556)
AM	1.527 (1.144)	2.127* (1.230)	1.501 (1.239)	1.637 (1.218)	1.963 (1.294)	1.930 (1.286)	1.315 (1.053)
A province's governor was							
NM					-1.869 (2.242)	-1.569 (2.170)	-1.749 (1.621)
AM					-2.240 (2.605)	-1.663 (2.557)	1.356 (1.638)
PM							-1.742 (2.386)
MAG		7.699** (3.612)	11.58*** (3.930)	8.675** (3.913)	8.364** (3.943)	8.169** (4.053)	3.573 (2.864)
NDCs			-0.0747** (0.0288)	-0.0596** (0.0284)	-0.0581** (0.0286)	-0.0623** (0.0299)	0.0223 (0.0389)
GDP per capita (log)				10.08*** (3.588)	9.601*** (3.644)	8.861** (3.941)	0.939 (1.610)
Proportion of agricultural income				0.132** (0.0653)	0.134** (0.0658)	0.0665 (0.0726)	-0.0157 (0.0652)
Agricultural satellites/number of communes						0.986*** (0.307)	
Share of cadres with CCP membership							-0.141*** (0.0312)
Constant	-3.818*** (1.125)	-44.42** (19.70)	-64.33*** (21.00)	-108.6*** (25.27)	-103.0*** (26.14)	-85.90*** (30.03)	-8.450 (16.57)
Observations	264	216	196	196	196	174	125
R-squared	0.498	0.547	0.513	0.547	0.549	0.624	0.550
Number of provinces	24	24	24	24	24	24	24
P value of AM = NM	0.574	0.354	0.710	0.577	0.624	0.537	0.276

Notes: Reference group is full member (FM) of the Central Committee. Standard errors in parentheses. Following Kung and Chen, provincial fixed-effects are not controlled in regression (7).

* Significant at 10%; ** significant at 5%; *** significant at 1%.

Table 6. Replication of Table 5 in Kung and Chen: two-way, fixed-effects model: controlling for personality and individual characteristics

Dependent variable: excessive procurement ratio	(1)	(2)
A province's FPS was		
NM	-1.188 (2.440)	-1.334 (3.276)
AM	1.624 (1.493)	2.962 (2.848)
Two-year moving averages of per capita grain output (MAG)	9.717** (3.944)	11.26*** (4.167)
NDCs	-0.0673** (0.0283)	-0.0735** (0.0286)
Income per capita (log)	9.828*** (3.620)	9.872** (4.192)
Age of FPS	0.347 (0.302)	-0.253 (0.550)
FPS Party age (years of party membership)	-0.447 (0.287)	-0.173 (0.468)
Constant	-114.7*** (28.36)	-100.3*** (34.41)
FPS personality control	N	Y
Observations	196	196
R-squared	0.542	0.593
Number of provinces	24	24
P value of AM = NM	0.145	0.162

Notes: Reference group is full member (FM) of the Central Committee. Standard errors in parentheses.
* Significant at 10%; ** significant at 5%; *** significant at 1%.

estimate the impacts of provincial FPS Party rank on excessive mortality rate for 1958–1962 and 1956–1966, respectively. We controlled for provincial income per capita, grain output per capita, rural population share as well as year and provincial dummies. The regression results show that Party rank had no statistically significant impact on excessive mortality rate.

IV. Personal loyalty, political radicalism and the incidence of famine

Whereas we have shown that the available evidence fails to sustain the Kung and Chen proposition that CC alternate members were more radical during the Great Leap Forward than full members and non-members, we do not rule out that there might be other manifestations of political machinations at work among the provincial elites. In fact, we suspected that the key to unlocking the dynamics of political radicalism among the provincial elites lay in the promotions that were engineered in 1956 and 1958 and the factors that determined such promotions.

Our hypothesis, which we shall develop more fully elsewhere, can be summarized as follows. A master political strategist, Mao Zedong is well known for having maneuvered his key supporters (or forces) into strategic positions before pursuing major new campaigns, be they major battles during the Civil War or the Cultural

Table 7. Party rank and excessive mortality rate: two-way fixed effects estimation

	(1)	(2)	(3)	(4)	(5)	(6)
	Excessive mortality rate as dependent variable					
		1958–1962			1956–1966	
NM	–1.585 (7.666)	–1.123 (7.823)	1.828 (10.23)	–0.899 (1.963)	–0.646 (1.958)	–0.138 (2.105)
AM	–2.179 (3.787)	–2.302 (3.904)	–1.791 (4.202)	–2.063 (1.379)	–2.051 (1.371)	–1.552 (1.451)
Per capita grain output (log)		0.849 (7.809)	3.698 (9.245)		–6.034* (3.258)	–3.506 (4.042)
Rural pop share		0.249 (0.375)	0.161 (0.403)		0.271 (0.195)	0.207 (0.218)
Income per capita (log)			–7.938 (7.813)			–6.081 (4.036)
% of areas affected by natural disaster			0.00756 (0.0620)			0.0241 (0.0328)
Constant	2.354 (2.931)	–22.91 (50.67)	7.546 (60.63)	0.714 (1.454)	12.31 (24.32)	32.43 (30.03)
Observations	125	125	119	275	275	256
R-squared	0.415	0.418	0.421	0.435	0.447	0.451
Number of provinces	25	25	25	25	25	25
P value of NM = AM	0.927	0.859	0.696	0.447	0.359	0.405

Notes: Reference group is full member (FM) of the Central Committee. Standard errors in parentheses.
* Significant at 10%; ** significant at 5%; *** significant at 1%.

Table 8. Provincial leader promotion patterns and performance during the Great Leap Forward

	Number	Change in grain output, 1959 over 1958 (%)	Mess hall participation rate in 1959 (%)	Excess mortality rate 1958–1961 over 1955–1957 (‰)
All provinces	25	–5.73	64.67	20.36
PRPs	11	0.45	54.85	12.54
PSPs	14	–10.57	72.39	26.50
PSPs minus PRPs		–11.02	17.55	13.95
P value of PSPs–PRPs = 0		0.048	0.095	0.187

Notes: PRPs: provinces where the First Party Secretaries were promoted to the Central Committee through regularized processes. PSPs: provinces where the First Party Secretaries received ‘special’ promotions.

Revolution.²¹ Because Mao had shown displeasure with key Party officials in charge of agricultural policy prior to the launching of the Great Leap Forward,²² we expect Mao to have appointed his followers/supporters to various important posts in order to

21. MacFarquhar and Schoenhals, *Mao's Last Revolution*.

22. Teiwes and Sun, *China's Road to Disaster*; Yang, *Calamity and Reform in China*, ch. 2.

better realize his own policy vision. Since network-based reference and historical ties offer exclusive opportunities for ex-ante screening and information advantage, local officials with strong network ties to the incumbent leader would be at a distinct advantage. Motivated by loyalty to the incumbent leader and by the higher likelihood of promotion, local officials bearing network ties to Mao would tend to behave more radically.

As we noted earlier, 33 of the 97 CC full members on the Eighth Central Committee, chosen in September 1956, had not served as alternate members previously but were catapulted from outside the Central Committee to full CC membership. Moreover, rather than waiting until the Ninth Central Committee, Mao maneuvered to induct an additional 25 new CC alternate members amid the Great Leap Forward at the Second Plenary Session of the Eighth Central Committee held in May 1958. Of the people who received special promotions were a remarkable 14 of the 25 provincial First Party Secretaries in our sample.

Table 8 tabulates the differential performance patterns in two kinds of provinces, those where the provincial First Party Secretaries received their CC promotions through the regular processes (PRP) and those where the provincial First Party Secretaries received special promotions in 1956 and 1958 (PSP). As can be seen, in the PSPs the rate of participation in communal dining halls in 1959 was on average 17.55 percentage points higher than in PRPs and their grain output declined by an average 11 percentage points more in the same year. In other words, there was a clear pattern of special promotions in the late 1950s and a positive correlation between that promotion pattern and political radicalism afterwards. We suggest that the differential radicalism contributed to the significant differences in excess mortality rates in the two types of provinces.

In a separate article, we undertake various statistical tests to demonstrate that ‘special promotions’ is a key correlate to the patterns of radicalism and the incidence of the Great Leap Famine in China’s provinces. More interestingly, those who received special promotions were mostly those who had historical ties to Mao, namely, those who belonged to Mao’s personal networks.

V. Discussion and conclusion

Even though the Great Leap Forward is well known for having caused the worst famine in human history, it has received only a modest amount of attention from social scientists. Indeed, for historians and political scientists who have studied China during the Mao era, the Great Leap Forward and the Cultural Revolution seem to challenge ‘the limit of the explanatory power of the theory of rational choice’.²³

By applying the career incentives logic to the study of the political dynamics leading to the Great Leap Famine, James Kung and Shuo Chen have made a serious effort to explain the behavior of Chinese provincial officials during the Great Leap Forward through the rational lens of modern political economy.

Our re-examination of the foundations of their study leads us to conclude that neither their basic assumptions about the motivations facing the top provincial

23. Tsou, ‘Interpreting the revolution in China’, p. 233.

officials at the time of the Great Leap Forward nor the empirical foundations on which they generated their empirical results are robust enough to stand up to careful scrutiny. Our review of the patterns of promotions to the Central Committee leading up to the Great Leap Forward show that the promotions from CC alternate members to full members followed certain patterns and on the basis of these patterns it is hard to support the hypothesis that the CC alternate members would be especially motivated to behave more radically during the Great Leap Forward than the CC full members and non-members. Contrary to their assertion on the existence of major barriers for non-members to move into the Central Committee, we can point to significant opportunities for non-members to join the Central Committee as both full and alternate members in the years leading up to the Great Leap Forward.

Having cast doubt on Kung and Chen's assumptions regarding the motivations of China's provincial leaders, we have strong reasons to suspect that the statistical findings generated by Kung and Chen were not warranted. This prompted us to go back to the same sources as they had used to reconstruct the data. In the process, we find that the Kung and Chen dataset required significant adjustments for errors, inaccuracies and inconsistencies, especially for the main independent variable (Party rank) and the dependent variable (extra procurement ratio).

Rerunning the main Kung and Chen regressions using the corrected dataset, we are unable to reproduce the statistically significant results indicating CC alternate members had stronger incentives than both full members and non-members to pursue the radical policies associated with the Great Leap Forward, particularly on grain procurement. Neither do we find the non-members of the CC more radical than the CC members.

Implicit in Kung and Chen's theoretical framework is the more general thesis of 'tournament competition' that has recently gained currency in studies of China's political economy. This thesis holds that provincial officials can be motivated by the desire for promotion to achieve the targets set by the central leadership.²⁴ For Kung and Chen, it was the incentives for promotion that would allegedly cause some political leaders to behave more radically than others during the Great Leap Forward. The key issue here is the direction of causality. Students of Chinese politics have long noted the importance of patron–client relations in Chinese politics.²⁵ In the reform era, patrons might send their favored clients to regions with high growth potential so that the clients can gain valuable credentials for higher positions and often provide more resources to the clients so that the latter can perform better. Without considering the factional ties in Chinese politics, the 'tournament competition thesis' may fail to capture the complex reality of Chinese politics. In the case of the Great Leap Famine, what we do find is that the pattern of political radicalism among provincial leaders is strongly linked to the pattern of special promotions Mao engineered in 1956 and 1958. Those provincial leaders who received special promotions were already in Mao's network and the special promotions put them further in Mao's debt.

24. Li and Zhou, 'Political turnover and economic performance'.

25. Andrew Nathan, 'A factionalism model for CCP politics', *The China Quarterly* 53, (1973), pp. 33–66; Victor Shih, Christopher Adolph and Mingxing Liu, 'Getting ahead in the Communist Party: explaining the advancement of Central Committee members in China', *American Political Science Review* 106(1), (2012), pp. 166–187.

Consequently, when Mao promoted his messianic vision during the Great Leap Forward, those provincial leaders became the most enthusiastic promoters in the provinces and their radicalism resulted in higher excess mortality. Our evidence thus not only leads us to give more weight to Mao's machinations in launching and sustaining the Great Leap Forward and thus the role of Mao and his provincial agents in causing the most deadly famine in history, but also sheds light on the impact of political networks on official promotions, political behavior and social/economic outcomes in China during the Great Leap Forward.