USC Seminar Series No. 9

The 1989 Democracy Movement in China

A Preliminary Spatial Analysis

James Tong

香港亞太研究所
Hong Kong Institute of Asia-Pacific Studies
The Chinese University of Hong Kong
Shatin, New Territories
Hong Kong

The 1989 Democracy Movement in China

A Preliminary Spatial Analysis

James Tong

Hong Kong Institute of Asia-Pacific Studies
The Chinese University of Hong Kong
Shatin, New Territories
Hong Kong

About the Author

James W. Tong is an Associate Professor at the Department of Political Science at the University of California, Los Angeles, and the Associate Editor of *Chinese Law and Government*. He got his Ph.D. from the University of Michigan, and taught at the Michigan State University and the California Institute of Technology. He is a consultant for a World Bank project on decentralization in China, and an Asian Development Bank project on development strategies in Guangdong, Yunnan, and Liaoning.

His current research projects include a comparative survey on political culture and participation in China, Taiwan, and Hong Kong; central-provincial fiscal relations in China; the 1989 Democracy Movement in China; inter-state wars in the Spring-Autumn and Warring States periods in China; and peasant rebellions in China from 221-1279.

He is author of *Disorder Under Heaven: Rebellions And Banditry In The Ming Dynasty, 1368-1644* by Stanford University Press, 1991, a study which received the 1986 American Political Science Association's Gabriel Almond Best Dissertation Award in Comparative Politics, and nominated for the Joseph Levenson Best Book Prize in Pre-Twentieth Century China for 1993.

ISBN 962-441-709-1

The 1989 Democracy Movement in China:

A Preliminary Spatial Analysis

About the USC Seminar Series

The Universities Service Centre (USC) was established in Hong Kong in 1963 by a group of Western scholars to facilitate the study of China. In the 1960s and 1970s, the Centre served as the main research base in the field for several generations of China scholars.

In the spring of 1988, the American Council of Learned Societies (ACLS), which had managed the Centre since 1971, and The Chinese University of Hong Kong (CUHK) reached an agreement to transfer the responsibility and ownership of the USC to the university. Thus, in that summer, the Centre was moved to expanded and upgraded quarters on the campus of CUHK.

Although field research is possible in China today, the Centre's library remains the most convenient base for documentary analysis. It is also useful as a station for supplementing field work in China. The Centre currently subscribes to 372 newspapers and more than 1,600 periodicals from Mainland China. One unique strength of the collection is a complete set, in bound hard copies, of major national and provincial newspapers published in China since the late 1940s. Other special materials include a complete set of provincial yearbooks and statistical compendia as well as an outstanding collection of local periodicals. Many of them are not found in most overseas collections on China.

The Chinese University of Hong Kong is committed to developing the Centre into a first-rate research library on contemporary China, open to scholars from all over the world. The Centre also assists them in applying for visas to Hong Kong, looking for accommodation, hiring research assistance, and so on.

In 1990, the Centre established the Academic Visitors Programme with a startup donation from the Henry Luce Foundation. The USC Seminar Series was subsequently introduced to publish seminars presented by some visiting scholars. Since the end of 1993, the Academic Visitors Programme and the USC Seminar Series have been financed by the South China Programme of the Hong Kong Institute of Asia-Pacific Studies. We thank Dr. Cheng Yu-tung and Dr. Lee Shau-kee for their generous donations which enabled the establishment of the South China Programme in 1991.

The 1989 Democracy Movement in China

A Preliminary Spatial Analysis

James Tong

Abstract

Using an official chronology of the 1989 Democracy Movement, as well as other compilations outside China, this paper is a preliminary attempt to analyze participation in the movement across China's 434 cities and over the 56 day period. Three main measures of mobilization are used to specify the level of participation, including (1) the number of days of demonstrations in the given city; (2) its date of first entry; (3) mobilization in number of participants.

These measures identify three peaks in the movement, the first on April 27th after the *Renmin ribao* editorial condemning the movement as turmoil was published, and on May 4th, the Seventieth Anniversary of the first nationwide student movement in China. The third peak surged during the Hunger Strike from May 13th-19th, when record highs of all the three measures were made.

We have also undertaken a cross-sectional analysis of China's 6 regions, 30 provincial units, and 434 cities attempting to differentiate the defiant units from the compliant ones, the leaders from the laggards, and the more persistent from the intermittant demonstrators. We have found no clear pattern on the regional level, considerable differences among the provinces, and notable variations across the cities. National and provincial capitals, size of the agricultural urban population, number of college students, the number of weekly flights from Beijing, and the level of commercialization prove to be the most potent socio-economic correlates of the level of mobilization across China's 434 cities.

Introduction

Conceived in fury and consumed by fire, the 1989 Democracy Movement is a watershed in the history of China and the communist world.[1] In its wake, many journalistic compilations have recorded this epic in photo and print, while research monographs have analyzed the why and wherefore of China's darkest night and finest hour. Elsewhere, we have also collected original documents to capture the righteous anger of the students in April, their heady euphoria in May, their stoic martyrdom in June.[2] In this paper, we do not intend to elaborate on our previous work or those so ably undertaken by others. Rather, we will attempt a more dispassionate analysis of variations in mobilization across China's regions, provinces, and cities as well as over time in the Democracy Movement.

Research Query

The main focus of this paper addresses the question why collective action emerged in some cities, provinces and regions but lay dormant in others, why some locales became leaders in the movement while others remained laggards, and why some were revolutionary hotbeds while others were only lukewarm hosts. It attempts to analyze systematic structural factors that can account for variations in the presence, magnitude, and intensity of collective action. It is a preliminary empirical effort, driven by our belief that description precedes explanation, and systematic observation is a necessary first task in theory building. In subsequent analyses, we will attempt more elaborate theory-informed investigations.

We begin with the observation that there were substantial variations across China's cities during the Democracy Movement. If we use official figures compiled by the Education Commission,[3] college students in over 600 institutes of higher education in 84 cities in China have participated in the movement. If we accept the veracity of these figures, that would imply that around four-fifths of China's 434 cities[4] did not participate in the movement. As will soon be evident, we have also identified considerably more reports of demonstrations in other cities.

Our first descriptive question then, is to identify the cities that have student demonstrations in contrast to those that have not. Among the contentious cities, however, Beijing saw demonstrations everyday for the entire period, while other cities had shorter, or even fleeting encounters. Some were leaders who were present at the movement's creation, while others were laggards who jumped onto the bandwagon only at the movement's high noon or even its eleventh hour. Clearly then, we need to further differentiate those cities where the student demonstrations originated and those to which they spread, as well as the various levels of student participation among these cities.

In this paper, our first set of research task is to specify variations in the level of participation in the Democracy Movement in China's 434 cities. Four related measures will be used. A ***presence*** measure will indicate whether or not there were reported demonstrations in the given city during the entire tenure of the movement. A second measure calibrates the ***magnitude*** of participation in terms of the number of days the given city has reported demonstrations. A third ***sequence*** measure examines the city's entry date in the movement, when its first reported occurrence of demonstrations took place. A fourth ***intensity*** measure counts the number of persons participating in the event in the given city. The use of multiple measures is designed to reduce the effects of problem data and reporting bias, to enable us to examine the internal validity among various measures, and to provide different analytical handles to investigate a multi-dimensional problem.

Using these measures, we will first present an overview of the macro temporal and spatial temporal distribution of the Democracy Movement. Here we will divide the entire movement into main stages separated by critical events, noting the peaks and troughs as the movement gathers and loses momentum. Next, we will analyze its spatial distribution, to see whether or not any discernible pattern exists on the regional and provincial levels. This will be followed by an analysis of the defiant cities, relating their level of participation to their administrative status, size of urban and college student populations, level of commercialization, and extent of communication with Beijing.

Data Sources

For data on the four measures of participation in the Democracy Movement among the 434 cities, three separate sources will be used. Aside from the chronology compiled by the Education Commission noted earlier, we will also use the *Daily Report: People's Republic of China*, which transcribes the national and provincial radio broadcasts of China. Our third source is *Shue yu huo de zhenxiang* [The Truth of Fire and Blood], a 1,000 page documentary on the movement, compiled by the Institute for the Study of Chinese Communist Problems in Taipei.[5] Data sources on socio-economic variables for China's 434 cities are collected from the 1989 edition of *Zhongguo chengshi tongji nianjian* [China's Urban Statistical Yearbook], *Zhongguo chengshi jingji shehui tongji nianjian* [China Urban Economic and Social Yearbook] and other statistical yearbooks, which list the 1988 figures.

We suspect that the quality of the data is uneven. We are less disturbed by the data on socio-economic variables like urban population, telephones per capita, the number of colleges and their student population. While they may not be very accurate, we believe the direction of their bias is not systematic, and an examination of inter-serial correlation with related measures can identify reliability and validity problems. We are, however, less confident with the data on various measures of mobilization, especially with the size of demonstrations and protest rallies. As with reports of collective action events in other spatial-temporal domains, chroniclers have not always been discriminate in differentiating bystanders from demonstrators. Some events in cities in the interior, where foreign reporters were rarely present and domestic media might not choose to report, probably remain fugitives in our data set. Where possible, we will use multiple measures to reduce the effects of source bias, and employ statistical procedures that are less sensitive to problem data.

The Temporal Pattern

Temporal Variations

In this section, we will present the broad temporal pattern of the Democracy Movement. We will use April 15th, the day that the official media announced the death of former Party Secretary-General Hu Yaobang as the first day of the movement. We have considered various end dates of the movement from June 4th to June 24th. As the date marking the bloody suppression of the movement in Beijing, June 4th has become the synonym of the event. An alternative end date was June 24th, the closing date of the 4th Plenum of the 13th Party Congress of the CCP that officially relieved Zhao Ziyang of all party positions and promoted Jiang Zemin to be the top Party leader.[6] We have opted for a less legalistic alternative, using June 9th as the end date of the movement for our present analysis. Using an earlier date would not capture the many demonstrations and rallies in protest of the Tiananmen crackdown. Using a later date would not have yielded significantly more collective action since order was basically restored both in the Capital and the provinces.

Figures 1-A to 1-C chart the temporal distribution of the movement over the 56 days from April 15th to June 9th, using (1) the number of cities reporting demonstrations, (2) the number of cities reporting their ***first*** occurrence of demonstrations, and (3) total reported mobilization in number of participants as three measures of mobilization. We note that these three measures are highly correlated — 0.90 for the first two measures, 0.80 for the second and third, and 0.84 for the first and third measures. Data for these three measures are listed in Appendix 1.

Three Peaks of the Movement

As can be seen from Figures 1-A to 1-C, three peaks of the movement can be noted before the hunger strike in mid-May. A week into the movement, the number of cities that had rallies and demonstrations swelled to 12, with total reported mobilization making a record high of over 400,000 on April 22nd.[7] The same day saw extensive television coverage for the official memorial service

Figure 1-A: Number of Cities Involved from April 15 to June 9, 1989

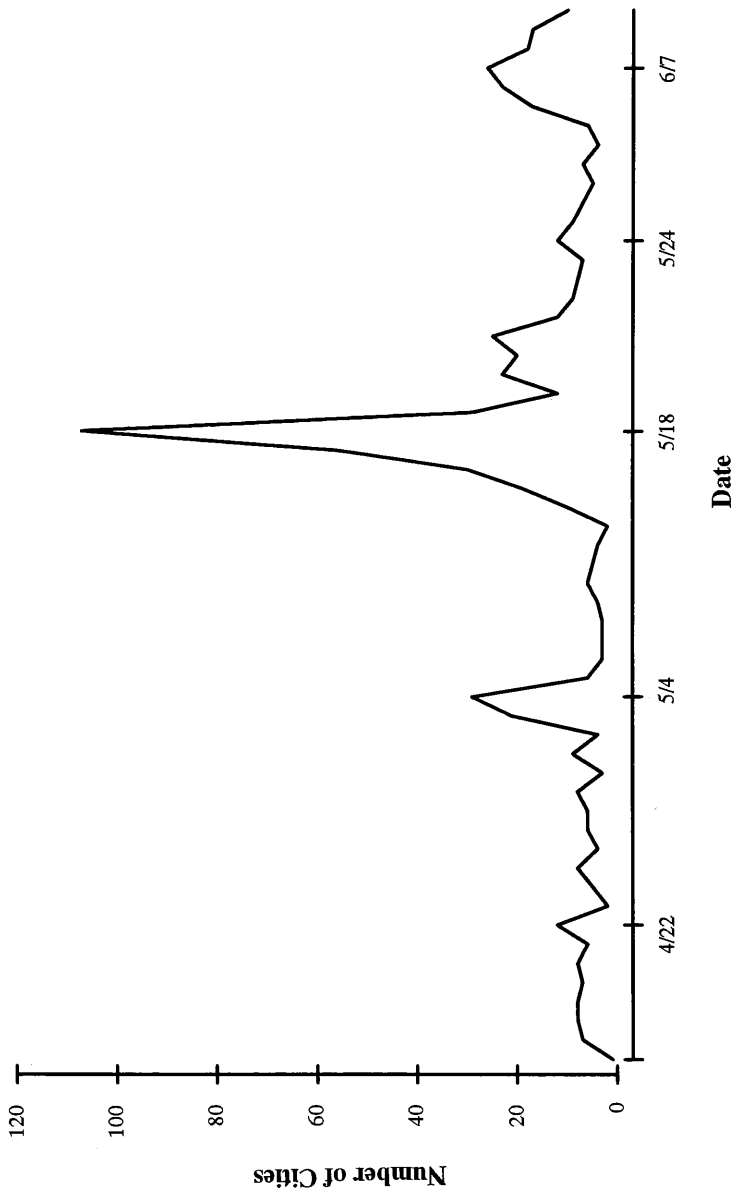
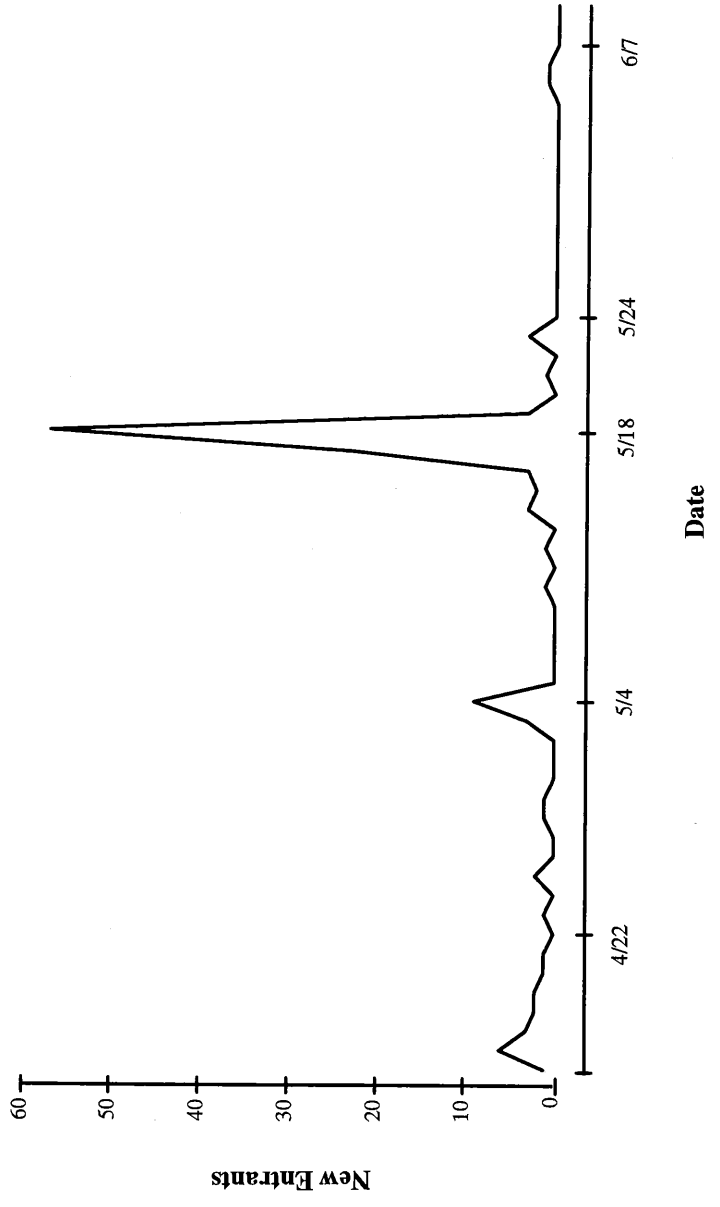


Figure 1-B: Number of New City Entrants from April 15 to June 9, 1989



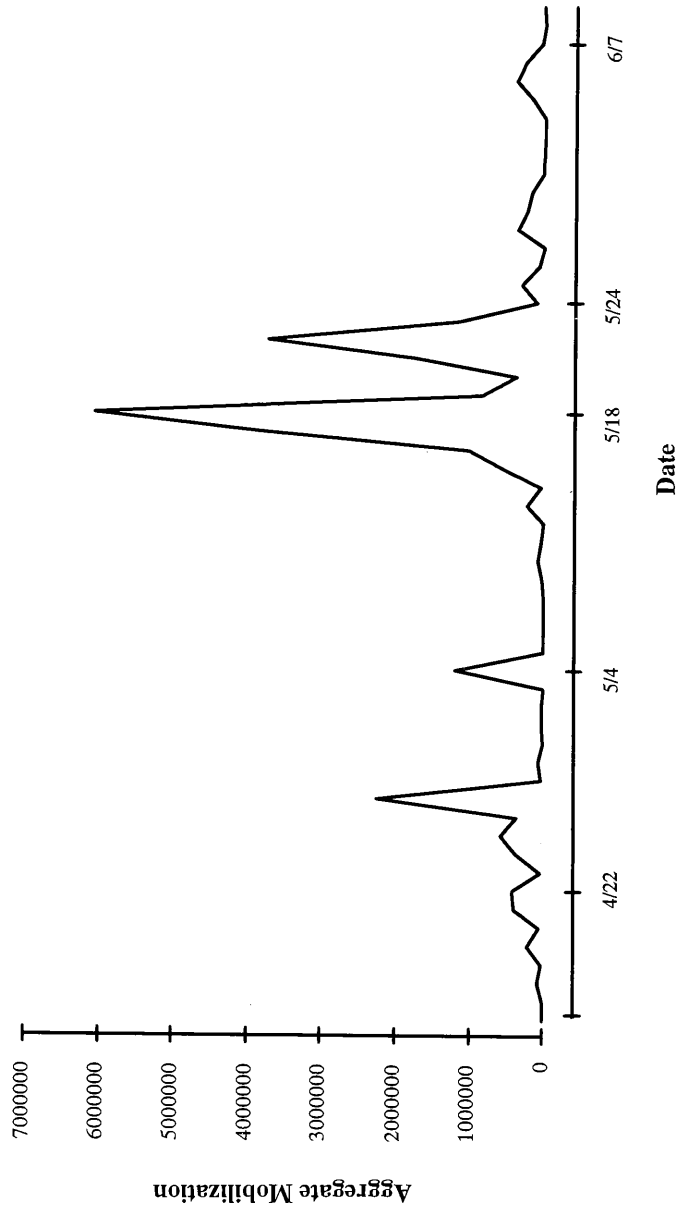


Figure 1-C: Aggregate Mobilization from April 15 to June 9, 1989

for Hu Yaobang held at noon, and for the funeral procession making its way from Tiananmen Square to the Babaoshan National Martyr Cemetery, passing 15 kilometers lined with mourning Beijing residents. The student strike that began in over ten colleges in Beijing on the previous day protesting police brutality in breaking up student rallies on April 19th and 20th might have contributed to student mobilization.

The movement surged to a second peak on April 27th, when over 200,000 students from 42 Beijing colleges marched from their campuses to converge at Tiananmen Square, breaking 18 police picket lines and attracting over a million Beijing residents along the way. The historic march, largest since 1949, was organized to protest regime instransigence for ignoring the students' call for dialogue, and to denounce the *Renmin ribao* editorial published the previous day branding the movement as a conspiracy and turmoil. We counted 6 cities reporting demonstrations and rallies on April 27th, with over two million participants. A second Beijing-wide student demonstration was staged on May 4th, the seventieth anniversary of the first nationwide student movement in post-Imperial China. Students from 52 Beijing colleges marched from their campuses to rendezvous at the Tiananmen Square, joined by around 500 journalists, and students from over 30 colleges outside the Capital. The anniversary mobilized 29 cities, including a record number of 9 new cities, and over a million participants. It built on the newfound momentum on the eve of the anniversary, when 21 cities staged rallies.

The most sustained peak of the movement was to take place in the ten day period from May 14th to May 23rd. It saw a series of overlapping, high-visibility events including the hunger strike (May 13-19), televised dialogues between the students and government leaders (May 14, 15, 18), Gorbachev's visit to Beijing (May 15-16), Zhao Ziyang's tearful meeting with the students in Tiananmen Square on May 19th and the fateful Politburo meeting on the same day, the declaration of Martial Law on May 20th, the confrontation between martial law troops and Beijing residents on May 20th-23rd, and Wuerkaixi's call for the students to disband from Tiananmen Square on the morning of May 22nd.

All our three measures record new highs during this period. Of the 132 cities participating in the movement, 93 (70%) staged their

first demonstrations in this period. The number of cities that have reported demonstrations never fell below 10, rocketing to 56 on May 17th and topping at 107 on May 18th. The 331 city-days of demonstrations in this ten day period represent 44.4% of the 746 recorded in the movement's 56 day period. The three days each with record mobilization over three million were to be found in these ten days, taking place on May 17th, 18th, and 22nd. Total reported mobilization on May 16th-18th, 21st-23rd never dipped below the one million mark. Together with April 27th and May 4th, they constituted the eight days in the movement where nationwide reported mobilization reached over a million.

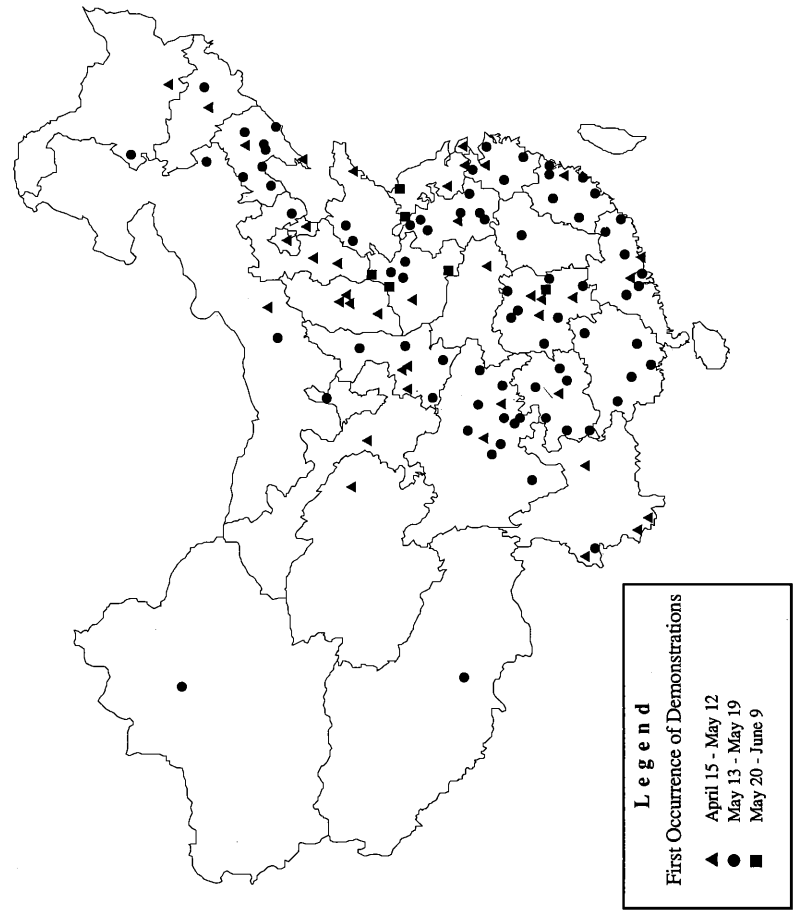
In a subsequent analysis, we will divide the movement into three stages, coterminous with the period from (1) the death of Hu Yaobang (April 15) to the eve of the Hunger Strike (May 12); (2) the Hunger Strike and its temporal correlates noted earlier (May 13-19); and (3) the imposition of Martial Law (May 20) to June 9th. We suspect that while some historians, analysts, and participants of the movement will agree with our periodization, others will challenge its validity no matter where we will draw the thresholds. We will simply note that the periodization is warranted by presentational simplicity, congruent with empirical configuration, and based on participant observation. We have not made important theoretical propositions based on that periodization, and we invite the interested reader to undertake their own analysis by presenting the raw data in the appendix.

The Spatial Configuration

In the pages that follow, we will analyze the spatial configuration of the movement, beginning with the regional and provincial patterns. Here at this aggregate level, we will do little more than sketching the broad outline. We will employ more analytical procedures when we come to the disaggregate, city-level of investigation.

To present a broad overview, Figure 2 shows the spatial distribution of demonstrations at the city level. It will be noted that among the 434 cities in China, we have found only 132 cities with reported demonstrations and rallies. In Figure 2, the reported *first*

Figure 2: Distribution of Student Demonstrations in 114 Cities in Mainland China, April 15 - June 9, 1989



demonstration or rally in the given city is marked with (1) a dot, if the event occurred from April 15th to May 12th; (2) a triangle, if it took place during the Hunger Strike from May 13th to 19th, and (3) with a square, if it fell on the period after martial law was imposed on May 20th. Note that there were demonstrations in all the 30 provincial units in China.

The Regional Pattern

On the most aggregate regional level, we find no meaningful patterns of geographical spread of demonstrations over time among China's six large administrative regions (North, Northeast, East, Central-south, Southwest, Northwest).[8] If we divide the 56 days into three periods, each marked by an important event, we find that most regions were represented in each of the three periods. As shown in Table 1-A, within the first week of the movement, or seven days after the death of Hu Yaobang on April 15th, four provincial units[9] from East China (Shanghai, Jiangsu, Zhejiang, Anhui), and two provinces from each of the other five regions had reported demonstrations. In the second period from April 22nd to May 12th, from the day Hu Yaobang's memorial service was held, to the eve of the Hunger Strike, cities in nine provinces staged their first demonstrations in all the six regions. In the last period after the Hunger Strike began on May 13th, a third set of cities in seven provinces which had hitherto been noncommittal joined the movement in five regions. By May 18th, the sixth day of the Hunger Strike, and one day before Zhao Ziyang tendered his resignation, Ningxia had also reported demonstrations, the last of the thirty provinces to do so.

As shown in Tables 1-A and 1-B, there is no clear difference among the six regions. For most regions, the first province to report demonstrations usually staged one by the fourth day of the movement, while the last province to join the movement generally did so during the Hunger Strike. The only exceptions are the Northeast, where all the three provinces (Liaoning, Heilongjiang and Jilin) had reported demonstrations by April 25th.

Table 1-A Entry Dates of Provinces by Region

Period	North	Northeast	East	Central-south	Southwest	Northwest
4/15–4/21	BJ (4/15)	LN (4/17)	SH (4/16)	HUN (4/16)	SC (4/18)	SAX (4/16)
	TJ (4/16)	HLJ (4/17)	JS (4/16)	HUB (4/19)	YN (4/20)	GS (4/21)
			AH (4/16)			
			ZJ (4/19)			
4/22–5/12	HEB (4/28)	JL (4/25)	FJ (4/23)	GD (4/22)	GZ (5/3)	QH (5/4)
		SX (5/4)		HEN (5/3)		
				HAI (5/10)		
5/13–	NM (5/14)		JX (5/16)	GX (5/17)	XZ (5/17)	NX (5/18)
			SD (5/14)			XJ (5/17)

Note: The North region comprises Beijing, Tianjin, Hebei, and Neimonggu;
Northeast: Liaoning, Heilongjiang, Jilin, and Shanxi;
East: Shanghai, Jiangsu, Anhui, Zhejiang, Fujian, Jiangxi, and Shangdong;
Central-south: Hunan, Hubei, Guangdong, Henan, Hainan, Guangxi;
Southwest: Sichuan, Yunan, Guizhou, and Xizang;
Northwest: Shaanxi, Gansu, Qinghai, Ningxia, and Xinjiang.

Table 1-B Dates of First and Last Province to Report Demonstrations

Region	Date of 1st Province to Report Demonstrations	Date of Last Province to Report Demonstrations
North	4/15	5/14
Northeast	4/17	4/25
East	4/16	5/16
Central-south	4/16	5/17
Southwest	4/18	5/17
Northwest	4/16	5/18

As shown in Table 2, there is also no significant variation in the mean number of city-days of demonstrations per province among the six regions, and the percentage of cities in the province that participated in the Democracy Movement.

Table 2 Mean Number of City-days of Demonstrations and % of Defiant Cities per Province

Region	Mean No. of City-days of Demonstrations Per Province	% of Cities that Had Reported Demonstrations
North	28.80	51.9
Northeast	23.00	22.8
East	27.43	42.5
Central-south	24.67	33.0
Southwest	23.75	46.6
Northwest	15.60	30.9

Provincial Variations

Moving down the regional to the provincial level, we did find notable variations in the level of participation across the thirty provinces. To elaborate on an earlier point, although all the thirty provincial units had reported demonstrations and rallies, there are differences in the entry dates among them. As shown in Figure 3-A, eight provincial units reported their first demonstrations by the third day following the announcement of Hu Yaobang's death on April 15th — Beijing on the same day on April 15th, Shanghai, Tianjin, Jiangsu, Anhui, Shaanxi on April 16th, Liaoning and Hunan on April 17th. On the other hand, the four ethnic minority autonomous regions in the northwest and southwest (Ningxia, Xizang, Xinjiang, Guangxi) reported their demonstrations only on or after May 17th, the fifth day of the Hunger Strike. The provinces also vary considerably in the number of cities that reported demonstrations within their boundaries, ranging from twelve in Hunan and Sichuan, and ten in Shandong on the one hand, to eight provinces on the other where only one city, invariably the provincial Capital, reported demonstrations.

Thirdly, as shown in Figure 3-B, they also differ greatly with respect to the total number of days of demonstrations within the province. Sichuan had 57 city-days of demonstrations, followed by Hunan (48), Jiangsu (41), and Shaanxi (40). Together with the three municipalities Beijing (56), Shanghai (46), and Tianjin (41), they were the top seven provincial units with total demonstrations of 40 city-days or more. In contrast, four ethnic minority autonomous regions in the northwest — Xizang (2), Ningxia (2), Qinghai (6), Xinjiang (8), together with Jiangxi (5) and the new island province of Hainan (7) had fewer than 10 city-days of demonstrations within their province.

Combining the entry dates and the total number of city-days of demonstrations, we have classified the thirty provinces roughly into three groups below, in Table 3. The first group of eleven provincial units was clearly the leaders, with an early entry date by April 22th, a week after the movement began, and each having 30 or more city-days of demonstrations. On the other end, a second group of five provincial units was the laggards, with fewer than 10 city-days of demonstrations and an entry date after May 16th, on

Figure 3-A: Order of Entry in the Democracy Movement by Province

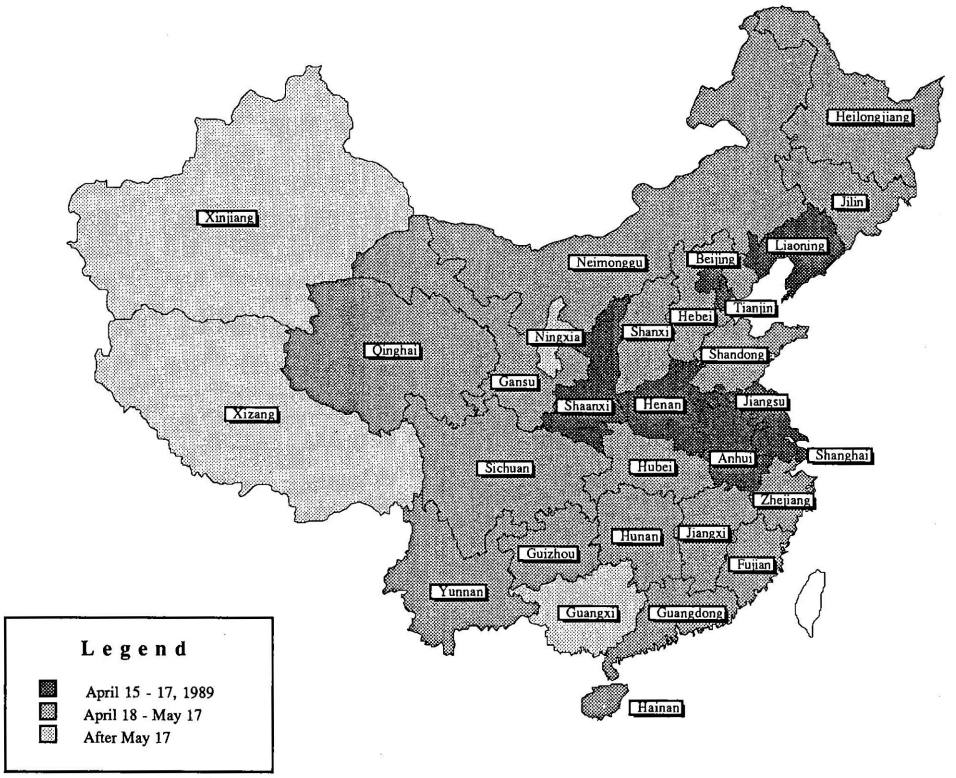


Figure 3-B: Number of City-days of Demonstrations by Province

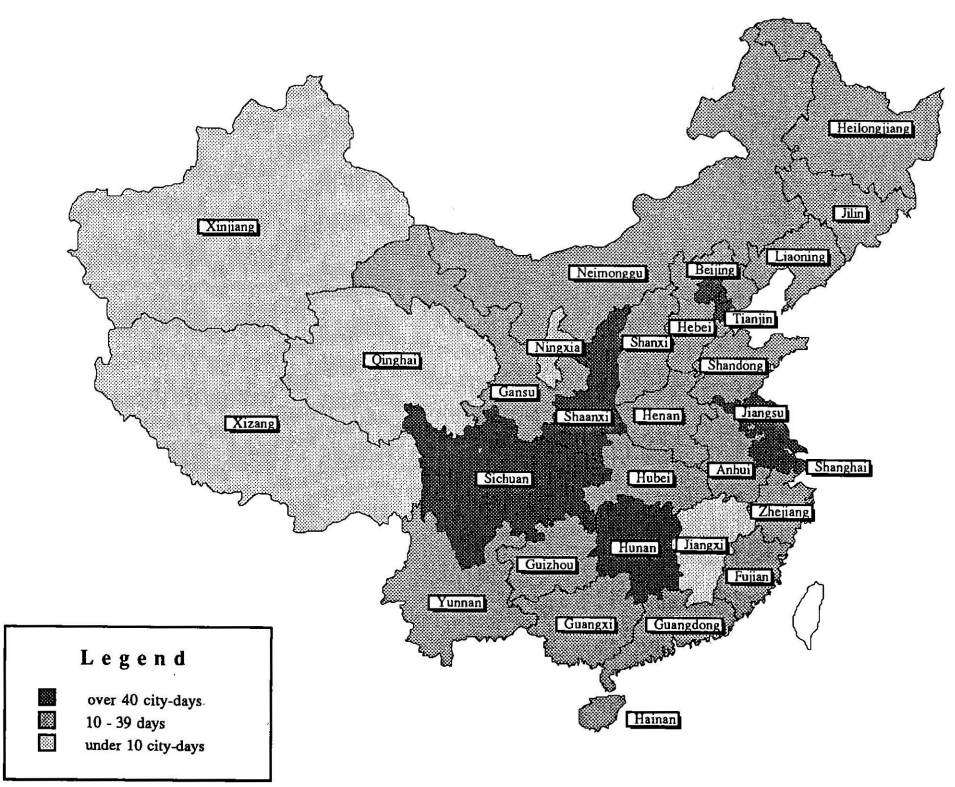
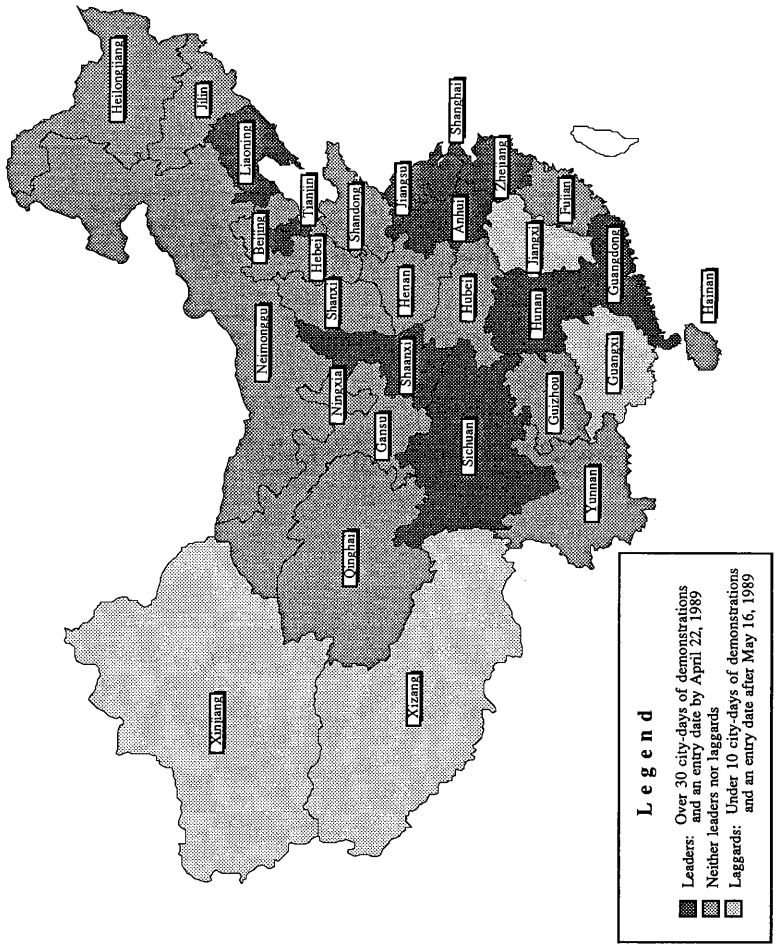


Figure 3-C: Leaders and Laggards in the Democracy Movement by Province



the fourth day of the Hunger Strike and when Gorbachev met with Zhao Ziyang. In between, fourteen provinces cannot be neatly pigeon-holed in either the first or second group. Most occupy an intermediate position in both their entry dates and total number of city-days of demonstrations. The same set of data is graphically presented in Figure 3-C.

Table 3 Three Groups of Provinces by Level of Mobilization

> 30 city-days of demonstrations and a first entry date by April 22nd	Beijing, Tianjin, Shanghai, Jiangsu, Hunan, Sichuan, Shaanxi, Liaoning, Anhui, Zhejiang, Guangdong
Intermediate group	Hubei, Heilongjiang, Hebei, Jilin, Yunnan, Hainan, Gansu, Shanxi, Fujian, Henan, Hainan, Qinghai, Neimonggu, Shandong
< 10 city-days of demonstrations and a first entry date after May 16th	Xizang, Ningxia, Xinjiang, Guangxi, Jiangxi

Socio-economic Correlates of Defiance

Moving to the disaggregated level of analysis, we will begin with the observation that demonstrations could only be found in a minority of China's 434 cities. We count only 132 cities (30.4%) where there was at least one report of a demonstration or rally. This would mean that there was no report of participation from over two thirds (69.6%, or 302) of China cities. As we will note below, the percentage of cities participating in the movement is less important than the type of cities, which we have found to occupy higher positions in China's administrative, economic and educational hierarchy, a point to which we shall return.

Let us also note that among the 132 defiant cities, 90 (68.2%) had only one or two days of demonstrations. This leaves only 42 cities that had reports of three or more days of demonstrations.

Among these, 23 cities had reported demonstrations between 3 to 10 days, 7 from 11 to 20 days, 8 from 21 to 30 days, while 4 had reported demonstrations of over 31 days. The last set includes Beijing, which had demonstrations everyday for 56 days, Shanghai (46), Tianjin (41), and Nanjing (35).

Focusing on the entry dates of these cities in the movement, we have already noted the aggregate pattern in three stages in the earlier section on temporal distributions. Relating the sequence to the magnitude measures, we want to note that the early entrants in the movement were also the more persistent participants. Of the 25 cities that saw demonstrations by May 4th, 19 had at least 10 days of demonstrations. On the other end of the spectrum, most late arrivals were in the movement for the short haul. Of the 65 cities that staged their first demonstrations after May 17th, 60 had demonstrated only for one day, and the other only two days.

Next, we want to investigate the structural variables that differentiate the defiant cities that staged demonstrations from the compliant ones, the leaders that spearheaded the movement from the laggards that followed suit, and the persistent cities that demonstrated frequently from those that did so only in an intermittant fashion. Our explorary analyses have found five such variables that correlate highly with participation in the movement. They not only point to the presence or absence of demonstrations in these cities, but are also sensitive predictors of the magnitude and sequence of urban collective action.

Participation and Capitals

We first investigate the administrative status of the cities, reasoning that urban centers could also be hotbeds of defiance. Indeed this is the case. As shown in Table 4, all the 30 cities that are the national and provincial capitals[10] had reported demonstrations. They were also leaders and persistent members in the movement. All but three (90%), had three or more days of demonstration; and all but the same three had reported demonstrations before May 17th. The three exceptions are Xizang's Lhasa, Ningxia's Yinchuan, and Guangxi's Nanning, all locate in peripheral regions on or close to China's borders with heavy concentrations of ethnic minorities. If we use a higher threshold to define the subset of cities

that had earlier and more frequent demonstrations, then 19 capitals (63.3% of the 30) had reported demonstrations by April 30th, and another 19 (63.3%), a somewhat different subset, had reported ten or more days of demonstrations. In a later section, we will note the central role played by the capitals in the provinces.

Table 4 Socio-economic Correlates of Presence, Magnitude, Sequence of Demonstrations

	National & Provincial Capitals	>1 million Urban Population	>20,000 College Students	>2b *yuan* Consumer Goods Sale	>4 Weekly Flights to Beijing
n =	30	28	26	23	25
Had Demonstrations	30 (100%)	28 (100%)	26 (100%)	23 (100%)	25 (100%)
> 3 days of Demonstrations	27 (90%)	24 (86%)	25 (96%)	23 (100%)	24 (96%)
Had Demonstrations before May 17th	27 (90%)	23 (82%)	25 (96%)	23 (100%)	22 (88%)
Had Demonstrations before May 1st	19 (63%)	20 (71%)	18 (69%)	20 (87%)	15 (60%)
> 10 days of Demonstrations	19 (63%)	17 (61%)	19 (73%)	17 (74%)	16 (64%)

Size of Urban, Non-agricultural Population

We have found the absolute size of the urban population in the non-agricultural sector to covary highly with the presence, magnitude, and sequence of demonstrations. Using the 1 million urban non-agricultural population as the critical threshold, we find that all the 28 such cities had demonstrations. Twenty-four (86% of 28)

had three or more days of more demonstrations, and 20 (71% of 28) had reported demonstrations by April 30th. Non-agricultural urban population alone, however, is not a good predictor of the magnitude of demonstrations. Of the 28, the mining centers of Liaoning's Fushun and Anshan, and Hebei's industrial city of Tangshan all had only one day of reported demonstrations, that took place on May 15th (Tangshan), May 17th (Anshan), and May 18th (Fushun). This seems to suggest that the size of the urban intellegentsia may be a more salient variable in accounting for the level of collective action. Partial evidence in support of this proposition lies in our finding that only 6.8% of the laborers in Fushun, 6.4% in Anshan, and 6.3% in Tangshan were white collar workers in the services. Aside from these three, only the Heilongjiang city of Qiqihaer among the 28 had a labor force of below 10% (9.2%) that are composed of white collar laborers. These ratios are not only substantially below the average of these 28 cities, but also below the national mean of 8.7%, and thus place the three at the very bottom of the 28 most populous cities in China.[11]

Critical Mass of College Students

Prompted by our earlier finding that the urban intelligentsia may constitute the critical segment in the non-agricultural urban population, we further suspect that a salient variable is the absolute number of college students in these cities, and have indeed found that to be the case. All the 26 cities that had 20,000 or more college students had demonstrations. Twenty-five of these 26 (96%) had three or more days of demonstrations, and an equal number had demonstrations by May 17th. Using the more restrictive counting rule, 18 (69% of the 26) had demonstrations by April 30th, and 19 (73% of the 26) had ten or more days of demonstrations.

To further examine the internal and external validity of the measure, we have also analyzed data on the number of colleges and per capita ratios of college students in the urban population. In terms of the size of the correlation coefficients, the effect of the number of colleges is comparable to the number of college students in accounting for the number of demonstrations (0.93 vs. 0.94) and the entry dates (0.76 vs. 0.74) across the 434 cities. College student per capita has lower explanatory power, correlating only 0.60 with the number of days of demonstrations, and 0.70 with the entry dates. A related measure, the number of publishers in the city, correlates 0.65 with the number of days of demonstrations and 0.37 with the entry dates in the 434 cities.

Level of Commercialization

We have also found the value of consumer sales[12] to be a good predictor of the level of demonstrations. All the 23 cities that had consumer goods sales of over 2 billion *yuan* had demonstrations. Further, all the 23 had three or more days of demonstrations, and had reported demonstrations by May 17th. Seventeen (74% of 23) had ten or more days of demonstrations, and 20 (87%) had demonstrations by April 30th.

Using the 434 cities as the universe, consumer goods sales correlate 0.87 with the number of demonstration days, and 0.65 with the dates of entry. The variable in question appears to have more to do with the level of commercialization than affluence. A closely related variable, the value of commodity sales,[13] also correlates 0.86 with the number of demonstration days and 0.64 with entry dates. Several measures of affluence, including income per capita, savings per capita, and the cost of living index, have small explained variances ranging from a correlation coefficient of 0.25 to 0.36 for the entry dates and number of demonstrations.[14]

Measures of Communications

We have also found frequent flights to Beijing to be highly correlated with the level of demonstrations.[15] All the 25 cities with 4 or more weekly flights to Beijing had demonstrations. Twenty-four (96% of 25) had three or more days of demonstrations, while 22 (88% of 25) had demonstrations by May 17th. Using the more restrictive counting rule, 15 (60% of 25) had demonstrations by April 30th, and 16 (64% of 25) had ten or more days of demonstrations.

Since the majority of the cities does not have weekly flights to Beijing, no meaningful coefficient for the correlation between

weekly flights and levels of participation can be computed for the 434 cities. Other measures of communications, however, show a moderate relationship. Thus telephones per capita correlates 0.45 with demonstration days and 0.45 with entry dates, while postal service revenue shows also a positive albeit weaker 0.34 and 0.36 correlation with the two measures of mobilization respectively.

An Alternative Analysis

An additional confirmatory analysis was attempted to show the same relationship. In the above set of analysis, we address the question: how many of which kinds of cities have which level of mobilization. That is, we select five types of cities (capitals, large urban cities etc.) and examine the percentage of each that are defiant, or those having demonstrations within the first two weeks. In the analysis to come, we reverse the question, to see how many cities in given levels of mobilization are the five select types of cities.

Table 5 shows the importance of these predictor variables for the group of more defiant cities that demonstrated by April 30th and had ten or more days of demonstrations. It will be noted that the capitals constitute 86.4% of the early demonstrators that participated by April 30th, and 95% of the persistent demonstrators that staged ten days or more of demonstrations. Cities having 4 or more weekly flights to Beijing make up 68.2% of the early demonstrators and 80% of the persistent ones. Those having a million or more urban, non-agricultural laborers compose 90.9% of the early demonstrators and 85% of the persistent ones. Those having 20,000 or more college students represent 81.8% of the early demonstrators and 95% of the persistent ones, while those having over 2 billion *yuan* sale of consumer goods count 90.9% of the early demonstrators and 85% of the persistent ones.

Table 5 Socio-economic Correlates of Early and Persistent Demonstrators

	National & Provincial Capitals	>1 million Urban Population	>20,000 College Students	>2b *yuan* Consumer Goods Sale	>4 Weekly Flights to Beijing
n =	30	28	26	23	25
Had Demonstrations before May 1st (n = 22)	19 (86.4%)	20 (90.9%)	18 (81.8%)	20 (90.9%)	15 (68.2%)
> 10 days of Demonstrations (n = 20)	19 (95.0%)	17 (85.0%)	19 (95.0%)	17 (85.0%)	16 (80.0%)

Conclusion

Four years of heavy traffic have erased the bloodstains and smoothed the bullet holes on the Tiananmen Square left by the clean-up crew. The elapse of time has introduced the aesthetic distance that allows us to undertake a more dispassionate analysis of the 1989 Democracy Movement. We have eschewed the more common query on the macro-level socio-political conditions precipitating the onset of the movement. We would have preferred, but decide to postpone an individual level of analysis, pending data availability, to identify the factors that differentiate participants from non-participants. Instead, we have chosen a meso level of analysis, purporting to analyze the temporal distribution of the movement, as it waxed and waned over the 56 days. We have also attempted to analyze its spatial distribution across the 434 cities, as well as their more aggregated provincial and regional levels.

As we have chosen an untrodden path, there are no footprints of pioneers we can use as a guide, no shoulders of giants on whom

we can view the horizon beyond our next few steps. Our attempt is therefore more an exploratory investigation than model verification, and more descriptive than explanatory analysis. We have set for ourselves the modest goal of cleaning the brushes, attempting to chart the broad contours of the unvisited landscape. What we have outlined is thus a rough sketch rather than precise cartography.

In this rough sketch, we have used largely three measures of mobilization, viz, (1) the number of city-days of demonstrations; (2) the number of new entrants; (3) mobilization in number of participants, to identify three temporal peaks of the movement. These we have found on April 27th, a day after the threatening *Renmin ribao* editorial was published, on the Seventieth Anniversary of the May Fourth Movement, and during the fateful week of the Hunger Strike from May 13th-19th, when the movement surged to its climax.

Our cross-sectional analysis has found no discernible mobilization pattern among China's 6 regions, considerable differences in its 30 provinces, and notable variations in the 434 cities. Our exploratory analyses have uncovered systematic differences between the defiant cities from the compliant ones, the leaders from the laggards, and the more persistent from the intermittant demonstrators. The best predictors of mobilization are national and provincial capitals, size of the non-agricultural urban population, number of college students, number of weekly flights from Beijing, and the level of commercialization. A related set of socio-economic variables have also been found to have some, albeit lower explanatory value.

Looking beyond, we plan to undertake several sets of analyses for the immediate future. First, we want to compare the spatial pattern of participation in the 1919 May Fourth Movement, to see if the same structural conditions also give birth to and nurture collective action in different historical periods. This follows an earlier aborted attempt to collect and analyze city-level mobilization during the Cultural Revolution. Next, we have acquired the tapes with the daily news programs of China's Central Television, and a systematic content analysis of the daily news is underway to determine the extent to which media coverage of regime position and the portrayal of the movement is related to the observed

pattern of temporal variations. In addition, we have also collected transcripts of daily provincial radio broadcasts, not only from Foreign Broadcast Information Service but also from Taipei's Institute for International Relations. We want to decipher whether or not the general disposition of the provincial party and government elite towards the movement in their locality, as well as their specific responses to the announcement of Hu Yaobang's death, the April 26th *Renmin ribao* editorial, the May Fourth Anniversary, the May 13th-17th Hunger Strike, and the declaration of Martial Law provide cues for the local democracy movement to mobilize or demobilize. These will be our next set of research tasks.

Notes

1. I would like to acknowledge the assistance of Richard Siao in collecting and entering most of the data, Ngok Ma in doing most of the statistical analysis, and Chase Langford for the cartographic maps. Hongyi Lai and Ji-jeng Liang also assisted with data collection, Jih-wen Lin with statistical analysis, and Pam Singh with the graphics. The project has received partial support from the Chiang Ching-kuo Foundation (U.S.A.) and U.C.L.A.'s International Studies and Overseas Program.

2. See James Tong ed., "Death at the Gate of Heavenly Peace: The Democracy Movement in Beijing, April-June, 1989 (I)," *Chinese Law and Government*, Spring, 1990; James Tong and Andrew Ma eds., "Baptism by Fire: The Democracy Movement in Beijing, April-June, 1989 (II)," *Chinese Law and Government*, Summer, 1990; and James Tong and Elaine Chan eds., "Fire and Fury: The Democracy Movement in Beijing, April-June, 1989," *Chinese Sociology and Anthropology*, Fall, 1990.

3. The number of cities with demonstrations were tallied from the raw data published in *Jingxin dongpo de wushiliu tian* [The astounding fifty-six days] (Beijing: Dadi chubanshe, 1989), a chronology of developments by day and by city, compiled by the Ideological and the Political Bureau of the Education Commission.

4. The official 1989 *Zhongguo chengshi tongji nianjian* [China Urban Statistical Yearbook, 1989] (Beijing: Zhongguo tongji chubanshe, 1989) lists 434 urban places classified as cities as of the end of 1988.
5. *Shue yu huo de zhenxiang* [The Truth of Fire and Blood] (Taipei: The Institute for the Study of Chinese Communist Problems, 1989).
6. A Chinese documentary history of the movement, *Xuechao, dongluan, baoluan* [Student Movement, Turmoil, Rebellion] (Chengdu: Renmin chubanshe, 1989), compiled by the Editorial Department of *Sichuan ribao*, uses June 24th as the end date, and carries the subtitle, *Jingxin dongpo de qishiyi tian* [The Astounding 71 Days].
7. This number does not include the million Beijing residents who lined up along the 15 kilometer from the Tiananmen Square to the Babaoshan cemetery where Hu Yaobang's funeral procession passed.
8. These six large administrative regions were instituted soon after 1949 but were abolished in 1954, see *Renmin shouce*, 1951, p. 1 and *Xin mingci cidian* (Shanghai: Qunming chubanshe, 1954). However, provinces continued to be listed in this order in official almanacs and yearbooks, and grouped in these six regions in publications like the *Daily Report: People's Republic of China*.
9. Here we include not only China's 23 provinces, but also the 5 autonomous regions, and the three municipalities (Beijing, Tianjin and Shanghai).
10. These comprise Beijing, the national capital, and the two other municipalities (Tianjin and Shanghai), together with the capitals of the 27 provinces and autonomous regions, including Hainan, which became a province in March, 1988.
11. *Zhongguo chengshi tongji nianjian, 1989*, p. 57.
12. This includes direct sales of commercial and industrial enterprises as well as services to individuals and corporate consumers, sales of production goods to peasants, and direct retail sales by peasants to non-peasants. It excludes state rations of goods and energy to state run and military units.

13. Commodity sales comprise not only consumer goods sales to individual citizens, but also those to corporations, and sales of agricultural production goods to peasants. See *1989 Zhongguo chengshi tongji nianjian* (Beijing: Zhongguo chengshi jingji shehui chubanshe, 1989), p. 514.
14. Per capita income correlates 0.27 and 0.30; per capita savings correlate 0.25 and 0.36; cost of living index correlates 0.25 and 0.31 with the number of demonstrations and entry dates.
15. The data are drawn from the *Zhongguo minhang banqi shikebiao, dongji, 1988 — chunji, 1989* [The timetable of scheduled flights of the Civil Aviation Administration of the China, Winter, 1988 — Spring 1989].

Appendix 1: Level of Mobilization by Day

Date	No. of Defiant Cities	No. of New City Entrants	Total Mobilization
4/15	1	1	*
4/16	7	6	7,800
4/17	8	3	71,400
4/18	8	2	24,000
4/19	7	2	213,000
4/20	8	1	54,000
4/21	6	1	390,240
4/22	12	0	414,000
4/23	2	1	36,000
4/24	5	0	367,200
4/25	8	2	570,000
4/26	4	0	360,000
4/27	6	0	2,244,000
4/28	6	1	30,000
4/29	8	1	66,000
4/30	3	0	3,600
5/1	9	0	21,000
5/2	4	0	24,420
5/3	21	3	600
5/4	29	9	1,192,800
5/5	6	0	3,000
5/6	3	0	300
5/7	3	0	0
5/8	3	0	3,600
5/9	4	0	27,000
5/10	6	1	78,000
5/11	5	0	36,000
5/12	4	1	7,200

Appendix 1 (Continued)

5/13	2	0	229,800
5/14	10	3	40,200
5/15	19	2	559,800
5/16	30	3	1,023,600
5/17	56	23	3,822,000
5/18	107	57	6,062,400
5/19	29	3	843,600
5/20	12	0	378,000
5/21	23	1	1,737,000
5/22	20	0	3,732,000
5/23	25	3	1,161,600
5/24	12	0	102,000
5/25	9	0	308,400
5/26	8	0	75,840
5/27	7	0	8,040
5/28	12	0	364,200
5/29	9	0	240,000
5/30	7	0	180,000
5/31	5	0	24,000
6/1	7	0	13,200
6/2	4	0	0
6/3	6	0	6,000
6/4	17	0	174,000
6/5	23	1	392,760
6/6	26	1	271,200
6/7	18	0	47,400
6/8	17	0	4,200
6/9	10	0	25,200

Appendix 2: Entry Date and Number of Demonstration Days by City

Province/ Municipality	City	No. of Days of Demonstration	Date of 1st Occurrence	Province Rank of No. of University Students	Province Rank of Urban Population
1. Beijing	Beijing	56	4/15	1	1
2. Tianjin	Tianjin	41	4/16	1	1
3. Hebei	*Shijiazhuang	6	4/28	1	2
	Baoding	4	5/4	2	7
	Tangshan	1	5/15	5	1
4. Shanxi	*Taiyuan	20	5/4	1	1
	Linfen	2	5/12	2	5
	Yuci	2	5/15	5	9
5. Nei-Monggu	*Huhehote	7	5/14	1	3
	Baotou	3	5/17	3	1
	Tongliao	2	5/17	2	4
6. Liaoning	*Shenyang	15	4/29	1	1
	Dalian	7	4/17	2	2
	Jinzhou	2	5/17	3	8
	Anshan	1	5/17	5	3
	Fushun	1	5/18	4	4
	Fuxin	1	5/18	6	9
	Liaoyang	1	5/18	10	12
	Penjin	1	5/18	13	16
	Dantong	1	5/18	8	6
7. Jilin	*Changchun	17	4/25	1	1
	Jilin	1	5/18	2	2
	Yanji	1	5/18	3	17
8. Heilongjiang	*Haerbin	19	4/17	1	1
	Qiqihaer	1	5/18	2	2
9. Shanghai	Shanghai	46	4/16	1	1

Appendix 2 (Continued)

10. Jiangsu	*Nanjing	35	4/16	1	1
	Xuzhou	3	5/17	4	10
	Suzhou	1	5/3	2	13
	Jinjiang	1	5/17	5	17
	Linyungang	1	5/21	11	16
11. Zhejiang	*Hangzhou	22	4/19	1	1
	Ningbo	4	5/17	2	4
	Wenzhou	2	5/17	4	10
	Huzhou	1	5/18	9	6
	Shaoxing	1	5/18	7	21
	Jinhua	1	5/18	3	20
	Linhai	1	5/18	10	5
	Xiaoshan	1	5/18	12	2
12. Anhui	*Hefei	21	4/16	1	2
	Benbu	3	5/18	2	8
	Wuhu	1	5/18	4	5
	Huainan	1	5/18	3	1
	Tongling	1	5/18	15	13
	Suzhou	1	5/18	13	4
	Chaohu	1	5/18	11	4
	Guichi	1	5/18	14	6
13. Fujian	*Fuzhou	6	4/23	1	1
	Xiamen	5	5/4	2	2
	Quanzhou	2	5/17	3	3
	Nanping	1	5/18	4	4
	Longyan	1	5/18	7	5
	Ningde	1	5/18	8	6
14. Shandong	Qingdao	7	5/14	2	3
	*Jinan	5	5/16	1	2
	Zaozhuang	1	5/18	14	4
	Tongying	1	5/18	6	25.5
	Yantai	1	5/18	4	18
	Weifang	1	5/18	7	9.5
	Jining	1	5/18	5	17
	Taian	1	5/18	3	6
	Liaocheng	1	5/18	23	19
	Qufu	1	5/18	23	25.5