

Abstracts and Profiles of authors

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Rong DAI

Determinants of the Size of Countries: An Empirical Study with Chinese Historical Data

Abstract: This paper focuses on the correlation between local socioeconomic development and state-making process across regions. Regardless of development gap between regions, local socioeconomic progress do have impacts on the size of the higher aggregated polity. In this paper, I construct a model introducing various socioeconomic factors jointly. The model concludes that increases in external threats, labor input in production and aggregate output result in formation of large countries. On the other hand, higher unification cost and stronger military force at regional level lead to small countries. Theoretical conclusions are supported by Chinese empirical evidence. For each province in ancient China, when it had high agricultural output, concentrated residence, and was vulnerable to severe natural disasters, the region was more likely to be united into a large country. Meanwhile, strengthening military power at regional level led to formation of small states.

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Baomin Dong, Yibei Guo

Building State Capacity: A Quantification of Pre-Qin China

Abstract: The pre-Qin period, particularly the Spring and Autumn period (770BC-481BC) and the Warring States period (480BC-221BC) witnessed the great transformation of the Chinese society from a classical feudal system to a two millennium long centralized empire. The scale and ferocity of the war increased tremendously from Spring and Autumn to Warring States time. Aggression wars can be used as a proxy for fiscal capacity since the fiscal capacity, the governance capacity, and public goods provision capacity as three main dimensions of state capacity, are all incorporated in the capacity to wage wars. Using panel data on Great Wall construction in related states; time spans that one or more prime ministers were installed; counties established chronically by the states; natural disasters; disaster or famine relief; flights of high rank nobility or officials; time and nature of the “self-strengthening reform”; etc., we regress the frequency of war against institutional and control variables. Our panel limited dependent variable models indicate that institutional factors such as county establishment, installment of prime ministers, and self-strengthening reforms, had substantial effect on a state’s capacity to wage offensive wars, and the statistical significance of the coefficient is surprisingly high. Furthermore, a pro-Legalist reform outperformed the pro-Confucian reforms in cultivating state capacity.

Keywords: State capacity, state formation, Spring and Autumn period, Warring States period, Bureaucracy, Aristocracy, War

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Meng Miao, Peng Fu

**Unification for Natural Disasters Risk Diversification:
Evidence from Warlords Period of China**

Abstract: In this paper we argue that the unification of China is a result of the increased demand for diversifying natural disaster risk cross-sectionally. In a calibration using historical natural disaster data and CRRA utility function, we find the benefit of unification of China is much more significant than that of Europe and India, where have been Fragmented throughout the history. For empirical analysis, we use a special period when China was Fragmented by a series of political failures and fell into control of warlords between 1917 and 1928. We find that the sensitivity of famine and social riot to natural disaster is much more significant than previous unified period, with those standalone regions associated with higher sensitivities than those affiliated to a larger warlords factions. In sum, our result highlights the role of environment in shaping the border of countries.

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Jinlin Wei, Tianyang Xi

**The fiscal foundation of Bureaucratic Power-sharing:
Evidence from Lijin Taxation in the Qing Dynasty, 1869-1910**

Abstract: This paper examines how fiscal decentralization affected the transformation of state capacity and bureaucratic power-sharing in China during the late Qing period, utilizing a unique data set covering the career paths of over 800 high ranking bureaucrats. The outbreak of mass Taiping and Nian Rebellions posed a severe challenge to the state capacity of Qing, forcing the rulers to delegate the power to levy Lijin, the commodity tax being collected at regional customs, to provincial governments. The paper finds that the rise of Lijin taxation was coupled with significant expansions in the political power of provincial governors. The probabilities of promotion for governors and lieutenant governors were positively related to the amount of Lijin revenue. Moreover, the Lijin revenue enhanced the power of governors-general, increasing the probability of promotion for lower level bureaucrats with connections to the governors-general. Provinces more abundant in Lijin revenues had fewer internal conflicts. But at the same time those provinces are among the early ones to announce independence during the Republican Revolution of 1911, and are featured with strong regionalism in bureaucratic appointments today.

Keywords: Fiscal Decentralization, Power-sharing, Lijin, State Capacity

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Cong Liu

Political Stability and Industrial Investments in Early Twentieth-Century China

Political stability is associated with economic growth. This paper provides within country evidence on this issue. Specifically, I examine how political stability promoted industrial

investments in China in the early twentieth-century. During this period, China was de facto controlled by warlords, whose fights introduced uncertainty in political environment. Using newly collected data on warlords and civil wars to construct a measure of provincial political stability, I show that political stability increased the number of new industrial firms. This effect is the strongest for light industries. In addition, foreign settlements that already had a set of institutions to ensure a secure political environment were not sensitive to changes in political stability.

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Gan Jin

Circle of Fortune: The Long Term Impact of Western Tax Regime in China

Abstract: This paper studies the long-run development of Chinese locations that were taxed by Western institutions. In 1902, Western-controlled customs in China began to regulate and tax China's inland trade within the radius of 25km. By exploiting this historical event, we test whether Chinese counties that were affected by the new tax regime develop better in the long run. Utilizing a sample of historical Chinese counties, we show that the affected counties have higher nighttime light intensity today. The result is robust against endogeneity, spillovers, and agglomeration. We also show that urbanization could be a factor that carries the historical impact to nowadays development. (JEL H11, N45, O18)

Keywords: China, Treaty Ports, Chinese Maritime Customs Service, Economic Development

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Bai Yu, Li Yanjun, Lam Pakhung

Quantity-Quality Tradeoff and Household Division— Historical Evidence from Northeast China, 1749-1909

Abstract: We paint a detailed picture of how the social environment of the Qing with its household division system in the absence of public education shaped the tradeoff between human capital and fertility decisions in China. Using data from China Multi-Generational Panel Dataset-Liaoning (CMGPD-LN), we trace more than 90000 males who lived in nearly 700 villages in Liaoning province between 1749 and 1909. Controlling for birth order effects, we apply both linear probability model and IV procedures in case of potential endogeneity. Our findings suggest that sibship size has substantial negative effects on probability of being educated, and interaction of sibship size and household division has extra negative effects on human capital investment due to household division, indicating a strengthened quality-quantity tradeoff. Such findings provide a new explanation to fertility control, contribute to a better understanding of implications of social behavior.

Keywords. quality-quantity tradeoff, household division, ancient China

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Yang Yao, Wuyue You

Half Sky over China: Women's Political Participation and Sex Imbalances, 1950–90

Abstract: This paper empirically studies how women's political participation affected the sex ratio in China in 1950–90. We show that women's political participation, measured by the ratio of female members in the Chinese Communist Party, increased the female-male population ratio in 1950–90. We also demonstrate that women's political participation had a more significant effect on children than on adults. This result is further confirmed by a study of the sex of second births, using the one-child policy as a natural experiment. Further exploration finds that the positive impact was not likely to be a result of female party members' control of government policies, but more likely to be a result of their influence on societal perceptions about women.

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Pierre van der Eng, Kitae Sohn

**Living Standards in China during the 20th Century:
Secular Change in the Age at Menarche**

Abstract: This paper uses the mean age at menarche as an indicator of long term changes in the standard of living in China. It discusses the difficulties of doing this in terms of the quality of the available data, the processing the basic data, and the interpretation of the results. The paper finds that the mean age at menarche stagnated at 16 to 17 years for women born during the 1880s-1930s, although it also finds evidence of decreases in some urban areas, such as Beijing and Shanghai. The mean age at menarche increased for birth cohorts in the 1940s, in part due the negative effects of the China-Japan war and the civil war until 1949, but particularly the famine of 1959-1962 that affected these cohorts during puberty. The age at menarche decreased in a sustained way for women born during the 1950s to early 2000s to a level of 12.1 in 2000-03. This decrease preceded the acceleration of economic growth in the 1980s. Analysis finds that improvements in education since the 1940s explains much of the decrease in menarche, ahead of improvements in nutrition, hygiene and healthcare.

Keywords: China, living standards, human growth, menarche

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Ruoran Cheng

**Exploring Social Elites Network in northern song dynasty
using Spatial intergraded social network analysis**

Abstract: Social development is usually driven by the political attitudes and philosophy of several elites and coalitions in any period of time in history. To have a better understanding on the social evolution's regulation in China, I introduced a new digital humanity approach, supported by GIS and SNA technology, in a case study focused on factionalism in mid-late Northern Song Dynasty with data from CBDB. In the study, I explored the possibility of using digital humanity and spatial analysis as an alternative approach in historical study. These quantitative approaches indicate relatively objectivity derived from quantitative data-based analysis, comprehensibility brought by a variety of coverage on study cases and a new angle of view from expansion of study dimensions (from chronology only to space-time intergraded). Regional background has considered as an important cleavage influencing state-mans' political attitude. Following the Song Dynasty political model proposed by Robert Hartwell, which considered the generalized kinships as one of the most important associations forming statesman into political groups in Song Dynasty China, and positive political support as an association connecting several political groups, I create a social elites network representing political environment in study era with 2331 individuals. Through a SNA approach, I discovered two major aggregations in network, one centered by Wang Anshi and another centered by Sima Guang, which is identical to historical records, and given a rough boundary on two social elites' coalitions in mid-late Northern Song Dynasty. Through Geo-visualization, my finding suggests a different outcome from Qian's assumption that regional background an important cleavage. I find a distinct spatial distribution between reformers and conservatives among top-rank officials, but similar phenomenon is not that clear among upper-level ones. I consider this phenomenon a reflection of bureaucracy system driven by elite coalitions in Northern Song Dynasty.

Keywords: Chinese history, Digital Humanity, GIS, SNA, Spatial Integrated Social Science
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Meng Miao, Yi Shao

**Anti-Elite Discrimination and Mismatched Couples:
The Role of Parents in Intergenerational Transmission**

Abstract: In the paper we investigate the separate impact of parents' background on the education attainment of children. In order to exclude the omitted variable problem that arise due by assertive mating behavior, we employ a unique institutional setting: the pervasive and intensive discrimination against rural elites in China between 1930 and 1978. We demonstrate that those maternal-elite families, in which only the father is from an elite family. However, the children of the former are associated with significantly higher educational attainment than the later. The impact does not come from the heterogeneous degree of discrimination or residual assertive behaviors.

Keywords: Intergenerational Transmission, Discrimination, Assortive Mating
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Gang Li, Qian Liu, Dongyan Kong, Bingbing Huang, Shaofei He, Yuxin Wang
Climate, Disasters, Wars and the Collapse of the Ming Dynasty:
A Quantitative Study from the Perspective of Historical Geography

Abstract: Causes for the collapse of the Ming Dynasty have remained divergent, and quantitative studies from a perspective of historical geography are needed. Based on the historical records of natural disasters (flood, drought and locust) and human wars (internal rebellions, inter-ethnic conflicts and external wars) of the final 35 years in the late Ming Dynasty (1610–1644 AD) obtained using different spatial scales, a set of grading systems were established to classify and grade the above historical records. Accordingly, the spatial and temporal distribution characteristics of disasters and wars in the late Ming Dynasty were revealed. From natural and human perspectives to quantitative analyses of the direct causes of the collapse of the Ming Dynasty, the author draws conclusion regarding a total of six immediate factors, which were, according to the rate of contribution from high to low, internal rebellions, drought, inter-ethnic conflicts, locust, flood and external wars. Among these causes, human factors accounted for approximately 47%, while natural factors accounted for approximately 53%, particularly among natural disasters, drought and locusts constituted the majority. Attribution analysis indicated that the basin areas in east China were sensitive to climate change during the Ming Dynasty. Climate cooling in the late Ming Dynasty led to frequent disasters, a sharp decrease in resources and environmental degradation, which directly resulted in grain shortage, soaring rice prices and famine and simultaneously triggered turbulence and fiscal crashes indirectly. The optional choice was the structural transformation of human society. In a word, severe drought and locusts in a cooling environment were the main natural causes, while frequent internal rebellions and inter-ethnic conflicts influenced by financial crisis were the major human factors. Although natural factors accounted for a greater percentage than human factors in the rate of contribution to the collapse of the Ming Dynasty, they were the only external factors impacting social development and changes. Finally, this paper establishes an analytic framework of dynastic transition based on DPSIR (Driving, Pressure, State, Impact and Responses).

Keywords: climate change; natural disasters; human wars; collapse of the Ming Dynasty; spatial-temporal characteristics; quantitative research

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