

Introduction

The scale of China's urbanization since modernization began with reform and opening up after the Mao era is unprecedented in human history. It is one of the great earth-changing phenomena of the late twentieth and early twenty-first centuries. China's urbanization is now entering a critical phase with some 100 million additional urban residents projected by 2020. Understanding and responding to China's urbanization is of paramount importance to Chinese government officials, policymakers, and urban and regional planners at every level if China is to continue to modernize and create a livable and sustainable urban system. It is critical to developing countries that they learn from China's experience. As China assumes overwhelming dominance in Asia and a leading role in the global economy, understanding China's urbanization is of interest to scholars and practitioners throughout Asia and everywhere in the world.

The Chinese leadership sees China at a crossroads now—needing a “new style” of human-centered urbanization for a more efficient, equitable, environmentally sensitive and harmonious society. The way in which China urbanizes in the next few decades will have a critical impact on the world economy, global climate change, international relations and a host of other critical issues as well as for the lives of a fifth of the world's population.

WHY WE WROTE THIS BOOK

One main reason we chose to write this book is because China's urbanization is so important. Throughout we present current information on the scale of China's urban transformation and discuss the implications for China and the world.

A second reason we wrote this book is simply to tell the astonishing story of China's recent urbanization. While this book contains a great deal of detailed information, we have worked hard to make it a readable book that will tell the story of China's urbanization in a way that is suitable both to readers familiar with China and those who are not. Newcomers will find the literature review in Chapter 1 and the figures and tables particularly useful, as they give a good picture of China's urbanization. Seasoned

China hands will find much new information and original interpretations in this book as well as up-to-date statistics on all the critical aspects of China's urbanization. Illustrations from our field research through the book show readers concrete examples that illustrate the text. There is no reason why a scholarly book has to be dull—particularly when the subject is as fascinating as China.

A third reason we wrote this book is to draw together all the latest material on Chinese urbanization in one place—summarizing both the existing literature and the statistics. Chapter 1 provides an overview of the literature in English and Chinese, and the bibliography at the end of the book and citations throughout are a comprehensive reference to the literature in both languages. The many tables, figures, maps, line drawings, and appendices present the most up-to-date and comprehensive data about urbanization available at the time this book went to press (summer, 2015). China changes fast and the latest statistics we use are often quite different from data that are only a few years old. The descriptive information in the book represents much more than a collection of existing data. Many of the tables, figures, maps, and data graphics constitute our own synthesis of current data not available anywhere else. We devoted a great deal of time to presenting this information in as easy-to-understand form as possible without shying away from necessary complexity.

The fourth reason we wrote this book is to help clear away the great body of existing misinformation and half truths about Chinese urbanization now in print and available on the web. China is a huge, diverse and rapidly changing country. Policy implementation has been decentralized. Generalizing about issues like hukou status, what compensation farmers receive for land takings, or what social services urban residents receive compared with rural residents is dangerous. The answers to all these questions vary by province and local government within provinces. Statistics that are aggregated to the national or provincial level hide dramatic variations. The meaning of words, even as basic as the word “urban” is different from usage in other countries, and sometimes differs from place to place in China.

While telling a good story about an important topic, presenting accurate and up-to-date data, and dispelling errors are all worthy objectives, this book is intended to do more than that. Professors Zhang and Zhao have thought long and deeply about Chinese urbanization and conducted research on aspects of urbanization throughout China. LeGates has been studying and writing about urbanization for more than four decades. While we report the best mainstream research and conventional policy solutions proposed by government sources and scholars throughout the book, we have developed distinct alternative views about many issues

related to Chinese urbanization. Contrary to the conventional wisdom, we do not think that hukou has blocked or driven urbanization nearly as much as most scholars assume and that it will be a much less important determinant of where migration occurs than structural change in the Chinese economy in the future. While we agree that China's dual urban/rural divide is a serious problem and that urban migrants need to be much better incorporated into the social welfare system, our field research found that many rural residents want to retain rural hukou and there are often good reasons for them to do so. As central and western China develop, the transportation infrastructure in peri-urban areas improves and more people can get from villages to urban work, there are more part-time and seasonal job opportunities in towns and villages, and as first generation migrants return to their villages of origin, we believe that great divisions between developed and developing regions of China will shrink and the dual urban/rural divide will begin to close. These and other thoughts and conclusions are presented throughout the book.

For us, writing this book together has been an experiment in how Chinese and Western scholars can collaborate, and is the fifth reason why we wrote the book. There is universal agreement that China can learn from the West, but must adapt ideas and policies to have "Chinese characteristics." This is a book about urbanization with Chinese characteristics. But what does this really mean? In writing this book we wrestled with two main issues: (1) how much detail to include on the distinctly Chinese characteristics of institutions in order to provide Western readers an in-depth understanding without overwhelming them with detail, and (2) how to describe analogies between Chinese institutions and practices of North American and European counterparts that will help Western readers understand distinctly Chinese reality without distracting them from the book's focus on China. The discussions of migration, hukou, and administrative divisions in China provide more detail than any existing English language book. But these are complex topics with great variation. We could have written much more. Our goal was to provide an in-depth description of each of these important topics and many more that are much better than existing dated and simplistic accounts, but at the same time any reader can understand with patience and careful reading. Throughout the book readers will find a few sentences or a paragraph describing how a current Chinese institution or practice is similar to or different from Western counterparts. These include topics as varied as sprawl, greenbelts, transit oriented development, transfer of development rights, bus rapid transit, urban villages, factory towns, immigration Green Cards, land takings jurisprudence, definitions of towns and cities, independent retirement accounts, and social security—all of which exist in China and all of which do, in fact, have Chinese

characteristics that make them different from counterparts in the West. Sprawl in China is not the same as sprawl in Los Angeles. Guangzhou's bus rapid transit system (BRT) is not the same as in Curitiba, Brazil. Even the Orange County subdivision in Beijing—consisting of exact physical replicas of award winning Orange County, California single family detached homes—is not really like Orange County, California. It has distinctly Chinese economic, social, and spatial characteristics. Readers can judge for themselves how well we succeeded in striking the correct balance between readability and detail and whether or not the analogies we have drawn help readers understand Chinese institutions.

Most of the empirical work and analysis in this book was done by Zhang, Zhao and their students over the last ten years. Nearly all of the material in this book is new and has never been published in any form until now. With very few exceptions, it has been unavailable to English language readers or even Chinese language readers.

Our collaboration was a learning experience for us and we hope that other scholars can learn from our experience. We found that translations of draft book chapters written originally by Zhang in Chinese required substantial rewriting. Information that is common knowledge to Chinese readers required explanation. Institutions and policies could be misunderstood without Western context. The English translation needed work to meet our standards of both detail and readability. One of LeGates' main contributions to the book was to rewrite chapters at an appropriate level with explanations of differences and similarities between China and the West and to add examples and references to help a Western audience understand the material deeply. We hope this will inspire other collaborations to bring good Chinese scholarship to Western audiences.

A sixth reason for this book is to provide a theoretical explanation of Chinese urbanization with Chinese characteristics. Our book is informed by and refers to many theories developed by Western economists, planners, sociologists, anthropologists, and development experts and many new theories developed by other Chinese scholars adapting theory to the special situation in China or proposing entirely new ideas based on China's experience. An important aspect of this book is to bring together these two streams of theory and augment it with our own theoretical explanation of Chinese urbanization. In addition to helping Western scholars and practitioners better understand Chinese urbanization theory we believe other developing countries have much to learn from China. Many countries are borrowing or want to borrow from China's experience. But to do this they need a deep theoretical understanding that will help them determine which policies might apply to them and how they will need to adapt them.

Our final goal in writing this book was to provide useful information that can help improve Chinese urbanization. This book has a prescriptive component. We pride ourselves in doing applied policy-oriented research; not theoretical academic scholarship unconnected to policy choices. As Chinese government officials, policymakers, and urban planners at every level struggle to understand what a “new style” urbanization for China can be like and how to implement it, “scientific” planning based on data we present throughout this book will be necessary. Policymakers face normative choices. While it is not our place to tell policymakers with local knowledge how they should act, we trust that providing them useful and up-to-date information and describing the best available mainstream research and our own alternatives will help improve urbanization decisions throughout China at every level.

CHINA’S URBANIZATION AND DEVELOPMENT

In a little over thirty years China has transformed itself from an overwhelmingly poor rural society to a majority-urban society above the middle level of development for countries worldwide. Since 1978 the number of Chinese officially classified as living *de facto* in urban areas has grown by over 558 million people from 18 percent of the population to 55 percent in 2014 (NBSC-csy, 2013; NBSC, 2015). From a backward rural society comprised mostly of small-scale traditional farmers, China has modernized dramatically and become globally connected. Many aspects of Chinese society have caught up with or surpassed the most advanced developed societies. China has lifted more than half a billion people from abject poverty. By virtually every measure—growth in gross domestic product (GDP), increase in disposable income, foreign reserves, high school and college graduates, new housing units, railroads, highways, airports, bridges, ports, and other infrastructure—China has outstripped other countries in the world during the last thirty years. At the same time, China’s development and urbanization have separated parts of migrating family members from parents and children, fouled China’s air and water with industrial pollution, depleted resources, created social conflict over land conversion, allowed the income, infrastructure, and social service gap between urban and rural areas to widen, littered the landscape with some irrational development zones and enterprises, allowed development that is much too dense or not nearly dense enough, failed to create a sustainable system of local government revenue, and replicated on a vast scale many other urban problems that every country confronts. There is consensus that China must adopt a “new style” urbanization model from now on.

What exactly that should be and how to implement it are high on China's agenda.

WHO WE ARE

This book is the result of more than two years of collaboration among the three authors—two professors of Urban Planning from Tongji University (Zhang and Zhao) and one emeritus professor of Urban Studies and Planning from San Francisco State University (LeGates).

Li Zhang is an Associate Professor of Urban Planning at Tongji University, Shanghai. His research areas include urbanization in China and developing countries, countryside resilience and rural aging issues in China and East Asia, city regions, migration in China, and urban growth strategies. He received his PhD in urban planning in 2010, MA in 2005, and BA in 2002 from Tongji University. Professor Zhang was a visiting student at the University of Melbourne from March 2008 to March 2009. He is the co-editor of the book *New Style Urbanization: Transformation and Countermeasures* (Tongji University Press, Shanghai, 2014) and contributor to several academic books in Chinese and English. He has published more than twenty articles in *Urban Planning Review*, *Urban Planning Forum*, and other top Chinese urban planning journals. His research has also been published in English in *Population Mobility*, the *Journal of International Development*, *Planning Review*, and *Urban Planning and Management in China* (Springer, Berlin and London, 2015). In 2009 the Urban Planning Society of China awarded him first prize for the best article on urban planning by a young scholar for his article on "Transformation of Population Structure and the Second Transition of Urbanization in China." He has twice received Jin Jing-Chang Planning Foundation awards. In 2010 his dissertation was selected as the best PhD thesis in architecture and urban planning in China and nominated as one of the best 100 PhD theses in China that year. In 2014 he was selected as one of the ten best young urban planners in Shanghai.

Richard LeGates is an Emeritus Professor of Urban Studies and Planning at San Francisco State University (SFSU), where he taught from 1973 to 2010. He has been a Visiting Professor at Tongji University's Department of Urban Planning since 2008. Professor LeGates served for twelve years as director of the SFSU Urban Studies and Planning program and two years as director of SFSU's Masters of Public Administration program. He is the co-editor of *The City Reader 6th edition* (Routledge, London, 2015), co-series editor of the ten volume Routledge Urban Reader series, and co-editor of *The Chinese City Reader* (published in Chinese by

China Architectural and Building Press, 2013). Professor LeGates was the board secretary of the International Association for China Planning from 2009 to 2012. In 2012 he received the Urban Planning Society of China and Jin Jing-Chang Planning Foundation award for the best article in a Chinese urban planning journal for a co-authored article on “Urban Planning Theory in China after the Global Economic Crisis.”

Min Zhao is a Professor of Urban Planning at Tongji University and the Executive Director of the Shanghai Urban Planning Society. He received BA and MA degrees in Urban Planning from Tongji in 1982 and 1986 and was a Research Fellow at the University of Melbourne’s School of Environmental Planning in 1988–89. Since 2009 Professor Zhao has headed Tongji University’s national teaching and research team. Previously he served as the head of Tongji’s Department of Urban Planning from 1999 to 2006, and as assistant to the director of the Shanghai Urban Planning Bureau from 1995 to 1996. He is the author of many books, book chapters and journal articles on the theory and practice of Chinese urban planning, urban and regional economics, migration, urban community development planning, spatial administration, land use and rural development, property rights, and regional development. He has written articles in English in *Ekistics* and *Annals of the Regional Planning Society*. Since 2000 Professor Zhao has been awarded a number of prizes in the Shanghai Urban Planning and Design awards. In 2014 he won the Urban Planning Society of China and Jin Jing-Chang Planning Foundation award for the best article in a Chinese urban planning journal for a co-authored article on “Revisiting China’s Urbanization in a Bottom-up Context and Assessing its Policy Implications.”

WHO THIS BOOK IS FOR

Cities throughout the world can learn from the concepts and programs that China has developed as it has struggled with how to manage urbanization in the last three decades. China has a long track record with experiments in urban policies and programs and cities worldwide can learn from China’s many successes and notable accomplishments and also from unsuccessful experiments.

This book should be of interest to academics—faculty, students, and researchers interested in urban studies, urban and regional planning, economics, geography, urban design, public administration, urban governance, development studies, China studies, Asian studies and other social sciences and applied public-policy programs. The accurate and up-to-date detail in the book and our original findings and interpretations should be

of interest to China experts, government officials, staff of international development agencies and non-profits, and professionals involved in real estate, engineering, finance, and business management in the private sector. We have taken pains to make the book accessible to non-China experts and serious students and practitioners at every level. Chapter 1, which reviews the literature on urbanization in general and Chinese urbanization in particular, provides a good introduction to readers who are not very familiar with China or the urbanization, urban development, and urban planning literature. The bibliography contains references to the most important books, articles, and source material on Chinese urbanization in English and Chinese and citations throughout the book are keyed to the bibliography. We summarize conflicting opinions on the most important topics about urbanization in China and citations direct readers to source material by scholars who both agree and disagree with our conclusions.

HOW OUR BOOK IS DIFFERENT FROM OTHER BOOKS ABOUT CHINESE URBANIZATION

The academic literature on China's urbanization, economic development, and planning has exploded in recent years. The literature review chapter describes recent books and articles that summarize Chinese urbanization by Weiping Wu and Piper Glaubatz, Xuefei Ren, John Friedmann, Sunsheng Han, Fulong Wu, You-Tien Hsing, Yasheng Huang, Cindy Fan, Cam Wing Chan, Laurence Ma, Thomas Campanella, Tom Miller and others and the bibliography references hundreds of other books and journal articles of interest.

With all of this existing literature an important question is why do we need this book? Some of the reasons why our book is necessary have already been discussed above. It is unique in drawing together the most recent scholarship and data; grounding our findings in classic theory from economists, demographers, geographers and planners; providing cross-sectional and longitudinal analysis of data at scales ranging from the national to the village level; juxtaposing both macro-level structural analysis from secondary data and analysis on our own interviews and survey research; and articulating normative theory and making specific suggestions about how to apply our findings to the solution of urbanization problems.

Our book also reaches new conclusions. It is independent research. We were not accountable to any government body or funding source. While we cite mainstream research and views throughout and describe their conclusions and the reasons behind them objectively, we also express our own

opinions and disagreements with mainstream views. In some cases our conclusions confirm other research, or generally confirm it, but add detail, qualifications, or exceptions. In other cases we reached conclusions that are different from the mainstream. Our conclusions are described in each chapter and summarized in the final chapter. Among the most important are: (1) migration is driven more by objective economic and social conditions than by hukou, (2) rural migrants' decisions are based more on social issues, such as taking care of their parents and a better rural environment than economic consideration when they make their settlement choices, (3) the distinction between urban and rural work no longer exists in many peri-urban areas where the workforce engages in both agricultural and non-agricultural work, (4) many aging early urban migrants are returning to rural areas because of necessity or choice, (5) urbanization of towns is an essential and promising part of China's urbanization, (6) towns and villages need more financial resources and decision-making authority to stimulate bottom-up rural urbanization, (7) structuring Chinese urbanization in polycentric networks within large urban agglomerations is a promising strategy—particularly in the most economically advanced regions of China, and (8) a planar pattern of towns and villages complements cities of different scales in an urban network.

OUR METHODOLOGY

Most books on China's development and urbanization are heavy on macro-level analysis of national level quantitative data from existing secondary sources. Chinese government entities at every level generate statistics. In the past these statistics were often self-serving and their validity questionable. This is still the case with some lower level statistics. But at the national and provincial level and in large cities many sophisticated demographers, economists, statisticians, and others are now working hard to develop good measures and gather and present valid and reliable data on urbanization. Chinese university research budgets have more than quintupled in the last decade and the number and educational level of Chinese faculty doing high quality urban research has increased rapidly. So has the number of qualified graduate students and recent graduates capable of doing good urban research. There has been rapid growth of high quality independent academic research on urbanization by scholars at Chinese universities and research centers and universities and research centers in other countries. Since so much of the best literature on Chinese urbanization is new, our up-to-date literature review and references to recent scholarship through the book make an important contribution.

One major approach in this book involves presentation of existing high quality secondary data—often simplified and reformatted for clarity—in tables, figures, data graphics, and maps. We present the most recent cross-sectional data available (summer, 2015) from the most reliable sources. Throughout the book there is re-analysis of secondary data. We frequently combined data from multiple sources or re-analyzed existing source data in original ways.

There is a difference between our research and most existing research on Chinese urbanization. Most analyses of Chinese urbanization suffer from overgeneralization. Because China is such a huge and populous country, national-level averages disguise great regional variation. We draw on data from provincial and local sources as well as national data. Our analysis is at multiple scales: national, the three great Chinese regions (east, central, and west), among provinces, within provinces, and sometimes at the city, county, town, township and even village level.

China is changing rapidly, and dated longitudinal data also leads to false conclusions and overgeneralization in much of the existing literature. In much of our longitudinal analysis we group findings into time periods. Over time new data will be necessary to update information in this book, but for the near-term our data should provide a good benchmark and our methodology a basis for updating.

Macro-level structural analysis is not enough. As China has moved more and more to a market economy and relaxed restrictions on individual mobility and other choices, understanding the reasons for individual choices is increasingly important. The Chinese often make decisions as a household, so *household* choices matter. The second prong of our research approach has been to gather information on individual and household choices through interviews and survey research at sites in eastern, central, and western China. Throughout this book we complement information from the existing literature, secondary data analysis, and interviews with evidence from households and individuals. We have found that even in the remotest areas of rural China even the least educated people are generally well-informed and make strategic choices that reflect their own values. In our approach, macroeconomic structural forces and micro-individual choice theory intersect.

THEORY

Good research is always grounded in theory. Our book draws upon the best available theory about urbanization from geographers, economists, political scientists, demographers and urban planners. Throughout the

book we test classic theory against the reality we have found in our analysis of secondary data and our own fieldwork. Chapter 1 provides an overview of the main theories and references to the literature in which the theory can be found. Further elaboration of existing theory useful to understanding aspects of urbanization occurs in each of the chapters. Wherever we discuss existing theory we go on to describe whether or not our findings fit the theory and, to the extent that they do not, offer our own elaborations and new theory. Chapter 9 summarizes our overall theory of “urbanization with Chinese characteristics” building on pioneering work by scholars such as Arthur O. Lewis on the absorption of surplus rural labor into the modern urban sector of developing countries, Hollis Chenery and Moises Syrquin about the relationship between economic development and urbanization, Kingsley Davis and Ray Northam on the urbanization “S” curve, Ernest George Ravenstein, Donald J. Bogue, and Everett Lee about laws of migration, Indermit Gill and Homi Kharas about the “middle-income trap” facing countries at a middle level of development, Manuel Castells’ theories of the network society, informational city and the space of flows, Peter Taylor’s conceptualization of the world city network, Abraham Maslow’s hierarchy of needs, Peter Hall’s idea about polycentric urban networks and our own theory about how endogenous institutional reform and exogenous globalization affect China’s urbanization.

Our hope is that the theory of double dual track urbanization with Chinese characteristics advanced in Chapter 9 and our synthesis and interpretation of other useful theory will be well received by western China scholars and practitioners and English-speaking scholars and practitioners in other countries who do not read Chinese as well as Chinese scholars and practitioners. It is a fascinating story. Enjoy!

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Bellagio, Italy, June 2015