The Program on Chinese Cities: An Urban and Regional Planning and Management Consortium with Peking University

The Program on Chinese Cities (PCC) continues to develop multidisciplinary research, education, and training programs at the University of North Carolina at Chapel Hill, focused on one of the most urgent subjects in the world today—the explosive growth of cities and urban regions in the People’s Republic of China. PCC is conducting research to better understand the impacts of rapid metropolitan development on China’s built and natural environments, and to explore ways to make the Chinese urbanization process more equitable, more transparent, and more socially and environmentally sustainable.

China is home to 1.3 billion people, fully 60 percent of the earth’s population. Anything that happens in China, happens on a massive scale—and often with global implications. Urbanization and the rapid expansion of cities over the last twenty-five years are changing not only China, but the whole world.

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As Center Director, one of the ways I try to support the research agendas of our Faculty Fellows is to identify topics of interest and develop a research program on that topic. In the past, the Center gave support to the development of the Smart Growth and New Economy Program and the Carolina Transportation Program. Our latest collaborative research endeavor is the Program on Chinese Cities directed by Dr. Yan Song, Associate Professor of City and Regional Planning. You will read about this program and one of Dr. Song's research projects on the Chinese urban planning system in this issue of the CURS Update.

A major accomplishment of the Program on Chinese Cities is the creation of the Consortium on Urban and Regional Planning and Management with Peking University, one of China’s top-tier universities. I had the honor of traveling to Beijing with Yan and several other colleagues from UNC-CH early last summer to participate in a signing ceremony and a research symposium. The fifteen-hour trip was grueling, but well worth it. The signing ceremony was a very formal affair held in a traditional Chinese building on Peking University’s historic campus. The Vice President of Peking University and the Executive Associate Provost from UNC-CH were the senior officials at the ceremony. Once pleasantries were exchanged in the central room, we adjourned to a wing of the house to sign the documents—a master agreement between the two universities and a consortium agreement that defines the member cooperation in the areas of research, education, and training activities.

The symposium began that afternoon. Chinese scholars and government officials discussed research on the issues facing Chinese cities and UNC-CH attendees presented research on topics relevant to China. The presentations covered topics including housing needs; finance and policies; environmental protection; economic development (such as the role of research parks); and land use and transportation issues, including airport-related development. These presentations provided a basis for a concluding discussion session on possible joint research projects that are now moving forward.

My brief stay in Beijing allowed me to experience the challenges faced by Chinese urban planners. The scale of Beijing—and many other Chinese cities—is immense: there are high-rise buildings as far as the eye can see on a clear day, which is rare. Even with the construction of new subway lines preceding the 2008 Summer Olympic Games, the traffic congestion is intense and the air pollution is thick. Yet, there is great interest among urban planners and at least some government officials in addressing these problems and moving toward a more sustainable future. We hope the Program on Chinese Cities and the Consortium for Urban and Regional Planning and Management can make at least a modest contribution to that effort.
years present a particularly urgent challenge—especially to urban planning and design professionals. No nation has ever created more urban matter faster than the People’s Republic. Fueled by a quarter century of surging economic growth, China has built more skyscrapers, malls, hotels, housing, highways, bridges and tunnels since 1980 than all other nations combined. In Shanghai, more than 900 million square feet of floor space were added to the city between 1990 and 2004—the equivalent of 334 Empire State Buildings. A study by McKinsey Global Institute predicts another 430 billion square feet of construction in China over the next twenty years—two times the entire housing stock of the United States.

Building at such a rapid pace has also meant extensive destruction. Nearly all of Beijing’s old cityscape has been bulldozed in recent years, and in Shanghai, more families were displaced by redevelopment in the 1990s than by thirty years of urban renewal in the United States. At the same time, some 225 million rural people have flocked to China’s coastal cities since the 1980s—the greatest migration of humanity in history.

The countryside around China’s cities is also under siege, for not only are the city centers booming, so are outlying districts. In China, the suburb is the city. The vast administrative limits of Chinese metropolitan areas include many square miles of farmland, and in recent years much of this open space has been churned into a landscape of highways, shopping malls, and housing estates. Sprawl has also helped make China the fastest-growing automobile market in the world, second in size only to the U.S. The world’s largest automobile showrooms are now in China, and in major cities 1,000 new cars are added to the streets every day. Nationwide, 30,000 miles of modern highway now stitch together China’s provinces. Roads have also been rammed through some of the nation’s densest urban neighborhoods, displacing thousands of families. By 2020 China will have the most extensive national highway system on earth—bigger than even America’s interstate system.

In a variety of ways, China is following the same trajectory that turned the United States into a nation of asphalt and motor cars in 1950s. China is already the world’s largest consumer of oil after the United States, and the International Energy Agency predicts that by 2030 China will be importing just as much oil as the U.S. But the growth of China’s economy is fueled by more than just petroleum. China today consumes more than half the world’s cement, about 40 percent of its steel, and a quarter of its aluminum. Binge building and the explosive pace of urbanization in recent years has also caused tremendous environmental degradation.

The challenges facing China’s cities and metropolitan regions are daunting in scale and complexity. Without exaggeration, the lives of millions will depend on how well China manages the continued growth of its cities in coming years. The collective expertise of the urban planning profession is needed more crucially now than ever in the past. Meeting the China challenge will require applying state-of-the-art knowledge and best practices from the West, but it will also require developing whole new areas of research expertise. This work will be focused in a variety of areas, including sustainable environment and energy planning; land use and land use planning; regional transportation; urban redevelopment; the social equity implications of urban and land development; economic development policy; property rights, laws, and policy; and infrastructure planning and government finance.

The primary goals of the Program on Chinese Cities are to carry out interdisciplinary research, education, and training on Chinese urbanization and to develop an internationally recognized record of collaborative research, publication, and outreach. The Program on Chinese Cities also makes efforts to form partnerships with peer institutions in China that will further international collaboration by facilitating the development of research networks. Establishing a training program for urban policy makers in China that assures the immediate application of cutting-edge research is also in the offing.

Most recently, the Program on Chinese Cities facilitated UNC-Chapel Hill’s expansion of international academic involvement through a Consortium on Urban and Regional Planning and Management with Peking University, one of the leading universities in China. The Center for Urban and Regional Studies (CURS) and the Department of City and Regional Planning (DCRP) in UNC’s College of Arts & Sciences, and the College of Urban and Environmental Sciences and the Department of Urban and Regional Planning at Peking University, are the key members of this consortium.

William Rohe, director of the Center for Urban and Regional Studies, and Ron Strauss, executive associate provost and chief international officer for the University of North Carolina, visited Beijing, in late May 2011 to sign the consortium agreement and to participate in a joint symposium of UNC and Peking University scholars. DCRP faculty members Phil Berke, Roberto Quercia, and Yan Song, along with Jack Kasarda of the Kenan Institute, and Brian Morton, CURS Senior Research Associate, also travelled to Beijing to participate in the symposium and to explore joint research projects. Peking University participants included Guicai Li, Dean of the College of Urban Planning and Design; Bin Lu, Chair of the Department of City and Regional Planning; Changchun Meng, Chair of the Department Geography; Professor Xiaochen Meng; and several other faculty members. In addition, several key policy makers from the Ministry of Housing and Urban/Rural Development (MHURD) and the Ministry of Land and Resources (MLR) attended the symposium.

The consortium will promote visiting researchers, student exchanges, workshops, and academic conferences that will examine the unprecedented migration of the Chinese people from rural to urban areas. This research will help to build an understanding of the environmental and social impacts of that migration and to address urgent issues of urbanization.
Cities around the world have developed a wide range of plans to guide urban development, provide future infrastructure, and accommodate growing housing needs. In this era of globalization, rapidly urbanizing Chinese cities aspire to become sustainable cities utilizing efficient governance and advanced technological and economic development, while enriching human, cultural, and environmental capital. However, planning efforts are disconnected and a more integrated approach to planning systems is needed.

Supported by the Lincoln Institute of Land Policy, Yan Song, an associate professor in UNC’s Department of City and Regional Planning, evaluated China’s existing planning system and contrasts that system with a more integrated and comprehensive planning system for Chinese cities. The results of this project will promote smart growth for Chinese cities in this era of rapid urbanization and bring a more integrated approach to urban and regional planning.

**Chinese Cities and the Vertical Structure of Planning Processes**

In China, planning functions are administered at the national level, then by counterparts at the local levels. Most Chinese cities apply a top-down planning structure and at these local levels of government, the people’s congresses are the local organs of state power and have capacity to elect members of the government. The people’s congresses also have power to adopt local regulations and to monitor government functions such as urban planning. As the national or state government develops an economic and social development plan, for example, every province, city, county, and township follow suit and this creates a lack of coordination and redundancy.

China’s urban planning institutions operate at different levels of government. Planning institutions at different levels formulate urban plans for the corresponding city or town in two stages—the master plan and the detailed plan. In addition, planning institutions play important roles in the plan approval process. For example, cities directly under the central government—Beijing, Tianjin, Shanghai, and Chongqing—typically submit urban plans directly to the State Council for approval; capital cities of provinces—cities with a population of more than 1 million—and certain designated cities, submit their plans first to the provincial government and then to the State Council for approval. Smaller city planners submit plans to their city’s upper-level government for approval.

**Structure of Planning Institutions by Sector**

Evolving urban development planning of most Chinese cities addresses many urban
issues including: socio-economics, land resources, transportation, and environmental protection. A variety of planning institutions have been established to lead planning efforts in these different sectors. At the national level, urban comprehensive plans are supervised by the Ministry of Housing and Urban/Rural Development or MHURD; comprehensive plans for land and resources and land use master plans are supervised by the Ministry of Land and Resources (MLR); comprehensive plans for river basins and flood control planning are supervised by the Ministry of Water Resources (MWR); transportation plans are supervised by the Ministry of Communication (MOC), the Ministry of Railway (MOR), and the General Administration of Civil Aviation (GACA); and regional (economic development) plans and national economic and social development plans are supervised by the National Development and Reform Commission (NDRC). These institutions coordinate with each other in plan formulation, implementation, and evaluation. At the local level, planning is as complicated as at the national level. Planning-related local agencies and their roles and functions in the urban planning process follow.

Selected Planning-Related Local Institutions and Their Major Functions

**Bureau of Urban Planning**
- Urban planning process management;
- Bureau of Land and Resources (Land and Water Bureau)
- Manage the land use master plan; land use–related activities; provide/inspect land use allocations to other agencies and stakeholders

**Bureau of Water Resources (River Bureau)**
- Develop comprehensive plans for river basins and flood control

**Bureau of Transportation (Road Transport Bureau)**
- Participate in urban planning processes, especially those related to transportation planning
- Manage the traffic impact analysis for land use and construction development

**Commission of Development and Reform (Policy Bureau)**
- Establish Economic and Social Development Plan, regional development plans
- Guide urban planning process

**Bureau of Public Works (Infrastructure Bureau)**
- Maintain the public infrastructure system
- Bureau of Environmental Protection
- Develop local environmental legislation; monitor environmental protection

**Bureau of Statistics**
- Provide historical population/economic data to planning agencies

**Economic and Social Development Plans**

The National Development and Reform Commission has formulated the National Economic and Social Development Plan—commonly referred to as the five-year plan—every five years since 1949. The plan gathers inputs from all relevant ministries at the national level and the State Council. The plan must be approved by the National People's Congress to be effective. The purpose of the five-year plan is to provide guidelines for economic reform, urban and rural development strategies, and social welfare development. All levels of local government, except townships, develop economic and social development plans once the national five-year plan is formulated. Local five-year planning is led by the local Development and Reform
Commission and the local government. Plans are reviewed and approved by the People's Congress at the local level before they become effective. Local five-year plans are similar to five-year plans developed on the national level.

Economic and social development plans play an important role in guiding subsequent urban and rural developments. These plans may define capital investment projects, budgetary decisions, and overall development direction and affect infrastructure, economic growth, and urbanization patterns. China’s five-year plan on economic and social development provides guidance to many other policy documents and plans. Strategic plans cover economic growth, population, natural resources, environment, public service, and personal living. Indicators used to benchmark development goals are: gross domestic product (GDP) per capita; urbanization level; ratio of research and development expenditure over GDP; population/employment size and growth; energy consumption; water consumption and water use efficiency; farmland protection; emission reduction; pension and health insurance coverage; and per capita disposable income for both urban and rural residents.

Land Use Land use planning is administered by the Ministry of Land Resources at the national level, the Department of Land Resources at the provincial level, and land management bureaus at local levels. The amount of land for development and protection at local levels is largely determined at a higher provincial level of government. Land use plans and their revisions for provinces, prefecture cities, and autonomous regions are reviewed and approved by the State Council. Plans and plan revisions for townships, cities, counties, and prefectures are reviewed and approved by the provincial government. Land use plans determine infrastructure policy, land use development, and conservation.

Urban Plans The responsibility for urban planning systems at the national level is the Ministry of Housing and Urban-Rural Development (MHURD) and local planning commissions. The 1989 City Planning Act was an important milestone in formalizing China’s urban planning system and the roles and functions of various institutions. The Explanatory Notes of the City Planning Act, published by the MHURD, interprets the act for institutions and stakeholders at different levels of government and states that planning institutions are responsible for drafting region-wide city and town system plans including master, district (optional), and detailed plans. Urban plans aim to control urban spatial resources, guide the development and construction of cities and towns, provide sufficient public services, ensure public health, and protect public interests.

Transportation Regional transportation planning is overseen by institutions including the Ministry of Communication (MOC), the Ministry of Railway (MOR), and the General Administration of Civil Aviation (GACA). These three institutions have different statutory responsibilities, with MOC focusing on road systems and water transport, MOR focusing on railway networks, and GACA focusing on airports and related infrastructure. Urban transportation planning is included in the urban planning system, while transportation planning activities are overseen by the urban planning institution in each city.

Promoting Coordination and Efficiency

There is a lack of coordination between planning and other departments in the current system of Chinese planning. Integration and coordination across institutions is essential for effective planning. Many Chinese cities have made recent efforts to increase coordination such as:

• Creation of a committee with members from related departments to combine evaluations of social, economic, and population conditions to guide land uses, infrastructure, and environmental systems.

• Planning integration for responsible land resource protection and allocation for
effective decisions on new development location, limited development, and preservation/conservation of farmlands/open spaces.

- Coordination of transportation, land use, and urban plans to ensure layout and capacity of transportation infrastructures and multi-modal transportation systems including roads, rail, and airports, and response to spatial allocation of land uses identified in land use and urban plans.

- Coordination of environmental protection with urban planning and transportation planning agencies via formally implemented impact assessment procedures for large urban development and transportation projects.
The Moving to Work Demonstration (MTW) was enacted by Congress in 1996 to address criticisms that assisted housing programs bred dependency, undermined the work ethic, and trapped participants in areas with limited opportunities for employment and education. MTW affords selected housing authorities the flexibility to design and test innovative approaches to providing low-income families with decent, affordable housing. Participating housing authorities are guided by three program goals: achieve greater cost effectiveness; increase housing choices for low-income households; and assist participating households in achieving self-sufficiency.

The Charlotte Housing Authority (CHA) is one of the thirty-five housing authorities across the country chosen to participate in the MTW program. As a demonstration program it is important to assess the impacts that it has on the characteristics of the families served, their housing satisfaction, their ability to move out of assisted housing, and other outcomes. The Center for Urban and Regional Studies’ researchers, Bill Rohe, Mary Donegan, and Hye-Sung Han, are conducting such an evaluation and have recently produced an interim report that describes how the CHA is taking advantage of the program’s flexibility and lessons learned during the first two years of the program. The report also presents the baseline measures that will be tracked over time to assess the long-term impacts of the program.

The Development and Implementation of CHA’s Moving Forward Program

The CHA has used the flexibility provided by the MTW program to undertake four major initiatives that CHA calls its Moving Forward Program: 1) rent reform; 2) work requirements; 3) enhanced supportive services; and 4) the transformation of its housing portfolio.

- Rent reforms that are designed to increase incentives for residents to find employment are: the establishment of minimum rents, beginning at $50 and escalating by $25 a year over a two-year period; rent payments based on $2,500 income bands; and escrow accounts into which the CHA will deposit $10-$50 per month for residents with wage incomes over $12,500.

- Work requirements are being phased in over a two-year period. During the first year, unemployed non-elderly, non-disabled participants are provided with a personally tailored array of job readiness and supportive services. By the beginning of the second year, the heads of household will be expected to show a good faith effort to find employment for a minimum of fifteen hours per week. By the beginning of the third year, heads of household will be expected to work at least thirty hours per week. Participants who do not meet the work requirements will lose part or all of their rent subsidies.

- The alteration of CHA’s housing portfolio includes the use of its single-fund flexibility to develop additional housing units by acting as a developer or partnering with other affordable housing producers to acquire and rehabilitate existing multifamily developments in opportunity-rich neighborhoods. CHA can collaborate with social service providers to expand housing for people with disabilities and special needs, including the homeless.

For more information on this research contact Bill Rohe at brohe@unc.edu.
Lessons Learned in Moving Forward Program Implementation

The following lessons can be drawn from the CHA’s early experience in implementing their Moving Forward Program:

• The flexibility provided by the MTW program challenges public housing authorities (PHAs) to develop their own initiatives which require skills beyond those traditionally needed by PHA staff.

• Given major new initiatives and smaller changes in regulations and procedures, good communication among PHA staff, and between the staff and the board, becomes increasingly important.

• PHA staff and board members may hold different opinions on the relative importance of the three MTW goals, as well as on the wisdom of major new initiatives such as work requirements and rent reforms.

• MTW initiatives will evolve over time as local conditions change and program evaluations provide information on the impacts of new initiatives.

• Implementing the MTW program will require major changes in PHA database management systems, which may be both time consuming and costly.

• Substantial participant outreach is needed in the design and implementation of major MTW initiatives, such as the Customer Annual Planning Sessions that CHA has conducted.

• When possible, implement major new program initiatives on a pilot basis so that actual impacts can be assessed before authority-wide implementation.

• Look to other MTW PHAs for appropriate ideas on new program initiatives that fit CHA.

• Educate the public about the MTW program and major new initiatives in order to maintain community support.

Outcome and Impact Measures

At this point in time the researchers have conducted a baseline resident survey in all of CHA’s housing developments. The survey asked questions on resident satisfaction, health, children’s school performance, and other social indicators. A total of 933 completed surveys were received from 1,252 household heads—a response rate of 75 percent. CURS researchers are also tracking the characteristics of public housing residents and Section 8 program participants to assess how the mix of incomes and household characteristics change over time. The characteristics of CHA’s housing stock and conditions in the neighborhoods surrounding that stock are also being monitored.

Challenges to the Implementation of Moving Forward

The CHA has embraced the flexibility of the MTW program by adopting a large number of new initiatives and procedures. Not all of these changes have been successful and CHA faces some challenges in the implementation of its Moving Forward (MF) program, including:

• Improving communication about the MF program among CHA staff members;

• Differing staff opinions on the relative importance of the three MTW goals;

• A slow economy and lack of job opportunities;

• The lack of funding for case management and support services;

• Updating the CHA’s database management system to handle all the changes;

• Addressing staff vacancies and skills mismatches.

Conclusion

The CHA’s participation in HUD’s Moving to Work demonstration program has provided it with an opportunity to experiment with novel ways to provide affordable housing and encourage residents to increase their job skills and move out of assisted housing. The CHA has made good use of that opportunity by partnering with other organizations in the construction and management of new affordable housing, changing the rent paying formula, and providing a combination of work requirements and enhanced job training and related services to assist residents in moving toward economic independence. The impacts of these program changes, however, will not be known unless key indicators are carefully monitored. CURS researchers will continue to do that and their findings will help inform the national debate on how to best provide affordable housing to those in need.
The Center welcomes three new Faculty Fellows:

- **Daren C. Brabham**
  Assistant Professor  
  School of Journalism & Mass Communication

  Daren C. Brabham joined the faculty in the School of Journalism in 2010 as an assistant professor. He teaches public relations courses and researches online communities and the role of new media in society. As a doctoral student, Professor Brabham was among the first to publish research on crowdsourcing, an online, distributed problem-solving and production model that utilizes the collective intelligence of online communities. Dr. Brabham’s work focuses on the potential of crowdsourcing and social media to improve public participation in governance, transportation planning, and public health applications. His work in crowdsourcing and transportation planning has been supported by funding from the U.S. Federal Transit Administration. Brabham’s work has appeared in such publications as *Convergence, Planning Theory, Information, Communication & Society, First Monday,* and *The Routledge Handbook of Participatory Cultures.* He has been a columnist for the journal *Flow,* where he published short pieces of media criticism on a variety of topics relating to television, new media, and culture, and he is the founding editor of *Case Studies in Strategic Communication.* Brabham’s professional experience includes user experience design, a broad range of public relations functions, and crowdsourcing consulting. Professor Brabham earned his Ph.D. from the University of Utah.

- **Lauren Persha**
  Assistant Professor  
  Geography / Curriculum for the Environment & Ecology

  Professor Persha’s work focuses on the intersection of natural resource conservation, human welfare, and environmental governance in human-dominated forested landscapes in the low-income tropics. She is interested in developing a better understanding of how these elements and issues are related to each other, and how they are shaped over time and across a range of contexts by key ecological, institutional, socio-economic and policy drivers. She uses empirical data from forests and villages across several countries in this work, and has long-standing field research and professional experience in East Africa.
Eunice N. Sahle
Associate Professor / Chair
African & Afro-American Studies
Associate Professor
International Studies

Professor Sahle teaches courses on political economy; human rights and social justice movements; and cultural production as these issues relate to African studies. In International Studies she teaches courses in comparative political economy of development and global issues with a focus on globalization and transitions to democracy. Her current research includes: global political economy; critical development studies; African diaspora formations in Canada and Europe; refugee studies and political economy of displacement; social movements; democracy, human rights and citizenship; feminist political economy; political economy of global cities; and cultural production. Dr. Sahle earned her Ph.D. from Queen’s University, Kingston, Ontario, Canada.

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Visiting Scholar

Martin Horak

Martin Horak, is the CURS Visiting Scholar for 2011-2012. Dr. Horak is Associate Professor of Political Science at the University of Western Ontario, London, Ontario, Canada. Most recently, Dr. Horak has completed several projects in his field of interest:

• Sites of Governance: Multilevel Governance and Public Policy in Canada's Big Cities, co-edited with Robert Young (University of Western Ontario), to be published by McGill-Queens University Press in spring 2012. The book—the first major cross-case survey of multi-level urban policymaking in Canada—analyzes policymaking across levels of government in the largest city of each province. In addition to his editorial task, Dr. Horak wrote a chapter on Toronto and the concluding chapter of the book.


While at CURS, Dr. Horak will conduct comparative research on the intergovernmental politics of large urban rail infrastructure projects in Canadian and American cities. This research is funded by a grant from Canada’s Social Sciences and Humanities Research Council.

• Dr. Horak is completing a co-authored manuscript with several American political scientists on the politics of neighborhood regeneration in North American cities.

T. William Lester, City & Regional Planning, joined a group of fifteen scholars from around the country this summer to create a series of policy papers aimed at finding ways for state and local governments to jump start job growth in the current fiscal and political environment. The group, called Big Ideas for Job Creation, was organized jointly by the Annie E. Casey Foundation and UC Berkeley’s Institute for Research on Labor and Employment (IRLE). Dr. Lester presented a paper entitled “Dedicating New Real Estate Transfer Taxes for Energy Efficiency: A Revenue Option for Scaling up Green Retrofit Programs,” which presents an original policy proposal for incentivizing new homeowners to undertake extensive energy efficiency improvements at the time of purchase. Using data from North Carolina, this paper finds that the policy, if enacted, could generate approximately 6,000 jobs per year. In 2011, Dr. Lester traveled to the World Planning Schools Congress in Perth, Australia—a joint conference organized every five years by all academic planning schools associations around the world. He presented a portion of his ongoing analysis of Chicago’s Tax Increment Financing (TIF) programs at the conference.

Catherine Marshall, School of Education, participated in the Women Leading Education (WLE) Conference in Volos, Greece, September 2011, with forty scholars and activists from around the world. The topics included: gender equity audits; mentoring of women as school, university, and business leaders; why women leave superintendence; gender and power issues in Pakistan; women school leaders in AIDS-ridden Kenya; and the latest report by the American Association of School Administrators (AASA) on the status of women leaders. Dr. Marshall presented a paper, “College Women’s Interpretations of Sexual Harassment: What We Know, What Can Be Done,” co-authored by two graduate students, Stephanie Galloway and Keren Dalyot, and based on a current research project.

Tyler Mulligan, School of Government, recently co-authored a book with Jennifer L. Ma entitled Housing Codes for Repair and Maintenance: Using the General Police Power and Minimum Housing Statutes to Prevent Dwelling Deterioration, published by the UNC School of Government. The book explains how local governments in North Carolina can establish and enforce repair-oriented housing codes that require owners to keep dwellings in a state of good repair and prevent dilapidation.

Erika Wise, Geography, worked with the Teton Science Schools this past June to convene a water management workshop in Jackson, Wyoming. The workshop, “Connecting Climate Change and Water Resources in the Snake River Headwaters,” provided an opportunity for Dr. Wise to disseminate the results of her tree ring-based reconstruction of Snake River stream flow to the region’s planners and managers of natural resources. This work was also recently published in the journal *Water Resources Research*. In spring 2011, Dr. Wise was awarded a National Science Foundation grant from the Paleo Perspectives on Climate Change (P2C2) program to begin a new line of research on western U.S. climate variability over multi-century timescales.

Mary Donegan has joined CURS as Research Associate and is working with Bill Rohe on evaluations of the Charlotte Housing Authority’s Moving Forward (see p. 8) and HOPE VI programs. Mary earned a master’s degree in planning from the Department of City and Regional Planning at UNC-Chapel. Her research interests focus on economic development, workforce development, and the creative city.

Brian Morton, Senior Research Associate, reached major milestones on “Impacts of Land Use on Travel Behavior in Small Communities and Rural Areas,” funded by the Transportation Research Board: development of a typology of small communities and rural areas in the U.S. using data on population, employment, and road networks; review of the transportation planning literature on the characteristics and influences of land use and the built environment on travel behavior in small communities and rural areas; and a survey of databases pertaining to daily travel in those areas. Dr. Morton also started work on a project funded by the North Carolina Department of Transportation: “Land Use Forecasting Models for Small Areas in North Carolina.” His first task is to review the quantitative land use forecasting models that are appropriate for use by small transportation planning agencies.

Todd Owen, Associate Director, was recently awarded a grant from the Z. Smith Reynolds Foundation to expand the Center’s State of North Carolina Cities project (see p. 14). The project was developed to create an index of urban well being for North Carolina’s largest cities using data from the Census Bureau’s American Community Survey.

Bill Rohe, Director, recently published *The Research Triangle: From Tobacco Road to Global Prominence* (University of Pennsylvania Press), which addresses the history, current issues, and future prospects of the Research Triangle metropolitan area. The book offers recommendations on how the area can maintain its high quality of life as it continues to experience rapid growth. Bill also travelled to Beijing this summer to sign an agreement with Peking University that created a Consortium on Urban and Regional Planning and Management and to participate in a symposium. He continues to work with colleagues on a long-term evaluation of a large individual development account (IDA) program and on two evaluation studies for the Charlotte Housing Authority.

### A Fond Farewell

Spencer Cowan, Senior Research Associate, has left CURS to become Vice President of Applied Research for the Woodstock Institute in Chicago, Illinois. The Woodstock Institute is a leading nonprofit research and policy organization that focuses on fair lending, wealth creation, and financial systems reform. Spencer has been a valuable member of the Center and he will be missed. We wish him the very best in his new endeavor!
The Impacts Abandoned Properties Impose upon Neighborhoods

HYE-SUNG HAN and WILLIAM ROHE—Co-PIs. Supported by the U.S. Department of Housing and Urban Development, this study examines the impact of housing abandonment upon neighborhoods in Baltimore, Maryland from 1991 to 2010. While the ongoing mortgage crisis has brought heightened awareness to housing problems nationwide, including foreclosed, abandoned, and vacant properties, the problem of housing abandonment is not new. Long before the current mortgage crisis, many large metropolitan areas were already grappling with the problems of housing abandonment and neighborhood decline. This problem, however, is no longer confined to older cities but is spreading to small towns and suburbs across the country due to the recent dramatic rise in foreclosures. Despite the extent of housing abandonment and its negative impacts, research on this topic and the development of effective policies to address it have not been at the forefront of urban research or policy making in recent years. This research attempts to provide empirical evidence that would yield more concrete understanding of the relationship between housing abandonment and neighborhood decline. To achieve this goal, the project addresses three primary research questions: 1) What is the relationship between housing abandonment and neighborhood decline as measured by property values? 2) Is there a threshold in abandonment beyond which a neighborhood declines dramatically? and 3) Are some neighborhoods more resilient to the negative impact of housing abandonment and if so, why? For more information on this project contact Hye-Sung Han at hyesung@email.unc.edu.

Morrisville Housing Needs Assessment

SPENCER COWAN—PI. The town of Morrisville, North Carolina is funding a workforce housing assessment as part of a small area plan and development code for the McCrrimon Parkway transit station. The purpose of the assessment is to determine the extent of need for affordable family housing in Morrisville and to identify potential strategies to accommodate workforce housing as part of the McCrrimon Parkway transit-oriented development (TOD) area. Cowan and his team will analyze housing and employment data from the Bureau of the Census, Wake and Durham counties, and other secondary sources. Center researchers will also gather and analyze data on local housing market conditions and conduct key informant interviews and/or focus groups with local officials, residents, and employers to provide qualitative data to supplement the quantitative analysis of the need for workforce housing in Morrisville. In addition to the analysis of need, the project will recommend potential strategies for the town to use to promote the development of workforce housing within the McCrrimon Parkway TOD area. In addition, the Center will present its findings and assist with a visual preference survey with members of the community to guide the workforce housing policies and design codes to reflect the community’s design preferences. The Center will produce the analysis of the need for workforce housing and recommended strategies for promoting the development of workforce housing as a stand-alone report. For more information contact urbanstudies@unc.edu.

The State of North Carolina’s Cities

TODD OWEN—PI. Cities are economic drivers for our state as they generate civic pride and identity that helps to sustain them. The well-being of North Carolina’s cities is critically important to the prosperity of the state and its citizens, but there has been insufficient attention paid to the current health of our cities. This research, funded by the Z. Smith Reynolds Foundation, will assess changes in the urban well-being of North Carolina’s forty-four largest cities that represent forty percent of the state’s population. Researchers will create an index of urban
conditions to evaluate how these cities are doing compared to the state as a whole and to the other cities in the study. Changes in individual cities will be measured over time. The Center for Urban and Regional Studies has collected data—population growth, poverty rates, per capita income, housing cost burdens, overcrowding, educational attainment, employment, unemployment, crime, and percentage of population between the ages of 25-34—to document recent changes and trends and to establish baselines to assess future community change. The study draws on the American Community Survey data that will be released over the next two years. It will expand the number and types of indicators, conduct an in-depth analysis of the data, and develop maps and web-based displays to illustrate findings in easily understandable and downloadable formats. The study will investigate the feasibility/availability of data for additional indicators on topics including: human health; transportation; environment; fiscal health; and more detailed education, employment, housing, income, and poverty data. Contact Todd Owen at towen@email.unc.edu for more detail.

**Measuring the Impact of the Charlotte Housing Authority’s Moving to Work Program: A Proposal for Research Services**

BILL ROHE and SPENCER COWAN-Co-PIs. The Center for Urban and Regional Studies will evaluate the Charlotte Housing Authority’s (CHA) Moving to Work Program. This program allows participating housing authorities discretion in the allocation of resources to achieve any one of the three statutory objectives of the program. The Center will examine the implementation, outputs, and impacts that the Moving to Work Program will have on the residents, the Authority, and the community. See page 8 of this issue for a summary of the project’s interim report to the Charlotte Housing Authority. For more information contact Bill Rohe at brohe@unc.edu.

**Community Engagement and Planning for Robbinsville, North Carolina**

DAVID SALVESEN and SPENCER COWAN—Co-PIs. Graham County and the small mountain town of Robbinsville are grappling with many of the same issues faced by other small, rural communities across North Carolina: A deteriorating economy and a declining tax base. The loss of traditional industries has left a gaping hole in the town’s economy, with few prospects for growth and economic development on the horizon. The Center for Urban and Regional Studies and the Center for Sustainable Communities will engage the town in a process of developing a vision for the future and a plan of action to achieve that vision. The project will include meetings with town leaders, interviews with other key informants, and engagement with the community at large in order to identify strategies the town can consider to improve its prospects for a more sustainable future. The project will conclude with a final report that includes critical findings and recommendations for action by the town. For more information on this project contact David Salvesen at dsalv@email.unc.edu.

**POVERTY & EQUITY**

**Evaluating the Impacts of Impulse Savings Using Piggymojo**

KIMBERLY MANTURUK and JESSICA DORRANCE—Co-PIs. Evaluation of the Piggymojo demonstration project is funded by the Center for Financial Services Innovation and Savings Hero, LLC and is aimed at increasing “impulse savings” through the purchase of a pre-paid card which has a savings account attached to the transaction account.

Piggymojo has partnered with Kinecta Federal Credit Union of southern California to serve as the financial institution for the study. Piggymojo is being offered to Kinecta and Nix Check Cashing customers. Their impulse saves will move money from a transaction account to a savings account. The goal of the Piggymojo project is to help low-income earners increase their savings by motivating and enabling them to impulsively save instead of buy. Generally speaking, the act of consuming is an experience connected with measurable increases in short-term pleasure. The act of not spending, or saving, on the other hand is often considered a non-experience. Thus, forgoing the consumption of a desired material good or experience tends to lose out to consumption: spending just feels better than not spending. Saving also often feels generally good, but is rarely impulsive, and the reward is often delayed. Saving is typically
about putting away something extra, particularly for low-income families. This implies that spending control is necessary and yet the two are rarely linked in the moment: the savings goal is not present at the moment of decision between consuming and not consuming. PiggyMojo is designed to insert itself into that decisive moment, to connect the two motivations, and to bridge the gap between spending avoidance and savings by creating what is termed an impulse save. By quantifying spending avoidance then automatically moving money as a save, PiggyMojo hopes to enable users to satisfy both the gratification of buying something and the long-term satisfaction of a save. The research team will evaluate PiggyMojo to determine how effective the product is for users, what elements of the product were most useful for increasing savings and achieving savings goals, and how this method of savings compared to other methods. For more information on this research contact Kimberly Manturuk at manturuk@email.unc.edu or Jessica Dorrance at jdorranc@email.unc.edu.

SUSTAINABILITY

Linking Econometric Models with Chesapeake Bay Models and Coordinating to Support the Maryland State Development Plan

NIKHIL KAZA—PI. In May 2007 the National Center for Smart Growth at the University of Maryland received a grant from the EPA’s Collaborative Science and Technology Network for Sustainability entitled “Reality Check Plus—Envisioning a Sustainable Maryland.” That grant helped to support the development of models to examine nutrient loading in the Chesapeake Bay and residential energy consumption in a regional scenario planning exercise. The project has progressed as planned, and this project, also funded by
the EPA with the University of Maryland, will take it a step further: It will link the econometric models developed for a complementary project to the Chesapeake Bay model so that impacts of various economic and demographic scenarios can be understood. For more information contact Nikhil Kaza at nkaza@unc.edu.

TRANSPORTATION

Land-Use Forecasting Models for Small Areas in North Carolina

BRIAN MORTON—PI. Funded by the North Carolina Department of Transportation (NCDOT), this project will provide the agency’s Transportation Planning Branch with tools for improving the quality of the land-use forecasts used by travel demand models, especially those for small areas. In addition, the project will provide the NCDOT units involved in environmental analysis with tools for improving indirect and cumulative effects assessments. In these important ways, the project will assist the NCDOT with executing one of its six strategic functions: transportation strategy and investment analysis. For more information contact Brian Morton at bjmorton@email.unc.edu.


NOREEN MCDONALD—PI. In the most recent federal transportation bill Congress identified these national objectives: get more kids to walk to school and make it safe for kids to walk to school. To achieve these goals, in 2005 Congress authorized $612 million for the Safe Routes to School (SRTS) program. By the end of 2009, the program had funded education and encouragement programs coupled with infrastructure improvements at nearly 6,500, or approximately ten percent of elementary and middle schools nationwide. Despite the success of the program in attracting media and public interest in active transportation, there have been no large-scale evaluations of the program’s effectiveness. A 2008 General Accounting Office report on the SRTS program concluded that the lack of a comprehensive evaluation program could limit the government’s “ability to report on how well the SRTS program is meeting its national goals and objectives.” With this study, researchers propose to address this knowledge gap by conducting a multi-state evaluation of the SRTS program using a quasi-experimental research design to look at the program’s effectiveness in the District of Columbia, Florida, Oregon, Texas, and Washington. The research team has extensive experience with the SRTS programs in these states, they have access to data on school travel and safety for intervention, and control schools prior to the start of the SRTS project. This funding will allow them to collect data on rates of walking and biking to school and the safety of school transportation after implementation of the SRTS program to measure the effectiveness of SRTS interventions. Case studies of exceptionally successful and unsuccessful SRTS interventions in each state will be conducted to identify critical success factors. This work will also enhance a much-needed evaluation framework for the SRTS program. In addition, the researchers will evaluate the feasibility of the evaluation framework proposed by the National Center for SRTS/U.S. Department of Transportation by piloting-testing it in our study areas and assisting in revising the framework that will be implemented nationally. For more information contact Noreen McDonald at noreen@unc.edu.
Completed research

The following research projects are now complete. Please visit our website for reports that are available as downloadable pdf files at http://curs.unc.edu.

You may also order our publications from The Center for Urban and Regional Studies, Campus Box 3410, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-3410. The cost of the publication includes postage and handling. Please make payment by check or money order to the University of North Carolina. For orders to be mailed outside the United States remittance must be in U.S. dollars payable on a United States bank.

To place an order, please call 919-843-9708 or email urbanstudies@unc.edu.

Feedbacks Between Complex Ecological and Social Models: Urban Landscape Structure, Nitrogen Flux, Vegetation Management, and Adoption of Design Scenarios

LARRY BAND—PI. The Chesapeake Bay, our nation’s largest estuary, is threatened by nitrogen pollution from upstream sources. Nitrogen loading into the Chesapeake Bay is of concern because of effects on important aquatic resources such as crabs and oysters, but also the effects on the tourism industry. Progress has been made in mitigating pollution from point sources while atten-

The Impact of Changes in the Income Eligibility Threshold for Weatherization Assistance

SPENCER COWAN—PI. Funded by the Ford Foundation and the Energy Programs Consortium, this research examined the impact of changes in the income eligibility threshold for assistance under the Weatherization Assistance Program (WAP). The American Recovery and Reinvestment Act of 2009 (ARRA) dramatically increased funding for WAP, from about $227 million in 2007 to $5 billion over the succeeding three years. At the same time, the ARRA changed the income...
eligibility threshold by changing the definition of “low-income” from either 150% of poverty or 60% of state median income to 200% of poverty or 60% of state median income, whichever is greater. The obvious impact of that change in the income threshold is to make more households eligible for WAP funding. However, that impact is not evenly distributed among the states because poverty is a uniform national standard that does not reflect state-level differences in income. The way ARRA changed the eligibility threshold made more households in states with generally milder climates and lower energy costs and consumption—Alabama, Louisiana, Mississippi, New Mexico, and South Carolina—eligible for assistance, while leaving the number of eligible households virtually unchanged in several states with harsh climates and high energy costs and consumption for residential climate control—Colorado, Massachusetts, Michigan, Minnesota, and Wisconsin. Analysis of the impact of the change in the income eligibility threshold shows that the newly eligible households pay approximately 4% less for energy and use about 17% fewer BTUs for residential heating and cooling than households eligible under the pre-ARRA threshold. The change in the eligibility threshold, therefore, resulted in lower average potential cost and energy savings per unit weatherized than under the old standard. An alternative adjustment to the eligibility threshold that raised the limits to 165% of poverty or 63% of state median income would have resulted in about the same number of newly eligible households. The difference, however, is that the change would have resulted in a more nearly equal increase in the number of eligible households among states and significantly higher potential savings in both cost and consumption. The implication for policy makers is that they should consider the effect of eligibility thresholds on the distribution of eligible households to maximize the potential benefits from assistance programs. For more information on this project contact urbanstudies@unc.edu.

**POVERTY & EQUITY**

**Facilitating Savings for Low-Income Workers**

JANNEKE RATCLIFFE and MICHAL GRINSTEIN-WEISS—Co-PIs. Funded by the Ford Foundation, $aveNYC tests the potential impact of short-term, non-goal directed savings on family financial stability. Low-income tax filers make a commitment to save a portion of their refund by making some contribution to a twelve-month restricted account that offers a match in earnings if they continue saving for one year. The UNC Center for Community Capital collected data on a cohort of approximately 750 tax filers—$aveNYC account holders and two comparison groups of non-participants. The project tracked the 2009 cohort of survey participants and collected new data on a 2010 cohort of tax filers to better understand the experiences of low-income households with regard to savings, the impact of the simple matched savings offer on savings behavior, and the implications of the program for scale and replication. The research utilized telephone surveys, focus groups, and tracking of data from third parties. For more information contact Janneke Ratcliffe at Janneke_Ratcliffe@unc.edu. You can reach Michal Grinstein-Weiss at michalgw@email.unc.edu.

**TRANSPORTATION**

**Reliability and Validity of the National Center for Safe Routes to School Parent and Student Surveys**

NOREEN MCDONALD—PI. Healthy People 2010 is a federal program that provides science-based, ten-year national objectives for improving the health of all Americans. For the past three decades, Healthy People has established benchmarks and monitored progress over time in order to encourage collaborations across sectors; guide individuals toward making informed health decisions; and measure the impact of prevention activities. The program specifically called for greater physical activity for children through increased walking and biking to school. To support this effort, Congress authorized $612 million for the Safe Routes to School program, but lack of evaluation of SRTS programs potentially threatens opportunities for continued program funding even though there is ample data collected on all federally-funded SRTS projects. The National Center for SRTS has received 150,000 parent surveys and 26,000 classroom surveys representing approximately 520,000 elementary and middle school students from schools across the country. Unfortunately most of this data was not systematically analyzed by researchers. One reason for the lack of analysis is that the validity and reliability of the National Center’s survey instruments were not established. The purpose of this study, funded by the Robert Wood Johnson Foundation, measured the reliability and validity of the SRTS parent and child surveys in various geographic and demographic settings. Establishing the reliability and validity of these instruments accelerated SRTS program evaluations and provided researchers with a consistent set of measures of children’s school travel. A secondary goal of the project identified ways to improve the current survey instruments. For more information contact Noreen McDonald at noreen@unc.edu.

**The Effectiveness of Safe Routes to School Interventions**

NOREEN MCDONALD—PI. This study, funded by the Robert Wood Johnson Foundation, analyzed the impact and costs of three interventions—infrastructure improvements, encouragement, and a bike-specific encouragement program—that promote alternative modes of travel to school in the Eugene, Oregon school system. For additional information on this research contact Noreen McDonald at noreen@unc.edu.
The Center for Urban & Regional Studies in the College of Arts & Sciences at the University of North Carolina at Chapel Hill is a multi-disciplinary research center focusing on issues and problems faced by our nation’s cities and regions. It is one of the oldest university-based research centers of its kind in the country. Created in 1957, the Center supports research activity and collaboration across campus through its Faculty Fellows program that draws on the expertise of ninety faculty members from twenty-four schools, departments, curricula, and research centers across the campus. The Center’s mission is to promote and support high-quality basic and applied research on planning, policy, and interdisciplinary social issues and challenges we face in urban, regional, and rural settings in North Carolina and around the world.

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