

ABSTRACTS AND TITLES OF STUDENT WORK

Department of City and Regional Planning,
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Ph.D. Dissertations

*Spatial Impacts of Locally Enacted Growth Control Policies:
The San Francisco Bay Region in the 1980s*

Qing Shen, 1993

This dissertation examines the region-wide spatial consequences of local growth control policies, based on a case study of the San Francisco Bay Region. Two hypotheses are tested: (1) local growth controls significantly affect the regional distribution of population growth, as growth-controlled cities restrict growth and the rest of the region absorbs additional growth; and (2) the resulting redistribution of population growth displays distinctive spatial characteristics, indicating that cities located close to each other tend to have similar policy responses to growth demand.

The research employs a quasi-experimental methodology. A model is built to generate an *ex post* projection of the regional distribution of population in 1990, assuming no local growth controls had been enacted during the 1980s. A comparison is then made between the projected distribution and the actual distribution depicted by the 1990 census data. The differences, indexed as percentage projection errors, provide an empirical basis for assessing the spatial impacts of local growth controls. Statistical analyses of the projection errors suggest that the controls have caused a major redistribution of population growth from growth-controlled cities to other parts of the region. GIS-based spatial analyses of the projection errors indicate that the population gains and losses attributed to the controls are spatially clustered.

The measured magnitude and spatial properties of the growth redistribution suggest that local growth control policies have created undesirable economic, distributional, and environmental consequences at the regional level. The policy implication is that there is an urgent need for a regional growth management mechanism. In addition, the findings demonstrate that local growth control policies play an active role in shaping urban form at the regional scale. The theo-

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retical implication is that the emergence of growth control represents a significant and fundamental change in the urban structure. Finally, the main methodological implication is that urban models and spatial analysis techniques can serve as effective tools for studying complex urban problems.

Fragmented Networks:

Inter-firm Relationships in the Seto Ceramics Industry

Hirohiko Izushi, 1994

Old (or mature) industrial regions have two images: one characterized by mono-structure, high concentration, and decline (a model based on the product/profit cycle theory); and one characterized by mixed structure, social divisions of labor, and flexibility (a model based on the flexible specialization theory). The second model contends that an old industrial region can avoid the decline of its technological base, which the first model asserts, through specialization of individual firms and social divisions of labor. The model attributes the innovative nature of such an old industrial region, to a considerable extent, on networks where firms cooperate both vertically and horizontally with one another for the well-being of their regional industry.

This dissertation presents a case which suggests a third model. The City of Seto in Aichi Prefecture, Japan is known for its ceramics industry which has its origin in the thirteenth century. Unlike the first model, the Seto ceramics industry is characterized by its agglomeration of small- and medium-sized firms. Further, dozens of firms in the region have entered the market for technologically advanced, industrial-use products since the beginning of this century. Nevertheless, the Seto ceramics industry does not conform to the second model, either. Although those advanced firms remain specialized in semi-custom goods, they supply most goods to customer firms outside the region. Under the circumstances, a majority of firms producing the most advanced goods, known as advanced ceramics, neither cooperate with one another nor give positive support for regional programs and institutions.

Through interviews and archival surveys, this dissertation examines the dynamics created in Seto in this century (particularly during the last three decades) through the force of internal regional networks and the force of vertical chains between this particular region and those where customers are located. It demonstrates that when relations with external customer firms are cooperative ones, the vertical chains deter the region's networks, stifling technological adaptation

and innovation in the region as a whole. This dissertation suggests that cooperative ties to customer firms outside have the potential for endangering the innovative nature of an old industrial region asserted by the flexible specialization theory.

*Housing Production and Transactions in Developing Countries:
Do Formal Rule-Systems Matter?*

Ayşe Pamuk, 1994

To what extent can a restrictive regulatory environment be viewed as a significant barrier for private sector developers to build in the formal sector, and for low-income households to get access to affordable housing? By widening the mainstream perspective on the impact of regulations on housing markets, an argument is made highlighting the significance of private arrangements sanctioned by community-based norms in residential development in less developed countries.

A formal test of the "regulations-unaffordability" theory across 52 countries shows that the restrictive government regulations governing land markets across countries has no significant effect on housing affordability, when housing demand, land supply, land price, and housing finance variables are held constant. So, relaxing formal rule-systems will not improve housing affordability.

A case study of Trinidad and Tobago incorporating a wide angle view of regulations is undertaken to assess in more depth the consequences of a restrictive regulatory environment. Slow economic growth in the 1980s, lack of finance, difficult land titling procedures, and uncertainties in the permit approval process impeded the growth of private sector home-building, and building outside the formal planning framework has become the norm.

After documenting this widespread unauthorized residential development, this study asks: why and how do households undertake these transactions in the absence of a coordinating state? Insights from the New Institutional Economics literature confirm that transaction and information costs impede market operations within Trinidad and Tobago's rule-systems. The study relates these costs to the formal planning and building control regulations, examines their origins; and further, it explains the emergence of new informal institutional arrangements as a response by communities to create shelter solutions. Two Trinidad and Tobago institutions, *sou-sou*, an indigenous ROSCA and a community-based regularization scheme illustrate informal rule-systems governing housing finance and infrastructure improvements.

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Given the large gap between formal and informal rule systems, as illustrated here, urban planners need to rethink their role in increasing affordable housing options, critically re-examine traditional, often imported planning tools; and devise strategies attuned to the economic demand and cultural preferences of households.

Masters Theses, MCP

Krishnankutty, Malini. *Proportion and City Form*. 1994.

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Cu, John. *San Francisco Chinatown: Unreinforced Masonry Buildings and the Retrofit Process*. May 9, 1994.

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Harlan, Lyn. *Does Piedmont's Housing Element Recognize and Support the Needs of Its Older Population?* Spring 1994.

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Kessler, Stephen. *Better Benefits and Cheaper Too: Helping Industrially Injured, Indigent Workers Get Worker's Compensation Benefits, Get off General Assistance and out of Homelessness*. 1994.

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Tranter, Joel H. *Jobs/Housing Balance in California: A Legitimate Tool for Public and Social Policy and City and Regional Planning*. Spring 1994.

Vasudevan, Lata. *Towards Good Places Along San Pablo Avenue in Berkeley*. Spring 1994.