

Assessing the Long-run Social Equity Impacts of Changing Regional Development Patterns

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Abstract

Stakeholders currently lack robust methods to assess the social equity impacts of different development patterns. This is of particular concern as California implements SB 375 and planning treatments and transit investments change neighborhood dynamics. Such changes can place vulnerable households at an increased risk of involuntary displacement. This comprehensive project will provide the research needed to support robust analysis, develop assessment methods applicable to all of California, and deploy these methods in the Southern California Association of Governments (SCAG) region.

This project will provide the public with a means to assess neighborhoods for high-displacement-risk households and provide a platform to mitigate displacement risk. In addition to a literature review and case studies, this project will enhance how California's robust regional models support off-model analysis of social equity impacts and assess displacement risk. The research team will develop two off-model displacement assessment methods: ex-ante assessment of displacement risk and an ex-post performance indicator to monitor neighborhood-level changes. The research team will match displacement vulnerability assessments with potentially appropriate mitigation strategies, closing the loop between identification, concern, and action. The project will produce new information on the life cycle costs of neighborhood development, allowing the team to assess differences in short and long run public and private costs in an effort to identify sustainable building and neighborhood-level displacement risk mitigation strategies.

The project coordinates the work of researchers and practitioners in order to ensure the research is applicable to practice and to accelerate tool deployment. Such "ground-truthing" closes the gap between research and practice, answering questions that often go unaddressed. Is the data freely available outside of academia? Does it exist throughout California? Can it be easily collected? By applying the research findings within the SCAG region through improvements to PECAS and REVISION, the project team can evaluate these and other requirements.

An ancillary benefit of ground-truthing these methods and tools in the SCAG region is that the project's funding will deploy a functional tool that local and regional planners can use to assess and mitigate SB 375 displacement risk. The SCAG region, home to over half of the state's urbanized population has a relatively high proportion of households in the state's bottom income quintile. The region's ambitious plans for transit expansion mean that it will likely be the state's first to confront significant displacement challenges due to transit expansion and the concentration of new housing units.

Introduction

Stakeholders currently lack methods to assess the social equity impacts of different development patterns, in particular neighborhood development strategies that can lead to the displacement of disadvantaged households. Transit oriented development (TOD) strategies often combine concentrated neighborhood investment and supportive land use regulations with the addition of high quality transit service to a neighborhood, this study will analyze how this combination could negatively affect disadvantaged households, in particular through displacement. The American Community Survey allows stakeholders to infer displacement after it has occurred, rather than predicting the potential for displacement while mitigation options are still available to local and regional planners. A lack of robust analytical methods and quality information to systematically monitor displacement or assess a neighborhood's vulnerability has led to the use of heuristics to assess displacement potential. Those using heuristics can look for signs of displacement, such as the presence of expensive cafes or art galleries, or review anecdotal information about changes in the race, class, sexual orientation, or educational attainment of the population.

Stakeholders need a robust analytical methodology that they can apply to assess an area's current vulnerability to displacement, its potential vulnerability before some planning treatment, and to monitor performance of the planning policies with reported data. The planning treatment can be the modification of specific zoning or land use regulations (e.g. additional retail zoning, specific housing requirements), transportation policy (e.g. transit service, minimum parking requirements), public land (e.g. a park) and various combinations thereof. Preferably, planners need a tool that assesses vulnerability into an easily communicable score or index and present this score along with the predicted (and eventually measured) effectiveness of mitigation options.

In its request for proposals, the ARB expressed its concern displacement resulting from new development projects near transit stations and the addition of transit stations to existing neighborhoods. SCAG has experience with evaluating the macro-scale social equity effects of such planning decisions. The major land use strategy in the SCAG 2012-2035 RTP/SCS is to collaborate with local jurisdictions to redirect future growth to High Quality Transit Areas (HQTAs). According to the recommended land use scenario, this strategy calls for the placement of over 50% of future growth in housing units, and therefore population (782,000 or 52%) and employment (905,000 or 53%) in within HQTAs. Within the Environmental Justice Appendix of the 2012 RTP/SCS, SCAG made significant findings pertaining to social equity and potential displacement. The population and household growth rates in HQTA (1.8% and 1.5% respectively) were much lower than the whole region, but higher near the rail stations. Households located near rail stations were better off than the region as a whole, where median household income was in decline. These findings motivated need for further, comprehensive study of displacement in HQTAs in the SCAG region. This project provides that opportunity.

While the proposed project will make significant strides toward understanding the potential for future displacement in HQTAs, it does not limit its findings to these areas. Likewise, the ARB should not limit their efforts to understand the social equity impacts of displacement only to TOD projects and neighborhood changes in HQTAs. In order to understand the social equity implications of SB 375 and AB 32 implementation, the ARB should strive to understand the full suite of local and regional measures, many of which will have relevance outside of TOD areas, to achieve the ARB's prescribed reductions in per-capita greenhouse gas emissions from transportation. Such measures include broad changes in land use planning outside of high-quality transit areas and potential transport policy changes including fees on vehicle miles traveled or congestion.

Gentrification was coined to describe a process, originally identified in United States cities, by means of which previously prosperous neighborhoods, abandoned through white flight, began to be regenerated in the 1970s. Research findings on the impact of gentrification are mixed. Much of the research detailing processes of gentrification was initially intensive and case study-oriented, albeit driven by broader theories accounting for gentrification (Hackworth and Rekers, 2005). Recently, such work has been complemented by more extensive and quantitative scholarship. This project combines general statistical analysis with targeted analyses and case studies to assess the causes of undesirable displacement and factors that correlate with the phenomenon. In addition, the project provides a foundation for the identification, development, and analysis of best practices.

PECAS is a regional dynamic stochastic general equilibrium model that uses land use regulations, transport plans, economic data and socioeconomic data to project future conditions. In particular, PECAS can project regional and subregional trends in demand for certain land use types, including housing. PECAS is sensitive to detailed land use policy since it uses a microsimulation of development behavior at the parcel level. PECAS has a built in measure of comprehensive consumer surplus by category of household and category of industry, this measure can be used to directly assess social equity. SCAG's has recently assessed the sensitivity of its PECAS model to changes in zoning regulations, transit infrastructure and the pricing of vehicle miles traveled, making it a valuable tool for assessing not only the direct displacement effects of transit-oriented development, but also the full social equity effects of a full suite of policies that regions may employ to meet their SB 375 emissions targets. PECAS allows the research team to look at the effectiveness of policies designed to concentrate new market-rate housing product (transit-oriented development) versus dispersing it (sprawl), and to assess the social equity of these policies and the resulting development patterns. SCAG has been working with other California MPOs (SACOG, SANDAG and ARB) and with Caltrans to develop PECAS in the California context and to apply it to regional and statewide planning, forecasting, and policy analysis. The behavioral relationships of households, businesses and developers embedded in the California PECAS models are broadly applicable to California at large. SCAG's implementation PECAS is described in task #2.

REVISION is a planned regional and neighborhood level tool that uses recent observations to monitor neighborhood-level performance on a variety of indicator categories. The tool is an extension of the California Land Opportunity Tracking System (lots.ucla.edu), which helps planners and developers identify and assess infill development opportunities in SCAG's Compass Blueprint 2% Opportunity Growth Areas. The REVISION tool will include data from American Community Survey, Longitudinal Employer-Household Dynamics, county assessor's office, walkscore.com, Zillow, and other sources. This project offers an opportunity to extend REVISION's capability to include assessing neighborhood-level displacement vulnerability and performance monitoring indicators. This will provide a usable tool for planners and other stakeholders in the SCAG region. REVISION is described in task #3.

The research team will match neighborhood-level assessments of displacement vulnerability with range of potentially appropriate mitigation factors. This will help planners and policymakers close the loop between identifying displacement potential and implementing effective mitigation strategies. The identification of mitigation strategies should be aided by knowledge of short- and long run public and private costs to understand the costs of strategies to both planning and development agencies as well as TOD residents. Understanding these costs is necessary for allocating public resources effectively and designing neighborhoods in a way that ensures that particular socio-demographic profiles have the long run support that is needed to ensure that they have the financial means to remain in the neighborhoods. The research team will develop a neighborhood-level life cycle costing model and tool to assess the upfront costs associated with residential and mixed use building designs as well as long run costs to inhabitants and the public. This will allow practitioners to identify parcels that have lower life-cycle cost options for residents, a factor that will become increasingly important with AB 32 implementation and market mechanisms to control GHGs. Task #4 describes this work.

Like regional and neighborhood dynamics, this project's tasks are interdependent. While presented sequentially, most tasks rely significantly on other tasks. Should the ARB be interested in pursuing the project beyond this preliminary proposal stage, the project team can produce GANTT charts and diagrams that detail these interdependencies.

The project leverages significant co-funding and existing investment. SCAG will contribute \$50,000 in staff time as a direct result of the UCLA-SCAG team being awarded this project. In addition, the project will leverage an investment of \$300,000 of Strategic Growth Council and SCAG funding in the REVISION performance monitoring tool, which will be developed and maintained by UCLA. Leveraging this investment which will allow the team to produce a usable tool within the project budget. Additionally, the research team will have full access to an indirect contribution of \$350,000 in third-party value-added data that SCAG has purchased for use in regional planning.

Objectives

This project will produce the following deliverables with value applicable throughout the state:

- A report summarizing the existing literature on displacement and gentrification, the results of new analysis of displacement and gentrification in California, how these findings are pertinent to planning changes that may result from SB 375 implementation and transit investment, and the deconstruction of existing displacement mitigation measures. (Task #1)
- A report of generalized knowledge from the SCAG-PECAS deployment, including the suggested requirements and methods for regional land use models required to support neighborhood-level displacement vulnerability assessment methodology in #3A. This will produce key information on model interfaces, frameworks, methodology, and data concerns that can be applied within other modeling environments (Task #2)
- A new methodology for off-model, ex-ante assessment of displacement vulnerability and ex-post assessment of observed displacement (Task #3A)
- A report matching a neighborhood's vulnerability to displacement with appropriate mitigation strategies, closing the loop between identification, concern, and action (Task #4A)

In addition, this project improves assessment capability in the SCAG region in order to ground-truth the aforementioned generalizable knowledge, closing the gap between research and practice. Specifically, this project:

- Improves the SCAG PECAS model to enhance support for off-model neighborhood-level vulnerability assessment (Task #2)
- Deploys the off-model displacement assessment methodology for both vulnerability and performance monitoring within a planned and funded regional planning tool, REVISION (Task #3B).
- Conducts a comprehensive life-cycle cost analysis for neighborhood transitions in the SCAG region, used to inform the development of mitigation strategies and more comprehensively assess displacement risk (Task #4B)

Furthermore, this project:

- Leverages existing SGC investment in an SB 375 performance monitoring tool, REVISION, in order to create a social equity assessment tool for SCAG region
- Leverages existing SCAG investment in PECAS and data, and induces additional investment of SCAG staff time to address the social equity impacts of shifts in regional planning
- Substantially improves SCAG's understanding of the social equity impacts of regional and neighborhood-level planning changes prior to the adoption of its next RTP/SCS

Technical Plan

Task #1 – Study of gentrification/displacement and neighborhood dynamics in California

Task Leads: Helga Leitner and Eric Sheppard, Department of Geography, UCLA

Task Deliverables: Report on findings from tasks #1A, C, & D, and data files containing the results of the statistical analysis and estimations.

Gentrification was coined to describe a process, originally identified in United States cities, by means of which previously prosperous neighborhoods, abandoned through white flight, began to be regenerated in the 1970s. Middle and upper income, often white, households purchase and renovate homes in what have become lower income, often non-white communities, where families rent rather than own, or do not have the income to maintain their housing. Thus the 'gentry' return to the inner city, taking advantage of the 'rent gap' between what the real estate is worth now, and what it would be worth after renovation (Smith, 1996). Housing is purchased and improved, neighborhood house prices and rents increase, more businesses enter the neighborhood catering to incoming wealthy families, and city governments invest in infrastructure to attract and retain populations whose presence enhances city real estate tax and sales tax revenues. The outcome is often an upgraded neighborhood. At the same time, those who lived here previously are often displaced, in part because they can no longer afford to live here, and in part because their neighbors and friends move out. The areas of the city that they move to may well become targets for future rounds of gentrification. While much of the research on gentrification has focused on central cities, gentrification has a suburban face too (Li, 2009). Notwithstanding the US urban origins of this research, similar processes have been identified in cities around the world, as well as in small towns and rural areas (Lees, 2012).

Research findings on the impact of gentrification are mixed, with some homeowners benefiting from the rising house prices by selling their homes for a tidy sum and moving elsewhere, whereas others, particularly renters, are displaced. Scholars have identified similarly varied responses of store owners, some of whom appreciate the custom of newcomers and some who do not. Initial stages of gentrification in major US and Canadian cities, ethnic and economic diversity could be said to have been increased because of the introduction of higher income residents to lower-income areas that often served as immigration reception locations (Walks & Maaranen, 2008). In neighborhoods where gentrification has played out over decades and is considered to be "complete", however, ethnic and socio-economic diversity falls as they become white and middle class.

The issue of displacement of poor minority communities in processes of gentrification has been of great concern to social scientists over decades, especially in investigations of how public policy might either encourage or mitigate such displacement (Lees et al 2007, Atkinson 2000). A flurry of writing has been critical of recent analyses denying that displacement of poor people by gentrification in US cities is significant and that public policies supporting poor people to live in

gentrifying areas should be dismantled (Newman & Wyly 2006, Slater 2009). For example, a wide-ranging study about gentrification in New York City, based on qualitative and quantitative data (Newman & Wyly, 2006), indicates that even if dramatic quantitative evidence of large-scale displacement of poor people from gentrifying neighborhoods does not exist, and poor minority (especially Latino) residents of these neighborhoods are remaining there (“staying put”), these residents move in with friends and family and thus experiencing overcrowding, or taking up publicly subsidized housing options.

Much of the research detailing processes of gentrification was initially intensive and case study-oriented, albeit driven by broader theories accounting for gentrification (Hackworth and Rekers, 2005). Recently, such work has been complemented by more extensive and quantitative scholarship. This includes the development of gentrification indices (Hudspeth, 2003), the construction of dynamic models simulating the gentrification process (Torrens and Nara, 2007), and city-wide statistical analyses of the gentrification process (Lees et al., 2007). Recently, scholars have taken up the question of the relationship between the urban environment (such as the location of amenities or disamenities, or the construction of new housing developments or transit routes and stops) and the likelihood of gentrification in a locality, teasing out the complexities of such processes, as well as identifying potential mitigation measures (Kahn 2007, Feinstein and Allen, 2011, Lees et al, 2007). New work raises concern specific to displacement and gentrification near Los Angeles Metrorail stations, and the implications for transit use (Dominie, 2012)

Task #1A: Literature review

In this subtask, the research team will conduct a comprehensive review of existing literature on displacement and gentrification. The team will consider various definitions for the two terms, assessing the phenomena on a continuum to highlight the differences between desirable and undesirable neighborhood dynamics. The research team will also focus on historical and current trends in housing preferences and the value of neighborhood quality factors on housing desirability, and the influence of these factors on observable rent and property market transactions.

Task #1B: Conduct a statistical analysis of intercensal changes by census tract to identify potential displacement in California

The research team will conduct a statistical analysis on California census tracts to identify those that have experienced statistically significant changes in neighborhood composition versus control areas for the following periods: 1970 - 1980, 1980 - 1990, 1990 - 2000, and 2000 - 2010. From this analysis, the team will produce an initial dataset of census geographies that may have experienced displacement dynamics in the past. These geographies may be located in areas with or without the presence or addition of high quality transit service during the intercensal period.

Task #1C: Conduct case studies of past displacement occurring in transit-intensive and other areas of California

Using a combination of the literature review, prior case studies, and new case studies conducted

This subtask seeks to answer the following research questions:

- What factors have been most significant in neighborhoods that have previously experienced undesirable displacement? The research team will identify and study factors that act at the micro, meso, and/or macro scales and correlate with displacement activity. Furthermore, what is the relationship between these factors and the quality of transit service? Which potentially significant factors frequently co-present with changes in transit amenities? The bulk of the case study research will be to determine any causal effects between both improvements to transit service quality and planning treatments that commonly present concurrently with changes in transit service. Planning treatments applied concurrently with transit service may include up-zoning, density bonuses, streetscape improvements, and public investments. The first two factors can lead to abrupt changes in land values.
- How significant is transit causing displacement? How and when do real estate markets react to planned additions to transit service? If they do react, in which phase of the transit creation process (corridor planning, alternatives analysis, environmental review, funding, and construction) might stakeholders observe market response? When zoning changes by local governments take effect? When do Gov't Code 65915-18 (SB1818) density bonus provisions take effect? How does the timing of concurrent zoning activity relate to potential market response?
- If changes in transit service are significant predictors of displacement, then what aspects of transit service have the greatest weight? How important are changes in regional accessibility, through either proximity or network-effect enhancements? How important is the specific vehicle technology employed (e.g. underground subway, vs. light rail transit, vs. bus rapid transit), independent of concurrent planning treatments?

In support of Task #1C, the research team will consider a variety of data:

- Decennial Census and American Community Survey data, which allows researchers to directly estimate inflows and infer outflows.
- Real estate market transactions from public (assessor's office) and private sources
- Potential data includes LAUSD enrollment and SCAG region development permit data. Because each student has a unique identifier, LAUSD data allows for outflow analysis.

Task #1D: Identifying best practices in managing or mitigating displacement and/or gentrification

During the literature review and case study phase, the research team will focus on developing a list of strategies that state and local government have used in an effort to directly or indirectly reduce displacement. Researchers will categorize and describe such measures along several dimensions:

- Geographic scale of applicability (e.g., unit, building/parcel, planning sub-area, local government, county, state)
- Applicable timeframe (e.g., temporary, permanence, with expiry)
- Type of measure (e.g., incentive, control, public subsidy to private, public participation)
- Primary means of action (e.g., price, incumbent protection, unit/building eligibility restriction, cross-subsidy)
- Other applicable dimensions as identified

Then, the research team will discuss the potential effectiveness of such measures, given certain planning treatments. This subtask will be conducted in conjunction with subtask #4A, which involves matching neighborhood-level displacement vulnerability with appropriate strategies.

Task #2 - Calibrate Southern California PECAS's representation of displacement vulnerability and neighborhood transition

Task Leads: Southern California Association of Governments and HBA Spectro, Incorporated (Key Personnel are John Hunt, John Abraham, Sungbin Cho and Ping Chang)

Task Deliverables: (1) A report of generalized knowledge from the SCAG-PECAS deployment, including the suggested requirements and methods for regional land use models required to support neighborhood-level displacement vulnerability assessment methodology in #3A. (2) Improvements to the SCAG PECAS model to enhance support for neighborhood-level displacement vulnerability assessment, and data outputs for at least two future planning scenarios with varied transit quality, land use constraints, and vehicle operations fees to be used in subtasks #3B and #4B.

The SCAG PECAS model simulates the aggregated regional effects of household-level residential location choices, given dynamic changes in the economy and transportation systems. Three key influences on household-level residential location choice are accessibility, neighborhood quality/amenity value, and prices. The existing PECAS accessibility measures take into account supply/demand relationships in various markets. Many accessibility measures are important to households, specifically the PECAS model includes markets for labor (separated by occupation), retail goods, services and education. In shaping a neighborhood's market prices, accessibility and neighborhood quality act primarily on the demand side and land and construction costs (development costs) act on the supply side. The foundation for these relationships follows directly from the strong microeconomic theory that underlies PECAS, however the exact representation depends on the estimated coefficients. This task will update these coefficients so that the PECAS representation of displacement is accurate, and so that the benefit measures generated automatically by PECAS can be used to accurately assess social equity by location and household category.

Task #2A: Prepare data, estimations and studies required for PECAS

i) **Disaggregate Parcel Price Estimations.** The research team will develop disaggregate statistical estimations (hedonic price models) of housing value to identify the proximity effects of transit. These statistical estimates will be informed by findings from the literature review (#1A) and case studies (#1C), and adjust for the positive effects of transit-provided access. The estimates will also control for neighborhood accessibility through zone constants or spatial autocorrelation.

ii) **Housing Price Sensitivity Estimations by Household Category.** The research team will estimate housing price sensitivity in sub-regional residential location choice models for different household categories, with a specific emphasis on trade-offs against commuting time, dwelling size and dwelling structure type. These relationships are the core critical elements of urban-economic theory that cause displacement of households in lower socio-economic categories, and we will analyze data from the census bureau together with supporting parcel-level data and data from the travel survey to accurately establish these relationships in the quantitative model within PECAS.

iii) **Improve Construction Cost and Fee Representation.** The research team will incorporate the findings from Task #4 into the PECAS space development model. Thus the forecasts of parcel-by-parcel development in the PECAS model will be improved through the refinement of construction costs estimates, and will incorporate planning mitigation strategies.

iv) **Develop Predictive Models of Neighborhood Desirability.** The research team will enter the results from the hedonic price model into PECAS, and the model will control for composite accessibility measures to generate zonal attractiveness values for each household category. The research team will produce maps showing neighborhood desirability for different household categories, controlling for accessibility and price. These indices measure neighborhood intrinsic quality, since price and regional accessibility measures have been considered. A predictive model will be developed from the literature review in Task #1, the neighborhood data listed below, and selected data from Task #3A measuring neighborhood quality (e.g. Perceived Crime Threat, Amenity Value), so that these desirability measures can respond to neighborhood level variables influenceable through planned mitigation measures.

- Census data : 1980, 1990, 2010 Census and various 5-year ACS
- Data on built environments including
 - Parcel data with building characteristics, land use and general plan (or zoning)
 - transit services by types (urban rail, commuter rail, fixed route bus, bus and etc.)
- Other relevant data, including
 - Individual household characteristics on parcel (a.k.a., consumer database)
 - Establishment time series data on parcel (InfoUSA)
 - LEHD data on parcel
 - RHNA housing statistics
 - Property transaction data
 - City building permits, and occupancy permits
 - Foreclosure / Notice of default
 - School address-based district enrollment data, and API scores

- Crime statistics

Task #2B Calibrate PECAS Representation of Displacement

PECAS's representation of displacement will be calibrated to the displacement relationships estimated in Task #2A, so that households' sensitivity to housing price is correct especially as compared to their sensitivity to the choice of housing type (structure type) and commuting costs (in the labor market representations.) The models performance regarding displacement will be evaluated by investigating the impact of the transit level of service on households, by comparing location choices in high quality transit areas with location choices elsewhere in scenarios with different levels of transit service.

Task #2C Calibrate risk and rent tradeoff in development choices

From basic economic theory, developers are drawn to locations where the expected rent is higher and construction costs are lower, but developers are also drawn to "safe bets" where they are more certain of their expected profit. The trade-off between risk and expected return on investment (ROI) will be calibrated in SD, so that developers are appropriately drawn to invest in areas targeted for Transit Oriented Development. This has previously been identified by SCAG as the most important task to improve PECAS's representation of transit oriented development, but in this project the improvements can go beyond what SCAG had planned by incorporating the analysis of TOD costs, fees and zoning from Task #2A and #4A. This task involves time-series calibration of the PECAS model and the resulting changes to the built form.

Task #3 – Develop and implement a neighborhood-level displacement vulnerability index and monitoring performance indicators

Task Lead: Juan Matute, UCLA Luskin School of Public Affairs

Task Deliverables: (#3A) Report with generalized findings on methods and data used for Neighborhood-Level Displacement Vulnerability Index and Displacement Monitoring Indicators. (#3B) Incorporate new functionality within the REVISION tool to assess Neighborhood-Level Displacement Vulnerability Index and produce a Displacement Monitoring Indicator

Task #3A: Create Methodology for Neighborhood-level Displacement Vulnerability Assessment Index & Displacement Monitoring Indicators

In this subtask, the research team will create the methods needed to calculate a neighborhood's displacement vulnerability and monitor recent neighborhood data for displacement activity. The Vulnerability Index will be used to communicate the potential need for mitigation options. The Displacement Monitoring Indicators will be used to assess the performance of mitigation measures.

Input data will be limited to sources that are widely and freely available for California's High Quality Transit Areas. In recent years, more public and private spatially-rich data has become available to describe recent trends in urban and suburban areas of California. The employed

assessment methodology will recognize neighborhoods as dynamic, complex systems. This means that lagged neighborhood-level data will be compared with current indicators in order to interpret possible trends. The findings produced in Task 1 will greatly inform the work done in Task 3. The data and discussion below is an example of what may be possible given newly available data.

Examples of amenity data consideration for Displacement Vulnerability Index

Displacement Vulnerability Factor	Observable Data	Feedback on Gentrification (estimated, Task 1 establishes new insights)
Educational Quality	Elementary School API trending up	Positive - High
Perceived crime threat	Lagged actual crime from COMPSTAT block level or FBI city-level data	Negative - high
Neighborhood form	Function of street network design, expressed in street-smart walk-score	Positive if demand for home-based walk trips continues to increase
Amenity Value	Local Yelp reviews	Positive - medium
Regional Accessibility	Lower than average block-group-level commute distances versus control	Positive - high w/ high regional travel time index
Housing Prices	Increase versus control	Positive - highest
Value of Transit Amenity	Increases in transit use for commute trips; Change in transit amenities	Positive
Availability and Tenure of Affordable Housing	Publicly-owned affordable units (quantity and percentage), Location, quantity, and expiry dates for privately-owned affordable units (Section 8) from National Housing Trust Data	Negative - highest
Rent Control	Though more qualitative, rent control can be rated on a point-scale from non-existent to weak to strong	Negative - medium

The 5-year American Community Survey and Annual Longitudinal-Employer Household Dynamics estimates are two relatively new sources available at the sub-neighborhood level.

The U.S. Census Bureau's American Community Survey product produces 5-year rolling average estimates for block group and Census tracts. In addition to helping identify vulnerable populations and neighborhoods, the data can be used in performance monitoring. As with any rolling average, it's possible to use statistical methods to interpolate the most recent reporting year through use of statistical methods. This allows for a standardized approach to accessing recent (2-year old) neighborhood-level estimates, showing directions and relative magnitudes of trends, albeit with a higher margin of error than comparing 5-year data. The margin of error decreases when comparing periods of longer than one year. The Longitudinal Employer-Household Dynamics is another spatially and temporally rich dataset that allows insight into neighborhood changes. The dataset is synthetic, but it contains some insight into wages and employment for residents (home-based) and employees (work-based) at the block level.

Yelp.com data communicates value of neighborhood amenities to individuals who have crossed the digital divide. Crossing the digital divide is in itself correlated with educational attainment and income level. While Yelp data can provide a snapshot of current amenity values in a neighborhood, historical values and trends must be constructed from a time-series of establishment-level ratings, data that can be constructed over time but is not publicly available. Yelp data is accessible via an application programming interface.

A great depth of publicly-accessible data and analysis based on private property transactions is now available. In the past, planners have been limited in their assessment of property markets by reporting lag of assessor parcel data, which can be considerable.

Now, privately operated websites merge a combination of data from county assessors and the Multiple Listing Service to provide current, spatially and temporally rich data on private property transactions. Such services, many of which are accessible via an application programming interface, can provide insight into two key characteristics of displacement dynamics: flipping and re-tenanting.

Flipping does not increase a building's density, but rather increases the quality of a housing unit. Flipping, a form of real estate speculation, is characterized by a short hold period - typically holds of less than 18 months arms-length transactions (that is, transactions between non-related parties rather than trust or intra-family transactions). Using a combination of assessor and private property transaction data, it's possible to identify such flipping activity - a sign that individuals or firms see a gap between the sale price and refurbishment costs of an existing unit and the potential sale price of a refurbished unit. The rate of flipping will increase as more speculators become aware of profit opportunity in the neighborhood.

A flipped home can increase in value by more than 20% - meaning that the replacer will likely have a higher household income than the existing neighborhood. Flipping, which changes the composition of the neighborhood but not the number of housing units, is a precursor to pressures to add additional housing units. Replacement residents' consumer preference may increase the demand for coffee shops relative to laundromats, and the presence of a new coffee shop could be an indicator for larger real estate developers that a neighborhood has potential

(as well as an amenity for future home-buyers and lessees). Whatever the indicator, the eventual result is densification – up-zoning, increase in the number of housing units on an acre.

Monitoring re-tenanting is a greater methodological and data collection challenge than monitoring flipping activity. However, re-tenanting is likely to precede flipping in signaling displacement. Rental unit rehabilitation, the ad-hoc rehabilitation of a single housing unit to attract a buyer with higher willingness to pay, will present itself in widely-available data through changes in asking rent. Though structured data on rental offerings is progressing slower than data on sale offerings and prices, some sites, such as housingmaps.com, padmapper.com and other offerings show progression toward machine-readable data on current asking rents that can be used to identify neighborhood trends. Rental unit rehabilitation is one of the first observable signs of potential gentrification. As new populations are introduced to the neighborhood, so are their social circles. If the new population finds the neighborhood a good value versus other neighborhoods, then those in their social circle will be inclined to consider the neighborhood.

Task #3B: Apply Neighborhood-level Displacement Vulnerability Assessment Index to Southern California using REVISION and PECAS

Conducted in conjunction with #3A, #3B deploys the research findings through an operable tool for the SCAG region. Subtask #3B will be completed in conjunction with improvements to the SCAG PECAS (Task #2). Performance of #3B allows the research team to encounter and document deployment and operationalization challenges and possible workarounds. Thus the generalizable deployment-related knowledge learned in #3B will be incorporated into the methods specified in #3A to inform future deployments elsewhere in California.

Certain elements considered in the Displacement Vulnerability Assessment Index are a product of the evolution of the entire spatial economic system over time. In a large complex economy, such as the SCAG region, the indices and tools are best informed by the holistic and policy-sensitive forecasts from a regional land use model, while in smaller cities and regions a stand-alone application of the indices and tools may be more appropriate. The SCAG PECAS model also gives stakeholders a more salient understanding of how market forces may change spatial allocation of land use demand given certain predictions about future industries, demographic, transportation services (transit or highway), transportation costs (gas prices, gas taxes, congestion charges, etc.) and land use regulations. This information is invaluable in understanding how future growth may reallocate to neighborhood clusters, and how policy can influence growth patterns. Applying the micro-scale Neighborhood-level Displacement Vulnerability Assessment Index together with PECAS, with PECAS providing macro and meso-scale forecasts of specific input variables, will show how displacement occurs in large and complex regional economies.

The SCAG PECAS model will be used to evaluate two scenarios, a base case scenario without land use policies supporting TOD, and an alternative scenario with land use policies supporting TOD. The model's social benefit measures comparing these policies will be used to investigate

the location and nature of impacts on households in lower socioeconomic groups, to assess social equity regionally and locally. This will lead to a set of potential mitigating policies (developed considering the data and insight from Task #4A), that will be investigated in a third scenario. The results from the three scenarios will show the potential displacement and social equity effects of transit oriented development, and how these can be mitigated.

REVISION is a planned regional performance monitoring website based on ESRI ArcServer. The Southern California Association of Governments is funding REVISION with a Strategic Growth Council Proposition 84 grant. REVISION will include a variety of relevant data for processing methods determined in #3A. This data includes: street smart walkscore.com scores, Home Mortgage Disclosure Act data, Neighborhood Stabilization Program data, Center for Neighborhood Technology's Housing+Transportation Affordability Index, index of infill Opportunities, assessor parcel data, and private property market data.

The research team will incorporate the generalized method developed for task #3A, along with revised PECAS outputs produced in task #2 into REVISION to create a Neighborhood-level Displacement Vulnerability Index values for the SCAG region.

Task #4 – Match neighborhood vulnerability with short-run and long-run mitigation options and costs

Task Lead: Mikhail Chester, School of Sustainable Engineering and the Built Environment, Arizona State University

Task Deliverables: (#4A) Report matching neighborhood-level displacement vulnerability with identified and developed best practices. (#4B) Report comparing life cycle costs among various neighborhood-level development and displacement mitigation scenarios

Task #4A: Matching Displacement Vulnerability with Mitigation Strategies

In this subtask, the research team will match the vulnerability assessment with range of potentially appropriate mitigation factors to help planners and policymakers close the loop between identifying displacement potential and implementing effective mitigation strategies. This task involves merging work from #1D and #4B with outputs from #3A methods to make generalizable findings for California: long-term best practices to mitigate undesirable displacement. These best practices will be sensitive to the long term public and private costs of implementation, new knowledge produced in subtask #4B.

In support of identifying and developing best practices, the research team will consider neighborhood dynamics and processes that influence displacement and affordability. While many of these factors will be studied in task #1, the following discussion below pertains to their incorporation into mitigation strategies.

One process is the creation and protection of affordable units within a neighborhood. Affordable units are typically provided onsite in larger developments but not by smaller projects. Such a

strategy requires disproportionate increases in the supply of market rate units to create new affordable product. A potential alternative, tradable credits for off-site affordable units have faced some challenges in California.

Another dynamic is the effect of parking requirements on housing desirability. Shifting away from conventional parking policy toward unbundling could attract car-light households that make more use of transit. Unbundling may temper demand and resulting increases in property values as car-heavy households don't bid up prices in transit-oriented districts.

Project size can have a considerable effect on neighborhood dynamics. Larger projects cause neighborhood housing supply and population to follow a step function rather than a continual slope. Incongruous changes in housing, population, and amenities could have a destabilizing effect. If smaller projects have less displacement potential than larger projects, then what barriers exist to smaller construction projects? One potential barrier is a high proportion fixed costs to variable costs for required for entitlement.

Task #4B: Long-term Cost Assessment of Strategies

The identification of mitigation strategies should be aided by knowledge of short- and long- run public and private costs to understand the economic impacts of strategies on local governments, development firms, as well as TOD residents. Understanding these costs is necessary for allocating public resources effectively and designing neighborhoods in a way that ensures that particular socio-demographic profiles have the long run support that is needed to ensure that they have the financial means to remain in the neighborhoods.

There are several ways in which particular socio-demographic profiles can be supported to ensure that unacceptable levels of displacement are avoided. First, TOD neighborhoods can be appropriately designed to the needs of the socially vulnerable population by providing residential, retail, and community services that are tailored for the project neighborhood demographic. This could include either new construction or upgrade of the existing building stock. Access to community spaces, bodegas, local health clinics, and markets should be included in TOD design considerations. Second, the life cycle costs of construction should be better understood such that it clear how upfront investments in building systems lead to lower long run costs so that public agencies can plan for and intelligently support vulnerable communities. Where upfront investments cannot be made because of limited capital costs, long run strategies that reduce costs to occupants should be considered. This could include energy efficiency appliance rebates, distributed energy, or weatherization programs.

A neighborhood level life cycle costing model and tool will be developed to assess the upfront costs associated with residential and mixed use building designs as well as long run costs to inhabitants. To do this, the research team will develop models for existing building renovation and new building construction for development practices that are typically used. For typical redevelopment and new construction of buildings, a construction cost takeoffs will be created. This will be based on cost estimation methods that the research team has developed for other

projects. Material and construction practice costs will be produced using RS Means cost estimation data for typical building models. These construction costs will be joined with occupant costs (utilities and maintenance) that will be collected from the American Household Survey at the census-tract level. The combination of upfront construction costs with use phase costs will produce the life cycle costing framework. The life cycle costing model will distinguish between public and private costs and will seek to understand not only the effects of residential buildings but also mixed use.

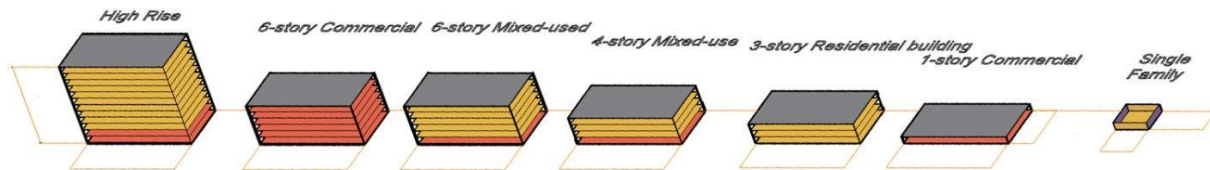


Figure 4-1 – Sample of building models that will be considered. Yellow are residential floors and orange commercial.

To understand the cost tradeoffs of how upfront investments can lead to lower long run costs for residents, several strategies will be assessed with their life cycle costs. Building weatherization, energy efficiency, and low maintenance material opportunities will be modeled. Using existing data from the US DOE's Building Energy Databook (DOE, 2011) and modeling with the US DOE's Energy Plus and TRNSYS, opportunities will be evaluated including their upfront costs and expected long run benefits. The research team will identify the optimal investment strategies for public agencies to ensure that long run costs to vulnerable populations are reduced.

A neighborhood redevelopment life cycle costing tool will be developed that uses GIS and incorporates socio-demographic vulnerability measures that have been defined in previous tasks. The tool will allow practitioners to identify parcels that are of interest and to assess the life cycle cost options of redevelopment and new development, as well as the long run cost savings to residents (this framework has been developed by Dr. Chester as shown in Figure 4-2). The tool will direct practitioners towards redevelopment and new construction strategies by identifying the options for TOD developers and regional government agencies to reduce the long-run costs to residents.



Figure 4-2 – A combined GIS, building assessor database, and life cycle assessment framework developed by Dr. Chester.

In the image, redevelopment and new construction strategies are identified as shaded areas within one-half mile of transit. The parcels are then redeveloped and assessed as new building designs including their life cycle impacts (Kimball et al., 2013).

By joining the infrastructure and socio-demographic characteristics in the tool, the life-cycle costs of transit-accessible living for particular population subgroups will be identified and depending on the particular conditions it will be possible to recommend unique strategies that couple different types of development with long-run cost reduction strategies.

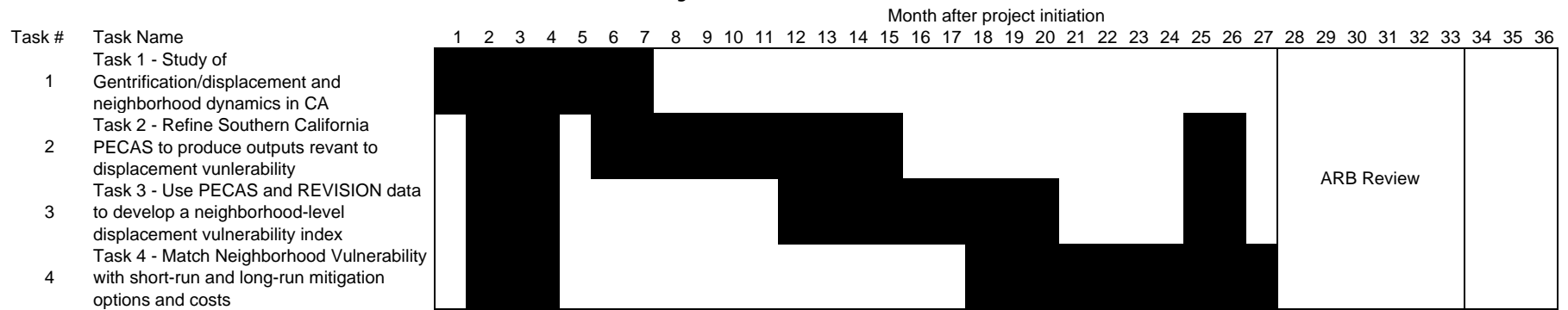
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Preliminary Cost Proposal

Task	Labor	Employee Fringe Benefits	Sub Consultants	Equipment	Travel Subsist	EDP	Copy & Print	Mail, Phone, & Fax	Materials & Supplies	Analysies	Misc.	Overhead	Total
1	\$ 75,217	\$ 25,301	\$ 20,000		\$ -			\$ 238				\$ 8,385	\$ 129,141
2	\$ 12,533	\$ 3,970	\$ 110,000		\$ -			\$ 32				\$ 1,654	\$ 128,189
3	\$ 74,167	\$ 40,468	\$ 20,000		\$ -			\$ 307				\$ 9,803	\$ 144,744
4	\$ 49,472	\$ 17,928	\$ 120,000		\$ -			\$ 167				\$ 6,757	\$ 194,324
	\$ 211,389	\$ 87,667	\$ 270,000	\$ -	\$ -	\$ -	\$ -	\$ 744	\$ -	\$ -	\$ -	\$ 26,598	\$ 596,399

Project Schedule



STEPHANIE S. PINCETL

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EDUCATION

- **PhD.** Urban Planning, UCLA, 1985, Dean's Award for Overall Excellence.
- **M.A.** Anthropology, University of California, Davis, 1979.
- **B.A.** Interdisciplinary Major in Land Use and Environmental Governance,
University of California, Davis, 1974, Honors.

APPOINTMENTS

- **2010** *Adjunct Professor, Director, Institute of the Environment and Sustainability, UCLA.*
 - **2007 - 2010** *Research Social Scientist, US Forest Service, Pacific Southwest Research Station.*
 - **2009 Winter** *Professor, International Masters of Public Administration Program, Institut d'Etudes Politiques, Paris.*
 - **2007 -** *Researcher, Institute of the Environment, UCLA.*
Adjunct Professor, Urban Planning, UCLA.
Director, The Urban Center for People and the Environment, Institute of the Environment, UCLA.
 - **2006 Fall** *Professor, International Masters of Public Administration Program, Institut d'Etudes Politiques, Paris.*
 - **2004 - 2006** *Visiting Professor, Director, The Urban Center for People and the Environment, Institute of the Environment, UCLA.*
 - **2004** *Invited Professor, Institut d'Urbanisme de Paris, Universite de Paris XII, February.*
 - **1998 - 2003** *Associate Director, Center for Sustainable Cities.*
Research Associate Professor, Geography Department, USC.
 - **1997-1998** *Adjunct Professor, School of Policy, Planning and Development, USC.*
Lecturer, Graduate School of Architecture and Urban Planning, UCLA.
 - **1985 - 1986** *Fulbright Junior Professor, Institut d'Urbanisme, Univerisite de Paris XII.*
-

HONORS

- **2007** Inland Empire Chapter, American Planning Association, Academic Award, Habitat Conservation Planning in the Coachella Valley Report.
- **2000** American Planning Association Award for Best Project USC School of Policy, Planning and Development in PLUS 676L: "Rediscover; Eco-Tourism, Two Harbors, Catalina", Los Angeles Division.
- **2000** Phi Kappa Phi Faculty Recognition Award, University of Southern California, Best Book of the Year.
- **1996** William Fulbright Senior Research Fellowship, Paris, France.
- **1994** US Forest History Society Ralph S. Hidy Award for Best Article, *Forest and Conservation History*.
- **1992-1994** UC Berkeley, V.S. Ciriacy Wantrup Fellowship in Natural Resource Economics, Dept of Forestry and Geography.
- **1985-1986** William Fulbright Fellowship, University of Paris.
- **1985** Deans Award for Overall Excellence, Graduate School of Architecture and Urban Planning, UCLA.
- **1982-1983** Jean Nidetch Doctoral Dissertation Fellowship.

RESEARCH INTERESTS

- Land use in cities and urban regions and transformation of natural environments and sustainability – socio-ecological research.
- Urban metabolism
- Distributional impacts of urbanization and natural amenities or degradation.
- Methodological emphasis on rules, rulemaking and decision-making processes:
- Content analysis of decision-making processes.
- Implementation strategies for sustainability.

TEACHING

- Land Use and the Environment.
- Political Institutions and Environmental Policy Implementation.
- Urban Sustainability.
- California Environmental Politics and Urbanization and Geography.
- Social Policy.
- Urban Environmental Problems.
- Public Lands Management.
- Comparative Environmental Politics U.S./E.U.
- Social-Environmental Ways of Knowing
- Urban Agriculture

BOOK

- **1999** **Pincetl, S.** *Transforming California, The political history of land use and development.* Baltimore, MD: Johns Hopkins University Press. Paperback issued 2003.

ARTICLES IN PEER REVIEWED SCIENTIFIC JOURNALS

- 1) **2013** Jonas, A., **Pincetl S.**, Sullivan, J. Endangered Neoliberal Suburbanism? The Use of the Federal Endangered Species Act as a Growth Management Tool in Southern California, *Urban Studies Journal*, 50 (forthcoming in August) Impact Factor 1.280
- 2) **2012** **Pincetl, S.** Nature, Urban Development and Sustainability– What New Elements are Needed for a More Comprehensive Understanding? *Current Research on Cities*, 29:S32-S37. <http://dx.doi.org/10.1016/j.cosust.2012.08.004>, Impact factor 1.24
- 3) **2012** Chester M, **Pincetl S**, Allenby B. Avoiding unintended tradeoffs by integrating life-cycle assessment with urban metabolism, *Current Opinion in Environmental Sustainability* <http://dx.doi.org/10.1016/j.cosust.2012.08.004>. Impact factor 2.43.
- 4) **2012** **Pincetl, S.**, Franco, G., Hogue, T., Hughes, S., Pardjak, E., Kinoshita, A., & Jantz, P. Cities in the Southwest. *Assessment of Climate Change in the Southwest United States: a Technical Report Prepared for the U.S. National Climate Assessment. A report by the Southwest Climate Alliance.* [G. Garfin, A. Jardine, R. Merideth, M. Black, & J. Overpeck (Eds.)] Tucson, AZ: Southwest Climate Alliance. **xx-yy**.
- 5) **2012** **Pincetl, S.**, Bunje, P., Holmes, Tisha. An Expanded Urban Metabolism Method: Towards a Systems Approach for Assessing Urban Energy Processes and Causes, *Landscape and Urban Planning*. <http://dx.doi.org/10.1016/j.landurbplan.2012.06.006> Impact Factor 3.1
- 6) **2012** **Pincetl, S.**, Gillespie, T., Pataki, D.E., Saatchi, S., & Saphores, J. D. Urban tree planting, function or fashion? Los Angeles and urban tree planting campaigns. *GeoJournal*. doi: 10.1007/s10708-012-9446-x. Impact Factor 2.12
- 7) **2012** Gillespie, T. W., **Pincetl, S.**, Brossard, S., Smith, J., Saatchi, S., Pataki, D., & Saphores, J. D. A time series of urban forestry in Los Angeles. *Urban Ecosystems*. doi 10.1007/s11252-011-0183-6. (IF not computed)
- 8) **2011** Pataki, D., McCarthy, H. R., Litvak, E., & **Pincetl, S.** Transpiration of urban forests in the Los Angeles Metropolis. *Ecological Applications*. 21(3), 661-677. Impact Factor 7.1.

- 9) **2011** **Pincetl, S.**, Jonas, A. E., & Sullivan, J. Political ecology and habitat conservation for endangered species planning in Southern California: Region, places and ecological governance. *GeoForum*. 42, 427-438. Impact Factor 2.12.

- 10) **2011** Pataki, D., Boone, C., Hogue, T., Jenerette, D., McFadden, J., & **Pincetl, S.** Socio-ecohydrology and the urban challenge. Invited commentary. *Ecohydrology*. 4, 341–347. Impact Factor 2.13

- 11) **2011** Pataki, D., Carreiro, M. M., Cherrier, J., Grulke, N. E., Jennings, V., **Pincetl, S.**, Pouyat, R. V., Whitlow, T. H., & Zipperer, W. C. Coupled biogeochemical cycles in urban environments: Ecosystem services, green solutions and misconceptions. Special Issue of *Frontiers in Ecology and the Environment*. 9(1), 27–36. doi:10.1890/090220. Impact Factor 9.113.

- 12) **2010** Kennedy, C., **Pincetl, S.**, & Bunje, P. The study of urban metabolism and its applications to urban planning and design. *Environmental Pollution*: <http://dx.doi.org/10.1016/j.envpol.2010.10.022>. Impact Factor 3.75

- 13) **2010** **Pincetl, S.** Implementing municipal tree planting: Los Angeles Million Tree Initiative. *Environmental Management*. 45(2), 227-238. Impact Factor 3.161

- 14) **2010** **Pincetl, S.** From the sanitary city to the sustainable city: Challenges to institutionalizing biogenic (nature’s services) infrastructure. *Local Environment*. 15(1), 43-58. . (IF not computed)

- 15) **2009** Park M.Y., Stenstrom M., **Pincetl S.**, Water Quality Improvement Policies: Lessons Learned from the Implementation of Proposition O in Los Angeles, California, *Environmental Management*, 43:514-522

- 16) **2008** **Pincetl, S.** Environnement: Pollution de l’air: le port accuse. *Revue Urbanisme*. 361 Juillet Aout, 52-53. . (IF not computed)

- 17) **2008** Park M.Y., Stenstrom M., **Pincetl S.**, Water Quality Improvement by Implementation of Proposition O in the Los Angeles River Watershed, California, *Water Science and Technology*, 58:12.

- 18) **2008** Alagona, P., **Pincetl, S.** The Coachella Valley Multiple Species Habitat Conservation Plan: A couple of decades of delay, *Environmental Management*. 41, 1-11. Impact Factor 3.161

- 19) **2008** **Pincetl, S.** It’s the land use, not the fuels: Fires and land development in Southern California, with P.W. Rundel, J. Clark De Blasio, D. Silver, T. Scott, & R. Halsey. *Real Estate Review*. 37(1), 25-42. . (IF not computed)

- 20) **2007** **Pincetl, S.** Accounting for environmental services in cities: The new frontier for sustainability. *Social and Environmental Accounting Journal*. 27(1), 3-8.

- 21) **2007** **Pincetl, S.** Moving from the sanitary city of the twentieth century to the sustainable city of the twenty-first, What new tools are available? The future of metropolitan landscapes, Edited by P. Bosselmann. *Places*. 10(1), 59-61. . (IF not computed)

- 22) **2007** **Pincetl, S.** Special issue of *Local Environment* on the political ecology of urban greening, edited by Stephanie Pincetl with guest editorial. 12(2), 87-92.

- 23) **2006** Jonas, A.E., **Pincetl, S.** Rescaling regions in the state: The new regionalism in California. *Political Geography*. 25, 482-505. Impact Factor 2.9

- 24) **2006** **Pincetl, S.** Conservation planning in the West, Problems, new strategies and entrenched obstacles. *Geoforum*. 37(2), 246-255. Impact Factor 2.12.
Nominated for an AESOP best published paper of the year.

- 25) **2006** Costanza, B., Faber, S., Wilson, M., Grove, J. M., Warren, P., Hopkinson, C., Kahn, J., **Pincetl, S.**, Childers, D., Troy, A., & Gross, K. Linking ecology and economics for ecosystem management: A services based approach with illustrations from LTER sites. *Bioscience*. 56(2), 121-133. Impact Factor: 4.6

- 26) **2005** **Pincetl, S.** Gearin, E. The Reinvention of Public Green Space. *Urban Geography*. 26(5), 365-384.

- 27) **2003** **Pincetl, S.** Non-profits and park provision in Los Angeles, An exploration of the rise of governance approaches to the provision of local services. *Social Science Quarterly*. 84(2), 979-1001. Impact Factor 0.98

- 28) **2001** **Pincetl, S.** Vers les villes durables. (Towards sustainable cities.) *Les Sciences Sociales*. N. 133(1), 137-143.

- 29) **1996** Proctor, J , **Pincetl, S.** Nature and the reproduction of endangered space, The Spotted Owl in the Pacific Northwest and Southern California. *Society and Space*. 14(6), 683-708.

- 30) **1996** **Pincetl, S.** Immigrants and environmental justice; Redevelopment plans in Paris France. *Urban Geography*. 17(5), 440-455.

- 31) **1994** **Pincetl, S.** Challenges to Latino immigrants and citizenship in Los Angeles. *Planning and Environment*. A 26, 895-914.

- 32) **1994** **Pincetl, S.** The regional management of growth in California: A history of failure. *International Journal of Urban and Regional Research*. 18(2), 256-274.

- 33) **1993** **Pincetl, S.** Some origins of French environmentalism: An exploration. *Forest and Conservation History*. April 37(2), 80-89.
Winner of the 1994 Ralph W. Hidy award for best paper in Forest and Conservation History of 1993.
- 34) **1992** **Pincetl, S.** The politics of growth control: Struggles in Pasadena, California. *Urban Geography*. 13(5), 450-467.
- 35) **1991** Fitzsimmons, M., Montemor, R., Glazer, J., **Pincetl, S.**, Ragan, S.C. Introduction, editorial. *Capitalism, Nature Socialism*. 2(1), 1-16.
- 36) **1991** **Pincetl, S.** The question of growth, or the past as present. *Architecture California*. 13(2), 2-3.
- 37) **1990** **Pincetl, S.** The peculiar legacy of progressivism: Claire Dedrick's encounter with forest practices regulation in California. *Journal of Forest and Conservation History*. 34(1), 26-34.
- 38) **1986** **Pincetl, S.** Hazardous waste regulation in California - Institutional inertia and public. *Ecodevelopment News*. 74-81.

BOOK CHAPTERS

- 1) **2012** **Pincetl, S.** Cities as Life forms: Urban Metabolism Analysis. From Urban Metabolism Analysis to Sustainability Science for Cities. *Handbook of Metropolitan Sustainability*, Cambridge: Woodhead Publishing, in press
- 2) **2012** **Pincetl, S.** Urban water conflicts in the western United States. In B. Barraque (Ed.), *Urban Water Conflicts*. Paris, France: UNESCO.
- 3) **2010** Barraque, B., **Pincetl, S.** Ressources naturelles : le retour du territoire. In R. K. Pachauri & L. Tubiana (Drs.), *Jacquet Pierre, Regards sur la Terre, L'annuel du Développement Durable*. pp.169-179. Paris, France: Presses de Sciences Po.
- 4) **2010** Barraque, B., **Pincetl, S.** The city returns to its hinterland for natural resources. In J. Pierre, R. K. Pachauri, & L. Tubiana (Eds.), *Cities: Steering for Sustainability, A Planet for Life series*. pp.119-131. AFD-IDDRI-TERI, 2010
- 5) **2009** **Pincetl, S.** Land use planning in the United States. *Encyclopedia of Geography*. Edited by B. Solomon. Sage Publications.
- 6) **2007** **Pincetl, S.** Katz, B. The Imperial Valley of California: Water, agriculture, urban growth: What is sustainable? *Capitalist Sustainabilites/Sustainable Capitalism, A Critical Examination of the Politics of Sustainability*. Edited by D. Gibbs & B. Krueger. Guilford University Press.

- 7) **2005** **Pincetl, S.** Urban sustainability and nature in the city: The need for interdisciplinarity. (La durabilite urbaine et la nature en ville; La nécessité d'interdisciplinarité.) *What is the Sustainable City: From the Political to the Scientific.* (Qu'est-ce Que la Ville Durable: Du Politique au Scientifique.) Nicole Mathieu & Yves Guermond (Eds.), Elsevier, 92-105.

- 8) **2004** **Pincetl, S.** Social movements and the urban environment in the Los Angeles region SENISA. State University of Parana, Curitiba Brazil. Special colloquium publication, 76-87.

- 9) **2004** **Pincetl, S.** The preservation of nature at the urban fringe. *Up Against the Sprawl, Public Policy and the Making of Southern California.* J. Wolch, M. Pastor & P. Drier (Eds.), Minneapolis, MN: University of Minnesota Press.

- 10) **2002** **Pincetl, S.** Urban nature and the nature of urbanism (with L. Pulido & J. Wolch) *From Chicago to LA: Making Sense of Urban Theory.* M. Dear (Ed.), Thousand Oaks, CA: Sage Publications.

- 11) **1999** **Pincetl, S.** The politics of influence: Democracy and the growth machine in Orange County, U.S. *The Urban Growth Machine: Critical Perspectives, Two Decades Later.* A. Jonas & D. Wilson (Eds.), Buffalo, NY: State University of New York Press.

- 12) **1994** **Pincetl, S.** Environmental movements and the liberal state, with M. FitzSimmons, R. Montemor, J. Glazer & S.C. Ragan. *Democracy and Ecology.* M. O'Connor (Ed.), New York, NY: Guilford Publications, 198-216.

- 13) **1993** **Pincetl, S.** The Spotted Owl, Endangered species and the urbanization of nature. (Le Hibou Tacheté, Les espèces en voie d'extinction et l'urbanization de nature.) Special Colloquium Collection of the Social Functions of Nature. Paris, France: SORISTEC/CNRS & the French Department of the Environment, 63-74.

CURRENT GRANT FUNDING

- **Title** Governance for Sustainable Water Use in the Los Angeles Region in the 21st Century
Agency: The Haynes Foundation
PI: Stephanie Pincetl
Co-PIs: Mark Gold and Madelyn Glickfeld (UCLA)
Dates: 1/1/13 – 1/1 15
Amount: \$247,621

- **Title:** The role of local water resources in the water sustainability of Los Angeles
Agency: National Science Foundation
PI: Diane Pataki (University of Utah)
Co-PIs: Stephanie Pincetl, Terri Hogue (Colorado School of Mines)
Dates: 9/1/12 – 9/1/ 16

- Amount:** UCLA Funding \$980,141
- Title:** Dynamics of Urban Ecosystem Services and Their Relationship to Ecohydrology in the Los Angeles Area

PI: Stephanie Pincetl

Co-PIs: Diane Pataki, (University of Utah), Terri Hogue (Colorado School of Mines)
Chris Boone (ASU)

Agency: EPA/NSF

Dates: 9/1/12 – 9/1/14

Amount: \$175,158
 - Title:** Methodology to Develop and Validate Urban Metabolism Baselines for Los Angeles County

Agency: Public Interest Energy Research Program, California State Energy Commission

PI: Stephanie Pincetl

Dates: 4/15/11-4/15/14

Amount: \$ 1, 000,000
 - Title:** Toward a Biogeography of Urban Forests

Agency: NSF-Ecosystems Science 0918905

PI: Diane Pataki (UC Irvine)

Co-PIs: Stephanie Pincetl, Darrel Jenerette (UC Riverside), Thomas Gillespie (UCLA)

Dates: 9/1/09-9/1/13

Amount: UCLA Funding: \$337,346
 - Title:** Urban Transportation Modes in California, Beyond VMTs and GHGs

Agency: Public Interest Energy Research, California Energy Commission

Dates: 11/01/10-11/01/12

PI: Stephanie Pincetl

Co-PIs: Paul Bunje (UCLA)

Amount: \$500,000
 - Title:** Dynamics of Urban Ecosystem Services and Their Relationship to Ecohydrology: Exploratory Study for a Los Angeles Urban Long-Term Research Site

Agency: National Science Foundation BCS Long Term Ecological Research BCS-0948914

Dates: 08/01/09 – 08/01/13

PI: Stephanie Pincetl (UCLA)

Co-PIs: Diane Pataki (UC Irvine), Darrel Jenerette (UC Riverside),
Thomas Gillespie (UCLA), Chris Boone (Arizona State University),
Joe McFadden (UC Santa Barbara),
Greg McPherson (Pacific Southwest Research Station US Forest Service).

Amount: \$300,000

INVITED PRESENTATIONS AND KEY NOTE ADDRESSES

- 1) **2012** University of California Center Sacramento, invited lecture, February 2.
- 2) **2012** Keynote Panel: The Center for Dialogue and Analysis on North America (CEDAN), "Sustainable Cities: What are They, and How do We Get to Them?" Invited Speaker. Mexico City, March 6-7.
- 3) **2010** National Conference: A Community on Ecosystem Services, Gila Indian Community, Arizona. Ecosystem Services and Urban Metabolism studies, Dec 6-9.
- 4) **2010** Arizona State University Long Term Ecological Research Central Arizona Project annual meeting Key Note Speaker, January.
- 5) **2009** Issues in Urban Sustainability. Worcester Polytechnic University, November 11.
- 6) **2009** Implementing a Nature's Services Infrastructure: the Case of a Million Trees Los Angeles National Conference on Ecosystem Restoration, July 23.
- 7) **2009** The Yet Uncertain Science of Valuing Nature's Services, Oak Woodlands Strategic Alliance, Los Angeles County, April 2.
- 8) **2009** Sustainability and the Colorado River: Trade-offs in Southern California. Environment Now, May 21.
- 9) **2009** Agir sur l'environnement; Los Angeles, divers programmes opportunistes, disparates et contraintes. Institut d'Urbanisme, Universite de Paris X11, March 28.
- 10) **2009** Plans Climat: Ville, Region, Etat: Un panorama des Challenge en Californie du Sud, University of Geneva, March 11.
- 11) **2009** Global Green USA, Green Urbanism Leaders Summit, February 12-13.
- 12) **2009** Distinguished Speaker University of California Geography Graduate Group speakers series on the History of California's Landscapes: The Political History of Development in Southern California, January 7.
- 13) **2008** Planting a Million Trees in Los Angeles, What have we Learned: Two Years of Research. A Conference on Ecosystem Services, Naples Florida, December 8-11.
- 14) **2008** Department of Defense workshop on sustainability, October 23.
- 15) **2008** Cambria Land Trust, It's the Land Use, Not the Fires, Not the Water. Where do We Go From Here? October 15.
- 16) **2008** American Planning Association, California Section. Invited speaker on panel: Is a State Plan Necessary for California? September 22.

- 17) **2007** Planning and Conservation League Symposium
The Need for a New Land Use Paradigm, April 15.
- 18) **2006** Centre de Sociology des Organizations, Centre National de Recherche
Scientifique, Coupled Social/Biophysical Science Urban Research,
New Research in the City, December 4.
- 19) **2006** University of Hull, Geography Department. The Imperial Valley of California,
What Issues for Sustainability? November 5-8.
- 20) **2006** University of Lisbon, Physics Department, Coupled Social/BioPhysical Science,
Urban Research on Sustainability, October 5,6.
- 21) **2005** Twenty-fifth Biennial Ground Water Conference of the UC Center for Water
Resource And the Fourteenth Meeting of the Groundwater Resources
Association Sacramento, October 26, 2005.
- 22) **2005** The Future of Metropolitan Landscapes, Landscape Architecture and
Environmental Planning, UC Berkeley, March 11-12.
- 23) **2004** California at Fifty Million, Colloquium Series, Institute of Urban and
Regional Development, UC Berkeley, November.
- 24) **2004** Attorney General Bill Lockyer, invited presentation on the Future of
Urban Parks in California. Organized session, November.
- 25) **2005** California Air Resources Board, invited presentation on Environmental Health
Land Use Guidelines, Study Session, October.
- 26) **2003** Southern California Water Committee: Is Water Self-Reliance a
Poison or Panacea? May.
- 27) **2003** American Society of Environmental History, Keynote speaker, Mainstreaming the
Marginal, Environmental History and Environmental Justice, Rhode Island, March.
- 28) **2003** Keynote speaker, Stanford University, Historical Trends in Land Use Planning
in the West” Conference on Land Use Planning Then & Now: Twentieth-Century
Realities in the Metropolitan West. Program for the Study of the
North American West, May.
- 29) **2003** Nature’s Services in a Dense Urban Environment, Tools for Analysis,
University of New Mexico, Economics Department, December.

- 30) **2002** *Ecole Nationale des Ponts et Chaussees and Institut National de Recherche Agronomique*, A Green Infrastructure for the American City in the 21st Century (*Un Cadastre Vert Pour la Ville Americaine au 21eme Siècle*), October.
- 31) **2002** California Water Policy Conference, 12th Annual, The Mastery of Mastery, keynote address, Los Angeles, October 9.
- 32) **2002** SENA State University of Paraná “Social Movements and the Urban Environment in the Los Angeles Region” National Workshop on “Urban Social Impacts: Challenges and Solutions,” Curitiba, Brazil, June 19-22.
- 33) **2000** UCLA Geography Department colloquium “Transforming California, a Political History of Land Use and Development,” Seminar series, December.
- 34) **2000** Nature, Science and Society (Natures, Sciences, Sociétés, Journées 2000) Conference, Paris, France, Urban Sustainability and Nature – What is at Stake? *La Durabilité Urbaine et la Nature: Quels Enjeux?*, December.
- 35) **2000** Second Sustainable Cities Network Conference, Manchester England, Perspectives on Balancing Economic, Social and Environmental Goals for a Sustainable Future, September 12-13.
- 36) **2000** Social Venture Network Conference, Los Angeles “Eco-Industrial Parks and Design for Environment, Emerging areas for Entrepreneurial Investment,” October 20.
- 37) **1998** National Science Foundation Research Workshop, Towards a Comprehensive Geographic Perspective on Urban Sustainability Center for Urban Policy Research, Rutgers University, June 16-21.

BOOK REVIEWS

- 1) **2012** Review of Walker P.A. & Hurley P.T. *Planning Paradise: Politics and Visioning of Land Use in Oregon*, University of Arizona Press. For H-Net Reviews in the Humanities and Social Sciences, May 2012, URL: <http://www.h-net.org/reviews/showrev.php?id=35706>
- 2) **2008** Review of Meyer, A. *New Guardians for the Golden Gate: How America Got a Great National Park*. For *Southern California Quarterly*. 89(3), 340-341.
- 3) **2007** Review of Kittle, N. & Hart, J. *LEGACY: Portraits of 50 Bay Area Environmental Elders*. For *California History*. 84(3), 69-70.
- 4) **2007** Review of Coates, P. *Perceptions of Immigrant and Invasive Species: Strangers on the Land*. For *Journal of American History*. 94(2), 588-589.

- 5) **2003** Review of Press, D. *Saving Open Space, the Politics of Local Preservation in California*. For *The Public Historian*. 26(1), 164-166.
- 6) **2003** Review of Steinberg, T. *Down to Earth, Nature's Role in American History*. For *The American Historical Review*. 108(3), 821-822.
- 7) **2000** Review essay of Limerick, P. *Something in the Soil: Legacies and Reckonings in the New West*. For *The American Historical Review*. 106(3), 924.
- 8) **1999** Review essay (in French) of Kalaora, B. *Beyond Nature: The Environment, Social Observations of the Environment in France and the United States*. (Au-delà de la Nature L'environnement. L'observation sociale de L'environnement: L'environnement en France et aux Etats Unis.) For *Les Etudes Sociales, Revue de la Société d'Economie et de Science Sociales*. 129(1), 88-91.
- 9) **1997** Review essay (in French) of Schama, S. *Landscape and Memory and Robert Pogue Harrison's Forests, The Shadow of Civilization*. For *Les Etudes Sociales, Revue de la Société d'Economie et de Science Sociales*. 126(2), 127-131.
- 10) **1998** Review of Le Play, F. *Forests Considered With Regard to their Impacts on the Physical Nature of the Globe and on Societies*. (Des Forêts, Considérées dans leurs Rapports avec la Consitution Physique du Globe et L'économie des Sociétés.) Texte établi et présenté par Antoine Savoye et Bernard Kalaora. Fontenay/ Saint-Cloud: E.N.S. Editions Annals of the Association of American Geographers. (different review) 88(1), 162-164.
- 11) **1997** Review of Le Play, F. *Forests Considered With Regard to their Impacts on the Physical Nature of the Globe and on Societies*. (Des Forêts, Considérées dans leurs Rapports avec la Consitution Physique du Globe et L'économie des Sociétés.) Texte établi et présenté par Antoine Savoye et Bernard Kalaora. Fontenay/Saint-Cloud: E.N.S. Editions for Environmental History Review. 2(4), 514-515.
- 12) **1997** Review of Prendiville, B. *Environmental Politics in France*. For *Journal of Forest and Conservation History*. Westview Press. 2(1), 117-118.
- 13) **1994** Review of Kirby, A. *Power/Resistance, Local Politics and the Chaotic State*. For *Journal of the American Planning Association*. Bloomington, Indiana: University Press. 60(3), 325-326.
- 14) **1994** Review of Norwood, V. *Made From this Earth: American Women and Nature*. The University of North Carolina Press. For *Gender, Place and Culture*. (1), 139-140.
- 15) **1992** Review of Johnston, R.J. *Environmental Problems: Nature, Economy and State*. London, England: Belhaven Press. For *Political Geography*, 11(3), 325-326.

- 16) **1991** Review of McCormick, J. *The Global Environmental Movement: Reclaiming Paradise*. London, England: Belhaven Press.
For *Political Geography*. 1(4).
- 17) **1990** Review of Heiman, M. *The Quiet Evolution: Power, Politics and Planning New York State*. For *Journal of the American Planning Association*. 56(4), 545-548.
- 18) **1990** Review of Heiman, M. *The Quiet Evolution: Power, Politics and Planning New York State*. For *Political Geography*, 8(1). (Different review than JAPA)
- 19) **1988** Review of Savoye, A. & Kalaora, B. *La Forêt Pacifiée*.
For the *Journal of Forest and Conservation History*, 32(4), 221.
- 20) **1982** Review of Popper, F. *The Politics of Land Use Reform*.
For the *Journal of Coastal Zone Management*, 10(3), 291-295.

REPORTS AND EDITORIAL ARTICLES

- 1) **2012** Greener Miles: Policy Options to Account for Life Cycle Energy and Emissions in Urban Transportation Systems, Cepeda, C., Eisenstein W., Chester M., Pincetl, S., Bunje, P. Public Interest Energy Research Program State Energy Commisison.
- 2) **2010** The Integrated Approach, Hazard and Resource Evaluation for Sustainable Development on Alluvial Fans, March. <http://aftf.scusb.edu>, Alluvial Fan Taskforce sponsored by the California state Department of Water Resources.
- 3) **2009** Potential Targets and Benefits for Sustainable Communities, Research Funded By the Public Interest Energy Research Program, California State Energy Commission, Pincetl, S., lead author.
- 4) **2007** What Brings Children to the Park? Analysis and Measurement of the Variables Affecting Children's Use of Parks, Report prepared for the Haynes Foundation, Pincetl, S., contributor.
- 5) **2007** Proposition O: Clean Water, Ocean, River, Beach, Bay Storm Water Cleanup Measure – General Obligation Bond: Evaluating the Implementation, with Mi-Hyun Park and Michael Stenstrom. Final Report for the John Randolph Haynes and Dora Haynes Foundation.
- 6) **2007** Proposition O: Clean Water, Ocean, River, Beach, Bay Storm Water Cleanup Measure – General Obligation Bond: Technical Analysis of Water Quality Benefits, with Mi-Hyun Park and Michael Stenstrom. Final Report for the John Randolph Haynes and Dora Haynes Foundation.
- 7) **2006** Proposition O: Clean Water, Ocean, River, Beach, Bay Storm Water Cleanup Measure – General Obligation Bond: 2005 –2006 An Evaluation of the First Year

of Implementation with Recommendations for Round Two, with Mi-Hyun Park, for the John Randolph Haynes and Dora Haynes Foundation.

- 8) **2005** Coachella Valley Multiple Species habitat conservation plan/natural communities conservation plan. Compliance with the federal endangered species act, and land use planning considerations. A research report for the California Policy Research Center of the State of California, written with Peter Alagona.
- 9) **2003** Toward a Sustainable Los Angeles: a Nature's Services Approach, Center for Sustainable Cities research report for the John Randolph Haynes and Dora Haynes Foundation.
- 10) **2003** Using Parks and Open Space to make an Urban Metropolis, The Los Angeles Forum for Architecture and Urban Design Spring 2003, online newsletter, Issue 5 Parks at www.laforum.org/issues/issue5.php.
- 11) **2002** Building the Green Metropolis, *Finding Solutions*, Southern California Studies Center Urban Policy Co-Sponsored by the Southern Studies Program and the USC Lusk Center for Real Estate, Antonio Villaraigosa and Jennifer Wolch (Eds.)
- 12) **1995** *Rapport d'Evaluation de Recherches du PIR Villes*, for the Programme Interdisciplinaire de Recherches sur la Ville of the Centre National de Recherche Scientifique, July.
- 13) **1994** Conserving the California Spotted Owl: Impact of Interim Policies and Implications for the Long-Term. Wildland Resources Center, Division of Agriculture and Natural Resources, University of California, Davis, CA. Report 33, May.
- 14) **1987** The Food-Energy Nexus in California: Agriculture's Response to the Energy Crisis, A Case of Price Responsiveness? United Nations University Report, June.

EDITORIALS

- 1) **2004** Poor are Slighted on L.A. city recreational resources, with T. Burman. *Los Angeles Times*, May 29, M5.
- 2) **2000** Having Nature and Protecting it Too, *Los Angeles Times*, Sunday, May 7, M6.
- 3) **1989** Must a Clean Environment Come at the Cost of Jobs? Editorial, *Los Angeles Times*, June 29, M5.

INVITED WORKSHOPS

- 1) **2012** National Academy of Sciences Workshop, Urban Ecosystem Services, October 29-30, Washington DC. Invited speaker. (postponed due to weather)
- 2) **2012** ESPSRC Retrofit 2050 International Urban Retrofit Workshop: Theories and

Concepts, Dynamics and Practices, Politics and Implementation, September 13,14, Manchester UK.

- 3) **2011** Pickett et al., Second workshop of Equity and Urban Ecosystem Services, National Center for Ecological Analysis and Synthesis, December.
- 4) **2011** National Climate Assessment Workshop: National Cross Cutting Issues, Columbia, October.
- 5) **2011** National Climate Assessment workshop: Southwest region technical report authors, Boulder Colorado, August.
- 6) **2011** Linking Ecology and Ethics for a Changing World: Values, Philosophy and Action. Carey Institute, May.
- 7) **2010** Pickett et al workshop of Equity and Urban Ecosystem Services, National Center for Ecological Analysis and Synthesis, June.
- 8) **2006** Costanza et al workshop on Ecosystem Services, National Center for Ecological Analysis and Synthesis, June.

CONFERENCES

- 1) **2011** Expanding Urban Metabolism: Coupling Methodologies and Integrating Social Factors, a Pilot for Los Angeles County, American Geophysical Union, December.
- 2) **2011** Climate Planning in the Fragmented Metropolis: Los Angeles the Locus of Experimentation, American Association of Geographers, February.
- 3) **2010** Green Jobs or the New Quick Fix? Musings Toward an Analysis, American Association of Geographers, April.
- 4) **2009** Implementing a Nature's Services Infrastructure, What Have Scientists Learned from Million Trees Los Angeles, National Conference on Ecosystem Services, Los Angeles, July 20-24.
- 5) **2008** Implementing a Nature's Services Infrastructure: the Case of a Million Trees Los Angeles, A Conference on Ecosystem Services: Using Science for Decision-Making in Dynamic Systems, Naples, Florida, December 8-11.
- 6) **2008** The Politics of Conservation in Southern California: Applying a Political Economy Perspective to Habitat Conservation for Endangered Species Protection. International Political Geography Colloquium, Reims France, April 2-4.
- 7) **2007** Mixed up Nature, What are Urban Parks Today? International Symposium on Society and Resource Management, June 17-21.

- 8) **2006** Diversity and conservation values in the city: are new values compatible with old uses? The new sustainability paradigm. American Association of Environmental Historians, February 27-March 3.
- 9) **2006** Bridging the divide: how land use planners and conservation biologists join forces to achieve resource protection in California." Society for Conservation Biology, Conservation Without Borders, June.
- 10) **2007** Habitat Conservation in the Coachella Valley, Poster Presentation, American Association for Environmental History, April.
- 11) **2005** The Evolution of Environmental Movements in Los Angeles, American Society Environmental History, March.
- 12) **2004** Toward a New Park and Open Space Paradigm, California Chapter of the American Planning Association, October 17-20.
- 13) **2004** The Political Ecology of Water Transfers: The Imperial Irrigation District and The San Diego County Water Authority. American Association of Geographers, March.
- 14) **1999** Planning and the Environment National Meetings, American Schools of Collegiate Planners, October.
- 15) **1998** The State, the Non-Profit and Constructing the Local Through Multicultural Health Care Delivery, National Meetings, Association of American Geographers, March.
- 16) **1994** The California Spotted Owl, the Endangered Species Act and the Urbanization of Nature, Association of American Geographer's meetings, San Francisco, March.
- 17) **1994** *La Democratie face au Défi; Les Emigrés et la Politique Locale à Los Angeles* Cities, Enterprises and Society at the Eve of the XXIst Century sponsored by the *Institut Fédératif de Recherche sur les Economies et les Sociétés Industrielles* and the *Programme Interdisciplinaire de Recherche sur la Ville* of the *Centre National de la Recherche Scientifique*, Lille, France.
- 18) **1993** Restructuring Citizenship – Latino Immigrants and Political Organizing in Los Angeles, American Schools of Collegiate Planners, October.
- 19) **1993** *Le Hibou Tacheté, Les Espèces en Voie d'Extinction et l'Urbanization de la Nature* presented at the International Symposium on the Social Functions of Nature, International Sociological Association, in conjunction with the *Société et Risques Scientifiques et Techniques Groupe de Recherche* of the *Centre National de Recherche Scientifique* and the Department of the Environment of France, Chantilly, France, 8-12.

- 20) **1993** The New Citizenship, Association of American Geographers, April.
- 21) **1992** Panelist, The New Suburbs, at the Dancing on the Brink Conference, Center for California Studies, February.
- 22) **1991** Critical Ecologies: Cultural, Feminist, and Political, Association of American Geographers meetings, Miami, April.
- 23) **1990** Struggles over Place and the Meaning of Life, American Collegiate Schools of Planning, November.
- 24) **1990** Growth Control Struggles in Pasadena, California, American Association of Geographers, April.
- 25) **1989** The Pitfalls of Progressivism: Who are the Locals? The Case of Pasadena, Association of Collegiate Planners, October.
- 26) **1989** Panel Participant: Author meets critics: Sidney Plotkin defends his *Keep Out; The Struggle for Land Use Control*, American Association of Geographers, April.
- 27) **1988** Co-optation or Disinterest? Environmental Movements and Politics in France National Meetings, American Association of Geographers meeting, April.
- 28) **1985** Environmental Policies and Politics of the Brown Administration, 1975-1983 American Association of Geographers.

ADMINISTRATIVE, RESEARCH, AND ORGANIZATIONAL LEADERSHIP POSITIONS

- **2011 -** *Lead Author*, Urban Chapter, Southwest Technical Report National Climate Assessment.
- **2011** *Contributing Author*, Urban Section, National Climate Assessment.
- **2008 -** *Steering Committee*, L. A. Regional Climate Change Collaborative Fund. Developed, coordinated with academic research, leadership of approach to regional issues.
- **2007 - 2008** *Appointee*, Governor's Taskforce on Alluvial Fans.
- **2005** *Member*, Los Angeles City Bureau of Reclamation Steering Committee. Implemented policy for the Mayor's One Million Trees for Los Angeles initiative.
- **2004** *Consultant*, Bureau of Sanitation, City of Los Angeles. Developed sustainability indicators for Regional Integrated Plan.
- **2002 - 2004** *Stakeholder Representative*, Santa Ana Watershed Protection Authority. Developed innovative integrative environmental watershed management

approaches for conserving prime alluvial ground water recharge capacity for San Bernardino County.

- **1992 – 2000** *Chair*, Board of Directors, Communities for a Better Environment.
Led transition from a traditional environmental advocacy organization to an environmental justice organization.
Initiated interface between academic research and CBE's urban environmental health, land use, and justice program.
Shaped fund development content and proposals.
Managed organization and led Board.
- **1997 – 1998** *Consultant*, The California Endowment, California Institute of Technology team.
Developed indicators of Multicultural Health Care Provision in L.A. County.
Acted as interface between grant makers and academic research, including urban environmental health considerations and immigration.
Developed policy recommendations for Foundation funding in region.
- **1996** *Fulbright Scholar*, Paris France.
Studied comparative environmental justice, urbanization and gentrification.
- **1994** *Consultant*, Interdisciplinary Urban Research Project, (Projet Interdisciplinaire Villes), of the French National Center for Scientific Research (Centre National de Recherche Scientifique).
Reviewed all urban research funding, wrote critical evaluative report to guide further funding by agency.
- **1992 – 1994** *Member*, Steering Committee and Implementation Team for California Spotted Owl Assessment for the US Forest Service, Pacific Southwest Region, California Department of Forestry and Fire Protection, and the University of California Wildland Resources Center.
Set agenda for research on Southern California chapter and wrote analysis and policy recommendations.

PROFESSIONAL SERVICE

- **2012-** *Editorial board*, Cambridge University Press: New Directions in Sustainability and Society book series
- **2011** *Member*, Technical Advisory Committee for the Western Wildland Environmental Threat Assessment Center, USFS.
- **2011** *Member*, National Taskforce, Vibrant Cities and Urban Forests, US Forest Service & New York Restoration Project. Advise USFS about research priorities for urban natural resource stewardship.
- **2008** *Academic Director*, Los Angeles Regional Collaborative for Climate Action and Sustainability.

- **2009** *Advisor, Los Angeles County Citizen Grand Jury, water policy in Southern California.*
- **2008** *Member, California Environmental Justice Coalition for Water.*
- **2008-2009** *Member, County of Los Angeles Oak Preservation Task-Force.*
- **2007-2009** *Governor's Appointee, Southern California Alluvial Fan Taskforce. Mission developed a model ordinance to guide land use decision for alluvial fans.*
- **2007** *Advisor, International workshop to review proposal for research strategy for the National Research Council of Oman, Muscat, Oman, October 21- 23.*
- **2005** *Member, National Science Foundation Review Panel, Office of International Science and Engineering, Partnerships for International, Research and Education.*
- **2002-2003** *Member, National Academy of Sciences Ford Foundation Minority Predoctoral Fellows Award Committee.*
- **2002-2003** *Member, Conference Planning Committee, American Society of Environmental Historians.*
- **2002** *Grant Proposal Reviewer, the Austrian Science Fund.*
- **2002-2004** *Member, Conference Planning Committee, California Studies Association.*
- **2002** *Member, Prize Committee, American Society of Environmental Historians.*
- **Reviewer** *National Science Foundation Grants*
- **Referee:**
 - Landscape and Urban Planning
 - Environmental Management
 - Environmental Policy and Planning C
 - International Journal of Urban and Regional Research
 - Urban Geography
 - Journal of Industrial Ecology
 - Landscape and Urban Planning
 - GeoForum
 - Space and Polity
 - Environmental History Review
 - Society and Natural Resources
 - Journal of the American Planning Association
 - Antipode
 - Special U.S. correspondent for Les Etudes Sociales
 - Editorial Board, Espaces et Societes

Cities

COMMUNITY SERVICE

- Board of CURE, Citizens United for Resources and Environment
- Public Works Commissioner, City of Beverly Hills (past)
- Board of the Westside Urban Forum (past)
- Board, Planning and Conservation League (past)
- Board of the California League of Conservation Voters Education Fund, 2000-2005
- Review Board for Environmental Justice grants, Liberty Hill Foundation, 1997-1999
- Board of the Asthma and Allergy Foundation, 1997-1999
- Steering Committee of the California Studies Association (past)

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

- American Planning Association
- Association of American Geographers
- California Studies Association

LANGUAGES

- French – Bilingual
- Spanish – Conversational and Reading

CURRICULUM VITAE

(December 2012)

Helga Leitner

Department of Geography, University of California, Los Angeles, 1255 Bunch Hall, Box
951524, Los Angeles, CA 90095-1524
hleitner@geog.ucla.edu

PERSONAL INFORMATION

Date of Birth: April 29, 1949
Place of Birth: St. Valentin, Austria

EDUCATION

Ph.D., Geography and Planning, University of Vienna, Austria (1978)

ACADEMIC POSITIONS AND AFFILIATIONS

Professor, Department of Geography, University of California Los Angeles (2012 -)
Chair, Department of Geography, University of Minnesota (2011-2012)
Professor, Department of Geography, University of Minnesota (1996-2012)
Associate Member of the Austrian Academy of Sciences (2008-present)
Faculty Affiliate, University of Minnesota Law School (2010-present)
Adjunct Faculty Member, Hubert H. Humphrey Institute for Public Affairs (1992-97)
Faculty Member, Interdisciplinary Center for the Study of Global Change, University of Minnesota
(1998-2012)
Faculty Member, Institute for Global Studies, University of Minnesota (1999-2012)
Assistant Professor, University of Vienna (1979-1983)

VISITING POSITIONS

University of Indonesia, Jakarta (1986-87), University College London, London, UK (Fall 1990)
University of Vienna, Austria (Fall 1992), Technical University of Munich, Germany (Summer 1999),
National University of Singapore (Spring 2009), Department of Geography, Planning, and International
Development, University of Amsterdam, The Netherlands (Spring 2011)

AWARDS AND HONORS (since 2000)

Residency at the Rockefeller Foundation Bellagio Center (Fall 2012)

Scholar of the College of Liberal Arts, University of Minnesota, Minneapolis (2010)

Award for Outstanding Contributions to Postbaccalaureate, Graduate and Professional Education,
University of Minnesota and elected member of the Academy of Distinguished Teachers (2009)

Associate Member of the Austrian Academy of Sciences (elected 2008)

Outstanding Graduate Student Advising Award, Department of Geography (2007)

Member, The International Society of Women Geographers (elected 2005)

EDITORIAL ROLES

Series Editor, Urban Pulse for Urban Geography (2008-present)
Urban Geography (1992-present, editorial board)
Political Geography (1994-2001, editorial board)
Antipode (1992-2000, editorial board)
AAG Resource Publications Series (1995-1997, editorial board)

ACADEMIC SERVICE

Member, National Science Foundation, panel on Geography and Spatial Science (2012 – 2015)
Co-Director for Social Science Research Council's Dissertation Proposal Development Field
Competition: Provincializing Global Urbanism (2011, with Ananya Roy, UC Berkeley)
Scientific Advisory Board of the Faculty of Geosciences, Geography and Astronomy, University of Vienna, Austria (2006-present)
Scientific Advisory Board - Project "Ungleiche Vielfalt" – "Unequal Diversity" – Economics University, Vienna and Viennese School District (2010-present)
Advisory Board of Social Polis – Social Platform on Cities and Social Cohesion. Sponsored by the European Commission (2008-2010)
Chair and co-convener, Interdisciplinary Transatlantic Summer Institutes for Graduate Students, Sponsored by the US Department of Education, the European Union, and the Center for German and European Studies (1993-95, 2000-2003, 2007)
Advisory Board of the Quadrant Global Cultures Program, Institute for Advanced Studies and University of Minnesota Press (2010-present)
Chair, and Vice-chair AAG Urban Geography Specialty Group (1997-2000)
Chair, AAG Women and Gender Studies Awards Committee (2001-2002)
Board of Directors, AAG Political Geography Specialty Group (1994-1997)
Member, AAG Awards Committee (2008-2011)
Member, AAG Political Geography Specialty Group – Best student paper competition (1992-95, 2004-2012)
Member, Dissertation Awards Committee, AAG Urban Geography Specialty Group (1990-93, 1997-1999)
Member, AAG Committee on International Research and Scholarly Exchange (1990-1996)

RECORD OF SCHOLARSHIP

PUBLICATIONS

Books

Leitner, H., Peck, J. and Sheppard, E., (eds.), 2007. *"Contesting Neoliberalism: Urban Frontiers"*. New York: Guilford Press. 336 pp.

Nijkamp, P., Leitner, H. and Wrigley, N., (eds.), 1985. *"Measuring the 'Unmeasurable': The Analysis of Qualitative Spatial Data"*. Martinus Nijhoff, The Hague. 713 pp.

Leitner, H., 1983. *"Gastarbeiter in der städtischen Gesellschaft - Zum Problem der Segregation, Integration und Assimilation von Arbeitsmigranten am Beispiel der jugoslawischen Gastarbeiter in Wien"*. Verlag Campus, Frankfurt/New York. 328 pp

Journal Articles and Book Chapters

2010-2012:

Staeheli, L., Ehrkamp, P., Leitner, H. and Nagel, C. 2012. Dreaming the ordinary: Daily life and the complex geographies of citizenship. *Progress in Human Geography* 36, 5: 628-644.

Strunk, Ch. and Leitner, H. 2012. Redefining secure communities. *The Nation*. Available online: <http://www.thenation.com/article/165295/redefining-secure-communities>

Leitner, H. 2012. Spaces of encounters: Immigration, race, class and the politics of belonging in small town America. *Annals of the Association of American Geographers* 102, 4: 828-846.

Matejskova, T. and Leitner, H. 2011. Urban encounters with difference: The contact hypothesis and immigrant integration projects in eastern Berlin. *Social & Cultural Geography*, 12, 7: 717-741.

Leitner, H. and Preston, V. 2011. Going local: Canadian and US immigration policy in the new century. In: A. Kobayashi, Wei Li and Carlos Teixeira (Eds.) *Immigrants In Canadian and American Cities*. Oxford University Press Canada, 2-21.

Walker, K. and Leitner, H., 2011. The variegated landscape of local immigration policies in the US. *Urban Geography*, 32, 2: 156-178.

Sziarto, K. and Leitner, H. 2010. Immigrants riding for justice: Space-time and emotions in the construction of a counterpublic. *Political Geography*, 29, 7: 381-391.

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2008-2009:

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2006-2007:

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2002-2005:

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2000-2001:

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1996-1997:

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"GIS and societal risk of hazardous materials" (p. 55-57)

"I-19 Initiative proposal: position paper" (p. 58-59)

"GIS analysis of toxic risk: efficiency, equity and ethics (p.76-78)

1994-1995:

Leitner, H. 1994. Capital markets, the development industry and urban office market dynamics: Rethinking building cycles. *Environment and Planning A*, 26, 5: 779-802.

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1992-93:

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1989-1991:

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- 1980-1984:**
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- Kreisky, E., Lang, M., Leitner, H. Matuschek, G., Neyer, G., and Wimmer, H., 1983. *Untersuchung über die ausländischen Arbeitskräfte in Österreich - sozialwissenschaftlicher Teil*. 1. Zwischenbericht, Institute f. Höhere Studien, Wien, 293 pp. (The social situation of Austria's foreign work force and their dependents - first progress report)
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- Leitner, H., 1981. Demography and population problems. In *Modern Austria*, Steiner K. (ed.). The Society for the Promotion of Science and Scholarship Inc., Palo Alto, Cal., 75-97.
- Leitner, H. and Krasser, E., 1981. Türkische Familien zwischen traditionellen Lebensformen und Anpassung an die westliche Industriegesellschaft. *Ausländerkinder - Forum für Schule und Sozialpädagogik*, Heft 7: 2-15. (Turkish migrant families: Between traditional and western ways of life)
- Leitner, H. and Wohlschlägl, H., 1981. Kausalmodelle mit Variablen unterschiedlichen Skalenniveaus

und ihre Testung mit Hilfe der Verallgemeinerten Pfadanalyse. In *Zürcher Geographische Schriften*, Heft 1: 161-181.

Leitner, H. 1981. Weigand K., *Chicano-Wanderarbeiter in Südtexas. Der gegenwärtige Situation der Spanisch sprechenden Bevölkerung dieses Raumes* (Kieler Geographische Schriften, 47, 1977). *Mitteilungen der Österreichischen Geographischen Gesellschaft*, 123, 1: 1981.

Leitner, H. and Wohlschlägl, H., 1980. Metrische und ordinale Pfadanalyse: Ein Verfahren zur Testung komplexer Kausalmodelle in der Geographie. *Geographische Zeitschrift*, 68 Jg., Heft 2: 81-106.

Before 1978:

Leitner, H. and Wohlschlägl, H., 1975. Der Kulturerdteil Orient als Lebensraum. Ein lernzielorientiertes thematisches Unterrichtsmodell für die 5. Klasse der AHS. In *Schulgeographie im Wandel. Beiträge zur Neugestaltung des Geographieunterrichts in Österreich*, Sitte W. and H. Wohlschlägl (eds.). Verlag A. Schendl, Wien, 187-236.

Leitner, H., 1975. Eine Pionierleistung zur Reform des Geographieunterrichts in den USA: Das `High School Geography Project. In *Schulgeographie im Wandel. Beiträge zur Neugestaltung des Geographieunterrichts in Österreich*, Sitte, W. und H. Wohlschlägl (eds.). Verlag A. Schendl, Wien, 121-142.

PAPERS PRESENTED AT SCHOLARLY MEETINGS AND INVITED LECTURES

Over 150 invited lectures and research presentations at professional meetings, universities and public fora in the United States (numerous locations), Canada, United Kingdom (numerous locations), Germany (numerous locations), Netherlands, Austria (numerous locations), Denmark, Sweden, Czech Republic, Holland, Australia, South Africa, Indonesia, China, Singapore, South Korea, and Taiwan.

OTHER PARTICIPATION AT SCHOLARLY CONFERENCES

Organizer, co-organizer, participant, and/or discussant at numerous professional meetings of the Association of American Geographers, Social Science History Association, Urban Affairs Association, International Studies Association, NSF Workshops, International Conference of Europeanists, NATO Advanced Research Workshop, German Studies Association, Population Association of Institute for Advanced Studies, Center for Austrian Studies, Center for European Studies at the University of Minnesota.

RECORD OF TEACHING AND ADVISING

Courses Taught at the University of Minnesota

Undergraduate: 1xxx: Freshmen seminar: The world within: Exploring contemporary immigrant America
 3381: Population in an interacting world
 3371: Introduction to urban geography
 3361: Europe – A geographic perspective
 3970: The feminization of international refugee law
 3970: Immigration and xenophobia in Europe

	GloS 3550V, GloS 3981W: Major project seminar
Upper Division/Graduate:	4381: Contemporary Immigrant America
	5701: Field research methodology
	5606: Geographical perspectives on urban planning II
	5900: Human geography and social theory
	5900: International migration and the Politics of Immigration and Xenophobia
	5900: Transnational migration and the politics of citizenship
	5900: Urban and regional development in Central Europe
Graduate Seminars:	8102: The economy, the state and spatial development – now: Geographical political economy
	8002: Research methods in geography
	8990: Contested urban futures
	DSSC 8111: Approaches to knowledge and truth
	8990: New cultural geography
	8020: State intervention in urban and regional development
	8020: Urban property development
	8020: Geography of the service economy
	8310: Seminar in social and cultural geography
	ISEES seminar: Epistemologies and methods for the study of human-environment relations
	DSSC 8310: Green urbanism and the sustainability mantra
Field Research Trips:	Central Europe: FRG, GDR, Czechoslovakia and Austria:
	Comparative analysis of issues in urban and regional development in centrally planned and mixed market economies
	Pacific Northwest: Urban and regional development in the Pacific Northwest

Courses Taught Elsewhere (past 15 years)

Technical Univ. Munich: Geographic perspectives on planning in the USA, Cities of the Pacific Northwest
University of Vienna: Aktuelle Probleme der Stadt- und Regionalentwicklung in den USA
National University of Singapore: Professional development seminar
University of Amsterdam: Various modules in courses on globalization; identity, territory and conflict; and migration

Previous Graduate Advisees;

Ph.D. (most recent first)

C. Strunk, Assistant Professor, Augustana College
K. Walker, Assistant Professor, Texas Christian University
D. Maralack, Lecturer, School of Management Studies, University of Cape Town, South Africa
T. Matejskova, Lecturer, Department of Geography, University of Loughborough, UK
N. Clough, Visiting Assistant Professor, University of Minnesota, Duluth
J. Blecha, Assistant Professor, San Francisco State University
K. Sziarto, Assistant Professor, University of Wisconsin, Milwaukee
A. Kiaga, ILO, Program Officer for East Africa, Dar es Salaam
Y. Gubsa, formerly Assistant Professor, University of Asmara, Eritrea
H. J. Jung, Postdoctoral Fellow, Seoul National University, Seoul, South Korea
P. Ehrkamp, Associate Professor, University of Kentucky, Lexington
S. Elwood, Professor, University of Washington, Seattle
D. Martin, Associate Professor, Clark University
H. Kurtz, Associate Professor, University of Georgia, Athens
L. McCarthy, Associate Professor, University of Wisconsin, Milwaukee

P. Sabourin, Associate Professor, Normandale College, Twin Cities
J. Byers, Head of Planning, Minneapolis Planning Department
U. Pillay, Director of Research, Human Science Research Council, South Africa

M.A.

D. Mermin, Head, California Office of Lake Research Partners, Lake, Snell, Perry, Mermin & Associates Inc.
M. Garner, Senior Project Coordinator, Minneapolis Planning Department
Elisabeth Binder, Network Analyst for Austrian government agency
K. Sharpe, Univ. of Minnesota, Extension Service
Erin Walsh, Univ. of Minnesota, Extension Service
Brook Bernini, Immigration/Border Program, Arizona
K. Hanneman, Senior Brand Anthropologist, Olson Advertising, Minneapolis
A. Al-Arfaj, Women's NGO Toronto, Canada
Hillary Waters, Ph.D. candidate

Current Advisees:

A. Ikizoglu, Univ. of Minnesota
S. Butcher, Univ. of Minnesota
C. Chang, Univ. of Minnesota
R. Blumberg, Univ. of Minnesota
U. Lang, Univ. of Minnesota
J. Shannon, Univ. of Minnesota

Graduate Committees:

In addition I have served on over 120 Ph.D. committees of graduate students from geography, sociology, political science, history, art history, American studies, anthropology, women's studies, and conservation biology.

Participation in Teacher Training Workshops

NSF Teacher Training Workshop, University of Memphis, Tennessee. Seminar on Europe, Memphis June 1994, 1995 and 1996.
Center for European Studies, University of Minnesota. Annual Summer Institute on European Studies: Conflict or Cooperation in Europe? June 1995. Europe and International Migration.
Science Teacher Training Workshop on "Global Change", University of Minnesota. July 1992, Lecture and workshop on "Urbanization in the Third World".

SERVICE RECORD (since 1988)

UNIVERSITY SERVICE

DEPARTMENT

Chair, (2011-2012)
Chair, Member of Search Committee (1991, 1995, 2003, 2006, 2008, 2010)
Director of Graduate Studies (1995-98)
Chair, Member, Graduate Educational Policy Committee (1989-91, 94-97, 2000-01, 03-04)
Member, Graduate Admissions Committee (1997-99)
Chair, Member, Strategic Planning Committee (1994, 2004-05)
Chair, Member, Merit Committee (1998, 2003, 2008)

Member, Visiting Faculty Committee (1993-95)
Chair, Member Awards Committee (1989, 91-92, 93, 96, 98, 2005, 06, 08, 10)

COLLEGE OF LIBERAL ARTS

Member, Promotion and Tenure Committee (2000-02, 2006-2010)
Director of Undergraduate Studies, Institute for Global Studies (1999-2000)
Co-chair, International Studies Task Force (1997-98)
Member, Assembly (1989-91, 95-97, 2003-05)
Vice Chair, Assembly (1990-91)
Member, Course Review Committee (1998-99)
Member, Committee for Curriculum, Instruction and Advising (1990-91, 95-96)
Member, Advisory Committee of the Center for German and European Studies (2000-2012)
Member, Advisory Committee of the Immigration History Research Center (2003-2012)
Member, Area Studies Advisory Committee (1994-96)
Chair, European Area Studies Steering Committee (1994-96)
Member, Center for European Studies Advisory Committee (1991-1998)
Member, Urban Studies Advisory Committee (1990-92)
Chair, Urban Studies Advisory Committee (1989-90)
Member, Austrian Studies Advisory Committee (1988-2012)
Member, German Studies Advisory Committee (1988-90)
Member, Search Committee, Department of History (1998-99, 2001)
Member, Search Committee, Department of Political Science (1998)
Member, Search Committee for Director of the Center for Austrian Studies (1989, 95, 2001)

UNIVERSITY

Women's Faculty Cabinet (2007-2010)
University Senate (1995-98, 2009-2012)
Senate Social Concerns Committee (1989-93)
Graduate School Grant-in-Aid for Research Committee (2005)
Graduate School Social Sciences Policy and Review Council (1995-98)
Graduate School Fellowship Committee (1992, 1994-95)
Graduate School Fulbright Fellowship Committee (1999-2000)
Task Force on Liberal Education (1990)
ICGC Curriculum Committee (2006)
ICGC Fellow selection committee (1998-2001, 05)
Executive Committee of the Center for Race, Ethnicity and Migration (2000-01)
Jane Adams School for Democracy (1998-2000)
Refugee Studies Center Advisory Committee (1997-99)
Institute for Social, Economic and Ecological Sustainability (ISEES) (1998-2000)
Board of Directors of the State and Regional Research Center (1985-92)
Program in History and Society (1985-92)

OTHER PROFESSIONAL SERVICE

(in addition to listed above under Academic Service)

Services as referee:

Annals of the Association of American Geographers, Environment and Planning A, B and C, Political Geography, The Canadian Geographer, Geoforum, Transactions of the Institute of British Geographers, The Professional Geographer, Economic Geography, Cultural Geographies, Urban Geography, Social and Cultural Geography, *Tijdschrift voor Economische en Sociale Geografie*, Journal of Planning Education and Research, Journal of Urban Affairs, Social Politics; University of

Minnesota Press, University of Toronto Press, Cornell University Press, Basil Blackwell Publishing, Rutledge Publishers, Guilford Press; National Science Foundation, Social Science and Humanities Council of Canada, Estonian National Science Foundation, Austrian Academy of Sciences.

External evaluator: 30 cases of promotion and tenure or promotion to full professor (e.g. Rutgers University, University of Colorado, Boulder, University of Washington, Seattle, University of South Carolina, University of Kentucky, Ohio State University, University of Manchester), plus external examinations of two Ph.D. theses

GRANTS (since 1988)

University of Minnesota, Center for Western European Studies. Mellon Foundation Grant for the development of a field research course for graduate students: “Comparative analysis of centrally planned and mixed market economies and their impact on urban and regional development in Central Europe”, 1989.

University of Minnesota, Center for Eastern European Studies. Grant for development of a new course: “Eastern Europe: Geography and Society” (with Eric Sheppard), 1989.

Ford Foundation Grant. Foundations and Applications of the Social Sciences - Summer Institutes for Curricular Innovation. Development of a course on “Geographic perspectives on urban planning”, 1990.

University of Minnesota, Graduate School Grant in Aid of Research. Immigration policies in the New Europe. (\$9,000), 1990-1991.

University of Minnesota, Institute for International Studies. National Endowment for the Humanities Grant. Foreign Language Study Across the Curriculum. Development of a German language course on “The changing map of Europe”, 1991.

University of Minnesota. Bush Sabbatical Fellowship, 1992.

US Department of Education. FIPSE (Fund for the Improvement of Post-secondary Education) Grant for a collaborative project among scholars from the University of Minnesota, University of Colorado, Universiteit Amsterdam, University College London, Rheinische Friedrich-Wilhelms-Universität Bonn, and Universidad Autonoma Madrid for the development of courses-in-common on ‘State policies, international migration, foreigners and xenophobia’. (SPIMFAX Program) and student exchange (\$ 100,000) (with Bill Brustein), 1993-1995.

University of Minnesota, Graduate School Grant-in-Aid. Competitive advantage and urban systems change: A cross-national evolutionary analysis. (\$10,000), 1994-1995.

Center for Urban and Regional Analysis (CURA). Research grant for Community environmental health and GIS application in Twin Cities neighborhoods. (\$12,000) (with Bob McMaster and Eric Sheppard), 1996.

Social Science Research Council. Research planning grant for State policies, international migration, foreigners and xenophobia: An international research and training consortium. (\$5,700) (with Doug Kincaid and Alex Stepick, Sociology, Florida International University; John O’Loughlin and Lynn

Staehli, Geography, U of Colorado, Boulder; Marty Schein, Political Science, New York University; Roger Waldinger and Min Zhou, Sociology, UCLA; Ed Goetz, U of M), 1997.

National Center for Geographic Information and Analysis (NCGIA). Research grant for GIS-based environmental risk analysis in the Twin Cities. (\$26,000) (with Bob McMaster and Eric Sheppard) 1996-1998.

Center for Urban Regional Affairs, University of Minnesota. Assessing and monitoring environmental hazards in the Phillips neighborhood of Minneapolis” Interactive Research Grant, (\$ 15,000) (with Bob McMaster and Eric Sheppard), 1998-1999.

National Center for Geographic Information and Analysis (NCGIA). Developing Methodologies for Evaluating the Efficacy of GIS for Community Organizations. Research grant Varenus Project. (\$ 4,740) (with Susanna McMaster and Sarah Elwood), 1999.

NSF Doctoral Dissertation Improvement Grant. “Placing ethnic identities” with Patricia Ehrkamp, (\$10,000), 1999.

US Department of Education FIPSE grant. The TIRES (Transnationalism, International migration, Race, Ethnocentrism and the State) Consortium Exchange and Advanced Training Project” collaborative project with Florida International University (US lead partner), University of Colorado, New York University, Europa-Universität Viadrina Frankfurt (EU lead partner), Universite de Liege, Institute d’Etudes Politiques de Paris, Universiteit van Amsterdam. (\$ 200,000), 2000-2003.

U of M Graduate School Grant in Aid. Immigrants and sustainable communities in Rural Minnesota. (\$ 18,000) (with Kathy Fennelly), 2001.

Russell Sage Foundation. Immigrants in Small Town, Rural America: Immigrant-Host Society Relations and Identities in a Changing Environment. (\$ 35,000) (with K. Fennelly), 2001.

CLA, University of Minnesota. Sabbatical Fellowship, 2002.

Center for German and European Studies (DAAD). Contested Urban Futures (\$ 60,000) (with Eric Sheppard), 2001-2003.

NSF Doctoral Dissertation Improvement Grant. *Making immigrants into citizens*, with Tatiana Matejskova, 2007.

Institute for Advanced Studies and Office of International Programs, University of Minnesota. Grant to organize an international, interdisciplinary research initiative on “The Making of Global Cities.” (\$38,000) (with M. Goldman (Sociology) and Eric Sheppard), 2008.

NSF Doctoral Dissertation Improvement Grant. *The variegated landscape of local immigration ordinances in the US* with Kyle Walker, 2009.

Social Science Research Council, New York, 2011. Dissertation Proposal Development Field Competition. Ananya Roy, Department of Urban Planning, University of California, Berkeley and I received funding to lead two interdisciplinary workshops in 2011 for 12 students from different US universities to help shape the emerging field of global urbanism.

Urban Studies Foundation Grant, Glasgow, UK, 2011. Seminar titled *Urban Revolutions in the Age of*

Global Urbanism (together with Eric Sheppard (Geography, University of Minnesota), Ananya Roy (Urban Planning, University of California, Berkeley), Michael Goldman (Sociology, University of Minnesota), Jo Santoso (Architecture and Planning, Tarumanagara University, Jakarta).

NSF Doctoral Dissertation Improvement Grant. *Paths through the food desert: Food procurement practices in low-income urban neighborhoods* with Jerry Shannon, 2011.

NSF Doctoral Dissertation Improvement Grant. *Chinese eco-cities as variegated urban sustainability* with Catherine Chang, 2012.

Eric S. Sheppard

CURRICULUM VITAE

(December 2012)

Personal information:

Date of Birth: October 1, 1950
Place of Birth: Cambridge, England
Citizenship: United States
Languages: Fluent in English and German

Education and qualifications:

Ph.D. in Geography: "Spatial Interaction Modeling." University of Toronto, Canada, 1974-76
(advisor: Leslie Curry).
M.A. in Geography: "The Spatial Diffusion of Shopping Centers in Canada." University of Toronto, Canada,
1972-74 (advisor: Leslie Curry).
B.Sc. (Honors) Geography, Bristol University, England, 1969-72 (minor in mathematics).

Current position:

2012- Humboldt Professor, Geography Department, UCLA

Previous appointments:

2008-2012 Regents Professor, University of Minnesota.
Co-Director: Interdisciplinary Center for the Study of Global Change
Adjunct Faculty: American Studies
Affiliate Faculty: University of Minnesota Law School
1986-2008 Professor of Geography, University of Minnesota.
1980-86 Associate Professor of Geography, University of Minnesota.
1976-80 Assistant Professor of Geography, University of Minnesota.

Visiting appointments:

20011-12 Universiteit Utrecht: Belle van Zuijlen Chair
2011 Universiteit Amsterdam, CLA exchange
2009 National University of Singapore: Distinguished visiting professor
2005-6: Center for Advanced Studies in the Behavioral Sciences, Stanford CA
2002: Bristol University, UK
1993: Die Wirtschaftsuniversität Wien (The Economic University of Vienna), Austria
1992: Die Universität Wien (the University of Vienna), Austria
1990: University College London
1986-87: Jurusan Geografi, Universitas Indonesia, Jakarta, Indonesia
1987: Melbourne University, Australia
1981-82: International Institute for Applied Systems Analysis, Laxenburg, Austria
1980: International Institute for Applied Systems Analysis, Laxenburg, Austria

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I. SCHOLARSHIP

A Publications:

Books

- The Capitalist Space Economy: Geographical Analysis after Ricardo Marx and Sraffa* (with T. J. Barnes). London: Unwin and Hyman, 1990. 328 pp.
- Rediscovering Geography: New relevance for the new century* (with T. Wilbanks and 14 others). Washington DC: National Research Council, 1996. 233 pp.
- A World of Difference: Society, Nature, Development* (with P. W. Porter). New York: Guilford Press, 1998. 602 pp.
- A Companion to Economic Geography* (co-edited with T. Barnes). Oxford: Basil Blackwell, 2000, 2003. 590 pp. (translated into Chinese, published by the Commercial Press of China, 2008)
- Reading Economic Geography* (co--edited with T. Barnes, J. Peck and A. Tickell). Oxford: Blackwell, 2004, 432 pp. (translated into Chinese, published by the Commercial Press of China, 2007)
- Scale and Geographic Inquiry* (co-edited with R. B. McMaster). Oxford: Blackwell, 2004, 272 pp.
- Contesting Neoliberalism: Urban Frontiers* (co-edited with H. Leitner and J. Peck). New York: Guilford Press, 2007, 340 pp.
- Politics and Practice in Economic Geography* (co-edited with T. Barnes, J. Peck and A. Tickell). Beverly Hills: Sage Publishers, 2007, 320 pp.
- A World of Difference: Encountering and contesting development* (second, fully revised and expanded edition with P. W. Porter, R. Nagar and D. Faust). New York: Guilford Press, 2009, 664 pp.
- The Wiley-Blackwell Companion to Economic Geography* (co-edited with T. Barnes and J. Peck). London: Wiley-Blackwell, 2012, 646 pp.
- The making of global cities: Conference proceedings* (with Li, Guicai). Beijing: Peking University Press (forthcoming).
- Geographical Political Economy: Capitalism, globalization, uneven development* (in progress)

Edited Special Issues of Refereed Journals:

- Special issue of *Cartography and Geographical Information Systems*: “GIS and Society.” (with Tom Poiker) Vol. 22 # 1 (1995)
- Special issue of *Environment and Planning A*: “The Dialectics of Geographic and Virtual Space.” (with Yuko Aoyama) Vol. 35 # 7 (2003)
- Special section of *Economic Geography*: “The 2009 World Development Report: A debate” (with Jamie Peck, October 2010)
- Special issue of *Urban Studies*: “Urban Revolutions” in preparation (with Vinay Gidwani, Michael Goldman, Helga Leitner, Anant Maringanti, Ananya Roy).

Refereed journal articles

- In progress “We have never been positivist” *Urban Geography* (forthcoming)
- (with Catherine Chang) “Chinese Green Capitalism and Urban Sustainability: Shanghai’s Dongtan Eco-city and Chongming Eco-island” *Journal of Urban Technology* (forthcoming)
- (with Linda Peake) “The emergence of radical/critical geography within North America” *ACME: An International E-journal for Critical Geographies* (under review)
- “Thinking through the Pilbara” *The Australian Geographer* (in preparation)
- (with Helga Leitner et al.) “Provincializing global urbanism” *Urban Studies* (in preparation)

- (with Jun Zhang) "Politicizing evolutionary economic geography" *Economic Geography* (in preparation)
- 2012 "Trade, globalization and uneven development" *Progress in Human Geography* 36(1): 44-71.
 (with Peter Merriman, Martin Jones, Gunnar Olsson, Nigel Thrift, Yi-fu Tuan) "Space and spatiality in theory" *Dialogues in Human Geography* 2(1): 3-22.
 (with Paul Plummer and Robert Haining) "Rationality, Stability and Endogenous Price Formation in Spatially Interdependent Markets" *Environment and Planning A* 44(3): 538-59. (with online appendix A: <http://dx.doi.org/10.1068/a43348>).
- 2011 "Geographical political economy" *Journal of Economic Geography* 11(2), 319-331
 (with Trevor Barnes) "Can error statistical theory include everything that matters?" *Progress in Human Geography* 35(4), 573-575.
 "Geography, nature and the question of development" *Dialogues in Human Geography* 1(1), 46-75.
 "Beyond geography and development: Response to my commentators" *Dialogues in Human Geography* 1(1), 98-102.
- 2010 (with Helga Leitner) "Quo Vadis Neoliberalism? The Remaking of Global Capitalist Governance after the Washington Consensus." *Geoforum*, 41(2), pp. 185-94
 (with Trevor Barnes) "'Nothing includes everything': Towards engaged pluralism in Anglophone economic geography" *Progress in Human Geography* 34(2), pp. 193-214.
- 2009 (with Luke Bergman, Paul Plummer) "Capitalism beyond harmonious equilibrium: Mathematics as if human agency mattered" *Environment and Planning A* 41: 265-283.
 "Branding GIS: What's 'critical'?" *Cartographica* 44 (1): 13-14
- 2008 "Geographic Dialectics?" *Environment and Planning A* 40: 2603-2612.
 (with H. Leitner & K. Sziarto) "The spatiality of contentious politics", *Transactions of the Institute of British Geographers* NS 33: 157-172
- 2007 "Response to Richard Peet", *Transactions of the Institute of British Geographers* NS 32: 581-2.
- 2006 "Geography matters: Agency, structures and dynamics" (with P. Plummer), *Journal of Economic Geography* 6 (5): 619-37.
- 2005 "Constructing free trade: From Manchester boosterism to global management" *Transactions of the Institute of British Geographers* NS 30 (2): 151-72.
 "Knowledge production through critical GIS: Review and Assessment" *Cartographica* 40 (4): 5-22.
- 2004 "The spatiality of Limits to Capital" *Antipode* 36 (3): 470-9.
- 2003 "Unbounding critical geographic research on cities: The 1990s and beyond" (with H. Leitner), *Urban Geography* 24 (6): 510-528.
- 2002 "The spaces and times of globalization," *Economic Geography* 78: 307-30. **Reprinted in:** D.Gregory and L. Castree (eds) *Human Geography* London: Sage, 197-210.
 "The city is dead, long live the network: Harnessing networks for a neoliberal urban agenda" (with H. Leitner), *Antipode* 31: 495-518 (2002). Reprinted in Brenner, N. and N. Theodore (eds) *Spaces of Neoliberalism*
- 2001 "Quantitative Geography: Representations, practices, and possibilities," *Environment and Planning D: Society & Space* 19 (2001): 535-554 **Reprinted in:** D.Gregory and L. Castree (eds) *Human Geography* London: Sage, 139-164.

- "Must emancipatory geography be qualitative? Reply to Amin and Thrift" (with P. Plummer), *Antipode* 30 (2001): 194-199
- "How economists think: About Geography, for example. Reflections on The Spatial Economy" *Journal of Economic Geography*, 1: 131-136
- "Socialist Cities? A commentary" *Urban Geography*, 21, 8: 758-63
- "Reflections," *Environment and Planning D: Society & Space* 19: 511-512
- 2000 "Modes of GIS Provision and their Appropriateness For Neighborhood Organizations – Examples From Minneapolis and St. Paul, MN" (with H. Leitner, S. Elwood, S. McMaster, and R. McMaster), *Journal of the Urban and Regional Information Systems Association* 12, 4: 45-58.
- 1999 "Introduction" (with M. Goodchild, M. Egenhofer, K. Kemp and D. Mark), *International Journal of Geographic Information Science*, 13: 731-746.
- "Geographies of the Information Society" (with H. Couclelis, S. Graham, J. W. Harrington, and H. Onsrud), *International Journal of Geographic Information Science*, 13: 797-823.
- "GIS-based measures of environmental equity: Exploring their sensitivity and significance" (with R. McMaster, H. Leitner and H. Tian), *Journal of Exposure Analysis and Environmental Epidemiology* 9, 1: 18-28.
- 1998 "Modeling spatial price competition: Marxian versus neoclassical approaches" (with P. Plummer and R. Haining), *Annals of the Association of American Geographers*. 88: 575-594.
- "Profit-rate maximization in interdependent markets: A research note" (with P. Plummer and R. Haining), *Journal of Regional Science* 38: 659-667
- "Spatial pricing in interdependent markets: testing assumptions and modeling price variation. A case study of gasoline retailing in St. Cloud, Minnesota" (with P. Plummer and R. Haining), *Environment and Planning A* 30: 67-84
- "On economists and geographers: A response to Harwitz" (with P. Plummer and R. Haining), *Journal of Regional Science* 38: 675-6.
- 1997 "GIS-based environmental equity and risk assessment: Methodological problems and prospects" (with R. McMaster and H. Leitner), *Cartography and Geographic Information Systems* 24: 172-189.
- 1996 "Spatial Price Equilibrium in Interdependent Markets: Price and Sales Configurations" (with R. P. Haining and P. Plummer), *Papers in Regional Science* 75: 41-64.
- 1995 "GIS and Society: Towards a Research Agenda," *Cartography and Geographic Information Systems* 22: 5-16.
- "Dissenting from spatial analysis," *Urban Geography* 16: 283-303
- 1993 "Automated Geography: What Kind of Geography for What Kind of Society?" *The Professional Geographer* 45: 457-60.
- 1992 "Spatial Pricing in Interdependent Markets" (with R. P. Haining and P. Plummer), *Journal of Regional Science*, 32: 55-75.
- "Is there a Place for the Rational Actor? A Geographical Critique of the Rational Choice Paradigm" (with T. J. Barnes), *Economic Geography*, 68: 1-21. Reprinted in C. Philo (ed) (2008) *Contemporary Foundations of Space and Place* (Aldershot, UK: Ashgate).
- "Forms of Technical Change" (with M. Webber and D. Rigby), *Environment and Planning A*, 24: 1679-1709.
- 1990 "Modeling the Capitalist Space Economy: Bringing Society and Space Back," *Economic Geography*,

- 66: 201-228.
- "The Geography of Organizational Control on Austria, 1973-1981" (with F. Tödtling and G. Maier), *Economic Geography*, 66: 1-21.
- "Transportation in a Capitalist Space Economy: Transportation Demand, Circulation Time and Transportation Innovations," *Environment and Planning A*, 22: 1007-24.
- "Ecological Approaches to the "Urban Underclass": Commentary on Hughes, Kasarda, and O'Regan and Wiseman," *Urban Geography*, 10: 285-297.
- 1988 "The Search for Flexible Social Theory: Comments on Cadwallader," *Urban Geography*, 9: 255-64.
- 1987 "Indonesia: Internal Conditions, the Global Economy and Regional Development" (with H. Leitner), *Journal of Geography*, 86: 282-91.
- 1986 "Instabilities in the Geography of Capitalist Production: Collective vs. individual profit maximization" (with T. Barnes), *Annals of the Association of American Geographers*, 76: 493-507
- 1985 "Urban System Population Dynamics: Incorporating Nonlinearities," *Geographical Analysis*, 17: 47-73.
- "Logische Probleme der Neoklassischer Wirtschaftsgeographie und eine Marxsche Alternative," *Mitteilungen der Österreichischen Geographischen Gesellschaft*, 126: 50-67.
- 1984 "Technical Choice and Reswitching in Space Economies" (with T.J. Barnes), *Regional Science and Urban Economics*, 14: 345-62.
- "Value and Exploitation in a Capitalist Space Economy," *International Regional Science Review*, 9: 97-107.
- 1983 "Commodity Trade, Corporate Ownership and Urban Growth," *Regional Science Association Papers*, 52: 175-86.
- "Comment," *Regional Development Dialogue*, 4: 126-27.
- 1982 "City Size Distributions and Spatial Economic Change," *International Regional Science Review*, 7: 127-52.
- "Spatial Price Equilibria" (with L. Curry), *Geographical Analysis*, 14: 279-304. Reprinted in L. Curry (1998) *The Random Spatial Economy and its Evolution* (Aldershot, UK: Ashgate), pp. 261-286.
- "Recent Research in Soviet Quantitative Geography: A Brief Review", *Antipode*, 14: 11-16.
- "Distance-Decay Parameters: A Comment," *Annals of the Association of American Geographers*, 72: 549-50.
- 1981 "Public Facility Location with Elastic Demand: Users' Benefit and Redistribution Issues," *Systemi Urbani* 3: 435-54.
- "Altruism and Individualism in Analysing the Law," *Environment and Planning A*, 13: 1230-32.
- "External Constraints, Internal Motivations and the 'Local State'," *Environment and Planning A*, 13: 1274-76,
- "Reflections on Destination Independence and Separability," *Geographical Analysis*, 13: 184
- 1980 "Location and the Demand for Travel," *Geographical Analysis*, 12: 111-128.
- "The Ideology of Spatial Choice," *Regional Science Association, Papers and Proceedings*, 43: 197-213.
- 1979 "Gravity Parameter Estimation," *Geographical Analysis*, 11: 120-132.

- "Interaction and Potential in Spatial Systems," *Ontario Geographer*, 13: 47-60.
- "Notes on Spatial Interaction," *The Professional Geographer*, 31: 8-15.
- "Regression and Functional Analysis," *The Canadian Geographer* 23: 75-79.
- "Geographic Potentials," *Annals of the Association of American Geographers*, 69: 438-447.
- 1978 "Theoretical Underpinnings of the Gravity Hypothesis," *Geographical Analysis*, 10: 386-402
Reprinted in Reggiani, A., K. Button & P. Nijkamp (eds) *Planning Models* (Classics in Planning Series), London: Edward Elgar, 2007.
- 1976 "On the Diffusion of Shopping Centre Construction in Canada," *The Canadian Geographer*, 20: 187-198.
- "Entropy, Theory Construction and Spatial Analysis," *Environment and Planning A*, 8: 741-752.
- "A Final Comment on Mis-specification and Autocorrelation in Those Gravity Parameters" (with L. Curry and D. A. Griffith), *Regional Studies*, 10: 337-339.
- 1975 "Those Gravity Parameters Again" (with L. Curry and D. A. Griffith), *Regional Studies*, 9: 280-296.
- 1974 "A Conceptual Framework for Dynamic Location-Allocation Analysis," *Environment and Planning A*, 6: 547-564.

Chapters in edited books:

- Forthcoming "Participation, water and the edges of capitalism" in L. Harris, J. Goldin & C. Sneddon (eds) *Contemporary Water Governance in the global South*. Routledge: forthcoming.
- "Economics, geography and knowing 'development'" in P. Meusberger, J. Glücklerer and M. Riess (eds) *Knowledge and Space V: Knowledge and economy*. Berlin: Springer Verlag.
- (with Linda Peake) "US and Anglo-Canada" in L. Berg & U. Best (eds) *Placing Critical Geography: International Histories of Critical Geographies*. London: Ashgate
- "Globalizing capital and southern urbanization" in S. Parnell and S. Oldfield (eds) *From the South: A cities handbook*. London: Routledge (under review)
- 2012 (with Trevor Barnes and Jamie Peck) "The long decade: Economic geography, unbound" in T. Barnes, J. Peck and E. Sheppard (eds) *The Wiley-Blackwell Companion to Economic Geography*. London: Wiley-Blackwell,
- 2011 (with Jim Glassman) "Social class" in J. Agnew and D. Livingstone (eds) *The SAGE Handbook of Geographical Knowledge*. London: Sage, 404-416.
- 2009 "The spatiality of contentious politics: More than a politics of scale" (with Helga Leitner), in R. Keil and R. Mahon (eds) *Leviathan Undone? Towards a Political Economy of Scale*. Vancouver: University of British Columbia Press, 231-246.
- 2008 "Produção de conhecimento através do Sistema de Informações Geográficas Crítico: genealogia e perspectivas", in H. Acselrad (organizer) *Geográficas Sociais e Território*. Rio de Janeiro IPPUR/UFRJ 113-152 (reprint of 2005 *Cartographica* article)
- 2007 "A methodology for regional political economy" (with Paul Plummer), in B. Fingleton (ed.) *Cambridge Perspectives on Geographical Economics and the New Economic Geography*. London: Edward Elgar, 250-276.

- “Preface” (with H. Leitner and J. Peck), in E. Sheppard, H. Leitner & J. Peck (eds) *Contesting Neoliberalism: Urban Frontiers*. New York: Guilford Press, vii-xi (2007).
- “Contesting urban futures: Decentering neoliberalism” (with H. Leitner, K. Sziarto and A. Maringanti), in E. Sheppard, H. Leitner and J. Peck (eds) *Contesting Neoliberalism: Urban Frontiers*. New York: Guilford Press, 1-25.
- “Squaring up to neoliberalism” (with H. Leitner and J. Peck), in E. Sheppard, H. Leitner & J. Peck (eds) *Contesting Neoliberalism: Urban Frontiers*. New York: Guilford Press, 311-328.
- 2006 “The economic geography project” in S. Bagchi-Sen and H. Lawton-Smith (eds) *Economic Geography: Past, Present and Future*. London: Routledge, 11-23.
- “Marx: A focus on spatial justice” (with G. Henderson), in S. Aitken & G. Valentine (eds) *Approaches to Human Geography*. Beverly Hills CA: Sage, 57-74.
- “Dialectical space-time” in N. Castree & D. Gregory (eds) *David Harvey: A Critical Reader*. Oxford: Blackwell, 121-141.
- “Positionality and globalization in economic geography,” in G. Vertova (ed.) *The Changing Economic Geography of Globalization*. London: Routledge, 45-72.
- 2005 “GIS and society: Interrelation, integration, and transformation” (with G. Elmes, E. Epstein, R. McMaster, B. Niemann, B. Poore, D. Tulloch), in R. McMaster & L. Utery (eds) *A Research Agenda for Geographic Information Science*. Boca Raton, FL: CRC Press, 287-312
- “Unbounding critical geographic research on cities: The 1990s and beyond” (with H. Leitner), in J. Wheeler (ed.) *Urban Geography in America, 1950-2000: Paradigms and personalities*. New York: Routledge, 349-72 (reprint of 2003 *Urban Geography* article).
- 2004 “Introduction: Reading economic geography” (with T. Barnes, J. Peck and A. Tickell), in *A Reader in Economic Geography*. Oxford: Blackwell, 1-9.
- “Paradigms lost” (with T. Barnes, J. Peck and A. Tickell), in *A Reader in Economic Geography*. Oxford: Blackwell, 13-8.
- “Problematizing production” (with T. Barnes, J. Peck and A. Tickell), in *A Reader in Economic Geography*. Oxford: Blackwell, 91-6
- “Producing nature” (with T. Barnes, J. Peck and A. Tickell), in *A Reader in Economic Geography*. Oxford: Blackwell, 169-74
- “From distance to connectivity” (with T. Barnes, J. Peck and A. Tickell), in *A Reader in Economic Geography*. Oxford: Blackwell, 331-5.
- “Introduction: Scale and geographic inquiry” (with R. B. McMaster) in *Scale and Geographic Inquiry*. Oxford: Blackwell, 1-22.
- “Scale and geographic inquiry: Contrasts, intersections, and boundaries” (with R. B. McMaster) in *Scale and Geographic Inquiry*. Oxford: Blackwell, 256-67.
- “Cities” (with W. Lynn), in S. Pile, S. Harrison & N. Thrift (eds) *Patterned Ground: Entanglements of nature and culture*. London: Reaktion Press, 52-5.
- 2002 “Today’s changing world: human geography” in M. Lay, J. Monk, & D. Rosenfelt eds.

- Encompassing Gender: Integrating international studies and women's studies*. New York: The Feminist Press, 203-215.
- "Networks, governance and the politics of scale: Inter-urban networks and the European Union" (with H. Leitner and C. Pavlik), in A. Herod & M. Wright (eds) *Geographies of Power: Placing Scale*. Oxford: Blackwell, 274-303.
- "Models for Making GIS Available to Community Organizations: Dimensions of Difference and Appropriateness" (with H. Leitner, S. Elwood, S. McMaster, and R. McMaster), in W. Craig, T. Harris & D. Weiner (eds) *Public Participation and Geographic Information Systems*. London: Taylor and Francis, 37-52.
- "The city is dead, long live the network: Harnessing networks for a neoliberal urban agenda" (with H. Leitner), in Brenner, N. & N. Theodore (eds) *Spaces of Neoliberalism: Urban restructuring in North America and Western Europe*. Oxford: Blackwell, 148-171. Reprinted from *Antipode* (2002).
- 2000 "Geography or Economics? Contrasting theories of location, spatial pricing, trade and growth," in G. Clark, M. Gertler & M. Feldman (Eds) *Handbook of Economic Geography*. Oxford, Oxford University Press, 199-219.
- "The Art of Economic Geography" (with T. Barnes), in E. Sheppard & T. J. Barnes (Eds) *A Companion to Economic Geography*. Oxford: Basil Blackwell, 1-8.
- "Competition in space and between places," in E. Sheppard & T. J. Barnes (Eds) *A Companion to Economic Geography*. Oxford: Basil Blackwell, 169-186.
- (with M. Goodchild) "Foreward" in D. Janelle and D. Hodge eds. *Information, Place and Cyberspace: Issues in Accessibility*. Berlin: Springer Verlag, 2000: v-vi.
- 1999 "Transcending Urban Individualism: Conceptual issues and policy responses in the European Union" (with H. Leitner), in A. Jonas & D. Wilson (Eds) *The Growth Machine: Critical perspectives two decades later*. Albany, NY: SUNY Press, 227-243
- 1998 "Economic Uncertainty, Urban Entrepreneurialism and Inter-urban Inequalities after Fordism" (with H. Leitner), in T. Hall & P. Hubbard (Eds) *The Entrepreneurial City: Geographies of Politics, Regime and Representation*. London: John Wiley and Sons, Ltd., 285-308.
- 1995 "Modeling and predicting aggregate flows," in S. Hanson (Ed.), *The Geography of Urban Transportation*, second edition. New York: Guilford, 100-128.
- "Städtesysteme in Wandel. Ursachen und Konsequenzen zwischenstädtischen Wettbewerbs und unternehmerischer Stadtpolitik" (Causes and consequences of inter-urban competition and urban entrepreneurialism, with H. Leitner), in D. Barsch & H. Karrasch (Eds) *Tagungsbericht und wissenschaftliche Abhandlungen*, 49. Deutscher Geographentag in Bochum, 1993. (Franz Steiner Verlag: Stuttgart, 194-200.
- 1994 "Entwicklungsperspektiven in der Dritten Welt in einer 'neuen Weltordnung'" (Third world development prospects in a 'new world order'), in E. Binder, J. Esslezbichler, H. Gassler, C. Rammer, & R. Zeilinger (Eds.) *Alte Ordnung — Neue Blöcke? Polarisierung in der kapitalistischen Weltwirtschaft*. (Kritische Geographie 10, Vienna: ProMedia Verlag and

Österreichische Gesellschaft für Kritische Geographie), 104-133.

- 1989 "The city as a locus of production: The changing geography of commodity production within the capitalist metropolis" (with H. Leitner), in R. Peet & N. Thrift (Eds.) *The New Models in Geography, Vol. 2*. London: George Allen & Unwin, 55-83.
- 1987 "A Marxian model of the geography of production and transportation in urban and regional systems," in C.S. Bertuglia, G. Leonardi, S. Occelli, G.A. Rabino, R. Tadei & A.G. Wilson (Eds.) *Urban Systems: Contemporary Approaches to Modelling*. London: Croom Helm, 189-250.
- 1985 "Modeling and Predicting Aggregate Flows," in S. Hanson (ed.) *The Geography of Urban Transportation*. New York: Guilford Press, 91-118.
- 1984 "The Distance-Decay Gravity Model Debate" in G. Gaile & C. Willmott (eds.) *Spatial Statistics and Models*. Dordrecht: Reidel, 367-88.
- "Generalised Path Analysis for Mixed Geographical Data" (with H. Leitner and H. Wohlschlägl), in P. Nijkamp, H. Leitner & N. Wrigley (eds.). *Measuring the Unmeasurable: The Analysis of Qualitative Spatial Data*. The Hague: Martinus Nijhoff, 371-98.
- 1983 "Pasinetti, Marx and Urban Accumulation Dynamics" in D. A. Griffith & A. C. Lea (eds.) *Evolving Geographical Structures*. The Hague: Martinus Nijhoff, 293-322.
- 1978 "Spatial Interaction and Geographic Theory," in G. Olsson & S. Gale (eds.), *Philosophy in Geography*. Dordrecht: Reidel, 361-378.

Commissioned articles and editorials

- 2010 "Les Curry's random spatial economy" *Progress in Human Geography* 34 (2): 395-398.
(with Jamie Peck) "Worlds Apart? Engaging with the World Development Report 2009: Reshaping Economic Geography" *Economic Geography* 86 (4).
- 2009 "Geographical Political Economy and the Free Trade Doctrine." Hitotsubashi Invited Fellow Program Discussion Paper Series No. 15, Hitotsubashi University, Tokyo, Japan (June)
- "Where's the geography? World Bank's *WDR 2009*" (with A. Maringanti and J. Zhang) *Economic & Political Weekly*, 44 (29), July 18, 45-51.
- "Obituary/Notice nécrologique: Leslie Curry *The Canadian Geographer* 53(3): 386-8.
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- "Quantitative economic geography" (with Paul Plummer), in R. Kitchin and N. Thrift (eds) *International Encyclopedia of Human Geography*. Volume 1, pp. 328-331. Oxford: Elsevier.

- 2007 "Toward Engaged Pluralism in Geographical Debate" (with Paul Plummer), editorial, *Environment and Planning A* 39(11): 2545-2548.
- 2006 "Geographies of research assessment: The neoliberalization of geography?" in N. Castree (ed) "Research assessment and the production of geographical knowledge" *Progress in Human Geography* 30(6): 761-4.
- 2005 "Jim Blaut's model of the world," *Antipode* 37: 956-62.
- 2004 "Practicing geography," *Annals of the Association of American Geographers* 94(4): 744-7.
"From East-west to North-south" (with R. Nagar), *Antipode* 36: 558-63.
- 2003 "The dialectics of geographic and virtual space" (with Y. Aoyama), *Environment and Planning A*, 35 (2003): 1151-6.
- 2001 "Geographical Information Systems: Critical approaches" in N. Smelser & P. Baltes (eds) *International Encyclopedia of the Social & Behavioral Sciences*. Oxford: Pergamon, vol. 6, 6182-5.
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"Neighborhood environmental inventories on the Internet: Creating a new kind of community resource for Phillips Neighborhood" (with H. Kurtz, H. Leitner and R. McMaster), *CURA Reporter* XXXI, 2: 20-26.
- 2000 "Alternative GIS-based methodologies for environmental exposure assessment" (with R. McMaster, H. Leitner, H. Tian, and J. Mattson), in *Proceedings for GIScience 2000*: 361-62.
Towards a Comprehensive Geographical Perspective on Urban Sustainability (with 17 others), Washington DC: National Science Foundation, January.
- 1999 "Examining environmental equity in Hennepin County and Minneapolis" (with R. McMaster, H. Leitner, S. Elwood, H. Tian), *CURA Reporter* XXIX, 3: 1-8
"GIS and community-based planning: different modes of access and their appropriateness", NCGIA conference on Empowerment, Marginalization and GIS (with H. Leitner, S. Elwood, R. McMaster, S. McMaster) (posted at <http://www.ncgia.ucsb.edu/varenius>)
- 1998 "Environment and Planning A: intellectual orphan or place for innovation?" *Environment and Planning A*, 30: 381-2.
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- 1996 "Site, situation and social theory," *Environment and Planning A*, 28: 1339-43.
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- "I-19 Initiative proposal: Position paper"
 - "GIS Analysis of Toxic Risk: Efficiency, Equity and Ethics"
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- "The Geography of Economic Restructuring," in *Environment and Quality of Life in Central Europe: Problems of Transition*. Proceedings of the 1994 International Geographical Union Regional Conference, Prague. CD-ROM.
- 1991 "The Rational Actor in Space and Place: A Re-evaluation of the Rational Choice Paradigm," (with T. Barnes) History and Society Group Working Paper 91-1, University of Minnesota, January.
- 1989 "Transportation and Economic Development: The Geographical Literature," in *Transportation and Economic Development* Appendix 1. St Paul: The Minnesota Department of Transportation, May.
- 1988 (with F. Tödtling and G. Maier) "The Changing Geography of Organizational Control: Austria 1973-81." Final Report to the National Science Foundation, Grant NSF/INT -8512205.
- 1987 "Geography at Universitas Indonesia: Final consultants' report," 160 pp. (with H. Leitner). *Final report to the MUCLA World Bank Indonesia Education IX Project*, March.
- "Les fondements géographiques de la théorie sociale." In: A.J. Scott, G.B. Benko and E. Sheppard, *Géographie et Théorie Sociale*, pp. 21-26. Centre de Recherche sur l'Industrie et l'Aménagement, Notes de Recherche N°3, Université de Paris 1-Panthéon-Sorbonne, March.
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- "Modeling Interdependencies in Hierarchical Settlement Systems," *Working Paper 82-31* IIASA, Laxenburg (39 pp.)
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- 1975 "Entropy in Geography: An Information Theoretic Approach to Bayesian Inference and Spatial Analysis," *Discussion Paper No. 18*, Department of Geography, University of Toronto (June, 94 pp.)
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Interviews

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- 11 Krause, L. B. and S. Sekiguchi (eds.), *Economic Interaction in the Pacific Basin* (Washington: Brookings Institution, 1980), The Annals of Regional Science, 16 (1982): 93-95.
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- 16 Coffey, W. S., *Geography: Towards a General Spatial Systems Approach* (London: Methuen, 1981), Annals of the Association of American Geographers, 72 (1982): 577-79.
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- 21 Beckman, M. and T. Puu, *Spatial Economics: Density, Potential and Flow* (North Holland: Amsterdam, 1985), Annals of Regional Science 21 (1987): 110-112.
- 22 Jenkins, R., *Transnational Corporations and Uneven Development* (London: Methuen, 1987), Economic Geography 65 (1989): 81-83.
- 23 Ross, K., *The Emergence of Social Space: Rimbaud and the Paris Commune* (Minneapolis, University of Minnesota Press, 1988), The Journal of Historical Geography 17 (1991): 100-4.
- 24 (with Paul Plummer) Roemer, J., *Free to Lose* (Cambridge, Cambridge University Press, 1989), Environment and Planning D: Society and Space 10 (1992): 108-12.

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- 28 Haggett, P. *The Geographer's Art*. (Oxford: Basil Blackwell, 1990), Environment and Planning A, 24 (1992): 305-7.
- 29 (with D. Faust, H. Leitner, B. Miller, R. Nagar, B. Van Drasek and Y. Zhou) Young, I. *Justice and the Politics of Difference*. (Princeton University Press, 1990), Environment and Planning D: Society and Space 10 (1992), 589-95.
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- 31 Seidman, S. and D. Wagner *Postmodernism and Social Theory*. (Basil Blackwell, 1992), Environment and Planning D: Society and Space 12 (1994): 776-7.
- 32 Pred, A. and M. Watts *Reworking modernity: Capitalisms and symbolic discontent*. (New Brunswick: Rutgers University Press, 1992), Growth and Change 26 (1995): 312-15.
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- 36 Sclove, R. *Democracy and Technology* (New York: Guilford, 1995), Antipode 30 (1998; forthcoming).
- 37 Webber, M. and D. Rigby *The Golden Age Illusion: Rethinking postwar capitalism* (New York: Guilford, 1997), Geographical Analysis 30 (1998): 279-283.
- 38 Thrift, N. *Spatial Formations* (Beverly Hills: Sage, 1996), Environment and Planning D (1999) 17: 498-500.
- 39 Thrift, N. and A. Leyshon *Money/Space* (London: Routledge, 1997), Environment and Planning D (1999) 17: 625-627.
- 40 (with A. Nightingale, B. Van Drasek, H. Kurtz, D. Sidorov, L. Harris) Difference, Justice and the Dialectics of a Just Process (Book review essay on Harvey, D. *Justice, Nature and the Geography of Difference*. Blackwell, 1996), Ethics, Place and Environment (2000) 2: 105-109.
- 41 Gould, P. *Becoming a Geographer* (Syracuse University Press, 1999), The Canadian Geographer (2000) 44: 314-316.
- 42 Review essay: Harvey, D. 2000. *Spaces of Hope*. Berkeley: University of California Press. Bloch, E. 1986. *The Principle of Hope*. Cambridge, MA: MIT Press, Ethics, Place and Environment (2002), 5 #2: 153-6.
- 43 Leinbach, T. and S. Brunn (eds) 2001 *Worlds of E-commerce*. John Wiley & Sons: London, Journal of Economic Geography (2002) 2: 365-66.
- 44 "Taking Stock" Review essay: R. J. Johnston and M. Williams (eds) *A Century of British Geography* (Oxford University Press for the British Academy: Oxford, 2004), and G. Gaile & C. Wilmott (eds) *Geography in America* (Oxford University Press: Oxford, 2004). Progress in Human Geography (2006) 30:119-123.
- 45 Cornia, G. (ed.) 2004 *Inequality, growth, and poverty in an era of globalization*. Oxford: Oxford University Press. Progress in Human Geography (2006): 30, 543-4.
- 46 Massey, D. 2005 *For Space*. International Journal of Urban and Regional Research (2008): 32 (4), 1036-8.
- 47 Marglin, S. 2007 *The Dismal Science*. Journal of Regional Science (2009): 49 (1), 206-8.
- 48 Peet, R. 2007 *The Geography of Power*. Annals of the Association of American Geographers (2009): 99 (2): 423-5 (with Brook Bernini, Ivan Bialostosky, Dinesh Paudel, and Christopher Strunk).
- 49 Arrighi, G. 2007 *Adam Smith in Beijing*. Economic Geography (2010) 86 (1), 99-101.

B Keynote and Plenary Lectures

- 2012 Plenary Lecture: "Provincializing global urbanism," Conference of Irish Geographers, Dublin, May 27.
Keynote address (with A. Maringanti, H. Leitner et al.) "Provincializing global urbanism," Urban Revolutions in an Age of Global Urbanism conference, Jakarta (Indonesia), March 17.
- 2011 Plenary Lecture: "Rethinking urbanization through the global south." West Lakes AAG Conference, De Paul University Chicago, November 12.
- 2010 *Progress in Human Geography Lecture* "Trade, globalization and uneven development," *AAG meetings*, Washington DC, April 15.
- 2009: *The Ed Hammond Lecture* "Geography, nature and the question of development," Department of Geography, University of Tennessee, January 15.
- 2008: "Geography, nature and the question of development" Regents Professor Lecture, University of Minnesota, Sept. 29.
- 2006: Keynote address, *Fourth East Asian Regional Conference in Alternative Geography*, Taipei: "Contesting urban futures: Decentering neoliberalism," June 26
- 2006: Keynote address, *International Geographical Union Regional Conference*, Brisbane: "Quandaries of Critical Geography," July 5
- 2006: *Antipode Lecture*, Royal Geographical Society/Institute of British Geographers meeting, London: "Quandaries of Critical Geography," August 30
- 2005: Keynote address, international conference on *The Politics of Scale*, York University, Canada (with Helga Leitner) "More than a politics of scale: The spatiality of contentious politics" February 3.
- 2005: *The Howard B. Meyer Lecture*, University of Wisconsin Milwaukee: "Contesting neoliberal urbanization: Beyond a politics of scale" (with H. Leitner), March 4.
- 2004: *The Fesler-Lampert Lecture*, Humanities Center, University of Minnesota: "Free Trade: The very ideal" April 29.
- 2004: *Social Science History Association* annual meeting, Presidential keynote session: "Free Trade: The very ideal" Chicago, November 18.
- 2004: Presidential Plenary Session, *Geography in the 21st Century*, annual meeting of the *North American section of the Regional Science Association*, Philadelphia: "Practicing Geography." March 18.
- 2003: *The Robinson Lecture*, Ohio State University: "Spatial analysis on the edge of chaos," May 22.
- 2003: Keynote address, international conference on *Reinventing Space: The Geography of Globalisation*, Università Bergamo "Positionality: Theory and reality in economic geography" Dec. 19-20.
- 2000: *The Ellen Churchill Semple Lecture*, University of Kentucky: "Wormhole geographies?" April 14.
- 2000: Keynote address, international conference on *Geographies of Globalization*, University of Oslo: "Securing urban prosperity in a globalizing world: Is urban competitiveness the key?" October 12.
- 1999: *The Atwood Lecture*, Clark University: "Wormhole geographies?" October 21.
- 1997: Keynote address, NCGIA Project Varenus conference on *Geographies of the Information Society*, Santa Barbara: "GIS and Society, a survey of recent research," March 1, 1997

- 1996 Presidential Plenary Session, *Is GIS taking over cartography*. Annual meeting of the *Association of American Geographers*, Charlotte, April 11.
- 1994: International Geographical Union, Prague, August 24, 1994. Keynote Speaker for *Theme E.3: The Geography of Economic Restructuring*.
- 1990: *Howard G. Roepke Lecture in Economic Geography*, annual meeting of the *Association of American Geographers*, Toronto: "Modeling the Capitalist Space Economy: Bringing Society and Space back in," April 20.

C Other invited lectures, and workshops

- 2012 "Globalization, resource booms and social inequality in West Australia", Migration and development summer institute, Utrecht, July 11.
 "Globalization" Utrecht University Summer Institutes Science Café, July 7.
 "Provincializing global urbanism," Invited lecture, Ohio University, May 11; also at Utrecht University (urban debates series) June 22.
 "Temporality, spatiality, and, crisis: Toward a geographical theory of capitalist dynamics" Political Theory colloquium, Department of Political Science, University of Minnesota, April 27.
- 2011 "Geography, Nature and the Question of Development." Globe Lecture, University of Amsterdam, April 25. Also at the Centre for Humanities Research, University of the Western Cape, March 8, and the Geography Department, Utrecht University, May 9.
 (with Helga Leitner) "The complex geographies of social movements." Sociology Department, University of Amsterdam, May 4.
 (with Jamie Peck and Trevor Barnes) "Economic geography, unbound." Third Global Economic Geography Conference, Seoul, June 29.
 "Framing the debate: Perspectives from geographical political economy" Dampier, West Australia (University of West Australia Pilbara workshop), July 7.
 "Crisis, or opportunity? Thinking geographically about the current conjuncture." International Conference on Critical Geography, Frankfurt, August 19.
 (with Helga Leitner) "Rethinking urbanization through the global south." West Lakes AAG, plenary lecture, Chicago, Nov. 21.
- 2010 (with H. Leitner) "Urbanization in the global south" Global Spotlight lecture series, Office of International Programs, University of Minnesota, Dec. 13.
 (with A. Isaacman) "Introduction" International Research Workshop: Struggling for water: Dams, pipes and urban-rural transformations in the global South. University of Minnesota, November 13.
 "Introduction" Symposium on Making Global Cities and the World Economic Crisis, Shenzhen, China, January 4.
 "Conclusion and synthesis" Symposium on Making Global Cities and the World Economic Crisis, Shenzhen, China, January 8.
 "Graduate Education and global engagement" The Graduate School Commencement Address, University of Minnesota, May 7.
 "Three propositions on technology and empowerment, drawing on the example of geographical information technologies" Future of Technology conference, University of Michigan, September 24.
<http://www.youtube.com/umtaubmancollege#p/c/2D38BE37E40A6ADE/13/PksbnqEyRhE>
 "Blue Bayou and environmental justice" Commentary on a lecture by Daniel Farber, University of Minnesota Law School, October 7.
http://media2.law.umn.edu/jointdgr/mediaplayer/player.php?src=daniel_farber_2010.flv

- (with Helga Leitner) "Urbanization and the global south." Global Spotlight lecture, University of Minnesota, Dec. 14.
- 2009 (with H. Leitner) June 6 "Unbounding urban geography: The example of environmental justice" URP G-COE international colloquium, Osaka City University
 June 3 "Geographical political economy and the free trade doctrine" Department of Economics, Hitotsubashi University, Tokyo
 (with H. Leitner) May 19 "Unbounding urban geography: The example of environmental justice" Department of Geography, University of Indonesia, Jakarta
 (with H. Leitner) April 15 "*Quo vadis* neoliberalism" Department of Geography, National University of Singapore
- 2007 March 21 "Geography, trade and development?" Geography Department, *University of British Columbia*
 July 2 "Recent developments in Anglophone human geography" and "Economic geographies of globalization" Department of Geographical Sciences, *Nanjing Normal University*
 November 9 "Naturalizing geography, thinking development: Back to the future with Jared Diamond and Jeffrey Sachs" Department of Geography, *University of Minnesota*.
- 2006 February 3 *Center for Advanced Study in the Behavioral Sciences*, Stanford CA "Debating free trade and geographies of globalization"
 April 11 (with Paul Plummer) Methods of Analysis program in the Social Sciences, *Stanford University* "A methodology for evaluating complex spatial dynamics"
 April 21 (with H. Leitner) Department of Geography, *University of Washington* "The spatiality of contentious politics: More than a politics of scale"
 April 22-23 (with H. Leitner) Department of Geography, *University of Washington* 'Unbounding critical methodologies in human geography' two day graduate student workshop.
- 2005 April 1, Department of Geography, *University of Colorado, Boulder*, "Free Trade: The very ideal"
 May 13-15, (with Helga Leitner) Department of Geographic Education, *Seoul National University*, "Unbounding urban geography: The example of environmental justice." Graduate seminar on "The Development of Geographic Thought: Critical geography." Freshman lecture on majoring in Geography.
- 2004 November 9, University of Toronto, "Free Trade: The very ideal"
- 2003 April 12, *Rutgers University*, "Critical GIS and activist geography: A cautionary tale"
 July 9, Summer Institute in Economic Geography, University of Wisconsin, Madison "Free trade? The very ideal"
 September 19, *West Virginia University*, "Critical GIS"
- 2000 February 23, *Vassar College* (with Helga Leitner), "GIS, environmental (in)justice, and community perspectives"
 February 24, *Vassar College* (with Helga Leitner), "Challenges to urban sustainability in Jakarta"
 April 14, *University of Kentucky*, "The Phillips Neighborhood Environmental Inventory"
 December 4, *University of South Carolina*, "Quantitative Geography: Representations, practices and possibilities"
- 1999 April 8, *University of Georgia*, "Geographical Assessments of Environmental Justice: The Case of Minneapolis"
 April 23, *University of Illinois, Urbana*, "Geographical Assessments of Environmental Justice: The Case of Minneapolis"
 October 22, *Clark University*, "GIS, environmental (in)justice, and community perspectives"

- October 25, *Dartmouth College*, "GIS, environmental (in)justice, and community perspectives"
- 1997 July 5, *University of Beijing*, "Recent trends in Anglophone Economic Geography"
- 1996 May 2, University of Wisconsin, Madison, "Deconstructing Competitive Advantage"
- 1993 March 18, Wirtschaftsuniversität Wien, Interdisziplinäres Institut für Raumordnung, Stadt- und Regionalentwicklung, "Is there a place for the rational actor?"
 April 2, *Moscow State University* (Lomonosov) "Post-war American regional development in the light of global changes"
 April 26, Pädagogisches Institut des Bundes in Oberösterreich, Aigen Veranstaltung Present Day Issues in GB and the USA: "Recent changes in the economic structure of the USA" and "Changing patterns of regional development in the USA"
 June 8, Wirtschaftsuniversität Wien, "Raumbezogene Preisbildung und Regionalentwicklung"
- 1992 Oct. 30, *Pädagogisches Institut des Bundes in Wien*, "The United States Space Economy"
 Dec. 9, Wirtschaftsuniversität Wien, Interdisziplinäres Kolloquium aus Geographie, Wirtschaftsgeographie, Raumordnung und Umweltwirtschaft, "International Trade, Dependency and Development"
- 1991 Oct. 4, Department of Geography, University of Iowa, "Is there a place for the rational actor?"
- 1990 Oct. 23, Department of Geography, human geography seminar series, *University College London* "Recent Developments in Theoretical Economic Geography," University College London
 Oct. 30, Department of Geography, human geography seminar series, University College London "Modeling the Capitalist Space Economy: Bringing Society and Space back in," University College London.
 Nov. 6, Department of Geography, *Bristol University* "Modeling the Capitalist Space Economy: Bringing Society and Space back in."
 Nov. 13, Department of Geography, *University of St. Andrews, Scotland*, "Restructuring the geography of corporate control: Austria 1973-1981"
 Nov. 20, Department of Geography, *Sheffield University*, "Modeling the Capitalist Space Economy: Bringing Society and Space back in."
 Nov. 29, Department of Geography, *Leeds University*, "Modeling the Capitalist Space Economy: Bringing Society and Space back in."
- 1989 March 8, Department of Geography, *University of British Columbia* "Restructuring the Geography of Organizational Control: Austria 1973-81."
 May 5, New Ventures Group, University of Minnesota "Economic Restructuring and the Geography of Organizational Control: Austria 1973-81."
- 1988 March 11, Department of Geography, University of Minnesota: "Restructuring the Geography of Corporate Control: Austria 1973-1981."
 May 3, Minnesota Development Policy Workshop, Center for State and Regional Research: "Economic Restructuring and the Changing Geography of Corporate Control: Austria 1973-1981."
 October 10, Department of Geography, University of Wisconsin, Madison, Debate on "Urban Geography and Social Theory."
- 1987 March 8, Department of Geography, University of Indonesia, Jakarta, Indonesia (with H. Leitner): "Final report to the Faculty of Science and Mathematics" (summarizing curriculum and research activities carried out during the consultancy and making recommendations for future planning).

- April 9, Department of Geography, *Melbourne University, Australia*: "Patterns and Processes of Regional Development in Indonesia."
- May 29, Department of Geography, University of Minnesota (with H. Leitner): "Indonesia Indah?!"
- November 3, *Minnesota Development Policy Workshop*, Center for State and Regional Research: "Political Economic Approaches to Regional Development."
- 1986 November 16, Department of Geography, *University of Indonesia, Jakarta*, Indonesia (with H. Leitner): "Suggestions for a new curriculum for the Department of Geography at the University of Indonesia."
- 1985 January 30, Minnesota Development Policy Workshop, Center for State and Regional Research, University of Minnesota: "Towards a Post-Keynesian Theory of the Space-economy."
October 25, Department of Geography, *University of Wisconsin, Madison*: "Technical Change and Regional Development."
- 1983 September 1, *Piedmonte Institute for Social and Economic Research, Torino*, Italy: "A Marxian Model of the Geography of Production and Transportation."
October 28, Universität Wien, Symposium in honor of the 80th Birthday of Prof. Hans Bobek: "Alternativen zur neoklassischen Erklärungsansätze in der Wirtschaftsgeographie."
- 1982 October 28, Geographisches Institut *der Universität Wien*: "Recent Theoretical Developments in Anglo-American Economic Geography."
November 16, Arbeitskreis für neue Methoden in der Raumplanung, Wien: "Growth, Conflict and Crisis in Urban and Regional Systems: a Neo-Marxian Approach."
- 1981 February, *Université de Montréal*: "The Ideology of Spatial Choice"
University of Toronto: "Regional Capitalist Production Structures"
SUNY Buffalo: "Regional Capitalist Production Structures."
- 1980 July 10, Interdisciplinary Institute for Urban and Regional Research, *Wirtschaftsuniversität, Wien*: Seminar on Marxian regional development models.
September 21, Moorhead State University: "Locating Public Health Facilities."
November 20, Department of Applied Statistics, University of Minnesota: "Central Issues of Spatial Statistical Analysis in Geography."
- 1979 September 14, *Moorhead State University*: "A History of Spatial Interaction Theories."
- 1978 November 20, Department of Geography, *University of Iowa*: "Potential Theory in Geography."
- 1977 April 22, Department of Geography, *Northwestern University*: "Interaction Feedback Modeling."
November 10, Department of Geography, *McGill University, Canada*: "Theoretical Bases for Uneven Regional Development."
- 1976 October 12, Department of Geography, *Moorhead State University*: "Diffusion through the Canadian Urban System."
- 1975 July 3, Department of Civil Engineering, *University of Waterloo, Canada*: "Statistical Inference and Entropy."

D Conference Presentations (invited speaker*)

- "Diffusion through the Urban System: The Construction of Shopping Centres in Canada," *Canadian Association of Geographers* annual meeting, Toronto, May 1974.
- "Spatial Autocorrelation and Distance Decay Functions," and "Simulations of Gravity Parameter Estimates" (with L. Curry and D. Griffith), *Canadian Association of Geographers, Ontario Division*, May 1975.
- "Entropy, Theory Construction and Spatial Analysis," *Association of American Geographers annual meeting (AAG meetings)*, Milwaukee, April 1975.
- "Rethinking Urban and Regional Interdependencies," *AAG meetings*, Salt Lake City, April 1977.
- "Interaction and Potential in Spatial Systems," *AAG meetings*, New Orleans, April 1978.
- "The Poverty of Gravity Modelling," *Association of American Geographers West Lakes Division*, Mankato, November 1978.
- "Ideology and Spatial Choice," Canadian Association of Geographers annual meeting, Victoria, May 1979.
- * "The Ideology of Spatial Choice," annual meeting of the *North American section of the Regional Science Association*, Los Angeles, November 1979.
- * "Elastic Demand, Income Redistribution and Public Facility Location," meeting of the *Task Force on Public Facility Location*, International Institute of Applied Systems Analysis, Laxenburg, Austria, June 1980.
- "Some Recent Issues in Marxian Economic Theory," Midwest Regional meeting of the *Union of Socialist Geographers*, Valparaiso, October 1980.
- "Regional Capitalist Production Structures," *AAG meetings*, Los Angeles, April 1981.
- * "City size distributions and spatial economic development," conference on *Urbanization and Development*, International Institute for Applied Systems Analysis, June 1981.
- * (with T. Barnes) "Technical Choice and Reswitching between Space Economies," conference on *Structural Economic Planning in Space and Time*, Umea, Sweden, June 1981.
- "'Reaganomics' and urban policies," Midwest regional meeting of the *Union of Socialist Geographers*, Iowa City, October 1981.
- "Spatial Economic Development in Capitalist Economies," annual meeting of the *North American section of the Regional Science Association*, Montreal, November 1981.
- * "Pasinetti, Marx and Urban Accumulation Dynamics," *NATO Advanced Studies Institute on Evolving Geographical Structures*, San Miniato, Italy, July 24, 1982.
- * "Corporate Ownership, Commodity Trade and Urban Growth," the International Geographical Union working group meeting on *Mathematical Methods and Systems Analysis*, Rio de Janeiro, August 10, 1982.
- "Corporate Ownership, Commodity Trade and Urban Growth," the annual meeting of the *European section of the Regional Science Association*, Groningen, August 26, 1982.
- "A Profit-Maximising Location Principle in Marxian Spatial Equilibrium," annual meeting of the *North American section of the Regional Science Association*, Chicago, November 13, 1983, (with T. Barnes).
- "Location and Trade: Capitalist Rationality vs Class Interest," *AAG meetings*, Washington D.C., April 24, 1984.
- * "Urban System Population Dynamics: Incorporating Nonlinearities," International Geographical Union, meeting of the *Working Group on Mathematical Methods and Systems Analysis*, Besançon, France, August 21, 1984.
- (with H. Leitner) "Conceptualizing Downtown Redevelopment: The Case of Minneapolis and St. Paul," *AAG meetings*, Detroit, April 23 1985
- "Technical Change and the Geography of Production," annual meeting of *The Canadian Association of Geographers*, Trois Rivières, May 29, 1985
- * "Innovation Diffusion and Technical Change in a Marxian Space Economy," *NATO Advanced Studies Institute on Transformations through Space and Time*, Hanstholm, Denmark, August 5, 1985.
- "Technical Change and the Geography of Production," annual meeting of the *North American section of the Regional Science Association*, Philadelphia, November 16, 1985.
- "Economic Restructuring and the Changing Geography of Corporate Control: Austria 1973-1981," *AAG meetings*, Phoenix, April 9, 1988.

- * "Of Geographers and Geography," special session on People without History: Towards a Rethinking of Approaches to the History of the Discipline, *AAG meetings*, Phoenix, April 10, 1988.
- * "Comments on 'The Saving of Geography?'" *AAG meetings*, Phoenix, April 10, 1988.
- "Restructuring the Geography of Organizational Control: Austria 1973-81," annual meeting of the *West Lakes division of the Association of American Geographers*, St. Paul, November 28, 1988"
- "Transportation Innovations, Circulation Time and the Geography of Production," *AAG meetings*, Baltimore, March 21, 1989
- * Discussant, special sessions on 'Industry and Labor in Latin America,' and 'Perspectives on Changing Urban Poverty,' *AAG meetings*, Baltimore, March 22, 1989.
- (with R. Haining and P. Plummer) "Spatial price equilibrium in interdependent markets," annual meeting of the *North American section of the Regional Science Association*, Santa Barbara, Nov. 19, 1989.
- "The spatial resolution of Marxist economic theory," *Marxism Now* conference, Amherst, Dec. 2, 1989.
- * Panel leader, *The Urban Underclass Forum*, *AAG meetings*, Toronto, April 21, 1990.
- * Discussant: Session on "Ecopolitical Economy of Underdevelopment II" *AAG meetings*, April 21, 1990
- * (with Helga Leitner) "The City as Locus of Production," session on *The New Models in Geography*, *AAG meetings*, Toronto, April 22, 1990.
- "The Spatial Resolution of Marxist Economic Theory" session on *Marxism, Post-Marxism and Human Geography*, *AAG meetings*, Toronto, April 22, 1990.
- (with R. Haining and P. Plummer) "Spatial pricing in interdependent markets," annual meeting of the *British section of the Regional Science Association*, Liverpool, Sept. 5, 1990.
- (with R. Haining and P. Plummer) "Spatial pricing in interdependent markets," annual meeting of the *Operations Research Society of America/The Institute of Management Science (ORSA/TIMS)*, Philadelphia, Oct. 23, 1990.
- * (with C. Pavlik) "Review of *The Capitalist Imperative* by M. Storper and R. Walker," Author meets Critics session, *AAG meetings*, Miami, April 14, 1991.
- (with T. Barnes) "Rational choice, unintended consequences and collective action," *AAG meetings*, Miami, April 16, 1991.
- (with P. Plummer and R. Haining) "Prices and profits in gasoline retailing," *AAG meetings*, San Diego, April 20, 1992.
- * "Geographical information systems and ethics," panel participant, *AAG meetings*, San Diego, April 20, 1992.
- * Discussant: Session on "Political Constructions of Scale," *AAG meetings*, San Francisco, March 30, 1994
- * "Space, Science and Society: Spatial Analysis in the 1990s," *AAG meetings*, San Francisco, April 1, 1994.
- * "Rediscovering Geography," panel participant, *AAG meetings*, Chicago, March 16, 1995.
- * (with H. Leitner) "Economic and political restructuring and economic development in European cities" *Denmark International Studies Institute*, Copenhagen, June 19, 1995.
- (with H. Leitner) "European cities and urban entrepreneurialism" *IGU Commission on Urban Development and Urban Life*, Cape Town, August 24, 1995.
- (with P. Plummer) "Competing theories of profit seeking: Neoclassical and Marxian approaches" annual meeting of the *North American section of the Regional Science Association*, Cincinnati, Nov. 10, 1995.
- (with P. Plummer) "Price and profit dynamics in oligopolistically competitive spatial markets" annual meeting of the *North American section of the Regional Science Association*, Cincinnati, Nov. 10, 1995.
- * (with P. Plummer) "Regional accumulation dynamics and competitive advantage," *AAG meetings*, April 12, 1996.
- Panel presentation "GIS and Society," *AAG meetings*, Charlotte, April 12, 1996.
- * (with H. Leitner) "Cities in competition and the competitive advantage model," annual meeting of the *Society for The Advancement of Socio-economics*, Geneva, July 26, 1996.
- (with S. Elwood, H. Leitner and R. McMaster) "Community-based GIS education: A Twin Cities experiment," the *2nd International Symposium on GIS in Higher Education*. Baltimore, MD, September 7, 1996.
- "Commentary on 'Globalization and research issues in transportation'," European Science Foundation/NSF symposium on *Cooperative Research in Transportation*, Strasbourg, October 7, 1996.

- “Commentary on papers by J. Cowie, J. Leitner and H. Riiikonen,” annual meeting of the *Social Science History Association*, New Orleans, October 10, 1996.
- * (with H. Leitner) “Transcending urban individualism: Conceptual issues and policy responses in the European Union,” second annual *Upper Great Lakes Consortium for European Studies Conference: Project Urban Europe*, University of Minnesota, February 22, 1997.
 - Discussant ‘New Voices in Industrial Geography II,’ *AAG meetings*, Fort Worth, April 2 1997.
 - * (with S. Elwood, H. Leitner and R. McMaster) “Risk assessment in the Twin Cities using GIS,” annual meeting of the Association of American Geographers, Fort Worth, April 2 1997.
 - * “Modeling vs. social theory?” panel presentation ‘Method in Human Geography: Dualisms in Question,’ *AAG meetings*, Fort Worth, April 3 1997.
 - (with H. Leitner) “The competitive advantage of cities? Unpacking a hegemonic discourse,” *AAG meetings*, Fort Worth, April 4 1997.
 - (with S. Elwood, H. Leitner and R. McMaster*) “GIS and environmental risk assessment,” annual assembly of the *University Consortium for Geographic Information Science*, session on the social and environmental implications of GIS, Bar Harbor, June 15-21 1997.
 - “Rediscovering Geography: A US Perspective” the *second Sino-American Geography Conference*, Xi’an China, June 24, 1997
 - * “Musings of an Errant Traveler in Economic Geography” Position paper written for the NSF workshop on *The Future of Economic Geography*, Washington DC, 26-28 September 1997
 - * (Invited participant, conference on *Issues and Events in Twentieth-Century Cartography*, U.S. Library of Congress, Washington DC, October 9-11, 1997.
 - (with R. McMaster* and H. Leitner) “A multi-scale approach for assessing environmental risk” GIS/LIS annual meeting, Cincinnati, October 28-30, 1997.
 - (with R. McMaster and H. Leitner) “A comparison of statistical and spatial approaches for environmental risk assessment” *Society for Risk Analysis* annual meeting, Washington DC, Dec. 7-10, 1997.
 - “Geographies of the Information Society: A Research Agenda” Advisory Board meeting of *The Varenus Project*, NCGIA, UC Santa Barbara, March 1, 1998.
 - * “The complexity of geographical competition.” NSF workshop, *Analytical Economic Geography and Regional Change*, University of Connecticut, Storrs, March 23, 1998
 - * (with H. Leitner and R. McMaster) “Sledgehammers or Scalpels,” *AAG meetings*, Boston, March 26 1998.
 - (with H. Leitner and R. McMaster) “Race, poverty and environmental justice in Minneapolis: Statistics and interpretations” MacArthur Symposium on *The Challenge of Urban Sustainability*, University of Minnesota, May 23, 1998
 - (with H. Leitner*, S. Elwood, R. McMaster, S. McMaster) “GIS and community-based planning: different modes of access and their appropriateness”, NCGIA conference on *Empowerment, Marginalization and Public Participation GIS*, Santa Barbara, October 15, 1998.
 - (with S. McMaster, R. McMaster and H. Leitner) "Public Participation GIS: The Multiple Perspectives of St. Paul Neighborhoods," *GIS/LIS'98*, Fort Worth, Texas, November 10-12, 1998.
 - (with R. McMaster, H. Leitner and H. Tian) " GIS-based Measures of Environmental Equity: Issues of Sensitivity and Significance," *GIS/LIS'98*, Fort Worth, Texas, November 10-12, 1998.
 - (with H. Leitner and R. McMaster) “Environmental justice and the challenge of urban sustainability” MacArthur Symposium on *The Challenge of Urban Sustainability*, Stanford University, February 20, 1999
 - (with S. McMaster,* H. Leitner and R. McMaster) “Participatory GIS use in community and grassroots organizations” *AAG meetings*, Hawai’i, March 27 1999
 - * (with H. Leitner,* C. Pavlik) “Networks-Space-Power.” Conference on *Theorizing Space and Time at the end of the Millennium*, University of Georgia, Athens, GA, April 11 1999.
 - * (with H. Leitner and R. McMaster) "The Phillips Neighborhood Environmental Inventory." *Third Annual Neighborhood Sustainability Indicators Roundtable*, Minneapolis, Feb. 16, 2000.
 - * “Quantitative Geography: Representations, practices, possibilities” *AAG meetings*, Pittsburgh, April 5, 2000
 - Discussant, session on “Ecosystem partnerships: Dilemmas in the Calumet region” *AAG meetings*, Pittsburgh, April 7, 2000

- * (with* R. McMaster, H. Leitner and H. Kurtz) "Public participation GIS: A Case study in Phillips neighborhood, Minneapolis" *AAG meetings*, Pittsburgh, April 8, 2000
- Chair, special session on "The political ecology of water" *AAG meetings*, Pittsburgh, April 8, 2000
- (with R. McMaster, H. Leitner, H. Tian, J. Mattson) "Alternative GIS-based methodologies for environmental exposure assessment" Poster presentation, *GIScience 2000*, Savannah, GA Oct. 28-31, 2000.
- * "Retrospect and prospect: Janusian reflections on geographic information, technologies, society, and nature" Invited plenary lecture, conference on *GIS and critical geographic research*, Hunter College, February 27, 2001.
- * "Space, time and digital globalization: Some theoretical propositions" *AAG meetings*, NYC, Feb. 28, 2001.
- Panelist, session on "The New Economy" *AAG meetings*, NYC, Feb. 28, 2001.
- Discussant, session on "Urban political ecology" *AAG meetings*, NYC, March 1, 2001.
- Discussant, political geography specialty group plenary lecture by Charles Tilly, *AAG meetings*, NYC, March 1, 2001.
- Panelist, session on "Critical GIS", *AAG meetings*, NYC, March 2, 2001.
- (with R. McMaster, H. Leitner, H. Tian, J. Matson) "Alternative GIS-Based Methodologies for Environmental Exposure Assessment," *International Cartographic Association conference*, Beijing, August (principal author and presenter: McMaster), August, 2001.
- * (with H. Leitner) "Harnessing inter-urban networks for a neoliberal urban agenda", invited paper, conference on *The Neoliberal City*, University of Illinois at Chicago, September 8, 2001.
- * "The spaces and times of globalization", invited paper, *Leir conference on Global Economic Change*, Clark University, October 12, 2001.
- * Discussant, session on 'relational approaches to economic geography', *AAG meetings*, Los Angeles, March 20, 2002.
- * "The spatiality of *Limits to Capital*", special session on 'David Harvey's Limits to Capital two decades later', *AAG meetings*, Los Angeles, March 21, 2002.
- Panelist, 'Editors meet the public: The Oxford Handbook, and the Blackwell Companion to Economic Geography', *AAG meetings*, Los Angeles, March 21, 2002.
- * Panelist, 'Author meets the critics: Glasmeier's Manufacturing Time', *AAG meetings*, Los Angeles, March 23, 2002.
- * Discussant, session on 'Toward a sustainable Los Angeles,' *AAG meetings*, Los Angeles, March 23, 2002.
- * Invited participant: *World University Network symposium*, Bristol University, May 19-21, 2002
- Discussant, IGU conference *The Rights to the City*, Rome, May 29-31, 2002.
- "Race, poverty and environmental inequity" *IGU Regional Conference*, Durban, August 4-7, 2002.
- * Invited participant, NSF/AAG/RSA collaborative workshop on *Space, Race and Urban Development*, Pretoria August 8-12, 2002.
- * "From Manchester liberalism to global regulation: The geography of the free trade doctrine" Second international conference on *Knowledge and Space*, Universität Heidelberg, Sept. 2-5, 2002.
- * (with H. Leitner) "Unbounding Geographic Research on Cities: Looking beyond the 1990s" *AAG meetings*, New Orleans, March 2-8, 2003.
- * Panelist, 'The Future of Space and Time in Geography', *AAG meetings*, New Orleans, March 2-8, 2003.
- * Panelist, 'Public intellectuals and social responsibility.' *AAG meetings*, New Orleans, March 2-8, 2003.
- * Panelist, 'Security and GIS: Critical reflections.' *AAG meetings*, New Orleans, March 2-8, 2003.
- * (with H. Leitner, A. Maringanti, K. Sziarto) "Contesting urban futures: Theorizing and Mapping Contestations of Neoliberalization" *Royal Geographical Society/Institute of British Geographers annual meeting*, London, Sept. 3-5, and *Contested Urban Futures* conference, University of Minnesota, Nov. 6-9, 2003.
- * "Geographies of urban change" *Cities: Humans and Nature* research meeting, Peggy Notebaert Nature Museum, Chicago, Sept. 30-Oct. 1, 2003.
- Panelist, 'Economic Geography: Then, now and the future I.' *AAG meetings*, Philadelphia, March 16, 2004.
- * (with P. Plummer) "Geography matters: Agency, structures and dynamics" *Journal of Economic Geography* session on Agglomeration and Growth, *AAG meetings*, Philadelphia, March 18, 2004.
- * "Political economy and transportation geography." Panelist, *Economic geography meets transportation geography. AAG meetings*, Philadelphia, March 18, 2004.

- *“Materiality, positionality and ethics in a more-than-human world.” Panelist, *Materiality, politics, ethics. AAG meetings*, Philadelphia, March 19, 2004.
- *Commentary on keynote lecture “What is the Finn?” *Finn Forum VII*, University of Minnesota, October 38, 2004.
- * “Economic geography and ecological economics” *AAG meetings*, Denver, April 5 2005 (panel session: Ecological economics meets economic geography)
- * “Knowledge Production through Critical GIS: Review and Assessment” *AAG meetings*, Denver, April 6 2005 (session on critical GIS)
- *(with Helga Leitner, Ananthakrishna Maringanti, Kristin Sziarto) “Contesting Urban Futures: Theorizing and mapping contestations of neoliberalism” *AAG meetings*, Denver, April 7 2005 (session on market rationalities).
- *(invited discussant), session on ‘producing the spatial order of things’. Conference on *The Anthropology of Global Productions*, Cultural and Social Anthropology, Stanford University April 7, 2006.
- *(invited discussant), session on ‘Environmental justice: Towards a new generation of critical research.’ *AAG meetings*, San Francisco, April 18 2007
- * invited panelist, session on ‘What about dialectics?’ *AAG meetings*, San Francisco, April 18 2007
- * (invited discussant), session on ‘Globalize or die? Reflections on social movements and spatial strategies.’ *AAG meetings*, San Francisco, April 21 2007
- * “Capitalism beyond harmonious equilibrium” (with Luke Bergmann and Paul Plummer), session on ‘Critical Quantitative Geographies: Beyond the Critical/Analytical Binarism.’ *AAG meetings*, San Francisco, April 20 2007
- “Spatialities of contentious politics” (with Helga Leitner) Second Global Conference on Economic Geography, Beijing, June 25 2007
- “Capitalism beyond harmonious equilibrium” (with Luke Bergmann and Paul Plummer) Second Global Conference on Economic Geography, Beijing, June 25 2007
- * (with Trevor Barnes) “The importance of ‘trailing and’s’: economic geography as engaged pluralism” Second Global Conference on Economic Geography, Beijing, June 26 2007
- * Panelist, “Reflexive economic geographies and China Studies 2” Second Global Conference on Economic Geography, Beijing, June 27 2007
- * Discussant, “Race and gender along the global assembly line” Hubert Humphrey Institute, University of Minnesota, February 21 2008
- * Panelist, “China’s changing economic geography” *AAG meetings*, Boston, April 17 2008
- * Chair, “Straddling the Fence’ II: Theory, Practice, and History in Critical GIS” *AAG meetings*, Boston, April 17 2008
- * (with Helga Leitner) “(Post)Washington Consensus or Muddling Through? Space-time and the remaking of global urbanism” ‘Remaking Governance’ session *AAG meetings*, Boston, April 17 2008
- * Invited presentation “High priority research questions in the geographical sciences” National Research Council session, *AAG meetings*, Boston, April 17 2008
- * Panelist, “Author meets critics: Richard Peet’s *The Power of Geography*” *AAG meetings*, Boston, April 18 2008
- * Chair and co-organizer “Roundtable: The World Bank’s 2009 *World Development Report*” *AAG meetings*, Boston, April 18 2008
- * Chair, discussant, “Losing our chains, I & II” *AAG meetings*, Boston, April 19 2008
- * “Economics, geography and producing ‘development’” *Knowledge and Space* conference, Heidelberg, June 28, 2008
- * (with Paul Plummer) “Rationality, stability and endogenous price formation in spatially interdependent markets” *Probabilistic Political Economy: Laws of Chaos in the 21st Century*, Kingston University, UK, July 15, 2008
- * “Spatiality, capitalism, performance” *Socioeconomics, Markets and Space: Performing Markets*, Schloss Hirschberg, Bayern, October 16, 2008
- * “Closing remarks”, *The Making of Global Cities an The World Economic Crisis* international conference, Shenzhen, China, January 7, 2010

- * “Cities, human well-being, social justice and nature: Towards a research agenda” Minnesota Futures workshop, *Urban ecosystems and Human Well-being: Implications for global survivability*. University of Minnesota, January 25, 2010.
- * Panelist, “Space and Spatiality in Theory” *AAG meetings*, Washington DC, April 14 2010.
- * Discussant, special session: “The New Global Order of Poverty Management: Neoliberalism Revisited” *AAG meetings*, Washington DC, April 15 2010.
- * Panelist, “Geographies of Post-Fordism—Capital” *AAG meetings*, Washington DC, April 15 2010.
- * Progress in Human Geography lecture, *AAG meetings*, Washington DC, April 15 2010.
- * Panelist: *For Julie Graham: Celebrating Julie Graham's contributions and exploring the future of her work*, Seattle AAG meeting, April 13 2011.
- * (With L. Bergmann) “Peregrinations of value as capitalism globalizes: Theory and measure.” Critical perspectives on value theory I: the labor theory of value, social reproduction, and economic geography”, Seattle AAG, April 14 2011.
- * Panelist: *A new era of capitalism? Responses to Harvey's 2010 Roepke Lecture*, Seattle AAG meeting, April 14 2011.
- Session chair: *Critical perspectives on value theory II*, Seattle AAG meeting, April 14 2011.
- * Panelist: Recognizing Richard Walker, New York City AAG meeting, Feb. 24 2012.
- * Panel presentation: “We have never been positivist”, New York City AAG meeting, Feb. 25 2012.
- * (with Catherine Chang): “Chinese Green Capitalism and Urban Sustainability: Shanghai’s Dongtan Eco-city and Chongming Eco-island”, New York City AAG meeting, Feb. 26 2012.
- * (with Catherine Chang) “Eco-cities with Chinese characteristics” Regional Studies Association Conference: Ecological Regional Development, Luxembourg, June 7 2012.

E Current research interests:

Regional political economy: The spatial dynamics of capitalism

- Inter-regional interdependencies and uneven urban and regional development
- Spatial pricing dynamics
- Technical change and regional growth
- Space and economic theory
- The geography of economic globalization
- International trade and the long historical geography of globalization

Urban politics: Urban governance regimes, their impact and contestation

- Local entrepreneurialism, competitive advantage and urban systems growth in Europe
- Neoliberal urban policy and oppositional activist networks
- Urban livelihood strategies
- Spatialities of contestation

Geography, philosophy and method

- Geography, science and technology
- Geographies of knowledge production
- Methodologies for analyzing out-of-equilibrium spatial systems: Spatializing coding dynamics
- Geographical information technologies and society
- Public participation geographic information systems

Nature-society dynamics

- Environmental justice in the Twin Cities metropolitan area

- Neighborhood environmental inventories
- Nature, development and livelihood possibilities in the global south

F Grants (awarded)

1977-78	(with A. C. Lea) Small Grants Program award of \$1,007 to develop new computer programs for solving location problems.
1982	Contract with the Istituto Ricerche Economico-Sociali del Piemonte, Torino Italy; to write a state-of-the-art on Marxian approaches to the geography of production and transportation (1,500,000 lira). Travel grant for travel to a conference in Austria.
1984-85	Graduate School, Grants in Aid for Research; to collect data on downtown metropolitan redevelopment (\$6,542)
1986	National Science Foundation, Cooperative Science Program with Austria, "The Geography of Corporate Control in Austria, 1973-81": \$3,180.
1988-91	NSF research grant "Spatial price competition and market share amongst multilocal corporations" (\$116,865)
1993-94	NSF doctoral dissertation research grant (with Yu Zhou) "Chinese Ethnic Networks in the Producer Service Sector of Los Angeles" (\$15,000)
1994-95	Graduate School Grant in Aid-of-Research (with Helga Leitner) (\$10,000)
1993-94	NSF doctoral dissertation improvement grant (with Steve Smela) "The geography of ESOP adoption by American firms" (\$9,090)
1996-97	National Center for Geographic Information and Analysis Research Initiative 19: "GIS Representations of Nature and Society" (with four others: \$200,000 spread over four institutions)
1996-97	(with McMaster and Leitner) Neighborhood Planning for Community Revitalization, Center for Urban and Regional Affairs "Environmental risks, GIS and community needs" (\$18,360)
1997-98	NSF doctoral dissertation improvement grant (with Chris Sneddon) "Sustainable development and water resources in Northeastern Thailand" (\$8,045)
1997-2000	NSF Research Grant "Advanced Information Science" \$111,000.
1998-2000	NSF doctoral dissertation improvement grant (with Andrea Nightingale) "Land Management in Mugu District, Nepal: Power, Cultural Practices and Ecological Conditions" (\$11,000)
1998-99	CLA Funding for curricular innovation "Introductory Human Geography" (\$21,000)
1998-99	(with H. Leitner, R. McMaster) CURA Community-university research grant (received) "Building a GIS-based environmental inventory for Phillips Neighborhood, Minneapolis" \$15,000

1999-2000	NSF Research Grant “Conference on Geographic Information and Society: Support for graduate student participation” (\$5,000)
2000-01	NSF doctoral dissertation improvement grant (with Mary Thomas) “Spatial dimensions of gender identities of adolescent females in Charleston, SC” (\$9,180)
2001	NSF doctoral dissertation improvement grant (with Bongman Seo) “Embeddedness, Relationships, and Geographies of Global Banking: Japanese City Banks in Global Syndicated Credit Markets” (\$6,350)
2001-03	(with Leitner) Grant from the Center for German and European Studies, U of M, research collaborative with Madison on “Contested urban futures in the European Union and the United States: Connectivity, Reflexivity, and Activism” \$60,000
2003	Institute for Global Studies, U of M. Grant to support a conference on contested urban futures (\$10,000) Humanities Institute, U of M. Grant to support a conference on contested urban futures (\$2,000)
2003-4	NSF doctoral dissertation improvement grant (with Jun Zhang) “The Spatial Dynamics of Internet Development in China” (\$10,000)
2004	Mellon Foundation grant for workshop on ‘globalization and the humanities’ (with the Interdisciplinary Center for Global Change) (\$25,000)
2005	University of Minnesota funding for one of President Bruininks’ Presidential Conferences, on “Globalization, Modernities and Violence”, University of Minnesota (with Allen Isaacman, Raymond Duvall, Karen Brown Thompson) (\$25,000)
2006	(with <u>Karen Brown</u> , Allen Isaacman) Mellon Foundation grant awarded to the Interdisciplinary Institute for the Study of Global Change for a graduate student and faculty learning collaborative with the University of the Western Cape (lead author; co-written with the ICGC directors and the ICGC faculty exploratory committee) (2006-9: \$700,000)
2007	(with H. Leitner, M. Goldman) “The making of global cities” Institute for Global Studies research collaborative, University of Minnesota (2007-8: \$25,000)
2008	(with H. Leitner, M. Goldman) “The making of global cities” Institute of Advanced Studies Research Collaborative, University of Minnesota (2008-9: \$12,000) (with H. Leitner, M. Goldman) “The making of global cities” Office of International Programs international research circle, University of Minnesota (2008-9: \$25,000)
2009	(with <u>Karen Brown</u> , Allen Isaacman) “Compton International Fellowship Program” Compton Foundation (\$100,000)
2010	(with <u>Karen Brown</u> , Allen Isaacman) Mellon Foundation “Collaborative Graduate Education and Research Partnership – Interdisciplinary Center for the Study of Global Change (University of Minnesota) and Centre for Humanities Research (University of the Western Cape)” (2010-12: \$845,000, plus \$110,000 match from the University of Minnesota)

- 2011 (with Michael Goldman, Vinay Gidwani, Helga Leitner) “Research circle: Provincializing global urbanism” ICGC (\$15,000)
 (with Vinay Gidwani, Michael Goldman, Helga Leitner) “Urban Revolutions in an Age of Global Urbanism” Urban Studies Foundation (£20,000)
- 2012 (with Vinay Gidwani, Michael Goldman, Helga Leitner) “The New Great Transformation: Urban land markets, livelihoods and the growing ecological crisis in Asia’s cities” UMN Global Spotlight International Research Grant Program (\$56,000)

G International Conferences Organized:

- “Urban Revolutions in the Age of Global Urbanism.” Jakarta, Indonesia, March 16-20, 2012 (45 participants from eight countries)
- “International Research Workshop: Struggling for water: Dams, pipes and urban-rural transformations in the global South.” University of Minnesota, November 13-14, 2010 (30 participants from four countries).
- “The Making of Global Cities and The World Economic Crisis”, Shenzhen Campus of the Beijing University Graduate School, Shenzhen, China, January 4-8, 2010 (with Helga Leitner, Anant Maringanti, Jun Zhang, Li Guicai) (55 participants from nine countries).
- “Probabilistic Political Economy”, Kingston University, London, July 14-18, 2008.
- “Making global cities” University of Minnesota, May 6-9, 2008.
- Presidential Conference “Globalization, Modernities and Violence”, University of Minnesota (6 keynote speakers, several hundred participants; April 15-17, 2005) (with Allen Isaacman, Raymond Duvall, Karen Brown Thompson) (participants from the USA, Canada, India)
- Mellon Foundation conference “Cultural Sovereignty: Globalization and the Humanities”, University of Minnesota (25 participants, Oct. 7-9, 2004) (with Allen Isaacman, Raymond Duvall, Karen Brown Thompson) (participants from the USA, Egypt, Turkey, South Africa, Argentina, Mexico)
- “Contested Urban Futures”, University of Minnesota (35 speakers, Nov. 6-9, 2003) (with Helga Leitner, Jamie Peck) (participants from the USA, UK, Canada, Germany, South Africa, India)
- National Research Council funded workshop “Restructuring Urban Areas in the US and UK: A Comparative Analysis” (20 participants, Washington DC, July 19-20 2001) (with Michael Dear)
- National Research Council sponsored meetings of 30-50 UK and US urban researchers, in Brighton (January 2000) and Pittsburgh (April 2000).
- First international conference on “Geographic Information and Society” University of Minnesota (40 speakers, June 1999) (with Robert McMaster)
- MacArthur Consortium symposia “The Challenge of Urban Sustainability” (15 speakers each, University of Minnesota, May 22-24, 1998; Stanford University, February 20-21, 1999) (participants from the USA, Brazil)
- NCGIA Conference “Modeling and Representing Accessibility in the Information Age,” Asolimar, CA, Nov. 16-18, 1998 (30 speakers, co-organizer with three others)
- NCGIA Conference “Place and Identity in an Age of Technologically Regulated Movement,” Santa Barbara, CA, Oct. 8-10, 1998 (30 speakers, co-organizer with three others)
- NCGIA Conference “Empowerment, Marginalization and Public Participation GIS,” Santa Barbara, CA, Oct. 15-17, 1998 (30 speakers, co-organizer with three others)
- National Center for Geographic Information and Analysis sponsored conference: “GIS and society” Annandale, MN (35 speakers, March 2-5, 1996) (with Robert McMaster)

H Conference sessions organized (since 1990)

Two sessions on "Marxism, Post-Marxism and Human Geography," AAG annual meeting, Toronto, April 22, 1990 (with Derek Gregory)

Session on "The Urban Underclass: Statistical Approaches," AAG annual meeting, Toronto, April 21, 1990.

Session on "The Urban Underclass: Forum," AAG annual meeting, Toronto, April 21, 1990. (with John Mercer)

Session on "The geography of rationality and collective action," AAG meetings, Miami, April 1991.

Session on "GIS, Society in an Educational Setting," AAG meetings, San Francisco, March 1994.

Three sessions on "New voices in economic geography," AAG meetings, Pittsburgh, April 2000.

Three sessions on "The New Economy," AAG meetings, New York City, Feb. 2001.

Two sessions on "Economic Geography meets Economic Sociology," AAG meetings, Philadelphia, March 2004

Journal of Economic Geography sponsored session: "Agglomeration and growth" AAG meetings, Philadelphia, March 2004 (with Gilles Duranton)

II. INSTRUCTION AND ADVISING

A Courses taught at the University of Minnesota:

I have taught a workload of two courses per semester, typically ranging from the 1000 or 3000 to the 8000 level, each year.

- Geog 1301 Introduction to human geography
- Geog 3001 Introduction to geographic inquiry
- Geog 3331 The geography of the world economy
- Geog 3371 Urban geography
- Geog 3378 Third World underdevelopment and modernization
- Geog 3985 Senior project seminar
- Geog 4001 Modes of geographic inquiry
- Geog 5001 Geographical analysis I
- Geog 5002 Geographical analysis II
- Geog 5382 Applied locational models
- Geog 5531 Quantitative research design
- Geog 5900 Human geography and social theory
- Geog 8001 Problems in geographic thought
- Geog 8002 Research methods in geography
- Geog 8010 Theoretical geography seminars (Modeling, political economy, feminist geography)
- Geog 8020 Economic geography seminars (economic development; geography of labor; political economy and economic geography; competition; globalization)
- Geog 8102 Pro-seminar: The state, the economy and spatial development
- Geog 8230 The spaces and times of capitalism

Geog 8520 Geographic information technologies and society
 Geog 8530 Quantitative geography seminar
 Geog 8980 Contested urban futures
 DSSC 8100 MacArthur workshop (development and democracy, urban sustainability)
 DSSC 8200 MacArthur Program third year workshop (proposal writing; research ethics)
 DSSC 8310 ICGC topics seminar
 MDP 5001 Development, theory and praxis: Ways of knowing and sustainable livelihoods

B Courses taught elsewhere:

Universitas Indonesia:	Explanation in geography Approaches to regional development
University College London:	Industrial geography: The capitalist space economy
University of Vienna:	Geographical analysis

C Graduate Advising

I have advised 33 PhD students to completion, with six current doctoral students actively writing dissertations. I have advised some 25 Masters students, all but one of whom finished their degrees; five went on to PhD programs elsewhere. I have served on a further 30 M.A. and 65 Ph.D. committees in Geography, and some 45 committees of graduate students in other departments: Sociology, History, Political Science, American Studies, Business Administration, Health Planning, Civil Engineering, Education, Applied Economics, Conservation Biology, Public Affairs, and Anthropology.

Eight of my advisees have held national NSF, Javitts or EPA Fellowships; most have held university or department fellowships (including two Yudof and five Stout/Wallace fellowships), and six have received NSF Doctoral Improvement Research Grants.

Graduate theses completed (placement in brackets):

Christopher Amley "An application of cluster analysis to the definition of urban sub-areas", 1981, M. A. (3M Corporation).
 Trevor J. Barnes "The geography of value, production and distribution: Theoretical economic geography after Sraffa," 1983, Ph. D. (Distinguished Research Professor, University of British Columbia)
 Mary Ann Saurino "'The White City': Urban space and social order at the Columbian exhibition" 1985, M. A. (School teacher, Minnesota)
 Deborah Karasov "Culture and stone: Redesigning the Mamilla quarter of Jerusalem," 1987, Ph.D (Great River Greening, St. Paul).
 Tae-kyung Koh "The political economy of urban restructuring: The case of downtown development in Chicago," 1989, Ph. D. (Researcher, Korean Housing Institute)
 Yeong-ki Beck "Analysis of the changing spatial organization of production: The case of the U.S. computer industry," 1989, Ph.D. (Associate Professor, Chonbuk University, Korea)
 Claire E. Pavlik "Quest for growth: Investment strategies of three West German steel firms," 1992, Ph.D. (Research fellow, University of Iowa)

- Paul Plummer "The Competitive Strategies of Multilocal Corporations: Spatial Prices and Market Share," 1993, Ph.D. (Professor, University of Western Australia)
- Theano Terkenli Koop Ph.D. "Attachment to home," 1993 (tenured Assistant Professor, University of the Aegean)
- Byron Miller "The Power of Place, the Significance of Scale: The Geographic Structuring of Collective Action in the Boston Area Peace Movement," 1994, Ph.D. (Associate Professor, University of Calgary)
- Yu Zhou "Chinese Ethnic Networks in the Producer Services Sectors of Los Angeles," 1995, Ph.D. (Professor, Vassar College). AAG Economic Geography Specialty Group Best Dissertation Award, 1995.
- Dmitri Sidorov "Scale, place, and the historical geography of Russian Orthodoxy 1900-1997," 1997, Ph.D. (Associate Professor, California State University, Long Beach).
- Stephen Smela "The Role of Local Context in Corporate Decision-Making: The Adoption of Employee Stock Ownership Plans, 1982-1991" 1998, PhD (The Improve Group, Minneapolis).
- (with A. Samatar) Pádraig R. Carmody "Economic Restructuring under Structural Adjustment in Zimbabwe: Deindustrialization in the textile, clothing and footwear industries" 1998, PhD. (Lecturer, Trinity College Dublin). AAG Economic Geography Specialty Group Best Dissertation Award, 1998.
- William Lynn "Geoethics: Ethics, Geography and Moral Understanding" 1998, PhD. (researcher, Clark University Perkins Institute)
- (with R. Squires) Morgan Robertson "No Net Loss: The political ecology of wetlands policy in a suburban watershed" MA Thesis, 1998 (Assistant Professor, University of Kentucky).
- (with A. Samatar) James Glassman "Thailand at the margins: State power, uneven development and industrial transformation" 1999 Ph.D. (Professor, University of British Columbia). AAG Economic Geography Specialty Group Best Dissertation Award, 1999.
- Leila Harris "Understanding the Developmental State: Theories of state-led development and evaluations of development and change in southeastern Turkey" MA Thesis, 1999.
- Christopher Sneddon "Altered Rivers: Socio-ecological transformation, water conflicts and the state in northeast Thailand" PhD thesis, 2000 (Professor, Dartmouth College).
- Andrea Nightingale "A 'Trialectic' of Community Forestry Management in Mugu district, Nepal: Power, cultural meanings and ecology" PhD thesis, 2001 (Lecturer, University of Edinburgh).
- Mary Thomas "The Social-spatial Practices of 'Girl Power': Race, gender-sexuality, and teenage subjectivity in Charleston, SC" PhD thesis, 2002 (Associate Professor, Ohio State University)
- Leila Harris "Modernizing Gender: Social geographies of waterscape evolution in southeastern Turkey" PhD Thesis, 2003 (Assistant Professor, University of British Columbia). AAG Economic Geography Specialty Group Best Dissertation Award, 2004.
- Bongman Seo "Relational Networks and Geographies of Global Banking: Japanese city banks in global syndicated credit markets" PhD, 2004 (Incheon Development Institute)
- Gabriela Valdivia "Geographies of Indigeneity in the Ecuadorian Amazon" PhD Thesis, 2005 (Assistant Professor, University of North Carolina, Chapel Hill)
- Daisaku Yamamoto "Beyond Convergence: Regional income disparities in the United States and Japan, 1955-2001" PhD Thesis, 2005 (Assistant Professor, Colgate University)
- (with B. Braun) Sookjin Kim "Scaling Nature: Technoscience, GMOs and the South Korean seed industry" PhD Thesis, 2006 (Assistant Professor, Konkuk University, Seoul). AAG Economic Geography Specialty Group Best Dissertation Award, 2006.
- Yvette Pye "But This Is St. Paul, Minnesota: The Black church and urban youth education" PhD Thesis, 2006 (Assistant Professor, Saint Mary's University of Minnesota).

Ryan Holifield “Spaces of Risk, Spaces of Difference: Environmental justice and science in Indian Country” PhD Thesis, 2006 (Assistant Professor, University of Wisconsin, Milwaukee).

(with V. Gidwani) Joshua Barkan (American Studies) “A Genealogy of the Corporation: Articulating sovereign power and capitalism” PhD Thesis, 2006 (Assistant Professor, University of Georgia).

Jun Zhang “Market Transition and the Spatial Dynamics of Internet Development in China” PhD Thesis, 2007 (Assistant Professor, National University of Singapore).

(with R. Nagar) Ananthakrishna Maringanti “Neoliberal inscriptions and contestations in Hyderabad” PhD Thesis, 2007 (Director, Hyderabad Urban Laboratory).

Post-doctoral fellow: Bao Lingli (from Shanghai University of Finance & Economics)

Moir McDonald “Political economy of agriculture in the Yazoo Delta: How Federal policies shape environmental quality, livelihood possibilities and social justice.” PhD Thesis, 2009 (Walton Foundation, Washington DC).

Marion Traub-Werner “Global displacements: Geographies of work and industrial restructuring in the Dominican Republic” Ph.D. Thesis, 2009 (Assistant Professor, SUNY Buffalo). AAG Economic Geography Specialty Group Best Dissertation Award, 2010.

Raj Narayanareddy “Specters of Waste in India's "Silicon Valley": The Underside of Bangalore's Hi-tech Economy” Ph.D. Thesis, 2010 (Assistant Professor, University of Toronto).

Sam Schueth “State Assemblage in the Republic of Georgia” Ph.D. Thesis, 2010 (USAID)

Luke Bergmann “Capital, Carbon, Context, and Concepts: Geographies under Globalization” Ph.D. Thesis, 2011 (Assistant Professor, University of Washington).

D Teaching interests:

Economic geography:	Introductory Regional growth, trade and development The geography of economic expansion and crisis Industrial structure and production geographies Geographies of globalization
Urban geography:	Introductory Urban systems
Geographical theory and philosophy:	Philosophy, epistemology and ways of knowing geography Geography, science and method
Methods:	Quantitative and qualitative research methods Methods of spatial and temporal analysis

III. PROFESSIONAL SERVICE

A Service to the University

2011-12	Director of Graduate Studies, Masters of Development Practice
2010-	Co-director, Interdisciplinary Center for the Study of Global Change
	Reviewer, infrastructure investment initiative proposals, Office of Vice President for Research
2010	Member, Presidential Search Advisory Committee
2009-	Chair, Program Committee, Masters of Development Practice
2008-	Director of Graduate Studies, Development Studies and Social Change
2008-10	Associate Director, Interdisciplinary Center for the Study of Global Change
2006-08	Member, International Scholarship Advisory Committee, Office of International Programs
	Chair, Institutional Partnerships subcommittee, International Scholarship Advisory Committee, Office of International Programs
	Member, Sustainability Studies Curriculum Advisory Committee
2003-05	Chair, Interdisciplinary Center for Global Change, Faculty Exploratory Committee
	Member, University Senate
2001-02	Member, MacArthur Program Executive Committee
	Chair, Late Entry Fellowship Selection Committee, MacArthur Program
2000-present	Member, Graduate School Grant in Aid Committee
1999-2000	Member, Graduate School Shevlin Fellowship and grants for study abroad selection committee
1998-	Member, Executive Committee, MacArthur Program
1997	Chair, search committee for Director of the University of Minnesota Press
1997-99	Chair, Late Entry Fellowship Selection Committee, MacArthur Interdisciplinary Program on Peace and International Cooperation
1996-98	Chair, the Committee on the Press (University of Minnesota Press)
1996-7; 1999-2000	Chair of Internship Selection Committee, MacArthur Interdisciplinary Program on Peace and International Cooperation
1995-	Member, Institute for Social, Economic and Ecological Sustainability
1995-96	Member, Search Committee for Dean of the College of Liberal Arts
1995	Member, Search Committee for two new acquisitions editors, University of Minnesota Press
1994-97	Member of the Internship Selection Committee, MacArthur Interdisciplinary Program on Peace and International Cooperation
1994-97	Member of Fulbright screening committee (Graduate School)
1993-95	Chair of Selection Committee, MacArthur Interdisciplinary Program on Peace and International Cooperation
1991-97	Member of the Committee on the Press (University of Minnesota Press)
1990-91	Member, Search Committee for Dean of the College of Liberal Arts
1989-91	Member, New Ventures Group (Strategic Management Research Center)
1988-91	Member, Board of Directors, Center for State and Regional Research
1989-	Member, Research Advisory Board, Center for Transportation Studies
1989-95	Member, Steering Committee, MacArthur Interdisciplinary Program on Peace and International Cooperation
1988-90	Member, Committee Evaluating Applicants for the Fulbright Study Abroad Program (Graduate School).
1988-	Member, Board of Directors, Center for State and Regional Research

1984-88	Member of the Graduate School Fellowship Committee
1984-86	Member of the Council on Student Behavior
1977-85	Member of the Transportation Advisory Group

B Service to the College of Liberal Arts

2009-10	Chair, Urban Studies Advisory Board
2006-07	Member, Tenured-hire review committee
2004-05	Member, Humanities cluster search committee
2003-04	Member, Institute for Advanced Studies space subcommittee
2001-02	Vice chair, CLA Assembly; member, CLA Executive Committee Member, faculty search committee in Sociology
2000-01	Vice chair, CLA Assembly; member, CLA Executive Committee Member, IGS search committee
1996-98	Member, Center for European Studies Advisory Committee
1994-95	Chair, CLA Promotion and Tenure Committee
1993-95; 96-97	Member, CLA Promotion and Tenure Committee, and Tenure Opportunity and Partner Hires Subcommittee
1991-92	Vice Chair, CLA Council of Chairs
1988-92	Member, History and Society Group Planning Committee
1988-89	Chair, Urban Studies Advisory Committee Member, search committee for temporary position in Geography and International Relations
1985-87	Member, Foreign Studies Program Committee
1983-86	Chair, Urban Studies advisory committee
1983-85	Member, CLA Assembly Member, Council for Curriculum, Instruction and Advising Member, Curriculum Review Committee
1976-82	Member of the Urban Studies advisory committee Undergraduate advisor for urban studies majors

C Service to the Department of Geography

2011-12	Chair, Visitors, coffee hour and Brown Day committee
2010	Member, ad hoc departmental constitution committee (inactive) Member, development committee
2009-10	Member, Faculty Search Committee (biophysical geography) Member, Graduate Educational Policy Committee Co-author, "Approaches toward Improving the Operation of the Department of Geography During the Most Challenging Environment of Recent Years" (with J. Adams)
2008-09	Chair, P&T Committee Member, Research Committee Member, Spousal Hire/retention Committee
2007-08	Chair, Faculty search committee (cluster hire in health & environment) Chair, Diversity Committee Member, Research Committee
2006-07	Chair, Research Committee Chair, Diversity Committee Co-author (with McMaster, Powell), final draft of departmental self-survey

2004-05	Member, graduate educational policy committee
2003-04	Chair, graduate admissions and financial aid committee
	Chair, library committee
	Chair, visiting faculty committee
2002-03	Case worker, Vinay Gidwani McKnight nomination
2001-02	Member, graduate admissions and financial aid committee (Spring)
	Faculty meeting secretary (spring)
	Member, graduate educational policy committee (Fall)
	Case worker, Till McKnight nomination
2000-01	Member, admissions and financial aid committee
	Member, GIS search committee
	Case worker, Abdi Samatar promotion, Braun McKnight nomination
1999-2000	Member, admissions and financial aid committee
	Case worker, Robert McMaster promotion
1998-99	Chair, faculty search committee for Geography/IGS position
	Chair, Awards Committee
1997-98	Chair, Visiting Faculty Committee
	Member of the faculty search committee
1996-97	Chair, Visiting Faculty Committee
	Member of the Admissions and Financial Aid Committee
	Member of the Committee to Review Merit Procedures
	Member of the faculty search committee (political ecology position)
1995-96	Chair, visiting faculty committee
	Chair, Merit Committee
	<u>Principal author, departmental Strategic Plan</u>
1994-95	Chair, faculty search committee (GIS position)
	Member, Merit Committee
	Chair, committee on harassment and grievances
	Organizer and Chair of Faculty Retreat, August 1994
	Member of Graduate Educational Policy Committee
	Member of Committee on Community
	Member of Strategic Planning Committee
	Member of Brown Day Committee
1993-94	Chair, Committee on harassment and grievances
1990-92, 1993-4	<u>Chair of the Department</u>
1989-90	Acting Department Chair (Fall 1989, Winter 1990)
	Principal author of final response to the College for Departmental External Review
	Member of Committee on Admissions and Financial Aid
1988-89	Chair, Graduate Educational Policy Committee
	Chair, Merit Allocation Committee
	Joint author of department self-survey report
1987-88	Chair, Graduate Educational Policy Committee
	Member, Graduate Published Paper Prize Awards Committee
	Member, Darrell Haug Davis Fellowship Awards Committee
	Department Secretary (Spring 1988)
1985-86	Chair, Visiting Faculty Committee
	Member, Graduate Admissions and Financial Awards Committee
	Member, Graduate Educational Policy Committee
1984-85	Chair, Visiting Faculty Committee
	Member, Graduate Admissions and Financial Aid Committee
1983-84	Chair, Visiting Faculty Committee

	Member, Graduate Admissions and Financial Aid Committee
	Member, Graduate Educational Policy Committee
	Member, Physical Space Committee
	Member, Temporary Faculty Hiring Committee
1982-83	Member of the Graduate Educational Policy Committee, and the Committee to Review Graduate Programs
1979-81	Member of the Graduate Educational Policy committee
1978-79	Chair of the Graduate Educational Policy committee
	Member of the committee for Graduate Assistance and Admissions
1977-78	Member of the committee for Graduate Assistance and Admissions
1976-77	Member of the Library and Computer Facilities committees

D Service to the Profession:

Editorial service:

1998-present	Co-editor, <i>Environment and Planning A</i>
1985-91	Co-editor, <i>Antipode</i>
1979-82	Coordinator and publisher, <i>Union of Socialist Geographers Newsletter</i>
2009-2015	Editorial Board, <i>Dialogues in Human Geography</i>
2008-	Editorial Board, <i>Economic Geography</i>
	Editorial Board, <i>Human geography</i>
2008-2011	Editorial Board, <i>Journal of the Economic Geographical Society of Korea</i>
2005-2009	Editorial Board, <i>Annals, Association of American Geographers</i>
2005-9	Editorial Advisory Board, <i>Dictionary of Human Geography</i> (5 th edition)
2000-	Editorial Board, <i>Journal of Economic Geography</i>
1997-99	Editorial Board, <i>Annals of the Association of American Geographers</i>
1994-2004	Editorial Board, <i>The Canadian Geographer</i>
1994-1997	Editorial Board, <i>Environment and Planning A</i>
1979-90	Editorial board, <i>Geographical Analysis</i>
1985-89	Editorial board, <i>Espaces et Sociétés</i>
1983-87	Editorial board, <i>The International Regional Science Review</i>
1981-84	Editorial board, <i>Annals of the Association of American Geographers</i>

National Service to the Profession

2008-	Member, Advisory Board, African Public Policy Research Center (Toronto)
2001-07	Member, selection committee for paper submissions to the GIS2002-GIS 2007 international conferences
2005-06	Member, Advisory Board, UCGIS GS S&T Body of Knowledge Curriculum Project
1998-2002	Member, Committee on Geography, Board of Earth Sciences and Resources, National Research Council
1998-2000	Member, NSF Geography and Regional Science Panel
1997-99	Panel chair, National Center for Geographic Information and Analysis research panel on 'Geographies of the information society' (three conferences facilitated; 25 seed grant applications processed)
1995-98	National Councilor, North American Regional Science Association (elected; Chair in 1998)

1993-96	Board of Directors, The National Center for Geographic Information and Analysis (NSF National Research Infrastructure Project)
1993-95	Member, National Research Council Committee: 'Rediscovering Geography'
1993-94	Member of the Advisory Board, National Council of Geographic Education Geographic Education Standards Project

Service to the Association of American Geographers

2011-12	Vice President, AAG
2009-12	Member and Chair, AAG Honors Committee
2002-04	Chair, Economic Geography Specialty Group (EGSG)
2000-02	Vice Chair, Economic Geography Specialty Group
	Member, EGSG best dissertation awards committee
2000-02	Board of Directors, Economic Geography Specialty Group
1990-91	Chair, Socialist Geography Specialty Group
1987-88	Member, Urban Geography Specialty Group dissertation award committee
1986	Program Committee Member, AAG national meetings
1985-88	Board of Directors, Urban Geography Specialty Group
1980-82	Chair, Socialist Geography Specialty Group
1979-80	Organizer, Socialist Geography Specialty Group
	Organizing committee, Transportation Geography Specialty Group

Services as referee (in addition to editorial appointments):

Journals: Annals of the Association of American Geographers, Environment and Planning A, B and D, The Canadian Geographer, Transactions of the Institute of British Geographers, The Professional Geographer, Economic Geography, Journal of Economic Geography, Geografiska Annaler, European Urban and Regional Studies, Regional Science Association Papers, Journal of Regional Science, Urban Affairs Quarterly, Social Science and Medicine, The Canadian Cartographer, Geoforum, The Journal of Geography, Journal of the Western Division of the Canadian Association of Geographers, The Ontario Geographer, Regional Studies, Urban Geography, Journal of Planning Education and Research, Urban Studies, Journal of Exposure Analysis and Environmental Epidemiology, Environmental Science & Policy, International Journal of Urban and Regional Research, Health & Place, Southwestern Geographer, ACME: Journal of Critical Geography, World Development, Cambridge Journal of Economics, Urban Affairs Review, Area, Computers, Environment and Urban Systems, Review of International Politics Economy, Journal of Transportation Geography, Singapore Journal of Tropical Geography, Geographical Review, Cambridge Journal of Regions, Economy and Society, International Journal of Geographic Information Science.

Funding Agencies: National Science Foundation (USA); Economic and Social Research Council (UK); Social Sciences Research Council of Canada; Center for Advanced Study in the Behavioral Sciences (USA), Austrian Agency for International Cooperation in Education and Research; American Council of Learned Societies; National Geographic Society.

Book manuscripts: McGraw Hill Press, University of Minnesota Press, Basil Blackwell Publishing, Routledge publishers, West Publishing Co., Edinburgh University Press, Prentice Hall, Guilford Press, National Science Foundation, National Geographic Society, Social Science and Humanities Council of Canada, Economic and Social Sciences Research Council (UK), Sage publishing, Oxford University Press, Pluto Press.

External evaluator:

52 cases of promotion and tenure

39 cases of promotion to full professor
6 external examinations of Ph.D. theses (at the universities of Iowa, McMaster, Melbourne (2),
Sheffield, Toronto)
1 external examination: Habilitation (Bonn)
17 promotions to distinguished professor

External review committees:

Geography Department External Reviews:

Rutgers University (1992)
University of Washington (1997)
University of Georgia (2001)
UCLA (2001)
University of Kentucky (2004)
University of Delaware (2006)
University of North Carolina (2010)

External review: NSF National Center for Geographic Information and Analysis, Santa Barbara (June 1992)

IV. AWARDS

ACADEMIC AWARDS

1972-74	University of Toronto Open Fellowship.
1974-76	University of Toronto Special Open Fellowship.
1978-79	CLA Single Quarter Leave fellowship for winter 1980. Spent as a research scholar at the International Institute of Applied Systems Analysis, Vienna, Austria.
1983-84	Travel grants for travel to conferences in Washington, D.C., and Western Europe.
1987-88	Macmillan Travel grant to AAG conference in Phoenix, AR
1988-89	Single Quarter Leave fellowship awarded by CLA (Winter 1989) Macmillan Travel grant to AAG Conference in Baltimore, MD
1989-90	Invited to present the Howard G. Roepke Lecture in Economic Geography, Toronto, April 1990 Macmillan Travel grant to AAG Conference in Toronto
1990-91	Nominee for position of National Councilor of the AAG (unsuccessful)
1992-93	Bush sabbatical Fellowship (University of Minnesota)
1997	Selected to participate in the series "Geographers on Film" Awarded a CLA Single Quarter Leave (winter 1998)
1998, 1999	CLA finalist, University of Minnesota Award for Outstanding Contributions to Post-Baccalaureate, Graduate, and Professional Education
1999	Distinguished Scholarship Honors, Association of American Geographers
1999	Community research featured in <u>CLA Today</u> (winter-spring 1999 issue)
2000	Invited to deliver the annual Attwood Lecture, Clark University
2000	Invited to deliver the annual Semple Lecture, University of Kentucky
2001-4	Scholar of the College of Liberal Arts
2002-03	Bush sabbatical fellowship, University of Minnesota
2002-03	Fesler-Lampert Professor for the Humanities, University of Minnesota
2003	Invited to deliver the annual Robinson Lecture, Ohio State University
2004	Distinguished Alumni Award, University of Toronto Association of Geography Alumni
2005	Nominee for Vice President of the AAG (unsuccessful)
2005	Invited to deliver the annual Harold Mayer Lecture, UW Milwaukee (with H. Leitner)
2005-6	Fellow, Center for Advanced Studies in the Behavioral Sciences, Palo Alto CA
2008	Regents Professor, University of Minnesota
2009	Supporting Women in Geography graduate advising award
2009	Invited to deliver the annual University of Tennessee, Ed Hammond Lecture
2010	Nominee for Vice President of the AAG

NON-ACADEMIC AWARDS:

Commissioned as an honorable Kentucky Colonel (2000)

CURRENT MEMBERSHIP IN PROFESSIONAL SOCIETIES:

The Association of American Geographers
The Canadian Association of Geographers
The Regional Science Association

John Douglas Hunt

Resume 2013

University Education:

1988 **PhD**, Cambridge University, England

1981 **BSc** with distinction in Civil Engineering, University of Alberta, Canada, specialization in Transportation Engineering, Ranked first in Faculty of Engineering

Professional Qualifications:

· PEng (Alberta)

Positions Held:

2000-present **President**, HBA Specto Incorporated, Canada

1991-present **Assistant, Associate then Full Professor**, University of Calgary, Canada

1990-1991 **Project Manager**, Korve Engineering, USA

1988-1990 Senior Transport Engineer and then Project Manager, ME&P, England

1983-1988 **Assistant Professor**, University of Alberta, Canada

1981-1981 **Analysis Engineer**, City of Edmonton, Canada

Summary:

International expert in transportation demand modeling and land use transport interaction modeling; 25+ years experience including practical transportation and activity-based model development and use (primarily in Canada, USA and UK) and teaching and research concerning modelling as university professor; advanced aggregate models; micro-simulation techniques; stated preference methods; spatially-disaggregate input-output models; spatial computable general equilibrium models.

Selected Awards and Scholarships:

Civil Engineering Teaching Excellence Award, Churchill Society Postgraduate Scholarship, Jessie E Paull Memorial Scholarship, Canadian Society for Civil Engineering Award, Vardon Memorial Scholarship, Undergraduate Research Scholarship, DeLeuw Cather of Canada Scholarship, APEGGA Gold Medal in Civil Engineering, Henry Birks Gold Medal in Engineering, McDougall Memorial Scholarship, American Society for Testing and Materials Prize, Alberta Undergraduate Scholarship, Board of Governors Prize in Engineering, Amoco Oil Company Scholarship, Calgary Power Memorial Scholarship

Teaching Experience – Selected Courses Taught:

Transportation System Modelling for 4th year Civil Engineering students; **Land Use Modelling** for 4th year Civil Engineering students; **Transportation Planning** for 3rd year Civil Engineering students; **Civil Engineering Aspects of Sustainable Communities** for 4th year Engineering students; **Probability and Statistics** for 2nd year Engineering students; **Economic Analysis of Transportation** for Economics students; **Transport Economics** for Civil Engineering grad students; **Theory of Transport Demand Modelling & Practice of Transport Demand Modelling** for Civil Engineering grad students; **Transport Land Use Interaction Analysis** for Civil Engineering grad students; **Computer Models in Transportation Engineering** for Engineering grad students; **Transportation Engineering** for 3rd & 4th year Civil Engineering students; **Town Planning** for 4th year Civil Engineering students

Selected Private Consulting Clients:

British Rail and European Passenger Services; City of Calgary; City of Edmonton; Alberta Transportation; SACOG (Sacramento); MAG (Phoenix); San Francisco City and County; DRCOG (Denver); SEMCOG (Detroit); NOACA (Cleveland); BMC (Baltimore); SCAG (Los Angeles); SANDAG (San Diego); ARC (Atlanta); Oregon DoT; Ohio DoT; California DoT (Caltrans); Transport Canada; California Air Resources Board; Sweden; Chile; UKDpT

Selected Private Consulting Projects:

- Designed, developed and implemented the California Statewide Travel Demand Model (CSTDM) model system, which is a model of transportation demand with explicit representation of five markets segments: short distance personal travel, long distance personal travel, short distance commercial vehicle movements, long distance commercial vehicle movements, external vehicle trips – using micro-simulation and activity-based approaches; for Caltrans 2009-2010 in collaboration with University of California at Davis
- Advised and assisted in application of the CSTDM including developing a baseline trend set of forecasts and analysis of high speed rail and other policy options; for Caltrans 2011-2012 in collaboration with University of California at Davis and Cambridge Systematics Inc
- Advised and assisted in updating the CSTDM including re-specification and re-estimation of land distance personal travel model components; for Caltrans 2012-2013 in collaboration with Cambridge Systematics Inc
- Advised and assisted in the design and development of a regional transportation model, including all forms of household person movements, with explicit representation of activity location choice, peak spreading, endogenous

John Douglas Hunt

Resume 2013

auto occupancy, mode choice, time of day choice, destination choice, and trip generation elastic with respect to travel conditions, also providing aggregate emissions estimates and consistent measures of traveller benefits; also helped plan development of model; for City of Calgary 1998-2013 and for City of Edmonton 1994-2010

- Advised on Statewide Household Travel Survey in California; for Caltrans 2010-2012
- Advised and assisted in the development of a PECAS spatial economic model of California, for Caltrans 2007-2011, of Los Angeles; for Southern California Association of Governments 2008-2011; of San Diego; for San Diego Association of Governments 2008-2013; of Sacramento; for Sacramento Area Council of Governments 2005-2010 and 2012-2013; of San Francisco Bay Area; for Association of Bay Area Governments 2010; of Atlanta; for Atlanta Regional Commission, 2005-2013 of Baltimore, for the Baltimore Metropolitan Council, 2008-2013
- Advised and assisted in design, development and application of a model of commercial vehicle movements – using a tour-based micro-simulation approach; for City of Calgary 2003-2010 and City of Edmonton 2005-2010
- Designed and provided advice in the development of three successive generations of statewide land use transport interactions models of Oregon; for the Oregon DoT, in collaboration with Parsons Brinckerhoff 1998-2006
- Advised in the development of investment-grade forecasts of the ridership and resulting farebox revenue for the Tel Aviv Light Rail Transit Red Line; for the Tel Aviv NTA Corporation in collaboration with PBConsult 2005
- Provided guidance regarding the collection and analysis of data concerning commercial and related freight movements in Canada; for Transport Canada 2004
- Advised and assisted in the design and development of a weekend travel model as part of City of Calgary transport land use environment system model; for City of Calgary 2003-2006
- Advised and assisted in the development of forecasts of future road traffic volumes for use in the design of the Calgary Region Ring Road; for the Province of Alberta Transportation Department 2004-2006
- Acted as special advisor to British Rail Board; work included advise in demand analysis for project evaluation, auditing previously developed models, calibrating new models and providing advice in the development of models concerning the demand for international rail services and the location of rail terminals in South-East England as part of Channel Tunnel system; for British Rail, Union Railways and European Passenger Services 1992-1996

Recent Selected Publications:

Author or co-author of over 100 publications including:

- Basu D and **Hunt JD**, in press, Valuing of attributes influencing the attractiveness of suburban train service in Mumbai city: A stated preference approach. *Transportation Research A*.
- Rodier CJ, Abraham JE, Dix BN and **Hunt JD**, in press, Equity analysis of land use and transport plans using an integrated spatial model. *Transportation Research Record*.
- Zhong M, Wu C and **Hunt JD**, 2012, Gender Differences in Activity Participation, Time-of-Day and Duration Choices: New Evidence from Calgary. *Transportation Planning and Technology* 35(2):175-190.
- Sarkar S, Tay R and **Hunt JD**, 2012, Logistic Regression Model of Risk of Fatality in Vehicle-Pedestrian Crashes on National Highways in Bangladesh. *Transportation Research Record* 2264:128-137.
- **Hunt JD**, Brownlee AT, Stefan JK and McCoy MC, 2011, A Model of the Statewide California Transportation System. *Proceedings of the 12th International CUPUM Conference*, Lake Louise AB, Canada, July 2011.
- Circella G, Linesch NJ, Brownlee AT, Stefan KJ and **Hunt JD**, 2011, The Use of Traffic Count Databases in the Validation Process of the California Statewide Travel Demand Model. *Proceedings of the 12th International CUPUM Conference*, Lake Louise AB, Canada, July 2011.
- Circella G, Stefan KJ, **Hunt JD**, Brownlee AT and McCoy MC, 2011, Simplified Model of Local Transit Services. *Preprints for the 90th Annual Transportation Research Board Conference*, Washington DC, USA, January 2011.
- Mir MS, Krishna Rao KV and **Hunt JD**, 2010, Space development modeling of urban regions in developing countries. *Journal of Urban Planning and Development* 136(1):75-85.
- Weidner TJ, Knudson B, Picado R and **Hunt JD**, 2009, Sensitivity testing with Oregon Statewide Integrated Model. *Transportation Research Record* 2133:109-122.
- Stefan KJ, **Hunt JD**, McMillan JDP and Farhan A, 2007, Development of a fleet allocator model for Calgary. *Transportation Research Record* 1994:89-93.
- **Hunt JD** and Stefan KJ, 2007, Tour-based microsimulation of urban commercial movements. *Transportation Research* 41B(9):981-1013.
- Abraham JE and **Hunt JD**, 2007, Random utility location, production and exchange choice; additive logit model; and spatial choice microsimulations, *Transportation Research Record* 2003:1-6.
- **Hunt JD** and Abraham JE, 2005, Design and implementation of PECAS: A generalized system for the allocation of economic production, exchange and consumption quantities. In *Integrated Land-Use and Transportation Models: Behavioural Foundations*, Editors: M Lee-Gosselin and ST Doherty, Elsevier Science, Maryland Heights MO, USA.
- **Hunt JD**, Kriger DS and Miller EJ, 2005, Current operational urban land-use–transport modelling frameworks: A review. *Transport Reviews* 25:1-48.

University Education:

2000 **PhD** Transportation Engineering, University of Calgary, Canada
 1995 **MSc** Transportation Engineering, University of Calgary, Canada
 1988 **BSc** with distinction in Electrical and Computer Engineering, University of Calgary, Canada

Professional Qualifications:

· PEng (Alberta)

Positions Held:

2000-2013 **Secretary-Treasurer**, HBA Spectro Incorporated
 1994-2007 **Self Employed Transportation Engineer**, (TJ Modelling Ltd)
 2000-2007 **Post Doctoral Fellow**, University of Calgary Department of Civil Engineering
 1988-1992 **Engineer (Instrumentation, Pipeline Simulation Software)**, NOVA Corporation

Summary:

Develops and calibrates models to provide computer simulations that are both accurate and practical for analyzing policy and scenarios. Focuses on understanding and measuring the relationship between the transportation system and the larger community, and modeling these relationships in land use-transport interaction models. Expert on survey techniques for understanding preferences in modeling, and measuring trade off rates and predicting behavior. Develops software and mathematical techniques.

Selected Awards and Scholarships:

1992-1994 NSERC postgraduate scholarship
 1996-1998 NSERC postgraduate scholarship

Teaching Experience - Courses Taught:

Transportation System Modelling for 4th year Civil Engineering students; **Land Use Modelling** for 4th year Civil Engineering students

Selected Private Consulting Clients:

ARC (Atlanta Regional Commission), British Rail and European Passenger Services; City of Calgary; City of Edmonton; Alberta Transportation; SACOG (Sacramento); BMC (Baltimore); SCAG (Los Angeles); SANDAG (San Diego); Oregon DoT; Ohio DoT; California DoT (Caltrans); California Air Resources Board

Selected Projects:

- PECAS land use model of San Diego. Lead role; for San Diego Association of Governments 2008-2012
- PECAS spatial economic model of California. Lead role; for Caltrans 2007-2011
- PECAS land use transport model of the Baltimore Metropolitan Area. Lead role; for Baltimore Metropolitan Council 2005-2012
- PECAS spatial economic model of Los Angeles. Lead role; for Southern California Association of Governments 2008-2012
- PECAS land use model of Atlanta. Lead role; for Atlanta Regional Commission 2007-2012
- Tour-based microsimulation model of personal weekday travel as part of City of Calgary transport model. Part of the team; for City of Calgary 2006-2008
- Model of commercial vehicle movements – based on a tour-based micro-simulation approach. Lead software developer and part of the analysis and theoretical development team; for City of Calgary 2004-2007
- Development of four successive generations of statewide land use transport interactions models of Oregon, incorporating novel representations and micro-simulation techniques. Part of the team; for the Oregon Department of Transportation, in collaboration with Parsons Brinckerhoff Quade & Douglas 1998-2011

Selected Publications:

- **Abraham, J.E., J.D. Hunt, G. Fuenmayor**, 2013, Policy Analysis Using the PECAS Framework, presented at the Transportation Research Board Annual Meeting, January 2013
- **Abraham, J.E., K.J. Stefan, J.D. Hunt**, 2012, Population Synthesis Using Combinatorial Optimization at Multiple Levels, presented at the Transportation Research Board Annual Meeting, January 2012
- **Abraham, J.E. and J.D. Hunt**, 2010, Household Behaviour in the Oregon2 Model, in F. Pagliara et al (eds.) *Residential Location Choice*, Springer-Verlag, 181-208.
- **Abraham, J.E., J.D. Hunt, M.J. Clay**, 2009, Calibrating a Synthetic Built Form Generator, *Transportation Research Record* **2133**:100-108

John E Abraham

Resume 2013

- Zhong, M, J.D. Hunt and J.E. **Abraham**, 2007, "Design and Development of a Statewide Land Use Transport Model for Alberta", *Journal of Transportation Systems Engineering and Information Technology*, **7**(1) 79-91
- **Abraham**, J.E., J.D. Hunt, 2007, Random utility location/production/exchange choice, the additive logit model, and spatial choice microsimulations, *Transportation Research Record* **2003**:1-6
- Hunt, J.D. and J.E. **Abraham**, 2007, Influences on Bicycle Use, *Transportation* **34**(4):453-470.
- **Abraham**, J.E., T.J. Weidner, J. Gliebe, C. Willison and J.D. Hunt, 2005, Three Methods for Synthesizing Base year Built Form for use in Integrated Land Use-Transport Models, *Transportation Research Record* **1902**:114-123
- Hunt, J.D. and J.E. **Abraham**, 2005, Design and implementation of PECAS: A generalized system for the allocation of economic production, exchange and consumption quantities, in Lee Gosselin and Doherty (eds.) *Foundations of Integrated Land-Use And Transportation Models*, Elsevier, 253-274
- **Abraham**, J.E. and J.D. Hunt, 2005, Dynamic sub-model integration using an offer-accept discrete event simulation, *Networks and Spatial Economics* **5**:129-146
- Miller, E.J., J.D. Hunt, J.E. **Abraham** and P. Salvini, 2004, Microsimulating urban systems, *Computers, Environment and Urban Systems* **28**:9-44
- **Abraham**, J.E. and J.D. Hunt, 1999, Firm Location in the MEPLAN model of Sacramento, *Transportation Research Record* **1685**:187-198

PING CHANG

Education

University of California, Berkeley

M.C.P., Regional Planning, 1986

Ph.D. Candidate, Major: Transportation, Minors: Economics and Statistics, 1983

M. S., Transportation Engineering, 1978

National Taiwan University, Taipei

B.S., Civil Engineering, 1975

Professional Experience

Southern California Association of Governments (SCAG), Los Angeles, CA

Program Manager, Assessment and Monitoring, 1/2010 – present

Deputy Director, Planning Methods and Assessment, 7/2008 – 12/2009

Program Manager, Assessment and Monitoring, 5/2005 – 6/2008

Acting Manager, Data and Monitoring, 4/2004 – 4/2005

Senior Regional Planner – Assessment and Monitoring, 11/2001 – 3/2004

For almost 11 years of service at SCAG, Mr. Chang has been the agency's lead staff in assessment and monitoring. He continued this role even during the years he assumed the positions as Acting Manager and Deputy Director. Mr. Chang has received awards and recognitions at the national and state levels on assessment and monitoring related work.

His assessment and monitoring accomplishments at SCAG includes the following:

- Performance Measures Development
 - Successfully expand the Performance Measures for the 2012-2035 RTP/SCS to address emerging policy issues with respect to, for example, Location Efficiency, and Health and Safety
- Regional Assessment and Monitoring
 - Prepared six State of the Region Reports and received two awards (Assessment issue areas in the State of the Region include: demographics, economy, housing, transportation, energy, air quality, water resources, solid waste, climate change, education and public safety)
- Transportation and Land Use Monitoring and Assessment
 - Conducted the State of the Commute Monitoring
 - Conducted the State of Telework Monitoring
 - Managed the Gold Line Corridor Assessment
 - Managed the Assessment of Land Use Models

- Managed the Highway Performance Monitoring System (HPMS) Program
- Local Profiles
 - Managed both the inaugural 2009 release and the 2011 updates
 - Currently managing the 2013 updates
- Economic Assessment
 - Conducted the Job and Wage Dynamics Assessment
- Growth Monitoring
 - Currently initiating the development of a GIS-based Growth Monitoring System for the SCAG region
- Health Impact Assessment (currently preparing a grant proposal)
- Active Transportation Safety Assessment (currently leading an In-house Working Group)

South Florida Regional Planning Council, Hollywood, FL

Principal Planner, 10/1991 - 11/2001

Senior Planner, 2/1988 - 9/1991

Regional Planner, 10/1986 - 1/1988

Prior to joining SCAG, Mr. Chang worked with South Florida Regional Planning Council (SFRPC) for more than 15 years. During these 15 years, he involved in a broad range of *policy development, performance assessment, growth management, transportation/land use and economic development planning* activities for the region encompassing Miami-Dade, Broward and Monroe counties, the largest metropolitan region in Florida. Highlights of his accomplishments include the following.

- Program Manager, Strategic Regional Policy Plan Development, Evaluation and Update

Between 1993 and 2001, Mr. Chang was the Program Manager of the Strategic Regional Policy Plan, a plan to move South Florida toward smart growth and community sustainability. During 1993-1995, leading a team of eight staff members, Mr. Chang designed and managed the process for developing a new Strategic Regional Policy Plan for South Florida. The SRPP addressed land use, transportation, economic development, affordable housing and natural system issues. Mr. Chang managed six technical workgroups for the SRPP development process, one of the most collaborative policy development activities in South Florida involving more than 200 individuals from 130 organizations throughout the process in workgroups. The process included more than 40 technical workgroup meetings and public workshops. With an extensive collaborative process, the new Strategic Regional Policy

Plan was adopted in August 1995. Mr. Chang had since made numerous conference presentations regarding regionalism and the Strategic Regional Policy Plan.

- Program Administrator, Local Comprehensive Plan/Amendment Review

For four years (1988-1992), Mr. Chang was the Council's Program Administrator for Local Government Comprehensive Plan review. He worked with seven staff members in reviewing comprehensive plans/amendments of the 60 local governments in South Florida for consistency with the Regional Plan. Mr. Chang worked with local planning staff in resolving outstanding issues regarding, for example, infrastructure planning and intergovernmental coordination. From 1992 to 1994, he continued to provide oversight on the comprehensive plan review program.

- Lead Transportation Planning Staff

For all the 15 years with the SFRPC, Mr. Chang was the Council's lead Transportation Planning Staff. He performed transportation impact assessment for more than 80 Developments of Regional Impact consisting of, for example, office, retail, residential and mixed-use projects. From 1991 to 1995, Mr. Chang staffed the Council's Regional Transportation Committee to enhance the coordination among the MPOs, FDOT, transit and air quality agencies, and transportation research communities. For four years (1993-1997), Mr. Chang oversaw the Council's Clean Cities Coalition Program to promote the use of alternative, cleaner fuel vehicles.

Awards and Recognitions

2011 SCAG Employee Peer Recognition Award (for "Leadership and Collaboration")

2007 International Communicator Award (for the State of the Region)

2006 PRISM Award (for the State of the Region)

2004 U.S. GAO Report to the Congress

Recognized the State of the Region as one of the few regional initiatives in the U.S. containing a Comprehensive Indicators System ("*Informing Our Nation: Improving How to Understand and Assess the USA's Position and Progress*")

National and State Committees

TRB Committee on Performance Measurement (appointed for 2007-2010)

California Strategic Growth Council - California Regional Progress Report Advisory Committees

2007, 2010 and (forthcoming) 2013 Reports (published every three years)

Regional Representative, State Task Force on Housing Siting and Near Roadway Air Quality, 2012 -

Selected Professional Study Reports

(The reports listed below are *in addition to* the numerous impact assessment reports for reviewing proposed development projects and comprehensive plan amendments)

1. *Climate Change and the Future of Southern California*, July 2009 (Project Manager and Editor)
2. *The State of the Region 2002, 2003, 2004, 2005, 2006 and 2007* (Principal Author)
3. *Uniform Fiscal Impact Analysis*, Prepared for the Florida Governor's Working Group on Fiscal Impact, March 2001. (Principal Author)
4. *Community Audit: Developing an Integrated Regional Strategy for Workforce Development*, a Grant Proposal to the U.S. Department of Labor, November 2000. (Author)
5. *Evaluation and Appraisal Report of the Strategic Regional Policy Plan for South Florida - A Regional Indicators and Trends Report*, March 2000. (Project Manager)
6. *Community Leadership and Capacity Building for Eastward Ho!* A Grant Proposal Awarded by the MacArthur Foundation, November 1998. (Author)
7. *Conceptual Plan for the Human System*, Governor's Commission for a Sustainable South Florida, October 1998, (Author of the Transportation Chapter)
8. *RPC Coordination Framework: Enhancing the Sustainability of South Florida*, June 1997. (Project Manager and Principal Author)
9. *Human Service Delivery Models: An Issues and Options Paper*, December 1996. (Author)
10. *Eastward Ho! Revitalizing Southeast Florida's Urban Core*. July 1996. (Project Team Member)
11. *Tools and Incentives for Urban Revitalization*, May 1996. (Author)
12. *High Speed Rail Review*, Final Report, January 1996. (Author)
13. *Strategic Regional Policy Plan for South Florida*, August 1995. (Project Manager)
14. *Evaluation and Appraisal Report of the Regional Plan for South Florida*, June 1993. (Project Manager)
15. *Indicators of Social and Economic Disparities in South Florida*, Funded by the Ford Foundation, 1991. (Co-Author)
16. *Northwest Dade/Southwest Broward: A Sub-regional Study*, 1990. (Project Team Member)
17. *Funding the Future*, March 1989. (Project Manager and Co-Author)
18. *Looking to the Future*, 1988 (Project Team Member)

SUNGBIN CHO

EDUCATION

- Dec. 2006 **PhD** in Planning. School of Policy, Planning and Development, University of Southern California. Los Angeles, CA.
- Feb. 1991 **Master** of Urban Planning (Transportation Planning), Graduate School of Environmental Studies, Seoul National University, Seoul, Korea. Dissertation : A Study on Micro-Dynamic Assignment Model
- Feb. 1988 **Bachelor** of Civil Engineering, College of Engineering, Seoul National University, Seoul, Korea.

EXPERIENCE

- Feb. 08 – Present **Program Manager**, Southern California Association of Governments (Integrated Transportation – Land use model development)
- Sep. 01 – Jan. 08 **Technical Manager**, ImageCat, Inc., Long Beach California
- Sep. 96 – Aug. 01 **Research Associate**, School of Policy, Planning, and Development, University of Southern California.

PROFESSIONAL INTERESTS

Integrated Land Use and Transportation Model : Develop and implement multi-disciplinary, integrated models of regional economy, transportation, and land use model. Related parcel-based land use data development. Application of microscopic land use information of activity allocation.

Transportation and Economic Modeling : Develop / program models for traditional 4-step transportation system analysis, Minimum path module (Florian's Dual-Simplex Algorithm, the Origin-based Algorithm), Assignment-Distribution-Input/Output combined model, A variable-demand user equilibrium assignment (a.k.a. Evans' model), Micro traffic simulation model, Multi-regional computable general equilibrium model.

Transportation Policy Analysis : Design and perform projects relating travel demand forecast, cost-effectiveness analysis, economic impact analysis, and distributional impact analysis, by using proprietary software packages.

Medium-Scale Database Development : Develop database with regional attributes in GIS and relational database system, using Python, PostgreSQL + PostGIS, and other commercial software packages.

Development of a Micro Simulation Tool : Develop microscopic traffic assignment model (based on car-following models) using Java multi-thread. Expand the model to a package by augment its functionality

JUAN M. MATUTE

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562-546-2831 • jmatute@ucla.edu

CLIMATE AND PLANNING EXPERIENCE

UCLA LUSKIN CLIMATE CHANGE INITIATIVE

Los Angeles, CA
July 2009-Present

Program Director

- Founding director of the Initiative, which identifies and supports research needed to strengthen local governments' capacity to reduce greenhouse gas emissions and adapt to climate change. The center takes an interdisciplinary approach to climate change solutions, drawing from the fields of management, policy, planning, law, engineering, and science to develop effective policy alternatives for climate-related challenges facing local governments.
- Lecturer in UCLA Institute of the Environment, teaching a two-quarter project-based course to develop a carbon neutrality plan for the City of Hermosa Beach.
- Climate change research experience related to measuring and attributing greenhouse gas emissions from transportation to local and regional governments, local government climate action planning, integrating regional land use-transportation-emissions models for more accurate greenhouse gas measurement, evaluating the incongruity of project-level and regional environmental impact assessments, and the climate-transportation-land use connection.
- Transit research experience related to strategic planning for transit in a resource-constrained environment, cost-effective implementation measures, and institutional knowledge transfer.
- Other transportation research experience on electric vehicle markets, electric vehicle service equipment, and neighborhood parking management strategies.
- Affiliated with the UCLA Ralph & Goldy Lewis Center for Regional Policy Studies, the UCLA Institute of Transportation Studies, the Center for Sustainable Urban Systems at the UCLA Institute of the Environment and Sustainability, and the Meyer & Renee Luskin Center for Innovation.

THE CLIMATE REGISTRY

Los Angeles, CA
June 2008-March 2009

Policy Intern

- Created a package of tools to assist local governments in reporting greenhouse gas emissions from operations to The Climate Registry in accordance with the Local Government Operations Protocol adopted by the California Air Resources Board. Tools included a guide of best practices for the inventory process and an excel-based activity data management system.
- Wrote an extensive white paper on global emissions allowance tracking systems in the context of The Registry's core capacities to inform a board decision to support the Western Climate Initiative's cap and trade scheme.

BUSINESS EXPERIENCE

GOLDEN BOY PARTNERS

Summer Associate

El Segundo, CA
June 2007-August 2007

- Performed comprehensive financial analyses of three infill residential development sites in the Los Angeles area. Conducted preliminary development analysis for dozens of urban infill properties.
- Developed and presented a 3-year strategic plan for new acquisitions and developments given the firm's urban Latino positioning within a changing Los Angeles real estate market.

THE NATIONAL CENTER FOR CRISIS AND CONTINUITY COORDINATION (NC4)

Solutions Manager

El Segundo, CA
May 2004-August 2006

- Developed, implemented, and managed technology solutions for NC4's External Situational Awareness product line, including integrated information overlays in Microsoft Virtual Earth and Google Earth, a wiki site to capture institutional knowledge, and tools for tracking analyst and team performance.
- Expanded NC4's External Situational Awareness service from domestic coverage with four analysts to global coverage staffed by 17 analysts in two 24/7 command centers.
- Envisioned and managed the development an intelligent, real-time news collection and analysis tool, the implementation of which resulted in a 50% gain in relevant information and a 70% increase in analyst news-gathering productivity.
- Created new departmental workflow guidelines and supervised growth as company expanded from 25 to 120 employees.

EDUCATION

UCLA ANDERSON SCHOOL OF MANAGEMENT

M.B.A., Strategy and Finance

Los Angeles, CA
2009

UCLA SCHOOL OF PUBLIC AFFAIRS

M.A., Urban Planning, Concentration in Transportation, Land Use, and Climate Change

- *Selected Research Projects:* Used original data to perform a quantitative analysis of how retail rooftop solar affects consumer willingness to pay; conducted research on the integration of building-level carbon offsets in voluntary and compliance-based carbon markets.
- *Leadership:* UCLA Graduate Students Association Sustainable Resource Center Director, Bruins for Traffic Relief Graduate President, Net Impact Chapter President, 2008 California Clean Innovation Conference Comptroller, Latino Management Student Organization Vice President for Finance

- *Certificate:* Leaders in Sustainability

POMONA COLLEGE

B.A., International Relations, Minor in Economics

Claremont, CA

2004

- *Honors:* Distinction in Senior Thesis: "The North-South Divide Within Mexico: Why Oaxaca Failed to Converge During NAFTA"

PUBLICATIONS

Chester, Mikhail, Juan Matute and Paul Bunje. *Life-Cycle Assessment for Transportation Decision-making*. California Energy Commission. Forthcoming, 2013.

DeShazo, J.R., and Juan Matute. "The Local Regulation of Climate Change." *Oxford Handbook of Urban Planning*. Oxford University Press. 2012.

Matute, Juan, and J.R. DeShazo. *Progress Report: Climate Action Planning in Southern California*. UCLA Luskin Center for Innovation, 2012.

Matute, Juan, Stephanie Pincetl, Julia Campbell, Mikhail Chester, Bill Eisenstein, Paul Bunje. *Shifting Perceptions, Shifting Modes: Perceived Opportunities and Barriers to Increasing Transit Ridership in California*. California Energy Commission. 2012.

Matute, Juan, Allison C. Yoh, Melanie Curry, Shira Bergstein, Julia Campbell, Florentina Craciun, Carter Rubin, and Brian Taylor. *One State, Many Visions: Transit Stakeholder Views on Planning for the Future of California's Mobility*. California Department of Transportation. 2012.

DeShazo, J.R., and Juan Matute. *Measuring Progress towards Transportation GHG Goals: Required Actions for Successful SB 375 Implementation*. UCLA Luskin Center for Innovation. 2010.

Matute, Juan. *Improving the Capability of Local Governments to Accurately Calculate Greenhouse Gas Emissions from Transportation, Facility, & Utility Operations*. Master's Thesis. Los Angeles, CA: UCLA Department of Urban Planning. 2009

WORKING PAPERS

Matute, Juan. *California Policies to Reduce Transportation GHGs*. Policy Brief, Los Angeles, CA: UCLA Luskin Center for Innovation, 2010.

Matute, Juan. *Methods for Modeling GHG Emissions from Transportation*. Policy Brief, Los Angeles, CA: UCLA Luskin Center for Innovation, 2010.

Matute, Juan. *Transportation GHG Inventory Methodologies for Nations, Local Governments, and Entities*. Policy Brief, Los Angeles, CA: UCLA Luskin Center for Innovation, 2010.

Matute, Juan. *Use of EMFAC and Fuel Use Data to Create Transportation GHG Inventories in California*. Policy Brief, Los Angeles, CA: UCLA Luskin Center for Innovation, 2010.

Matute, Juan. "Allowance Tracking Under Greenhouse Gas Cap and Trade Programs." Internal strategy document for The Climate Registry, 2009.

OTHER PROJECT DELIVERABLES

TransitWiki.org – a platform for the identification and dissemination of best practices for California Transit Agencies. Funded by Caltrans Division of Mass Transportation. Available at www.transitwiki.org

Southern California Climate Action Database – a web-based repository of platform for the identification and dissemination of best practices for California Transit Agencies. Funded by Caltrans. Available at <http://kaizenenergyllc.com/climate/CAD/index.html>

PROFESSIONAL SERVICE

Vice-Chair for Policy, Los Angeles Section of the American Planning Association

Follow state and local planning-related legislation and consult with membership about registering organizational support or opposition. Consult members on implications of new policy.

Chair, Transportation Technical Advisory Committee, ICLEI USA Greenhouse Gas Community Protocol.

Developing next generation of guidance to measure and attribute local government emissions from passenger vehicles. Protocol will be published in September, 2012

Member, Technical Advisory Committee, Energy Baselines – the Urban Metabolism of Los Angeles County.

Advising on methodological and accounting issues for ambitious life-cycle assessment of emissions and materials flows for the U.S.'s largest county.

Member, Technical Advisory Committee, Los Angeles Regional Collaborative for Climate Action and Sustainability

Primary client-side technical advisor for Los Angeles County's first GHG emissions inventory.

Member, Technical Advisory Committee and Transportation Systems Investment Working Group

Southern California Association of Governments. Southern California Climate and Economic Development Project.

PROFESSIONAL MEMBERSHIP

Member, American Institute of Certified Planners

Member, American Planning Association

EDUCATION

	Post-doctoral Researcher, University of California, Berkeley Institute of Transportation Studies	August 2008 to July 2011
	Guest Researcher, Lawrence Berkeley National Laboratory International Energy Studies Group	October 2010 to July 2011
Ph.D.	University of California, Berkeley Civil and Environmental Engineering, Civil Systems Program	August 2008
M.S.	University of California, Berkeley Civil and Environmental Engineering, Civil Systems Program	May 2005
M.S.	Carnegie Mellon University Civil and Environmental Engineering, Civil Infrastructure Systems Program	May 2003
B.S.	Carnegie Mellon University Double major in Civil and Environmental Engineering & Engineering and Public Policy	May 2002

TEACHING

Urban Infrastructure Anatomy and Sustainable Development – Fall 2012 at Arizona State University.
Life Cycle Assessment for Civil Systems – Spring 2012 at Arizona State University.
Industrial Ecology and Design for Sustainability – Spring 2012 at Arizona State University.
Energy Use and Climate Change – Taught from 2009 to 2011 at UC Berkeley, Extension.
Transportation Sustainability and Life-cycle Assessment – Taught from 2009 to 2011 at UC Berkeley, Extension.

SPEAKING INVITATIONS

Environmental Tradeoffs in Air and High-speed Rail Transportation - May 2012
National Academies, Transportation Research Board, Airport Cooperative Research Program
Precautionary Purchasing and California EPA's Life Cycle Thinking for Toxic Substance Control - February 2012
Arizona State University, International Conference on Sustainability Science
Life Cycle Assessment of Public Transit Investment and California's Senate Bill 375 - November 2011
Intelligent Transportation Systems of America
Meeting Senate Bill 375 Goals with Life Cycle Assessment Measures for Public Transit - November 2011
California Energy Commission Brownbag Seminar
Lessons Learned in an Early Academic Researcher - October 2011
Carnegie Mellon University, Civil and Environmental Engineering, Friday Seminar Series
Human Health, Environmental, and Climate Change Impacts in Transportation Life Cycle Assessment – Oct. 2011
University of California, Los Angeles' Transportation and Land Use Conference
Meeting Senate Bill 375 Goals with Life Cycle Assessment Measures for Public Transit - October 2011
Arizona's Valley Forward Association
Life Cycle Assessment of Public Transit Investment and California's Senate Bill 375 - September 2011
San Francisco Municipal Transportation Authority

JOURNAL REVIEWING

Manuscript reviewer for:

- Environmental Science & Technology (a publication of the American Chemical Society)
- Journal of Industrial Ecology (a publication of the International Society for Industrial Ecology)
- Journal of Infrastructure Systems (a publication of the American Society of Civil Engineers)
- Journal of Environmental Management (an Elsevier publication)
- Environmental Research (an Elsevier publication)
- Resource, Conservation, & Recycling (an Elsevier publication)
- Transportation Research Part E (an Elsevier publication)
- Environmental Pollution (an Elsevier publication)
- Energies (an MDPI publication)
- International Journal of Life Cycle Assessment (a Springer publication)
- Journal of Transportation Engineering (an ASCE publication)

RESEARCH INTERESTS

Impact Assessment and Environmental Policy: Infrastructure Systems, Sustainable Communities, and Transportation

Transportation policy has typically been constructed to reduce impacts at the vehicle's tailpipe. While this approach has provided improvements, a more thorough understanding of vehicle, infrastructure, and energy production components, as well as their interconnections, is needed when crafting transportation policy. The energy requirements and emissions of the many components needed to facilitate vehicle travel have far-reaching effects beyond the tailpipe. Human health and environmental impacts occur in the global supply chain as the result of local policy. And these impacts can be minimized or avoided with policy planning that acknowledges indirect and supply chain effects. I have explored the indirect and supply chain impacts of transportation policy in several research projects:

- **Environmental Assessment of Passenger Transportation Should Include Infrastructure and Supply Chains**
This project illustrates that the bulk of human health and environmental impacting pollutants in the transportation life-cycle (including vehicle production, infrastructure provision, and energy production) may occur in the global supply chain, far from where driving occurs. While regulatory policies have had significant impact reductions to transportation emissions at the tailpipe, significant reductions are still feasible by acknowledging key global supply chain components.
- **Life-cycle Assessment of High-speed Rail: the Case of California**
The deployment of new infrastructure offers an opportunity to mitigate human health and environmental impacts in the planning phase. The assessment of the proposed California High-Speed rail showed where in the supply chain impacts are most likely to occur and discussed the need to co-investment in clean technology strategies across both the train system and interconnected services (i.e., electricity generation and material processing).
- **Systems-oriented Assessment for Sustainable Communities**
California's Senate Bill 375 is one of the first policies to attempt to link urban planning with transportation planning in an effort to reduce sprawl and its impacts. A California Energy Commission report was written to illustrate the need for more comprehensive environmental accounting and impact assessment in policy evaluation. In follow up projects (one funded and one in discussion), urban energy infrastructure in California will be evaluated to assess the indirect and supply chain effects of decisions and the corresponding health, environmental, and social implications.
- **Impact Assessment and the Transportation Supply Chain: External Costs of Travel**
The human health and environmental externalities of passenger transportation are real costs that if internalized by the trip taker may change behavior. Several research projects have estimated these costs including both emissions from the tailpipe and the supply chain. A comparison of San Francisco, Chicago, and New York City showed that the external health costs of an automobile trip can be as large as €64 and public transit \$1.30, with the majority of the costs often occurring outside of the city where travel occurs. A similar study was performed for the National Research Council's *Hidden Costs of Energy* committee estimating that external costs average around €2-3 per vehicle mile relative to the roughly €30 ownership and operation out-of-pocket costs. Currently, a research project is being executed to evaluate the appropriate subsidy, if any, that can be instituted by policy makers to encourage electric vehicle adoption. With a potential to reduce impacts from the vehicle tailpipe and improve energy security, the total costs of traditional and electric vehicles should be considered to accurately value the technologies.

PEER-REVIEWED JOURNAL PUBLICATIONS

Avoiding Unintended Tradeoffs by Integrating Life-cycle Impact Assessment with Urban Metabolism

Mikhail Chester, Stephanie Pincetl, and Braden Allenby

Current Opinion in Environmental Sustainability, 4(4), 2012, doi: 10.1016/j.cosust.2012.08.004.

Getting the Most Out of Electric Vehicle Subsidies

Jeremy Michalek, Mikhail Chester, and Constantine Samaras

Issues in Science and Technology, Spring 2012.

High-speed Rail with Emerging Automobiles and Aircraft to Reduce Environmental Impacts in California's Future

Mikhail Chester and Arpad Horvath

Environmental Research Letters, 7 (3), Institute of Physics (July 2012).

A Framework for Environmental Assessment of Carbon Capture and Storage Systems

Roger Sathre, Mikhail Chester, Jennifer Cain, and Eric Masanet

Energy 37(1), 2012, doi:10.1016/j.energy.2011.10.050.

Costs of Automobile Air Emissions in U.S. Metropolitan Areas

Yeganah Mashayekh, Paulina Jaramillo, Mikhail Chester, Chris Hendrickson, and Chris Weber

Transportation Research Record 2233, Transportation Research Board, 2011, doi:10.3141/2233-14.

Valuation of Plug-in Vehicle Life-cycle Air Emissions and Oil Displacement

Jeremy Michalek, Mikhail Chester, Paulina Jaramillo, Constantine Samaras, C.S. Norman Shiau, and Lester Lave

Proceedings of the National Academy of Sciences (PNAS), 108(40), 2011, doi:10.1073/pnas.1104473108.

Parking Infrastructure: Energy, Emissions, and Automobile Life-cycle Environmental Accounting

Mikhail Chester, Arpad Horvath, and Samer Madanat

Environmental Research Letters, 5(3), Institute of Physics, 2010, doi:10.1088/1748-9326/5/3/034001.

Life-cycle Assessment of High-speed Rail: The Case of California

Mikhail Chester and Arpad Horvath

Environmental Research Letters, 5(1), Institute of Physics, 2010, doi:10.1088/1748-9326/5/1/014003.

This research was featured on Environmentalresearchweb and the UK Guardian.

Life-cycle Energy and Emissions Footprints of Passenger Transportation in Metropolitan Regions

Mikhail Chester, Arpad Horvath, and Samer Madanat

Atmospheric Environment, 44(8), 2010, doi:10.1016/j.atmosenv.2009.12.012.

Environmental Assessment of Passenger Transportation Should Include Infrastructure and Supply Chains

Mikhail Chester and Arpad Horvath

Environmental Research Letters, 4(2), Institute of Physics, 2009, doi:10.1088/1748-9326/4/2/024008.

This study was recognized by several media outlets including the New York Times, BBC News, BBC Radio, ABC, Canadian Broadcasting Corporation Radio, Popular Science magazine, and Slate magazine.

Cellulosic Ethanol from Municipal Solid Waste: A Case Study of the Economic, Energy, and Greenhouse Gas Impacts in California

Mikhail Chester and Elliot Martin

Environmental Science & Technology, 43(14), American Chemical Society, 2009, doi:10.1021/es802788z.

Energy, Greenhouse Gas, and Cost Reductions for Municipal Recycling Systems

Mikhail Chester, Elliot Martin, and Nakul Sathaye

Environmental Science & Technology, 42 (6), American Chemical Society, 2008, doi:10.1021/es0713330.

Cost Impacts, Scheduling Impacts, and the Construction Claims Process

Mikhail Chester and Chris Hendrickson

ASCE Journal of Construction Engineering & Management, 131 (1), 2005, doi:10.1061/(ASCE)0733-9364(2005)131:1(102).

PUBLICATIONS in REVIEW

Transit-oriented Development Infill in Phoenix Can Reduce Future Transportation and Land Use Life-Cycle Environmental Impacts
Mindy Kimball, Mikhail Chester, Christopher Gino, and Janet Reyna

Policy Options for Incorporating Life-Cycle Emissions Assessment into Transportation Planning
William Eisenstein, Stephanie Pincetl, and Mikhail Chester

Challenges to Air and Rail Alternatives Assessments in Government Environmental Impact Review Processes
Amber Woodburn, Megan Ryerson, Mikhail Chester

Emissions Saving Potentials of Accelerated Vehicle Retirement Programs: CA Heavy-Duty Trucking Case Study
Michael Taptich, Mikhail Chester, and Arpad Horvath

OTHER NOTABLE LETTERS and REPORTS

Environmental Assessment of Air and High-speed Rail Corridors
Mikhail Chester and Megan Smirti Ryerson
Transportation Research Board's Airport Cooperative Research Program

Summary and Synthesis for California's Bioplastics Life Cycle Assessment Projects
Arpad Horvath and Mikhail Chester LCA Peer Review & Assistance, 2011
California Environmental Protection Agency, Department of Toxic Substances

Life Cycle Assessment Support for California EPA's Green Chemistry Initiative
Arpad Horvath and Mikhail Chester Green Chemistry Initiative Life Cycle Thinking
California Environmental Protection Agency, Department of Toxic Substances

Hidden Costs of Energy
National Research Council of the National Academies Committee on Health, Environmental, and Other External Costs and Benefits of Energy Production and Consumption.
As a project consultant, executed transportation external cost assessment and wrote Appendix D.
http://www.nap.edu/catalog.php?record_id=12794

Life-cycle Environmental Assessment of California High-Speed Rail
Mikhail Chester and Arpad Horvath
University of California Transportation Center's Fall 2010 Issue of Access Magazine.
http://www.uctc.net/access/37/access37_assessing_hsr.pdf

Life-cycle Assessment and Urban Sustainability
Mikhail Chester, Stephanie Pincetl, Paul Bunje, and Laura Zahn
A discussion of the need for the Energy Commission to establish systems-oriented environmental assessment for Senate Bill 375 sustainable community strategies.
Report to the California Energy Commission's Public Interest Energy Research program.

Creating Sustainable Energy Systems in California Communities: A Research Roadmap
Recommendation to the Energy Commission for a sustainable communities research funding roadmap. Personal contribution is a chapter on the applicability of the life-cycle assessment framework to Energy Commission funded projects.
Report to the California Energy Commission's Public Interest Energy Research program.

Biopower and Waste Conversion Technologies for Santa Barbara County, California
A Report to the Community Environmental Consultants of Santa Barbara, CA, evaluating the economic, energy, and greenhouse gas implications of producing electricity from waste in the county.
Mikhail Chester, Richard Plevin, Deepak Rajagopal, and Daniel Kammen
http://chester.faculty.asu.edu/library/santa_barba_biopower_potential.pdf

CV version 20121025.

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EDUCATION:

- Apr 2010:** University of Michigan Ann Arbor, Michigan, USA
PhD in Energy Systems and Policy (Adviser: Professor Greg Keoleian)
Master of Arts in Applied Economics
Graduate Certificate in 'Program in Industrial Ecology (PIE)'
- May 2004:** University of Florida Gainesville, Florida, USA
Master of Engineering in Environmental Engineering Sciences
C.GPA: 4.0 / 4.0
- May 2002:** PSG College of Technology Tamil Nadu, India
Bachelor of Engineering in Mechanical Engineering
C.GPA: 3.4 / 4.0

FIELD OF INTERESTS:

Life Cycle Engineering and Design, Renewable Energy Systems and Planning, Energy Policy, Energy Efficiency and Conservation, Green Buildings, Climate Change Mitigation, and Applied Energy Microeconomics

ACADEMIC and RESEARCH EXPERIENCE:

- Sept 2012 to Present** : Postdoctoral Research Fellow, Institute of Environment and Sustainability (IoES), California Center for Sustainable Communities (CCSC), University of California – Los Angeles (UCLA)
- Sept 2009 to Dec 2011:** Research Fellow, Centre for Design, College of Design and Social Context. Royal Melbourne Institute of Technology (RMIT University). An integral part of the team conducting state government and industry funded research.

RESEARCH:

PUBLICATIONS (ACADEMIC JOURNALS):

- Oct 2012** : Morrissey, J. Meyrick, B. Deepak Sivaraman, Horne, R.E. Berry, M. Cost Benefits Assessments of Energy Efficiency Investments: Accounting for Future Resources, Savings and Risks in the Australian Residential Sector (Energy Policy, In Press)
- May 2012** : Deepak Sivaraman, Moore, M.R. Economic Performance of Grid Connected Photovoltaics in California and Texas (United States): The Influence of Renewable Energy and Climate Policies Energy Policy (49) 274 – 287
- Jan 2011** : Deepak Sivaraman. Horne, R.E. Regulatory Potential for Increasing Small Scale Grid Connected Photovoltaic (PV) Deployment in Australia. Energy Policy 39 (2) 586 – 595
- Mar 2010** : Deepak Sivaraman, Keoleian, G.A. Photovoltaic Electricity: Comparative Analyses of CO₂ Abatement at Different Scales in the U.S. Energy Policy 38 (10) 5708 – 5718
- Jan 2007** : Deepak Sivaraman, Sergio Pacca, Kim Mueller, Jessica Lin. Comparative Energy, Environmental and Economic Analysis of Traditional and E-commerce DVD Rental Networks. Journal of Industrial Ecology 11 (3) 77 – 91
- Aug 2006** : Pacca, S.A. Deepak Sivaraman, Keoleian, G.A. Parameters Affecting the Life Cycle Performance of PV Technologies and Systems. Energy Policy 35 (6) 3316 – 3326

Nov 2004 : Deepak Sivaraman. Lindner, A.S. A Comparative Life Cycle Analysis of Gasoline, Battery and Electric Lawn Mowers. Journal of Environmental Engineering Science 21 (6) 768-785

PEER REVIEWED REPORTS:

Nov 2011 : Deepak Sivaraman, Andrew Carre. Triple Bottom Line Sustainability Model for Automobile Fleet in the State of Victoria in Australia (model and report submitted to Sustainability Victoria)

Sept 2011 : Deepak Sivaraman, James Wong. Andrew Carre. Evaluating the Influence of Retrofit Strategies in Reducing the Life Cycle Primary Energy Demand and Greenhouse Gas Emissions in Commercial Buildings in the State of Victoria in Australia (Report for Heritage Victoria)

Apr 2011 : Deepak Sivaraman, James Wong. An Integrated Life Cycle Assessment Model: Energy and Greenhouse Gas Performance of Residential Heritage Buildings and the Influence of Retrofit strategies in the State of Victoria in Australia (Report for Heritage Victoria)

Feb 2009 : Lynn Vaccaro. Don Scavia. Deepak Sivaraman. Bryan Sederberg. Michigan's Economic Vitality: The Benefits of Restoring the Great Lakes (Report for *Michigan Sea Grant*)

June 2006 : Sergio Pacca, Deepak Sivaraman, Greg Keoleian. Life Cycle Assessment of the 33 kW Photovoltaic System in the Dana Building at University of Michigan: Thin film laminates, Multi-crystalline modules and Balance of System Components (Center for Sustainable Systems, University of Michigan, Ann Arbor)

BOOK CHAPTERS:

Nov 2010 : Life Cycle Assessment of Food and Beverage Packaging (with Dr Karli Verghese, Dr Stephen Clune and Simon Lockrey) (In Press, Woodhead Publishing)

CONFERENCE PROCEEDINGS and PRESENTATIONS (* denotes speaker):

Apr 2012 : Deepak Sivaraman*. An Integrated Life Cycle Engineering Model: Energy and Greenhouse Gas Performance of Residential Heritage Buildings, and the Influence of Retrofit Strategies and Appliance Standards. Energy and Environmental Technologies Division (EETD), Lawrence Berkeley National Laboratory (04/20/2012)

Jun 2011 : Deepak Sivaraman*, Ralph Horne. Regulatory Potential for Increasing Small Scale Grid Connected Photovoltaic Deployment in Australia. International Society of Industrial Ecology (ISIE) Conference, University of California, Berkeley, California, USA.

Mar 2011 : Enda Crossin *, Andrew Carre, Tim Grant, Margaret Jollands, Deepak Sivaraman. Teaching Life Cycle Assessment: Greening Undergraduate Engineering in RMIT University. Australian Life Cycle Assessment Society (ALCAS) Conference, Melbourne, Australia.

Nov 2008 : Deepak Sivaraman*. Comparative Energy Economic Performance of Installing Solar Trackers: United States and Australia. International Association of Energy Economics (IAEE) Conference, Perth, Australia.

Jun 2007 : Deepak Sivaraman*, Sergio Pacca, Kim Mueller, Jessica Lin. Comparative Life Cycle and Economic Analysis of Traditional and E-Commerce DVD Rental Networks. International Society of Industrial Ecology (ISIE) Conference, Toronto, Canada.

Feb 2007 : Deepak Sivaraman*, Michael Moore. Integrated Economic, Energy and Environmental Analyses of PV Technology. International Association of Energy Economics (IAEE) Conference, Wellington, New Zealand.

Oct 2006 : Deepak Sivaraman, Brian Talbot*. Environmental Benefits of Greening Supply Chains. Council of Supply Chain Management Professionals (CSCMP) Conference, San Antonio, Texas, USA.

MEDIA ARTICLES:

Apr 2011 : How things work: Solar Electricity (United Nations University), with Bart Durlinger
Link: <http://ourworld.unu.edu/en/how-things-work-solar-electricity/>

TEACHING:

Lecture responsibilities and teaching assistant for graduate course(s):

Jun 2011 : *Applied Life Cycle Design* (Melbourne Institute of Technology, School of Architecture and Design)
Feb 2010 : *Sustainable Energy Systems* (Melbourne Institute of Technology, School of Aerospace and Mechanical Engg)
Jan 2009 : *Natural Resource Microeconomics* (University of Michigan, School of Nat. Res and Environment)
Jan 2008 : *Industrial Ecology* (University of Michigan, School of Nat. Res and Environment)
Jan 2007 : *Industrial Ecology* (University of Michigan, School of Nat. Res and Environment)
Aug 2006 : *Sustainable Energy Systems* (University of Michigan, School of Nat. Res and Environment)
Aug 2005 : *Environmental Chemistry* (University of Florida, School of Environmental Engineering)

Average feedback score for teaching from students: 4.5/5.0

SERVICE and SOCIETY MEMBERSHIPS:

- International Society of Industrial Ecology (ISIE)
- International Association of Energy Economics (IAEE)

REFEREE:

- International Journal of Life Cycle Assessment (J'LCA)
- Environmental Science and Technology (EST)
- Journal of Industrial Ecology (JIE)
- Journal of Infrastructure Systems
- Water Resources Management

TECHNICAL REVIEW PANEL:

- Selected to serve in the technical panel for reviewing abstracts for the International Symposium on Sustainable Systems and Technology (IEEE ISSST), Boston, Massachusetts, USA (May 2012)
- Selected as one of the forty members in the global technical panel for reviewing abstracts for the International Conference in Industrial Ecology (ISIE), held in University of California, Berkeley, USA (June 2011).

RESEARCH GRANTS:

Developing a triple bottom line sustainability tool for passenger automobiles in the state of Victoria, Australia

Sponsor: Sustainability Victoria (SV)

Period: June 2010 to December 2010

Contributors: Deepak Sivaraman

Amount: \$ 20,000

Investigating the technical and regulatory potential for deploying ceramic fuel cell co-generation units on a large scale in Victoria, Australia

Sponsor: Ceramic Fuel Cells Limited

Period: December 2010 to May 2011

Contributors: Simon Lockrey and Deepak Sivaraman

Amount: \$ 12,000