

AHS References
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- Abt Associates Inc. 2006. *Summary of HUD Research Series Examining Barriers to Hispanic Homeownership and Efforts to Address These Barriers*. Prepared for William J. Reeder, U.S. Department of Housing and Urban Development, Office of Policy Development and Research. Cambridge, MA, March.
http://www.huduser.org/Publications/PDF/hisp_homeown8.pdf {6/16/2006}
- Ambrose, Brent W. Thibodeau, Thomas G., and Temkin, Kenneth. 2002. *An analysis of the effects of the GSE affordable goals on low- and moderate-income families*. Washington, DC: U.S. Department of Housing and Urban Development, Office of Policy Development and Research, May.
<http://www.huduser.org/publications/pdf/gsegoals.pdf>. {10/22/02}
- Apgar, William; Calder, Allegra; Collins, Michael; and Duda, Mark. 2002. *An Examination of Manufactured Housing as a Community- and Asset-Building Strategy*. Report to the Ford Foundation by Neighborhood Reinvestment Corporation In collaboration with the Joint Center for Housing Studies of Harvard University, September.
http://www.jchs.harvard.edu/publications/communitydevelopment/W02-11_apgar_et_al.pdf {1/26/2006}
- Apgar, William. 2004. *Rethinking Rental Housing: Expanding the Ability of Rental Housing to Serve as a Pathway to Economic and Social Opportunity*. Working paper W04-11, Joint Center for Housing Studies, Harvard University, December.
<http://www.jchs.harvard.edu/publications/markets/w04-11.pdf>
- Archer, Wayne; Ling, David C.; and McGill, Gary A.1995. *The Effect of Income and Collateral Constraints on Residential Mortgage Terminations*. National Bureau of Economic Research, Inc, NBER Working Papers: 5180. {4/4/2007}

The prepayment behavior of home mortgage borrowers has been widely observed to be inconsistent with behavior implied by classical option theory. A substantial literature has emerged examining the problem, focusing on the characteristics of the mortgage and on the historic path of interest rates in attempting to explain the anomaly. This paper offers contributions to the literature in three respects. First, it explores the influence of household level characteristics upon prepayment behavior, using both householder characteristics and collateral (house) value. Second, it empirically recognizes important interactions between the status of the prepayment option and the influence of income and collateral constraints upon prepayment behavior. Third, it uses a major source of data that has not previously been used in examining the prepayment anomaly: the American Housing Survey. Among the findings are the following: when the household is either collateral constrained or income constrained, or the option is likely to be out of the money, the influence of the option value upon prepayment behavior is less by half. When the status of the option and the influence of potential household constraints are more appropriately recognized, these factors account for nearly all explanatory power otherwise attributable to household demographic characteristics.

Archer, WR, Ling, DC, and, McGill GA. 1996. The effect of income and collateral constraints on residential mortgage terminations. *Regional Science and Urban Economics*. 26(3-4), June, p. 235-261.

Archer, W.R., Ling D.C., and McGill, GA. 1997. Demographic versus option-driven mortgage terminations. *Journal of Housing Economics*. 6(2), June, p. 137-163.

Archer, Wayne R.; Ling, David C.; McGill, Gary A. 2003. Household Income, Termination Risk and Mortgage Pricing. *Journal of Real Estate Finance and Economics*. 27(1), July, pp. 111-38.

<http://www.springerlink.com/link.asp?id=102945> {4/3/2007}

The premium embedded in home mortgage loans to compensate investors for their exposure to prepayment risk is a significant component of the cost of home mortgage lending. Moreover, there is some reason to believe that prepayment risk may be lower for loans to lower-income housing borrowers, especially those that are first-time homeowners. If so, investor recognition of this advantage should facilitate greater willingness to acquire portfolios of lower-income housing loans, and encourage more competitive pricing in this segment of the market. This study investigates the possibility of differential mortgage prepayment behavior between lower-income homeowners and non-low income homeowners. The investigation relies on samples of the American Housing Survey spanning ten years of experience from 1985 to 1995. We find no significant difference between the termination and refinancing behavior of non-low income and low-income households. This result is robust to a number of alternative specifications such as restricting the low-income test group to non-moving households and to first-time owners. The same conclusions are derived from both aggregate prepayment rates and from analysis of individual household prepayment behavior.

Arguea, Nestor M. and Hsiao, Cheng. 2000. Market Values of Environmental Amenities: A Latent Variable Approach. *Journal of Housing Economics*. 9(1-2), March-June, pp. 104-26.

http://www.elsevier.com/wps/find/journaldescription.cws_home/622881/description#description {4/3/2007}

This study presents a latent variable framework to provide consistent and efficient estimates of market values of amenities. A model for property values of residential housing using different indicators for neighborhood quality and property value is estimated using data from the U.S. American Housing Survey. The estimated effect of neighborhood quality on property values is positive and more significant compared to the estimates obtained by ordinary least squares and instrumental variable methods. Variances of errors of measurement and variances of the latent structures are shown to be positive and significant without imposing non-negativity restrictions.

Bailey, A.J., Sargent, J.D., and Blake, M.K. 1998. A tale of two counties: Childhood lead poisoning, industrialization, and abatement in New England. *Economic Geography*. SI, p. 96-111.

Baker, Kermit, and Kaul, Bulbul. 1999. Residential building codes, affordability, and health protection: A risk-tradeoff approach. Working paper w99-1. Joint Center for Housing Studies, Harvard University. {01/26/05}

Baker, Kermit, and Kaul, Bulbul. 2000. Impact of changes in household composition on home improvement decisions. Working paper W00-6. Joint Center for Housing Studies, Harvard University.

http://www.jchs.harvard.edu/publications/remodeling/baker_W00-6.pdf
{01/26/05}

Impact of Changes in Household Composition on Home Improvement Decisions Though total spending on residential renovation and repair activities is approaching \$200 billion a year, spending by homeowners and rental property owners on improvements and repairs to the stock of existing housing units has received little attention in the academic literature. Historically, studies have focused heavily on the static characteristics of the housing unit (age, value, size, location) and of the occupants (age, income, household composition). This paper extends this inquiry by incorporating dynamic factors that influence home improvement decisions (changes in the composition of the household, prior period spending on home improvements), and relates these characteristics to the set of housing space-oriented improvements that might be expected to be influenced by these dynamic elements. The results of these enhancements are encouraging. Additions of household members are significantly related to home improvement activity, particularly for do-it yourself projects undertaken by members of the household. Also, the overall performance of the model is enhanced with the inclusion of these variables. Additional refinements of this approach would further increase our understanding of the factors determining home improvement decisions.

Baker, Kermit, and Kaul, Bulbul. 2002. Using multiperiod variables in the analysis of home improvement decisions by homeowners. *Real Estate Economics*, 30:4, p. 551-566. {12/13/02}

Baker, Kermit. 2006. Market Data for Housing Innovation: A Policy Agenda and Plan. Working paper W06-6, Joint Center for Housing Studies, Harvard University. Prepared for the Partnership for Advancing Technology in Housing (PATH).

http://www.jchs.harvard.edu/publications/industrystudies/w06-6_baker.pdf
{1/12/2007}

Despite the importance of the housing industry to the American economy and its products' great market value, there has not been much investment in both innovative residential technologies and market analyses for those innovations when compared to other industries. There has been recent work to identify the barriers to innovation, but one of these challenges remains – to identify and then acquire market data and analyses that shed light on behaviors and motives around technology. The lack of sufficient knowledge about market drivers for demand of new technologies is creating a barrier to advancing innovation in the housing industry. Historically, firms have not been proficient in creating or adopting innovations because either the market for an innovative product was not clear or methods to understand market behavior were wanting. This report reviews the problem associated with firms not fully comprehending the behaviors and motivations behind driving through the barriers to fundamental technology innovation and offers some research solutions to answering some of the most critical market questions. It focuses on the public sector role in furthering this market research agenda and specifies actions and timeframes for that implementation. It also suggests other pressing policy issues that can be assisted with and by accurate and comprehensive market research.

- Barcus, Holly R. 2004. Urban-Rural Migration in the USA: An Analysis of Residential Satisfaction. *Regional Studies*. 38(6), August, pp. 643-57.
<http://www.tandf.co.uk/journals/titles/00343404.asp> {4/4/2007}

The past 30 years have witnessed three major shifts in the direction of migration flows in the USA. During the 1970s and early 1990s, increased in-migration created growth in many rural areas, contrary to historical flows. Improvements in transportation and communication technologies and the lure of rural amenities have drawn urbanites to rural areas. These migrants are well positioned socio-economically to make informed migration decisions resulting in improved residential satisfaction following a move to a rural place. This study analyses the changes in residential satisfaction of urban-rural migrants using the 1991 American Housing Survey. Data for the USA are assessed using descriptive statistics and multinomial logit models. Urban-rural migrants are generally more satisfied with their new rural location, but this varies across age groups and other socio-demographic characteristics. Tenure shift is the only significant variable in predicting residential satisfaction; individual migrant characteristics and their motivations offered little explanation for the variation in residential satisfaction following a move. The findings help us understand the link between migration and residential mobility in the context of urban-rural moves and add to our knowledge of residential satisfaction following a move.

- Bell, David R. and Hilber, Christian A. L. 2006. An Empirical Test of the Theory of Sales: Do Household Storage Constraints Affect Consumer and Store Behavior? *Quantitative Marketing and Economics*. 4(2), June, pp. 87-117.
<http://springeronline.com/sgw/cda/frontpage/0,11855,4-40109-70-35615696-0,00.html> {4/4/2007}

We revisit and test Salop and Stiglitz (1982) Theory of Sales. Equilibrium comparative static predictions are that greater consumer storage constraints lead to: (1) higher average prices, (2) fewer promotions, and (3) shallower promotions. In equilibrium, price dispersion is nonlinear in storage constraints, first increasing then decreasing. Empirical estimates of storage constraints are developed for approximately 1,000 households using the American Housing Survey (1989), United States Census (1990), and Stanford Market Basket Database (1991-1993). We find consumers with greater storage constraints shop more often and purchase smaller quantities per visit; moreover, the comparative static predictions are supported and evidence consistent with the equilibrium dispersion prediction is observed. Estimated quantitative effects are economically important.

- Belsky, Eric S. and Lambert, Matthew. 2001. Where Will They Live: Metropolitan Dimensions of Affordable Housing Problems. Working paper W01-9, Joint Center for Housing Studies, Harvard University, September.
http://www.jchs.harvard.edu/publications/communitydevelopment/belskylambert_w01-9.pdf {1/26/2006}

- Belsky Eric S.; Goodman, Jack; and Drew, Rachel. 2005. *Measuring the Nation's Rental Housing Affordability Problems*. Boston: Joint Center for Housing Studies of Harvard University, June.
http://www.jchs.harvard.edu/publications/rental/rd05-1_measuring_rental_affordability05.pdf {1/15/2008}

Belsky, Eric S.; Retsinas, Nicolas; and Duda, Mark. 2005. The Financial Returns to Low-Income Homeownership. Cambridge, MA: Joint Center for Housing Studies, Working Paper.

See discussion in http://www.huduser.org/Publications/PDF/hisp_homeown9.pdf

Bendimerad, Amal. 2005 Understanding generational differences in home remodeling behavior. Working paper W05-10, Joint Center for Housing Studies, Harvard University, October. <http://www.jchs.harvard.edu/publications/remodeling/w05-10.pdf> {1/15/2008}

Bennett, Paul, Keane, Frank, and Mosser, Patricia C. 1999. Mortgage refinancing and the concentration of mortgage coupons. *Current Issues in Economics and Finance*. 5(4), March, p. 1-6.
http://www.newyorkfed.org/rmaghome/curr_iss/ci5-4.pdf {08/20/03}

Berkovic, J. and Zorn, P.. Households that Never Own: An Empirical Analysis Using the American Housing Survey. (unpubl.) {1/26/2006}

Bipartisan Millennial Housing Commission. 2002. *Meeting our Nation's Housing Challenges*. Report submitted to Congress. Washington, DC, May 30. {1/15/2008}

Blake, Kevin S. and Cowart, William. 2005. *Commuting Patterns and the Housing Stock*. Prepared for the U.S. Department of Housing and Urban Development, Office of Policy Development and Research by ICF Consulting. November 20.
http://www.huduser.org/datasets/ahs/Commuting_Patterns.pdf

Blake, Kevin S. and Simic, Aleksandra. 2005 *Elderly Housing Consumption: Historical Patterns and Projected Trends*. Prepared for the U.S. Department of Housing and Urban Development, Office of Policy Development and Research by ICF Consulting, November 20.
http://www.huduser.org/datasets/ahs/Elderly_Housing_Consumption.pdf {1/15/2008}

Boehm, Thomas P. 1995. A Comparison of the Determinants of Structural Quality between Manufactured Housing and Conventional Tenure Choices: Evidence from the American Housing Survey. *Journal of Housing Economics*. 4(4), December, pp. 373-91.
http://www.elsevier.com/wps/find/journaldescription.cws_home/622881/description#description {4/3/2007}

Boehm, Thomas P., and Schlottmann, Alan. 2005. Is manufactured housing a good alternative for low-income families? Abt Associates. Paper prepared for HUD.
<http://www.huduser.org/publications/HOMEOWN/IsManufactHousingGoodAlt4LIFam.html> {05/10/05}

Boehm, Thomas P. and Schlottmann, Alan 2006. A comparison of household mobility for owned manufactured, traditional owned and rental units using the American Housing Survey. *Journal of Housing Economics*. 15(2), June, pp., 126-142. {11/15/2006}

This study employs data from the national sample of the American Housing Survey to analyze the mobility decisions of families in owned manufactured housing in comparison to families in traditional owned homes and rental units. Specifically a continuous time probability model (CTM) is used to estimate the likelihood of these families moving over the period of 1993–2001. In general, the empirical work suggests that families occupying both owned manufactured housing and traditional owned housing are associated with lower probabilities of moving than comparable households in rental units. Of particular interest is the fact that, ceteris paribus, families in both traditional owned homes and owned manufactured housing exhibit negative duration dependence, or a decreasing probability of moving over time, while for those in rental units duration dependence is positive. These differences are important because of their potential implications for long-term neighborhood stability and, as such, the viability of manufactured housing as an affordable housing alternative for lower income families.

Boehm, Thomas P. and Schlottmann, Alan M. 2006. *Housing Tenure, Expenditure, and Satisfaction across Hispanic, African-American, and White Households: Evidence from the American Housing Survey*, Prepared for U.S. Department of Housing and Urban Development by Abt Associates, Inc. February 28. {3/3/2006}

Boehm, Thomas P. and Schlottmann, Alan M. 2006. *Mortgage Pricing Differentials across Hispanic, Black and White Households: Evidence from the American Housing Survey*. Prepared for U.S. Department of Housing and Urban Development Prepared by Abt Associates, February. http://www.huduser.org/Publications/PDF/hisp_homeown5.pdf {6/16/2006}

Boehm, Thomas P.; Thistle, Paul D.; and Schlottmann, Alan 2006. Rates and Race: An Analysis of Racial Disparities in Mortgage Rates. *Housing Policy Debate*, 17(1), pp. 109-49. <http://www.fanniemae.foundation.org/programs/hpd.shtml> {4/4/2007}

We use a model based on the 1991-2001 American Housing Survey to determine whether differences in mortgage rates among whites, blacks, and Hispanics are due to differences in the property and loan characteristics of the borrowers themselves or to racial differences in how those characteristics are priced into rates. We separate loans into major market categories and present decompositions to assess the differences and distinguish between them. Very little information on mortgage pricing has been generally available to researchers and the literature that discusses what information there is has not used a scheme that allows rate differences to be classified by characteristics and pricing. We find that significant differentials are more likely in the conventional mortgage market. The largest occur among blacks, who pay a much higher annual percentage rate than whites for both purchases and refinancing. For government-insured loans, Hispanics do slightly better than whites.

Bogdon, Amy S.; Follain, James R. 1996. Multifamily Housing: An Exploratory Analysis Using the 1991 Residential Finance Survey. *Journal of Housing Research*. 7(1), pp. 79-116.

<http://www.fanniemae.foundation.org/programs/jhr.shtml> {4/4/2007}

Far less is known about multifamily housing than about single-family housing, because most multifamily data sets have serious limitations. This article lays the groundwork for an examination of the financial condition of multifamily housing using the 1991 Residential Finance Survey (RFS). It examines the RFS data set, the relation between the RFS and the American Housing Survey, neighborhood characteristics of multifamily properties, and the rent-to-value ratio for different types of multifamily properties. The analysis is largely exploratory. We find that multifamily properties and units are disproportionately located in neighborhoods with below-average incomes but that larger properties tend to be located in slightly higher income tracts than smaller properties are. There is considerable variation in the rent-to-value ratio; many property characteristics are significantly related to this ratio, but neighborhood variables tend to have small or insignificant impacts. The article concludes with several suggestions for future research.

Building Research Council. 1998. *Resident Assessment of Housing Quality: Lessons from Pilot Surveys*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research, by School of Architecture, University of Illinois at Urbana-Champaign, December.

<http://www.huduser.org/publications/pdf/quality.pdf> {1/30/2006}

Bunce, Harold L. 2002. The GSEs' Funding of affordable loans: A 2000 update. Housing Finance Working Paper Series, U.S. Department of Housing and Urban Development, Office of Policy Development and Research, April.

<http://www.huduser.org/publications/pdf/workpapr13.pdf>

The main purpose of this study is to assess the extent to which Fannie Mae and Freddie Mac are funding loans for low-income borrowers and others who historically have not been well served by the mortgage market. The study is the fourth in a series of working papers examining the affordable lending performance of these two Government Sponsored Enterprises (GSEs) in the secondary mortgage market. This study, which updates the earlier analyses to include year 2000 data, compares the borrower and neighborhood characteristics of single-family mortgages purchased by Fannie Mae and Freddie Mac between 1992 and 2000 with the characteristics of loans originated in the primary market during the same time period. There are five main findings. First, while both GSEs improved their affordable lending performance during the 1990s, they continued in the year 2000 to under perform the conventional conforming market in funding mortgages for lower-income borrowers and for properties located in low-income and high-minority census tracts (i.e., undeserved areas). Second, the GSEs performance improved markedly between 1999 and 2000, allowing them to partially close their performance gap relative to the market. Third, during most of the 1990s, Fannie Mae's purchases were more targeted to low-income borrowers and under served areas than Freddie Mac's purchases; however, the relative performance of the two GSEs has been rather similar during the past two years. Fourth, while the GSEs account for a significant share of the total market for home purchase loans (government-backed and all conventional conforming home loans), their market share for each of the affordable lending categories is much less than their share of the overall market, and they contribute only a small share of funding in important market segments such as the market serving first-time minority homebuyers. And finally, the GSEs' small market share in the first

time homebuyer market could be due to the preponderance of high (over-20-percent) down payment loans in their mortgage purchases, although further study is needed to fully explain the reasons for the GSEs' limited role in these markets.

Burchell, R.W., and Listokin, D. 1995. Influences on United States housing policy. *Housing Policy Debate*. 6(3), p. 559-617.

Case, Karl E. and Marynchenko, Maryna. 2001. Home Price Appreciation in Low-and Moderate-Income Markets. Working paper LIHO-01.7, Joint Center for Housing Studies, Harvard University, August.

<http://www.jchs.harvard.edu/publications/homeownership/liho01-7.pdf>
{1/26/2006}

Chapman, David W and; Lombard, John R. 2006. Determinants of Neighborhood Satisfaction in Fee-Based Gated and Nongated Communities. *Urban Affairs Review*. 41(6), July, pp. 769-99.

<http://www.sagepub.com/journalsProdDesc.nav?prodId=Journal200784>
{4/4/2007}

Neighborhoods unable to adequately satisfy perceived resident needs are susceptible to the migration of their inhabitants to areas that better address their needs. Using the American Housing Survey, the authors examine neighborhood satisfaction and its relationship to perceptions of residents living in both gated and nongated fee-based neighborhoods. The findings indicate that respondent age and the lack of knowledge of crime have the largest positive impact on how the residents rated their neighborhoods. While chronological age may have myriad possible influential factors, the simple knowledge by residents of neighborhood crime has implications for crime prevention and community awareness efforts.

Ciscel, David H. 2001. The economics of urban sprawl: Inefficiency as a core feature of metropolitan growth. *Journal of Economic Issues*. June. {10/22/02}

Three components of the Memphis MSA economy with a focus on today's provision of social infrastructure and its impact on the economy of tomorrow are examined: 1. jobs, business, and housing, 2. commuting, and 3. government infrastructure capital costs. The modern metropolis is becoming less efficient because of urban sprawl. Driven by functional segregation in suburban design, sprawl inverts the traditional efficiencies of urban agglomeration. For the Memphis MSA and other modern commuter-based cities, alternatives seem somewhat far-fetched. The path to the recognition of the problems of sprawling city and their reformation will be slow and tortuous. [Uses Memphis AHS MSA published tabulations]

Coate, Douglas and Vanderhoff, James. 1993. Race of the Homeowner and Appreciation of Single-Family Homes in the United-States. *Journal of Real Estate Finance and Economics* 7(3), pp. 205-212. {6/16/2006}

Coate and Vanderhoff (1993) use the American Housing Survey (AHS) for the period 1974 to 1983 to analyze house price changes including the owner's race as an explanatory variable. They find that the owner's race is not statistically significant in predicting house price changes once other variables are controlled for.

- Cohen, J.M. 1995. Competitive and cooperative dependencies—the case for children. *Virginia Law Review*. 81(8), November, p. 2217-2274.
- Cohen, J.T., Lampson, M.A., and Bowers, T.S. 1996. The use of two-stage Monte Carlo simulation techniques to characterize variability and uncertainty in risk analysis. *Human And Ecological Risk Assessment*. 2(4), December, p. 939-971.
- Collins, J. Michael; Belsky, Eric S.; and Retsinas, Nicolas P. 1998. Towards a Targeted Homeownership Tax Credit. Working paper W98-5, Joint Center for Housing Studies, Harvard University, November.
http://www.jchs.harvard.edu/publications/homeownership/belsky_collins_retsinas_W98-5.pdf {1/27/2006}

Although the federal government provides tax incentives for homeownership, current tax provisions provide few incentives for lower-income families to buy a home and provide limited targeting of homeownership incentives. While the overall homeownership rate in the United States is at an all-time high, the gap between the ownership rates of low-income and higher-income households remains wide. In addition, homeownership rates in low-income and minority neighborhoods remain well below those in other neighborhoods. This has prompted a series of new proposals for a targeted low-income homeownership tax credit.

This paper summarizes how the current federal tax code fosters homeownership, demonstrates that current homeownership tax incentives mostly benefit those with higher incomes, and proposes a set of criteria for reviewing homeownership tax credit proposals. Based on this review, a possible approach that meets these criteria is suggested. The primary barrier to low-income homeownership is defined as an interaction between insufficient incomes to meet the monthly obligations of homeownership and a lack of down payment and closing costs. While several strategies are identified that may address these twin barriers to home owning, one feasible strategy is to offer a tax credit to investors who fund low-interest, second mortgages for low-income, first-time homebuyers. Such a credit would simultaneously reduce low-income homebuyers' ongoing monthly payments and the amount of savings they need to cover down payment and closing costs. Since federal policy also recognizes the special problems of under served areas, this strategy also calls for spatial targeting of the credit. This proposal also recommends allowing states and local governments to combine the tax credit with other federal grants such as CDBG and HOME to reach those with the lowest incomes, stimulating the redevelopment of under served areas.

Based on a set of assumptions about how the market might price such a tax credit, \$1 billion in tax credits offered to investors in second mortgages could assist as many as 66,000 low-income homebuyers annually.

- Collins, Michael; Crowe, David; and Carliner, Michael. 2001. Examining Supply-Side Constraints to Low-Income Homeownership. Working paper LIHO.01-5, Joint Center for Housing Studies, Harvard University, August.
<http://www.jchs.harvard.edu/publications/homeownership/liho01-5.pdf>

Much of homeownership research and policy focuses on financial or information barriers that might frustrate low-income renter households from buying a home. Given existing subsidies and mortgage products, many low-income households may be in a position to overcome the wealth and income constraints to buying a home. Moreover, homebuyer education and counseling efforts by private and public entities provide potential buyers with information on how to negotiate the process of purchasing a first home. However, households may still be constrained by a lack of adequate housing units at an appropriate sales price in a desired location.

This paper provides a snapshot of the supply of affordable owner-occupied housing using National American Housing Surveys. Using one set of mortgage underwriting assumptions, it finds 44 percent of owner-occupied units are affordable for households with incomes below 80 percent of the area median in 1999, a decreasing share from 1997. Affordable units are older, smaller, and of a lower quality than higher-valued units. Although more than 500,000 new units were built in affordable price ranges from 1997 to 1999, 72 percent of these were mobile units, the majority of which defy traditional notions of homeownership because households do not own the land under the unit.

This paper also examines the transition of affordable homeownership units over a two-year time period. Approximately 78 percent of owner-occupied units affordable in 1997 continued to be affordable in 1999. Affordable homes for ownership are being lost to house price inflation and vacancies. A net 1.7 million homes became unaffordable because of increases in value, a net 153,000 became affordable because of tenure switching, and a net 157,000 were lost from the affordable stock because of vacancies. Overall, there were about a half-million fewer affordable owner-occupied homes in 1999 than in 1997.

Finally, this paper uses the 1995, 1996, and 1998 Metropolitan American Housing Surveys to examine if characteristics of the household, neighborhood, and metropolitan market constrain homeownership rates at the submetropolitan level. It finds factors related to housing supply play a significant role in homeownership rates among low-income households (defined as 50 to 80 percent of the area median income) in the peak home-buying years of age 40 to 65.

Colton, Kent W. and Collignon, Kate. 2001. Multifamily Rental Housing in the 21st Century. Working paper W01-1, Joint Center for Housing Studies, Harvard University, January.
http://www.jchs.harvard.edu/publications/finance/colton_w01-1.pdf {1/26/2006}

This paper examines the most pressing issues related to multifamily rental (apartment) housing. It begins with a brief review of the benefits apartments bring to communities and their residents and then discusses the changing nature and composition of multifamily rental housing. This is followed by an examination of the role multifamily rental housing plays in providing affordable housing. Finally, we review the financing of multifamily rental housing and the relationship between multifamily housing and smart growth. Our conclusions center on the likely role apartments will play in the 21st century.

Coulson, N. Edward, Hwang, Seok-Joon, and Imai, Susumu. 2002. The value of owner-occupation in neighborhoods. *Journal of Housing Research*. 13:2, p. 21-48. <http://www.fanniemaefoundation.org/programs/jhr.shtml> {11/17/03}

One rationale for promoting homeownership is that it creates external benefits for individual homeowners, neighborhoods, and society as a whole. Generally, it has been difficult to measure the external benefits of homeownership in neighborhoods, because the benefits attributed to homeownership could actually be the result of individual characteristics and might have occurred even if the families were not homeowners. This article employs a number of innovative statistical techniques to overcome the analytic difficulties encountered by previous studies. The authors estimate the external benefits of homeownership rates in a neighborhood context by identifying single-family price differentials that may be attributed to variations in ownership share in the neighborhood. Specifically, the authors ask: in addition to receiving individual benefits from homeownership, what is the external benefit, as measured in house prices, from having more neighbors who are homeowners? Result from the 1993 American Housing Survey indicate that, even when holding other factors (such as housing unit and neighborhood characteristics) constant, house prices are significantly higher in neighborhoods with higher homeownership rates. The authors estimate that the aggregate external benefit of homeownership was more than \$21.83 billion nationwide, which is in addition to the benefits to individual homeowners, in 1993.

Costa, Dora L. and Kahn, Matthew E. 2003. The Rising Price of Nonmarket Goods. *AEA Papers and Proceedings*. 93(2), May, pp. 227-232. {12/30/05}

“Census home-price data are top-coded, and the top codes differ across Census years. Concerned that our Census housing specifications have relatively few structural characteristics, we have used the 1999 American Housing Survey to examine whether our climate price estimates are robust to controlling for additional structure attributes. We find that our results are quite robust to changing specifications.”

Crane, R. and D. Chatman. 2004. Traffic and Sprawl: Evidence from U.S. Commuting (1985 to 1997). *Planning and Markets* 6: 14-22. {6/2/2006}

Crone, Theodore M.; Nakamura, Leonard I.; and Voith, Richard. 1999. Measuring housing services inflation. Federal Reserve Bank of Philadelphia, Working Papers: 99-9. {4/4/2007}

Recent papers have questioned the accuracy of the Bureau of Labor Statistics' methodology for measuring implicit rents for owner-occupied housing. The authors propose cross-checking the BLS statistics by using data on owner-occupied and rental housing from the American Housing Survey. A hedonic approach that explicitly calculates capitalization rates appears to be a feasible one for developing a methodologically consistent measure of the rental cost of owner-occupied housing.

- Crone, Theodore M.; Nakamura, Leonard I.; and Voith, Richard 2000. Measuring Housing Services Inflation. *Journal of Economic and Social Measurement*. 26(3-4), , pp. 153-71. <http://www.iospress.nl/html/07479662.php> {4/3/2007}

Recent papers have questioned the accuracy of the Bureau of Labor Statistics' methodology for measuring rent increases and changes in implicit rents for owner-occupied housing. We cross-check the BLS statistics using data on owner-occupied and rental housing from the American Housing Survey. A hedonic approach that explicitly calculates capitalization rates produces a methodologically consistent measure of the rental equivalent of owner-occupied housing services. We find that between 1985 and 1993 the Consumer Price Index overstated the increase in the cost of owner-occupied housing services by more than 10 percentage points and underestimated the increase in rents by almost six percentage points. The increase in the cost of housing services for renters and homeowners combined was overestimated by 0.6 percent a year between 1985 and 1993.

- Crone, Theodore M.; Nakamura, Leonard I.; and Voith, Richard. 2001. Measuring American rents: a revisionist history. Federal Reserve Bank of Philadelphia, Working Papers: 01-8. {4/4/2007}

Until the end of 1977, the method used to measure changes in rent of primary residence in the U.S. consumer price index (CPI) tended to omit price changes when units changed tenants or were temporarily vacant. Since such units typically had more rapid increases in rents than average units, omitting them biased inflation estimates downward. Beginning in 1978, the Bureau of Labor Statistics (BLS) implemented a series of methodological changes that reduced this bias. The authors use data from the American Housing Survey to check the success of the corrections. They compare estimates of the historical series adjusted for the BLS changes in methodology with a new hedonic estimate of changes in rental rates. The authors conclude that from 1940 to 1977 the CPI for rent would have been about 60 percent higher if current BLS practices had been used - between 1.3 and 3.5 percentage points. Even after the corrections have been made, the authors' hedonic estimates suggest that the current CPI methodology may still understate the rental inflation rate by one-half to 1 percentage point.

- Crone, Theodore M.; Nakamura, Leonard I. and Voith, Richard P. 2004. Hedonic estimates of the cost of housing services: rental and owner-occupied units. Federal Reserve Bank of Philadelphia, Working Papers: 04-22. {4/4/2007}

Recent papers have questioned the accuracy of the Bureau of Labor Statistics' methodology for measuring rent increases and changes in implicit rents for owner-occupied housing. We compare the BLS estimates of increases in rents and owner-occupied housing costs to regression-based estimates using data from the American Housing Survey. A hedonic approach that explicitly calculates capitalization rates produces a methodologically consistent measure of the rental cost of owner-occupied housing. We estimate that between 1985 and 1999 the Consumer Price Index (CPI-U) may have understated the cumulative increase in rents. But any understatement was slight. On the other hand, we estimate that the CPI overstated the increase in the cost of housing services for homeowners by 0.4 percent on an annualized basis from 1985 to 1999.

- Cutts, Amy, and Olsen, Edgar O. 2002. Are Section 8 housing subsidies too high? *Journal of Housing Economics*. 11, p. 214-243. {05/12/03}

Daniell, J., and Struyk, R. 1997. The evolving housing market in Moscow: Indicators of housing reform. *Urban Studies*. 34(2), February, p. 235-254.

Dacquisto, David J. and Rodda, David T. 2005. *Housing Impact Analysis*. Revised draft. Abt Associates, Inc. Prepared for U.S. Department Of Housing and Urban Development, Office of Policy Development AND Research, December 12. {12/21/05}

Davila, Alberto and Mendez, Erika. 2002. Mortgage Lending and the Entrepreneur. *Applied Economics Letters*. 9(15), December, pp. 967-70.
<http://www.tandf.co.uk/journals/titles/13504851.asp> {4/4/2007}

While existing literature assumes that financial institutions penalize entrepreneurs because of this group's perceived higher income risk, this paper contends the opposite, owing to, for example, potentially profitable customer relationships that financial institutions might have with entrepreneurs and the stylized fact that these institutions provide more flexible guidelines to the home mortgage applications of entrepreneurs. The 1995 National Microdata file of the American Housing Survey is employed to empirically address and provide support for this contention.

Deng, Yongheng; Gabriel, Stuart A.; Nothaft, Frank E. 2003. Duration of Residence in the Rental Housing Market. *Journal of Real Estate Finance and Economics*. 26(2-3), March-May, pp. 267-85.
<http://www.springerlink.com/link.asp?id=102945> {4/3/2007}

This paper estimates a proportional hazard model of duration of residence in rental housing over 1987-98 based on a unique data set from the BLS-CPI housing sample together with American Housing Survey and other metropolitan economic data. The paper employs an innovative semi-parametric estimation approach for group duration analysis of the proportional hazard model. Results of the analysis indicate that the duration of residence in rental housing varies significantly across individual units and market segments, and is effected by tenant, dwelling, and market characteristics. An improved understanding of duration of residence offers new insights as regards fluctuations in tenant turnover, building occupancy, and rent flows, as well as new confidence in pro forma assumptions critical to rental housing development.

Deng, Yongheng; Ross, Stephen L.; Wachter, Susan M. 2003. Racial Differences in Homeownership: The Effect of Residential Location. *Regional Science and Urban Economics*. 33(5), September, pp. 517-56.
http://www.elsevier.com/wps/find/journaldescription.cws_home/505570/description#description {4/3/2007}

The rate of homeownership among African-American households is considerably lower than white households in American urban areas. This paper examines whether racial differences in residential location outcomes are among the factors that contribute to the large racial differences in homeownership rates in major US metropolitan areas. Based on the 1985 metropolitan sample of the American Housing Survey for Philadelphia, the paper does not find any evidence that existing racial differences in residential location in Philadelphia decrease the homeownership rate among African Americans. Rather, the empirical evidence suggests that African-American residential location outcomes are associated with lower than expected racial differences in homeownership. Therefore, after controlling for neighborhood, racial differences in homeownership are larger than originally believed, and the ability of racial differences in endowments to explain homeownership differences is more limited.

Dieleman, F. M.; Clark, W. A. V.; Deurloo, M. C. 1989. A Comparative View of Housing Choices in Controlled and Uncontrolled Housing Markets. *Urban Studies*. 26(5), October, pp. 457-68.
<http://www.tandf.co.uk/journals/titles/00420980.asp> {4/4/2007}

The research reported in this paper evaluates the relative contributions of economic and demographic variables in determining tenure and housing type choice and the extent to which tenure choice in U.S. and Dutch housing markets is similar. Data from the American Housing Survey National file (1983) for approximately 1500 owners and 4000 renters was examined in the context of the PRU (proportional reduction in uncertainty) and ANOTA (analysis of tables) models. The results provide convincing evidence of the role of income, rent of previous dwelling, size of household and marital status. Renter choices are more dominated by income than are the choices of owners. A comparison of the U.S. results with those for the Dutch housing market reveals that the owner models are similar in both housing markets but for renters the importance of size of household suggests the impact of policy controls on access to housing in the Dutch housing market.

DiPasquale, Denise and Somerville, C. Tsuriel 1995. Do House Price Indices Based on Transacting Units Represent the Entire Stock? Evidence from the American Housing Survey. *Journal of Housing Economics*. 4(3), September, pp. 195-229. http://www.elsevier.com/wps/find/journaldescription.cws_home/622881/description#description {4/3/2007}

Di, Zhu Xiao. 2001. The Role of Housing as a Component of Household Wealth. Working paper W01-6, Joint Center for Housing Studies, Harvard University, July. http://www.jchs.harvard.edu/publications/di_01-6.pdf {1/26/2006}

No understanding of household wealth is complete without considering housing's role in it. This paper examines various roles housing plays as a component of household wealth and explores how housing affects the distribution of total household wealth. It discusses the recent growth in wealth and inequalities in its distribution. Specifically, the paper explores five roles of housing in the creation and distribution of household wealth: as "equalizer," "accumulator," "cultivator," "protector," and "double-edged sword."

Di, Zhu Xiao and Liu, Xiaodong. 2002. Young American Adults Living in Parental Homes. Working paper W02-3, Joint Center for Housing Studies, Harvard University, May. http://www.jchs.harvard.edu/publications/markets/di_W02-3.pdf

This paper reviews the literature of young adults (ages 25-34) living in parental homes in regard to gender difference, racial difference, family structure variation, parental resource gap, personal income gap, and the long-term trend. Our models examine the effect of personal income, parental resource, and race on the living arrangements of young adults. Most of the investigation is drawn from two data sets: Current Population Survey and Panel Study of Income Dynamics. Our model results demonstrate strongly that young adults' personal income is the major factor that constrains them from independent living. Over time, patterns of young adults' living with parents concur with economic situations such as the income distribution, especially that of young adults.

Di, Zhu Xiao; Henry, Ruby; Belsky, Eric; and Masnick, George. 2005. The impact of minority growth and minorities' rising household income on housing markets. Working paper W05-5, Joint Center for Housing Studies, Harvard University, July. <http://www.jchs.harvard.edu/publications/markets/w05-5.pdf>

Di, Zhu Xiao; McArdle, Nancy and Masnick, George S. 2001. Second Homes: What, How Many, Where and Who. Research paper N01-2, Joint Center for Housing Studies, Harvard University, February. http://www.jchs.harvard.edu/publications/homeownership/di_n01-2.pdf {1/27/2006}

This paper addresses several basic questions regarding second homes: what is or should be counted as a second home; how many second homes exist in the United States; where are second homes located; and who owns second homes. This paper provides a point of departure for future discussions as it clarifies the concept of second homes and matches it to various available data sets. It also develops four different perspectives to look at second homes as a special sector of the housing market. The paper suggests that the increase in household wealth and favorable demographics are likely to continue driving the current demand for second homes.

- Di, Zhu Xiao and Liu, Xiaodong. 2003. How Local Rent Change and Earning Capacity Affect Natural Household Formation by Young Adults. Working paper W03-3, Joint Center for Housing Studies, Harvard University, March.
http://www.jchs.harvard.edu/publications/markets/W03-3_di.pdf

Through a longitudinal survival analysis, this paper provides the first look into the long-term process of nest leaving, which is a pre-condition for natural household formation by young adults. Using the American Housing Survey (AHS) data to follow a group of young adults aged 25-34 who were living in parental homes in 1985, we found that nearly 23 percent still lived in parental homes by 1995, even at age 35-44. We also found that an increase in the local fair market rent (FMR) is detrimental to young adults' effort at achieving independent living, while a decrease in the FMR may help young adults leave their parents' house. While the adults are still young, they are more able to achieve independent living when local rent conditions change in their favor. As they become older, they are less able to achieve independent living, even when local rents go down. Concurring with Haurin et al. (1993) and Di et al. (2002), this paper finds that the potential labor earnings are important in explaining the probability of leaving parents.

- Di, Zhu X. and Liu, Xiaodong. 2006. The Effects of Housing Push Factors and Rent Expectations on Household Formation of Young Adults. *Journal of Real Estate Research*. 28(2), April-June, pp. 149-66. <http://cbeweb-1.fullerton.edu/finance/journal/> {4/4/2007}

Following a group of young adults aged 25-34 living with their parents in the American Housing Survey (AHS) data from 1985 through 1995, this paper investigates the effect of overcrowding and neighborhood satisfaction on household formation after controlling for local rental levels and their changes over time. Most of these except for local rent levels have not been tested before in models and hence this study enriches the knowledge on household formation and its consequent potential demand for rental and ownership housing units.

- DiPasquale, Denise, Fricke, Dennis, and Garcia-Diaz, Daniel. 2003. Comparing the costs of federal housing assistance programs. *Economic Policy Review*. 9(2), June, p. 147-166.
http://www.newyorkfed.org/rmaghome/econ_pol/2003/403dipa.pdf {08/20/03}.

- DiVenti, Theresa R. 1998. The GSEs' purchases of single-family rental property mortgages. Housing Finance Working Paper No. HF-004. Office of Policy Development and Research, U.S. Department of Housing and Urban Development, March. http://www.huduser.org/publications/pdf/wp_004.pdf
 Dolbeare, Cushing. 2001. Housing affordability: Challenge and context. *Cityscape: A Journal of Policy Development and Research* 5(2) pp. 111-130.
<http://www.huduser.org/periodicals/cityscape/vol5num2/dolbeare.pdf> {01/13/06}

- Downs, A. 1977. Impact of housing policies on family-life in United States since World War 2. *Daedalus*. 106(2), p.163-180.

Downes, Thomas A.; Zabel, Jeffrey E. 2002. The Impact of School Characteristics on House Prices: Chicago 1987-1991. *Journal of Urban Economics*. 52(1), July, pp. 1-25.
http://www.elsevier.com/wps/find/journaldescription.cws_home/622905/description#description {4/3/2007}

We estimate the impact of school characteristics on house prices using data from Chicago for 1987-91. We merge information from the American Housing Survey and the Illinois School-Report Cards and assign to each house the school-level data for the closest school. The evidence suggests that the school-level variables are significantly better in describing house values than the district-level data. We find that controlling for unobserved, temporally stable determinants of house values is necessary to obtain unbiased estimates of the impact of school characteristics on house prices. Using this specification, we find that homeowners pay attention to school outputs, i.e., test scores (the elasticity is approximately one), and not to inputs, i.e., per-pupil expenditures.

Downing, Chris and Wallace, Nancy. 2000. A real options approach to housing investment. Working paper. Board of Governors of the Federal Reserve System (U.S.), Finance and Economics Discussion Series: 2000-30. {4/4/2007}

In this paper, we study investments by existing homeowners to improve their homes. The value of a house is modeled as the expected net present value of a perpetual stream of service flows emanating from the attributes of the house. An important innovation in our model is that the set of house attributes evolves over time according to the investment decisions of the homeowner. The homeowner's decisions to invest in house attributes are modeled as real options. Our model of investment embeds a multi-factor term structure model and a general model of the evolution of service flows. We employ numeric simulations to explore the properties of the investment model, and to motivate our empirical test of the model. Using a panel from the American Housing Survey, we test two implications of the real option theory. We test whether investment is more likely when the spread between the return to housing and the cost of capital is wide, and we test whether greater spread volatility depresses investment. The results indicate that homeowner investment behavior is consistent with the theory, even after controlling for business cycle, aging, tenure and for-sale influences.

Drew, Rachel Bogardus. 2006. Buying For Themselves: An Analysis of Unmarried Female Home Buyers. Joint Center for Housing Studies Harvard University. Working paper N06-3, June.
http://www.jchs.harvard.edu/publications/markets/n06-3_drew.pdf {7/10/2006}

Drew, Rachael Bogardus. 2002. New Americans, new homeowners: The role and relevance of foreign-born first-time homebuyers in the U.S. housing market. Harvard University, Joint Center for Housing Studies. Working paper N02-02. August. http://www.jchs.harvard.edu/publications/homeownership/drew_N02-2.pdf {12/11/02}

This paper uses the recently released 2001 American Housing Survey to analyze the differences between the demographic, geographic, housing and financial characteristics of native and foreign-born first-time homebuyers since 1997. It also examines the differences among racial and ethnic groups of foreign-born first-time buyers. The paper finds that:

- Foreign-born homeowners have over 1.2 trillion in housing wealth- one-tenth of the total national housing wealth – despite representing only 8 percent of all homeowners • One in five foreign-born homeowners is a recent first-time homebuyer
- The median house value of foreign-born first-time homebuyers is \$150,000 - 50 percent higher than that of native-born first-time buyers largely as a result of the concentration of immigrant households in metropolitan areas with high cost housing.
- To afford these more expensive homes, foreign-born recent first-time homebuyers are making larger down payments and shouldering heavier cost burdens than comparable native-born homebuyers
- A larger share of foreign-born than native-born first-time homebuyers live in metropolitan areas; however within metro areas, foreign and native-born first-time homebuyers are equally distributed among central city and suburban areas.

The differences evident between native and first-time homeowners are in some respects reflective of differences between immigrants and natives overall. Other characteristics are a function of the regional and metropolitan concentration of immigrant households. As more immigrants continue to arrive in the United States, housing markets in the future will be shaped in part by the patterns and behaviors exhibited by new foreign-born homebuyers.

Duda, Mark and Belsky, Eric S. 2001. The Anatomy of the Low-Income Homeownership Boom in the 1990s. Working paper LIHO-01.1, Joint Center for Housing Studies, Harvard University, July.

<http://www.jchs.harvard.edu/publications/homeownership/liho01-1.pdf>
{1/26/2006}

Despite an unprecedented boom in homeownership that added seven million net new owners between 1994 and 1999 and drove the homeownership rate nearly three percentage points higher to 66.8 percent, relatively little is known about where people have been buying homes and the types of homes they have been buying. This paper fills in some of gaps in our knowledge of what and where low-income and minority homebuyers have been buying using the American Housing Survey and data reported pursuant to the Home Mortgage Disclosure Act. Manufactured housing is shown to play a particularly important role in satisfying low-income buyers' housing demand. More than one-quarter of such buyers purchased manufactured homes nationwide in 1997, and in the South in 1997 fully 40 percent bought them. In the Northeast and in central cities, apartment condos also have played an important role in meeting low-income ownership demand—as much as one-quarter—but for only about 10 percent of that demand nationwide.

Large shares of low-income and minority borrowers are purchasing in the suburbs and outside of low-income census tracts. The extent to which the move to low-income homeownership has been associated with a move to opportunity remains an open question, but it appears that it has led to at least some income mixing in the suburbs as significant portions of low-income borrowers in the suburbs have been purchasing homes in moderate and middle income census tracts. It also appears, however, that it has not led to materially lower levels of segregation by race in the case of blacks, but it is less clear whether it has done so for Hispanics. It is also the case that whites and Asians have largely avoided buying homes in areas where a majority of other buyers over the 1993-99 period have been minorities. In both the cases of the income and the race/ethnicity of homebuyers, however, clustering remains more the rule than the exception. Low-income homebuyers, although less clustered near the urban core than low-income renters,

nevertheless are far more likely to buy near the CBD than are high-income buyers. Minorities also tend to purchase homes closer to the CBD but the degree to which this is the case varies widely in the nine Metropolitan Statistical Areas (MSAs) examined, and is much truer for blacks than Hispanics. In most places, there are many census tracts where more than half of buyers are low-income and are minorities, and these are typically contiguously located close to the center of the city.

Duda, Mark and Belsky, Eric S. 2001. Asset Appreciation, Timing of Purchases and Sales, and Returns to Low-Income Homeownership. Working paper LIHO-01.6, Joint Center for Housing Studies, Harvard University, August.
<http://www.jchs.harvard.edu/publications/homeownership/liho01-6.pdf>
1/26/2006}

Because home equity is low-income households' dominant form of wealth, an understanding of the price dynamics of the housing stock held by these owners and the timing of their purchases and sales is important for understanding the risk-return tradeoffs associated with their decision to buy homes. Asset appreciation enjoyed or depreciation suffered by individual owners depends, however, not only on price movements in the lower range of the house price distribution or in low-income neighborhoods. It depends also and importantly on the market timing of low-income purchases and sales and on the willingness and ability of low-income homebuyers to weather declines in home prices and the broader economic downturns that often accompany them. The only way to evaluate the shares of low-income homebuyers that sell at an inflation-adjusted price greater or lesser than the price they paid is to analyze linked purchase and sales information for individual low-income owners.

In this paper, we build upon and advance earlier efforts by using matched pairs of housing transactions in four MSAs for homes both purchased and sold between 1982 and 1999. We compare the returns (defined restrictively throughout as change in asset value net of transaction costs) earned by buyers of low-cost housing to those of other buyers. (Low cost homes are defined as homes affordable to those earning 80 percent or less of the area median income under assumptions about mortgage terms and costs in the year of purchase.) Contrary to the general public perception that low-cost homeowners are more likely to experience real losses when they resell, our findings suggest that losses are generally less common and less severe among those who purchased homes that would have been affordable to low-income households at the time of purchase. Nevertheless, for all groups, real losses are remarkably common.

We also consider the market timing of sales decisions by looking at returns to low, middle, and high-cost homes in each area over different phases of the housing cycle. In almost all cases we find that low-cost owners are substantially more likely to sell at a profit during market upswings than owners of mid- and high-cost units. Owners of low-cost homes are also noticeably less likely to suffer losses when selling during market downturns. Finally, we examine how the home-price composition of purchases varies over different phases of the housing cycle in all four markets. During the 1980s and the early 1990s, low-cost homes comprised a larger share of purchases near the trough than during the peak, while high-cost owners accounted for a larger share of purchases near the peak and on the downslide. We present evidence that low-income buyers have been accounting for a growing proportion of all buyers at what now may be approaching peak prices in many areas, raising questions about the consequences of the recent surge in low-income homeownership on the distribution of returns.

Duncan, W.W. 1996. Rehabilitation: An affordable housing strategy. *Journal of Urban Technology*. 3(3), Summer, p. 1-12.

Early, Dirk W. 1998. The Role of Subsidized Housing in Reducing Homelessness: An Empirical Investigation Using Micro-data. *Journal of Policy Analysis and Management*. 17(4), Fall, pp. 687-96. <http://www3.interscience.wiley.com/cgi-bin/jhome/34787> {4/4/2007}

Additional funding for subsidized housing is one of the most commonly proposed solutions to the problem of homelessness. For example, the Interagency Council on the Homeless has called for a \$2 billion increase in the budget of the Department of Housing and Urban Development (HUD) to address the shortage of subsidized housing. However, research on the effect of subsidized housing in reducing homelessness is far from conclusive. This study combines data from the American Housing Survey (AHS) with a survey of the homeless to estimate the effectiveness of subsidized housing in reducing homelessness. The results indicate that subsidized housing has not targeted those most at risk of being homeless, and therefore a simple expansion of existing housing programs will have little effect on the number of homeless.

Early, Dirk W. and Phelps, Jon T. 1999. Rent Regulations' Pricing Effect in the Uncontrolled Sector: An Empirical Investigation. *Journal of Housing Research*. 10(2), pp. 267-85. <http://www.fanniemaefoundation.org/programs/jhr.shtml> {4/4/2007}

Rent controls, designed to lower the cost of housing for renters, may have the perverse effect of increasing rents for tenants in the unregulated sector. Although new construction is exempt from current rent control laws, a reduction in supply of rental housing will occur if investors are wary of future controls affecting their units. Also, if controls reduce landlord maintenance, total housing supply in a market will fall. Using 1984 to 1996 data from the American Housing Survey, this study examines the role of rent controls in determining the variations in prices of uncontrolled rental housing across metropolitan areas. The results suggest a positive and statistically significant relationship between the introduction of rent control and price in the uncontrolled sector. However, the link between controls and prices declines through time and may completely disappear after 20 to 30 years with no new construction subject to controls.

Early, Dirk W. 2004. The determinants of homelessness and the targeting of housing assistance. *Journal of Urban Economics*. 55(1), January, p. 195-214. {02/12/04}

This study combines data from the Survey of Income and Program Participation with the National Survey of Homeless Assistance Providers and Clients to estimate a conditional probability model of homelessness. The results suggest which factors are important predictors of homelessness and argue that gender, age, and race of the household head, are important determinants of whether a household is homeless. Using the results of the model predicting homelessness to simulate the effects of the removal of housing subsidies from the subsidized population indicates that subsidized housing could be targeted better toward those most at risk of being homeless.

Eggers, Frederick J, and Burke, Paul E. 1996. Can the national homeownership rate be significantly improved by reaching under served markets? *Housing Policy Debate*. 7(1), p. 83-101.

- Eggers, Frederick J. 2001. Homeownership: A housing success story. *Cityscape: A Journal of Policy Development and Research* 5(2), pp. 43-56.
<http://www.huduser.org/periodicals/cityscpe/vol5num2/eggers.pdf> {01/13/06}
- Eggers, Frederick J. and Moumen, Fouad. 2005. *Components of Inventory Change: 2001-2003*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research by ICF Consulting and Econometrica, Inc. August. <http://www.huduser.org/datasets/cinch/cinch01-03/CINCHReportAugust2005.pdf>
- Eggers, Frederick J. and Moumen, Fouad. 2005. *Components of Inventory Change And Rental Market Dynamics: Anaheim-Santa Ana 1994-2002*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research by Econometrica, Inc. February.
http://www.huduser.org/datasets/cinch/cinch02/AnaheimCINCH_1994-2002.pdf
- Eggers, Frederick J. and Moumen, Fouad. 2005. *Components of Inventory Change And Rental Market Dynamics: Buffalo 1994-2002*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research by Econometrica, Inc. February.
http://www.huduser.org/datasets/cinch/cinch02/BuffaloCINCH_1994-2002.pdf
- Eggers, Frederick J. and Moumen, Fouad. 2005. *Components of Inventory Change And Rental Market Dynamics: Charlotte 1995-2002*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research by Econometrica, Inc. February.
http://www.huduser.org/datasets/cinch/cinch02/CharlotteCINCH_1995-2002.pdf
- Eggers, Frederick J. and Moumen, Fouad. 2005. *Components of Inventory Change And Rental Market Dynamics: Columbus 1995-2002*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research by Econometrica, Inc. February.
http://www.huduser.org/datasets/cinch/cinch02/ColumbusCINCH_1995-2002.pdf
- Eggers, Frederick J. and Moumen, Fouad. 2005. *Components of Inventory Change And Rental Market Dynamics: Dallas 1994-2002*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research by Econometrica, Inc. February.
http://www.huduser.org/datasets/cinch/cinch02/DallasCINCH_1994-2002.pdf
- Eggers, Frederick J. and Moumen, Fouad. 2005. *Components of Inventory Change And Rental Market Dynamics: Fort Worth-Arlington 1994-2002*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research by Econometrica, Inc. February.
http://www.huduser.org/datasets/cinch/cinch02/FortWorth-ArlingtonCINCH_1994-2002.pdf

- Eggers, Frederick J. and Moumen, Fouad. 2005. *Components of Inventory Change And Rental Market Dynamics: Kansas City 1995-2002*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research by Econometrica, Inc. February.
http://www.huduser.org/datasets/cinch/cinch02/KansasCityCINCH_1995-2002.pdf
- Eggers, Frederick J. and Moumen, Fouad. 2005. *Components of Inventory Change And Rental Market Dynamics: Miami-Ft. Lauderdale 1995-2002*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research by Econometrica, Inc. February.
http://www.huduser.org/datasets/cinch/cinch02/Miami-FtLauderdaleCINCH_1995-2002.pdf
- Eggers, Frederick J. and Moumen, Fouad. 2005. *Components of Inventory Change And Rental Market Dynamics: Milwaukee 1994-2002*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research by Econometrica, Inc. February.
http://www.huduser.org/datasets/cinch/cinch02/MilwaukeeCINCH_1994-2002.pdf
- Eggers, Frederick J. and Moumen, Fouad. 2005. *Components of Inventory Change And Rental Market Dynamics: Phoenix 1994-2002*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research by Econometrica, Inc. February.
http://www.huduser.org/datasets/cinch/cinch02/PhoenixCINCH_1994-2002.pdf
- Eggers, Frederick J. and Moumen, Fouad. 2005. *Components of Inventory Change And Rental Market Dynamics: Portland 1995-2002*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research by Econometrica, Inc. February.
http://www.huduser.org/datasets/cinch/cinch02/PortlandCINCH_1995-2002.pdf
- Eggers, Frederick J. and Moumen, Fouad. 2005. *Components of Inventory Change And Rental Market Dynamics: Riverside-San Bernardino-Ontario 1994-2002*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research by Econometrica, Inc. February.
http://www.huduser.org/datasets/cinch/cinch02/Riverside-SanBernardino-OntarioCINCH_1994-2002.pdf
- Eggers, Frederick J. and Moumen, Fouad. 2005. *Components of Inventory Change And Rental Market Dynamics: San Diego 1994-2002*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research by Econometrica, Inc. February.
http://www.huduser.org/datasets/cinch/cinch02/San_DiegoCINCH_1994-2002.pdf

Eggers, Frederick J. and Moumen, Fouad. 2005. *Effects of Changes in Ownership on Repair and Remodeling Behavior in Owner-Occupied Housing*. Prepared for the U.S. Department of Housing and Urban Development, Office of Policy Development and Research, by Econometrica, Inc., January 29.
http://www.huduser.org/Datasets/ahs/Changed_Ownership_and_Remodeling.pdf

Eggers, Frederick J. and Moumen, Fouad. 2005. *Impact of Moving and Job Changes on Commuting Time*. Prepared for the U.S. Department of Housing and Urban Development, Office of Policy Development and Research, by Econometrica, Inc., January 28.
http://www.huduser.org/Datasets/ahs/Moving_and_Commting.pdf

Eggers, Frederick J. and Moumen, Fouad. 2005. *Rental Market Dynamics: 2001-2003*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research by ICF Consulting and Econometrica, Inc. August. <http://www.huduser.org/datasets/cinch/cinch01-03/RentalDynamicsReportAugust2005.pdf>

Ellen, Ingrid Gould. 2000. *Sharing America's neighborhoods: The prospects for stable racial integration*. Cambridge and London: Harvard University Press, Pp. viii, 228. \$39.95. ISBN 0-674-00301-2. {01/10/06}

JEL 2001-0915

Explores the underlying dynamics of change in America's racially mixed neighborhoods and the circumstances under which mixed neighborhoods are more likely to remain integrated. Reports on the extent and stability of racial integration in the United States. Presents the race-based neighborhood stereotyping hypothesis of neighborhood racial transition, which is based on two propositions: that whites tend to assume that mixed neighborhoods will not stay that way for long and will become predominantly black and that they associate predominantly black neighborhoods with poor neighborhood quality and on that basis stay away. Relying mainly on 1980 and 1990 census tract data from thirty-four metropolitan areas, examines the correlates of racial stability in integrated neighborhoods. Using U.S. Census Bureau American Housing Survey (AHS) data, which includes information on individual households and their neighborhoods, explores how racial composition and change affect household satisfaction with a neighborhood; how racial composition affects the decision to remain in or exit a neighborhood; and the importance of racial composition as a factor in deciding whether to move into a neighborhood. Presents policy implications. Ellen is Assistant Professor in the Robert F. Wagner Graduate School of Public Service, New York University. Index.

Ellickson, R.C. 1992. The untenable case for an unconditional right to shelter. *Harvard Journal of Law And Public Policy*. 15(1), Winter, p. 17-34.

Elmer, Vicki. 2004. Housing inequality, cohorts and immigration: Past, present, and future. Paper delivered at the annual meeting of the Urban Affairs Association, Washington, DC, April 1. {9/22/2006}

Englund P., Gordon, TM, and Quigley JM. 1999. The valuation of real capital: A random walk down Kungsgatan. *Journal of Housing Economics*. 8(3), September, p. 205-216. {12/28/99}

Federal Interagency Forum on Aging-Related Statistics. 2007. *Data Sources on Older Americans*. Washington DC: Federal Interagency Forum on Aging-Related Statistics, U.S. Government Printing Office. http://www.agingstats.gov/Data%20Sources%20on%20Older%20Americans/2006/DS_OA_2006.pdf {2/23/2007}

Federal Interagency Forum on Child and Family Statistics. 1999. *America's Children: Key National Indicators of Well-Being*. Washington DC: Federal Interagency Forum on Child and Family Statistics, U.S. Government Printing Office.

Feldman, R.M. 1996. Constancy and change in attachments to types of settlements. *Environment and Behavior*. 28(4), July, p. 419-445.

Ficke, Robert C. and Piesse, Andrea. 2004, *Evaluation of the Family Self-Sufficiency Program: Retrospective Analysis, 1996 to 2000*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research by WESTAT, Rockville, MD, April. <http://www.huduser.org/publications/pdf/selfsufficiency.pdf>

Fisher, Lynn; Pollakowski, Henry; and Zabel, Jeffery. 2006. Amenity-based housing affordability indexes. Paper delivered to AREUEA Mid-Year Meeting, Washington, DC, May 30. {7/3/2006}

Follain, James R.; Ling, David C.; and McGill, Gary A. 1993. The Preferential Income Tax Treatment of Owner-Occupied Housing: Who Really Benefits? *Housing Policy Debate*. 4(1), pp. 1-24. <http://www.fanniemaefoundation.org/programs/hpd.shtml> {4/4/2007}

This article uses a model that includes an explicit measure of net implicit rental income to examine the size and distribution of the tax expenditure to owner-occupied housing across and within homeowner income classes. The model is derived from 1989 American Housing Survey data. The analysis leads to three major conclusions. First, on net, the inclusion of net implicit income in the measure of homeowner tax savings adds a substantial amount to the estimated tax expenditure given to owner-occupied housing. Second, the interaction of changes in the standard deduction and in the tax treatment of itemized non-housing expenses has rendered the mortgage interest deduction worthless for many low- and moderate-income households. Third, although most of the expenditure is distributed to high-income households, the distributional effects of eliminating the expenditure to owner-occupied housing depend on the manner in which these savings are distributed.

Friedman, Samantha, and Rosenbaum, Emily. 2004. Nativity status and racial/ethnic differences in access to quality housing: Does homeownership bring greater parity? *Housing Policy Debate*. 15(4), p. 865-902. {01/14/05}

In this article, we use data from the 2001 American Housing Survey to evaluate whether nativity-status differences in housing conditions vary by tenure and whether nativity status or race/ethnicity plays a more important role in determining housing conditions. Overall, when compared with native-born households, recently arrived immigrant households are significantly more likely to be crowded, but either as likely or significantly less likely to live in poorer-quality housing. Further analysis revealed, however, that race/ethnicity is a stronger indicator than immigrant status in predicting housing outcomes. Among homeowners, black and Hispanic households, regardless of nativity status, exhibited lower-quality housing outcomes than native-born and, frequently, foreign-born whites. Thus, we find that minorities are doubly disadvantaged: They are less likely to attain homeownership than whites, and once they do, they are almost always significantly more likely to live in poorer-quality housing.

Fuller, S.K. 1991. Evaluating fire protection investment decisions for homeowners. *Socio-Economic Planning Sciences*. 25(2). p. 143-154.

Gabriel, Stuart A. and Rosenthal, Stuart S. 1999. Location and the Effect of Demographic Traits on Earnings. *Regional Science and Urban Economics*. 29(4), July, pp. 445-61.
http://www.elsevier.com/wps/find/journaldescription.cws_home/505570/description#description {4/3/2007}

With mobile workers and competitive markets, equilibrium nominal wage rates rise with the local cost of living but fall with the value of local amenities. Earnings and wage regressions that ignore such effects may suffer from omitted variable bias because observed education and demographic attributes affect both worker skill levels and location choice. Geographic fixed effects can be used to control for unobserved locational attributes provided that their scope is at least as narrow as the underlying labor markets, but not so narrow as to introduce simultaneity problems arising from the endogenous choice of location on the basis of income. Estimates from the 1985-1989 American Housing Survey suggest that SMSA-level fixed effects control for unobserved locational attributes without introducing simultaneity problems. In addition, failure to control for location leads to biased estimates of the effect of important demographic characteristics.

Garcia, Ramon. 2003. Residential foreclosures in the City of Buffalo, 1990-2000. Working paper, Buffalo Branch, Federal Reserve Bank of New York, 2003.
http://www.newyorkfed.org/buffalo/foreclosure_study.pdf {08/20/03}.

Gilderbloom, J.I., and Mullins, R.L. 1995. Elderly housing needs—an examination of the American Housing Survey. *International Journal of Aging & Human Development*. 40(1), p. 57-72.

Glaeser, Edward L. and Gyourko, Joseph. 2003. The impact of building restrictions on housing affordability. *Economic Policy Review*. 9(2), June, p. 21-39.
http://www.newyorkfed.org/rmaghome/econ_pol/2002/702glae.pdf {08/20/03}.

Glaeser, Edward L. and Luttmer, Erzo F. P. 2003. The misallocation of housing under rent control. *American Economic Review*. 93(4), September, pp. 1027-1046. {12/30/05}

The standard analysis of price controls assumes that goods are efficiently allocated, even when there are shortages. But if shortages mean that goods are randomly allocated across the consumers that want them, the welfare costs from misallocation may be greater than the under supply costs. We develop a framework to empirically test for misallocation. The methodology compares consumption patterns for demographic subgroups in rent-controlled and free-market places. We find that in New York City, which is rent-controlled, an economically and statistically significant fraction of apartments appears to be misallocated across demographic subgroups. (JEL C25, D12, D61, R20)

Goldstein, Deborah. 1999. Understanding Predatory Lending: Moving Towards a Common Definition and Workable Solutions. Working paper W99-11, Joint Center for Housing Studies, Harvard University, September. http://www.jchs.harvard.edu/publications/finance/goldstein_w99-11.pdf {1/27/2006}

To date, various parties have used the term "predatory lending" to describe a wide range of abuses. Regulators, industry and advocates have not agreed on a single definition, but have used the term individually to refer to different practices and loan terms. This paper describes predatory lending as a set of loan terms and practices that falls between appropriate risk-based pricing by subprime lenders and blatant fraud. Thus, all subprime lending is not predatory, but typically relies on risk-based pricing to serve borrowers who cannot obtain credit in the prime market. The higher degree of risk associated with subprime borrowers require a higher cost for a subprime loan. At the other end of the spectrum, cases of blatant fraud are predatory, but less common and can generally be combated with current criminal statutes. The most difficult cases are those in which loan terms seem out of line with standard prices. In particular, high-cost loans coupled with unscrupulous practices that pressure a borrower into a loan are predatory. The paper sets forth three potential regulatory and legislative solutions that may address the issue of predatory lending.

Goldstein, D. 2000. Protecting consumers from predatory lenders: Defining the problem and moving toward workable solutions. *Harvard Civil Rights-Civil Liberties Law Review*. 35(1), Winter, p. 225-256.

Goodman, Allen C. 2002. Estimating Equilibrium Housing Demand for "Stayers". *Journal of Urban Economics*. 51(1), January, pp. 1-24. http://www.elsevier.com/wps/find/journaldescription.cws_home/622905/description#description {4/3/2007}

This study models demand by owner-occupied housing "stayers." Most consumers do not move routinely in response to small changes in income or housing price, so the "own-rent" and "move-stay" decisions are modeled as multi-period optimization in the presence of transaction costs. The empirical section uses the "American Housing Survey" to provide a panel of household stayers for a metropolitan area. Results indicate that income and value-rent measures in different years have separable and significant impacts on housing demand. Estimated conditional income elasticity's are between 0.40 and 0.45.

Goodman, Allen C. 2003. Following a Panel of Stayers: Length of Stay, Tenure Choice, and Housing Demand. *Journal of Housing Economics*. 12(2), June, pp. 106-33. http://www.elsevier.com/wps/find/journaldescription.cws_home/622881/description#description {4/3/2007}

Due to moving and transactions costs, most housing buyers do not routinely move in response to small changes in income or housing price. In this paper, the "own-rent," "move-stay," and length-of-stay decisions are modeled as multi-period optimization in the presence of transactions costs. The empirical section uses the American Housing Survey to provide a unique 12-year panel of household stayers for the Detroit metropolitan area. Results indicate that income and value-rent measures in different years have separable and significant impacts on housing demand. Estimated full income elasticity's are between 0.30 and 0.35.

Goodman, Jack. 1998. The Costs of Owning and Renting Housing: 1985-1995. National Multi Housing Council working paper. {6/16/2006}

...Goodman uses actual national trends in home prices and rents between 1985 and 1995 to estimate the costs of owning and renting over this period. Using the American Housing Survey from 1985, he estimates the rent on a prototypical single family home by a hedonic regression model, with the value of the home based on a tabulation of owner reported home values.

Goodman J. 1999. The changing demography of multifamily rental housing. *Housing Policy Debate*. 10(1), P. 31-57.

Goodman, Jack, 2002. Housing affordability in the United States: Trends, interpretations, and outlook. Paper presented at the AREUEA 30th Annual Mid-Year Meeting, Washington DC, May 28-29, 2002. {06/12/02}

Goodman, Jack, 2002 Apartment performance in good times and bad. Manuscript, December 23. {08/11/03}

Goodman, Jack. 2005. Houses, Apartments, and Property Tax Incidence. Working paper W05-0, Joint Center for Housing Studies, Harvard University, February. <http://www.jchs.harvard.edu/publications/finance/w05-2.pdf>

Goodman, Jack. 2005. Constant Quality Rent Indexes for Affordable Housing. Working paper W05-4, Joint Center for Housing Studies, Harvard University, June. <http://www.jchs.harvard.edu/publications/rental/w05-4.pdf>

Gordon, Erika L.; Chipungu, Sandra Lisa; Bagley, Marie; and Zanakos, Sophia I. 2005. *Improving Housing Subsidy Surveys Data Collection: Techniques for Identifying the Housing Subsidy Status of Survey Respondents*. Prepared for: Office of Policy Development and Research U.S. Department of Housing and Urban Development Prepared by: ORC Macro, March. <http://www.huduser.org/publications/pdf/datacollect.pdf>

Gordon, Robert J. and vanGoethem, Todd. 2005. A Century of Housing Shelter Prices: Is There a Downward Bias in the CPI? National Bureau of Economic Research, Inc, NBER Working Papers: 11776. {4/4/2007}

Tenant rental shelter is by far the most important component of the CPI, because it is used as a proxy for owner-occupied housing. This paper develops a wide variety of current and historical evidence dating back to 1914 to demonstrate that the CPI rent index is biased downward for all of the last century. The CPI rises roughly 2 percent per year slower than quality-unadjusted indexes of gross rent, setting a challenge for this research of measuring the rate of quality change in rental apartments. If quality increased at a rate of 2 percent per year, the CPI was not biased downward at all, but if quality increased at a slower rate of 1 percent per year, then the CPI was biased downward at a rate of 1 percent. Our analysis of a rich set of data sources goes backward chronologically, starting with a hedonic regression analysis on a large set of panel data from the American Housing Survey (AHS) covering 1975-2003. Prior to 1975, we have large micro data files from the U. S. Census of Housing extending back to 1930. In addition to the hedonic regression data, we stitch together data on the diffusion of important quality attributes of rental units, including plumbing, heating, and electrification, over the period 1918-73. Our final piece of evidence is based on a study of quality-adjusted rents in a single local community, Evanston IL, covering the period 1925-99. Our overall conclusions are surprisingly consistent across sources and eras, that the CPI bias was roughly -1.0 percent prior to the methodological improvements in the CPI that date from the mid-1980s. Our reliance on a wide variety of methodologies and evidence on types of quality change and their importance, while leaving the outcome still uncertain, at least in our view substantially narrows the range of possibilities regarding the history of CPI bias for rental shelter over the twentieth century.

Greenberg, Michael R. and Schneider, Dona. 1996. *Environmentally Devastated Neighborhoods: Perceptions, Policies, and Realities*. New Brunswick, NJ: Rutgers University Press. {12/20/05}

Greenberg, M. 1997. High-rise public housing, optimism, and personal and environmental health behaviors. *American Journal of Health Behavior*. 21(5), September-October, p. 388-398.

Greenberg, M. 1998. Understanding the civic activities of the residents of inner-city neighborhoods: Two case studies. *Urban Geography*. 19(1), January 1, p. 68-76.

Greenberg, M. R. 1999. Improving neighborhood quality: A hierarchy of needs. *Housing Policy Debate*. 10(3), p. 601-624. {12/28/99}

Greenberg, M.R., and Williams, B. 1999. Geographical dimensions and correlates of trust. *Risk Analysis*. 19(2), April, P159-169.

A sample of 323 residents of New Jersey stratified by neighborhood quality (excellent, good, fair, poor) was gathered to determine if trust in science and technology to protect public health and environment at the societal scale was associated with trust of the local officials, such as the mayor, health officer, developers, mass media, and legislators who are guardians of the local environment. Societal (trust of science and technology) and neighborhood (mayor, health officer) dimensions of trust were found. These societal and neighborhood trust dimensions were weakly correlated. Respondents were divided into four trust-of-authority groups: high societal-high neighborhood, low societal-low neighborhood, high societal-low neighborhood, and low societal-high neighborhood. High societal-high neighborhood trust respondents were older, had lived in the neighborhoods for many years, were not troubled much by neighborhood or societal environmental threats, and had a strong sense of control over their environment. In strong contrast, low societal-low neighborhood trust respondents were relatively young, typically had lived in their present neighborhood for a short time, were troubled by numerous neighborhood and societal environmental threats, did not practice many personal public health practices, and felt little control over their environment.

Greenberg, M.R., and Schneider, D.F. 1995. Gender differences in risk perception—effects differ in stressed vs nonstressed environments *Risk Analysis*. 15(4), August, p. 503-511.

Grigsby, William G. and Bourassa, Steven C. 2004. Section 8: The Time for Fundamental Program Change? *Housing Policy Debate*. 15(4), pp. 805-34. {01/11/06}

In this article, we use data from the 2001 American Housing Survey to evaluate whether nativity-status differences in housing conditions vary by tenure and whether nativity status or race/ethnicity plays a more important role in determining housing conditions. Overall, when compared with native-born households, recently arrived immigrant households are significantly more likely to be crowded, but either as likely or significantly less likely to live in poorer-quality housing. Further analysis revealed, however, that race/ethnicity is a stronger indicator than immigrant status in predicting housing outcomes. Among homeowners, black and Hispanic households, regardless of nativity status, exhibited lower-quality housing outcomes than native-born and, frequently, foreign-born whites. Thus, we find that minorities are doubly disadvantaged: They are less likely to attain homeownership than whites, and once they do, they are almost always significantly more likely to live in poorer-quality housing.

Guerrero, Alvaro Martin. 2003. Method for Allocation: DIY & PRO Home Improvement Expenditures and Households Using the 1995-2001 AHS National File. Research note N04-2, Joint Center for Housing Studies, Harvard University, September. <http://www.jchs.harvard.edu/publications/remodeling/n04-2.pdf>

Gutierrez, T. and Bohrer, P. 1998. Gain exclusion on personal residences: Is rental a better idea after TRA '97? *Journal of Taxation*. 89(2), August, p. 105-111.

Gyourko, Joseph, and Saiz, Albert. 2003. Reinvestment in the housing stock: the role of construction costs and the supply side. *Journal of Urban Economics*. 55(2), March, p. 238-256. {3/26/04}

While rational real estate entrepreneurs generally will not redevelop if asset values are below replacement costs, we investigate whether homeowners who have investment and consumption motivations behave similarly. We use a house's average ratio of value-to-construction cost to proxy for the value-to-cost ratio of marginal investments in renovation and find a strong negative impact on housing reinvestment for units with ratios below one. Owners of homes with market values below replacement costs spend up to 50 percent less on renovation than do owners of similar homes with market values above construction costs. Given the economically meaningful impact on reinvestment in housing that we find, urban scholars and policy makers should begin to pay more attention to the supply side of the housing market.

Gyourko, Joseph and Tracy, Joseph. 1999. A look at real housing prices and incomes: Some implications for housing affordability and quality. *FRBNY Economic Policy Review*. 5(3), September, p. 63-77
http://www.newyorkfed.org/rmaghome/econ_pol/999jgyo.pdf {08/20/03}

Gyourko, Joseph and Tracy, Joseph. 2003. Using home maintenance and repairs to smooth variable earnings. Staff Report 168, Federal Reserve Bank of New York, May, http://www.newyorkfed.org/rmaghome/staff_rp/2003/sr168.pdf {08/20/03}.

Recent research indicates that the marked increase in U.S. income inequality over the last twenty-five years has not been matched by a similar increase in consumption inequality. This paper examines the role of saving/dissaving in a house as a vehicle for consumption smoothing. Data from the American Housing Survey show that expenditures on home maintenance and repairs are economically significant, amounting to roughly \$1,750 per household each year. This figure is comparable to the labor literature estimates that put households' average annual transitory income variance at about \$2,200. Our calculations show a significant elasticity of maintenance and repair expenditures to transitory income shocks. The elasticity's are higher for less well educated households, which are more likely to be liquidity constrained than their better educated counterparts.

JEL classification: D12, E21, R21

Hammitt, James K.; Belsky, Eric S.; Levy, Jonathan I.; and Graham, John D. 1999. Residential Building Codes, Affordability, and Health Protection: A Risk-Tradeoff Approach. Working paper W99-1, Joint Center for Housing Studies, Harvard University, March.

http://www.jchs.harvard.edu/publications/remodeling/hammitt_w99-1.pdf
{1/27/2006}

Residential building codes intended to promote health and safety may produce unintended countervailing risks by adding to the cost of construction. Higher construction costs increase the price of new homes and may increase health and safety risks through “income” and “stock” effects. The income effect arises because households that purchase a new home have less income remaining for spending on other goods that contribute to health and safety. The stock effect arises because suppression of new-home construction leads to slower replacement of less safe housing units. These countervailing risks are not presently considered in code debates. We demonstrate the feasibility of estimating the approximate magnitude of countervailing risks by combining the income effect with three relatively well understood and significant home-health risks. We estimate that a code change that increases the nationwide cost of constructing and maintaining homes by \$150 (0.1% of the average cost to build a single-family home) would induce offsetting risks yielding between 2 and 60 premature fatalities or, including morbidity effects, between 20 and 800 lost quality-adjusted life years (both discounted at 3%) each year the code provision remains in effect. To provide a net health benefit, the code change would need to reduce risk by at least this amount. Future research should refine these estimates, incorporate quantitative uncertainty analysis, and apply a full risk-tradeoff approach to real-world case studies of proposed code changes.

Hansen, J.L., Formby, J.P., and Smith, W.J. 1994. The measurement and trend of housing inequality in the United States, 1978-85. *Applied Economics*. 26(10), October, p. 1021-1028.

Hansen, Julia L.; Formby, John P.; and Smith, W. James. 1998. Estimating the Income Elasticity of Demand for Housing: A Comparison of Traditional and Lorenz-Concentration Curve Methodologies. *Journal of Housing Economics*. 7(4), December, pp. 328-42.

http://www.elsevier.com/wps/find/journaldescription.cws_home/622881/description#description
{4/3/2007}

The paper provides a comparative analysis of traditional and Lorenz concentration curve (LC) approaches to estimating the income elasticity of demand for housing. Using data from the 1989 American Housing Survey, we compare LC results with those obtained from a traditional model in which tenure choice and housing demand are jointly determined, and which includes non-income determinants of demand. The comparison is intended to provide researchers with information concerning specific differences in empirical results obtained using the two approaches.

Harding, John P.; Rosenthal, Stuart S.; Sirmans, C. F. 2003. Estimating Bargaining Power in the Market for Existing Homes. *Review of Economics and Statistics*. 85(1), February, pp 178-88. <http://www.mitpressjournals.org/loi/rest> {4/3/2007}

Although bargaining is common in markets for heterogeneous goods, it has largely been ignored in the hedonic literature. In a break from that tradition, we establish sufficient conditions that permit one to identify the effect of buyer and seller bargaining on hedonic models. Our model is estimated using a previously overlooked feature of the American Housing Survey that permits us to observe characteristics of both buyers and sellers. Results suggest that household wealth, gender, and other demographic traits influence bargaining power. In addition, variation in bargaining power arising from the presence of school-age children accounts for anomalous seasonal patterns reported in various widely cited indices of quality-adjusted house prices.

Harding, John P.; Rosenthal, Stuart S. and Sirmans, C.F. 2007. Depreciation of housing capital, maintenance, and house price inflation: Estimates from a repeat sales model. *Journal of Urban Economics*. 61(2), March, pp. 193-217. {2/28/2007}

The rate at which physical capital depreciates is fundamental to investment in the economy. Nevertheless, although housing capital accounts for one-third of the total capital stock, the rate at which housing capital depreciates has only rarely been directly estimated, in part because prior studies do not control for maintenance. For that same reason, widely publicized measures of house price appreciation overstate the capital gain from homeownership. Using data from the American Housing Survey we examine these issues. Over the 1983 to 2001 period, results indicate that gross of maintenance, housing depreciates at roughly 2.5 percent per year, while net of maintenance, housing depreciates at approximately 2 percent per year. Moreover, although the typical home appreciated at an annual real rate of roughly 0.75 percent, after allowing for depreciation and maintenance, the average homeowner experienced little capital gain.

Hardman, Anna and Ioannides, Yannis M. 2004. Neighbors' income distribution: economic segregation and mixing in US urban neighborhoods. *Journal of Housing Economics*. 13(4), December, pp. 368-382. {12/22/04}

The paper describes within-neighborhood economic segregation in US metropolitan areas in 1985 and 1993. It uses the neighborhood clusters of the American housing survey, standardized by metropolitan area income and household size, to explore income distribution within neighborhoods at a scale much smaller than the census tract (a representative sample of households or 'kernels' and their 10 closest neighbors). Joint and conditional distributions portray neighbors' characteristics conditional on the kernel's housing tenure, race, and income. The paper documents both significant income mixing in the majority of US urban micro neighborhoods and the extent of income mixing within neighborhoods of concentrated poverty.

Haughwout, AF. 1999. Regional fiscal cooperation in metropolitan areas: An exploration. *Journal of Policy Analysis and Management*. 18(4), Fall, p. 579-600. {12/28/99}

Haughwout, Andrew F. 2003. Public infrastructure investments, productivity and welfare in fixed geographic areas. Staff Report 104, Federal Reserve Bank of New York. http://www.newyorkfed.org/rmaghome/staff_rp/sr104.pdf {08/20/03}

Measures of the value of public investments are critical inputs into the policy process, and aggregate production and cost functions have become the dominant methods of evaluating these benefits. This paper examines the limitations of these approaches in light of applied production and spatial equilibrium theories. A spatial general equilibrium model of an economy with non-traded, localized public goods like infrastructure is proposed, and a method for identifying the role of public capital in firm production and household preferences is derived. Empirical evidence from a sample of large US cities suggests that while public capital provides significant productivity and consumption benefits, an ambitious program of locally funded infrastructure provision would likely generate negative net benefits for these cities.

Keywords: Infrastructure, Regional Economics, Regional Land and Labor Markets

Harkness, Joseph M. and Newman, Sandra J. 2003. Effects of homeownership on children: The role of neighborhood characteristics and family income. *Economic Policy Review*. 9(2), June, p. 87-107.
http://www.newyorkfed.org/rmaghome/econ_pol/2002/1202hark.pdf {08/20/03}.

Harris, D.R. 1999. Property values drop when blacks move in, because...": Racial and socioeconomic determinants of neighborhood desirability. *American Sociological Review*. 64(3), June, P461-479.

Are housing prices lower in neighborhoods with high concentrations of black residents? If so, is this relationship evidence of pure discrimination, or can it be explained by considering nonracial neighborhood traits? These questions derive their importance from the link between mobility patterns and residential segregation, and the consequent relationship between high levels of segregation and a host of deleterious outcomes. I assess the magnitude and motivations of racial aversion by conducting a hedonic price analysis of geocoded data from the Panel Study of Income Dynamics. I find clear evidence of lower property values in neighborhoods with relatively high proportions of black residents. However, whether it is blacks' race or their socioeconomic status that affects property values depends on whether housing units are rented or owner-occupied.

Haynes, K.E., and Stough, R.R. 1997. The federal urban policy agenda: Recent past and new realities. *Annals of the American Academy of Political and Social Science*. 551, May, p. 73-88.

Herbert, Christopher E. 2001. *An Assessment of the Availability and Cost of Financing for Small Multifamily Properties*. Paper prepared by Abt Associates for the U.S. Department of Housing and Urban Development, Office of Policy Development and Research. <http://www.huduser.org/publications/pdf/smallmultifamily.pdf>

- Herbert, Christopher E. and Belsky, Eric S. 2006. *The Homeownership Experience of Low-Income and Minority Families A Review and Synthesis of the Literature*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research, by Abt Associates Inc., Cambridge, MA, February. http://www.huduser.org/Publications/PDF/hisp_homeown9.pdf {6/16/2006}
- Herbert, Christopher E.; Haurin, Donald R.; Rosenthal, Stuart S; and Duda, Mark. 2005. *Homeownership Gaps Among Low-Income and Minority Borrowers and Neighborhoods*. Produced by Abt Associates for the U.S. Department of Housing and Urban Development, Office of Policy Development and Research.
- Hilber, Christian A. L. 2005. Neighborhood Externality Risk and the Homeownership Status of Properties. *Journal of Urban Economics*, 57(2), March, pp. 213-41. http://www.elsevier.com/wps/find/journaldescription.cws_home/622905/description#description. {4/3/2007}
- In contrast to corporate and institutional investors, single owner-occupiers cannot adequately diversify housing investment risk. Consequently, homeownership should be relatively less likely in places with higher housing investment risk. Using the American Housing Survey, it is documented that neighborhood externality risk, a major component of housing investment risk, substantially reduces the probability that a housing unit is owner-occupied, even when controlling for housing type and numerous location and household specific characteristics. The effects are quantitatively meaningful and change-in-change estimates suggest that the effects are causal.
- Hornik, J., and Israeli, M. 1999. Inferring the distribution of households' duration of residence from data on current residence time. *Journal Of Business & Economic Statistics*. 17(3), July, P. 373-381.
- Estimates of households' expected duration of residence are important to private and public decision-makers. The common methods of estimation have been shown to be unreliable. This article presents a measurement framework for estimating total time of residence using five large sets of published government census data on the housing market. By developing a moving-behavior model, the distribution of total residence duration can be estimated from the census data on the age of current residency (i.e., time since moving into current residence). Among other results, we found that the average total residence duration for all U.S. households, 5.5 years, is about half the average age residence time, 10.7 years. This extended intertemporal model provides more reliable estimates for the age and expected duration of occupancy. Therefore, the model better explains and predicts housing-market behavior and also the demand for the many housing-related products and services.
- Howenstine, F.J. 1994. Homeless prevention—a modern challenge. *Cities*. 11(2), April, p. 83-85.

Hoyt, William H. and Rosenthal, Stuart S. 1997. Household Location and Tiebout: Do Families Sort According to Preferences for Locational Amenities? *Journal of Urban Economics*. 42(2), September, pp. 159-78.
http://www.elsevier.com/wps/find/journaldescription.cws_home/622905/description#description {4/3/2007}

If households sort efficiently across locations, then at a given location families receive the same marginal benefit from the locational amenities. The authors test for such sorting by imposing cross-equation restrictions on hedonic regressions that difference away location- versus house-specific effects. Estimates are obtained using a unique subset of the American Housing Survey in which adjacent housing units are grouped together and observed in both 1985 and 1989. Rejection of the cross-equation restrictions unambiguously implies an inefficient sorting of households. In contrast, the data support the cross-equation restriction which is a necessary but not sufficient condition for efficient sorting.

ICF Consulting. 2002. *Components of Inventory Change: 1985-1987*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research. August.
http://www.huduser.org/Datasets/CINCh/CINCH_1985-1987.pdf

ICF Consulting. 2002. *Components of Inventory Change: 1987-1989*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research. August.
http://www.huduser.org/Datasets/CINCH/CINCH_1987-1989.pdf {1/15/2008}

ICF Consulting. 2002. *Components of Inventory Change: 1989-1991*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research. August.
http://www.huduser.org/Datasets/CINCH/CINCH_1989-1991.pdf {1/15/2008}

ICF Consulting. 2003. *Components of Inventory Change: 1985-1995*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research. September.
http://www.huduser.org/Datasets/CINCh/CINCH_1985-1995.pdf {1/15/2008}

ICF Consulting. 2003. *Components of Inventory Change: 1991-1993*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research. March.
http://www.huduser.org/Datasets/CINCH/CINCH_1991-1993.pdf

ICF Consulting. 2003. *Components of Inventory Change: 1993-1995*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research. June.
http://www.huduser.org/Datasets/CINCh/CINCH_1993-1995.pdf

- ICF Consulting. 2005. *Components of Inventory Change: 1995-1997*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research. February.
http://www.huduser.org/Datasets/CINCh/CINCH_1995-1997.pdf
- ICF Consulting. 2005. *Components of Inventory Change: 1997-1999*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research. February.
http://www.huduser.org/Datasets/CINCh/CINCH_1997-1999.pdf
- ICF Consulting. 2005. *Components of Inventory Change: 1999-2001*. Prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research. February.
http://www.huduser.org/Datasets/CINCh/CINCH_1997-1999.pdf
- Ioannides, Yannis M and Seslen, Tracey N. 2002. Neighborhood Wealth Distributions. *Economics Letters*. 76(3), August, pp. 357-67.
http://www.elsevier.com/wps/find/journaldescription.cws_home/505574/description#description {4/3/2007}

This paper uses data from the neighborhood clusters sample of the 1989 American Housing Survey and the Panel Study of Income Dynamics and its 1989 wealth supplement to study the distribution of wealth within US residential neighborhoods. It uses the Bourguign on decomposable inequality index and finds that wealth is more unequally distributed than income, and income more than housing wealth, at all levels of aggregation, that is, neighborhoods, metropolitan areas, regions and the entire US.

- Ioannides, Yannis M. 2002. Residential neighborhood effects. *Regional Science and Urban Economics*. 32:2, 01-March, pp. 145-165. {01/10/02}

This paper reports an empirical investigation of housing maintenance decisions, which allows for social interactions within small residential neighborhoods with data from the American Housing Survey for 1985 and 1989. The study explores a neglected feature of the data, namely the availability of data of neighborhood clusters for metropolitan areas in the United States, with neighborhoods consisting of a dwelling unit and its 10 nearest neighbors. The paper identifies an important, and statistically very significant, effect of social interactions, while individual and dwelling unit characteristics are accounted for.

Ioannides, Yannis M., and Zabel, Jeffery E. 2002. Interactions, neighborhood selection, and housing demand. Center for Economic Studies, U.S. Census Bureau, Working Papers. {4/4/2007}

This paper contributes to the growing literature that identifies and measures the impact of social context on individual economic behavior. We develop a model of housing demand with neighborhood effects and neighborhood choice. Modeling neighborhood choice is of fundamental importance in estimating and understanding endogenous and exogenous neighborhood effects. That is, to obtain unbiased estimates of neighborhood effects, it is necessary to control for non-random sorting into neighborhoods. Estimation of the model exploits a unique data set of household data that has been augmented with contextual information at two different levels ("scales") of aggregation. One is at the neighborhood cluster level, of about ten neighbors, with the data coming from a special sample of the American Housing Survey. A second level is the census tract to which these dwelling units belong. Tract-level data are available in the Summary Tape Files of the decennial Census data. We merge these two data sets by gaining access to confidential data of the U.S. Bureau of the Census. We overcome some limitations of these data by implementing some significant methodological advances in estimating discrete choice models. Our results for the neighborhood choice model indicate that individuals prefer to live near others like themselves. This can perpetuate income inequality since those with the best opportunities at economic success will cluster together. The results for the housing demand equation are similar to those in our earlier work [Ioannides and Zabel (2000)] where we find evidence of significant endogenous and contextual neighborhood effects.

Ioannides, Yannis M.; Zabel, Jeffrey E. 2003. Neighborhood Effects and Housing Demand. *Journal of Applied Econometrics*. 18(5), September-October, pp. 563-84. <http://www3.interscience.wiley.com/cgi-bin/jhome/4079> {4/3/2007}

In this paper, we estimate a model of housing demand with neighborhood effects. We exploit special features of the national sample of the American Housing Survey and properties of housing markets that allow us to create "natural" instruments and therefore identify the impact of social interactions. We find evidence of both endogenous and contextual neighborhood effects. We report two alternative sets of estimates for neighborhood effects that differ in terms of the instruments we use for estimating the model. When the endogenous neighborhood effect is large the respective contextual effects are weak, and vice versa. The elasticity of housing demand with respect to the mean of the neighbors' housing demands (the endogenous effect) ranges from 0.19 to 0.66 and is generally very significant. The contextual effects are also very significant. A key such effect, the elasticity with respect to the mean of neighbors' permanent incomes, ranges from 0.17 to 0.54.

Ioannides, Yannis M. 2003. Interactive Property Valuations. *Journal of Urban Economics*. 53(1), January, pp. 145-70.
http://www.elsevier.com/wps/find/journaldescription.cws_home/622905/description#description {4/3/2007}

This paper estimates models of social interactions within residential neighborhoods using data on neighborhood clusters for standard metropolitan areas in the United States from the American Housing Survey for 1985 and 1989. It examines effects of social interactions in the form of reaction functions for homeowners' valuation of their properties at the level of the immediate residential neighborhood, with neighborhoods consisting of a randomly chosen dwelling unit and about ten nearest neighbors. The paper identifies the effect of endogenous social interactions to be significant and large, ranging from 0.587 to 0.770, and much more important than the dynamic (autoregressive) structure of the model when both variables are present and both are significant. The interactive regressions that it reports improve upon commonly used hedonic regressions as well. The paper provides empirical support for the notion, common in the real estate world, of the importance of neighboring properties in property valuations.

Ioannides, Yannis M. 2004. Neighborhood Income Distributions. *Journal of Urban Economics*. 56(3), November, pp. 435-57. {01/11/06}

This paper studies purely empirically aspects of the distribution of income within small neighborhoods and contrasts it with the income distribution at higher level of aggregation, such as census tracts and metropolitan areas. It relies on a unique feature of the American Housing Survey, whose 1985, 1989 and 1993 waves provide data for small residential neighborhoods. These consist of a dwelling unit and up to ten of its nearest neighbors. The paper employs several parametric and non-parametric econometric tools to measure income sorting in US residential neighborhoods. It documents the patterns of dependence among neighbors' income and imperfect sorting, with moderate but very significant correlation among incomes of neighbors and of considerable income mixing in US neighborhoods. These results persist even if choice-based sampling and heterogeneity across the sample are accounted for. Neighborhoods associated with a randomly selected renter are more sorted than those associated with an owner even though such owners are more likely to define their neighborhoods.

Jacobs, David, et al. 2002. The prevalence of lead-based paint hazards in U.S. housing. *Environmental Health Perspectives*. 110(10), October, pp. A599-A606. (and Joey Zhou is 3rd author--there are 9 authors in total). {10/18/04}

Jewell, Kevin. 2002. Appreciation in manufactured housing: A fresh look at the debate and data. Paper presented at the AREUEA 30th Annual Mid-Year Meeting, Washington DC, May 28-29, 2002. {06/12/02}

Johnson, David S.; Torrey, Barbara Boyle; Fisher, Jonathan and Smeeding, Timothy. 2006. No Place Like Home: Older Adults And Their Housing. Working Paper, Center for Retirement Research, Working Papers, Center for Retirement Research at Boston College.

This paper employs new data on the consumption and assets of older Americans to investigate recent research findings that older adults do not convert their home equity into income that can be used for current consumption, as the life-cycle hypothesis predicts. Methods: We use data over twenty years from the Consumer Expenditure Survey to examine the asset and consumption trends of older adults, buttressed with additional findings from the Survey of Consumer Finances and the American Housing Survey. Results: Older Americans' homeownership rates are stable until age 80 and after 80 tend to decline slowly. The homes are increasingly mortgage-free; home equity increases with age, and few older adults take out home equity loans or reverse annuity mortgages. Housing consumption-flows increase with age; non-housing consumption-flows decline after age 60 at a rate of approximately 1.4% a year. Discussion: The results suggest that most older Americans are not converting their housing assets into consumption despite the life-cycle hypothesis predictions. This is also inconsistent with international trends where homeownership rates fall substantially with age. One reason may be because older Americans may be holding onto their homes to finance long-term care. If this is the case, their economic behavior may be more consistent with the life-cycle hypothesis than previous research suggests.

Johnson, M.P. and Hurter, A.P. 1999. Economic impacts of subsidized housing relocation. *Papers in Regional Science*. 78(3), July, p. 265-295. {06/27/2000}

Joint Center for Housing Studies of Harvard University. 1997. *State of the Nation's Housing 1997*.

Joint Center for Housing Studies of Harvard University. 1998. *State of the Nation's Housing 1998*. <http://www.jchs.harvard.edu/publications/markets/son1998.pdf>

Joint Center for Housing Studies of Harvard University. 1999. *Improving America's Housing: Remodeling Futures Program*.
http://www.jchs.harvard.edu/publications/remodeling/remod_IAH_99.pdf

Joint Center for Housing Studies of Harvard University. 1999. *State of the Nation's Housing 1999*. <http://www.jchs.harvard.edu/publications/markets/son1999.pdf>

Joint Center for Housing Studies of Harvard University. 2000. *Housing America's Seniors*.
http://www.jchs.harvard.edu/publications/seniors/housing_americas_seniors.pdf

Joint Center for Housing Studies of Harvard University. 2000. *State of the Nation's Housing 2000*. <http://www.jchs.harvard.edu/publications/markets/son2000.pdf>

Joint Center for Housing Studies of Harvard University. 2001. *Remodeling Homes for Changing Households*. Boston: Harvard University.
<http://www.jchs.harvard.edu/publications/remodeling/remodreport2001.pdf>
{03/21/2001}

- Joint Center for Housing Studies of Harvard University. 2001. *State of the Nation's Housing 2001*. <http://www.jchs.harvard.edu/publications/markets/son2001.pdf> {1/15/2008}
- Joint Center for Housing Studies of Harvard University. 2002. *State of the Nation's Housing 2002*. <http://www.jchs.harvard.edu/publications/markets/son2002.pdf>
- Joint Center for Housing Studies of Harvard University. 2003. *Measuring the benefits of home remodeling*.
http://www.jchs.harvard.edu/publications/remodeling/remodeling_2003.pdf
- Joint Center for Housing Studies of Harvard University. 2003. *State of the Nation's Housing 2003*. <http://www.jchs.harvard.edu/publications/markets/son2003.pdf>
- Joint Center for Housing Studies of Harvard University. 2004. *Middle market rentals: Hiding in plain sight*.
<http://www.jchs.harvard.edu/publications/markets/son2004.pdf> {1/15/2008}
- Joint Center for Housing Studies of Harvard University. 2005. *The Changing Structure of the Home Remodeling Industry*. R05-1.
<http://www.jchs.harvard.edu/publications/remodeling/remodeling2005.pdf>
- Joint Center for Housing Studies of Harvard University. 2004. *State of the Nation's Housing 2003*. <http://www.jchs.harvard.edu/publications/markets/son2004.pdf>
- Joint Center for Housing Studies of Harvard University. 2005. *State of the Nation's Housing 2005*.
<http://www.jchs.harvard.edu/publications/markets/son2005/son2005.pdf>
- Joint Center for Housing Studies of Harvard University. 2006. *America's Rental Housing: Homes for a Diverse Nation*.
http://www.jchs.harvard.edu/publications/rental/rh06_americas_rental_housing.pdf {3/9/2006}
- Joint Center for Housing Studies of Harvard University. 2006. *State of the Nation's Housing 2006*.
<http://www.jchs.harvard.edu/publications/markets/son2006/son2006.pdf> {6/16/2006}

Kahn, Matthew E. 2001. Does Sprawl Reduce the Black/White Housing Consumption Gap *Housing Policy Debate*, 12(1), pp. 77-86.
<http://www.fanniemae.foundation.org/programs/hpd.shtml>.

Because unplanned suburban growth imposes social costs such as congestion, pollution, and reduction of open space, antisprawl policies are being adopted in fast-growing metropolitan areas. This article explores one potential benefit of sprawl: it increases housing affordability, which may contribute to reducing the black/white housing consumption gap. The article uses 1997 American Housing Survey data to measure housing consumption for blacks and whites in metropolitan areas characterized by more and less sprawl. In sprawled areas, black households consume larger units and are more likely to own their homes than black households living in less sprawled areas.

Katzev, R., Blake, G., and Messer, B. 1993. Determinants of participation in multifamily recycling programs. *Journal of Applied Social Psychology*. 23(5), March 1, p. 374-385

Kelly, A. 1995. Racial and ethnic disparities in mortgage prepayment. *Journal of Housing Economics*. 4(4), December, p. 350-372.

Khadduri, Jill; Burnett, Kimberly; and Rodda, David 2003. *Targetting housing production subsidies: Literature Review*. Prepared for the U.S. Department of Housing and Urban Development, Office of Policy Development and Research, by Abt Associates. December.

Kiel, Katherine A. and Zabel, Jeffrey E. 1996. House Price Differentials in U.S Cities: Household and Neighborhood Racial Effects. *Journal of Housing Economics* 5(2): 143-165. {12/20/05}

Kiel, Katherine A. and Zabel, Jeffrey E. 1997. Evaluating the Usefulness of the American Housing Survey for Creating House Price Indices. *Journal of Real Estate Finance and Economics*. 14(2): 189-202. {12/20/05}

Kiel, Katherine A., Zabel, Jeffrey E. 1999. The accuracy of owner-provided house values: The 1978-1991 American Housing Survey. *Real Estate Economics*. 27(2), pp. 263-298.

The American Housing Survey (AHS) includes the owner's valuation of the house as a measure of the house's value. If owner-stated values are accurate, researchers studying a variety of topics can use the AHS (as well as other survey instruments). In this study, the authors use the metropolitan version of the AHS for three cities over fourteen years to compare owners' valuations with sales prices of houses that sold in the twelve months prior to an interview. The authors find that, on average, recent buyers report house values that are 8.4% higher than the stated sales prices. Further analysis indicates that these recent buyers, when compared with owners with longer tenure, overvalue their houses by 5.1%. Also, differences between sales prices and owners' valuations are not related to particular characteristics of the house, occupants (other than length of tenure), or neighborhood. Thus, the use of owners' valuations will result in accurate estimates of house price indexes and will provide reliable estimates of the prices of houses and neighborhood characteristics.

Kinnaird, S.B. 1994. Public-housing—abandon hope, but not privatization. *Yale Law Journal*. 103(4), January, p. 961-995.

Knight, J. R.; Hill, R. Carter; Sirmans, C. F. 1992. Biased Prediction of Housing Values. *American Real Estate and Urban Economics Association Journal*. 20(3), Fall, pp. 427-56. <http://www.areuea.org/> {4/3/2007}

This paper introduces the use of non-sample, prior information to the problem of predicting prices of heterogeneous products. Using data from the 1983 American Housing Survey, the predictive performance of three Stein-like empirical Bayes estimation rules are compared to the least squares estimator and the traditional biased estimation technique, ridge regression. The biased estimators improve upon the least squares mean square error of prediction risk under certain design-related conditions. We provide evidence of this for the housing market in this paper.

Knight, J. R.; Hill, R. Carter; and Sirmans, C. F. 1993. Estimation of Hedonic Housing Price Models Using Nonsample Information: A Monte Carlo Study. *Journal of Urban Economics*. 34(3), November, pp. 319-46. http://www.elsevier.com/wps/find/journaldescription.cws_home/622905/description#description {4/3/2007}

Using Monte Carlo simulations, this paper evaluates the predictive performance of ordinary least-squares estimation, ridge regression, two empirical Bayes formulations of Stein-like rules that are based on different nonsample information, and a pretest estimator. The context of the experiment is a standard hedonic model for housing values using American Housing Survey data for six geographically diverse metropolitan statistical areas. The simulations reveal that the Stein-like rules empirically dominate least squares under each of three estimation and prediction loss criteria.

Krivo, Lauren J. and Kaufman, Robert L. 2004. Housing and Wealth Inequality: Racial-Ethnic Differences in Home Equity in the United States. *Demography*. 41(3), August, pp. 585-605, <http://www.popassoc.org/publications.html> {4/4/2007}

In our study, we took a first step toward broadening our understanding of the sources of both housing and wealth inequality by studying differences in housing equity among blacks, Hispanics, Asians, and non-Hispanic whites in the United States. Using data from the American Housing Survey, we found substantial and significant gaps in housing equity for blacks and Hispanics (but not for Asians) compared with whites, even after we controlled for a wide range of locational, life-cycle, socioeconomic, family, immigrant, and mortgage characteristics. Furthermore, the payoffs to many factors are notably weaker for minority than for white households. This finding is especially consistent across groups for the effects of age, socioeconomic status, and housing-market value. Blacks and Hispanics also uniformly receive less benefit from mortgage and housing characteristics than do whites. These findings lend credence to the burgeoning stratification perspective on wealth and housing inequality that acknowledges the importance of broader social and institutional processes of racial-ethnic stratification that advantage some groups, whites in this case, over others.

Kutty, N.K. 1998. The scope for poverty alleviation among elderly home-owners in the United States through reverse mortgages. *Urban Studies*. 35(1), January, p. 113-129.

Affordable housing has often been described in terms of rent burden or owner cost burden. This article introduces the concept of housing-induced poverty to describe the situation that arises when a household, after paying for housing, cannot afford the poverty basket of nonhousing goods. This is similar to Stone's shelter poverty concept, except that it is linked to a better-known measure--the official poverty thresholds. On the basis of the 1999 American Housing Survey, it is estimated that 3.8 million households that were above the official thresholds could not afford the poverty basket of nonhousing goods. In 1999, the housing-induced poverty rate in the United States was 2.7 percentage points higher than the official rate. Results from an analytical model reveal that regional and locational variables are significant determinants of the probability of housing-induced poverty. Housing assistance significantly decreases the probability that near-poor renters will fall into housing-induced poverty.

Kutty, Nandinee. 1999. Determinants of Structural Adequacy of Housing. *Journal of Housing Research*. 10(1): 27-43. {12/20/05}

This article investigates the determinants of structural adequacy, which is viewed as an attribute of housing quality. Data from the American Housing Survey of Metropolitan Areas for seven areas--Atlanta; Baltimore; New York; St. Louis; San Diego; Seattle; and Washington, DC--are analyzed using a logit model to determine the factors that influence the structural adequacy of dwellings. The data reveal significant disparities in the prevalence of structural inadequacy across metropolitan areas and population groups by race, household type, tenure, and central city or suburban location. A logit model of the determinants of structural adequacy is specified and estimated. Estimation results reveal that structural adequacy is associated with engineering and economic factors, such as age of the building, unit type, tenure, income of occupants, and vehicle ownership by occupants. Age of the building emerges as a very strong determinant of housing quality. Other influential factors are location, neighborhood quality, and room density.

Kutty, Nandinee K. 2005. A new measure of housing affordability: Estimates and analytical results. *Housing Policy Debate*. 16(1), pp. 113-142. {05/10/05}

Lafayette, W. C.; Haurin, Donald; and Hendershott, Patric. 1995 Endogenous Mortgage Choice, Borrowing Constraints, and the Tenure Decision. NBER Working Paper 5074. {1/26/2006}

Lam, Ken and Kaul, Bulbul. 2004. *Analysis of Housing Finance Issues Using the American Housing Survey*. Washington, DC: paper prepared by Abt Associates for the Office of Policy Development and Research, U.S. Department of Housing and Urban Development.
<http://www.huduser.org/publications/polleg/AhsAnalysis.html> {01/13/06}

Levinson, Arik. Energy Use By Apartment Tenants When Landlords Pay For Utilities. Georgetown University, Department of Economics, Working Papers. {4/4/2007}

Energy costs are included in the monthly rent of one fourth of U.S. apartment residents. Because these tenants do not face the marginal cost of their own energy use, they have little incentive to use energy efficiently. Explanations for this apparent market failure fall into two categories: the tenants value such arrangements more than they value the extra energy, or the landlords value the arrangements more than the cost of the extra energy. We use data from the U.S. Department of Energy's Residential Energy Consumption Survey and the Census Bureau's American Housing Survey to estimate energy consumption by tenants in utility-included apartments, and the rent premium for those apartments. While market rents for utility-included apartments are higher than for otherwise similar metered apartments, the difference is smaller than the cost of the energy used, a finding that supports landlord-side explanations for the persistence of these seemingly inefficient rental contracts.

Ling, D.C, and McGill, G.A. 1998. Evidence on the demand for mortgage debt by owner-occupants. *Journal of Urban Economics*. 44(3), November, p. 391-414.

This paper explores the relationship between household mortgage debt burdens and housing consumption, periodic income, nonhousing wealth, the income tax position of the household, expected mobility, and other micro-level characteristics that proxy for household risk preferences and life cycle-effects. We use 1985 and 1989 American Housing Survey data to estimate mortgage debt level equations simultaneous with house value equations, controlling for the contemporaneous nature of these two choices. We find that larger debt levels are positively associated with greater value residences and with the level of household income. Numerous household level demographic characteristics are also systematically related to mortgage demand. Of particular interest are our findings that the use of mortgage debt is affected significantly by the rate of tax savings on mortgage interest deductions and by the expected mobility of the household.

Lipman, Barbara J. 2006. *Locked Out: Keys to Homeownership Elude Many Working Families with Children*. Center for Housing Policy, March.
http://www.nhc.org/pdf/pub_locked_out_03_06.pdf {3/23/2006}

Listokin, David and Listokin, Barbara. 2001. *Barriers to the Rehabilitation of Affordable Housing Volume I of II Findings and Analysis* prepared for U.S. Department of Housing and Urban Development Office of Policy Development and Research by Center for Urban Policy Research, Edward J. Bloustein School of Planning and Public Policy, Rutgers—The State University of New Jersey, May. <http://www.huduser.org/publications/pdf/bravoll1.pdf>

Louie, Josephine. 1999. The Housing Modifications for Disabled Elderly Households. Working paper W99-8, Joint Center for Housing Studies, Harvard University, September. http://www.jchs.harvard.edu/publications/seniors/louie_W98-8.pdf {1/27/2006}

Based on data from the 1995 American Housing Survey (AHS), this study explores the types and prevalence of home modifications for U.S. households with disabled elderly individuals. Among disabled elderly households who express a need for an accessibility feature in their homes, about three out of four have at least one home modification. Typically, however, only half of disabled elderly households have the modification that they explicitly state they need.

Disabled elderly households who have home modifications have characteristics that are significantly different from those without such features. The portrait varies, however, depending on the modification need examined. Among disabled elderly households who perceive a need for at least one home modification, those in the Midwest and West, in newer units, with higher incomes, with white college-educated heads, and with older elders are significantly more likely than others to have a home modification. When logit models that control for multivariate effects are estimated on the 1995 AHS data, the regional location, structure age, education, and race variables remain significant.

Limitations in the 1995 AHS data provide only tentative estimates of the extent of unmet housing modification needs among disabled elderly households, and only a rough picture of who has these unmet needs. These estimates are a useful beginning, however, towards efforts to better understand the housing demands of a quickly growing part of the population. Insight into this particular market can be further advanced with better survey data that more clearly identifies elderly disabilities and the types of physical accommodations they truly require. Issues that policy-makers may wish to explore include the costs of providing home modifications to a population that already experiences high housing cost burdens.

Louie, Josephine; Belsky, Eric S.; and McArdle; Nancy. 1998. The Housing Needs of Lower-Income Homeowners. Working paper W98-8, Joint Center for Housing Studies, Harvard University, August.

http://www.jchs.harvard.edu/publications/homeownership/louie_mcardle_belsky_w98-8.pdf {1/27/2006}

Lower-income homeowners in the U.S. form a diverse group of households and face an array of serious housing problems. Owners with less than 80 percent of area median income levels are more likely to be elderly, disabled, minority, or single parents with children than higher income owners. Millions face severe housing cost burdens, paying over 50 percent of their incomes for housing. The quality of their housing stock is often poor: inadequacy rates are over twice as high for the units of these owners than for those with higher incomes. Lower income homeowners typically perform home repairs less often than their higher-income counterparts, and when they do such work, they usually spend less. Furthermore, many lower-income homeowners face special housing needs. Because large shares of these households contain elderly or disabled people, many require home modifications such as ramps, stair-lifts, or bathrooms re-designed for accessibility. With low incomes and high housing cost burdens, however, many of the owner households who most need these modifications are least able to afford them.

As the population continues to age and as the minority share of the population continues to increase, the number of owner households with lower incomes is likely to rise in the coming decades. As their numbers expand, so too may the housing problems associated with lower income homeowners. In recent years, however, the federal commitment to the repair and modification needs of lower-income homeowners has waned. Some lower income owners may have the equity and assets to leverage funds in the private sector for home repairs, but many are hesitant to adopt available market-based solutions. Non-profit and charity organizations provide needed assistance, especially to those households who cannot qualify for market-based aid and who are without federal subsidies. In the future, creative funding efforts, new program alliances, and renewed commitment from the private sector, government, and non-profit organizations may all be required to help confront and stem the housing problems facing homeowners with the fewest resources.

The report includes a preface by Nicolas P. Retsinas, Director of the Joint Center for Housing Studies.

Lu, M. 1998. Analyzing migration decision making: Relationships between residential satisfaction, mobility intentions, and moving behavior. *Environment And Planning A*. 30(8), August, p. 1473-1495.

Lu, M. 1999. Do people move when they say they will? Inconsistencies in individual migration behavior. *Population and Environment*. 20(5), May, P. 467-488.

Conventional theories of migration decision-making posit that there exists a simple, sequential link between residential satisfaction, mobility intentions and actual moving behavior. Past empirical work, however, has indicated substantial discrepancies between mobility intentions and behavior. This study investigates behavioral inconsistencies in migration using data drawn from the 1985, 1987 and 1989 rounds of the American Housing Survey (AHS). Mobility is inferred by comparing occupants of the same housing units in two consecutive surveys. The results show that a substantial number of people do not realize their intention to move and many move unexpectedly; with or without prior intentions to move, movers and stayers appear to differ significantly in terms of their sociodemographic characteristics. The extent to which individuals act consistently with their intentions also differs along with their attributes (e.g., tenure, age, education and gender). The paper discusses possible reasons for behavioral inconsistencies in migration based on recent developments in social psychological theories of human behavior.

Mansur, Erin T.; Quigley, John M.; Raphael, Steven; and Smolensky, Eugene. 2002. Examining policies to reduce homelessness using a general equilibrium model of the housing market. *Journal of Urban Economics*. 52, pp. 316-340. {12/19/05}

In this paper, we use a general equilibrium simulation model to assess the potential impacts on homelessness of various housing-market policy interventions: extending housing vouchers to all low-income households, subsidizing all landlords, and subsidizing those landlords who supply low-income housing. Our results suggest that a very large fraction of homelessness can be eliminated through increased reliance upon well-known housing subsidy policies.

Margulis, H.L. 1993. Neighborhood aging and housing deterioration predicting elderly owner housing distress in Cleveland and its suburbs. *Urban Geography*. 14(1), January-February, p. 30-47.

Martin-Guerrero, Alvaro. 2002. Financing Home Improvement Projects: The Use of Home-Secured Credit. Working paper N02-1, Joint Center for Housing Studies, Harvard University, February.

http://www.jchs.harvard.edu/publications/remodeling/alvaro_N02-1.pdf
{1/26/2006}

Masnick, George S. 1998. Understanding the Minority Contribution to U.S. Owner Household Growth. Working paper W98-9, Joint Center for Housing Studies, Harvard University, November.

http://www.jchs.harvard.edu/publications/homeownership/masnick_w98-9.pdf
{1/27/2006}

The high contribution of minorities to net owner household growth in recent years is due to fundamental differences in the age structures of white vs. minority households. Among non-Hispanic whites, new owner household formation by young adults is largely offset by owner household dissolution's among older cohorts. Minority owner household formation, particularly for Asians and Hispanics, takes place with relatively little net owner household loss by older cohorts. There are simply many more young adults in such minority groups to form new owner households, and fewer older owner households to dissolve. In the decades ahead, losses of owner households will increase, with the aging of the baby boom affecting non-Hispanic whites more than minorities. Other underlying demographic differences that affect the changing age distribution, particularly differences in fertility and immigration, will likely serve to strengthen the minority share of overall owner household growth in the future. In addition, any convergence in ownership rates between whites and minorities will raise the minority share of total owner households even more.

Masnick George S. 2001. The New Demographics of Housing. Working paper W01-11, Joint Center for Housing Studies, Harvard University, November.

http://www.jchs.harvard.edu/publications/markets/masnick_W01-11.pdf
{1/26/2006}

During the 1990s, minorities have played an increasing role in population growth throughout the United States. Fueled by international migration and by high natural increase as an outcome of their young age structures, Asians and Hispanics have joined with African Americans to increasingly determine population and household growth at almost every level of geography. Broad regions, whole states, central cities of the nation's metropolitan areas, and a growing number of suburbs now all depend on minorities to sustain school enrollments, employment bases, downtown commerce, and housing markets. In addition to racial and ethnic turnover, households have been changing compositionally because of the general aging of the population and because of the increase in the number of unmarried adults.

This paper surveys these and other demographic changes that have been taking place in the U.S. at the end of the 20th century, and examines some of their implications for household growth and housing consumption. A clearer understanding of both white and minority roles in owner and renter housing trends is developed through tracking changing cohort housing consumption patterns. Minority increases in owners and renters among younger cohorts, when set against non-Hispanic white losses in the older age groups among owners, and across middle age groups among renters, has led to large net gains for minorities. Distinct patterns of cohort turnover have taken place in different

vintage housing stock. These trends are expected to continue over the next decade and beyond.

Masnack, George S. and Di, Zhu Xiao. 2001. Cohort Insights into the Influence of Education, Race and Family Structure on Homeownerships Trends by Age: 1985 to 1995. Research paper N01-1, Joint Center for Housing Studies, Harvard University, January.
http://www.jchs.harvard.edu/publications/homeownership/masnackdi_n01-1.pdf
{1/27/2006}

This paper attempts to further clarify the findings of Joseph Gyourko and Peter Linneman in “The Changing Influences of Education, Income, Family Structure, and Race on Homeownership by Age over Time” that appeared in the Journal of Housing Research. We have confirmed the findings of Gyourko and Linneman that those with less than high school education are seriously disadvantaged with respect to homeownership attainment over their life-course. This is true for both blacks and whites, and for all household types. Furthermore, it appears that successively younger cohorts of the least educated are falling even further behind in homeownership progress when compared to high school graduates in the same cohort. There is some evidence that successively younger cohorts of high school graduates are also slipping in the progress they are making in attaining homeownership as they age. However, this slippage for high school graduates is either greatly reduced or eliminated when different household types are examined, suggesting that it has been the shift away from higher ownership married couple households that has been causing the slowdown in ownership progress for all household types combined. This shift has been especially pronounced for black households. A college degree makes a huge difference in homeownership attainment for blacks, eventually resulting in homeownership levels that are 20 percent higher than that of black high school graduates. A college degree for whites only raises homeownership rates five percentage points above whites with a high school degree, but this is not so surprising since homeownership rates for white high school graduates already are approaching 85 percent for the older cohorts. There is also evidence that the positive effects on homeownership progress of college attendance, both for those with some college and for those with a degree, might be weakening for the younger cohorts. This is especially true for blacks, but also evident for whites. The high costs of today’s college education might increase debt and be a factor in delaying the transition to homeownership by reducing the ability of younger cohorts of college graduates to afford a down payment on a home or qualify for a mortgage. Blacks would be most affected by rising college costs because of lower black parental income and wealth that might be drawn upon to pay for college expenses. The advantage conferred by having some college education short of a degree is also very significant for blacks. For whites, some college makes no difference compared to high school graduation, but again, the high level of homeownership attained by white high school graduates must be considered.

Masnack, George S.; Di, Zhu Xiao; and Belsky, Eric S. 2005. Emerging Cohort Trends in Housing Debt and Home Equity. Working paper W05-1, Joint Center for Housing Studies, Harvard University, January.
<http://www.jchs.harvard.edu/publications/finance/w05-1.pdf>

Masnack, George S.; McArdle, Nancy; and Belsky, Eric S. 1999. A Critical Look at Rising Homeownership Rates in the United States Since 1994. Working paper W99-2, Joint Center for Housing Studies, Harvard University, January. http://www.jchs.harvard.edu/publications/homeownership/mas_mcardle_belsky_W99-2.pdf {1/27/2006}

In spite of warnings to exercise caution when using the Current Population Survey to track trends between 1993 and later years because of major changes since 1994 in the way in which CPS data were sampled, collected and weighted to produce national estimates, housing analysts have pretty much taken recent homeownership trends on face value. These trends show a large increase in the homeownership rate, especially between 1994 and 1996, that most observers have accepted as a logical outcome of a good economy, favorable mortgage interest rates, and aggressive public policy initiatives to increase homeownership. A closer look at this recent upward trend in homeownership reveals some anomalies that are difficult to explain. First is the substantial decline in the number of renter households that took place between 1994 and 1996, without an equally large change in the number of vacant-for-rent units on the market. Second is the observation that the prior decline in homeownership took place unevenly across households stratified by age of head and family composition, while the upswing has been evenly spread across all age groups and broad family types. Third is the fact that the geographic distribution of the changes in homeownership since 1994 is not always consistent with where increases in homeownership might have been expected to occur because of economic trends or public policy initiatives. While we believe that homeownership rates have certainly increased in recent years, we conclude that several changes in CPS methodology between 1993 and 1996 very well could have exaggerated this change.

Matte TD; Jacobs DE. 2000. Housing and health—Current issues and implications for research and programs. *Journal of Urban Health-Bulletin of The New York Academy of Medicine*. 77(1), March, p. 7-25

This article provides an overview of the ways in which the home environment can affect human health, describes how specific health hazards in housing are related, and considers implications of these concerns for research and programs to address the health-housing connection. The widespread availability of decent housing has contributed greatly to improvements in health status in developed countries through, for example, provision of safe drinking water, proper sewage disposal, and protection from the elements. However, a lack of decent housing and homelessness among a significant number of Americans remains a significant public health concern. In addition, a number of specific health hazards can be found even in housing that is in good condition and provides all basic amenities. Specific health hazards related to housing include unintentional injuries, exposure to lead, exposure to allergens that may cause or worsen asthma, moisture and fungi (mold), rodent and insect pests, pesticide residues, and indoor air pollution. A number of these specific hazards share underlying causes, such as excess moisture, and all may be influenced by factors in the community environment or by occupant behaviors. We make recommendations for developing programs and research efforts that address multiple housing problems in an integrated way, rather than categorically, and for closer collaboration between housing and public health programs.

Mcusic, M.S. 1998. Looking inside out: Institutional analysis and the problem of takings. *Northwestern University Law Review*. 92(2). Winter, p. 591-664.

Megbolugbe, I.F, and Linneman, P.D. 1993. Home ownership. *Urban Studies*. 30(4-5), May, p. 659-682.

Merrill, Sally R.; Finkel, Meryl; and Kutty, Nandinee K. 1994. Potential Beneficiaries from Reverse Mortgage Products for Elderly Homeowners: An Analysis of American Housing Survey Data. *Journal of the American Real Estate and Urban Economics Association*. 22(2), Summer, pp. 257-99. {4/3/2007}

Mitchum, Drew A. 2003. Housing removal rates. *Housing Economics*. February, p. 13-17. {04/09/03}

Monroe, Albert. 2001. How the Federal Housing Administration affects homeownership. Working paper W02-4. Joint Center for Housing Studies, Harvard University, November.
http://www.jchs.harvard.edu/publications/governmentprograms/monroe_w02-4.pdf {1/26/2006}

In this paper, I attempt to determine how the Federal Housing Administration (FHA) affects homeownership. The FHA insures the full value of selected loans made by private lenders. I use changes in FHA underwriting criteria over time and the differential effects of these criteria across metropolitan areas to study the effects of the FHA on homeownership. To do this, I simulate the difference in the fraction of homes in his metropolitan area that a prospective homeowner could afford with FHA and conventional criteria, and see how the difference in affordability affects homeownership. I find that more generous FHA underwriting criteria increase homeownership. In the period from 1970 to 1990, FHA increased homeownership by an average of about 0.6 percentage points, and increased homeownership by 1.57 percentage points for those at the 90th percentile of effects of FHA on house purchase affordability. FHA also had greater effects on the homeownership of certain groups, especially Blacks and married couples with children.

Montgomery, C. 1992. Explaining home improvement in the context of household investment in residential housing. *Journal of Urban Economics*. 32(3), November, p. 326-350

Moore, C.H., and Hobanmoore, P.A. 1990. Some lessons from Reagan HUD-housing policy and public service. *PS-Political Science & Politics*. 23(1), p. 13-18.

Moore, Dora J. 1991. Forecasting the Probability of Homeownership: A Cross-Sectional Regression Analysis. *Journal of Housing Research*. 2(2), pp. 125-43.
<http://www.fanniemaefoundation.org/programs/jhr.shtml> {4/4/2007}

In this paper, a logit model is developed using 1985 American Housing Survey (AHS) data to predict the probability of homeownership for a given household. The variables used as regressors describe demographic characteristics of householders as well as family income and the location of the housing unit. The probability of homeownership for householders with particular sets of characteristics is demonstrated. Factors such as the marital status and age of the householder and the location of the housing unit have significant explanatory power, but family income remains important. Although current demographic trends should have a favorable effect on the homeownership rate, economic policies will continue to influence household behavior.

Mori, Tomoya, and Nishikimi, Koji. 2002. Economies of transport density and industrial agglomeration. *Regional Science And Urban Economics*. 32(2), 01-March, pp. 167-200. {01/10/02}.

This paper develops a model of a spatial economy in which interregional trade patterns and the structure of the transport network are determined endogenously as a result of the interaction between industrial location behavior and increasing returns in transportation, in particular, economies of transport density. The traditional models assume either the structure of the transport network or industrial location patterns, and hence, they are unable to explain the interdependence of the two. It is shown that economies of transport density can be the primary source of industrial localization.

Meyers, Marcia K. and Garfinkel, Irwin. 1999. Social indicators and the study of inequality. *FRBNY Economic Policy Review*. 5(3), September, p. 149-163
http://www.newyorkfed.org/rmaghome/econ_pol/999mmey.pdf {08/20/03}

Nelson, Kathryn P. 1981. Defining “small” areas within Annual Housing Survey SMSAs. Paper delivered at the annual meeting of the Southern Regional Demographic Group, Little Rock, Arkansas, October 16. {02/23/04}3

Nelson, Kathryn P. and Khadduri, Jill. 1992. To Whom Should Limited Housing Resources Be Directed? *Housing Policy Debate*. 3(1), , pp. 1-55.
<http://www.fanniemaefoundation.org/programs/hpd.shtml> {4/4/2007}

This paper examines the implications of varying housing needs for the design and targeting of housing programs and discusses policy issues raised by targeting options. Data from the American Housing Survey are used to identify housing problems in 1989 for all households and to track changes in problems between 1978 and 1989 for lower income renters and owners. Relative needs for rental assistance are evaluated for different types of households, including families with children and the elderly, and for various income groups. The paper then contrasts the housing situations of low- and middle-income renters to appraise programs for first-time home buyers.

Nelson, Kathryn P., Meg Burns, Jill Khadduri, and David Vandenbroucke. 1998. Affordable Rental Housing: When to Build, When to Preserve, When to Subsidize? HUD Office of Policy Development and Research, May.

Nelson, Walt A. 1994. Demonstrating the Use of American Housing Survey Data in Cross-Sectional Studies. *Journal of Real Estate Literature*. 2(1), January, pp. 69-77. <http://cbeweb-1.fullerton.edu/finance/jrel/> {4/4/2007}

The purpose of this paper is to illustrate the use of the American Housing Survey so that more researchers will be inclined to use AHS data in studies concerning urban housing patterns, real estate finance, appraisal, property management, and marketing. The AHS--conducted by the Census Bureau as agent for the U.S. Department of Housing and Urban Development--is designed to provide a current series of information on the size and composition of the housing inventory, including information about household demographics and neighborhood quality. The AHS consists of a national survey of about 60,000 households taken every other year and a metropolitan survey conducted on a rotating basis every year among 11 out of 44 urban areas. Sample sizes range from 2,000 to 4,000 per metro area. The AHS contains a wealth of information available at low cost to all who wish to make use of it.

Neven, Rick, Bender, Christopher, and Gazan, Heather. 1998. More evidence of rational market values for home energy efficiency. *The Appraisal Journal*. October. p. 454-460. http://www.natresnet.org/herseems/APJ_99_10.pdf. {10/22/02}

Newman, Sandra J. and Schnare, Ann B. 1993. Last in Line: Housing Assistance for Households with Children. *Housing Policy Debate*. 4(3), pp. 417-55. <http://www.fanniemaefoundation.org/programs/hpd.shtml> {4/4/2007}

This article examines the relationship between receipt of different types of rental housing assistance and housing outcomes for households with children. We rely on the 1989 American Housing Survey (AHS) and a special data supplement that attempted to accurately categorize every assisted renter-occupied address in the AHS sample as either public housing; privately owned, federally assisted housing; or certificates and vouchers. Housing outcomes examined are physical condition of the unit, crowding, affordability, perceived neighborhood quality, and crime. We analyze three research questions: (1) Do the characteristics of households enrolled in housing programs differ by program type? (2) Do housing outcomes differ with the type of assistance received? (3) Do differences in household characteristics account for observed differences in program outcomes?

Nibarger, Daniel T. and Turner, Tracy M. 2006. The Impact of Colorado's Tax Payers' Bill of Rights on Neighborhood Quality. Conference paper, Western Economic Association International, July. {6/14/2006}

Nichols, Joseph B. 2006. Does home appreciation vary by education, income, and race? Paper presented to the AREUEA Mid-Year Meeting, Washington, DC, May 31. {7/3/2006}

Niemann, Scott. 2004. Energy Use by Apartment Tenants When Landlords Pay for Utilities. *Resource and Energy Economics*. 26(1), March, pp. 51-75. http://www.elsevier.com/wps/find/journaldescription.cws_home/505569/description#description {4/4/2007}

Energy costs are included in the rent for many US apartments, giving tenants little incentive to conserve. This apparent market failure has two explanations: the tenants value the utility-included rental contracts more than they value the extra energy they consume, or the landlords value the contracts more than the cost of that extra energy. We use the Residential Energy Consumption Survey and the American Housing Survey to estimate energy consumption and rent premiums for utility-included apartments. While rents are higher than for comparable metered apartments, the difference is smaller than the cost of the energy used a finding that supports landlord-side explanations.

Niemann, Scott W. 2001. *Essays in Public Economics: Reduction of Pollution through Enforcement of Emissions Limits and Reduction of Household Energy Use*. Ph.D. dissertation, University of Wisconsin.

The aim of numerous public policies introduced over the last several decades has been to increase economic efficiency by controlling pollution. Such policies address a fundamental principle of public economics: market forces will not lead to an economically efficient outcome when externalities exist in the consumption or production of goods. This dissertation consists of two essays that examine potentially simple ways to reduce pollution and enhance efficiency. One is geared toward producers and involves stricter enforcement of existing pollution control statutes. The second focuses on consumers and the reduction of household energy use. The first essay uses plant-level data to examine the effects of inspections and enforcement actions on compliance with water pollution permits by plants in the pulp and paper industry. Unlike studies using data from earlier time periods, this paper finds that previous inspections have only small effects on current compliance. However, when the effects of different types of inspections are examined separately, non-routine inspections are found to lead to a lower rate of violation. In order to determine whether inspections affect compliance only through the threat of subsequent enforcement actions or whether they have a direct effect on compliance, a two-stage model of enforcement and compliance is estimated. The results show that plants more likely to face enforcement for violations are less likely to be in violation, suggesting that the threat of enforcement actions is an effective deterrent to noncompliance. Additionally, even after controlling for the effects of enforcement actions, non-routine inspections are found to increase compliance. The second essay examines energy consumption among apartment residents whose energy costs are included in their monthly rent. Because these tenants do not face the marginal cost of their own energy use, they have a limited incentive to conserve energy. Explanations for the existence of such inefficient arrangements fall into two categories: the tenants value such arrangements more than the costs of extra energy use, or the landlords value the arrangements more than the extra costs of metering apartments individually. This paper uses data from the U.S. Department of Energy's Residential Energy Consumption Survey, and the Census Bureau's American Housing Survey to estimate how much additional energy is used by tenants in utility-paid apartments, and how much more they pay in rent for those apartments. Results indicate that market rents for utility-paid apartments are higher than for otherwise similar metered apartments. However, this difference is not large enough to offset the increased energy use by tenants of such apartments, thus supporting the landlord-side explanations for the persistence of these seemingly inefficient rental contracts.

Orr, James A. and Peach, Richard W. 1999. Housing outcomes: An assessment of long-term trends. *FRBNY Economic Policy Review*. 5(3), September, p. 51-61
http://www.newyorkfed.org/rmaghome/econ_pol/999jorr.pdf {08/20/03}

Park, June Ying Shann-Hwa. 2000. Increased Homelessness and Low Rent Housing Vacancy Rates. *Journal of Housing Economics*. 9(1-2), March-June, pp. 76-103. http://www.elsevier.com/wps/find/journaldescription.cws_home/622881/description#description {4/3/2007}

This article addresses the timely issue of the relationship between rates of homelessness and housing market conditions. Several studies using cross-sectional data have found evidence that tighter housing market conditions contribute to higher rates of homelessness. This study employs both time series and cross-sectional American Housing Survey data to demonstrate that higher rates of homelessness are positively related to tighter lower-end housing market conditions. This finding is consistent with O'Flaherty's economic model of homelessness and contrary to Jencks' American Housing Survey-based conclusion that no such relationship exists.

Patz, J. A., McGeehin M.A., Bernard S.M.; Ebi K.L., Epstein P.R., Grambsch A., Gubler D.J., Reiter P., Romieu I., Rose J.B., Samet J.M., and Trtanj J. 2000. The potential health impacts of climate variability and change for the United States: Executive summary of the report of the health sector of the US National Assessment. *Environmental Health Perspectives*. 108(4), April, p 367-376. {06/27/2000}

Abstract: We examined the potential impacts of climate variability and change on human health as part of a congressionally mandated study of climate change in the United States. Our author team, comprising experts from academia, government, and the private sector, was selected by the federal interagency U.S. Global Change Research Program, and this report stems from our first 18 months of work. For this assessment we used a set of assumptions and/or projections of future climates developed for all participants in the National Assessment of the Potential Consequences of Climate Variability and Change. We identified five categories of health outcomes that are most likely to be affected by climate change because they are associated with weather and/or climate variables: temperature-related morbidity and mortality; health effects of extreme weather events (storms, tornadoes, hurricanes, and precipitation extremes); air-pollution-related health effects; water- and foodborne diseases; and vector- and rodentborne diseases. We concluded that the levels of uncertainty preclude any definitive statement on the direction of potential future change for each of these health outcomes, although we developed some hypotheses. Although we mainly addressed adverse health outcomes, we identified some positive health outcomes, notably reduced cold-weather mortality, which has not been extensively examined. We found that at present most of the U.S. population is protected against adverse health outcomes associated with weather and/or climate, although certain demographic and geographic populations are at increased risk. We concluded that vigilance in the maintenance and improvement of public health systems and their responsiveness to changing climate conditions and to identified vulnerable subpopulations should help to protect the U.S. population from any adverse health outcomes of projected climate change.

Pelletiere, Danilo. 2006. *The Rental Housing Affordability Gap: Comparison of 2001 and 2003 American Housing Surveys*. National Low Income Housing Coalition, March. <http://www.nlihc.org/research/rentalgap.pdf> {3/29/2006}

Pitkin, John R. 1998. Changes in Homeownership and Households, 1993 to 1995: An Evaluation of Estimates from the Current Population Survey. *Journal of Housing Research*. 9(2), pp. 317-26.

<http://www.fanniemae.foundation.org/programs/jhr.shtml> {4/4/2007}

Long-term changes in the number of households and the rate of homeownership serve as indicators of trends in the housing sector and in economic and social well being. The Census Bureau's Current Population Survey (CPS), the principal data source used to measure these trends, underwent major design changes in 1994. Users have questioned whether these changes affected the CPS's accuracy as a basis for measuring trends during the first half of the 1990s. This research note uses independent estimates from the American Housing Survey (AHS) to assess nonsampling errors introduced by the 1994 CPS changes. The results indicate that the CPS-based Housing Vacancy Survey (HVS) significantly underestimates the 1993 to 1995 growth in the number of households. Differences between homeownership trends estimated by the WITS and AHS are not significant.

Plaut, Pnina O. 2004. The Uses and Users of SUVs and Light Trucks in Commuting. *Transportation Research: Part D: Transport and Environment*. 9(3), May, pp. 175-83.

http://www.elsevier.com/wps/find/journaldescription.cws_home/31153/description#description. {4/3/2007}

There has been a sharp increase in the share of sport utility vehicles (SUVs) and other light trucks in the US vehicle fleet. The characteristics of SUV and light-truck commuters are analyzed using the journey-to-work data from the American Housing Survey, and these are compared with car commuters. It is seen that SUV-truck commuters have slightly higher salaries but lower household incomes than car commuters, although they are more likely to hold college degrees and to own a home, especially a single home. Logit analysis is used to explore the impact of explanatory variables on the likelihood of commuting via SUV or light truck, as compared with ordinary cars. The likelihood rises with income but declines with the value of the house and the total number of motor vehicles owned by the household. It is also affected by a host of other socioeconomic, housing, location and neighborhood features. The environmental effects of SUV and light truck commuting are discussed.

- Plaut, Pnina O. 2006. The Intra-Household Choices Regarding Commuting and Housing. *Transportation Research: Part A: Policy and Practice*. 40(7), August, pp. 561-71.
http://www.elsevier.com/wps/find/journaldescription.cws_home/547/description#description {4/3/2007}

This paper is an empirical analysis of the relationships between commuting decisions of spouses in dual-income households, where the role of housing and housing tenure is taken into account. The study is based on a large survey of US commuters and actual commuting and housing choices. Household commuting decisions are analyzed together with housing choices using the data from the 2001 American Housing Survey. A sample of dual-career spouses who commute to work by car only is used to explore the inter-relationship between male and female commuting decisions in such households and the effect of housing choices on their commuting. The inter-relationships between spousal commuting decisions are examined separately for the two forms of housing tenure: ownership and renting. In general, men commute further than women and owners commute further than renters. It is shown that for both renters and homeowners, journeys to work by men and women in such dual-earner households appear to be "complements" and not "substitutes". This means that commute trips are jointly chosen to be longer (or shorter) for both spouses, as part of household selection of preferred housing and neighborhood characteristics. The residuals of equations explaining commute times and commute distances for men are strongly positively correlated with those for women. Many of the explanatory factors affect the men and women in similar ways. In particular, housing value is positively correlated with commute times and distances for both genders. The commute distance for women owners appears more sensitive to housing value than that of men, meaning women adjust their trips to work even more so than men do, as part of obtaining better housing. For both homeowners and renters, longer commute distances were correlated with higher salaries for both spouses. Somewhat surprisingly, it was found that commuting distances for women are similarly or even more sensitive to income increments than are those of men. Household size appears to affect women who own housing in ways opposite from those who rent. Other housing and neighborhood factors also affect the joint commuting decisions of these men and women.

- Pollakowski, Henry O.; Stegman, Michael A.; and Rohe, William. 1991. Rates of Return on Housing of Low- and Moderate-Income Owners. *American Real Estate and Urban Economics Association Journal*. 19(3), Fall, pp. 417-25.
<http://www.areuea.org/>. {4/3/2007}

While long-term returns to capital invested in owner-occupied housing have been competitive with other investment alternatives, no evidence exists on the market performance of the owner-occupied housing in which low- and moderate-income households would be most likely to invest. This article thus attempts to answer the question of whether the "affordable housing units" that are relevant to policy discussions concerning low- and moderate-income homeownership have experienced different rates of price appreciation than have higher valued dwellings. The national file of the American Housing Survey is used to estimate appreciation rates by value class in representative U.S. housing markets. The authors find that for the period 1974 through 1983 appreciation rates for lower valued housing were generally about equal to those for higher valued housing.

Quercia, Roberto G.; McCarthy, George W.; Wachter, Susan M. 2003. The Impacts of Affordable Lending Efforts on Homeownership Rates. *Journal of Housing Economics*, 12(1), March, pp. 29-59.
http://www.elsevier.com/wps/find/journaldescription.cws_home/622881/description#description {4/3/2007}

In this study, we develop and test a methodology to assess the impact of affordable lending efforts on homeownership rates. More narrowly, we examine the impact of using flexible underwriting guidelines, primarily changes in the down payment and housing burden requirements, on the affordability and homeownership propensities of targeted populations and geographic areas. The impacts of changing these underwriting guidelines are compared with those resulting from lower borrowing costs (interest rates). A variation of the methodology first proposed by Wachter et al. (1996) is used in the analysis. We use the 1995 American Housing Survey (AHS) national core in the analysis. The findings indicate that affordable lending efforts are likely to increase homeownership opportunities for underserved populations, but that impacts may not be felt equally by all groups. Under most affordable products, the impacts on all households, recent movers and central city households are smaller than for other households. The recently introduced affordable products which permit the 3% down payment to come from non-borrower sources, e.g., Freddie Mac's Alt 97, has the largest impact on the homeownership propensities of all underserved groups, including a 27.1% increase in the relative probability of homeownership for young households, a 21.0% increase for blacks, and a 15.0% increase for central city residents. Consistently, changes in underwriting guidelines are found to have greater impacts than changes in the costs of borrowing for all groups

Qugley, John M.; Raphael, Steven; and Smolensky, Eugene. Homelessness in California. Working Paper No. W01-007, Institute of Business and Economic Research, Fisher Center for Real Estate and Urban Economics, University of California, Berkeley. http://urbanpolicy.berkeley.edu/pdf/ppic_homeless_web.pdf . {12/19/05}

Rappaport, Barry and Cole, Tamara. 2003. Research into the Differences in Home Remodeling Data – American Housing Survey and Consumer Expenditure Survey/C50 Report. Research paper, U.S. Bureau of the Census.
http://www.census.gov/const/www/ahs_c50remodelingresearchpaper.pdf {1/15/2003}

Both the American Housing Survey (AHS) and the Consumer Expenditure Survey (CE) collect extensive data on expenditures for home remodeling. (The Census Bureau tabulates and publishes CE-based remodeling data in its C50 report *Expenditures for Residential Improvements and Repairs*.) A review of data for the years 2000-01 shows a sizeable discrepancy in the results. Research presented here suggests that the discrepancy originates from a number of sources.

Reade, Julia (ed.). 2000. *Remodeling Industry Information Summit February 10, 2000 Proceedings*, Joint Center for Housing Studies, Harvard University.
http://www.jchs.harvard.edu/publications/remodeling/rris_00.pdf {1/27/2006}

Reade, Julia and Di, Zhu Xiao. 2000. Residential Conversions. Working paper W00-5, Joint Center for Housing Studies, Harvard University, August.
http://www.jchs.harvard.edu/publications/remodeling/rea_de_di_W00-5.pdf
{1/27/2006}

The stock of residential units in the United States is constantly changing as units are added, demolished, or converted. This paper looks at the conversion of units: larger units split into smaller units; smaller units merged into larger units; and nonresidential facilities converted to residential uses.

Using the Components of Inventory Change (CINCH) reports, it is estimated that about 170,000 housing units annually were adapted through conversions over the 1980 to 1993 period. Since splits and merges, as well as conversions to and from residential uses, largely offset each other, these activities have little impact nationally on the overall number of housing units, and therefore generally are not included in analyses of housing supply. However, they can influence the stock and availability of certain types of units in selected areas. Splits and merges typically occur in urban areas, and are concentrated in older structures in the Northeast. Conversions from nonresidential facilities most commonly occur in rural areas in the South. Conversions often are associated with changes in household composition, providing an affordable way of adapting homes. It is estimated that conversions generate about \$2-3 billion a year in home improvement activity.

Reade, Julia. 2001. Remodeling Spending in Major Metropolitan Areas. Research paper N01-4, Joint Center for Housing Studies, Harvard University, September.
http://www.jchs.harvard.edu/publications/rea_de_N01-4.pdf {1/27/2006}

Rector R.E., Johnson, K.A., and Youssef, S.E. 1999. The extent of material hardship and poverty in the United States. *Review of Social Economy*. 57(3), September, p. 351-387. {12/28/99}

Riches, Erin. 2002. *Locked out 2002: California's housing crisis continues*. California Budget Project, www.cbp.org, October. {04/07/03}

Richardson, Todd. 2005 *CDBG Formula Targeting to Community Development Need*. Office of Policy Development and Research, U.S. Department of Housing and Urban Development, February.
<http://www.huduser.org/publications/pdf/CDBGAssess.pdf>

This report assesses how well the Community Development Block Grant (CDBG) formula, after introduction of 2000 Census data into the formula, allocates funds toward the community development needs identified in the Housing and Community Development Act of 1974. The U.S. Department of Housing and Urban Development (HUD) indicated in its Fiscal Year (FY) 2004 budget that it would undertake this study.

Rodda, David T.; Herbert, Christopher; and Lam, Hin-Kin (Ken). 2000. *Evaluation Report of FHA's Home Equity Conversion Mortgage Insurance Demonstration* prepared for U.S. Department of Housing and Urban Development. Final Report, March 31. <http://www.huduser.org/publications/pdf/hecmrpt.pdf>

Rosenbaum, Dorothy, Tenny, Daniel, and Elin, Sam. 2002. *The Food Stamp Shelter Deduction: Helping Households with High Housing Burdens Meet their Food Needs*. Center on Budget and Policy Priorities. www.cbpp.org. {10/18/02}

Rosen, Sherwin. 1974. Hedonic prices and implicit markets: Product differentiation in pure competition. *Journal of Political Economy*. 82, p. 35-55. {12/21/05}

Ross, Stephen L. 2002. Segregation and Racial Preferences: New Theoretical and Empirical Approaches. University of Connecticut, Department of Economics, Working papers: 2002-04, pp. 44 pages. {4/4/2007}

This paper investigates the role of preferences for social interactions or outcomes in determining observed patterns of racial segregation. In the theoretical section, consumers maximize utility by allocating time between personal time and social interactions within their neighborhood, and the dual of this problem is used to investigate the bidding and sorting of households over racial composition. The models suggest that African-American households may outbid white households to reside in white neighborhoods, and unlike previous models of segregation this model is consistent with either racial segregation or integration. In the empirical analysis, proxy variables are developed for unobservable attributes that enter household preferences based on measures of household outcomes and satisfaction, and then specifies an econometric model of residential location choice using those attributes. The paper finds evidence that racial differences in preferences for education can explain a substantial portion, but not all, of the racial segregation observed in 1985 Philadelphia using data from the American Housing Survey.

Ross, Stephen L. 2003. Segregation and Racial Preferences: New Theoretical and Empirical Approaches. *Annales d'Economie et de Statistique*. 0(71-72), July-December, pp. 143-72. <http://www.adres.polytechnique.fr/ANNALES/index.htm> {4/4/2007}

This paper investigates the role of preferences for social interactions or outcomes in determining observed patterns of racial segregation. In the theoretical section, consumers maximize utility by allocating time between personal time and social interactions within their neighborhood, and the dual of this problem is used to investigate the bidding and sorting of households over racial composition. The models suggest that African-American households may outbid white households to reside in white neighborhoods, and unlike previous models of segregation this model is consistent with either racial segregation or integration. In the empirical analysis, proxy variables are developed for unobservable attributes that enter household preferences based on measures of household outcomes and satisfaction, and then specifies an econometric model of residential location choice using those attributes. The paper finds evidence that racial differences in preferences for education can explain a substantial portion, but not all, of the racial segregation observed in 1985 Philadelphia using data from the American Housing Survey.

Ross, Steven and Zenou, Yves. 2003. Shirking, Commuting and Labor Market Outcomes. University of Connecticut, Department of Economics, Working papers: 2003-41, 41 pages. {4/4/2007}

Recent theoretical work has examined the spatial distribution of unemployment using the efficiency wage model as the mechanism by which unemployment arises in the urban economy. This paper extends the standard efficiency wage model in order to allow for behavioral substitution between leisure time at home and effort at work. In equilibrium, residing at a location with a long commute affects the time available for leisure at home and therefore affects the trade-off between effort at work and risk of unemployment. This model implies an empirical relationship between expected commutes and labor market outcomes, which is tested using the metropolitan sample of the American Housing Survey. No evidence is found to suggest a consistent impact of efficiency wages on the spatial pattern of unemployment or earnings.

Saiz, Albert. 2006. Immigration and Housing Rents in American Cities. Discussion Paper No. 2189, IZA (Institute for the Study of Labor), Bonn, Germany, June. <ftp://repec.iza.org/RePEc/Discussionpaper/dp2189.pdf> {7/31/2006}

Is there a local economic impact of immigration? Immigration pushes up rents and housing values in US destination cities. The positive association of rent growth and immigrant inflows is pervasive in time series for all metropolitan areas. I use instrumental variables based on a "shift-share" of national levels of immigration into metropolitan areas. An immigration inflow equal to 1% of a city's population is associated with increases in average rents and housing values of about 1%. The results suggest an economic impact that is an order of magnitude bigger than that found in labor markets.

Salins, P.D. 1998. Comment on Chester Hartman's "the case for a right to housing: " Housing is a right? Wrong! *Housing Policy Debate*. 9(2), pp. 259-266.

Sanchez, Thomas W. and Dawkins, Casey J. 2001 Distinguishing City and Suburban Movers: Evidence from the American Housing Survey. *Housing Policy Debate*. 12(3), pp. 607-31. <http://www.fanniemaefoundation.org/programs/hpd.shtml> {4/4/2007}

A significant amount of research has concentrated on the process of urban decentralization. Resulting patterns of urban development have far-reaching effects on land use, transportation, regional fiscal structure, public services and facilities, economic development, and social equity. Because planning policies are being developed to attempt to revitalize the urban core, it is important to know which households may be deciding to relocate to the central cities and why. A discriminate analysis is used to explore the similarities and differences among movers to central cities and suburban locations drawn from metropolitan samples of the 1989 through 1991 American Housing Survey. The analysis compares the reasons for relocation, demographic differences, and metropolitan characteristics between central-city-to-suburb movers and suburb-to-central-city movers. The results indicate that these two groups are very similar in some respects and that some metropolitan-area characteristics may play a role in urban residential decentralization patterns.

- Sanchez, Thomas W. and Lang, Robert E. 2002. Security versus status: The two worlds of gated communities. Metropolitan Institute at Virginia Tech Census Note 02:02, November. <http://www.mi.vt.edu/uploads/Census%20Gated%200202.pdf> {12/22/05}
- Sanchez, Thomas W.; Lang, Robert E.; and Dhavale, Dawn M. 2005. Security versus status? A first look at the Census' gated community data. *Journal of Planning Education and Research*. 24, pp. 281-91. http://www.mi.vt.edu/uploads/gated_communities.pdf {12/22/05}
- Sard, Barbara. 2001. Housing Vouchers Should Be a Major Component of Future Housing Policy for the Lowest Income Families. *Cityscape: A Journal of Policy Development and Research* 5(2), pp. 89-110. <http://www.huduser.org/periodicals/cityscpe/vol5num2/sard.pdf>
- Schill, Michael H. and Daniels, Glynis. 2003. State of New York City's housing and neighborhoods: An overview of recent trends. *Economic Policy Review*. 9(2), June, p. 5-17. http://www.newyorkfed.org/rmaghome/econ_pol/2002/802schi.pdf {08/20/03}.
- Schmidheiny, Kurt and Ioannides, Yannis. 2006 Estimating Equilibrium Models of Local Jurisdictions: A Discrete Choice Approach with Individual and Community-Level Data. Paper presented to the North American Regional Science Council.

The paper develops a discrete choice model of community choice by combining features of the approach by Berry, Levinsohn and Pakes (1995; 2004) with the approach of Epple and Sieg (1999) and of Epple et al. (2001; 2006). The paper reports estimation results that involve an iterative procedure consisting of two stages. At a first stage, we use information on the joint distribution of household characteristics in a metropolitan area, in our case obtained from the American Housing Survey Boston metropolitan area micro sample, to predict population shares and moments of household characteristics for each community. We then match them with population shares and moments from the US Census by means of a generalized method of moment's method. This stage estimates coefficients reflecting interactions between individual and community characteristics and community-specific intercepts. These intercepts serve as sufficient statistics for the estimation, at a second stage, of coefficients expressing the effects of community-specific characteristics by the different communities in Boston metropolitan area in 1980. We use the same data set from the US Census that Epple et al. have used, but augment it by community-specific housing prices, which are obtained from the record of housing transactions. Our results demonstrate that use of two public sources of data circumvents the need of confidential data that other research has relied on.

Segal, William and Szymanoski, Edward J. 199. Fannie Mae, Freddie Mac, and the Multifamily Mortgage Market. *Cityscape: A Journal of Policy Development and Research*. 4(1), pp. 59-91.

<http://www.huduser.org/periodicals/cityscpe/vol4num1/article4.pdf>

Fannie Mae and Freddie Mac, the two principal government-sponsored enterprises (GSEs) in the mortgage markets, have come to play an increasingly important role in the multifamily housing finance system. Newly available loan-level data, released as part of HUD's GSE oversight activities, are used to evaluate the performance of GSEs in meeting the mortgage credit needs of properties affordable to low- and moderate-income families and of properties located in under served geographic areas. The extent to which GSEs have been successful in addressing segments of the multifamily mortgage market affected by credit gaps is examined in the context of broader market trends, HUD's GSE housing goals, and the GSEs' need to manage default risk.

Sharfstein, Joshua, Sandel, Megan, Kahn, Robert, and Bauchner. Howard. 2001. Is child health at risk while families wait for housing vouchers? *American Journal of Public Health*. August. {10/22/02}

Although the link between substandard housing and poor health has been recognized for more than a century, new research now demonstrates the significant associations between cockroach allergens and asthma and lead paint and chronic neurologic damage. The health of children may be in danger while families living in substandard housing weather the long waiting period for housing vouchers. [Uses Boston AHS MSA microdata.]

Shaw, D.H. 1978. Housing discrimination against children—legal status of a growing social-problem. *Journal of Family Law*. 16(3), p. 559-607.

Shea, Michael; Campos, Connie; Hallet, Andrea; and O'Day, Bonnie. 2004. *Housing Choice Voucher Tenant Accessibility Study: 2001-2002*. Prepared by Westat, Inc. for the U.S. Department of Housing and Urban Development, Office of Policy Development and Research.

<http://www.huduser.org/publications/pdf/HCVTenantAccessibilityStudy.pdf>

Sheffrin, Steven M. and Turner, Tracy M. 2001. Taxation and House-Price Uncertainty: Some Empirical Estimates. *International Tax and Public Finance*, 8(4), August, pp. 621-36. <http://www.springerlink.com/link.asp?id=102915> {4/3/2007}

Purchasing a home involves a large and localized investment that leaves many families exposed to volatile house prices and at risk of losing their home equity. Price movements are typically not synchronized across cities, suggesting the potential for efficiency gains through risk sharing across households. In this paper, we consider the possibility of risk sharing through capital gains taxation. When full loss offset is permitted, potential gains and losses are reduced at the household level by taxation and distributed nationally, thereby allowing the tax authority to diversify away the local risks associated with owner-occupied housing. We simulate the effect of a capital gains tax with full loss offset on tenure choice and housing demand using micro-level data from the American Housing Survey, spanning ten years, from 1985 to 1995, and measures of time varying risk and return.

Shroder, Mark J. 2002. Does housing assistance perversely affect self-sufficiency? Review of the evidence. Paper presented at the AREUEA 30th Annual Mid-Year Meeting, Washington DC, May 28-29, 2002. {06/12/02}

Somerville, C. Tsuriel and Holmes, Cynthia 2001. Dynamics of the Affordable Housing Stock: Microdata Analysis of Filtering. *Journal of Housing Research*. 12(1), pp. 115-40. <http://www.fanniemae.foundation.org/programs/jhr.shtml> {4/4/2007}

This article identifies the factors that change the stock of market housing affordable to low-income households. During the past 15 years policy makers and academics have concentrated on the shortage of good-quality affordable housing for low-income households. Among the triggers of that interest are the increase in homelessness, the disappearance of rental units affordable to the least well off members of society, and the implications of growing income inequality. We take advantage of the panel nature of the metropolitan surveys of the American Housing Survey to model the movement of individual housing units in and out of the stock of units affordable to low-income households. We use a multinomial logit methodology to estimate the effects of unit, neighborhood, and market characteristics and conditions on the status of a unit over time. We compare the alternative outcomes for an affordable unit with the outcomes for unaffordable rental stock. One objective of this comparison is to determine whether these factors have symmetric effects across different segments of the housing market. Our empirical results suggest that movements are more sensitive to variation in neighborhood conditions than to unit characteristics or movements in market rents or prices.

Somerville, C. Tsuriel and Mayer, Christopher J. 2003. Government regulation and changes in the affordable housing stock. *Economic Policy Review*. 9(2), June, p. 45-62. http://www.newyorkfed.org/rmaghome/econ_pol/2002/802some.pdf {08/20/03}.

Stegman, Michael A., Quercia, Robert G., and Davis, Walter. 2002. The Earned Income Tax Credit as an instrument of housing. Paper presented at the AREUEA 30th Annual Mid-Year Meeting, Washington DC, May 28-29, 2002. {06/12/02}

Susin, Scott. 2004. The accuracy of survey self-reports of housing assistance in the Survey of Income and Program Participation: Report to the Department of Housing and Urban Development. Manuscript. March 30. {03/03/05}

Szymanoski, Edward J. and Donahue, Susan J. 1999. Do multifamily mortgage insurance programs provide affordable housing and serve underserved areas? An analysis of FHA's fiscal 1997 Book of Business and comparison with the GSEs. Working paper HF-008, U.S. Department of Housing and Urban Development, October. http://www.huduser.org/publications/pdf/wp_008.pdf {1/30/2006}

Taylor, Brian D. and Ong, Paul M. 1995. Spatial Mismatch or Automobile Mismatch? An Examination of Race, Residence and Commuting in US Metropolitan Areas. *Urban Studies* 32(9), November, pp. 1453-73.

<http://www.tandf.co.uk/journals/titles/00420980.asp> {4/4/2007}

This paper uses data from the metropolitan samples of the American Housing Survey in 1977-78 and 1985 to examine the commute patterns of whites, blacks, and Hispanics in U.S. metropolitan areas, with a particular focus on the commutes of workers living in predominantly minority residential areas. Overall, the commute patterns of white and minority workers appear to be converging rather than diverging over time, even among low-skilled workers. Contrary to the spatial mismatch hypothesis, black and Hispanic workers living in minority areas had both shorter commutes and commutes that increased more slowly between 1977-78 and 1985 compared to workers in other areas. Further, a longitudinal analysis shows that the average commute times of non-moving minority workers in predominantly minority areas decreased during the study period. We find no evidence in these commuting data to support the spatial mismatch hypothesis.

Thibodeau, Thomas. 1995. House Price Indices from the 1984-1992 MSA American Housing Surveys. *Journal of Housing Research* 6(3):439-481. {12/20/05}

Turner, Margery Austin; Kingsley, G. Thomas; Franke, Monte L.; Corvington, Patrick A.; and Cove, Elizabeth C. 2002 *Planning to Meet Local Housing Needs: The Role of HUD's Consolidated Planning Requirements in the 1990s*. Prepared for U.S. Department of Housing and Urban Development by The Urban Institute. Final Report, December.

http://www.huduser.org/publications/pdf/local_housing_needs.pdf

Turner, Tracy M. 2003. Does Investment Risk Affect the Housing Decisions of Families? *Economic Inquiry*. 41(4), October, pp. 675-91.

<http://ei.oxfordjournals.org/> {4/3/2007}

Households assume substantial house-price risk when purchasing a home. This article investigates the effect of such risk on families' housing decisions. Using a repeat cross-section of household data from the American Housing Survey spanning a 10-year period and measures of expected return and time-varying risk, I find that families are less likely to own and housing demand is reduced during episodes of relatively high, anticipated house-price volatility. The impact is greater on low- and moderate-income families and first-time homeowners than other groups. The results hold implications for policies designed to assist homeowners in lessening the risk they bear.

U.S. Department of Housing and Urban Development. 1991. *Priority Housing Problems and "Worst Case" Needs in 1989: A Report to Congress*. Washington, DC: Office of Policy Development and Research.

U.S. Department of Housing and Urban Development. 1992. *The Location of Worst Case Needs in the Late 1980s: A Report to Congress*. Washington, DC: Office of Policy Development and Research.

- U.S. Department of Housing and Urban Development. 1994. Homeownership-Past, Present, and Future. *U.S. Housing Market Conditions*. 2nd Quarter. Pp. 2-7. <http://www.huduser.org/periodicals/ushmc/summer94/summer94.html>
- U.S. Department of Housing and Urban Development. 1994. Patterns of Homeownership. *U.S. Housing Market Conditions*. 3rd Quarter. Pp. 2-7. <http://www.huduser.org/periodicals/ushmc/fall94/fall94.html> {01/23/06}
- U.S. Department of Housing and Urban Development. 1994. *Worst Case Needs For Housing Assistance in The United States in 1990 and 1991*. Washington, DC: Office of Policy Development and Research. <http://www.huduser.org/publications/wpd/wcneeds.wp5>
- U.S. Department of Housing and Urban Development. 1995. Public Housing: Image Versus Facts. *U.S. Housing Market Conditions*. 1st Quarter. Pp. 3-5. <http://www.huduser.org/periodicals/ushmc/spring95/spring95.html> {01/23/06}
- U.S. Department of Housing and Urban Development. 1996. *Rental Housing Assistance at a Crossroads: A Report to Congress on Worst Case Housing Needs*. Washington, DC: Office of Policy Development and Research. <http://www.huduser.org/publications/pdf/worstcse.pdf>
- U.S. Department of Housing and Urban Development. 1998. *Rental Housing Assistance—The Crisis Continues: The 1997 Report to Congress on Worst Case Housing Needs*. Washington, DC: Office of Policy Development and Research. <http://www.huduser.org/publications/affhsg/worstcase/cuomoletter.html>
- U.S. Department of Housing and Urban Development. 1999. American Families and Their Housing in 1997. *U.S. Housing Market Conditions*. 3rd Quarter, pp. 4-9. <http://www.huduser.org/periodicals/ushmc/Fall99/summary-2.html> {01/23/06}
- U.S. Department of Housing and Urban Development. 1999. Components of Inventory Change. *U.S. Housing Market Conditions*. 2nd Quarter, pp. 4-10. <http://www.huduser.org/periodicals/ushmc/summer99/summary-2.html> {01/23/06}
- U.S. Department of Housing and Urban Development. 2000. How We Are Housed: Results From the 1999 American Housing Survey. *U.S. Housing Market Conditions*. 3rd Quarter, pp. 4-10. <http://www.huduser.org/periodicals/ushmc/fall00/summary-2.html> {01/23/06}
- U.S. Department of Housing and Urban Development. 2000. *Rental Housing Assistance—The Worsening Crisis: A Report to Congress on Worst Case Housing Needs*. Washington, DC: Office of Policy Development and Research. <http://www.huduser.org/publications/affhsg/worstcase00/worstcase00.pdf> {1/15/2008}

- U.S. Department of Housing and Urban Development. 2000. The User Cost of Homeownership. *U.S. Housing Market Conditions*. 2nd Quarter, pp. 4-10.
<http://www.huduser.org/periodicals/ushmc/summer2000/summary-2.html>
{01/23/06}
- U.S. Department of Housing and Urban Development. 2001. Changing Importance of Unmarried Women as Homebuyers: Trends from the American Housing Survey. *U.S. Housing Market Conditions*. 4th Quarter, pp. 4-10.
<http://www.huduser.org/periodicals/ushmc/winter2001/summary-2.html>
{01/23/06}
- U.S. Department of Housing and Urban Development. 2001. First-time homebuyers: Trends from the American Housing Survey. *U.S. Housing Market Conditions*. 3rd Quarter. <http://www.huduser.org/periodicals/ushmc/fall2001/index.html>
{01/13/06}
- U.S. Department of Housing and Urban Development. 2001. Home Modifications Among Households With Physical Activity Limitations. *U.S. Housing Market Conditions*. 1st Quarter, pp. 5-12.
<http://www.huduser.org/periodicals/ushmc/spring2001/summary-2.html>
{01/23/06}
- U.S. Department of Housing and Urban Development. 2001. *A Report on Worst Case Housing Needs in 1999: New Opportunity Amid Continuing Challenges*. Washington, DC: Office of Policy Development and Research, January. executive summary: <http://www.huduser.org/publications/affhsg/wc99.pdf>
- U.S. Department of Housing and Urban Development. 2001. *United States–Habitat II Progress Report*. United Nations Commission on Human Settlements, Special Session of the United Nations General Assembly, June.
<http://www.huduser.org/publications/pdf/habitat.pdf> {1/15/2008}
- U.S. Department of Housing and Urban Development. 2002. Housing in America: 2001 American Housing Survey Results. *U.S. Housing Market Conditions*. 1st Quarter, pp. 4-9.
http://www.huduser.org/periodicals/ushmc/spring2002/summary_2.html
{01/23/06}
- U.S. Department of Housing and Urban Development. 2002. Manufactured Housing: An Adequate and Affordable Alternative. *U.S. Housing Market Conditions*. 3rd Quarter, pp. 4-12.
http://www.huduser.org/periodicals/ushmc/fall02/summary_2.html {01/23/06}

- U.S. Department of Housing and Urban Development. 2002. Nearly a Third of a Nation: Twenty-Eight Years of Rental Housing Data. *U.S. Housing Market Conditions*. 4th Quarter, pp. 5-10.
http://www.huduser.org/periodicals/ushmc/winter02/summary_2.html
{01/23/06}
- U.S. Department of Housing and Urban Development. 2002. Whence They Came: Housing of Citizens and Noncitizens. *U.S. Housing Market Conditions*. 2nd Quarter, pp. 4-11.
http://www.huduser.org/periodicals/ushmc/summer02/summary_2.html
{01/23/06}
- U.S. Department of Housing and Urban Development. 2003. Breakout session: Housing voucher policy. *Housing Policy in the New Millennium*.
<http://www.huduser.org/publications/pdf/brd/Roundtable2C.pdf>
- U.S. Department of Housing and Urban Development. 2003. Condos and Co-ops: Unique Forms of Housing. *U.S. Housing Market Conditions*. 2nd Quarter, pp. 4-13. http://www.huduser.org/periodicals/ushmc/summer03/summary_2.html
{01/23/06}
- U.S. Department of Housing and Urban Development. 2003. First-Time Homebuyers: Update from the 2001 American Housing Survey. *U.S. Housing Market Conditions*. 4th Quarter, pp. 6-16.
http://www.huduser.org/intercept.asp?loc=/periodicals/ushmc/winter03/article_USHMC03Q4.pdf {01/23/06}
- U.S. Department of Housing and Urban Development. 2003. Three Southern California Metropolitan Areas: 1994 and 2002. *U.S. Housing Market Conditions*. 3rd Quarter, pp. 5-14.
http://www.huduser.org/intercept.asp?loc=/periodicals/ushmc/winter03/article_USHMC03Q4.pdf {01/23/06}
- U.S. Department of Housing and Urban Development. 2003. *Trends in Worst Case Needs for Housing, 1978-1999: A Report to Congress on Worst Case Housing Needs*. Washington, DC: Office of Policy Development and Research.
<http://www.huduser.org/publications/pdf/AffHsgNeedsRpt2003.pdf>
- U.S. Department of Housing and Urban Development. 2004. American Households and Their Housing 1985 and 2003. *U.S. Housing Market Conditions*. 4th Quarter, pp. 6-11.
http://www.huduser.org/intercept.asp?loc=/periodicals/ushmc/winter04/article_USHMC_04Q4.pdf {01/23/06}

- U.S. Department of Housing and Urban Development. 2004. Housing in America: 2003 American Housing Survey results. *U.S. Housing Market Conditions*. 2nd Quarter, pp. 5-10.
http://www.huduser.org/intercept.asp?loc=/periodicals/ushmc/summer2004/article_USHMC-04Q2.pdf {01/13/06}
- U.S. Department of Housing and Urban Development. 2004. How Many Second Homes are There?. *U.S. Housing Market Conditions*. 1st Quarter, pp. 5-10.
http://www.huduser.org/intercept.asp?loc=/periodicals/ushmc/spring2004/article_USHMC-04Q1.pdf {01/23/06}
- U.S. Department of Housing and Urban Development. 2004. Older Housing Units in 2001. *U.S. Housing Market Conditions*. 3rd Quarter, pp. 5-10.
http://www.huduser.org/intercept.asp?loc=/periodicals/ushmc/fall04/article_USHMC_04Q3.pdf {01/23/06}
- U.S. Department of Housing and Urban Development. 2005. *Affordable Housing Needs: A Report to Congress on the Significant Need For Housing*. Washington, DC: Office of Policy Development and Research.
<http://www.huduser.org/publications/pdf/AffHsgNeedsRpt2003.pdf> {01/13/06}
- Vandenbroucke, David A., and Eggers, Fredrick J. 2000. Is the increase in house ownership really news? Paper presented to the American Real Estate and Urban Economics Association Mid-Year Meeting, Washington, DC. {01/13/06}
- Vermeer, Kimberly and Louie, Josephine. 1997. The Future of Manufactured Housing. Research paper R97-1, Joint Center for Housing Studies, Harvard University, January. http://www.jchs.harvard.edu/publications/markets/R97-1_vermeer_louie_Futmanhousing.pdf {1/27/2006}
- Vigdor, Jacob L. 2002. Does Gentrification Harm the Poor? *Brookings-Wharton Papers on Urban Affairs*. 0(0), pp. 133-73. <http://muse.jhu.edu/journals/urb/> {4/3/2007}
- Neighborhood revitalization may impose significant costs on a community's initial residents; however, revitalization may also confer benefits in the form of better employment prospects, local public goods, or neighborhood amenities. Moreover, gentrification itself may reflect the operation of larger socioeconomic forces with their own independent implications. This paper presents these arguments and critiques the existing literature, which focuses primarily on the issue of gentrification-induced displacement. New empirical evidence, based on U.S. Census and American Housing Survey data from Boston, suggests that any harm caused by gentrification occurs through increased housing costs, not involuntary displacement.
- Wasson, R.R. 1998. Guidelines for a classroom presentation on homelessness: A demand and supply curve analysis. *Journal of Economic Education*. 29(3), Summer, p. 212-226.

Watson, Gregory J. and Eggers, Frederick J. 2003. *The Destruction of Housing Capital: A Preliminary Exploration into Demolitions and Disasters*. Prepared for the U.S. Department of Housing and Urban Development, Office of Policy Development and Research, by ICF Consulting, May.

<http://www.huduser.org/Datasets/ahs/Permanentlosses.pdf>

Watson, Gregory J. and Eggers, Frederick J. 2003. *Rental Market Dynamics: is Affordable Housing for the Poor an Endangered Species?* Prepared for the U.S. Department of Housing and Urban Development, Office of Policy Development and Research, by ICF Consulting, December.

<http://www.huduser.org/Datasets/ahs/RENTALMARKETDYNAMICS.pdf>

Weinberg, Daniel H. 2006. How the United States Measures Well-being in Household Surveys. *Journal of Official Statistics*. 22(1), pp. 113–136. {7/11/2006}

This article reports on the surveys used in the United States to measure several key aspects of well-being – health; food security; time use; expenditures and consumption; wealth (assets and liabilities); housing; material measures of well-being; and income and poverty.

Weiss, E. 1995. Rent control and general equilibrium. *Journal of Housing Economics*. 4(3), September, p. 264-290.

Zabel, Jeffrey and Kiel, Katherine. Location, Location, Location: The 3L Approach to House Price Determination. Center for Economic Studies, U.S. Census Bureau, Working Papers, 41 pages. {4/4/2007}

The immobility of houses means that their location affects their values. This explains the common belief that three things determine the price of a house: location, location, and location. We use this notion to develop the 3L Approach to house price determination. That is, prices are determined by the Metropolitan Statistical Area (MSA), town, and street where the house is located. This study creates a unique data set based on data from the American Housing Survey (AHS) consisting of small 'clusters' of housing units with information on their housing characteristics and resident characteristics that is merged with census tract-level attributes. We use this data to verify the 3L Approach: we find that all three levels of location are significant when estimating the house price hedonic equation. This indicates that individuals care about their local neighborhood, i.e. the general upkeep of their street and possibly their neighbors' characteristics (cluster variables), a broader area such as the school district and/or the town (tract variables) that account for school quality and crime rates, and the particular amenities found in their MSA.

Zabel, Jeffrey E. 2004. The Demand for Housing Services. *Journal of Housing Economics*. 13(1), March, pp. 16-35.
http://www.elsevier.com/wps/find/journaldescription.cws_home/622881/description#description {4/3/2007}

Despite the voluminous literature devoted to it, the concept of housing demand is ambiguous. Reconciling this ambiguity is important since the approach to estimating housing demand and the policy questions that can be addressed depends crucially on what interpretation is used. In this paper, housing demand is modeled as a continuous quantity that represents the flow of housing services. Confusion can arise over whether these services include not only those that arise from the housing structure but also from the neighborhood in which the house is located. The demand for housing services is derived from standard utility maximization and it is decomposed into structure and neighborhood demand equations. Another key issue that is addressed in this paper is the construction of the price of housing. Allowing for a single price of housing or multiple prices in a given housing market results in different indices for housing services that can produce very different estimates of the price and income elasticity's for housing. This latter point is borne out in an empirical example using data from National version of the American Housing Survey for 1993 and 2001. Zabel, Jeffrey E. and Kiel, Katherine A. 2000. Estimating the Demand for Air Quality in Four U.S. Cities. *Land Economics*. 76(2), pp. 174-194. {3/11/2005}

Zabel, Jeffrey E. and Kiel, Katherine A. 1997. Evaluating the Usefulness of the American Housing Survey for Creating House Price Indices. *The Journal of Real Estate Finance and Economics*. 14, pp. 189-202. {3/11/2005}

Zabel, Jeffrey E.; Kiel and Katherine A. 2000. Estimating the Demand for Air Quality in Four U.S. Cities. *Land Economics*. 76(2), May, pp. 174-94.
<http://www.wisc.edu/wisconsinpress/journals/journals/le.html> {4/3/2007}

An analysis of the demand for air quality in four MSAs in the United States is presented using the American Housing Survey data from 1974-91, the Decennial U.S. Censuses, and the EPA Aerometric Information Retrieval System. The marginal prices of air quality are obtained from parameter estimates for the pollution variables in a hedonic house price model, and the marginal willingness to pay (inverse demand) equations for air quality are estimated using these prices. In two of the four (inverse) demands for air quality equations, the own-good coefficient is negative and significant, while the income coefficient is positive and significant.