Housing and Commuting:
The Theory of Urban Residential Structure

John Yinger
APPENDIX 1.2.A
REFERENCES TO URBAN MODELS WITH MORE GENERAL ASSUMPTIONS

This appendix provides citations for selected journal articles that examine urban models with more general assumptions than the ones in the text of this chapter. This list does not provide an overview of the field of urban economics; indeed, the articles in this category constitute a small (and declining) fraction of the literature in urban economics. Instead, this appendix simply points to some of the articles that have extended one or more of the assumptions in the text.

Articles that appear elsewhere in this book are not included in this appendix. Many excellent review articles that examine urban models with more general assumptions are also available in the handbooks of urban and regional economics that are published by Elsevier. In addition, several variants of urban models are presented in Edward L. Glaeser, *Cities, Agglomeration, and Spatial Equilibrium* (Oxford University Press, 2008).

For the purposes of this appendix, *JUE* stands for the *Journal of Urban Economics*.

**Assumption 1**

(Utility Function Takes Cobb-Douglas Form with Housing and Composite Good)


Assumption 2
(Housing Supply is Cobb-Douglas with Absentee Landlords)

A. Studies with Explicit Models of the Construction Decision

David Harrison and John F. Kain. 1974. “Cumulative Urban Growth and Density Functions,” JUE, January, pp. 61-98. [Introduces the possibility that the spatial development of cities occurs in time-based phases and in successive spatial rings.]


B. Models with local land ownership

David Pines, and Efraim Sadka. 1986. “Comparative Static Analysis of a Fully Closed City.” *JUE*, July, pp. 1-20. [Solves a closed urban model in which land rents are redistributed to residents.]


**Assumption 3**

(Commuting is in a straight line with a constant cost per mile)

A. Articles generalizing assumptions about the transportation network


Alex Anas and L.M. Moses. 1979. “Mode Choice, Transport Structure and Urban Land Use.” *JUE*, April, pp. 228-46. [Solves urban models with more than one mode of transportation, assuming radial and circular streets.]


Youngsun Kwon. 2005. “Urban Comparative Statics when Commuting Cost Depends on
Income. *Journal of Housing Economics*, March, pp. 48-56. [Shows how basic comparative statics results change when commuting costs depend on income, that is, on the value of time spent commuting.]

Nathaniel Baum-Snow. 2007. “Suburbanization and Transportation in the Monocentric Model, *JUE*, November, pp. 405-423. [Solves an urban model with radial commuting arteries and shows how they can encourage suburbanization.]

B. Articles introducing traffic congestion


**Assumption 4**

(Access to work is the only locational characteristic that matters)


**Assumption 5**

(All households are alike)


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**Assumption 6**

(Income is fixed and all households have one CBD worker)


Jan K. Brueckner. 1979. “A Model of Noncentral Production in a Monocentric City.” *JUE*, October, pp. 444-63. [Provides comparative statics for an urban model with local employment in addition to employment in the CBD.]


**Assumption 7**

(Households are perfectly mobile)


Clifford Kern. 1981. “Racial Prejudice and Residential Segregation: The Yinger Model Revisited.” *JUE*, September, pp. 164-73. [Argues that discrimination in an urban area may not be driven by price incentives (as in the Yinger model), but concludes that discrimination may still arise as the black population grows.]
Assumption 8

(There are no local governments)

