1. O'Sullivan Chapter 8 (pp. 183 - 201): Land Use in Monocentric City

What is driving slope of:
- Office bid-rent function (opportunity cost of analyst’s time)
- Manufacturer bid-rent function (per mile shipping costs)
- Residential bid-rent function (direct $ cost of commuting)
  - Closer to CBD (more per square foot, Housing profit higher, higher land price)
- Agricultural bid-rent function (equal fertility of land)

Figure 8.8: Concentric circle of uses around CBD

Relaxing assumptions
- Commuting assumptions
  - Time costs of commuting also (1/3 to 1/2 wage rate)
  - Greater travel to CBD
  - Two-earner household
- No spatial variation in other location attributes
  - CBD has bad schools, higher taxes, higher crime, blighted landscape

Income and location
- Residential location chose (tradeoff land and commuting costs)
  - Move farther out (cheaper housing costs, greater commuting costs)
  - Do rich live in central city or suburbs?
  - Compare income elasticity of housing demand to income elasticity of commuting cost
  - Rich in suburbs if $E_H > E_C$
  - Reality?
  - $E'_H = E'_C$

Other explanations
- Suburban housing characteristics
- Flight from “blight”
- Exclusionary suburban zoning
- Compare Detroit versus Paris?

Figure 8.11: bid-rent residential function of poor and rich
- Wealthy outbid poor for suburban locations
- Policies to get rich back in central city and poor in suburbs

Urban land and labor markets
- Simplifying assumptions
  - Small open city (migration)
  - Utility level fixed at national level
No substitution in manufacturing or housing
Rectangular city

Figure 8.12
Business, residential, and agricultural territories
Why is labor D negatively sloped?
Why is labor S positively sloped?

Introduce a transportation improvement that reduces commuting costs
Residential bid-rent flatter, labor S increases, wage falls, business bid
Rent shifts up (greater profitability, greater leftover)
Are residents better off?
Wages are lower, land rents higher; utility is same (migration sees to that)

2. O’Sullivan Chapter 8, Question 18

a. CA is bid-rent function absent height restrictions. BA is with height restrictions. Beyond $u = 5$ (the place were height restrictions are not binding), the two land-rent functions are identical, reflecting both consumer and factor substitution. For $u < 5$, there is less curvature because there is no factor substitution.

b. The density restrictions decrease the total supply of labor and thus increase the wage. The increase in the wage increases production costs and thus decreases the business bid-rent. In addition, it decreases total labor demand as the territory and density of the CBD decrease.

c. Decreases the land rents paid for both residential and manufacturing uses.

3. O’Sullivan Chapter 9: Land Use in Modern Cities

Suburban dispersion and sub centers (edge cities)
Current median workplace 7 miles from traditional CBD
Only 22% of laborers work within 3 miles of traditional CBD

Figure 9.1: values for specific areas
Figure 9.2: Central city losses 1948 to ‘90
Table 9.1: Types of jobs in central cities
Table 9.2: Commuting patterns

Density gradient
% change in population for another mile from CBD
 0.40 indicates a 40% decrease per mile
Table 9.3 and Figure 9.3
SF as an exception

Causes of suburbanization
Not increase in real income (because $E_H = E_C$)
More likely
  Lower direct commuting costs
  Old housing in central city
  Avoid minorities and poor
  Central city fiscal problems
  Higher crime in central city
  Worse public K-12 education in central city

Manufacturing suburbanization
  Firms tug-of-war: central export node and workers in the suburbs
  Intra-city trucking shifted balance
  Inter-city trucking and interstate highways
  Eliminated need for central export node
  Figure 9.5: bid-rent around beltway freeway
    Auto dominated commuting (workers also there easy)
  Single-story assembly technology
  Air freight importance

Office suburbanization
Since 1970’s, office space in suburbs grown at greater rate
Table 9.4: 1999 metro location of office space
Figure 9.6: % in CBD
Reasons
  Communication technology
    E-mail
    Teleconference
    Air travel

Suburban subcenters
  Firms cluster in suburbia (agglomeration economies)
  Figure 9.7: bid-rent with beltway and 2 subcenters
  Table 9.6: subcenters in LA
  Table 9.7: subcenters in Chicago
Still a niche for CBD
  Table 9.9
4. O’Sullivan, Question 15, Chapter 9

Ideas?

5. Wassmer Chapter 10: Prove it; The Costs and Benefits of Sprawl

Article by Peter Gordon and Harry Richardson
“Sprawl” is most people’s preferred lifestyle

Debunking myths
- Sprawl is the traffic congestion safety valve
- Link between density and traffic congestion +
- U.S. farmers grow more crops using less land and labor
- Big-box stores can be more energy efficient
- U.S policies have also encouraged downtown development
- 3/5s of auto travel for social reasons
- If people want “new urbanism” developers will build

Not planning, but Smart Growth through impact fees
If sprawl is low density, LA least sprawled in U.S.
Urban mass transit is a loser
All goals of anti-sprawl movement unattainable
Recognize importance of consumer sovereignty

6. Homework Due the Start of Meeting 7 (October 23)

1) Read all of the material under meeting 7 (October 23) in the syllabus schedule; come prepared to discuss.
2) One sentence, typed question regarding material that you read for next meeting but do not understand.
3) Do not answer discussion questions listed under October 23 for you hw. Instead, use the lack of a class meeting on October 16, and the next two weeks to thoroughly read the article that you have chosen in Squires’ edited book on Urban Sprawl. Also choose five other articles that relate to this article (see the included references or look elsewhere for these) and read them. For your assignment (which counts as two assignments), you are to produce an annotated bibliography which is five-single spaced and typed pages long with each page starting with the formal citation of each article and the remainder of the page containing a description of each article. I would break each of these descriptions into three sections: (1) what article is about, (2) what is good or bad about article in part based upon what you have learned so far in course about urban economics, and (3) what lessons can be learned from the article that is relevant to policy formation in Sacramento Region.