Note: Try to develop a working knowledge of italicized terms highlighted in black.

1. Review

2. O’Sullivan Chapter 3: Big and Small Cities

External economies of scale (2 types)
   Production cost of one firm decreases as output of other increase
   But limited: Figure 3.1
   (1) Localization economies (caused by industry clusters)
      Reasons
      Sharing specific type input suppliers
      Corporate headquarters, new tech, communications
      Sharing a specific labor pool
      Uncertain about number and skills of workers to hire
      But benefits and costs
      Cluster pay lower (higher) wage good (bad) times
      Cluster match unexpected labor needs better

   Knowledge spillovers
   Evidence that location effects fall 50% per mile from cluster
   (2) Urbanization economies (caused by larger urban area)
      Reasons same as three give above
      Double city size (from average) and labor productivity rises 5 to 10%

   Incubation process
      (1) and (2) encourages product design and development

Differences in city size
   Size that localization and urbanization economies kicks in varies by industry

Role of consumer goods/services
   Local employment
   Jobs supported by local consumer spending
   Differences in per-capita demand
      (a) Opera companies and brain surgeons
      (b) Barbers and pizza parlors
   Bigger cities get bigger because they employ and house type (a)

Shopping externalities
   Retail sales of one store affect another
   Imperfect substitutes
      Comparison shopping needed
      Consumers attracted to retail clusters because of time/travel costs
      Firms make up lower price charged (competition) through volume

Complementary goods
   Regional and strip malls
   Telecommunication and cities’ future
Substitute for face-to-face communication
Live in electronic cottages
But better communication raises productivity, means more relationships and allows for greater specialization, and more face-to-face

5. O’Sullivan Chapter 4: Where Do Firms Locate? (pp. 66-80)

Location of firm generates employment concentration
Causes new city or existing to grow
Holdings firm deaths contractions constant
Figure 4.1: contractions constant, growth requires new
Profit maximization drives decision
Differs based
Transport costs
Some inputs cannot be transferred,
Localization and urbanization economies present
Public sector business taxes and expenditures

Transfer-oriented firm
Input & output transport costs dominant factor in location decision
Tug of war between market and inputs located

Resource-oriented firm
Input transport cost is dominant factor in location decision
Production is a weight-losing activity
Monetary weight in Table 4.1
Minimize transport cost if produce at site of input

Market-oriented firm
Output transport cost is dominant factor in location decision
Production is a weight-gaining activity
Monetary weight in Table 4.2
Minimize transport cost if produce at site of market

Scale economies in transportation
Due to fixed costs and length of line-haul economies
Reduces tendency to locate at input source or market

Median Location Theory
Firm has multiple inputs or markets
Assume
Input transport costs are zero (or same everywhere)
Production price of pizza fixed everywhere
Consumers eat one pizza a week and spread along Highway
Costs firm $2 per pizza delivery
Pick location to minimize total delivery cost
See Figure 4.4
Divide monetary weights (pizza consumers) into two equal halves
Explains why large cities get larger
Median location for delivery to surrounding small cities
Explains why manufacturing firms locate at transshipment point
See Figure 4.6

Labor markets and location choices
Transport costs becoming less important to firm location decisions
Transport technology improving
Production technology requiring less inputs
Result: Switch to a local-input-oriented location decision
Anywhere in U.S. or offshore

Labor in U.S. very mobile
Only ¼ of new jobs in a city go to residents
Labor also attracted to natural amenities (warm dry weather)
Especially high-income workers
Shift of jobs (city growth) from North to South and West
Firms can pay less for labor there

4. Wassmer Chapter 8: Urban Spatial Structure

Anas, Arnott, and Small article
Polycentric form
Subcenters ("edge cities")

Economics of agglomeration
Decline in average cost of production as more occurs in an area
Reason for CBD

History
Prior to 1840: trading and factory cities
1850 to 1900: streetcars enabled residents to disperse
1900's: autos and freeways made even more possible

Describing urban structure
Clusters: Figure 1 (1990 Employment density LA County)
U.S. Census: Central places in an urbanized area

Monocentric city model
Center: CBD where all jobs located, fixed population (simple)
Household decides where to live by trading off
Commuting time (lost wages) with higher land prices
Manufacturing, retail, and residential dispersion around center
Does not explain polycentricity
20th century: declining transport costs, but higher real wages
Other issues that yield poor in downtown
Housing durability
Flight from Blight
Racism
Tiebout

Polyecentric stylized facts
Subcenters in old and new urbanized areas
Numbers sensitive to definition (employment density)
Along transportation corridors
Employment centers explain surrounding dispersion of jobs and people
Have not eliminated importance of one CBD
Many jobs outside centers
Much cross-commuting
Theories for polycentricity and agglomeration
Locations in region different (spatial inhomogeneities)
Scale economies internal to firm
External to firm scale economies
  Economies of localization (between firms of same type)
  Economies of urbanization (across all firm types)
Imperfect competition
  Shoppers prefer traveling to a cluster of similar sellers
Welfare economics of urban structure
  Perhaps most important from policy perspective
  Planners are constantly trying to change “market” outcomes
  Both agglomerative and dispersive forces
  Not clear that new centers formed at appropriate place and time
    Developer influences
    Congestion externality
Paris vs. LA
  Market failure vs. government failure

5. Discussion

O’Sullivan (question 3, p. 61)
  Henderson’s (1986) results, on pp. 49 and 50 in O’Sullivan, suggest that
  localization economies are relatively large. A 10% increase in
  output of petroleum industry in area results in a 1.1% increase in
  petroleum worker’s output in area. But benefit of diversity is that
  smoothes out cyclical and industry fluctuations for tax and
  employment purposes.

O’Sullivan (question 3, p. 88)
  Breweries are a weight-gaining activity (local water is added to grains
  and chemicals), while wine is a weight-losing activity (skins and
  pulp are removed from the grapes).

Wassmer (question 4, p. 147)
  Incompatible land uses (significant – externalities): zoning
  Preservation of open space: public good but costs born by poor
  Urban sprawl: leapfrog development vacant land developed at higher density later
  Growth boundaries: distributional consequences
  Exclusionary zoning: Tiebout benefits but spatial mismatch and social stratifications
6. Homework Due the Start of Meeting 3

1) Read all of the material under meeting 3 in the syllabus schedule; come prepared to discuss. (Note changes to syllabus for next week.)

2) One sentence, typed question regarding material that you read for next meeting but do not understand.

3) Typed and double-spaced answers to discussion questions listed on syllabus for next meeting. These should be no longer than 2 pages long.