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

1. O'Sullivan Chapter 6: Urban Economic Growth

**Definition of Urban Economic Growth**

- Increase in output (p * q) or personal income (Y)
- Aggregate production function
  \[ Q = F(K, L, R, T) \]
- Growth through increase in any input

**Multiplier Process**

- Local Production
- Export Production

  Increase raises local production
  Result of export sales raising local income $1,000 (X)

<table>
<thead>
<tr>
<th>Increase</th>
<th>Round 1</th>
<th>Round 2</th>
<th>Round 3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local income</td>
<td>$1,000</td>
<td>$600</td>
<td>$360</td>
<td>$2,500</td>
</tr>
<tr>
<td>Local Consum.</td>
<td>$600</td>
<td>$360</td>
<td>$216</td>
<td>$1,500</td>
</tr>
<tr>
<td>Imports</td>
<td>$400</td>
<td>$240</td>
<td>$144</td>
<td>$1,000</td>
</tr>
</tbody>
</table>

Marginal propensity to consume (m)

60% of new income spent locally

\[ Y = X + mX + m^2X + ... + m^nX \]

\[ Y = X \times \frac{1}{1 - m} = \frac{2,500}{1} \]

**Income multiplier**

\[ \frac{Y}{X} = \frac{1}{1 - m} = \frac{1}{0.4} = 2.5 \]

**Employment multiplier**

Total employment in area / export employment in area

Rough estimate

Urban labor market

Part of larger regional economy

Figure 6.1
An excellent policy evaluation tool

**Labor demand curve**

Negative slope

- Substitution effect
  Between K and L
- Output effect
  W translates into P
- Flatter (more elastic)
- Greater above effects

Increase in (ceteris paribus)

Export demand up
Labor productivity up
Business tax down
Business public services up
Business zoning up

Labor supply curve
Positive slope
Reservation wage effect
Enter labor force
Migration effect
W translates into P
Flatter (more elastic)
Greater above effects
Increase in (ceteris paribus)
Environmental quality up
Residential taxes down
Residential public services up
Residential zoning up
Residents “taste” for work up or opp. cost of work down

Equilibrium adjustments in local labor market due to ceteris paribus change
Increase in residential public services
Influence on wage and employment
Increase in export employment
Influence on wage and employment
Greater second round effects from localization economies

Public policy and economic growth
Tax abatement, idbs, government loans, site development
Effect on labor demand
Effect on labor supply?
Need to think through secondary effects
City adopts a pollution reduction production (tax or regulation)

Figure 6.5

Economic base study
\( ?T(employment) = \text{employment multiplier} \times ?B(\text{export employment}) = \frac{T}{B} \times ?B \)
Value
Predicts how city will grow with a change in base employment

Estimate export employment by looking at each industry in city

Location quotient (L)
Light rail (R) car production in city / Light rail car consumption in city
Greater than one indicates?
Estimate due to data limitations
\[ L = \frac{\text{city’s R emp. / city’s emp.}}{\text{U.S. R emp. / U.S. emp.}} \]
Problems with use

Export employment in industry I (B)
\[ B = \left( \frac{L_i - 1}{L_i} \right) \times T_i \]
\[ \left( \frac{4 - 1}{4} \right) \times 800 = 600 \]
600 / 800 or ¾ producers export for city
Calculate B for all industries and have city’s total export employment
Then can calculate employment multiplier

Input-Output analysis
- Complete accounting firm/household transactions
- Better than economic base study
- Assume
  - 2 export industries (computers and wire)
  - Local consumer good industry
- Transactions table
  - Begin with (Table 6.2)
- Input coefficients table
  - Derived from transactions (Table 6.3)
  - Leakages are given in imports row
  - Can be used to trace multiplier process (Figure 6.6)
- Yield spending multipliers for a $1 increase in sales in export industry
  - Table 6.4
  - Wire greater due to smaller export leakage

Limitations
- Multipliers in reality are not constant for every city size
- Assume constant wage
  - Reality is wages rises and increase in export sales not as stimulating
- Only export growth causes city growth
  - Also caused by decrease in imports, increase in labor productivity

Benefits/costs employment growth
- Bartik study of local employment increase
  - 77% to newcomers, 7% to unemployed locals, 16% to non-working locals
- Greater wage increases for less educated and minorities

Costs
- Higher commuting costs, land prices

2. O’Sullivan, Question 9, Chapter 6

It's inappropriate to treat the direct spending ($28 million) as exports. A large fraction of the money is likely to be "local" spending: local citizens will spend money on Raider's instead of on movies, bowling, and other local entertainment.

3. Wassmer Chapter 14: Jobs, Productivity, and Local Economic Development

Bartik NTJ article
Economic development programs
- Tax subsidies
  - State and local $16 to $60 per capita
- Spending
  - $8 per capita
  - Small amount on “new wave”

Market failure (hw question)
- New job generates benefits to individual and city
  - MB of both may be higher in another location than where goes
Information imperfections

Geographic spillovers
  “Robbing Peter to pay Paul”
  Benefits greater for low growth areas
  But politics
Why not people to jobs?
Intrametropolitan and intermetropolitan elasticities
  -0.3 and -2.0
  “Reverse potato chip rule”
  $4,000 per job
Incentive wars
Advice to local policymakers
  Target and b/c evaluate incentives more closely
  Incentives for productivity
  Metropolitan cooperation
Advice to federal policymakers
  Fund better evaluations of efficacy
  Considering limiting use to truly “blighted” areas

4. Wassmer Chapter 15: Sports, Jobs, and Taxes

Federal subsidy through IDBs
  Since ’75 (2.5 to 4.5 % points)
  1986 Tax Reform Act
    Prohibits if more than 10% of debt service covered by stadium revenues
State and local subsidies
  Average venue $10 million per year
  “Build the stadium, create the jobs”
    Construction, entertainment, tourist, multiplier effect
Bad economic reasoning (hw)
  Productivity and export improvements
    Confuse gross and net effects
Positive externality/public good effect
Monopoly leagues
What can be done?
  Host cities gang up
  Leases/ clauses
  Eminent domain
Antitrust and regulation
Citizen action

5. Homework Due the Start of Meeting 5

  1) Read all of the material under meeting 5 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) Typed and double-spaced answers to discussion questions listed on syllabus for next meeting. These should be no longer than 2 pages long.