**Economic Growth**

 Metro areas can be thought as distinct economic units

 Metro areas consist of:

 1. Firms that produce goods/services for local consumption and export

 2. Consumers who consume goods/services locally produced and imported

What determines change in an urban areas income?

 Income is payment to factors of production (land, labor, capital)

 The more the local economy produces, the wealthier it is

 Local production (income) can be increased in two ways

 1. Increase in inputs employed in the urban area

 example: laborers migrating to labor market; existing laborers working more hours; increase in the physical capital (machinery) in the area

2. Increase in the productivity of local inputs

 example: labor force becomes more skilled and productive

[Circular Flow](http://milesfinney.net/440/hand/circular.pdf)

Within closed system of circular flow, increased income comes from the supply side

Either household sector supply more inputs or those inputs become more productive (or both)

Growth can also arise through export demand

 A large part of what an urban area produces it does not consume

Example: movie production in the Los Angeles area;

 petrochemical output in Houston area

Labor split into 2 sectors:

1. Basic (export) sector – sells its product to consumers outside metro area

2. Nonbasic (local) sector – sells product to consumers within metro area

Generally thought income from basic employment supports nonbasic production

Example:

 Suppose export sales in metro area temporarily increased by $100,000

 Local income increases $100,000

This would represent $100,000 increase in demand for local goods if all income spent only on local goods

Suppose local consumers instead spend 60% of income on locally produced goods/services (40% leakage)



Define:

 Δ*x* – size of income injection

 *m* – marginal propensity to consume local goods/services

Δtotal income = Δ*x* ˑ $\frac{1}{1-m}$ $\frac{1}{1-m} $ - multiplier

If m=.60 multiplier is 2.5

 Every dollar increase in income from exports causes a $2.50 total income increase

[Inglewood Stadium](http://milesfinney.net/440/articles/Rams%27%20%245%20billion%20stadium%20complex%20might%20be%20perfect%20for%20L.A.%20-%20The%20Washington%20Post.html)

Determination of Basic Employment





Li >1 -disproportionate local employment in industry

 -some of the employment produces goods that are exported

 -part of employment is basic

Li<1 -percentage of local employment in industry less than national average

 -not enough local production to satisfy local demand

 -some of industry’s output is imported

 -no basic (export) employment

Li=1 -no export or import employment

 -local output just satisfies local demand

The number of jobs within an industry counted as basic (export) employment using the formula:

 where *Ti* is total local employment in industry *i*

if Li=1 or Li<1 then Bi=0

Total amount of basic employment in metropolitan area is the sum of the basic employment for each industry.

Suppose a country were composed of two metropolitan areas. Let’s call the two areas Agland and Inland. Each of the two metropolitan areas has three industries: apparel, food processing and electronic equipment.

|  |  |
| --- | --- |
|  | **Metropolitan Area Employment** |
|  |  |  |  |
| **Industry** |  | **Agland** | **Inland** |
|  |  |  |  |
| **Food Processing** |  | 75,000 | 62,000 |
|  |  |  |  |
| **Apparel** |  | 13,500 | 220,000 |
|  |  |  |  |
| **Electronic Equipment** |  | 10,000 | 20,000 |
|  |  |  |  |

|  |  |  |
| --- | --- | --- |
|  | Location Quotient | Export Employment |
| **Agland** |  |  |
|  Food Processing |  |  |
|  Apparel |  |  |
| Electronic Equipment |  |  |
|  |  |  |
| **Inland** |  |  |
|  Food Processing |  |  |
|  Apparel |  |  |
|  Electronic Equipment |  |  |

[Economic Base of Los Angeles](http://milesfinney.net/440/hand/econ_base.xlsx)