



The Dispersion of Regional Economic Impacts



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Some Theoretical Concepts

1. REMI is an input-output (IO) & computable general equilibrium (CGE) model
 - We won't get into the CGE part... (well, maybe a little)
2. REMI is a new economic geography (NEG) model
 - Both of these concepts are important to understand when looking at REMI's modeling results
 - We'll take a "view from 30,000 feet" look at these concepts in regional economic theory and how they apply to Amazon HQ 2.0...

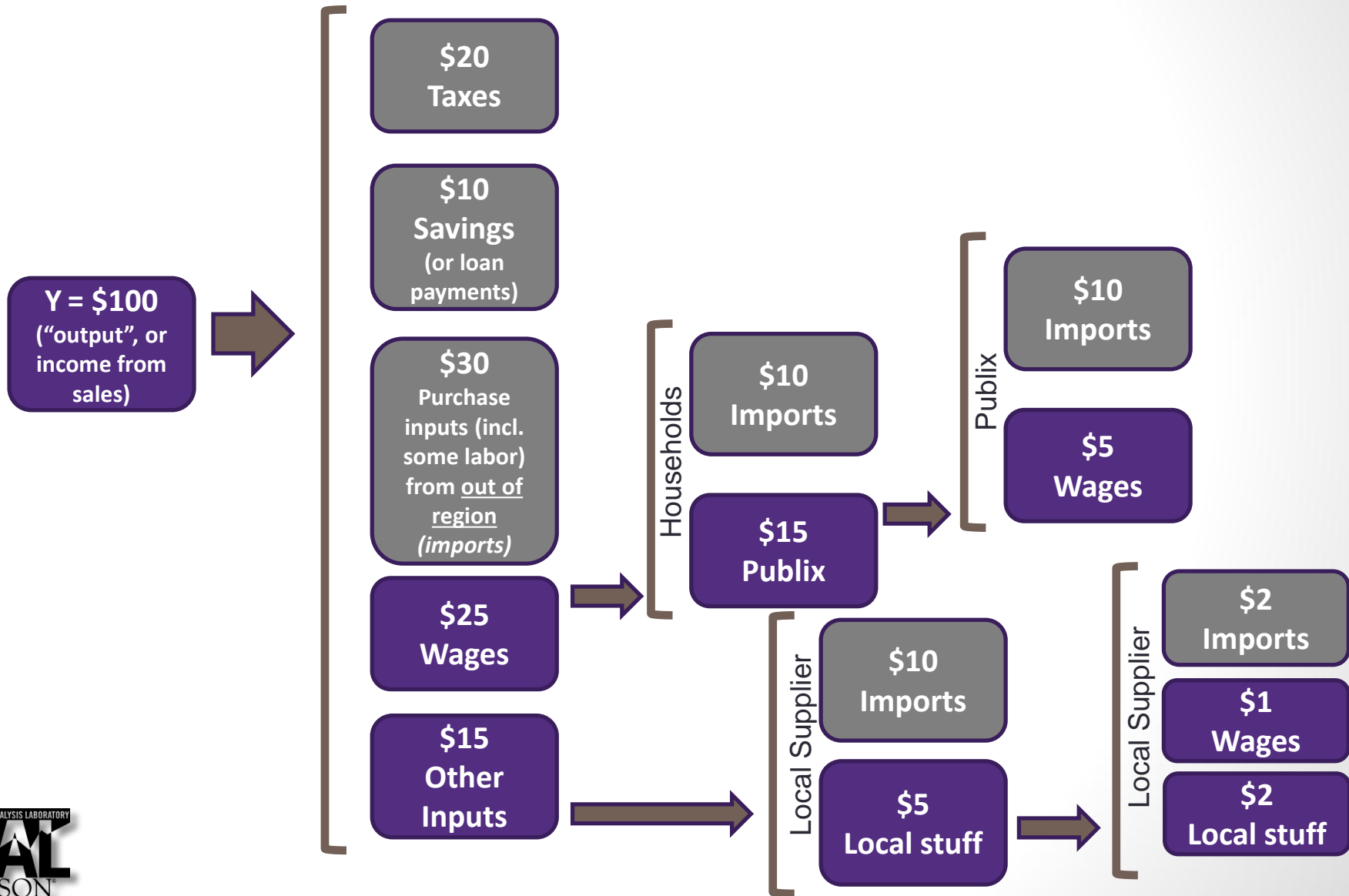


Dispersion Within the Regional Economy

Some Quick Definitions

- Direct Effect
 - Initial change in output (income) & employment
- Indirect Effects
 - Impact on suppliers (income/output & employment)
- Induced Effects
 - Impact from workers spending their wages

Direct, Indirect & Induced Effects

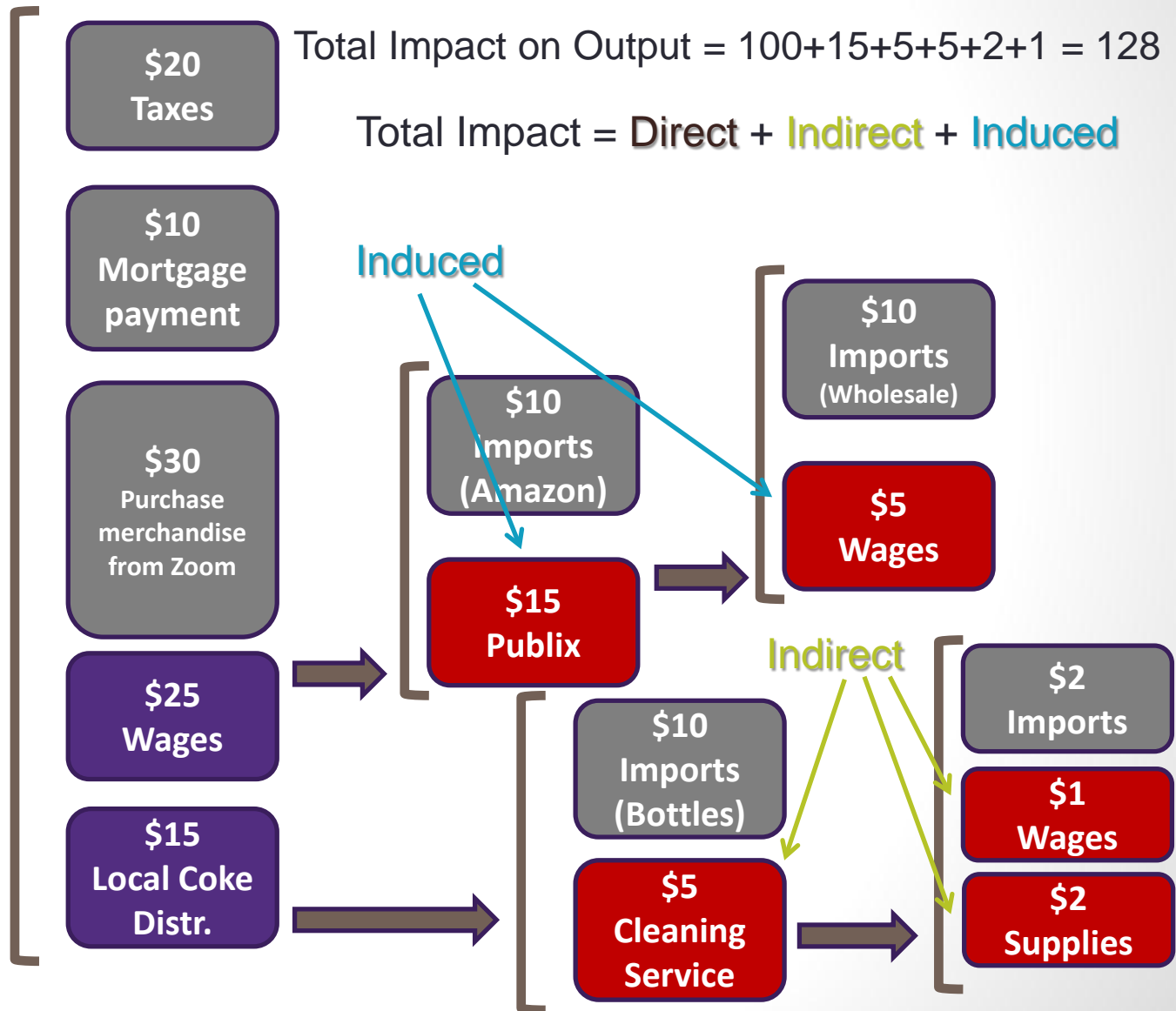


Direct, Indirect & Induced Effects

Bob's Bait & Fishin' Supply Co.

Y = \$100
Bob sells some tackle

↑
Direct sales



Direct, Indirect & Induced Effects

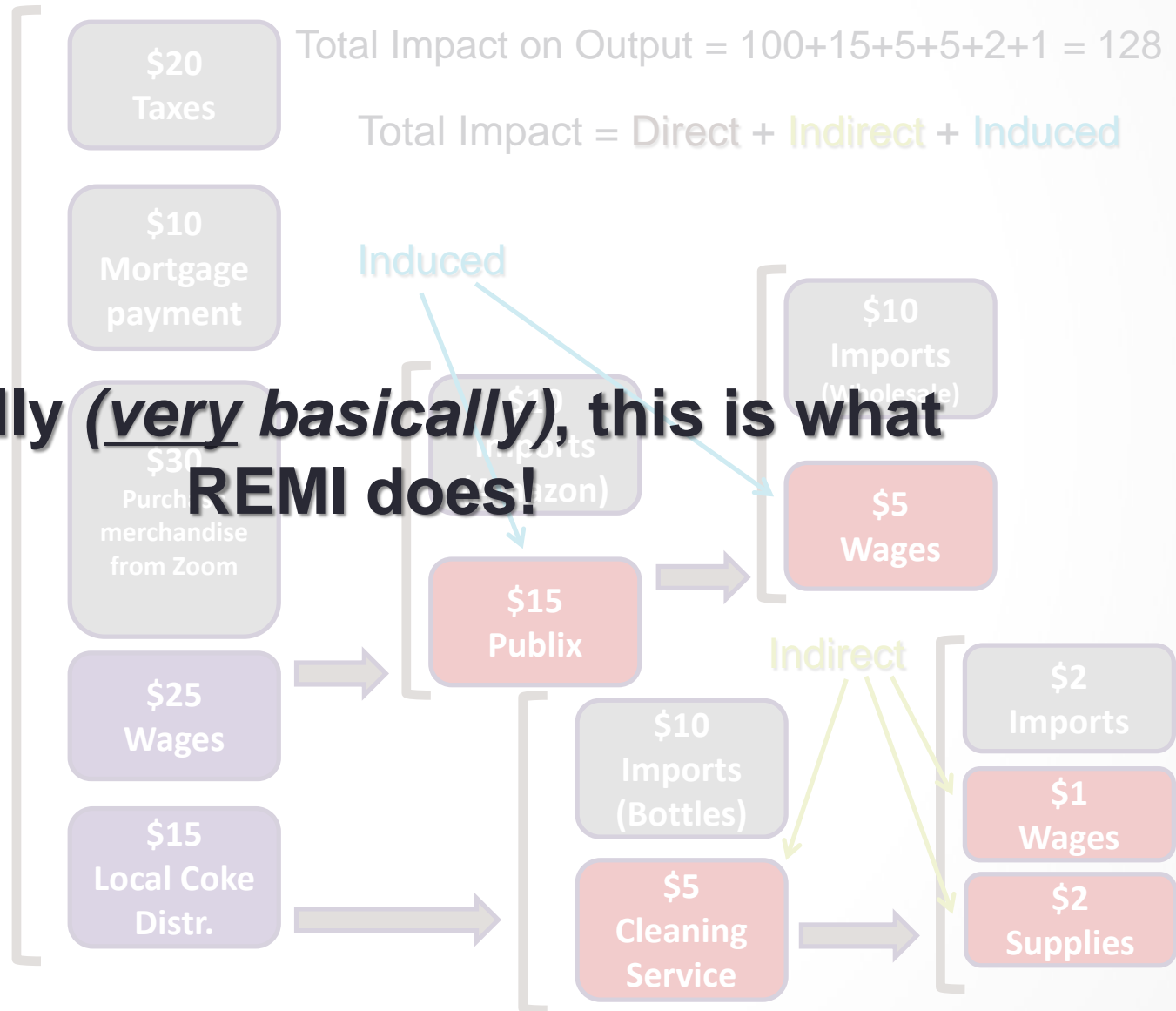
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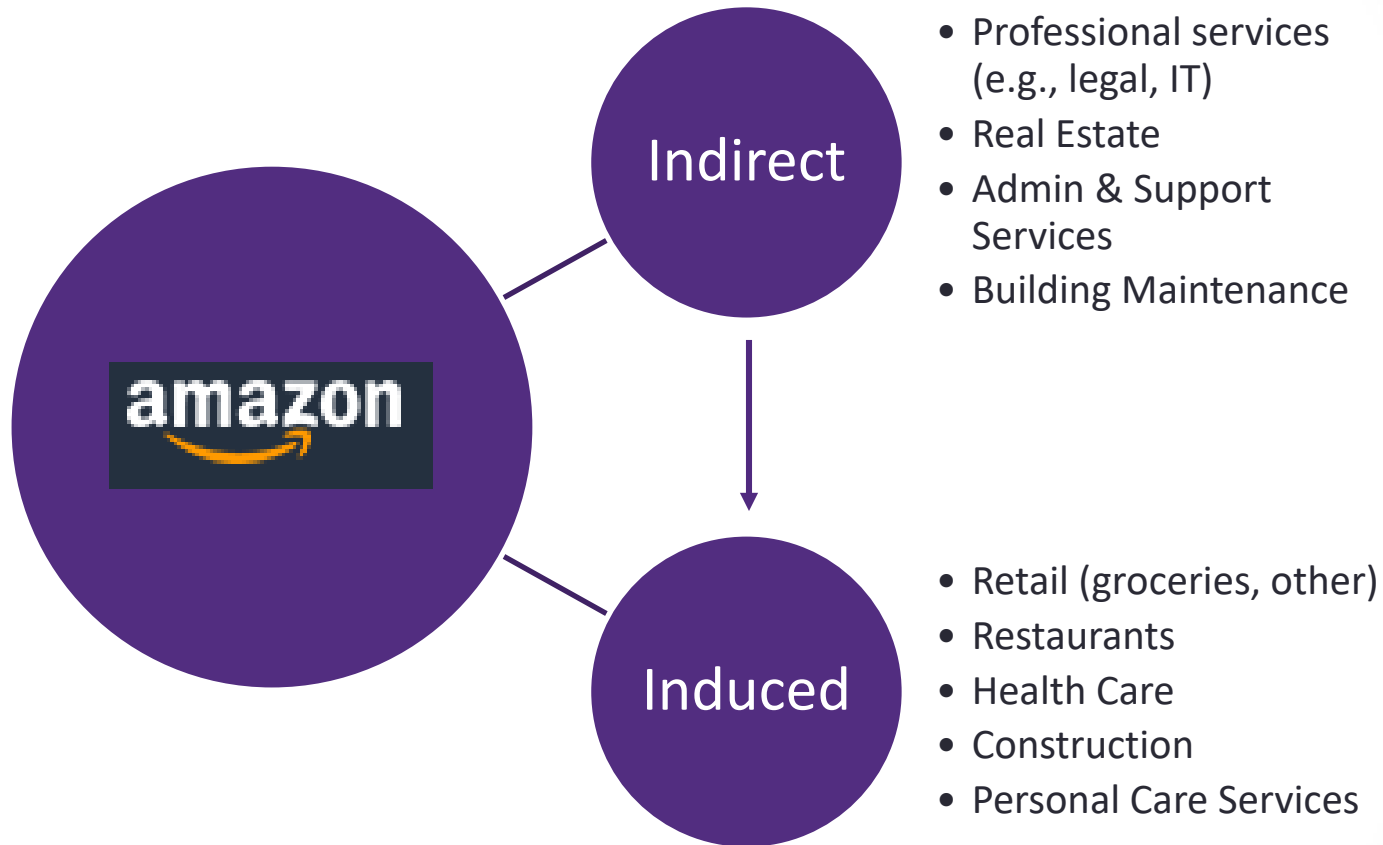
Direct sales



Basically (very basically), this is what REMI does!



For Example... Amazon HQ





Geographic Dispersion



LOCATION

Location..Location..Location

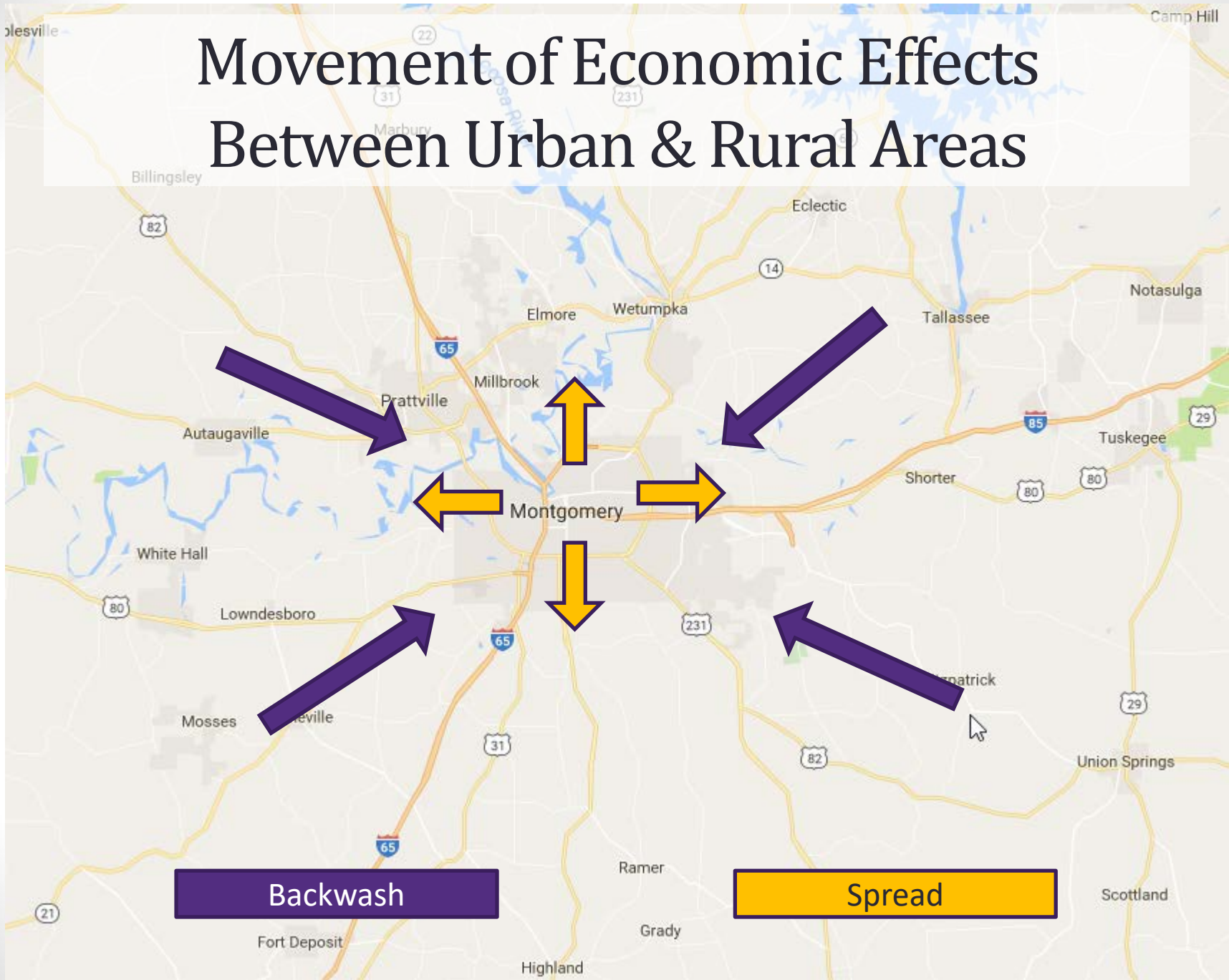
New Economic Geography (NEG)

- Importance of “where”, not just “what” (location matters!)
 - “First nature” geography (natural features)
 - “Second nature” geography (economic interactions between governments, industry, labor, producers & suppliers, etc.)
- Factors of “where”:
 - Distance to market
 - Distance to important resources
- Determinants of “where”:
 - Land (resource) cost
 - Transportation cost

New Economic Geography (NEG)

- Movement of factors of production between regions:
 - Move toward locations yielding higher return on investment (ROI)
 - Results in increasing specialization between regions over time
 - Transportation costs factor in:
 - A county with interstate access will develop differently from one without
 - Ditto a port, river, or airport
 - Labor tends to move toward higher relative wage rate
- Krugman: “firms want to concentrate production... near markets and suppliers... which is best where other firms locate” (p.166).¹

Movement of Economic Effects Between Urban & Rural Areas



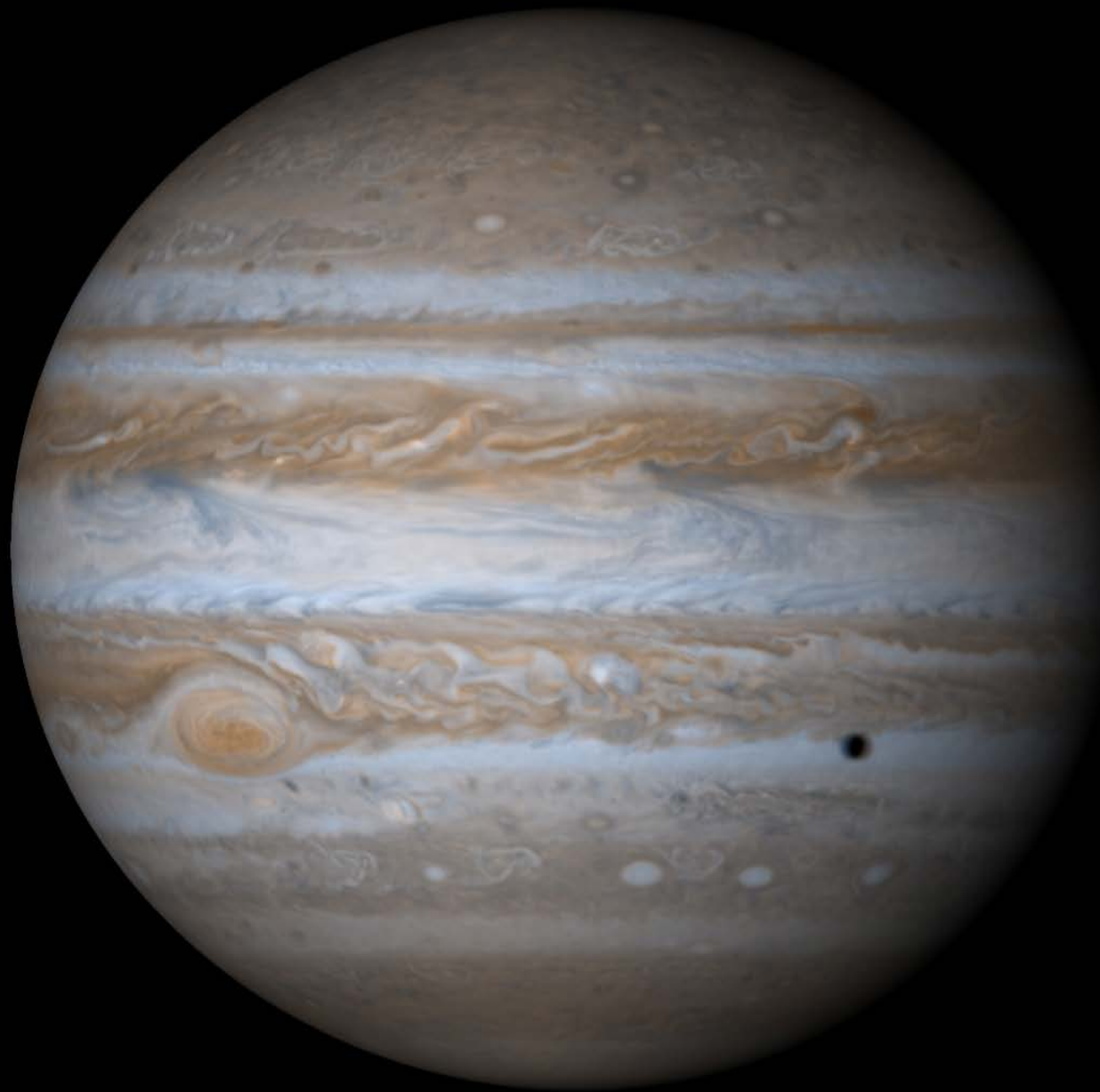
NEG – Gravity

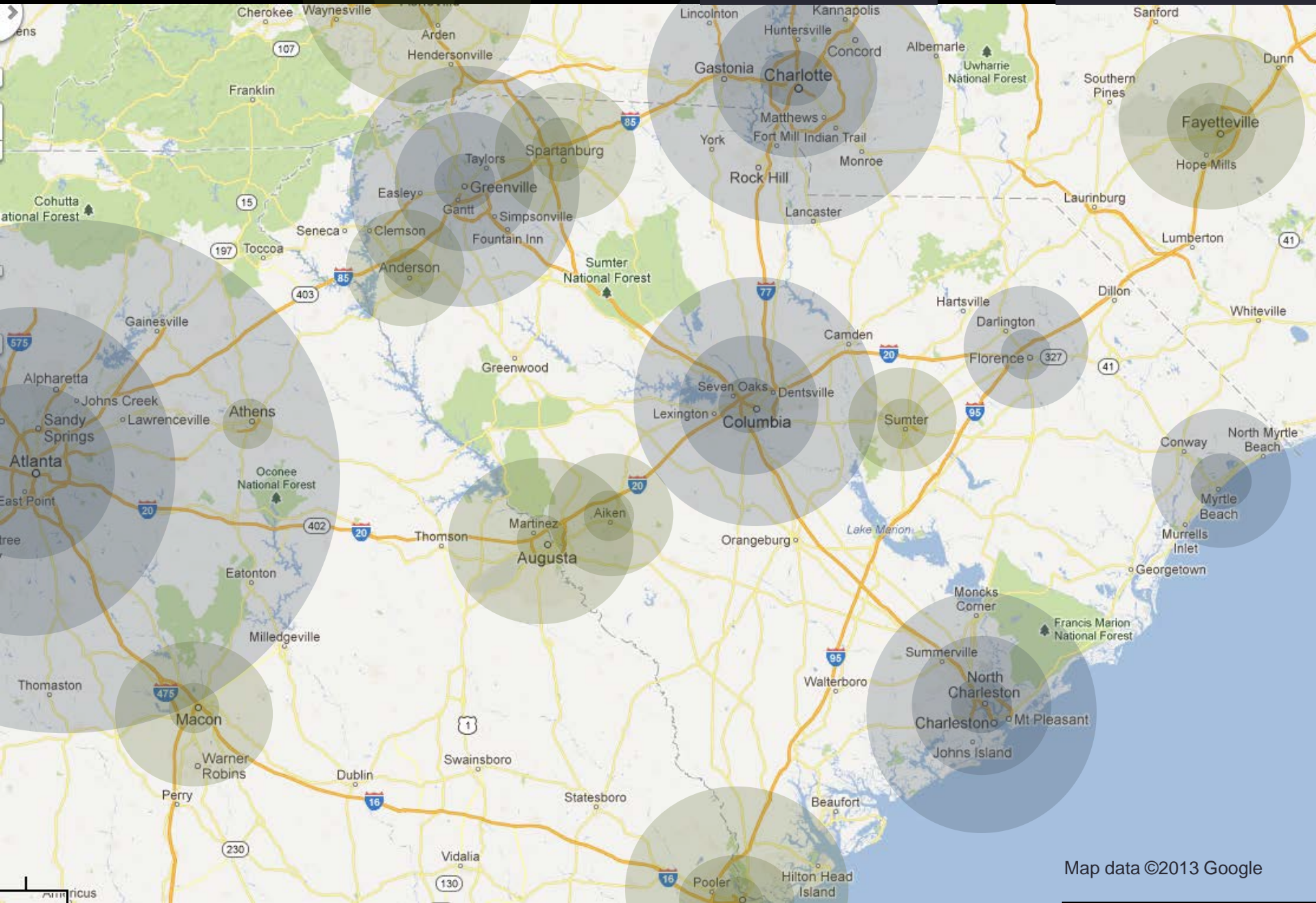
(or why backwash tends to be > spread)

Reilly's Law of Retail Gravitation:

“Two cities attract retail trade from any intermediate city or town in the vicinity of the breaking point, approximately in direct proportion to the populations of the two cities and in inverse proportion to the square of the distances from these two cities to the intermediate town”²

- (Doesn't just apply to retail)
- In other words: some of Amazon's impact will “leak” into surrounding suburban & rural area & other cities, but a lot of it will tend to concentrate within the city where it is located.







The Clemson University Regional Economic Analysis Laboratory (CU-REAL) conducts public policy and economic and fiscal impact analysis for public, private, and non-profit sector clients. CU-REAL is a unit of the Division of Collaborative Academic Services (DCAS), which serves the College of Behavioral, Social & Health Sciences and the College of Education.



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