



Society of Industrial and Office Realtors - Chicago Chapter

Expect more.



# WHAT TO DO AFTER YOU BRING IT BACK

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**SIOR Chicago**

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Chicago Consulting



# WHO IS CHICAGO CONSULTING

- We design and engineer supply chains...for manufacturers, distributors and retailers
- We orchestrate the components
  - Procurement and Inbound logistics
  - Plant and warehouse networks
    - Mission—Central, Regional, Returns, so on
    - How many and where
    - What to put in them
    - Size
    - Territories
  - Inventory deployment and replenishment
  - Transportation
  - Order processing
  - Warehouse operations
  - Customer service
  - The systems that help these functions operate
- This breadth is important because these components are interdependent



# CHICAGO CONSULTING--LIST OF CLIENTS

- American Bar Association
- ACCO
- ACH Foods
- A.E. Staley
- Aearo Technologies
- Advanced Marketing Systems
- AGCO
- Alberto Culver
- American Honda
- Ameritech
- Amoco Oil
- Amway
- Appleton Papers
- Auto Zone
- Bayer
- Baxter Healthcare
- Beltone Electronics
- BD (Becton Dickinson)
- Beckman Instruments
- Bel Brands
- Bordens
- Brunswick
- Career Education
- Caterpillar
- Case IH
- Converse
- Cobe
- Con Agra Cummins Engine
- Danly Machine
- Draw Tite
- Elkay Manufacturing
- Emerson
- Echlin
- FMC
- Fashion Bed Group
- Ford Motor
- G. D. Searle
- GE Medical Systems
- General Motors
- Globe Union
- Geenheck Fan
- W. W. Grainger
- Handi-Foil
- Heads and Threads
- Helene Curtis
- Higgins Development
- Highmark
- Honeywell
- Icynene
- IBM
- ITW
- International Multifoods
- John Deere
- Johnson & Johnson
- Johnson Controls
- K12
- Karcher
- Kitchler Lighting
- Kraft General Foods
- Lincoln Electric
- L'Oreal
- Loders Croklaan
- Mack Truck
- Martin-Brower
- Manildra Milling
- Johns Manville
- Masco
- Mobil
- Motorola
- Navistar
- Mitsubishi
- Micro Switch
- Noland
- NCR
- Newell Rubbermaid
- Occidental Petroleum
- Omron
- Paccar
- The Pampered Chef
- Panasonic
- Parts Now
- PartyLite
- Papa Johns
- Pliant
- Prentice Hall
- Principal Insurance Group
- Prosort
- Purac
- Rich Foods
- Ralston Foods
- Regis Corp
- Richfoods
- Rittenhouse
- Saddle Creek Corporation
- S.C. Johnson & Sons
- SBX
- Schwan Food Company
- Sears
- Select Beverages
- Schlumberger
- School Specialty
- Sherwood Medical
- SmithKline
- Sony Music
- Smith Kline Beecham
- Snap-On Tools
- Square D
- Stewart Warner
- Tenneco
- Tyco
- Universal Lighting
- Unilever
- Universal Studios
- Union Carbide
- USG
- Verizon
- Volume Shoe (Payless)
- WESCO
- World Pantry
- Walgreen's
- ZF

# TOOLS WE USE

1. Optimal Plant/Warehouse location
2. Optimal inventory deployment
3. Cost and service based routing
4. Warehouse operations
5. Optimal Packaging
6. Market share/satisfaction simulation
7. Reshoring Total Cost Estimator

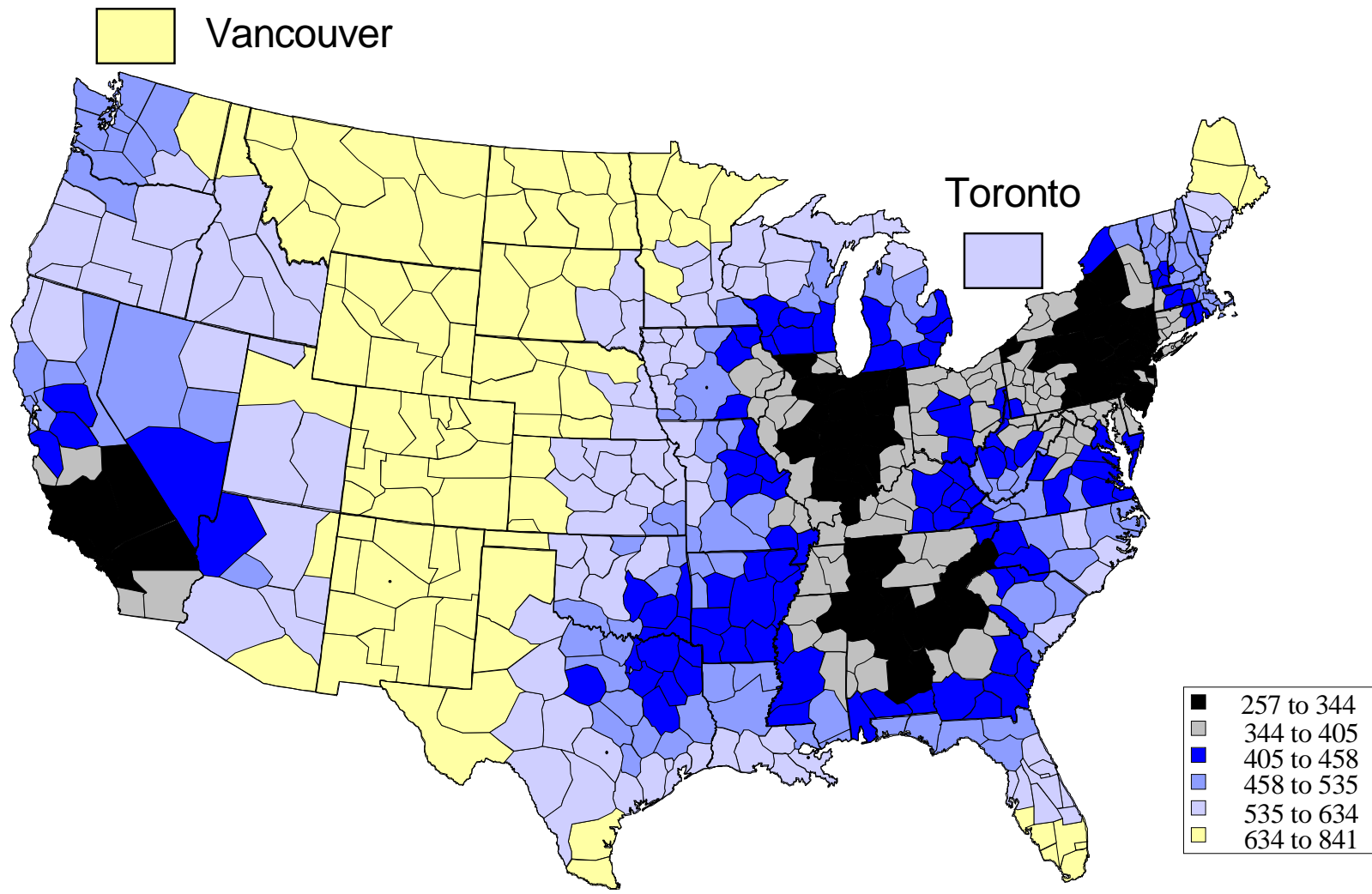


# A REAL ESTATE DEVELOPMENT CLIENT IN 2007

- Wanted to know where the demand for large warehouses would be
- We developed a geographic model encompassing 16 “drivers” of where supply chain executives will locate warehouses
  - Time to market
  - Labor cost
  - Interstate highway access
  - Industrial development assistance
  - Business friendliness
  - Proximity to air hubs
  - Others
- They use this model to help make spec build decisions and support financing of them



# WHERE THE DEMAND FOR LARGE WAREHOUSES WILL BE— COMPOSITE INDEX SCORE

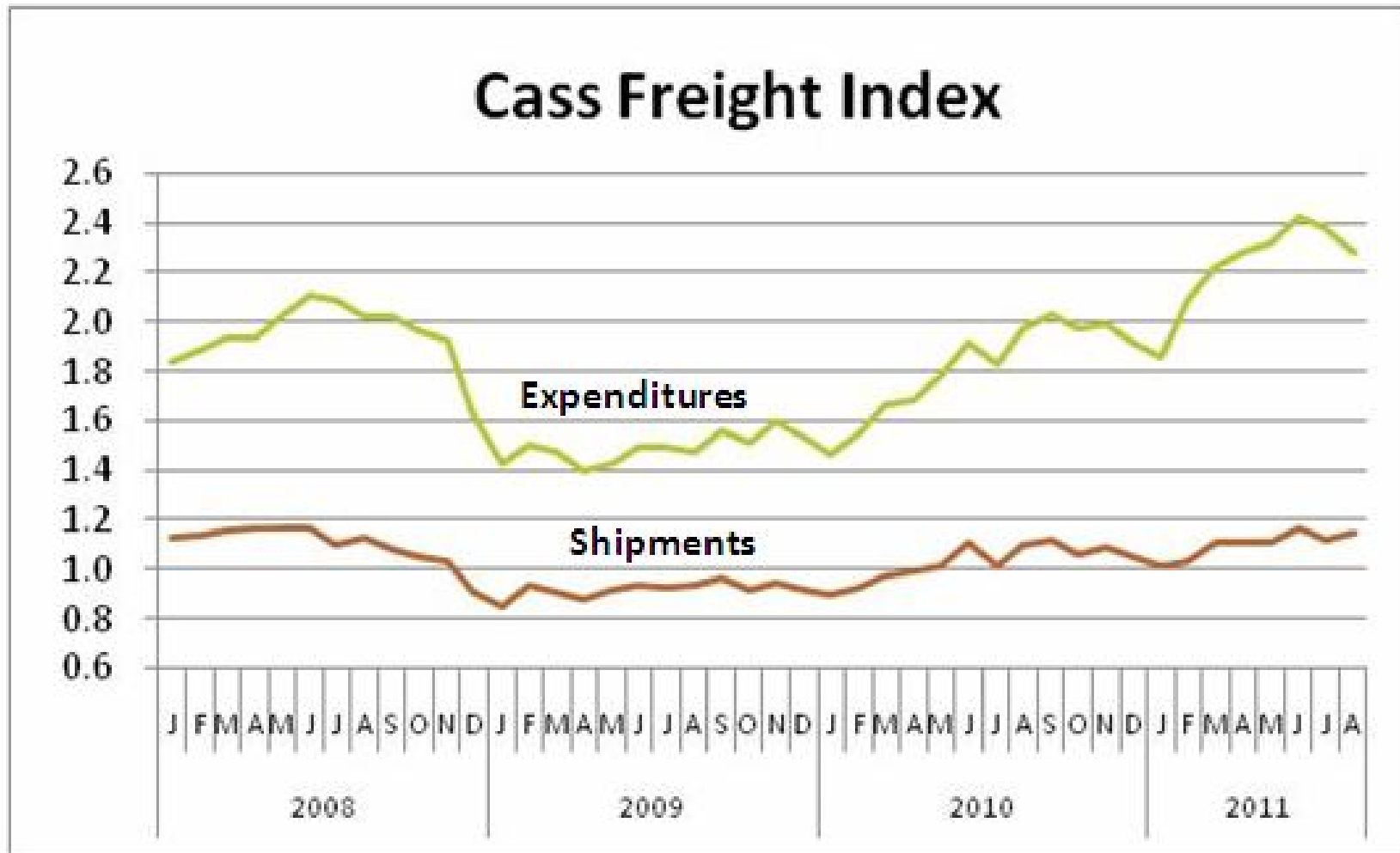


# EXPECTATIONS IN 2011 and 2012

- Recovery is emerging
  - Business is picking up
  - Cost continues to be a focus
  - Inventory levels are beginning to grow
- Foreign imports still continue to grow as we become “distributors” vs. “manufacturers”
- Actually seeing some manufacturing/assembly coming back on-shore—drivers are
  - Wage growth in China
  - Domestic productivity growth
  - \$/Yuan valuations
  - Supply chain complexity and cost
  - “Made in America” symbolism
- Disruption due to Japan Earthquake—mostly over now
- Green is continuing as a theme



# CASS FREIGHT PAYMENT INDEX



# HOW DIESEL AFFECTS WAREHOUSE NETWORKS

Cheap = Centralize

Expensive = More warehouses closer to customers



# HOW SUPPLY CHAINS REACT

- Supply chains sit at the nexus between manufacturing and sales-marketing, suppliers and customers
- They have a two-fold objective
  - Provide high service
  - Consume less cost
- This is their continual battle, their “ying and yang”
  - It’s never fully resolved
  - It frames all supply chain executives’ strategic thinking



# HOW SUPPLY CHAIN EXECs MAKE LOCATION DECISIONS

- Start with the “big” picture
  - How much service should my supply chain provide
  - What should my supply chain cost and
  - How should my supply chain be designed
    - Where should I have warehouses
    - What should be in them
    - What territories should they serve
- Build a “model”
  - Or use an existing software tool
  - Tweak the current supply chain
  - Settle on a “location”—50 to 100 mile radius
- Then “select” a site

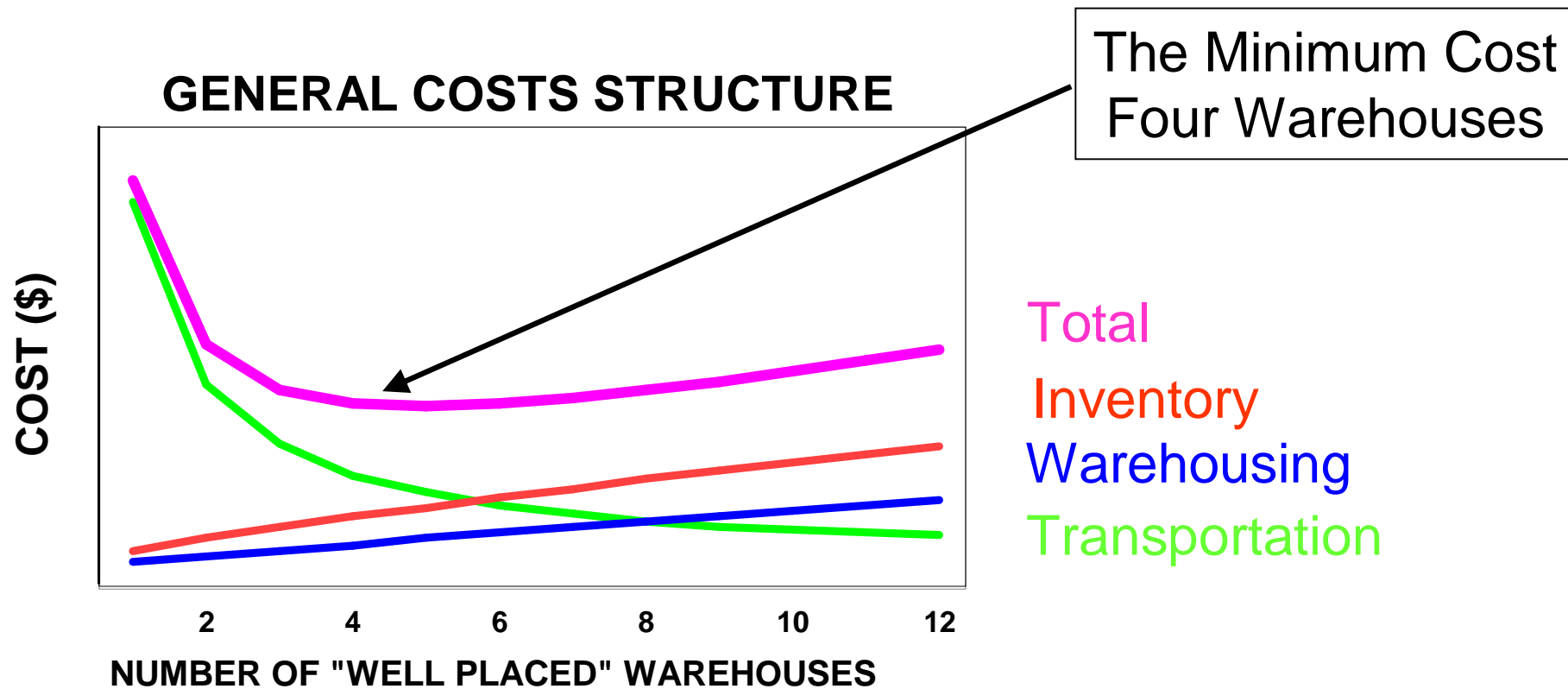


# HOW SUPPLY CHAIN EXECES MAKE LOCATION DECISIONS (Continued)

- The “model”
  - Should have two “dimensions”—Service and Cost
    - Service—Lead-time and Fill Rate
    - Cost—Transportation, Warehousing and Inventory
  - Should “optimize” ...locating 5 warehouses in any of 1,000 potential places can be done in 8.3 trillion ways
  - Costs
    - Transportation is usually the largest component
      - Important to segregate Inbound and Outbound
      - Outbound is usually larger than Inbound
    - Then Warehousing
    - Then Inventory



# HOW SUPPLY CHAIN EXECES MAKE LOCATION DECISIONS (Continued)



# THE SERVICE SIDE—POPULATION BASED NETWORKS

THE 10 BEST WAREHOUSE NETWORKS FOR 2010			
Networks with the Lowest Possible Time-to-Market			
Number of Warehouses	Average Distance to Customers (Miles)	Average Transit Lead-Time to Customers (Days)	Best Warehouse Locations (Percent Throughput)
ONE	825	2.33	Washington, IN (100)
TWO	504	1.53	Ashland, KY (76)    Bakersfield, CA (24)
THREE	397	1.34	Norristown, PA (31)    McKenzie, TN (46)    Bakersfield, CA (23)
FOUR	336	1.25	Edison, NJ (27)    Selma, AL (27)    Joliet, IL (23) Bakersfield, CA (23)
FIVE	279	1.16	Summit, NJ (23)    Swainsboro, GA (19)    Gary, IN (22) Dallas, TX (15)    Bakersfield, CA (21)
SIX	252	1.12	Summit, NJ (23)    Swainsboro, GA (19)    Gary, IN (22) Dallas, TX (15)    Pasadena, CA (16)    Tacoma, WA (5)
SEVEN	228	1.10	Summit, NJ (23)    Gainesville, GA (14)    West Palm Beach, FL (7) Chicago, IL (21)    Dallas, TX (14)    Pasadena, CA (16) Tacoma, WA (5)
EIGHT	211	1.07	Summit, NJ (23)    Gainesville, GA (14)    West Palm Beach, FL (7) Chicago, IL (21)    Palestine, TX (11)    Denver, CO (5) Pasadena, CA (15)    Tacoma, WA (4)
NINE	198	1.07	Summit, NJ (23)    Gainesville, GA (14)    West Palm Beach, FL (7) Chicago, IL (21)    Palestine, TX (11)    Denver, CO (5) Alhambra, CA (10)    Tacoma, WA (4)    Oakland, CA (5)
TEN	184	1.04	Summit, NJ (23)    Gainesville, GA (14)    Lakeland, FL (6) Chicago, IL (21)    Palestine, TX (11)    Denver, CO (5) Alhambra, CA (10)    Tacoma, WA (4)    Oakland, CA (5) Cayey, PR (1)

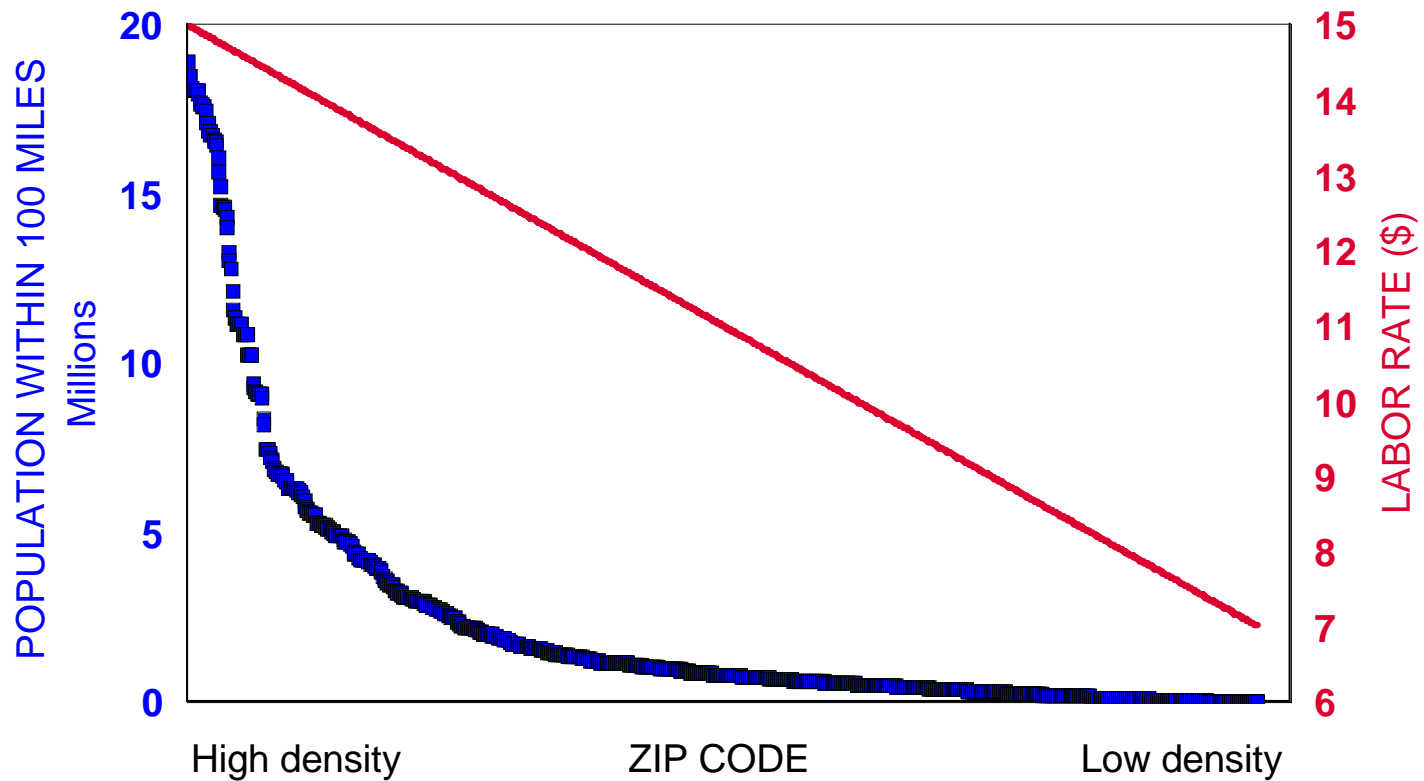


# THE NEXT STAGE— More Cost Details

- The big costs are fairly settled...now refine them with more details
  - Local incentives
  - Available sites and facilities
  - Taxes
  - Highway, rail, air and inter-modal access
  - Labor cost
  - Carrier availability
  - ....



# THE URBAN/RURAL WAREHOUSE LABOR COSTS MODEL



## FINAL THOUGHTS...

### HOW SUPPLY CHAIN ANALYSIS CAN HELP YOU

- View a single property as your clients do...as one property within a supply chain with interconnected components
- Provide your prospects with the perspective of how the property you represent fits within their supply chains
  - How it provides their customers with better service
  - How it reduces their cost
  - More details
    - What should be stocked in it
    - What territories it should serve
    - If not the right size
      - How to use the excess capacity
      - Reducing what's stocked in a smart way



THANK YOU

