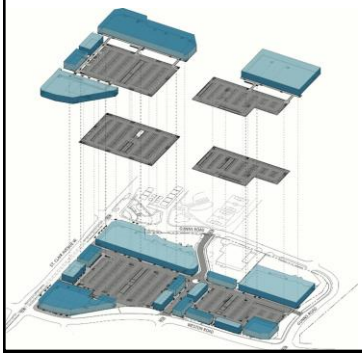
Decoding a Corporate Giant

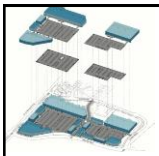
A Look at Walmart's Expansion Strategies in the United States

November 9, 2012

Presented at the University of Jinan, China

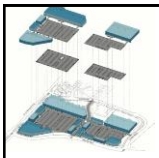


Murray D. Rice
University of North Texas



Business Geography

- "Applied Urban-Economic Geography"
- Focus is on using geographic thinking to help organizations make good decisions
  - Businesses (of course)
  - Governments (local, state, federal)
  - Non-profit organizations (charities, foundations)
- Issues
  - Where to put offices, stores, factories, warehouses
  - How to define and effectively serve target populations
  - Also thinking about transportation and logistical issues

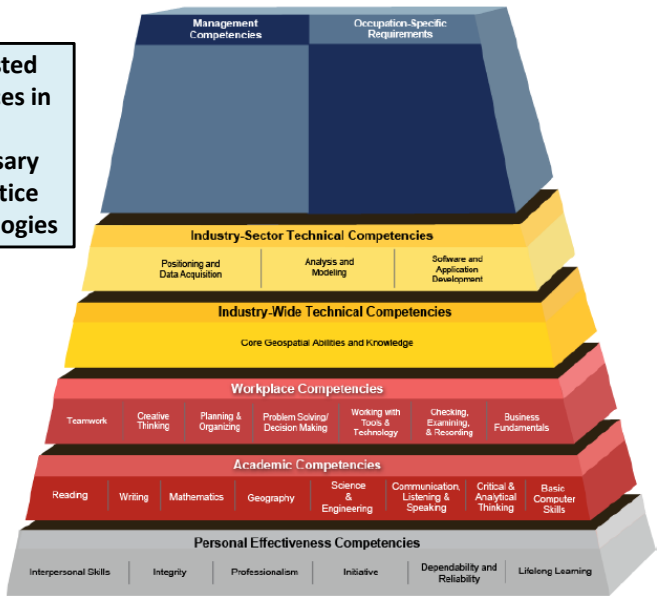


Business Geography

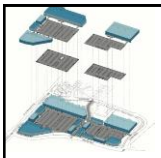
- Geospatial technology in general is a priority area for labor force development in the U.S.
- Evidence: the new U.S. Dept. of Labor (USDOL) "Career One Stop" initiative
  - Geospatial technology is one of the very first fields included in the USDOL's new "competency model clearinghouse"
  - *"Industry competency models focus on understanding the knowledge and skill sets that are essential to educate a globally competitive workforce"* (www.careeronestop.org)

Geospatial Technology Competency Model

The USDOL has invested considerable resources in identifying the core competencies necessary for professional practice in geospatial technologies

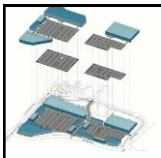


Source: www.careeronestop.org



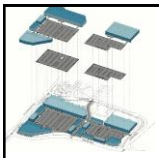
Business Geography

- The AAG's *Business Geography Specialty Group*, *ESRI*, and the *National Council for Geographic Education* have created a task force to focus on
  - 1. Further defining the geospatial competencies that link to business geography specifically
  - 2. Applying these competency definitions to business geography curriculum development
- Why? Demand for properly-trained business geographers exceeds the current supply.



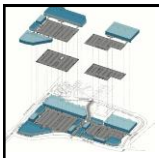
Business Geography

- This presentation provides a window into the kind of research and analysis that businesses today literally cannot get enough of



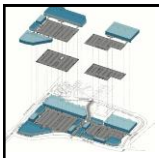
Walmart and the Retail Environment

- World's Largest Retailer
- Success Based on Low Cost Distribution
  - Logistical Superiority
  - Economies of Scale
- Stores Located
  - Close to Each Other
  - Close to Distribution Centers to minimize costs



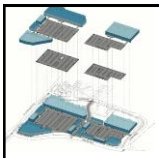
Walmart and the Retail Environment

- Some people hate Walmart
- Why?
  - Negative impacts on existing competitors & communities
  - Promotion of a consumer, mass-production culture
  - Environmental degradation because of the above



Walmart and the Retail Environment

- Others are more supportive of Walmart
- Why?
  - Massive economic presence: 130 million Americans shop at Walmart each week
  - Supplier network that extends to all 50 states (and globally)



Walmart and the Retail Environment

- Research perspective: whether you love it or hate it, Walmart is a fact of life in America
- Walmart deserves our interest because of the size and success they have achieved
  - *What can we learn from their experience?*

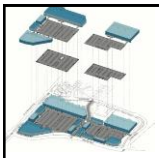
Walmart and the Retail Environment

Are there important business lessons that we can gain from Walmart's growth?

Through thoughtful observation, can we decode some of Walmart's key strategies so the broad retail community can understand and benefit?

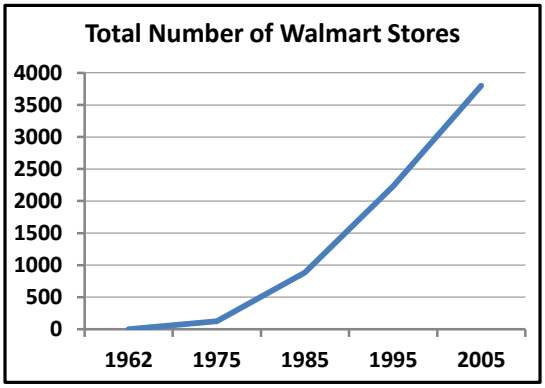
Literature on Walmart

- Basker
  - Impact of Walmart in the broader economy: examining consumers, competitors, labor market
- Holmes
  - Dispersion of Walmart in the United States through 2005
  - One focus: examine impacts of distribution costs on store locations
- Graff
  - Analysis of Walmart's expansion as compared with key competitors (Target, K-Mart)

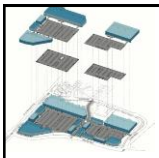


Walmart's Expansion

By sheer store numbers, the ambitious nature of Walmart's store expansion is obvious



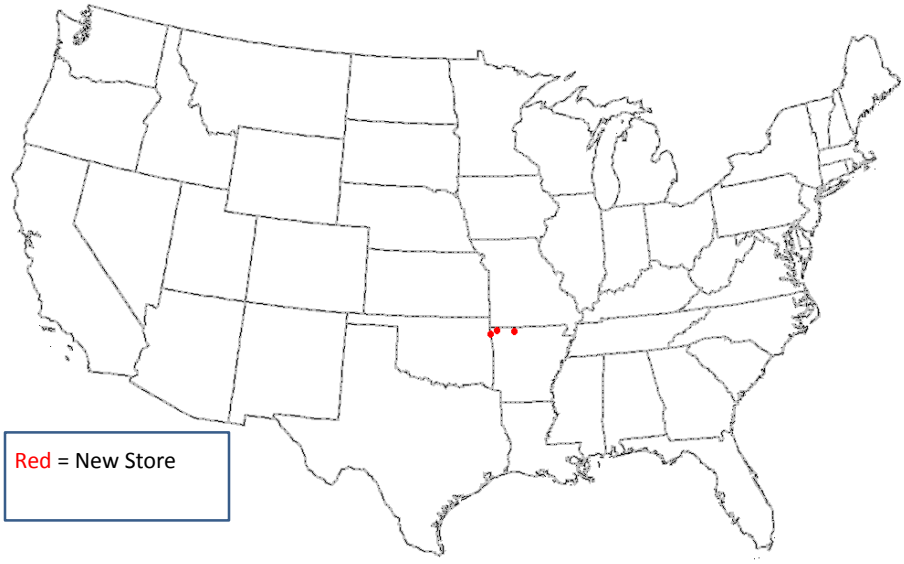
Graph includes all types of stores (Supercenters, Sam's Clubs, etc.)



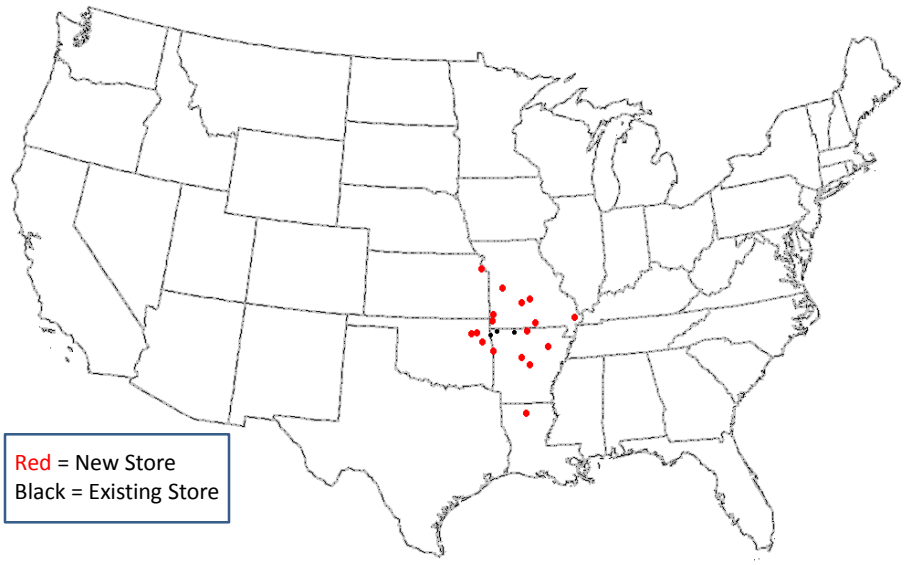
Walmart's Expansion

Geographically, it is also well established that Walmart grew in the US via a radial pattern of expansion around its origin in Bentonville

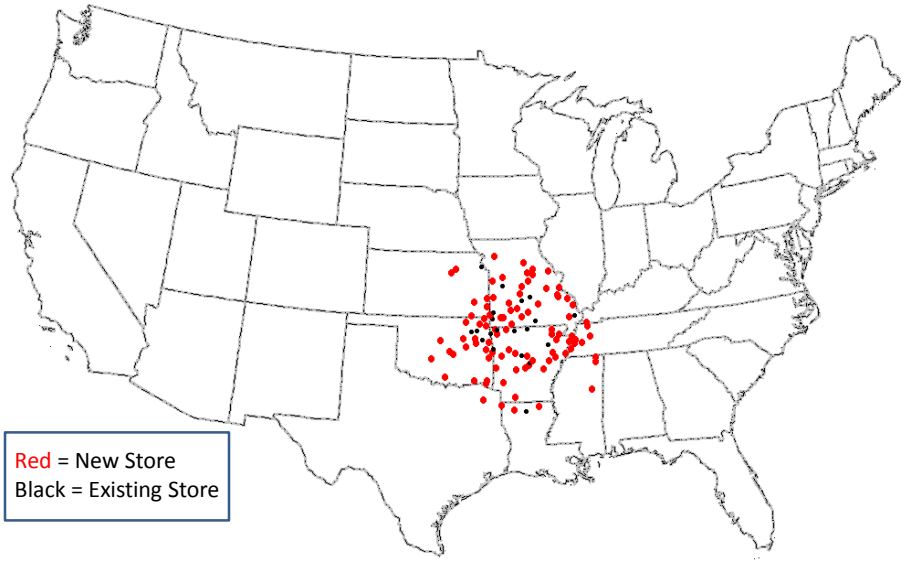
Walmart Stores Opened up to 1965



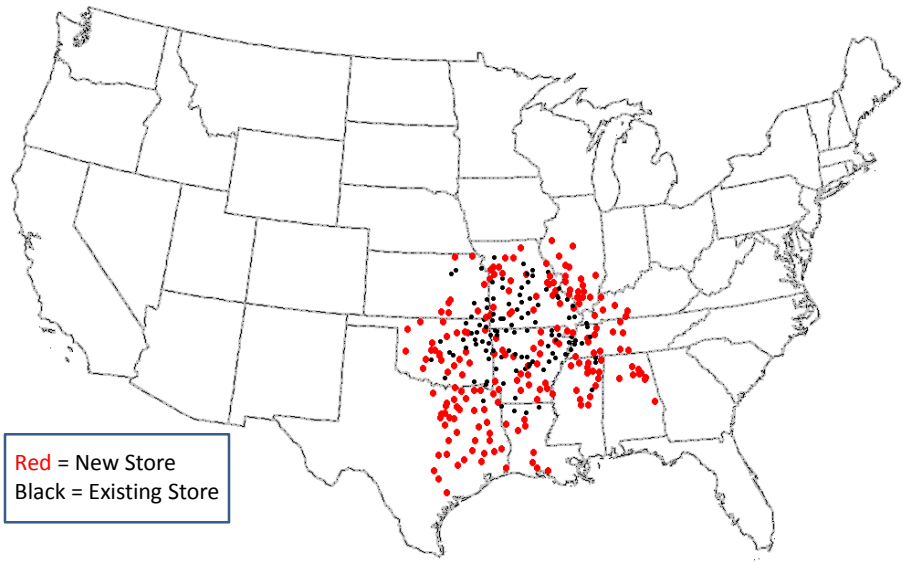
Walmart Stores Opened 1966-1970



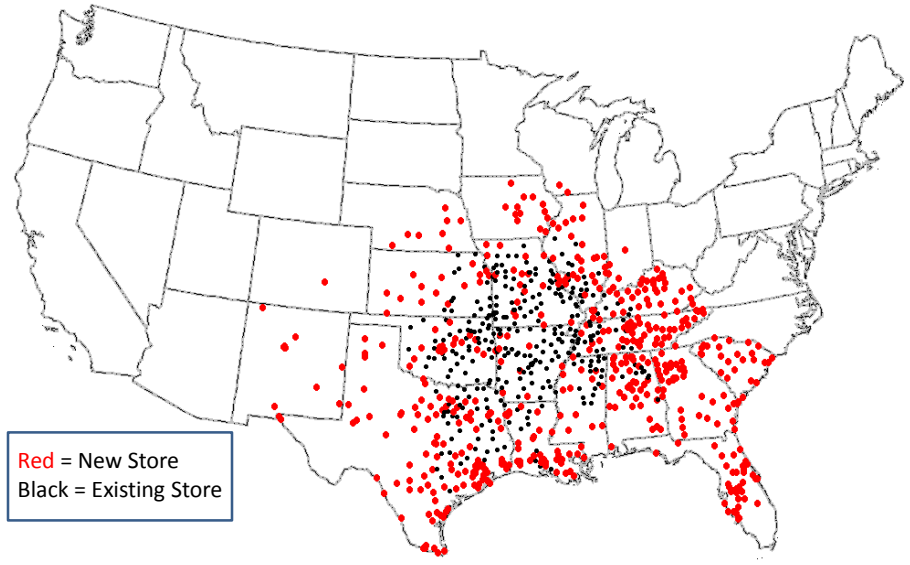
Walmart Stores Opened 1971-1975



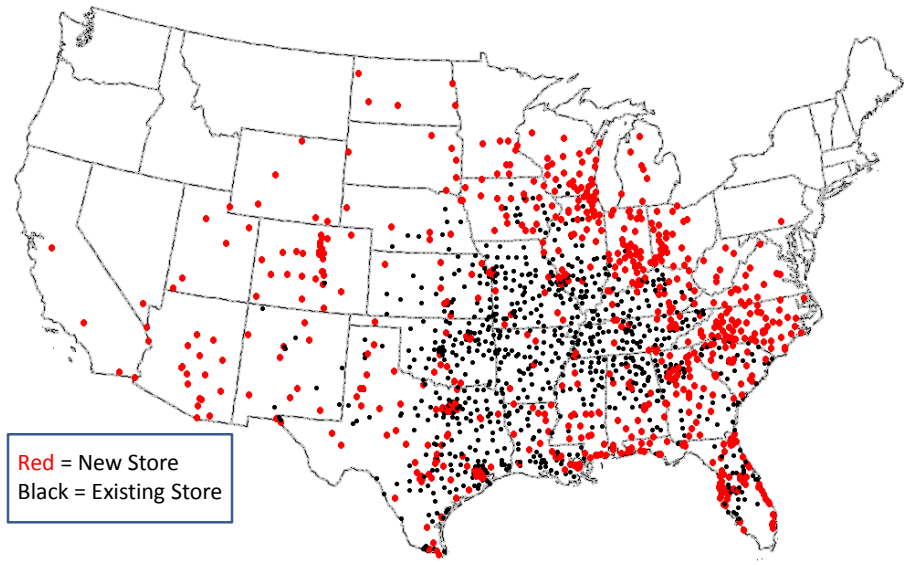
Walmart Stores Opened 1976-1980



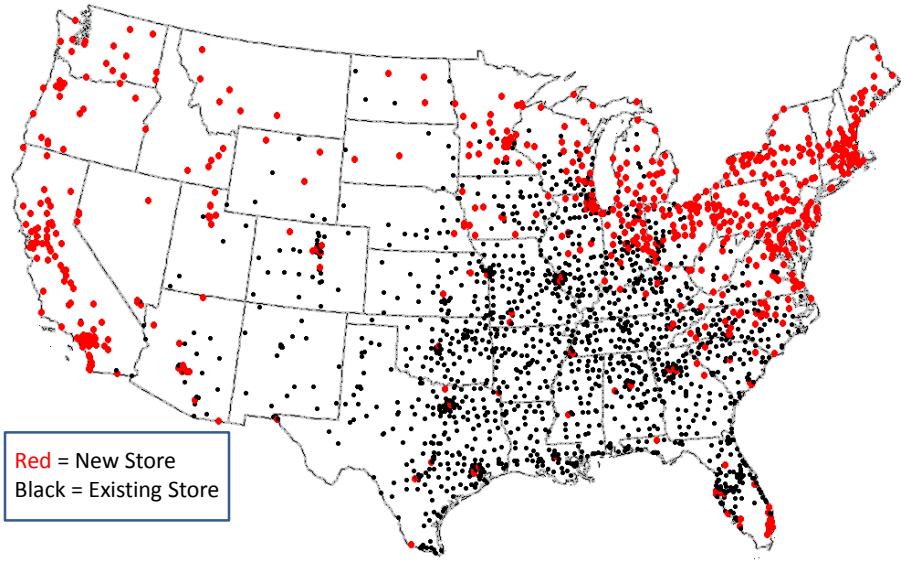
Walmart Stores Opened 1981-1985



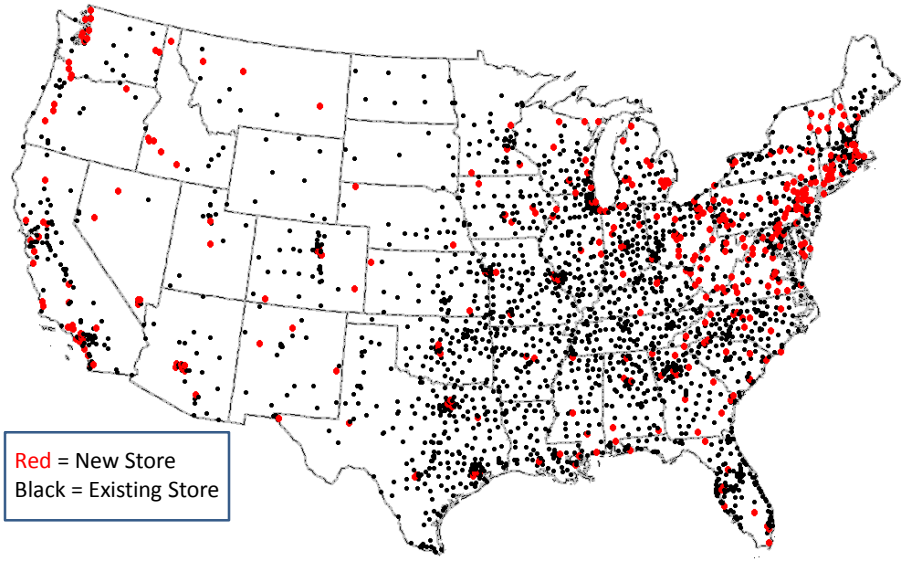
Walmart Stores Opened 1986-1990



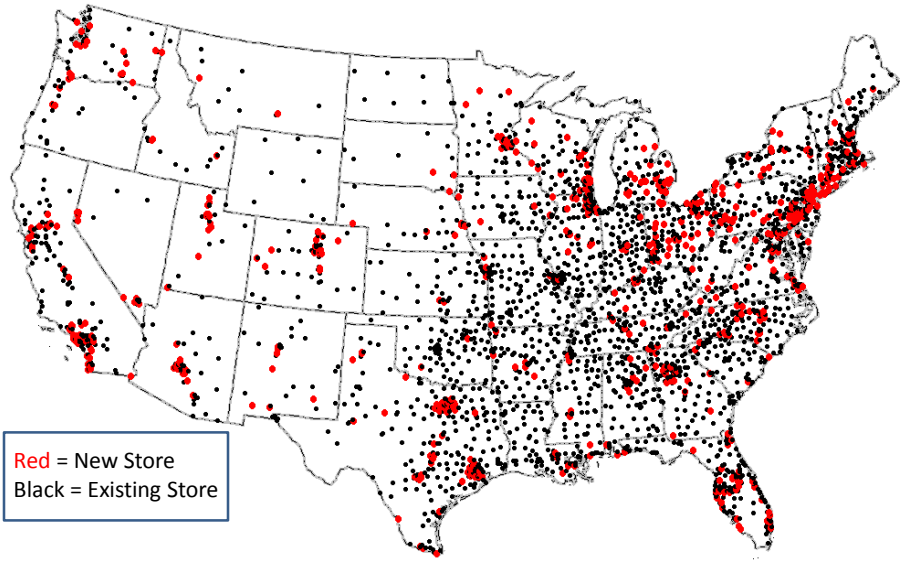
Walmart Stores Opened 1991-1995



Walmart Stores Opened 1996-2000

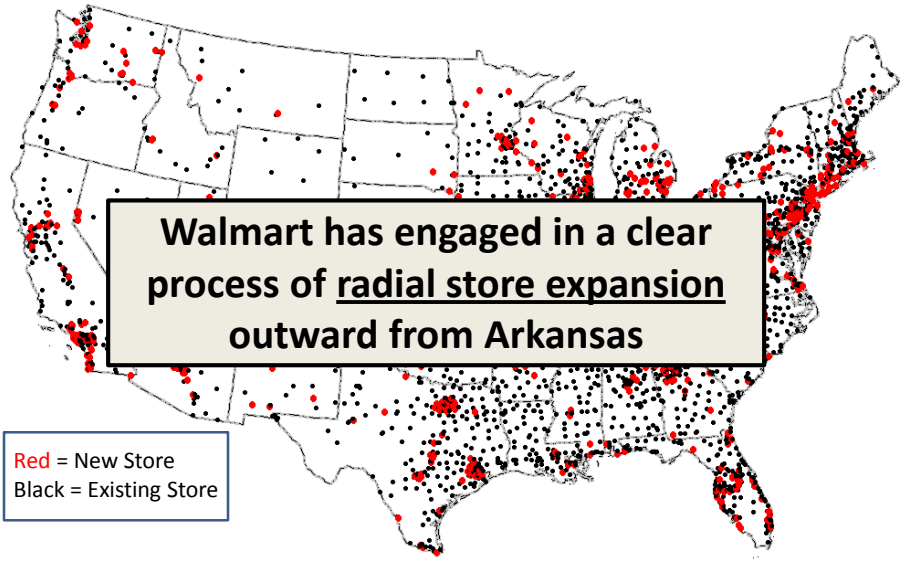


Walmart Stores Opened 2001-2006



Red = New Store
Black = Existing Store

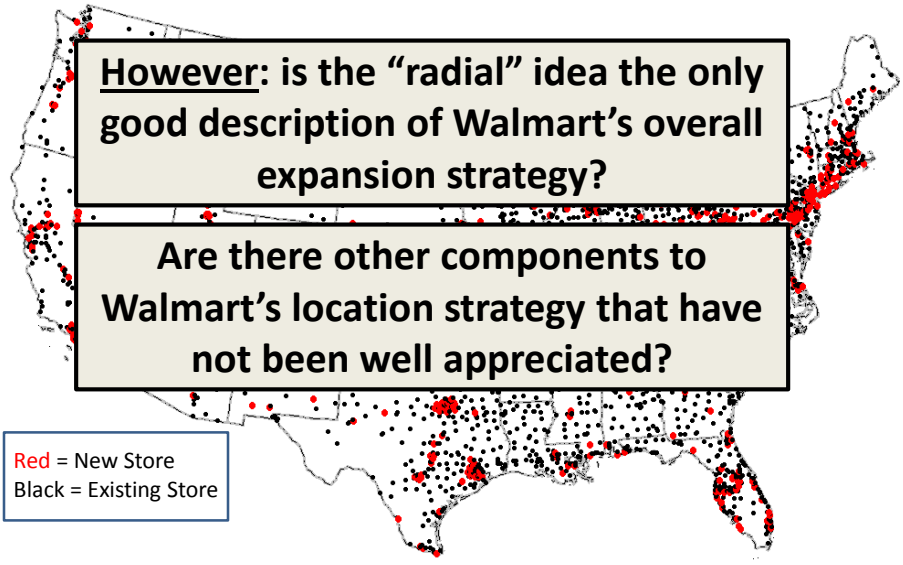
Walmart Stores Opened 2001-2006



Walmart has engaged in a clear process of <u>radial store expansion</u> outward from Arkansas

Red = New Store
Black = Existing Store

Walmart Stores Opened 2001-2006

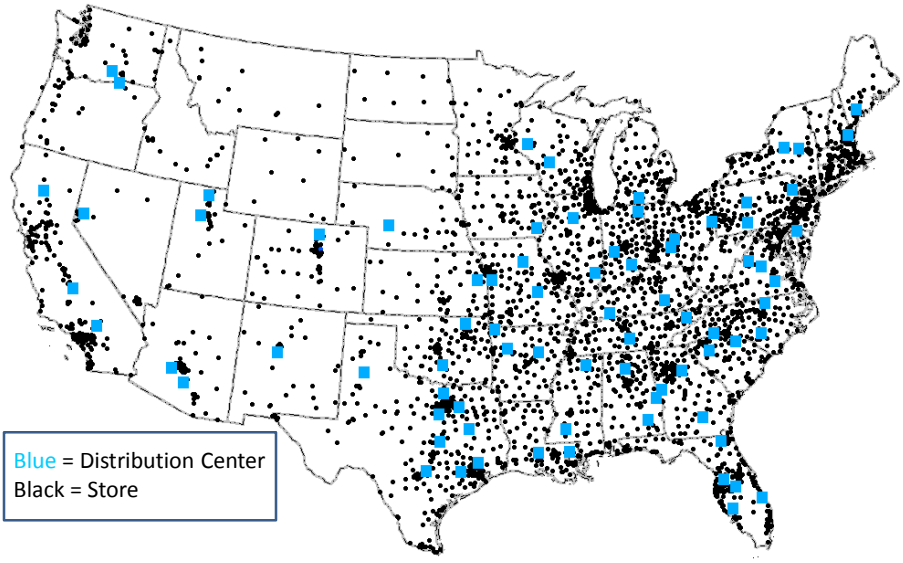


<u>However</u>: is the "radial" idea the only good description of Walmart's overall expansion strategy?

Are there other components to Walmart's location strategy that have not been well appreciated?

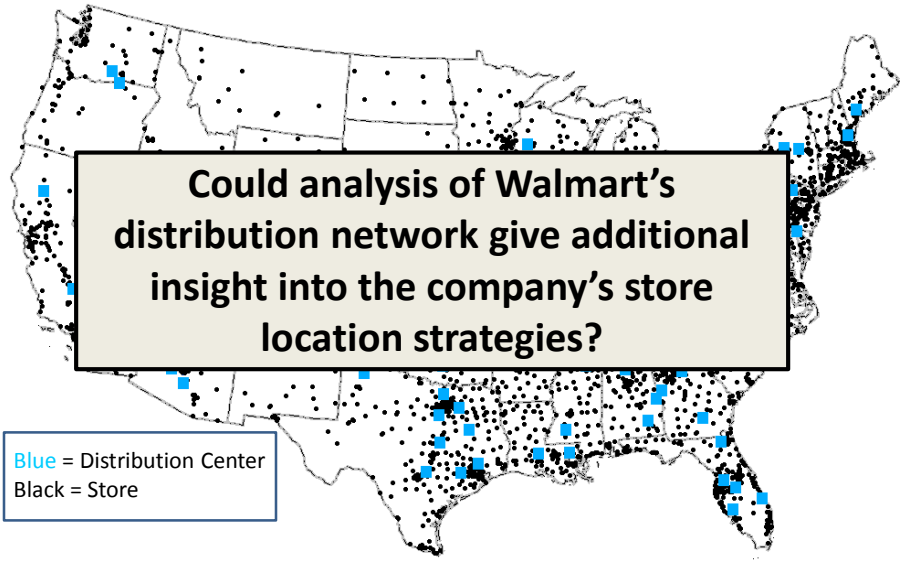
Red = New Store
Black = Existing Store

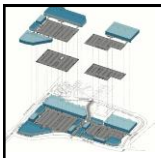
Walmart Distribution Centers as of 2006



Blue = Distribution Center
Black = Store

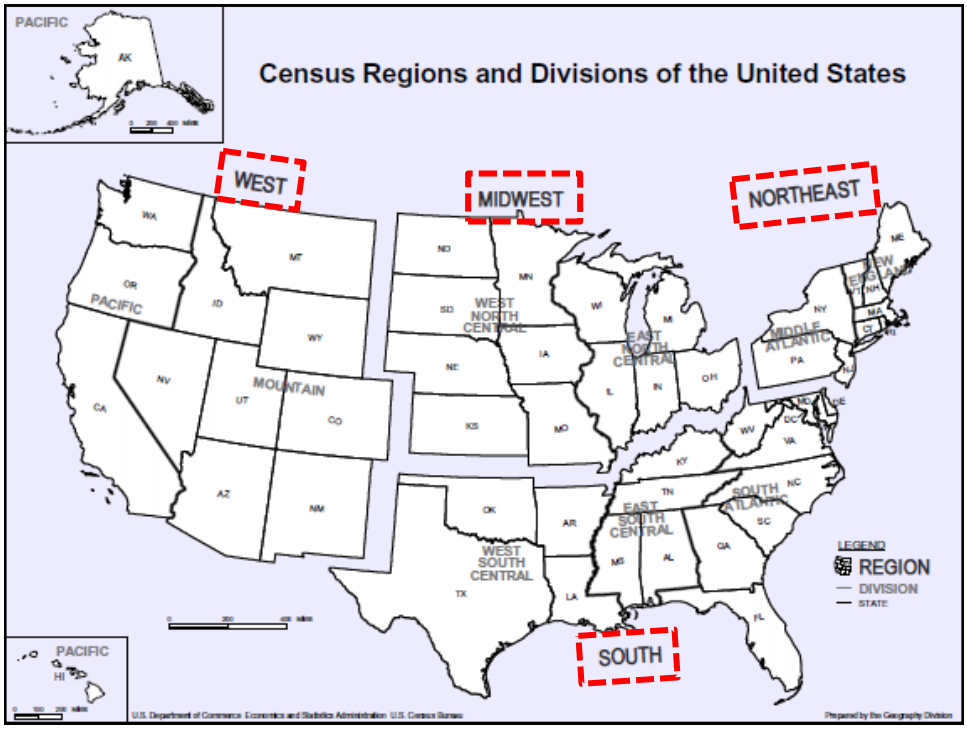
Walmart Distribution Centers as of 2006

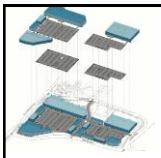




Case Study

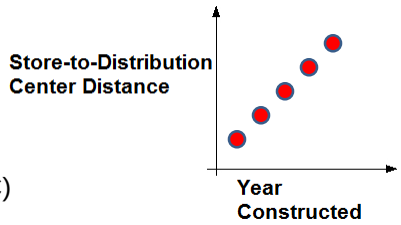
- Examine geographic growth of Walmart in the US, with a focus on 1990 to 2005
- 2,433 stores as of 2005
  - Discount ("DS"): 752
  - Supercenter ("SC"): 493
  - DS Converted to SC: 1,188
- 76 Distribution Centers ("DC")
  - Discount DCs: 42
  - Grocery DCs: 34
- Analysis by US Census Region (Four in Total)



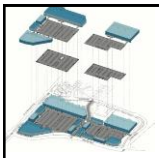


Research Question

- Are stores constructed in a continuous radial manner <u>by year</u> around distribution centers?
  - Correlation Analysis
    - Variables
      - 1. Year Constructed
      - 2. Distance (store to DC)



Expectation: <u>year constructed</u> and <u>store-to-distribution center distance</u> will be positively correlated (distances increasing over time)



Research Question

In other words, our expectation is

- Just as Walmart expanded nationally in a radial fashion around an Arkansas center…
- Walmart also expanded radially around its individual distribution centers as they were built
- Motivation: minimize transport costs to the store network as it expands

Results: Distance and Year Constructed Correlations by Region

Discount	Northeast	Midwest	South	West
Correlation	-.611**	-414**	-.234**	-.503**

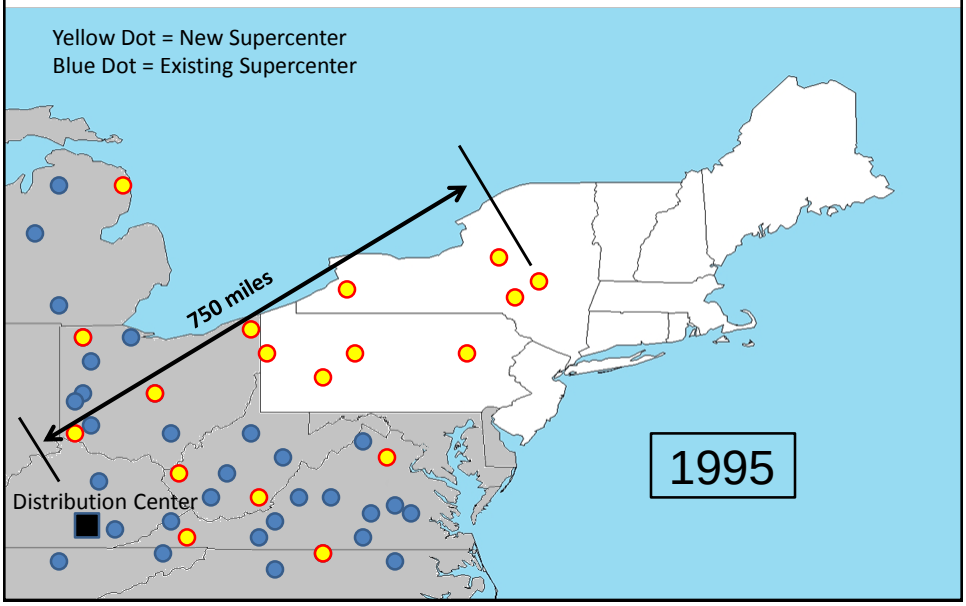
Supercenter	Northeast	Midwest	South	West
Correlation	-.793**	-.482**	-.483**	-.549**

Converted	Northeast	Midwest	South	West
Correlation	-.546**	-.424**	-.426**	-.448**

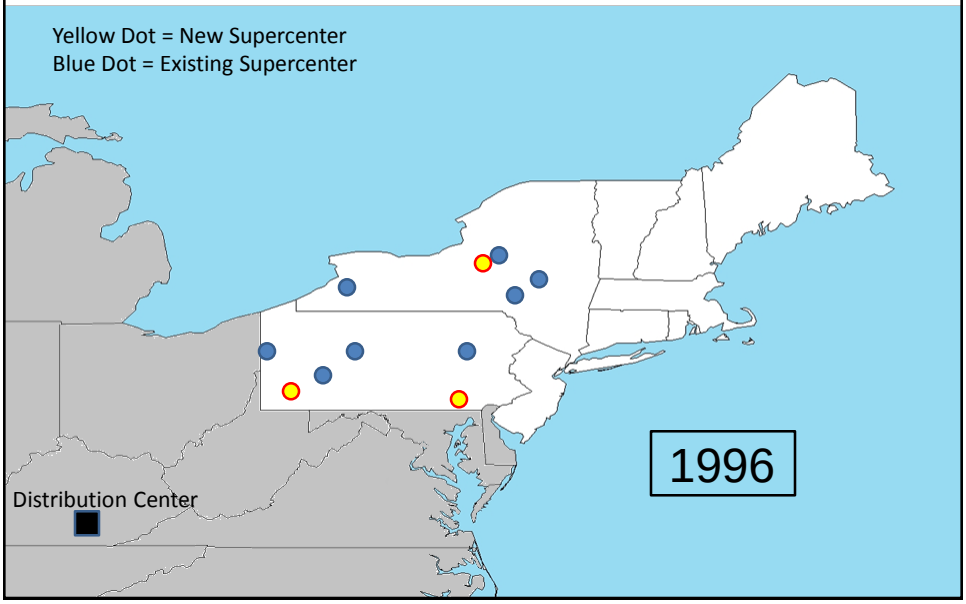
** Correlation is significant at the 0.01 level

Key Result: all correlations are negative

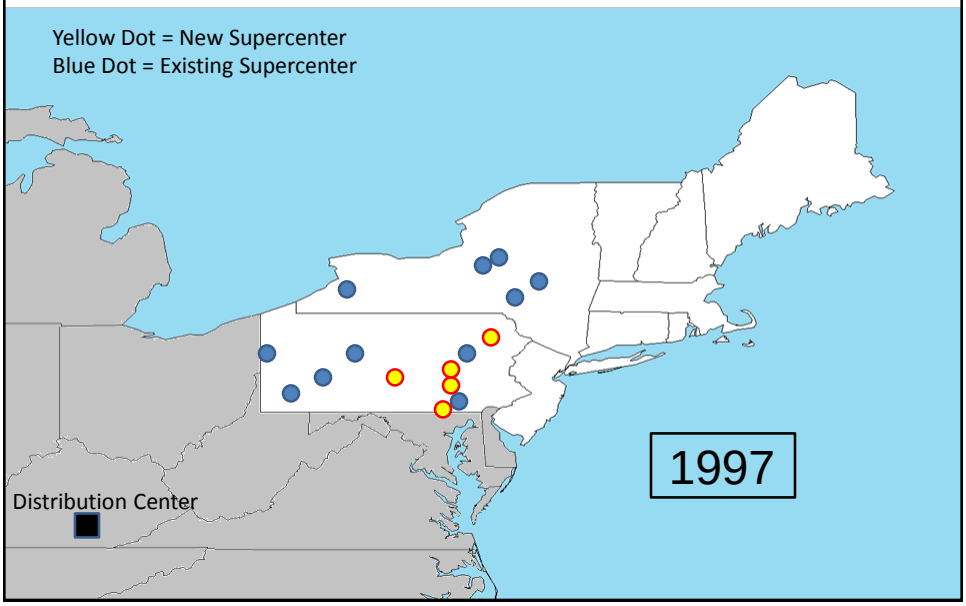
Supercenter Openings: Northeast 1995



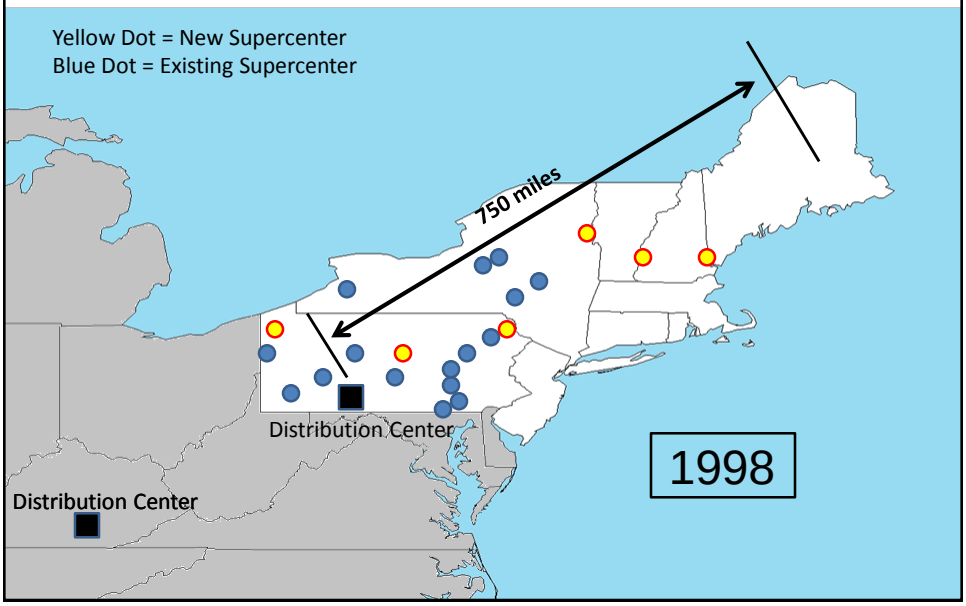
Supercenter Openings: Northeast 1996



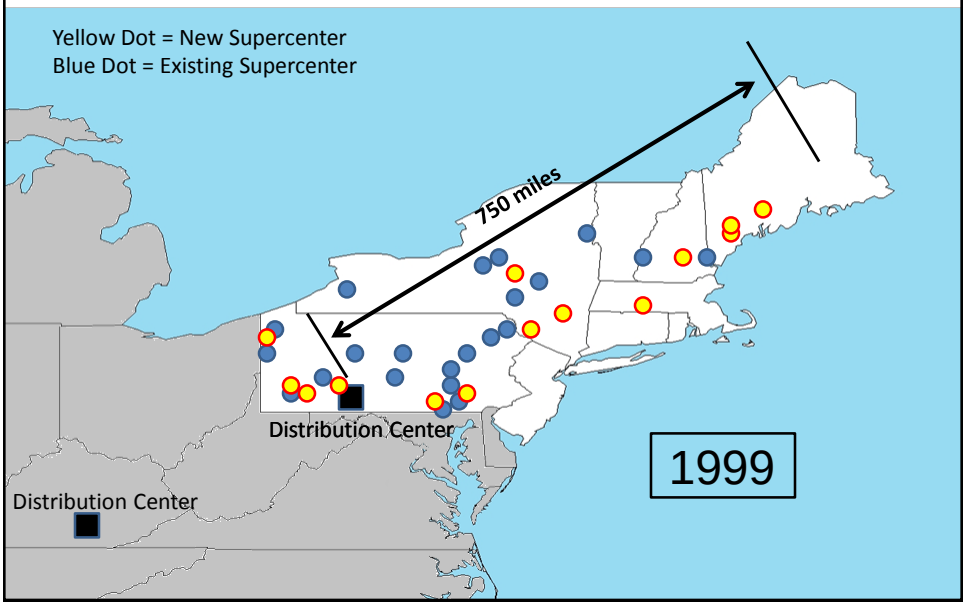
Supercenter Openings: Northeast 1997



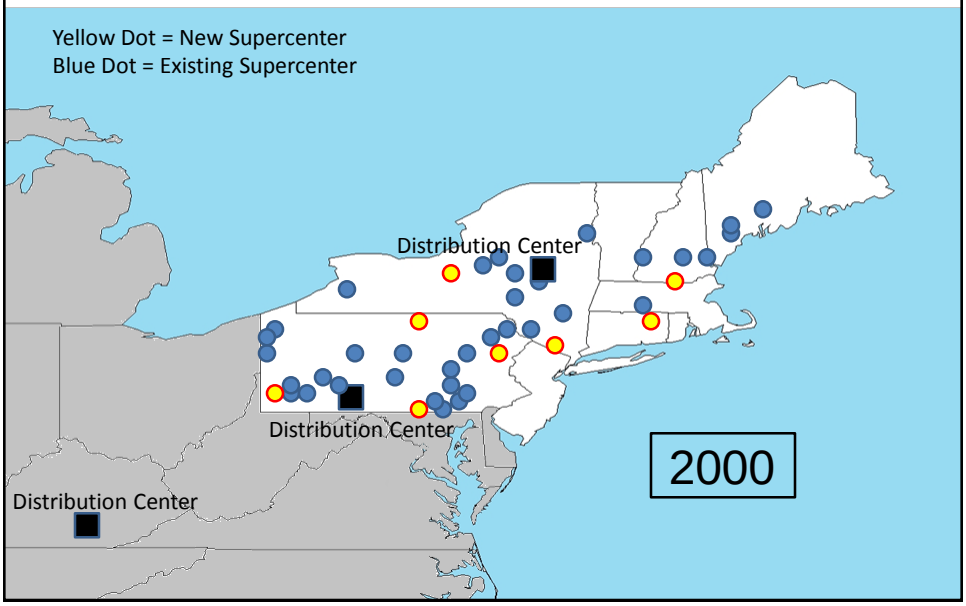
Supercenter Openings: Northeast 1998



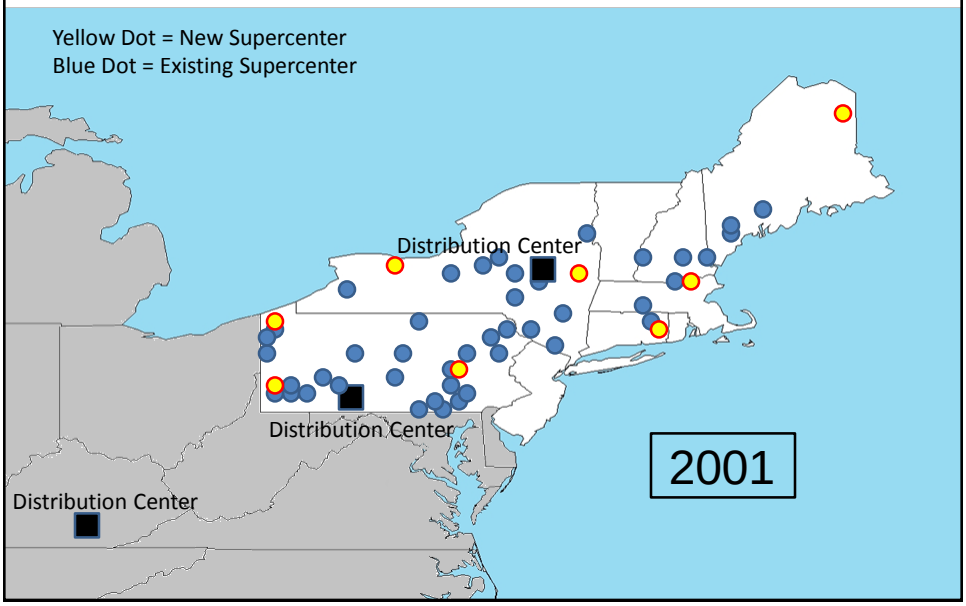
Supercenter Openings: Northeast 1999



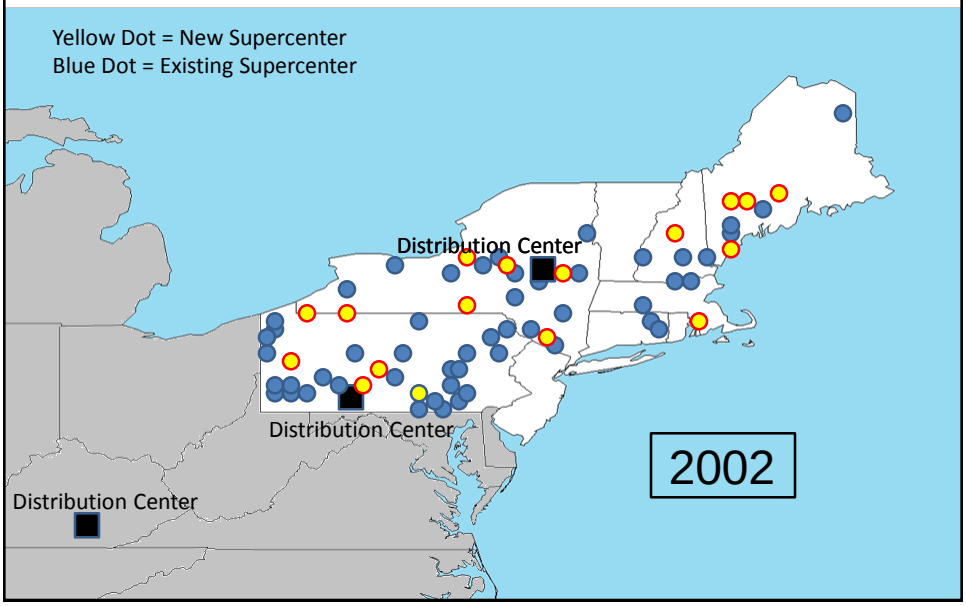
Supercenter Openings: Northeast 2000



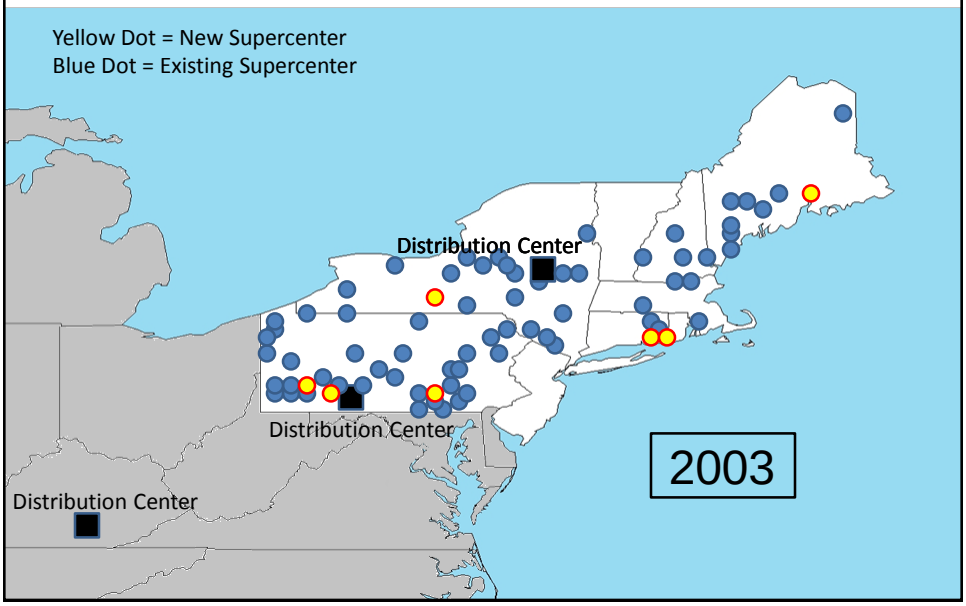
Supercenter Openings: Northeast 2001



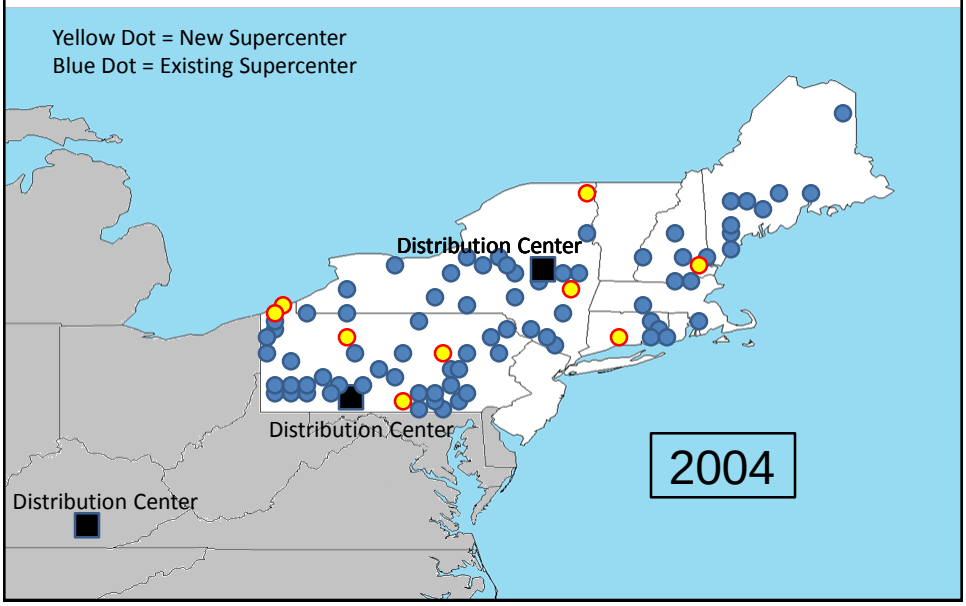
Supercenter Openings: Northeast 2002



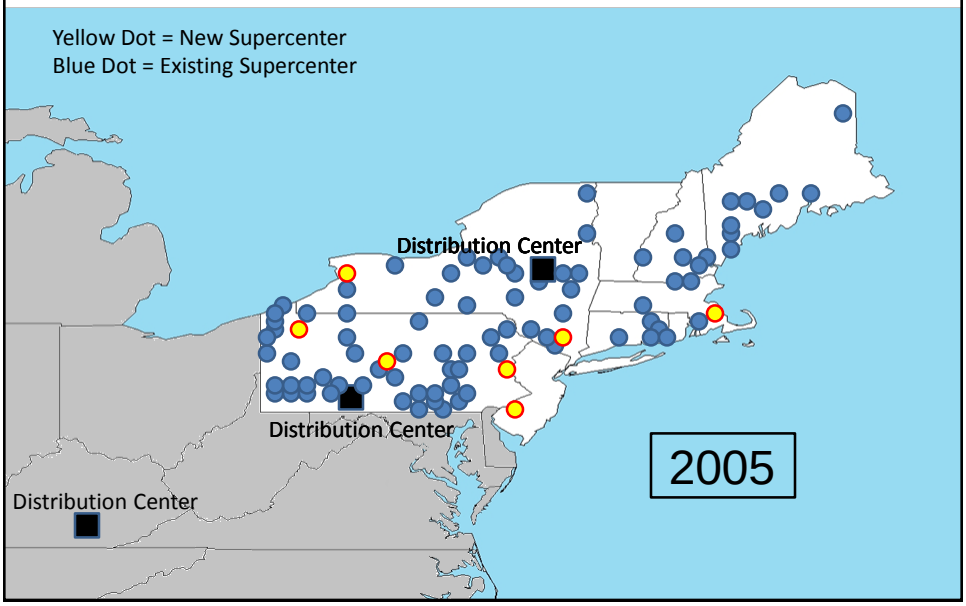
Supercenter Openings: Northeast 2003



Supercenter Openings: Northeast 2004



Supercenter Openings: Northeast 2005



Northeast

Supercenters

Year	# New Stores	Av Distance
1995	8	492 miles
1996	3	462 miles
1997	6	462 miles
1998	6	272 miles
1999	14	255 miles
2000	8	120 miles
2001	9	155 miles
2002	18	126 miles
2003	8	142 miles
2004	12	93 miles
2005	13	144 miles

Discount Stores

Year	# New Stores	Av Distance
1991	9	335 miles
1992	10	402 miles
1993	30	265 miles
1994	18	172 miles
1995	26	171 miles
1996	8	131 miles
1997	15	115 miles
1998	14	102 miles
1999	6	101 miles
2000	12	121 miles
2001	18	121 miles
2002	17	91 miles
2003	13	91 miles
2004	8	81 miles
2005	6	71 miles

Northeast

Supercenters

Year	# New Stores	Av Distance
1995	8	492 miles
1996	3	462 miles
1997	6	462 miles
1998	6	272 miles
2005	13	144 miles

Discount Stores

Year	# New Stores	Av Distance
1991	9	335 miles
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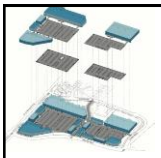
2005	6	71 miles

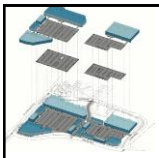
Walmart's expansion around distribution centers is almost the exact opposite of "sequential radial":

- far-flung but targeted locations first
- locations closer to distribution centers later



Conclusions

- Our complete study results (not all presented here) indicate that lower income and less densely-populated locations appear to be preferred by Walmart during initial expansion
- Walmart constructs stores in increasingly higher income and more dense locations over time
- **Key conclusion:** Walmart is willing to incur increased transportation costs in order to locate initial stores in what appear to be their desired target markets



Future Research

- For Walmart: how do they introduce and spread *new store concepts* (Sam's Club, Neighborhood Market, Supermercado de Walmart, Walmart Express) within their *existing network*
- For other retail chains: how do *they* approach retail expansion? What location strategies do they use for retail *rationalization* (store closures)?
- **Business geography is a vital and important area of research and education for service within the modern global economy**