The Walmartization of New York City

Josh Kellermann and Stephanie Luce
Acknowledgments

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The views presented in this report represent those of the authors and do not necessarily reflect the position of the Murphy Institute/CUNY.

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Introduction

Walmart is spending millions of dollars on advertising, lobbyists and donations to politicians and community groups in its campaign to bring its first store to New York City (hereafter referred to as NYC). But the world's richest retail corporation is not spending all that money just to build one or two stores here. Our study demonstrates that Walmart may be planning over one hundred stores in the five boroughs. Walmart is desperate for growth, particularly since its stock has been stagnating and the company has saturated most non-urban markets. With nearly 3,000 Superstores in the U.S. alone, a few stores in NYC will do little to address its flagging economic outlook. However, controlling a significant portion of the retail market in NYC, the largest consumer market in the U.S., and then replicating this strategy in other urban areas, might buoy Walmart's economic outlook for decades to come.

This report explores the potential Walmartization of NYC. It demonstrates the impact on communities, workers and locally-owned small businesses of Walmart achieving its national grocery market share here in NYC.

Walmart’s Market Dominance

According to financial analysts, “Walmart is the largest retailer in the world, with almost 50% higher sales than its seven closest competitors combined.”

This makes Walmart uniquely capable of penetrating NYC and entirely shifting the retail landscape in our communities which is currently characterized by diverse, locally-owned small businesses that give NYC its character and allure.

Walmart dominates the retail landscape in the US, controlling 21% of the grocery market share. This means that for every $5 spent on groceries in the US, $1 is spent at Walmart. Based on our analysis of retail market share data, industry analyst reports, and Walmart's financial reports, one likely scenario is that Walmart would need to construct a combination of 159 small, medium and large format stores in NYC to reach 21% market share. The 159 stores would likely consist of 11 Walmart Supercenters, 34 Walmart Markets, and 114 Walmart Express stores.

“We are evaluating opportunities large and small, and are in conversations with developers, but also with brokers and landlords.”

Steven Restivo, Walmart spokesperson, when asked about Walmart’s plans for New York City.

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2 Other calculations show that Walmart has anywhere from a 24%-27% grocery market share in the US. Our calculation is described in the Appendix. The lower number provides the most conservative estimate of Walmart’s impact.
Prior research shows that despite Walmart’s promises of jobs and lower prices for the community, the longer term impact is actually the opposite, as more jobs are lost than gained, local businesses shut down and average wages fall. The impact of Walmart on our families, neighborhoods, and communities could be drastic if the company obtains its national grocery market share in NYC. Our estimates show these 159 stores would drive out nearly 4,000 net retail jobs and result in a loss of over $353 million in total wages a year for all remaining retail workers. In fact, our analysis shows that one Walmart Supercenter in East New York alone could cause 105 surrounding businesses to close. This is a future that NYC can’t afford.

**Key Findings: Citywide**

- Walmart would need to build 159 stores in order to reach 21% grocery market share in NYC.
  - 11 Supercenters averaging 100,000 square feet (SF).
  - 34 Walmart Markets averaging 35,000 SF.
  - 114 Walmart Express averaging 15,000 SF.
- Walmart’s 159 stores would negatively impact NYC.
  - A net loss of 3,980 jobs throughout NYC.
  - The loss of more than $353 million in wages per year for the retail workers who still have jobs.
  - The shuttering of 105 retail businesses in East New York, Brooklyn in the two years following the opening of a Walmart Supercenter at Gateway Center II.
  - 4,279 new Walmart workers who must rely on social services to make ends meet, costing New York taxpayers over $4 million per year just for health care benefits.

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4 These findings are estimates based on our analysis of government data and Walmart’s financial statements. The methodology is described in detail in the body of the report and in the appendix.
Key Findings by Borough

- Number of Walmarts by Borough: 27 in Bronx; 48 in Brooklyn; 31 in Manhattan; 43 in Queens; and 10 in Staten Island.

- Walmart’s entry into New York would lead to net job loss in every borough, including 696 jobs lost in the Bronx; 1,160 in Brooklyn; 770 in Manhattan; 1,074 in Queens and 280 lost in Staten Island.

- Due to 11 Supercenters alone, retail workers in the Bronx would lose $21 million a year in wages. In Brooklyn, the loss would be $72 million a year, and in Manhattan, $186 million. Retail workers in Queens and Staten Island would lose as well: $69 million and $6 million respectively.

- Walmart’s entry into the five boroughs would increase the number of workers eligible for state subsidized health care. This will affect 748 workers who work in the Bronx; 1,247 in Brooklyn; 828 in Manhattan; 1,155 in Queens; and 301 workers in Staten Island.
Walmart’s Urban Growth Strategy: Desperation and Opportunity

In the first half of 2011, Walmart spent $2.1 million on lobbying expenses in New York, which is over six times as much as they’ve spent in the past four years combined.5 This barrage of advocacy, resembling a full political campaign, has utilized several consultants who have worked for high level politicians in New York. This campaign has also included TV, radio, newspaper, billboard and internet advertising, lobbyists, city-wide polls, and field teams collecting signatures. While the debate rages around the possibility of a single store opening at Gateway Center Mall in Brooklyn, Walmart’s spending indicates that it is likely planning for large-scale growth in NYC and also indicates the depths of the company’s financial desperation.

Walmart’s desperation to enter into urban markets mainly stems from stock market woes. Walmart’s same store sales have declined for eight consecutive quarters. Over the last twelve months its stock has underperformed the stocks of competitors, including Kroger, Safeway, and Costco. As a result of this poor performance, some market analysts think Walmart is no longer a growth company.6 In fact, Walmart’s investment rating was recently downgraded from “buy” to “hold” by a leading investment banking firm, putting additional pressure on the company to expand quickly within untapped markets.7

Walmart’s same store sales decline is troubling to the company for two primary reasons. First, Walmart has saturated rural and suburban markets to such a degree that it has begun to cannibalize its own stores. This means that with little meaningful outside competition, Walmart stores are competing against each other, causing a loss in sales at stores that before experienced steady growth. Second, increased competition from dollar stores and other similar retailers have caused a loss in same store sales.8

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5 New York State Commission on Public Integrity, at http://www.nyintegrity.org/.
7 “Walmart, the world’s largest retailer by sales, said on Tuesday that comparable sales at its US stores fell for the seventh consecutive quarter, despite predicting a turnaround in sales declines at its largest and most profitable business. The retailer said comparable sales – at stores open at least a year – fell by 1.8 per cent against the same period last year. Net sales in the US also fell by 0.5 per cent in the three months to the end of January, to $71.1bn.”
8 Wal-Mart Stores, Inc., Michael Exstein, Christopher Su, Trey Schorgl, Credit Suisse, Equity Research, March 3, 2011, pg 2. Based on Credit Suisse’s 2007 estimate of Walmart’s average national retail market share: “WMT’s share as a % of addressable market declined for the first time in over a decade. WMT’s share had consistently grown each year from 9.3% in 2000 to 13.9% in 2009. In 2010, its share of addressable market declined to 13.4%. Putting WMT’s recent sales challenges into perspective, this marks the first decline in over a decade.”
While Walmart has growth potential in international markets, its U.S. urban growth potential is still its major target. Walmart’s CFO, Michael Fung, recently pointed out that “Wal-Mart has twice the opportunity to grow in Los Angeles or New York than the opportunity in India and China combined.”

In addition, international sales have a lower margin of return than U.S. sales. This further indicates that U.S. urban markets are essential for the growth of the company.

Walmart has only recently, and with much community opposition, penetrated northern urban markets, starting with Chicago and Washington, DC. NYC, however, may be the key ingredient to reversing the company’s notable decline in value. Eduardo Castro Wright, Walmart’s Vice Chairman, stated in 2009 that Walmart stood to increase its sales between $80 and $100 billion through expansion into urban markets. NYC, as the largest consumer market in the US, likely represents the largest portion of this growth strategy.

**The Value of Urban Markets to Walmart:**

Achieving the average market share in the 50 urban opportunity markets in the U.S. is “worth anywhere between $80 billion and $100 billion in retail sales…We already have in our real estate program a robust plan to go after those…” Eduardo Castro Wright, Vice Chairman, Walmart Stores, 2009.

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11 US Growth Still Very Much a Strategy, Wal-Mart Stores, Inc. Neil Currie, Krista Zuber and Doug Cooper, UBS Investment Research, pg 5. UBS analysts calculate Walmart’s total retail market share at 8%, although it is 12% outside of the top 50 urban markets. “If Walmart could raise its Top 50 Metro Market share to around 10%, close to its non-Metro Market share, we believe this incremental opportunity equates to approximately $80 billion.”

Walmart’s share of the retail grocery market varies across the U.S. In some communities, particularly in rural areas, Walmart’s grocery market share might approach 100%, while in many urban areas it is much lower. Industry data shows that looking specifically at grocery sales, Walmart’s U.S. market share is 21%. This means that for every $5 spent on groceries in the U.S, $1 is spent at Walmart. Accordingly, we asked ourselves: what would happen if Walmart obtained its average grocery market share in NYC?

The results:
In a likely scenario, Walmart would build 159 stores in NYC’s five boroughs. These stores would consist of a mixture of Express, Market and Supercenter formats. Based on national data, we assume that in NYC the Supercenter stores will average 100,000 square feet. They offer a wide range of products, from grocery to general merchandise. The Market store format was developed to function as a neighborhood market, focusing on grocery. For our estimate, we assumed these stores will average 35,000 square feet. Finally, Walmart has recently developed the Express store format, designed to compete with smaller urban stores that offer groceries and general merchandise. Based on recently opened Express stores, we assume they will average only 15,000 square feet.

In New York, we assume that Walmart will emphasize small format stores over medium format, and will emphasize medium over large, at a ratio of 10:3:1. Please see the Methodology Appendix for a complete explanation.

A Likely Scenario for Walmart Achieving 21% Grocery Market Share in New York

<table>
<thead>
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<th>Store Type</th>
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<th>Average Sales Per Square Foot</th>
<th>Number of Stores</th>
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<tr>
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<td>$553</td>
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</tr>
<tr>
<td>Market</td>
<td>35,000</td>
<td>$553</td>
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<tr>
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<td>$553</td>
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</tr>
<tr>
<td>Total:</td>
<td></td>
<td></td>
<td>159</td>
</tr>
</tbody>
</table>

Source: Calculations by the author. See Methodological Appendix.
There are at least four major ways that 159 Walmart stores will affect the city:

1. A net loss of 3,980 jobs

For every one retail job created by a Walmart, 1.4 retail jobs are lost, according to a comprehensive study completed in 2006.13 This job loss occurs for various reasons, but competition from Walmart is central to destabilizing neighboring businesses and the subsequent loss of jobs. Based on data available through Walmart’s website, 11 Supercenters, 34 Markets, and 114 Express stores would generate 9,950 jobs. However, our estimates show that this would result in the loss of 13,930 jobs in the neighborhoods surrounding the Walmart stores.14 This would be a net loss in employment of 3,980 jobs.

2. The loss of more than $353 million in wages per year for the retail workers who still have jobs in NYC

When a new Walmart opens, average retail wages fall by 0.5 to 0.9 percent in the county, based on the findings of a UC Berkeley study.15 The wage drop is even more pronounced for general merchandise workers (1 percent), and grocery workers (1.5 percent). The study examined the impact of multiple stores per state and found that retail wages in the state fell by 10 percent for every 50 Walmart stores.16

There are 299,863 workers in the retail industry in NYC.17 If Walmart were to open 159 new stores in NYC, the drop in wages for retail workers could fall by about 30 percent. However, the Berkeley study results are based on the larger Walmart stores. Thus, it is likely the impact would be less in NYC, as the projected mix in the city includes Market and Express stores.

We estimate that the resulting retail wage loss from 11 Supercenters would

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11 Supercenters employing 3,300 workers (estimated 300 each), 34 Markets employing 3,230 workers (estimated 95 each), and 114 Express stores employing 3,420 workers (estimated 30 each), would create a total of 9,950 jobs. 9,950 jobs created * 1.4 = 13,930 jobs lost.
16 On average, the wage bill fell by two-tenths of one percent for each Walmart store in the state. This includes the impact of lower wages and a drop in employment.
17 Quarterly Census of Employment and Wages, 2010 preliminary data. The data is for all workers in retail trade (NAICS 44-45) for the five boroughs.
be just over $353 million a year.\textsuperscript{18} Any wage loss due to the Market and Express stores would be an additional loss.

“Walmart workers earn an estimated 12.4 percent less than retail workers as a whole, and 14.5 percent less than workers in large retail in general.”\textsuperscript{19}

3. There likely will be a loss of 105 retail businesses in East New York, Brooklyn in the two years following the opening of a Walmart Supercenter at Gateway Center II.

A study of Chicago in 2009 shows that businesses within one mile of a Walmart Supercenter have a 25% chance of shuttering in the first year, and a 40% chance of shuttering by the second year, when compared with stores farther than one mile from the Supercenter.\textsuperscript{20} Accordingly, in the neighborhood of East New York, Brooklyn, which is a likely Supercenter site, 66 retail businesses would close in the first year, and 105 by the second year.\textsuperscript{21} These locally-owned stores meet the needs of unique and diverse communities throughout NYC, ensuring NYC remains a vibrant city for all.

Locally-owned businesses also recycle a much larger portion of their revenues back into the local community, supporting neighborhood businesses and generating an economic multiplier effect. A 2009 study of the differential impact of locally-owned businesses and big-box stores in New Orleans shows that while big-box stores recirculate 16% of revenues into the community, locally-owned businesses recirculate twice as much money, or 32.1%.\textsuperscript{22} Based on this study, it is clear that Walmart would siphon a significant portion of money out of the pockets of New Yorkers, and that money would not be re-spent in the local community but instead would be transferred to Arkansas where the retailer is based.

\textsuperscript{18} Based on population, we assumed 3 Supercenters would be built in Queens and Brooklyn, 2 Supercenters in the Bronx and Manhattan, and 1 Supercenter in Staten Island. We assumed a 1.5% drop in the total wage bill in the county for each new Superstore. We then took the percentage of the total 2010 total wage bill for all retail to get total drop in wages bill per borough, and total drop for NYC. The Berkeley study is based on 1992-2000 data. It is possible that the Walmart expansion of the last few decades has already significantly reduced retail wages nationwide and that the recent or future effect on wages will be smaller than that observed in the 1990s.


\textsuperscript{20} The Impact of an Urban Wal-Mart Store on Area Businesses: An Evaluation of One Chicago Neighborhood’s Experience, Center for Urban Research and Learning, Loyola University, Julie Davis, David Merriman, Lucia Samayoza, Brian Flanagan, Ron Baiman, and Joe Persky. December 2009, pg 17.

\textsuperscript{21} Gateway Center II Environmental Impact Statement, Chapter 3: Socioeconomic Conditions, pg 3-43. There are 390 retail stores within 1.5 miles of Gateway Center II that would directly compete with a Walmart supercenter (competitors include General Merchandise, Clothing, Furniture and Home Furnishings, Health and Personal Care, Miscellaneous, Building Material, Garden Equipment and Supplies, and Food and Beverage). Reducing the trade area 33% to arrive at an approximate store number within 1 mile of Gateway Center II nets 263 competitor stores within one mile of the East New York site.

\textsuperscript{22} Thinking Outside the Box: A report on independent merchants and the New Orleans economy, September, 2009. The Urban Conservancy in partnership with Civic Economics.
4. The increase of over 4,000 workers who must rely on social services to make ends meet, which would cost New York taxpayers nearly $4 million per year just for health care benefits.

In most states that require reporting of employers who have a certain number of employees using state-funded public assistance, Walmart leads the pack. In Massachusetts, Walmart has over 5,000 employees using Medicaid. That number is more than twice as many as Target, one of Walmart’s closest retail competitors. The cost of subsidizing Walmart’s low-paid workers to Massachusetts taxpayers is almost $9 million per year. Approximately 43% of Walmart’s 11,000 employees in Massachusetts receive state-subsidized health care.\(^{23}\) If 43% of the people hired into the projected 9,950 jobs created by Walmart in NYC received state-subsidized health care, 4,279 employees would be added to the state health care system.

The cost to taxpayers for over 4,000 new enrollees in our state health care plan would be over $4 million per year.\(^ {24}\) The corresponding loss of over 13,000 jobs in the areas surrounding Walmart stores and the decline in wages across the industry would likely result in additional fiscal strain on taxpayers as federal, state, and local governments subsidize Walmart’s destructive interaction with NYC’s retail economy.

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\(^{24}\) 2010 Annual Report on the Healthy New York Program, Independent Report on the Healthy New York Program for Calendar Year 2010 by Burns and Associates, Inc, pages 4 and 6, at www.ins.state.ny.us/website2/hny/reports/hny2010rep.pdf. Healthy New York spent $157 million on payment to health plans for the program in 2010. With 165,891 people enrolled in Healthy New York during that same period, the cost per person for the program is $946 per year. Thus, the total cost per year to taxpayers for 4,094 Walmart enrollees would be $3,872,924.
The Impact of Walmart by Borough

Using each borough’s percent of total NYC population, we have calculated the number of stores that could be located in each borough. Applying the same formulas as above, we have calculated the unique impact Walmart would have on each borough.²⁵

The Bronx:
- 27 Walmarts
  - 2 Supercenters
  - 6 Walmart Markets
  - 19 Walmart Express stores
- Net job loss of 696 retail workers
- $21 million per year lost in total retail wages due to the Supercenters alone
- 748 Bronx Walmart workers eligible for state subsidized health care
  - $708,000 cost to taxpayers

Brooklyn:
- 48 Walmarts
  - 3 Supercenters
  - 10 Walmart Markets
  - 35 Walmart Express stores
- Net job loss of 1,160 retail workers
- Almost $72 million per year lost in total retail wages due to the Supercenters alone
- 1,247 Brooklyn Walmart workers eligible for state subsidized health care
  - $1.2 million cost to taxpayers

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Manhattan:

- 31 Walmarts
  - 2 Supercenters
  - 7 Walmart Markets
  - 22 Walmart Express stores
- Net Job Loss of 770 retail workers
- Almost $186 million per year lost in total retail wages due to the Supercenters alone
- 828 Manhattan Walmart workers eligible for state subsidized health care
  - $783,000 cost to taxpayers

Queens:

- 43 Walmarts
  - 3 Supercenters
  - 9 Walmart Markets
  - 31 Walmart Express stores
- Net Job Loss of 1,074 retail workers
- $69 million per year lost in total retail wages due to the Supercenters alone
- 1,155 Queens Walmart workers eligible for state subsidized health care
  - $1.1 million cost to taxpayers

Staten Island:

- 10 Walmarts
  - 1 Supercenter
  - 2 Walmart Markets
  - 7 Walmart Express stores
- Net Job Loss of 280 retail workers
- $6 million per year lost in total retail wages due to the Supercenters alone
- 301 Staten Island Walmart workers eligible for state subsidized health care
  - $285,000 cost to taxpayers
Conclusion

Walmart’s slogan is “Save Money, Live Better.” This slogan fails to acknowledge that low cost goods must be accompanied by higher wages in order for people to truly live better. A recent study shows that raising the wages of Walmart workers would cause very little impact on low-income consumers. One study estimates that 22% of Walmart workers earn wages between $7.25 and $9 per hour and 42% earn between $9 and $12 per hour. A full-time worker making $8.75 per hour will earn $17,500 per year. If Walmart started all employees at $12 per hour, and passed along that entire cost to consumers, the average Walmart shopper would spend just an additional $12.49 per year, while low-income Walmart workers would see a raise of $1,670 to $6,500 per year. This would help to prevent thousands of working people from having to seek government assistance. Even for consumers with little extra income, $12.49 per year is a minimal cost for the benefit higher wages would bring to the community.

In addition, higher wages provide a much greater benefit to poor communities than do lower priced goods. Nationwide, expenditures on health care, housing, and transportation for families have gone up over time, from 17% of household income in 1947 to nearly 40% in 2004. Expenditures on food, apparel, household goods and furniture have shrunk from nearly 45% of household income in 1947 to almost 15% in 2004. Thus, the benefits from reduced retail prices are shrinking over time, while the burdens of big ticket necessities are increasing over time. Addressing poverty requires increasing access to big ticket items such as health care, housing, transportation and education through higher wages, not simply decreasing the cost of food and apparel.

Walmart needs NYC more than NYC needs Walmart. 159 Walmarts across the five boroughs would drive down wages for all retail workers in NYC, force many local businesses to shutter, and undermine the unique character of NYC. New Yorkers want businesses to locate here because they lift up local communities and fill unmet needs. At Gateway Center II in East New York, Brooklyn, other retailers, such as ShopRite, are seeking to fill the space that Walmart desires, and these businesses would serve the community’s needs much more effectively than Walmart. ShopRite is a union grocer that would provide pathways out of poverty for low-income residents of East New York. The increased purchasing power of local residents would attract more business investment in the neighborhood, in turn creating more jobs for residents and creating an upward spiral of quality job creation, increased demand for goods and services, and increased response by the business community.

As this report and other studies have documented, Walmart destroys more jobs than it creates, drives out locally-owned competitors, and undermines wages for the rest of the industry. But a future NYC in which Walmart controls $1 out of every $5 spent on groceries is not inevitable. The future of NYC will be decided by our communities, our workers, and our elected representatives. We need not be forced to choose between Walmart jobs and no jobs. The jobs will be created by other retailers, as long as New Yorkers demand an alternative to Walmart. High-road retailers can generate a stable economy for NYC not simply by creating jobs, but by creating good jobs.
Methodology to Calculate Walmart’s Grocery Market Share in New York City

Using economic census data and retail market analyses, we were able to calculate the impact that Walmart would have in NYC if it were able to obtain its average national grocery market share.

Walmart’s National Market Share for Supermarkets and Groceries Is 21%

Walmart’s average national market share for supermarkets was calculated by taking total Walmart grocery sales in the U.S. and dividing it by total U.S. grocery sales. Walmart’s grocery sales are $140,541,000,000 while U.S. grocery sales are $670,473,722,000. This results in a national grocery market share of 21%.

Other studies show that Walmart’s grocery market share is on par with the number we utilize here. Two market analyst reports state a 21% national grocery market share for Walmart. Morgan Stanley, December 2010, states Walmart’s share at 20.5%. Citi, in March 2010, states Walmart’s share is 21.6%.

Grocery Retail Sales in NYC Are $9.316 Billion

Retail sales in NYC are derived from retail sales census data for NYC (by county), filtering for NAICS 44511 Supermarkets and other Grocery Stores. The most recent retail sales data was collected in 2007; it is collected every five years.

We conducted an analysis of NYC’s grocery retail trends from 2002 – 2007 and determined that the imputed annual rate of growth was 6.42%. We then applied that rate of growth to the 2007 census data. In 2010, retail sales for supermarkets and other grocery stores would be $11.1 billion. Since 2007, however, there was a decline in the consumer economy; yet since 2010 there has been a steady rebound in sales. Based on the complicated interaction between macro-economic trends and grocery sales during the three year period of 2007 and 2010, we decided to rely upon the 2007 census number, understanding this it is likely a conservative estimate for total grocery sales.

Walmart’s 21% Market Share of a $9.316 Billion Grocery Market Is $1.863 Billion

$9.316 billion (grocery retail sales in NYC) * 21% (Walmart’s national grocery market share) = $1.956 billion. Walmart would need $1.956 billion in sales in NYC in order to reach a 21% NYC market share.

Walmart’s Sales per Square Foot for Grocery: $553

Kroger, the #2 grocery seller in the U.S., reports its sales per square foot at $553. Because it is Walmart’s closest grocery-based competitor, it is the best comparator for grocery sales per square foot. Also, given that other calculations are so divergent (see below), it further indicates the validity of using Walmart’s closest competitor to calculate sales per square foot.

The Food Marketing Institute’s (FMI) 2009 figure for weekly median sales per square foot of selling area in ‘Conventional Supermarkets’: $8.55 per week, annualized to $444.60 per year.

Credit Suisse calculates that Supercenters sell at $434/SF, Neighborhood Markets sell at $578/SF, while sales/SF at Walmart Express is only speculative at this point.

| Table 1: Small Format Retail Productivity – An Industry Overview |
|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                  | Family Dollar  | Family Dollar  | Family Dollar  | Discount Stores | Discount Stores | Discount Stores | Discount Stores |
| Number of Stores | Discount Stores | Discount Stores | Discount Stores | Discount Stores | Discount Stores | Discount Stores | Discount Stores |
| 3,000             | 3,000          | 3,000          | 3,000          | 3,000           | 3,000           | 3,000           | 3,000           |
| Sales per square foot (2011) | $123 | $143 | $143 | $71 | $71 | $71 | $71 |
| SGF (Sales/SqFt) |          |          |          |          |          |          |          |
| 3,000             | 3,000          | 3,000          | 3,000          | 3,000           | 3,000           | 3,000           | 3,000           |
| Sales per square foot (2011) | $123 | $143 | $143 | $71 | $71 | $71 | $71 |
| SGF (Sales/SqFt) |          |          |          |          |          |          |          |
| 3,000             | 3,000          | 3,000          | 3,000          | 3,000           | 3,000           | 3,000           | 3,000           |
| Sales per square foot (2011) | $123 | $143 | $143 | $71 | $71 | $71 | $71 |
| SGF (Sales/SqFt) |          |          |          |          |          |          |          |
| Source: Kantar Retail, company reports, Progressive Grocer, and UBS estimates |

An analysis of Walmart’s 2011 10-K shows its average national sales/SF as $421.77. This number includes all formats except Sam’s Club. A UBS analysis of Walmart’s average sales/SF places the number at $435/SF.

33 Small The Next Big Thing For Walmart, Walmart Stores, Inc., Neil Currie, Krista Zuber and Doug Cooper, UBS Investment Research, February 5, 2010, pg 2. “We estimate that if Walmart’s small food format could achieve a sales density of around $12.5/square foot/week in a 20,000 square foot box, it would need to open roughly 400 stores annually to achieve the sales opportunity (excluding inbox supercenter conversions) over a ten year time period…Most US food retailers have sales in the $8 to $9 range.” 12.5 x 52 weeks = $660/SF/Year. Most US food retailers, according to this assessment, have sales per square foot of $416 - $468.
Average Store Size

Supercenter:

Walmart Supercenter average store size: 185,000 SF.

Number of Supercenters nationwide: 2,933.

Walmart's Washington DC stores are between 80,000 and 120,000 SF. "[Walmart's] four D.C. stores will vary from 80,000 to 120,000 square feet." Walmart's planned Washington DC stores are smaller than the average, reflecting a shift in store size that more closely mirrors dense urban building environments. We assume that Walmart will similarly adapt to NYC's uniquely dense building stock.

Costco: 143,000 SF on 3rd Ave in Brooklyn; 116,000 SF on Richmond Ave in Staten Island

Target: 123,000 SF at Gateway Center in Brooklyn, 174,000 SF in Harlem, and 190,000 SF at Gateway Center Bronx Terminal Markets.

Supercenters will be the most difficult and contentious of Walmart's plans for NYC. Often large format stores require a zoning change to the land, which gives rise to the Uniform Land Use Review Process (ULURP) in NYC. This process offers the opportunity for community boards, the NYC Planning Department, and city council members to challenge the development. While Walmart will almost surely seek to avoid public review, it will continue to press for its proven market niche: large format Supercenters.

Given the lack of large format opportunities for Walmart, we assume they will build stores similar to Washington, D.C. While Walmart is pondering a 150,000 SF site in East New York, we assume similar opportunities will be rare. The company will have access to more sites within the 80-120,000 SF range. Therefore we assume that Walmart's average Supercenter size will be 100,000 SF.

<table>
<thead>
<tr>
<th>Name</th>
<th>Number of Stores</th>
<th>Number of Stores 150,000 SF and larger</th>
<th>Average Store Size</th>
<th>Smallest Store</th>
<th>Largest Store</th>
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<td>Target</td>
<td>9</td>
<td>5</td>
<td>155,000 SF</td>
<td>123,000 SF</td>
<td>194,000 SF</td>
</tr>
</tbody>
</table>

42,43

36 Store data for stores already constructed in NYC obtained through New York State Department of Agriculture and Markets, May 2011, data FOILed by the author of all stores in NYC licensed under Article 20-C or Article 28, including square footage.
43 New York State Department of Agriculture and Markets, data FOILed by the author of all stores in NYC licensed under Article 20-C or Article 28.
Walmart Market:

Walmart Markets are similar to a typical supermarket. They emphasize grocery items, but also have a variety of non-grocery retail items that are often found in supermarkets.

Walmart Neighborhood Market average store size: 42,000 SF and there are 183 in the U.S..\textsuperscript{44}

In NYC, the primary competitors to the Walmart Market would be Associated, Key Food, Met Foods, Whole Foods, Pathmark Stores, Fairway, etc. Key Food, Pathmark, Whole Foods and Fairway all have at least one store that is 60,000 SF or close to that size. Associated, Met Foods, and Key Food all have stores that range from 5,000 SF to 15,000 SF. The average size of all supermarkets in NYC is 26,000 SF.

Despite Walmart's average Market being 42,000 SF, we assume that the density of buildings in NYC will make it more difficult to build at the national average. Accordingly, we place the average size of Walmart Markets at 35,000 SF, which is larger than most grocery stores, but allows Walmart to construct many that rival Pathmark, Whole Foods and Fairway.

<table>
<thead>
<tr>
<th>Name</th>
<th>Number of Stores</th>
<th>Number of Stores 30,000 SF or larger</th>
<th>Average Store Size</th>
<th>Total SF in NYC</th>
<th>Smallest Store</th>
<th>Largest Store</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associated</td>
<td>87</td>
<td>4</td>
<td>11,000 SF</td>
<td>898,000 SF</td>
<td>2,000 SF</td>
<td>35,000 SF</td>
</tr>
<tr>
<td>C Town</td>
<td>85</td>
<td>0</td>
<td>10,500 SF</td>
<td>892,000 SF</td>
<td>2,500 SF</td>
<td>25,000 SF</td>
</tr>
<tr>
<td>Fairway</td>
<td>3</td>
<td>2</td>
<td>41,000 SF</td>
<td>123,000 SF</td>
<td>25,000 SF</td>
<td>53,000 SF</td>
</tr>
<tr>
<td>Food Town</td>
<td>12</td>
<td>1</td>
<td>18,000 SF</td>
<td>212,500 SF</td>
<td>5,000 SF</td>
<td>30,000 SF</td>
</tr>
<tr>
<td>Gristede’s</td>
<td>30</td>
<td>0</td>
<td>15,000 SF</td>
<td>456,500 SF</td>
<td>7,500 SF</td>
<td>28,000 SF</td>
</tr>
<tr>
<td>Key Food</td>
<td>91</td>
<td>5</td>
<td>17,500 SF</td>
<td>1,409,000 SF</td>
<td>3,000 SF</td>
<td>60,000 SF</td>
</tr>
<tr>
<td>Met Foods</td>
<td>48</td>
<td>0</td>
<td>9,000 SF</td>
<td>425,000 SF</td>
<td>1,000 SF</td>
<td>24,000 SF</td>
</tr>
<tr>
<td>Pathmark</td>
<td>23</td>
<td>21</td>
<td>46,000 SF</td>
<td>1,065,000 SF</td>
<td>20,000 SF</td>
<td>62,000 SF</td>
</tr>
<tr>
<td>Pioneer</td>
<td>31</td>
<td>1</td>
<td>11,000 SF</td>
<td>313,000 SF</td>
<td>3,000 SF</td>
<td>60,000 SF</td>
</tr>
<tr>
<td>Shoprite</td>
<td>3</td>
<td>3</td>
<td>55,000 SF</td>
<td>165,000 SF</td>
<td>30,000 SF</td>
<td>70,000 SF</td>
</tr>
<tr>
<td>Waldbaum’s</td>
<td>17</td>
<td>10</td>
<td>34,000 SF</td>
<td>579,000 SF</td>
<td>16,000 SF</td>
<td>65,000 SF</td>
</tr>
<tr>
<td>Western Beef</td>
<td>16</td>
<td>7</td>
<td>33,000 SF</td>
<td>496,000 SF</td>
<td>14,000 SF</td>
<td>70,000 SF</td>
</tr>
<tr>
<td>Whole Foods</td>
<td>6</td>
<td>3</td>
<td>43,000 SF</td>
<td>260,000 SF</td>
<td>20,000 SF</td>
<td>73,000 SF</td>
</tr>
</tbody>
</table>

\textsuperscript{44} Walmart.com, About Us, at http://walmartstores.com/aboutus/7606.aspx.
\textsuperscript{46} New York State Department of Agriculture and Markets, May 2011, data FOILed by the author of all stores in NYC licensed under Article 20-C or Article 28.
Walmart Express:

While the Walmart Express store format has yet to be proven to be commercially viable for Walmart, market analysts see it as an important growth strategy.

Referring to the small format store, one analyst commented, “With this format, we believe WMT can access significant real estate opportunities – we show there are >600 suitably-sized vacant locations in the top 5 US metro markets alone... We believe there is potential for a 350-400 store rollout annually over the next ten years.”

The pilot Walmart Express is much like a small format supermarket, except that it has 1-2 aisles selling apparel, a large selection of gift cards and home improvement items. Duane Reade, CVS and Rite Aid, are the most likely competitors of Walmart Express, and all have a significant presence in NYC.

Walmart is currently building Walmart Express stores at 15,000 SF. The average store size of its primary competitors is between 7,000-10,000 SF, but they all have much larger stores as well. While Walmart is likely to be flexible in the size of each Express store, we have assumed that the company will attempt to maintain 15,000 SF as its average store size.

<table>
<thead>
<tr>
<th>Name</th>
<th>Number of Stores</th>
<th>Number of Stores 10,000 SF or larger</th>
<th>Average Store Size</th>
<th>Total SF in NYC</th>
<th>Smallest Store</th>
<th>Largest Store</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duane Reade</td>
<td>248</td>
<td>44</td>
<td>7,300 SF</td>
<td>1,474,000 SF</td>
<td>800 SF</td>
<td>40,000 SF</td>
</tr>
<tr>
<td>Rite Aid</td>
<td>195</td>
<td>68</td>
<td>9,700 SF</td>
<td>1,604,000 SF</td>
<td>1,000 SF</td>
<td>45,000 SF</td>
</tr>
<tr>
<td>CVS</td>
<td>115</td>
<td>37</td>
<td>8,800 SF</td>
<td>845,000 SF</td>
<td>1,000 SF</td>
<td>25,000 SF</td>
</tr>
</tbody>
</table>

Calculations Used to Determine Number of Stores to Reach 21% Grocery Market Share

Sales per square foot * Average Square Feet * Relationship Between Formats = Sales Per Store Format Weighted

Express: $553 (sales/SF) * 15,000 SF (average SF) * 10 (for every 10 Express, there will be 1 Supercenter and 3 Markets) = $X million (sales per store format weighted)

Market: $553 (sales/SF) * 35,000 SF (average SF) * 3 (for every 3 Market, there will be 1 Supercenter and 10 Express) = $X million (sales per store format weighted)

Supercenter: $553 (sales/SF) * 100,000 (average SF) * 1 (for every 1 Supercenter, there will be 3 Markets and 10 Express) * 54% (amount of sales

49 New York State Department of Agriculture and Markets, May 2011, data FOILed by the author of all stores in NYC licensed under Article 20-C or Article 28.
derived from grocery) = $X million (sales per store format weighted)

We chose to use the ratio of 10 Express to 3 Market to 1 Supercenter in order to more accurately capture the unique retail density of NYC, as well as Walmart’s push for urban expansion based on alternative formats to its traditional Supercenter.

-then-

Sales Per Store Format Weighted / Aggregate Sales for all Formats = Percent share of total sales for each format

Walmart Supercenter: $29.9 million (Supercenter sales per store weighted) / $170.9 million (Aggregate sales for all formats weighted) = 17% (Percent share of total sales for Walmart Supercenter)

Walmart Market: $58.1 million (Market sales per store weighted) / $170.9 million (Aggregate sales for all formats weighted) = 34% (Percent share of total sales for Walmart Market)

Walmart Express: $83 million (Express sales per store weighted) / $170.9 million (Aggregate sales for all formats weighted) = 49% (Percent share of total sales for Walmart Express)

-then-

Walmart’s Total Potential Market in NYC * Percent Share of Total Sales by Format = $ Share of the NYC Market per Format

Walmart Supercenter: $1.956 billion (Walmart’s Total Potential Market in NYC) * 17% (Percent Share of Total Sales for Supercenter) = $341.9 million ($ Share of the NYC Market for Supercenter)

Walmart Market: $1.956 billion (Walmart’s Total Potential Market in NYC) * 34% (Percent Share of Total Sales for Market) = $664.8 million ($ Share of the NYC Market for Market)

Walmart Express: $1.956 billion (Walmart’s Total Potential Market in NYC) * 49% (Percent Share of Total Sales for Express) = $949.7 million ($ Share of the NYC Market for Express)

-then-

$ Share of the NYC Market per Format / Sales per Format (Sales per Square Feet per Format * Square Feet Per Format) = Expected Number of Stores

Walmart Supercenter: $341.9 million ($ Share of the NYC Market, Walmart Market) / $29.9 million (Sales per Market Format) = 11 stores

Walmart Market: $664.8 million ($ Share of the NYC Market, Walmart Market) / $19.4 million (Sales per Market Format) = 34 stores

Walmart Express: $949.7 million ($ Share of the NYC Market, Walmart Express) / $8.3 million (Sales per Express Format) = 114 stores
The Walmartization of New York City