Freight/Logistics Costs are Driving Site Selection

8/8/12

Prepared for:

WT 100 Forum

FOOTE CONSULTING GROUP, LLC

About FCG

- Site selection, economic development, real estate, and workforce consulting company
- Worked on site selection projects that created over 5,000 jobs and $1 billion in capital investment in recent years
- Completed many successful economic development plans that have created hundreds of jobs
- Deane Foote is a Founding Board Member of the Site Selectors Guild, Inc.

FOOTE CONSULTING GROUP, LLC

Site Selection Experience

- Wal-Mart Distribution Centers (DC) nation-wide
- MeadWestvaco – US sites comparisons
- Sisener – Spanish renewable energy firm
- Staples – Distribution centers
- Country Fresh – Food processing plants
- ING Financial Services

FOOTE CONSULTING GROUP, LLC

Logistics Industry Overview

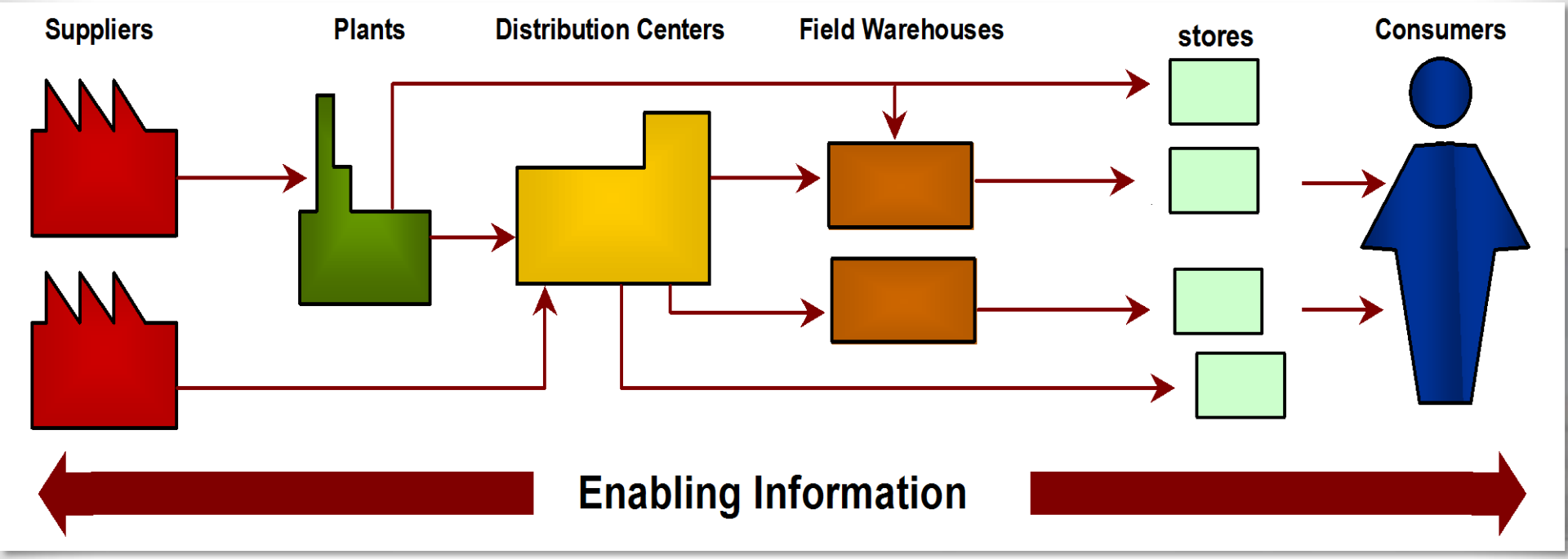
- Logistics: The transporting and storage of goods and information from the point-of-origin to the point-of-consumption
- The U.S. industry spends billions of dollars on freight transportation every year
- Transportation modes include:
  - Full Truck Load Trailers (TL)
  - Less-Than Truck Load Trailers (LTL)
  - Small Parcel
  - Rail, Air, Ocean, Pipeline, Intermodal

- Inbound transportation is shipment from suppliers and outbound transportation is shipment to the customers
- Companies are always looking to minimize their freight transportation costs, most commonly by locating distribution centers closer to their outbound destinations.

State of the Logistics Industry

- Fuel prices, impacted from the demand-supply imbalance, will continue to drive rates scarily northward
- On the international side, port congestion is an equally miserable issue
- There are dire predictions about:
  - Drastic driver shortages
  - Continued worry about the overall transportation infrastructure
  - Likely increase in security requirements, etc.
- With these challenging issues, there's even a larger desire to optimize the network of distribution centers.

Organizations manage multiple links in their supply chains to deliver finished goods to final customers.



Warehouse/Distribution (DC) Trends

- Freight costs drive decisions
  - Access to customers; very specific and detailed freight modeling to optimize shipping costs and time. *You are in the zone or you are not, simple as that.*
- Very fuel cost sensitive – optimizing shipping distance
- Regionalization versus massive boxes for national market (speed to market, lower shipping costs)
- Some rethinking of integrating rail
- Highway access: *"5 to 55"* – Immediate access to limited access highway
- Large flat sites or better; available building meeting above criteria
- Labor costs often still the top factor.

Warehouse/Distribution (DC) Trends

- Location activity was slower in 2011 (except online retail projects) due in part to:
  - Weak retail sales (but rebounding fast)
  - A glut of existing building space
  - Move to third party providers (3PLs)
- DCs are attracted to port sites (i.e. Long Beach; Houston; Savannah; Charleston)
  - Post Panamax port expansions will impact locations
- DCs are attracted to intermodal sites (i.e. Joliet; KC; Alliance, TX)
- Retail tax issues are driving many siting decisions for online retail DCs
- Lack of understanding of freight modeling.

Key DC Location Criteria

- Access to market/transportation/freight costs
  - Access to intermodal freight terminals and ports growing in importance
- Labor costs/availability
  - Key positions: material handlers, forklift drivers, and truck drivers
- Electric power (costs/reliability)
- Access to Interstate highways (within 10 miles of interchange)
  - Mileage requirement has gone down from 20 miles due to increased fuel costs
- “Certified/Shovel Ready” sites (50 to 250 acres) or large buildings
- Rail service for select operations
- Incentives/Training
- Good labor/management relations.

FOOTE CONSULTING GROUP, LLC

Project Wildcat

- **Retail DC servicing the Southeast**
  - Inbound freight from Europe & Asia
  - Outbound to SE and Mid-Atlantic
- **Compared Charleston, Jacksonville, Savannah, and Norfolk**
  - Labor
  - Site/Building
  - Taxes
  - Power
  - Freight from the model
  - Potential incentives.

FOOTE CONSULTING GROUP, LLC

Generic Report Cover

DISTRIBUTION CENTER (DC) SITE SELECTION ANALYSIS (Project Wildcat)

Prepared for the

ABC Distribution Co.

Prepared by:

FOOTE CONSULTING GROUP, LLC

FOOTE CONSULTING GROUP, LLC

Project Wildcat Specs

Purpose: Distribution of consumer goods to retail stores in major markets of the SE

Hours of Operation: 3 shifts; 7 days per week

Labor: 444 total (7 – managerial/engineering; 20 – clerical/sales; 15 – maintenance mechanics; 200 – material handlers;100 – warehouse laborers;100 – semi-truck drivers)

Utilities: Electric Power – Demand: 1,000 KW; Energy: 400,000 KwH/month (average)

Building: 750,000 square feet – 725,000 warehouse; 25,000 of office/shop space

Land: 75 level acres in a fully improved industrial area; rail a plus

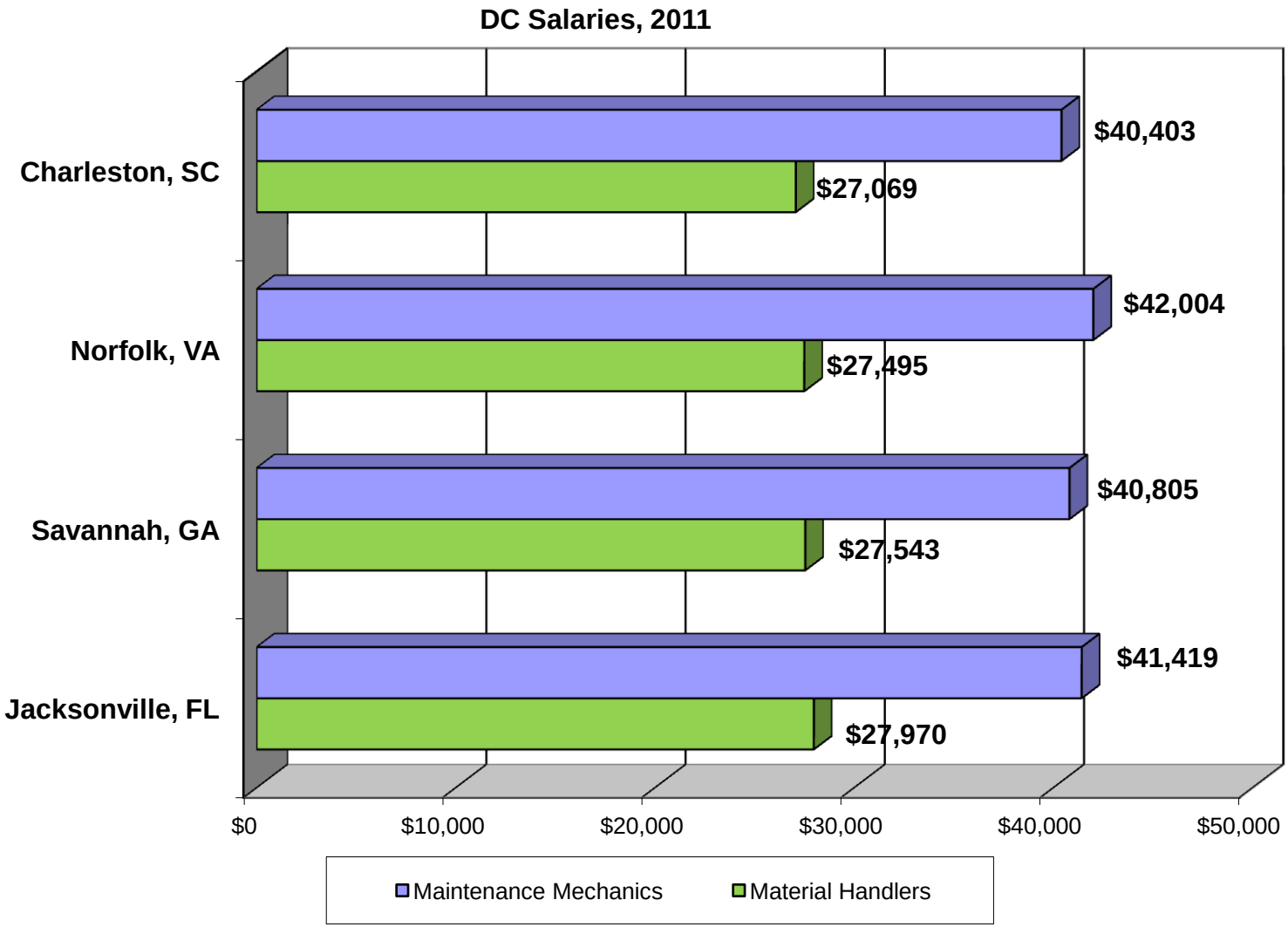
Investment: Machinery and equipment (M&E) – $18,750,000; inventory – $37,500,000; land & building – $30,000,000

Freight: Inbound: 60% from Asia; 10% from Europe; 30% domestic. Based on average miles and rates from suppliers via 54% TL; 10% LTL; 30% rail; and 6% small parcel. Outbound: Product classification – 85; 12,000,000 units/year; weight per unit – 10 lbs.; 70% TL; 20% LTL; 5% rail; and 5% small parcel.

Other Critical Factors: Good access to reasonably priced workforce; reliable and economical electric power.

FOOTE CONSULTING GROUP, LLC

Wages



Source: ERI; incumbent median wages

Site Costs

*Estimated; Source: FCG Fieldwork

Site Assessment

- **Jacksonville**
  - Interstate Commerce Park
    - ***Best Site;*** 319 acres; CSX rail possible; $152,500/acre
    - I-95 & Pecan Park Rd in N. JV; just north of airport
  - Alliance
    - 500 acres; no rail; $150,000/acre; South of I-10 in W. JV at JAA Cecil Air Field
  - Lem Turner Industrial Park
    - 500 acres; no rail; price unknown
    - I-295 & Lem Turner Rd in N JV; SW of airport.

Site Assessment

- **Savannah**
  - Northport
    - ***Best Site***; 260 acres; rail possible; 500,000-sq-ft building with 500,000-sq-ft pad ready ($4.50 NNN); $140,000/acre; one mile north of airport in N Sav.; 5 miles from Port
  - Morgan Business Center
    - 200 acres; $70,000/acre; rail; N of I-16 in W Sav
  - Crossroads Business Center
    - 100 acre site; no rail; price unknown; Lowe's, Home Depot, and Dollar Tree DCs on site; just north of airport in N Sav.

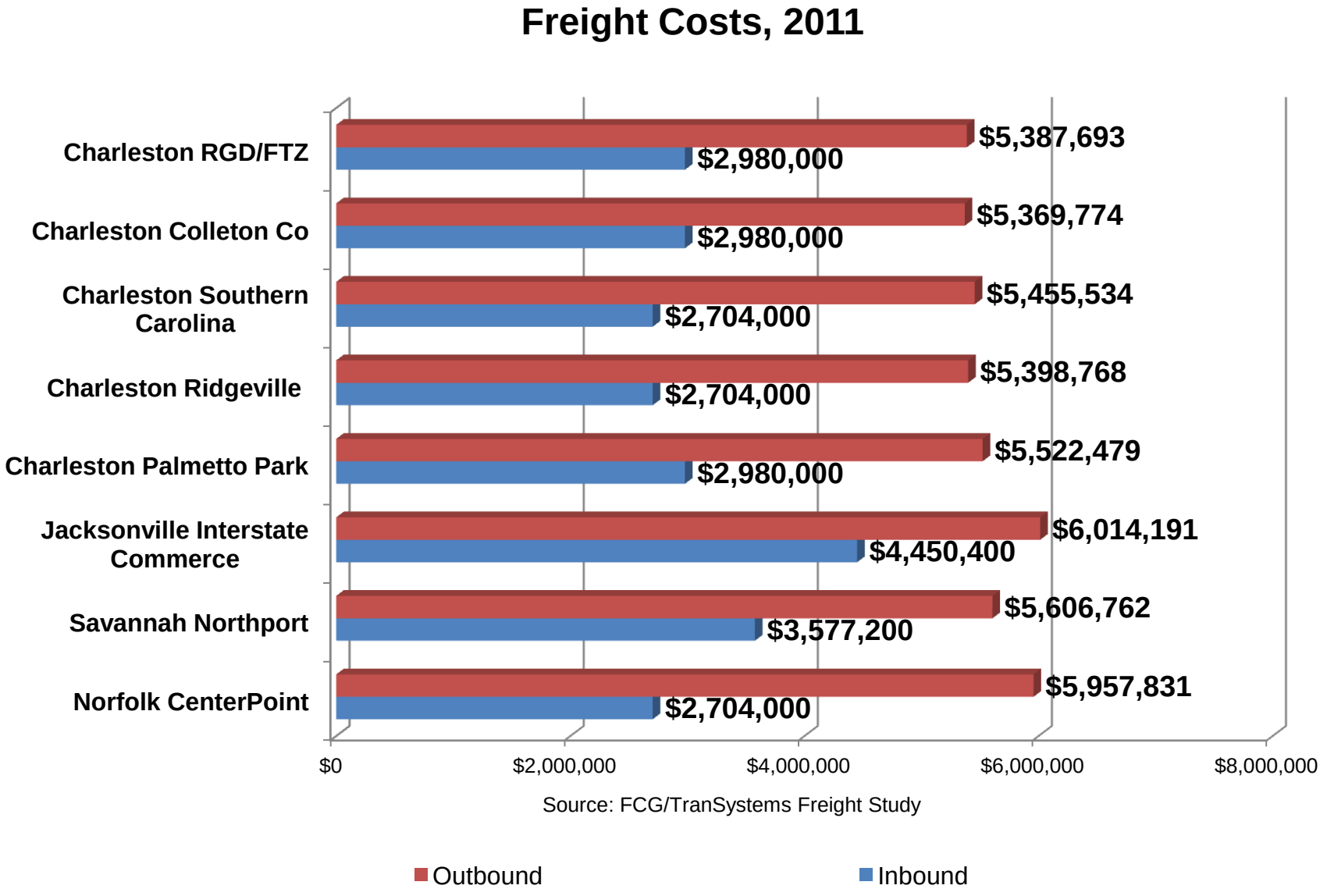
Site Assessment

- **Norfolk**
  - Centerpoint
    - ***Best Site***; 937 acres; $141,863/acre; CSX intermodal on site; 1.8-million-sq-ft Target DC; off of US 58 in Suffolk (SW of Norfolk)
  - Northgate
    - 115 acres; rail; Prologis is developing up to 2.1 million sq ft of Class A DC; W of I-664 in Suffolk.

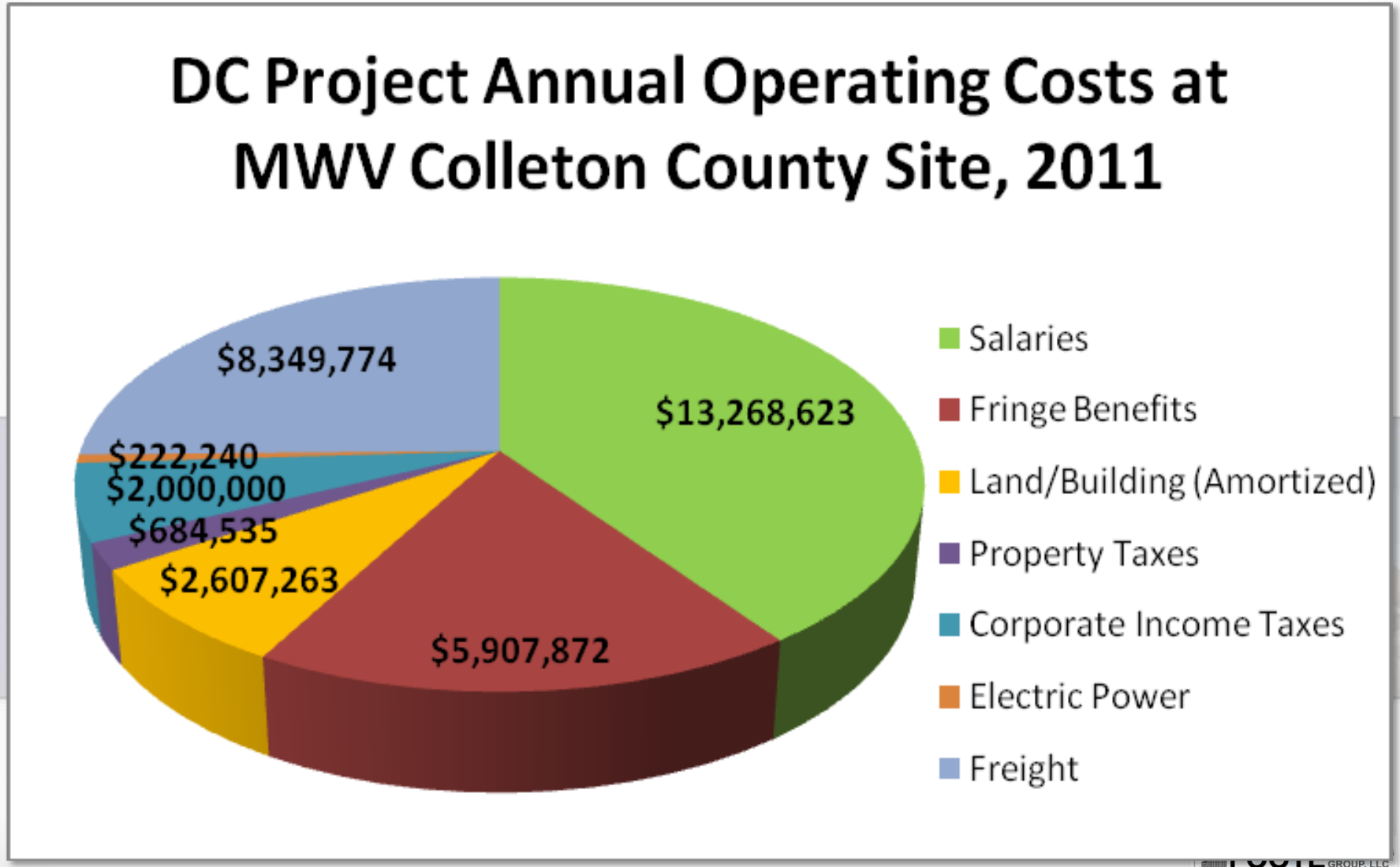
Site Assessment

- **Charleston**
  - RGD/FTZ Site
    - ***Best Site*;** "Pad ready"; no rail; closest to port; $50,000/acre; near other DCs; FTZ
  - Palmetto Commerce Park
    - 120 acres; $115,000/acre; off I-26 at Ladson Rd, NW of airport; most expensive
  - Colleton County Site
    - $30,000/acre; good I-95 access; "shovel ready"; no rail
  - Ridgeville Industrial Park
    - Lowest cost overall; rail; $80,000/acre.

Freight

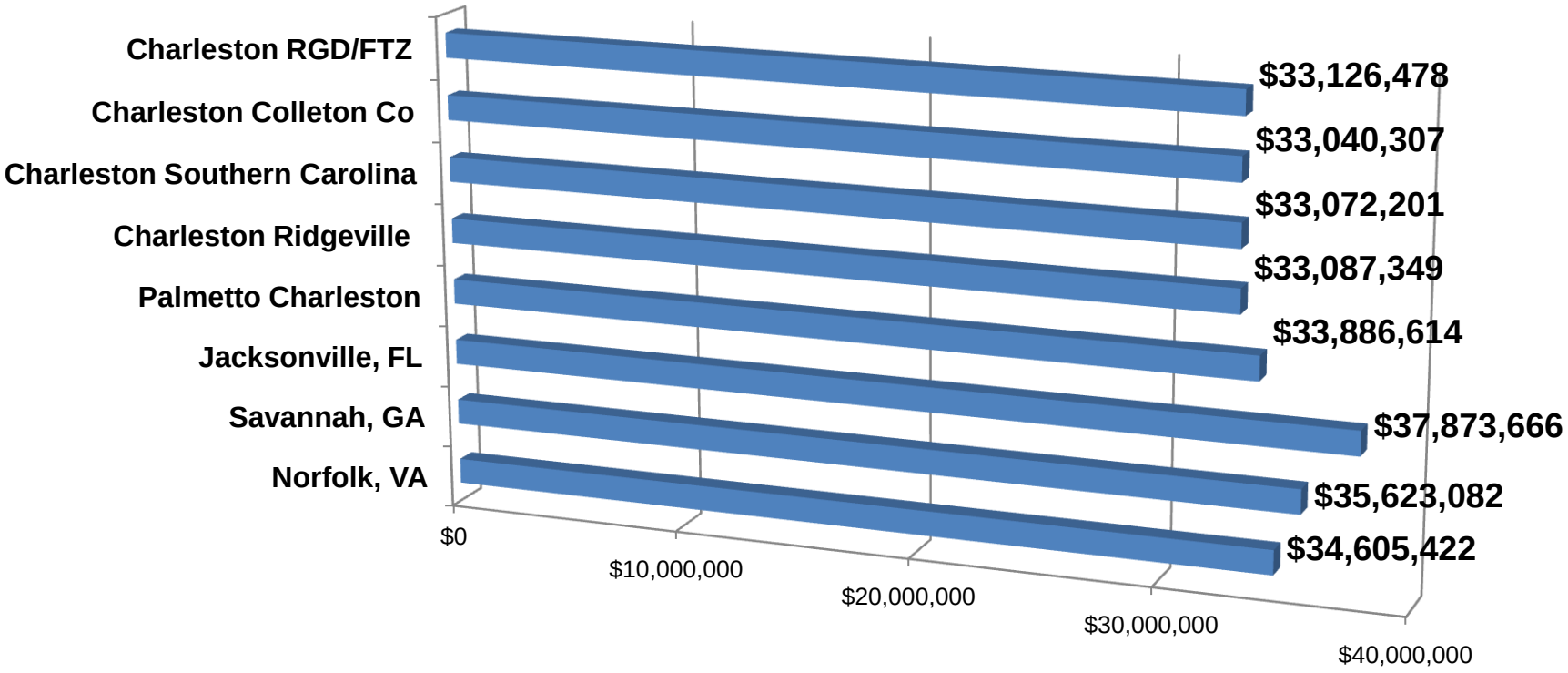

Freight Costs, 2011
Charleston RGD/FTZ
$5,387,693
$2,980,000
Charleston Colleton Co
$5,369,774
$2,980,000
Charleston Southern Carolina
$5,455,534
$2,704,000
Charleston Ridgeville
$5,398,768
$2,704,000
Charleston Palmetto Park
$5,522,479
$2,980,000
Jacksonville Interstate Commerce
$6,014,191
$4,450,400
Savannah Northport
$5,606,762
$3,577,200
Norfolk CenterPoint
$5,957,831
$2,704,000
$0
$2,000,000
$4,000,000
$6,000,000
$8,000,000
Source: FCG/TranSystems Freight Study
Outbound
Inbound

Freight was 2nd Biggest Cost



Project Wildcat

Annual Operating Costs for a DC Location in the SE, 2011



Source: Foote Consulting Group

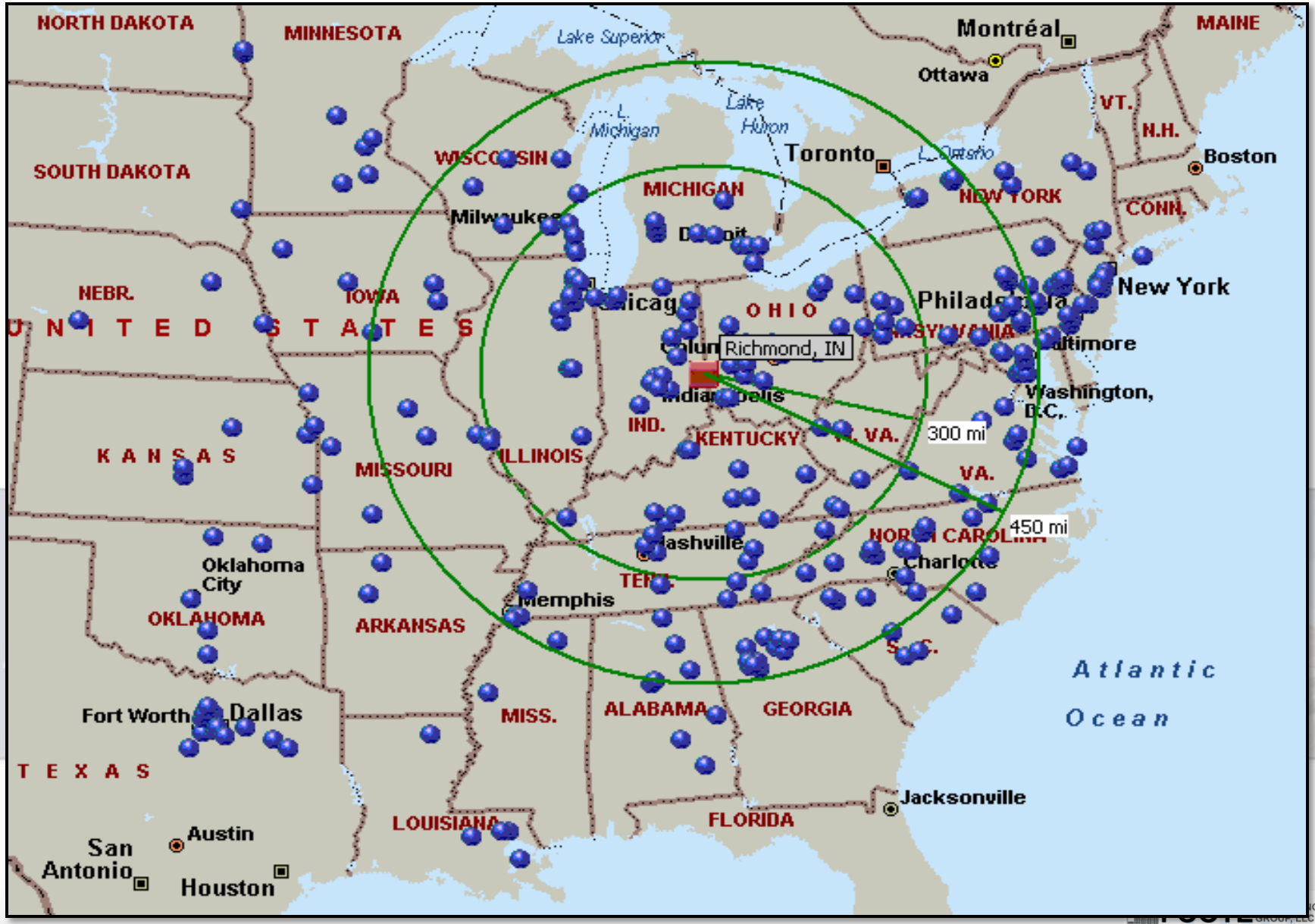
FOOTE CONSULTING GROUP, LLC

Freight Modeling for EDOs

- Freight costs are often the least understood location criteria.
- It allows you to understand the freight transportation factor, which is often a driver for potential DC customers.
- By asking for shipping information, you can estimate and confirm the inbound/outbound freight costs for a prospect.
- You can understand your freight differential and explore ways to offset it such as through incentives.
- You can use the data to produce compelling marketing materials.

FOOTE CONSULTING GROUP, LLC

How do you stack up?



Simple data input…

ACTIVITY PARAMETERS	47374	45402	52801	63156
	Wayne Co. IN	Dayton, OH	Davenport, IA	St. Louis, MO
OUTBOUND				
Mode Mix (Outbound)	100%	100%	100%	100%
TL %	70%	70%	70%	70%
LTL %	20%	20%	20%	20%
Small Parcel %	5%	5%	5%	5%
Rail %	5%	5%	5%	5%
Discount (Outbound)				
TL %				
LTL %	20%	20%	20%	20%
Small Parcel %	5%	5%	5%	5%
Rail %	20%	20%	20%	20%
Average Unit Each Mode				
Average Units / Rail Shipment	3,000	3,000	3,000	3,000
Average Units / TL Shipment	3,000	3,000	3,000	3,000
Average Units / LTL Shipment	500	500	500	500
Average Units / SP Shipment	5	5	5	5
Rail: Area Allocation Sales	100%	100%	100%	100%
Area1: within 50 miles	0%	0%	0%	0%
Area2: within 100 miles	0%	0%	0%	0%
Area3: within 150 miles	0%	0%	0%	0%
Area4: within 200 miles	40%	40%	40%	40%
Area5: from 200 miles to est. 400 miles	60%	60%	60%	60%

FOOTE CONSULTING GROUP, LLC

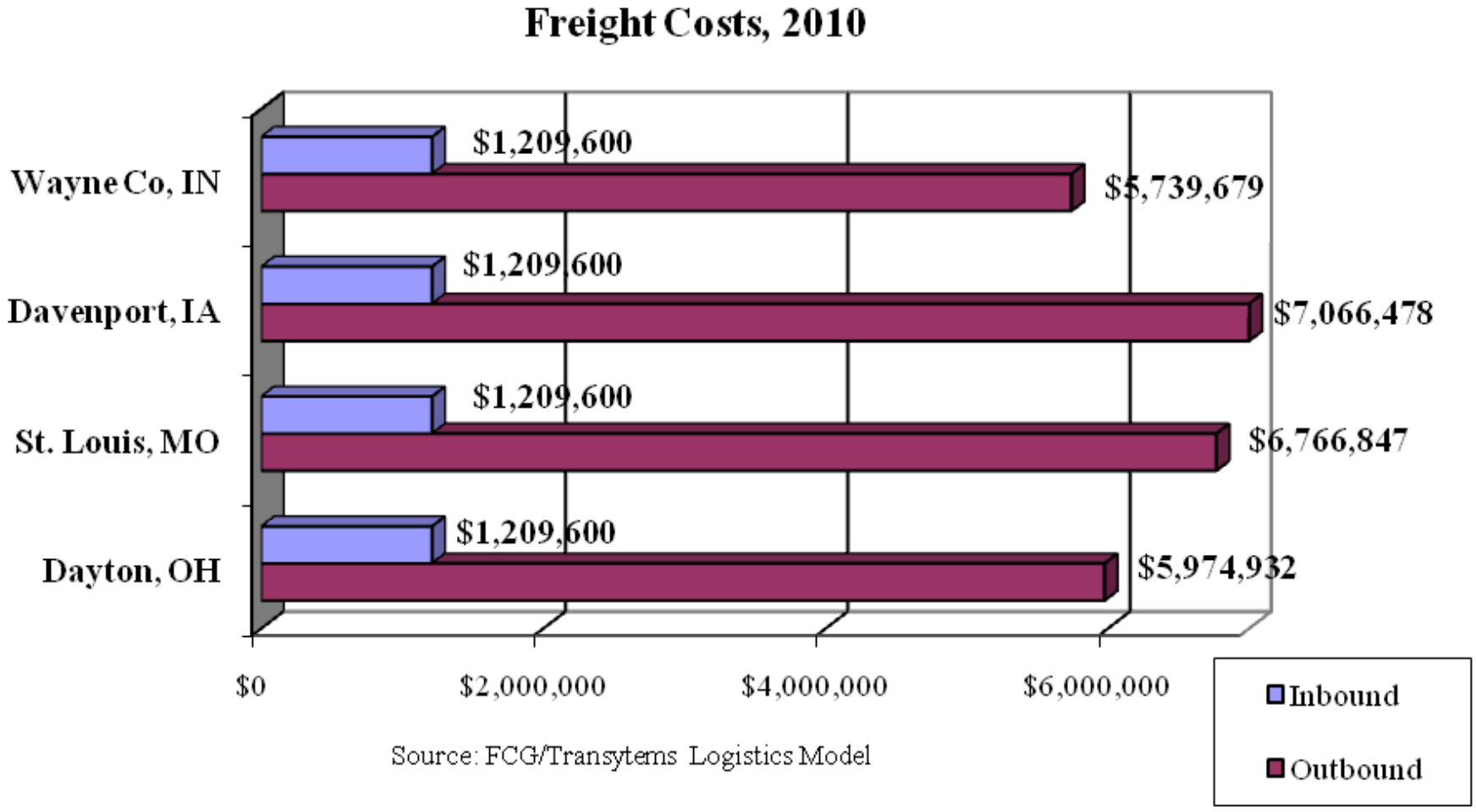
…Comprehensive Results

		TL				LTL			
		Wayne Co. IN	Dayton, OH	Davenport, IA	St. Louis, MO	Wayne Co. IN	Dayton, OH	Davenport, IA	St. Louis, MO
	Total Freight Cost	**$1,964,608**	**$1,959,228**	**$2,042,394**	**$1,780,125**	**$2,128,583**	**$2,315,504**	**$2,674,975**	**$2,312,821**
1	Area1: within 50 miles	$168,000	$168,000	$0	$168,000	$101,184	$98,534	$0	$173,856
2	Area2: within 100 miles	$336,000	$336,000	$336,000	$0	$209,856	$206,537	$350,208	$0
3	Area3: within 150 miles	$336,000	$343,200	$336,600	$336,000	$227,405	$412,298	$449,024	$318,528
4	Area4: within 200 miles	$336,000	$336,000	$338,400	$336,000	$265,392	$273,573	$504,096	$402,662
5	Area5: from 200 miles to est. 400 miles	$788,608	$776,028	$1,031,394	$940,125	$1,324,746	$1,324,562	$1,371,647	$1,417,775
	Weight Shipped (Pound)	84,000,000	84,000,000	84,000,000	84,000,000	24,000,000	24,000,000	24,000,000	24,000,000
	Unit Shipped (Units / Pieces)	8,400,000	8,400,000	8,400,000	8,400,000	2,400,000	2,400,000	2,400,000	2,400,000
	Freight Cost / Pound	$0.02	$0.02	$0.02	$0.02	$0.09	$0.10	$0.11	$0.10
	Freight Cost / Unit	$0.23	$0.23	$0.24	$0.21	$0.89	$0.96	$1.11	$0.96

		Rail				Small Parcel			
		Wayne Co. IN	Dayton, OH	Davenport, IA	St. Louis, MO	Wayne Co. IN	Dayton, OH	Davenport, IA	St. Louis, MO
	Total Freight Cost	**$225,176**	**$244,924**	**$257,317**	**$261,445**	**$1,724,758**	**$1,750,312**	**$1,695,584**	**$1,617,262**
1	Area1: within 50 miles	$0	$0	$0	$0	$147,630	$147,630	$0	$147,630
2	Area2: within 100 miles	$0	$0	$0	$0	$147,630	$147,692	$184,794	$0
3	Area3: within 150 miles	$0	$0	$0	$9,101	$295,260	$295,395	$295,260	$295,260
4	Area4: within 200 miles	$26,539	$45,893	$50,410	$40,266	$295,260	$316,536	$301,454	$295,260
5	Area5: from 200 miles to est. 400 miles	$198,637	$199,030	$206,907	$212,078	$838,978	$843,059	$914,076	$879,112
	Weight shipped (pound)	6,000,000	6,000,000	6,000,000	6,000,000	6,000,000	6,000,000	6,000,000	6,000,000
	Unit Shipped (units or pieces)	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000
	Freight Cost / pound	$0.04	$0.04	$0.04	$0.04	$0.29	$0.29	$0.28	$0.27
	Freight Cost / unit	$0.38	$0.41	$0.43	$0.44	$2.87	$2.92	$2.83	$2.70

FOOTE CONSULTING GROUP, LLC

….Easy for Clients to Understand



FOOTE CONSULTING GROUP, LLC

For more information, contact:

Mr. Deane Foote, CEcD

FOOTE CONSULTING GROUP, LLC

(480) 399-4854

deane@footeconsulting.com

www.footeconsulting.com