Inventory Distortion

Sponsored by tyco

GREG BUZEK

PRESIDENT

IHL Group

About Tyco Retail Solutions

- We are a **>$1B unit of Tyco International (Tyco Fire & Security)**, and the flagship vertical of Tyco Vertical Market Solutions
- Market leader in multiple segments, dedicated to the global retail vertical, with **45 years of proven experience** keeping people and assets secure
- Offer an growing portfolio of **mission-critical solutions and high-value services** delivering significant retailer effeciency and profitability gains
- Blue chip retail customer base including **80% of the global top 200 retailers**, with our solutions deployed in nearly **180,000 stores**
- Over **115B consumer items protected** against theft, including **40B items source tagged**, in the last decade.
- Over **4,500 dedicated employees around the world**, offering unique global service delivery capabilities

With over 45 years of excellence in retail, we have the expertise to understand your needs, the technology to meet them, and the comprehensive technical, professional and support services to ensure your long term success.

Store Intelligence. Retail Excellence.

tyco

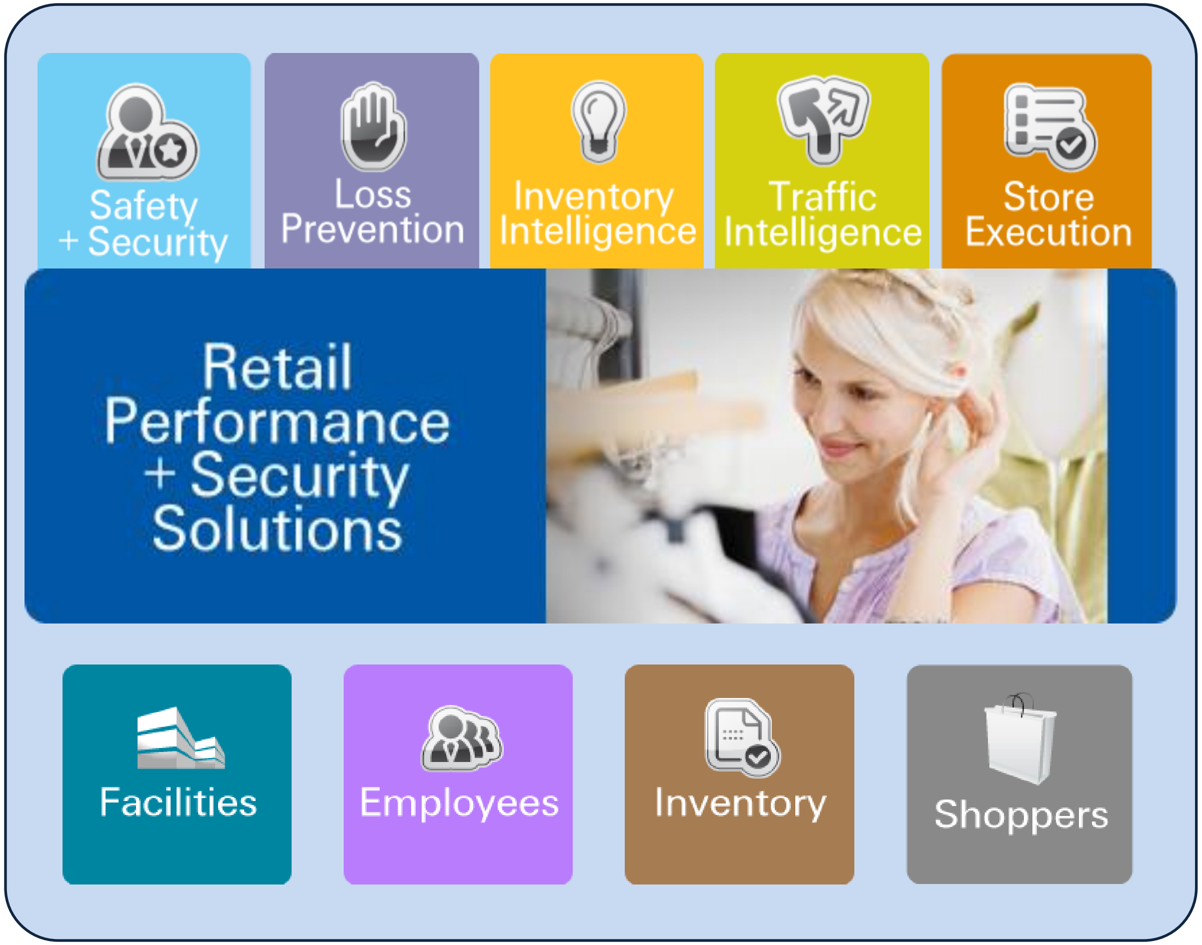
Deployed in Nearly 180,000 Stores Worldwide

Extensive, Diverse Retail Experience

- *Across a range of industry sectors and global geographies*
- *From single store deployments through large scale, enterprise-wide rollouts*

Store Intelligence. Retail Excellence.

Retail Performance and Security Solutions



Store Intelligence. Retail Excellence.

- An expanding portfolio of mission-critical solutions and services to deliver significant retailer profitability and effeciency gains
- Providing decision support to answer challenging retail performance and security questions
- By capturing, interpreting, reporting and intelligently responding to real-time operational data from:
  - *Stores*
  - *Employees*
  - *Inventory*
  - *Shoppers*

BT RetailWeek TECHNOLOGY AWARDS 2011 FINALIST

retail TouchPoints Next-Gen Retail 2011 Award Winner for Store Intelligence

Store Intelligence. Retail Excellence.

4

About IHL

- **Rapid Project RFP Toolkits (with C-CORE)**
  - POS, WFM, ERP, HW Maintenance, Fresh Item Mgt., Mobile
- **Research and Advisory Services**
  - POS, Mobile POS, Enterprise Mobile POS Printers, Self-Checkout, Kiosk, WFM, Price Optimization, etc.
  - POS by Vendor Share
- **Sophia** - **Technology Data Service**
- **WorldView IT Sizing Models**
  - IT sizing for hundreds of Retail/Hospitality Technologies
- **Custom Analysis**

IHL Group

Sample Clients

SUBWAY
The Coca-Cola Company
VISA
Publix
tyco
i'm lovin' it
intel
MOTOROLA SOLUTIONS
SAP
EPICOR
Coldwater Creek
DELL
3M Worldwide
Agilysys
GIANT EAGLE
IBM
Pfizer
NCR
Microsoft

IHL Group

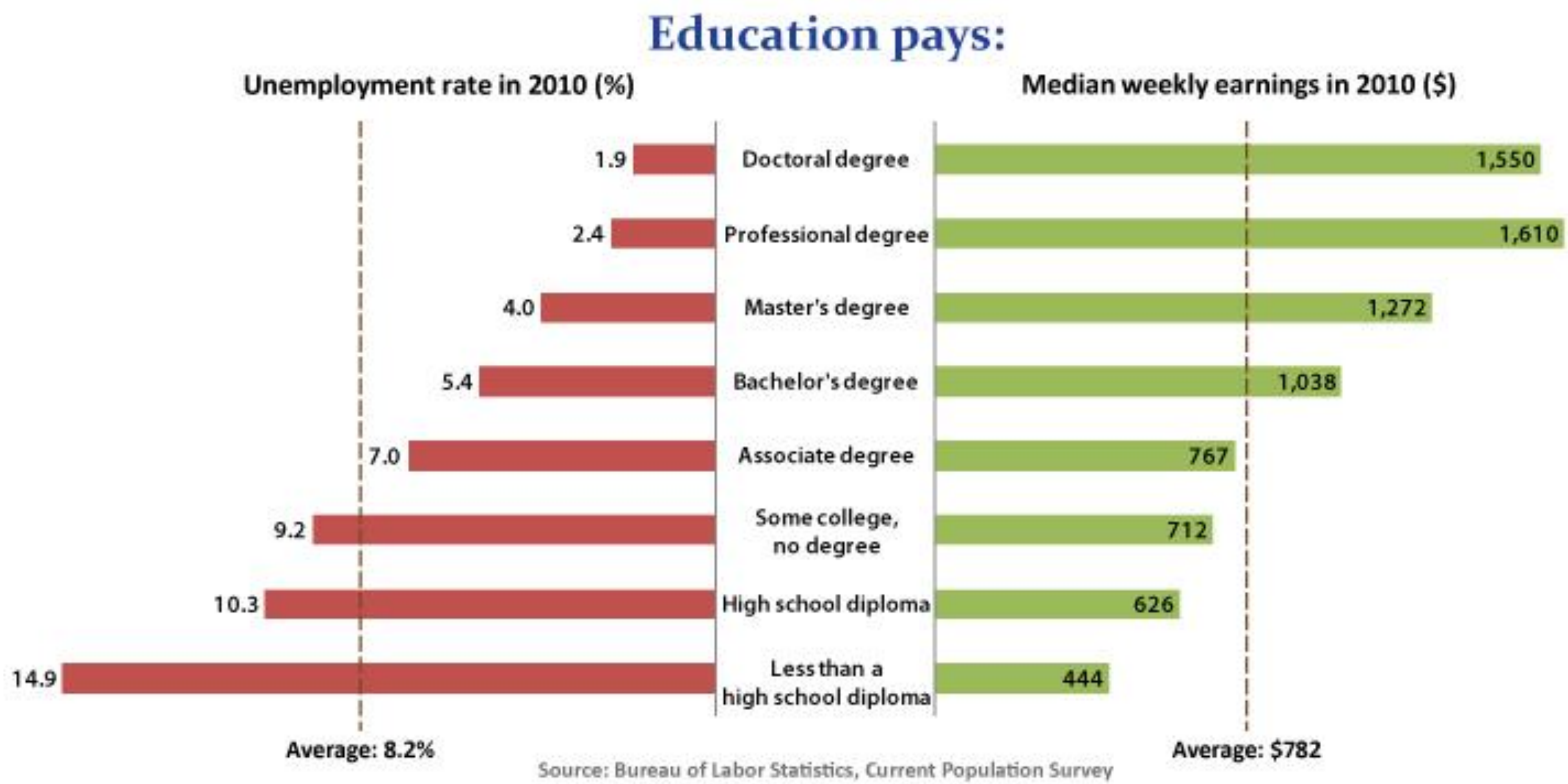
A Word on the Economy

Haves and Have Nots

- It's not a 99% verses 1%, but 19% verses 81%
- It's really a battle between the haves and the have nots….
  - And that is those who have a job and preservered their income…and those who are underemployed or worse.
  - Those who have preserved incomes, spending, taking advantage of better terms.
  - Credit is back

Education Key Issue – JOBS

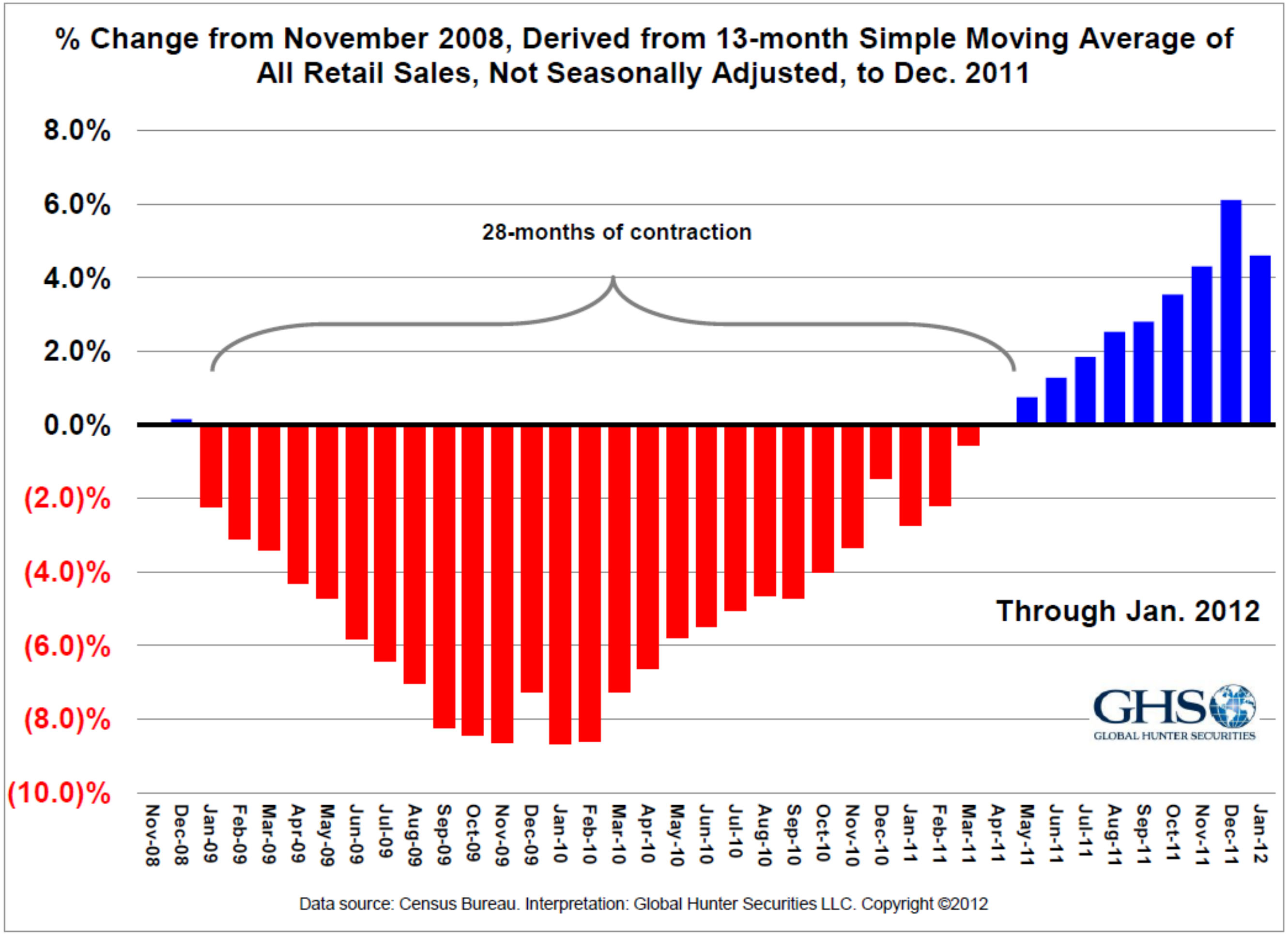
- *Real unemployment/underemployment ~ 14.5%*



IHL Group

Some Good News For A Change

- *All sectors, 9 months total retail sales up over 6%*



IHL Group

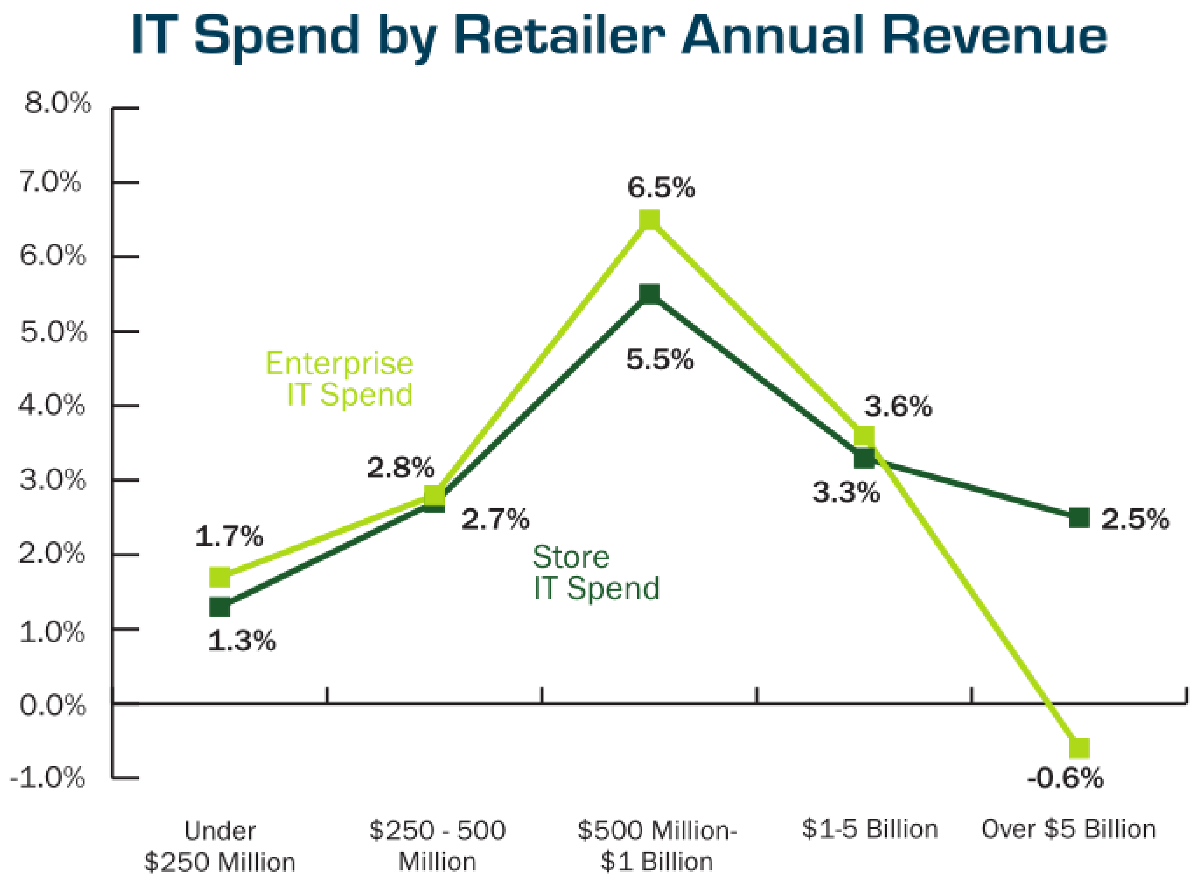
Current State of the Store

- Shoppers are shopping again
  - High end, low end
- Apple-ization of Retail
  - Top down
  - JCP
- Key Technologies & Concepts Affecting Market
  - Server Virtualization – Some move to POS Virtualization
  - HaaS POS
  - BI/Analytics/Cloud
  - Big Data
  - Mobile – Sales Force, Executive, Customers

Retail Sales Drivers – Look back to Oct

- Oil prices will spike 15-25% in the first quarter of 2012.
  - Long term trend is still up.
  - But election year so we will see what happens with oil reserves.
- First groups to feel the pain from oil will be restaurants/hospitality, then clothing stores
- Those with jobs are less afraid of losing them
- But before then, Christmas supposed to be up 2-6%

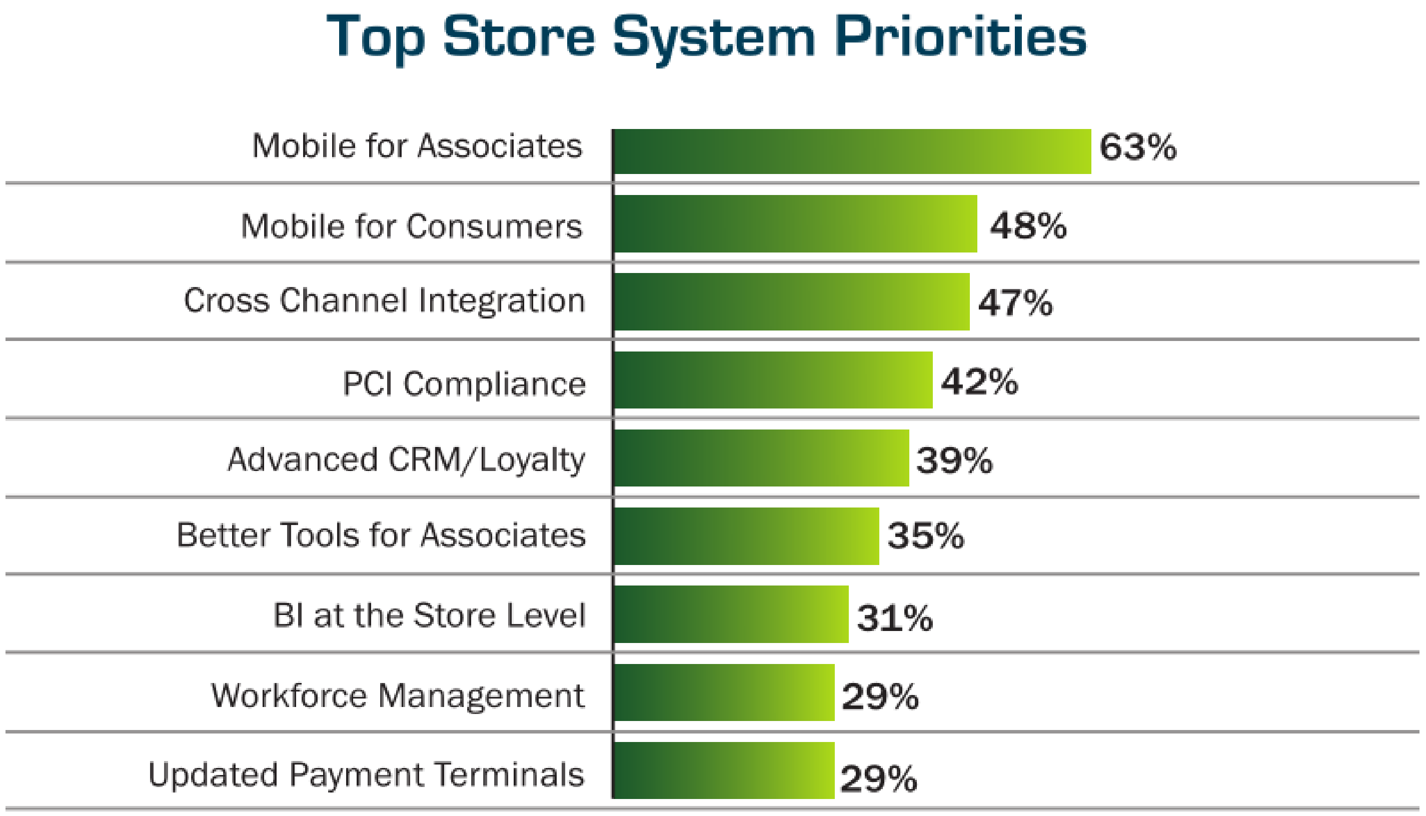
Big Shrink IT Footprint, Midrange grows



Source: 2012 *RIS News*/IHL Group Store Systems Study

IHL Group

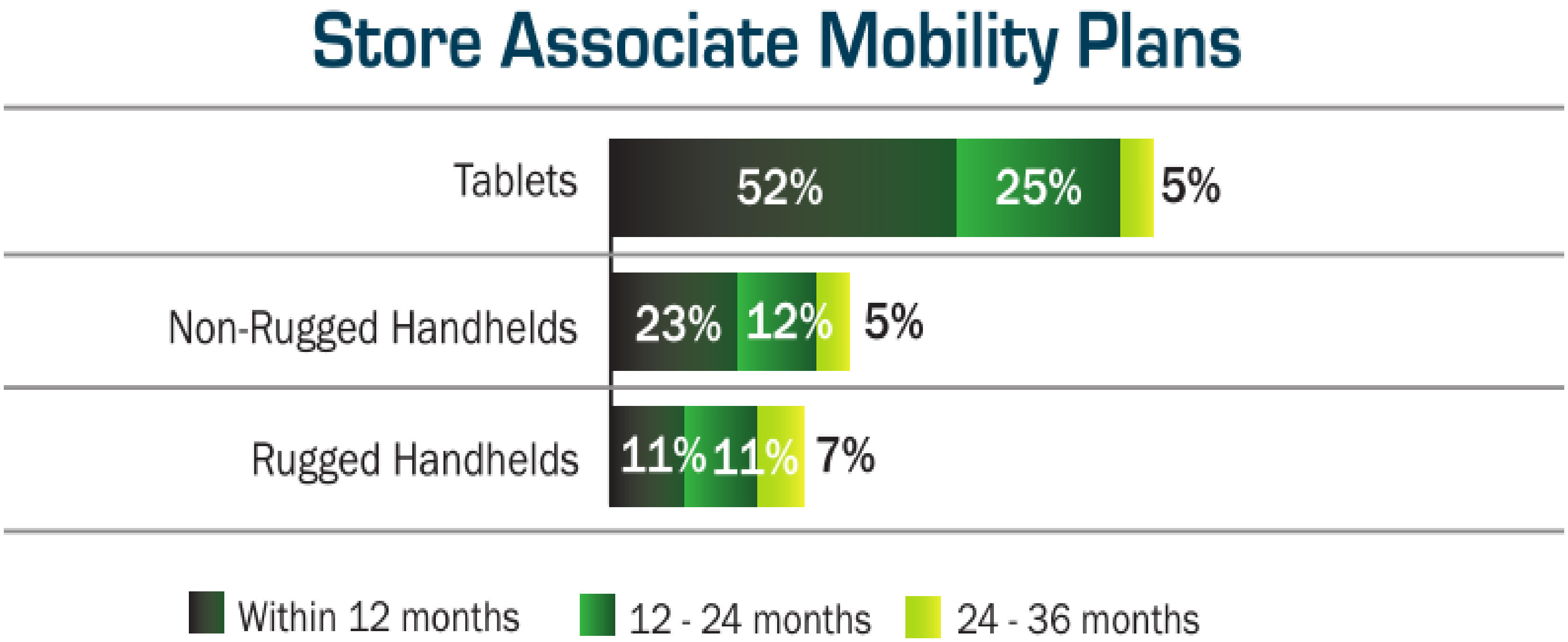
Mobile….leads all IT Spending



Source: 2012 *RIS News*/IHL Group Store Systems Study

IHL Group

What Types of Mobile?



Source: 2012 *RIS News*/IHL Group Store Systems Study

IHL Group

Inventory Distortion

Sponsored by tyco

IHL Group

Studies – Some Quick Background

- Two distinct groups – Primary Research
  - Retail Executives – IT, Merch, Ops
  - Consumers
- Leverage previous research as well
- Public and private data on retail size
- Combined into Model to Size Problem
  - Extrapolated answers to problems

How Big of An Issue?

Source: 2012 Tyco/IHL Group Inventory Distortion Study

IHL Group

Inventory Distortion Defined

Region	Out-of-Stocks ($ Millions)	Overstocks ($ Millions)	Inventory Distortion ($ Millions)
North America	$89,720.9	$77,947.5	$167,668.4
EMEA	$106,838.5	$111,059.5	$217,897.9
Asia/Pacific	$196,252.4	$131,219.1	$327,471.6
Latin America	$63,448.3	$41,876.6	$105,324.9
Total	**$456,260.1**	**$362,102.7**	**$818,362.4**

- $2 Billion in improvement in NA in 2011
- Much of Asia/LATAM unaddressable as focused on infrastructure and refrigeration

Source: 2012 Tyco/IHL Group Inventory Distortion Study

IHL Group

Closer Look at Out-of-Stocks

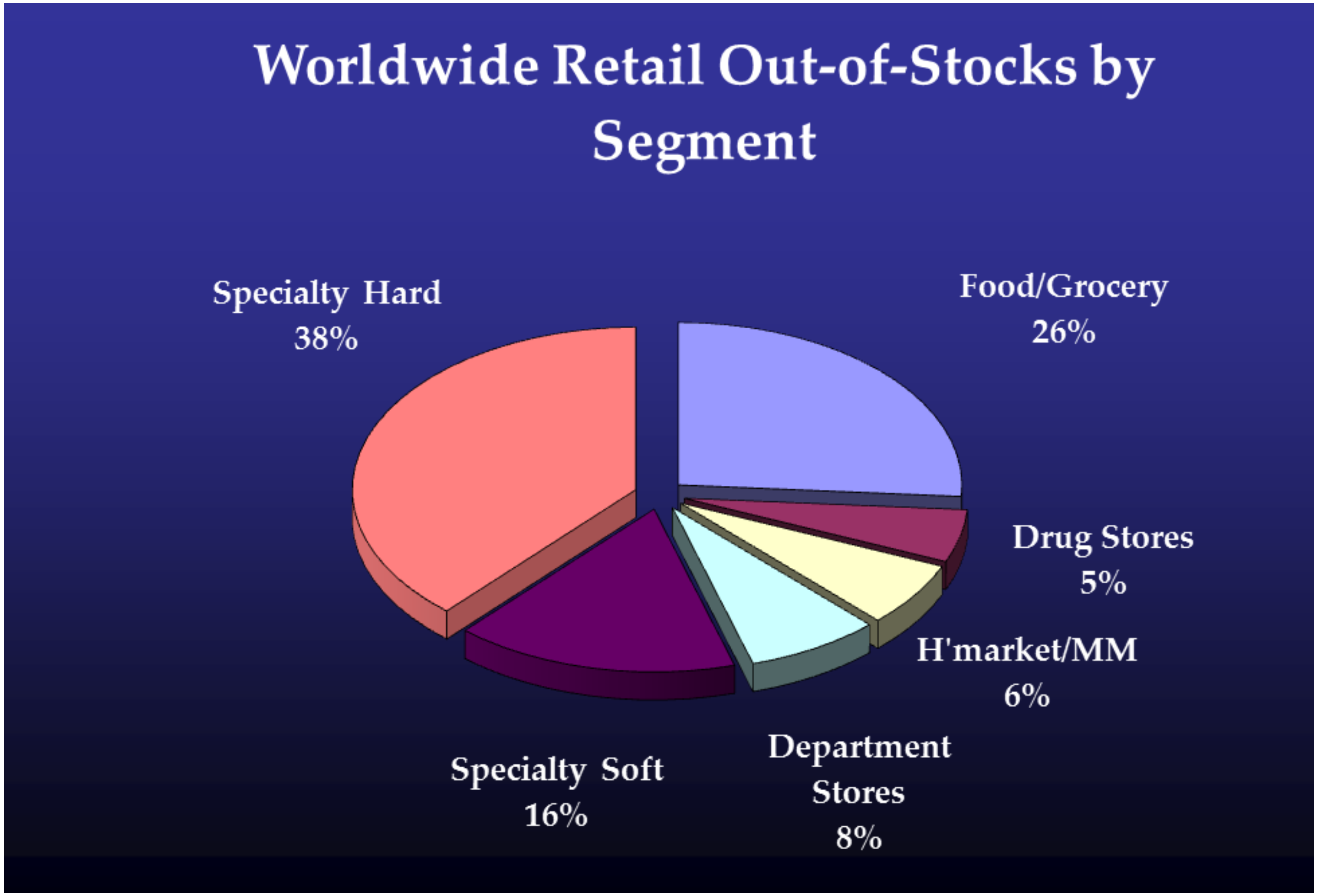
Region	Shelf Empty ($ Million)	Couldn't Find Any Help ($ Million)	Found Help but Couldn't Find Item ($ Million)	Price/Offer Didn't Match ($ Million)	Some Other Reason ($ Million)	Out-of-Stocks ($ Millions)
North America	$25,749.9	$20,456.4	$10,138.5	$12,112.3	$21,263.9	$89,720.9
EMEA	$37,393.5	$20,726.6	$12.820.6	$11,752.2	$24,145.5	$106,838.5
Asia/Pacific	$113,826.4	$29,437.9	$11,775.1	$19,625.2	$21,587.8	$196,252.4
Latin America	$38,069.0	$7,613.8	$3,806.9	$6,344.8	$7,613.8	$63,448.3
Total	**$215,038.8**	**$78,234.7**	**$38,541.1**	**$49,834.6**	**$74,610.9**	**$456.260.1**

- Each region, each segment has it’s own values based on sophistication vs NA/Europe
- Primary research on splits

Source: 2012 Tyco/IHL Group Inventory Distortion Study

IHL Group

Out-of-Stocks Segment View



Source: 2012 Tyco/IHL Group Inventory Distortion Study

IHL Group

Closer look at Overstocks

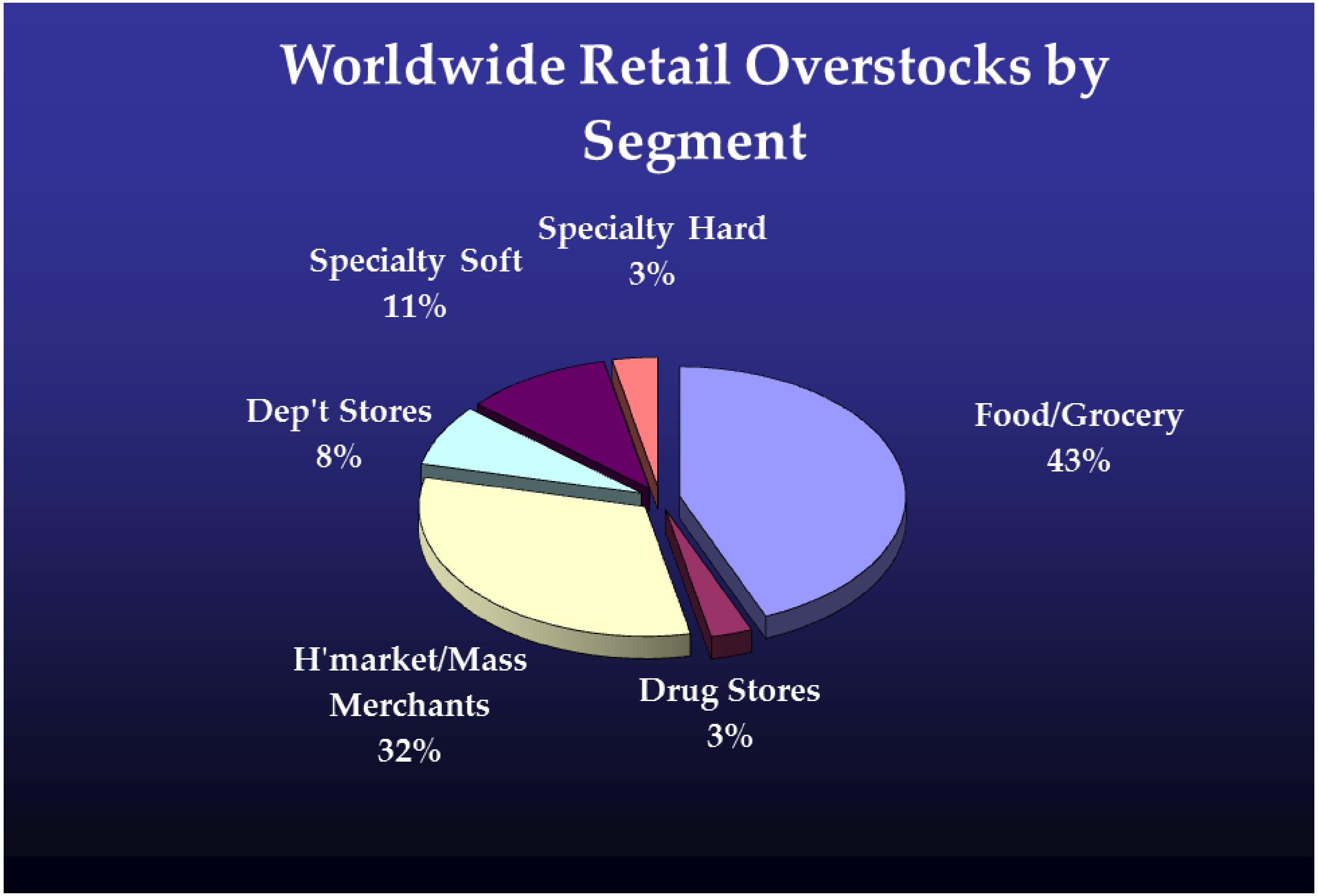
Region	Spoilage ($ Million)	Discounts ($ Million)	Overstocks ($ Millions)
North America	$32,726.0	$45,221.5	$77,947.5
EMEA	$73,732.2	$37,327.3	$111,059.5
Asia/Pacific	$104,455.1	$26,764.0	$131,219.1
Latin America	$32,124.3	$9,752.4	$41,876.6
Total	**$243,037.5**	**$119,065.2**	**$362,102.7**

- Tighter inventory controls in NA and Europe shrinking Overstock problem
- Only part of improvement is improved process and technology as a result

Source: 2012 Tyco/IHL Group Inventory Distortion Study

IHL Group

Overstocks – Segment View



Source: 2012 Tyco/IHL Group Inventory Distortion Study

What is an Out-of-Stock – Retail View

	When System Says None in Store	When not in store or online	Shelf is empty and none in the back	When customer can't find help (locked up, not on shelf)	Other
Food/Drug/Conv/SC	46.7%	46.7%	66.7%	26.7%	46.7%
General Merchandise	67.8%	42.4%	33.9%	11.9%	67.8%
Total	**64.0%**	**42.7%**	**40.0%**	**14.7%**	**64.0%**

- Major disconnect with customers
- All of these are out-of-stocks to consumers
- Too much reliance on the system
- On average, retailer systems say in stock 92% of time, but consumers only see 75%

Source: 2012 Tyco/IHL Group Inventory Distortion Study

IHL Group

What is an Overstock – Retailer View

	When it spoils or expires	When put on clearance	When system says too many in stock	When sales do not meet forecast	When we have to discount past x%	Average discount overstocked
Food/Drug/Conv/SC	67.8%	42.4%	33.9%	11.9%	67.8%	40.0%
General Merchandise	5.8%	42.3%	36.5%	26.9%	23.1%	38.3%
Total	**15.9%**	**44.9%**	**36.2%**	**27.5%**	**20.3%**	**38.9%**

- Spoilage huge problem for grocery
- Fresh Item Management tremendous opportunity
- Recognition of overstocks faster, quicker action has great opportunity

Source: 2012 Tyco/IHL Group Inventory Distortion Study

IHL Group

People, Process, Technology

	Internal Process	Internal Systems	Internal Personnel	Supplier Issue	Other
Food/Drug/Conv/SC	17.1%	11.7%	37.5%	18.3%	15.5%
General Merchandise	28.9%	15.0%	24.0%	26.0%	6.1%
Total	**26.8%**	**14.4%**	**26.4%**	**24.6%**	**7.7%**

- Over half of the problem is internal process and personnel
- IT without training or process improvement will not be successful. Need both

Source: 2012 Tyco/IHL Group Inventory Distortion Study

IHL Group

Have we Improved?

Year to year improvement	Overall Improvement	Less than 5%	5-10%	10-20%	20-30%	30% or More	No change	5% worse
Food/Drug/Conv/SC	7.8%	26.6%	20.0%	26.6%	6.7%	0.0%	20.0%	0.0%
General Merchandise	5.3%	28.9%	15.0%	24.0%	26.0%	6.1%	24.3%	2.7%
Total	**5.8%**	**18.9%**	**36.5%**	**16.2%**	**1.4%**	**0.0%**	**24.3%**	**2.7%**

- Sophisticated retailers are improving
- Retail is growing faster and the problem faster in emerging markets than they can keep up.

Source: 2012 Tyco/IHL Group Inventory Distortion Study

IHL Group

Consumer View Today

How often Do you go to the store looking to buy, but leave without buying	Food / Grocery	Home Improvement	Clothing / Shoes	Electronics	Sporting Goods	Auto Supplies
	9.2%	22.3%	30.8%	30.3%	27.5%	19.3%

- Consumers were asked how often they leave without buying something they planned or a substitutes
- Clothing and Electronics have worst Out-of-Stocks problem.
  - Some of this is planned for buzz

Source: 2012 Tyco/IHL Group Inventory Distortion Study

IHL Group

When Out-of-Stock Happens, Why?

Reasons you left store without buying	Empty Shelf	Couldn't Find Help	Found Someone, but they couldn't find	Price/Offer didn't match	Some Other Reason
Food/Grocery	40.4%	13.8%	15.3%	15.0%	15.5%
Home Improvement	34.3%	18.1%	18.4%	14.3%	14.9%
Clothing/Shoes	37.0%	14.0%	15.8%	15.4%	17.8%
Electronics	34.4%	14.9%	16.8%	17.7%	16.2%
Sporting Goods	35.1%	15.3%	17.4%	15.7%	16.5%
Auto Supplies	36.8%	14.5%	17.0%	14.4%	17.3%

- What causes the consumers to walk?
  - Real Time Inventory a key problem
  - Annual inventories can be off 30% from system – Opportunity for RFID (more cycles, more accuracy, fewer empty shelves).
  - Promotion Optimization is big opportunity

Source: 2012 Tyco/IHL Group Inventory Distortion Study

IHL Group

What is a Deal?

What percent off is enough of a deal for you to buy something you had not planned to buy	Food / Grocery	Home Improvement	Clothing / Shoes	Electronics	Sporting Goods	Auto Supplies
Male	33.6%	37.1%	47.0%	42.4%	42.5%	37.5%
Female	37.4%	42.0%	48.7%	44.9%	45.3%	40.4%

- Women drive a harder bargain than men
- Men tend to make more impulsive decisions on “deals”

Source: 2012 Tyco/IHL Group Inventory Distortion Study

IHL Group

What is Addressable?

Cause for Distortion/Addressable Market (Billions)	Improvement Opportunity
Internal Process	$98.2
Internal Systems	$52.8
Internal Personnel/Training	$96.8
Supplier Issues	$90.2
Other Reason	$28.5
Total	**$366.5**

Source: 2012 Tyco/IHL Group Inventory Distortion Study

IHL Group

What % of Problem Addressable?

Addressable Market in $USD Billions	WW Total	WW Addressable	North America	EMEA	Asia/Pacific	LATAM
Food/Grocery	$282.3	$76.9	$16.0	$27.3	$22.3	$11.2
Drug Stores	$35.3	$13.1	$5.3	$6.3	$1.1	$.4
Hypermarket/Mass Merch.	$145.9	$90.8	$19.7	$36.5	$29.9	$4.7
Department Stores	$63.4	$49.3	$26.6	$9.8	$10.8	$2.1
Specialty Soft	$109.7	$59.2	$37.3	$13.7	$6.6	$1.6
Specialty Hard	$181.7	$77.1	$37.3	$23.4	$11.4	$4.9
Total	**$818.4**	**$366.5**	**$142.3**	**$117.2**	**$82.2**	**$24.9**

- Key technologies that make a difference
  - Price Optimization/Markdown
  - Promotion Optimization
  - RFID (more inventory cycles, real time inventory)
  - Traffic Counting, Work Force Management
  - Near Shoring

Source: 2012 Tyco/IHL Group Inventory Distortion Study

IHL Group

Are Retailers Spending On This?

Planned IT Spend Growth	Total IT Spending	IT Spend for Core Merchandising, Category Mgt	IT Spending for Optimization (Pricing, Promotion, Markdown)
Food/Drug/Conv/SC	-1.0%	-1.3%	-1.3%
General Merchandise	4.1%	2.7%	.7%
Total	3.9%	2.3%	.6%

- Food/Drug/Convenience/Supercenters
  - Reduced IT Spend…when compared to 4% growth in the revenue, disturbing trend.
  - Fresh Item Management still huge opportunity
- General Merchandise Increasing Spend
  - But still in core merchandising
  - Opportunities in RFID SC, Store level as well as unit.
  - Optimization technologies, specifically promotion optimization missed opportunity

Source: 2012 Tyco/IHL Group Inventory Distortion Study

IHL Group

Final Thoughts?

- It's not all about Technology
- Your installed solution must review and upgrade
  - Processes
  - Training
  - Expectations
- Mobile is radically transforming your enterprises, embrace that time for this process change
  - You have natural buy in from the CEO
- This problem is often hidden, but small improvements mean big benefits to bottom line.

Source: 2012 Tyco/IHL Group Inventory Distortion Study

IHL Group

tyco

Safe Families in US

New Kitchen in Honduras

IHL Group

More Information

Greg Buzek

IHL Group

greg@ihlservices.com

www.twitter.com/gregbuzek

+1 615-591-2955

IHL Group