



2012

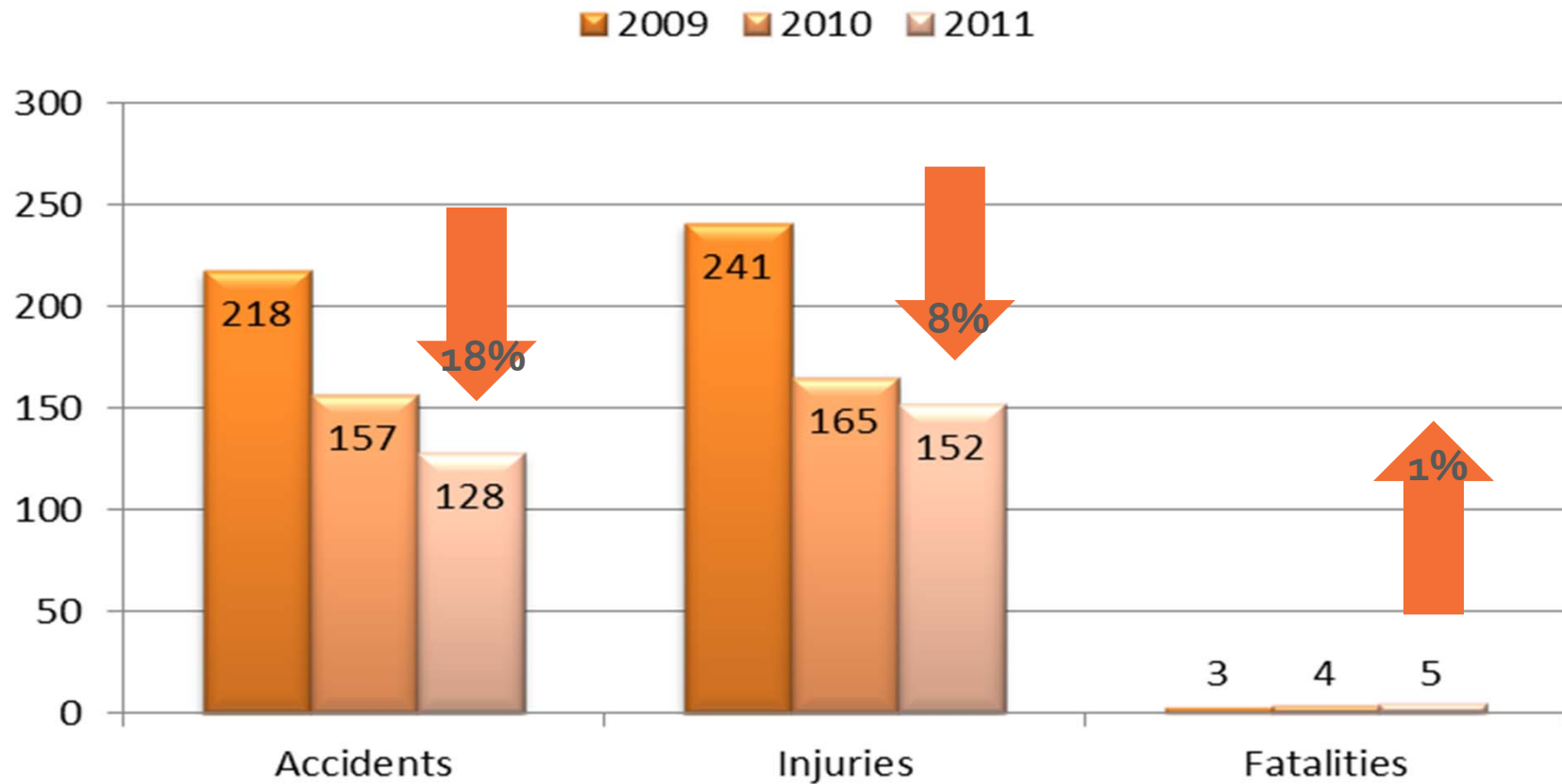
**Build Safe | Live Safe
Conference**

*Engineering Solutions in
Safe Construction*

*Michael Alacha, PE
Timothy Lynch, PE*

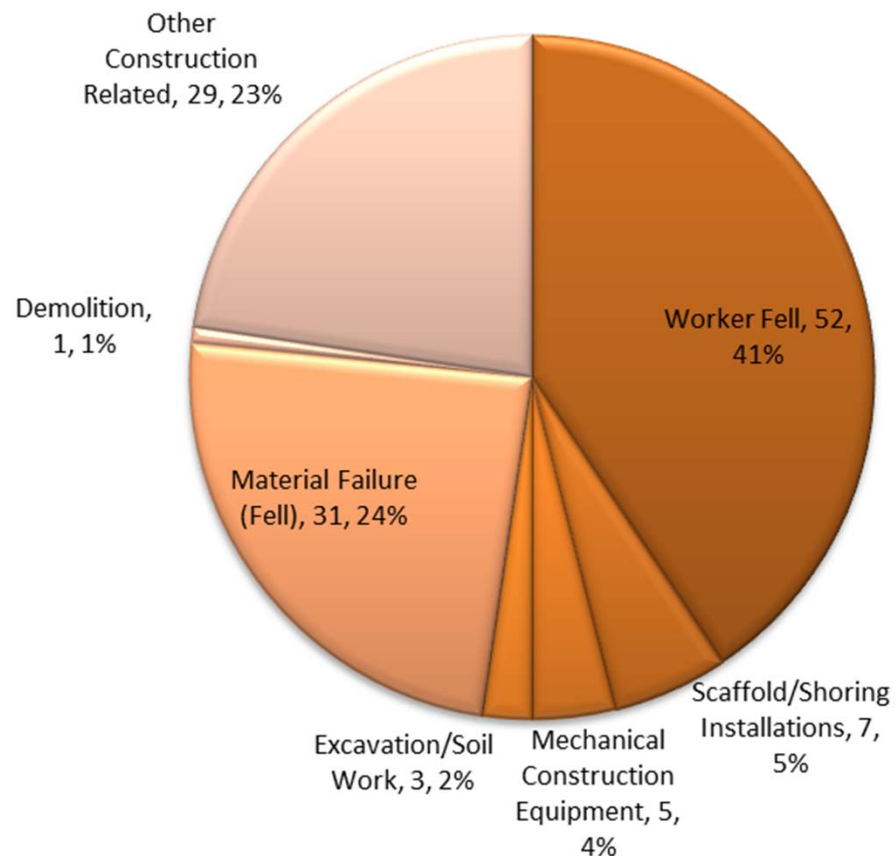
April 23, 2012 – Times Square Marriott Marquis

Construction Related **Accidents**



2011 Accidents **by Cause**

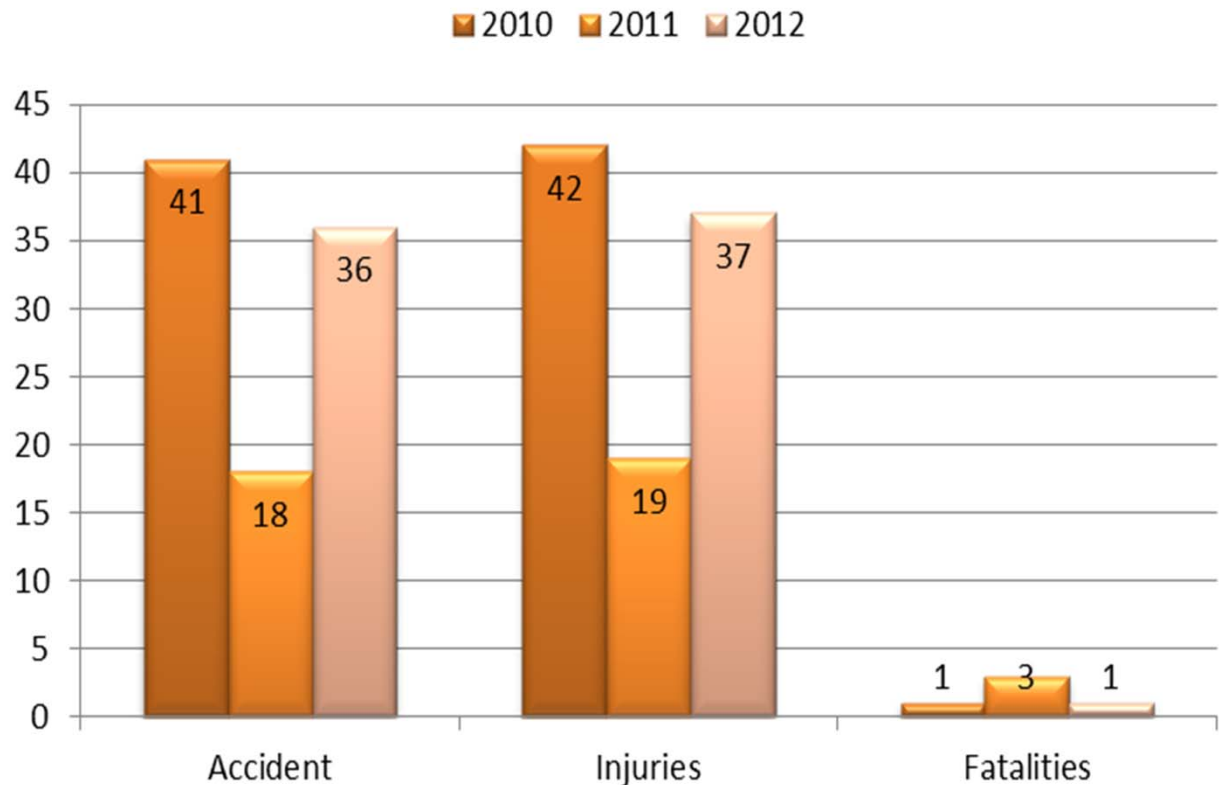
Worker Fell and Material Fell represented **65%** of all construction related accidents in **2011**, compared to **59%** of accidents during the same period in 2010



CYTD Construction Related Accidents

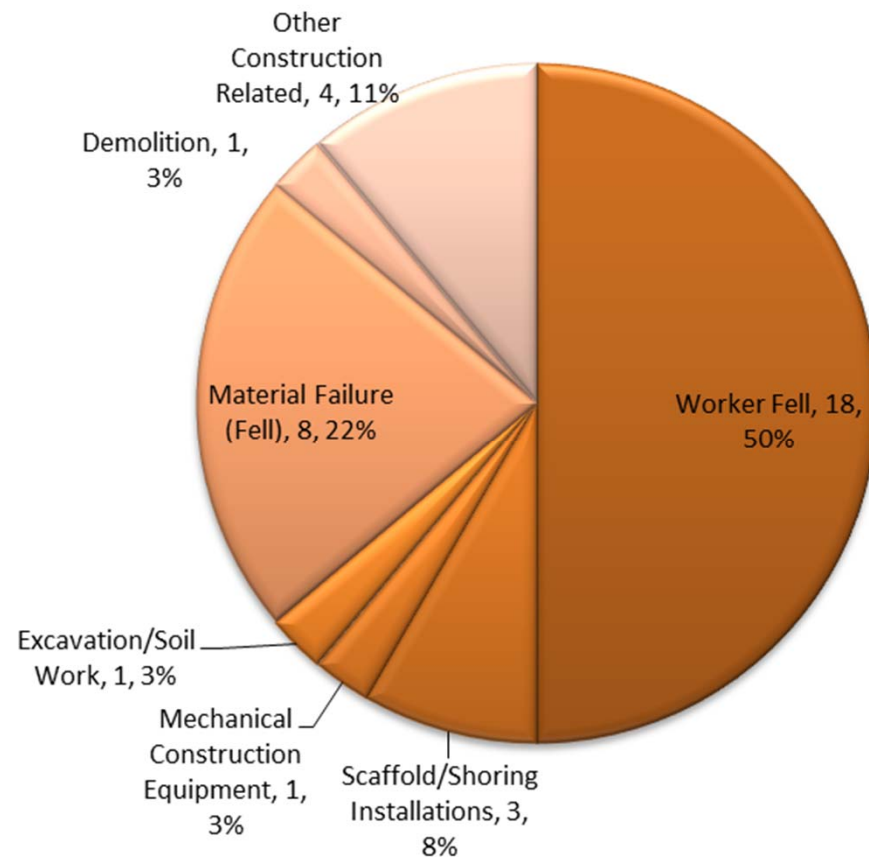
First quarter 2012 vs.
first quarter 2011:

- Permits issued up **25%**
- Active Site Safety Jobs up **43%**
- Very mild weather



CYTD 2012 Accidents by Cause

Worker Fell and Material Fell represent nearly **72%** of all construction related accidents through **March 2012**, compared to **66%** of accidents during the same period in 2011

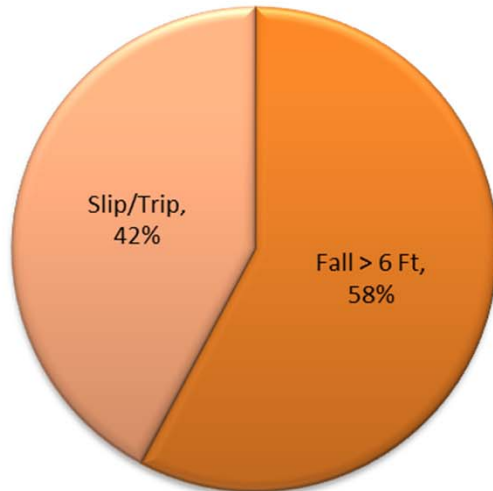


CYTD Accident Challenges

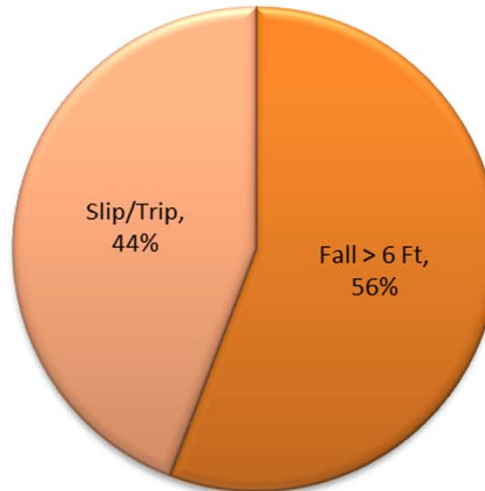


Falls Over 6 Feet Accident Trends

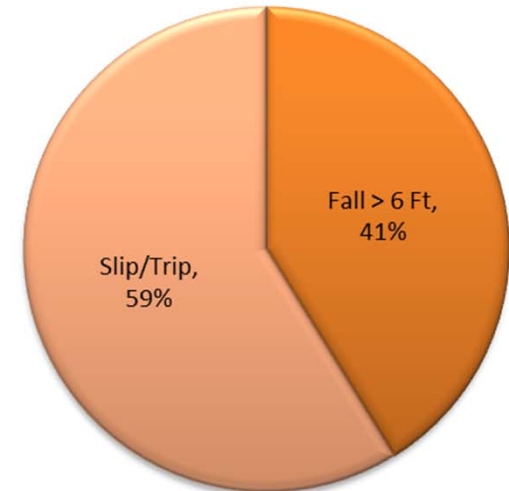
CY 2010



CY 2011



CYTD 2012



Worker Fell – Contributing Factors

Worker Error:

- Not wearing fall protection
- Improperly wearing fall protection
- Distracted

Contractor Error:

- Lack of or inadequate temporary protection
- Improper or no pre-task planning
- Inadequate or improper tools for the task
- Shortcuts / unsafe work practices
- Inadequate supervision

Material Failure:

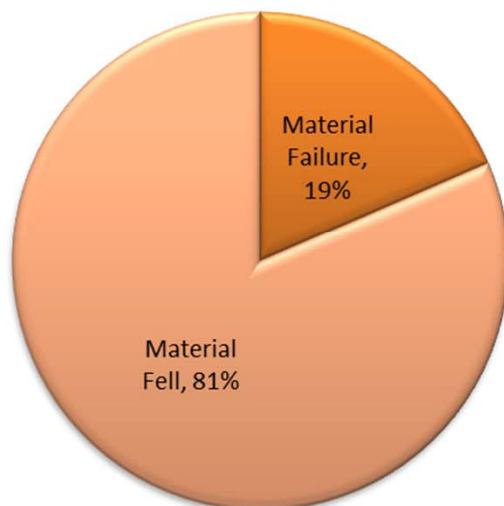
- Lack of or inadequate maintenance
- Inadequate or no checklist inspections

Safety Campaigns

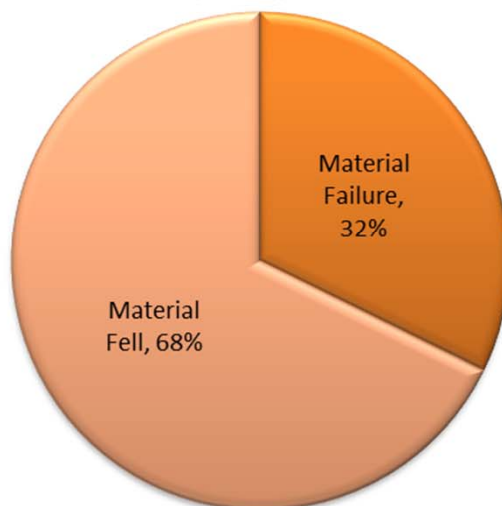
- **2008** “If You Fall, They Fall, Too,” Safety Harness Campaign
 - **>1,500** posters, **350** banners and **20,000** pamphlets in **7** languages were distributed across the City
- **2011** “Experience is Not Enough”
 - More than **15,000** ‘Experience is not Enough’ bracelets, banners and posters to remind workers that safety equipment saves lives
- Industry initiatives: Cocoon systems

Material Failure vs. Material Fell Accident Trends

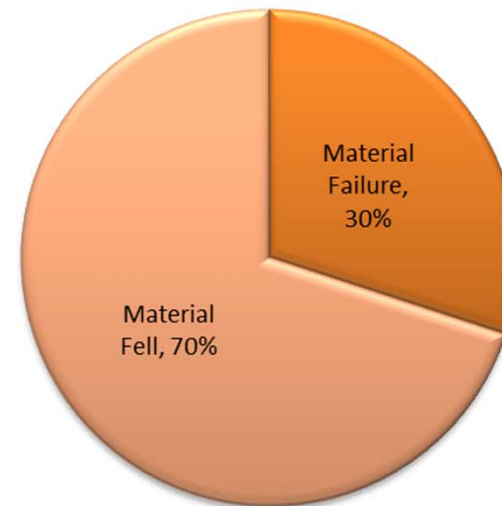
CY 2010



CY 2011

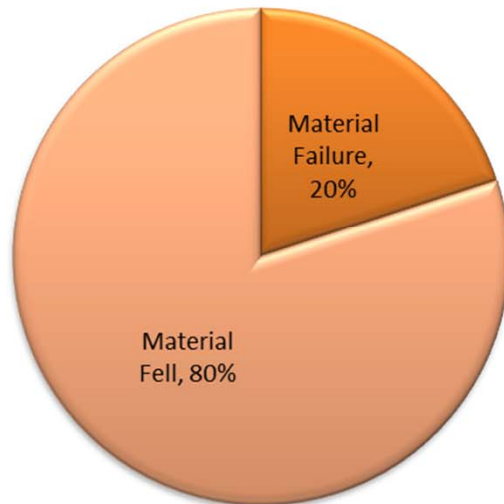


CYTD 2012

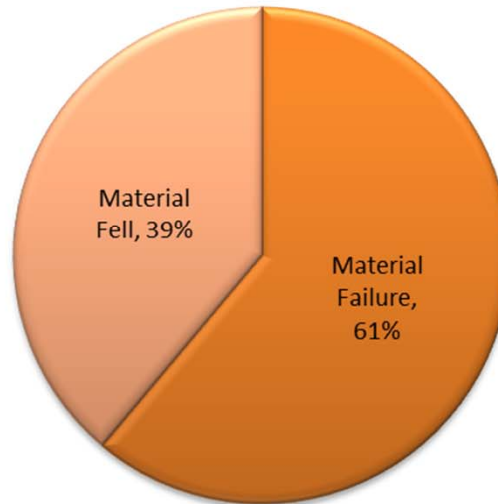


Material Failure vs. **Material Fell Injury Trends**

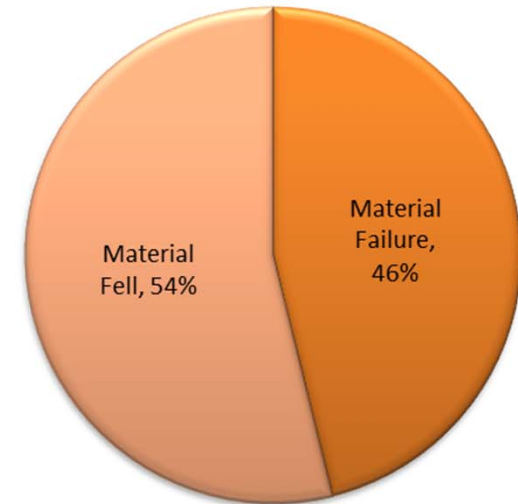
CY 2010



CY 2011



CYTD 2012



Material Failure/Fell – Contributing Factors

Worker Error:

- Distracted from task
- Carelessness
- Taking shortcuts

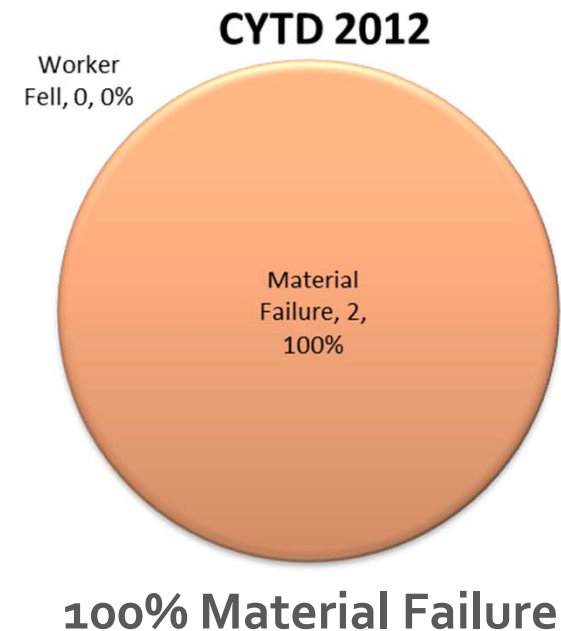
Contractor Error:

- Poor housekeeping
- Lack of or inadequate temporary protection
- Inadequate supervision
- Shortcuts / unsafe work practices

Material Failure:

- Improper or lack of planning
- Overloading
- Design Related
- Special Inspection Related

Construction Related Fatalities



Material Failure Accidents – Construction Types

- **Masonry Construction**
- **Concrete Operations**
- **Gut Renovation and Demolition**

Material Failure Fatality: Gut Renovation/Demolition

Manhattan, March 22, 2012





Material Failure Fatality: Gut Renovation/Demolition

Brooklyn, April 3, 2012

2012 Build Safe | Live Safe Conference

Questions?