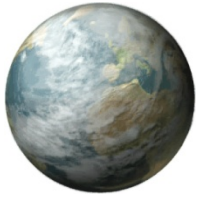




# **UH Industrial Engineering**

**Department of Industrial Engineering  
February 2016**



# Employment for IEs

- Manufacturing
- Oil and gas
- Consulting
- Retail industry
- Banks
- Hospitals
- Restaurant chains
- Hotel chains
- Airlines and airports
- Government agencies
- Utility companies
- Worldwide distribution and delivery companies



invent



HALLIBURTON

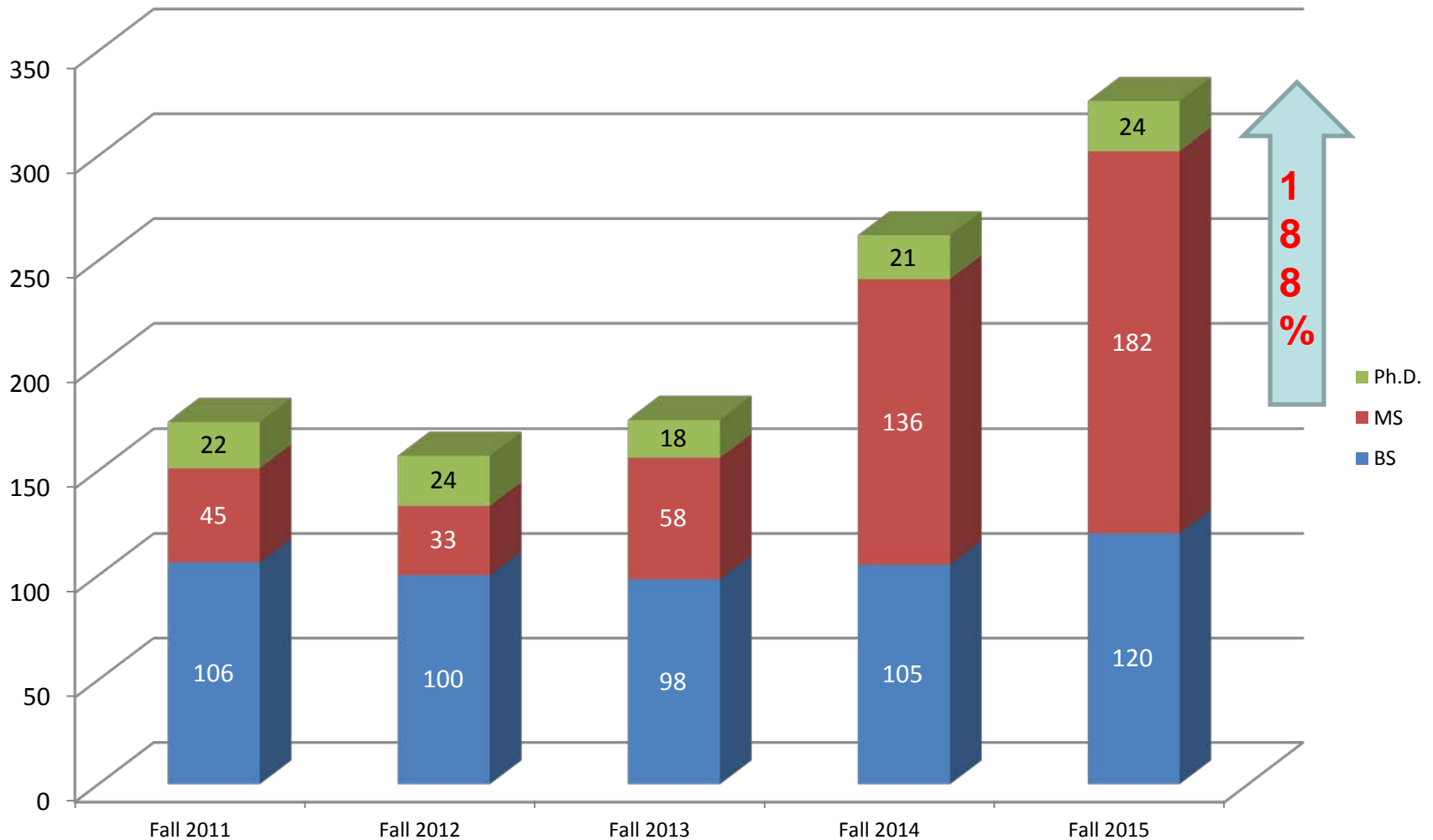


WELLS FARGO





# Unprecedented Student Enrollment Growth 2011 - 2015

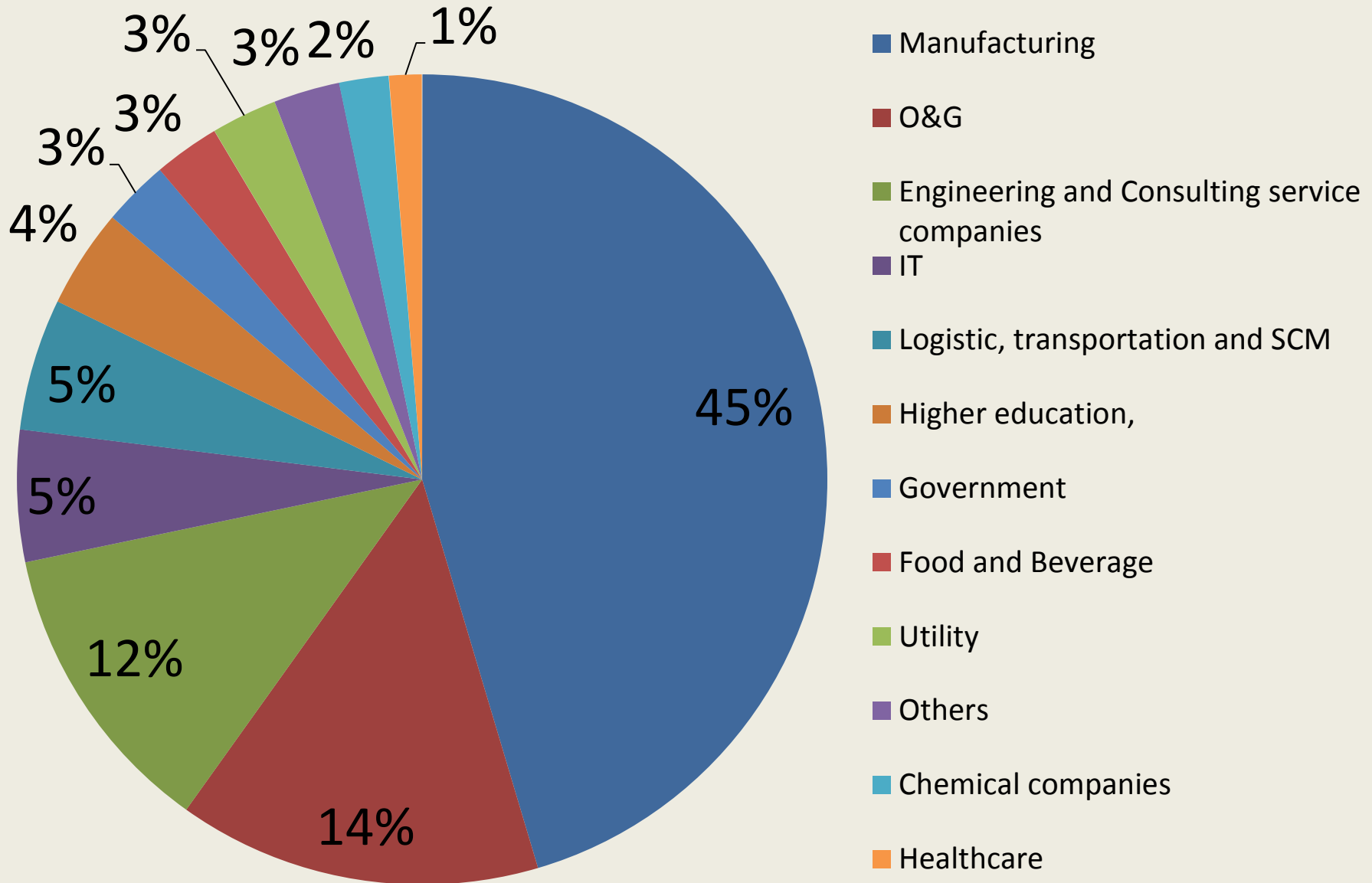




# IE Degree Programs

- Enrollment at 120 undergraduate (**37%**) and **206** graduate (63%) students
- Female students make up over 39% of the IE undergraduate student population
- Participate in growth of Honors Curriculum
  - INDE 2333 (Fall), INDE 3333 (Spring)
- The IE graduate programs enrolled at around **206**
  - Masters in IE (21% female)
  - Ph.D. in IE (44.5% female)
- MIE with concentration in Public Safety Management (commenced in fall 2012)
- **MIE/MBA**
- Masters in Engineering Management

# IE Students Job Placement





*For Houston's Homeless Since 1907*



- ❖ **Star of Hope was founded in 1907 and it is a non-profit organization that helps the homeless.**
- ❖ **They are funded through public and private donations and assisted by more than 7,000 volunteers.**
- ❖ **Star of Hope has a donation center located near downtown where people can donate items.**

## Applied **Six Sigma DMAIC**

To improve the donation center floor layout



**DEFINE**

Define the problem.



**MEASURE**

Map out the current process.



**ANALYZE**

Identify the cause of the problem.



**IMPROVE**

Implement and verify the solution.



**CONTROL**

Maintain the solution.



# IE Sponsored Workshops and Certificate Programs

- Lean Principal (multiple times)
- Six Sigma Greenbelt (multiple times)
- Lean Six Sigma (multiple times)
- Lean Supply Chain Management
- MTM-USA
- RFID Technology and Application Developments
- Value Stream Mapping (VSM)



**Motivation:** to help IE Coogs in their job search.

- A three day on weekends
- Free to all student attendees
- Audience: IE students and Alumni
- Most recent workshop “Six Sigma Greenbelt” was held in April 2014 with 74 attendees

# IE Sponsored Capstone Design Projects (2014)

## **Project 1:**

*Sponsor:* M.D. Anderson Cancer Center

*Title:* SCD Controllers Distribution and Inventory Analysis

## **Project 2:**

*Sponsor:* Cook Compression of Dover Corporation – Sugar Land Plant

*Title:* Analysis and Implementation of Standardized Inventory Process Using Lean Six Sigma Concepts

## **Project 3:**

*Sponsor:* Leading Edge Turbine Technology Services.

*Title:* Improving Quoting Process to Enhance Interdepartmental Communication and Project Plans

## **Project 4:**

*Sponsor:* Industrial Engineering Department (Dr. Chen)

*Title:* Data Mining of Hospital Emergency Department (ED) Patients Using Artificial Neural Network

## **Project 5:**

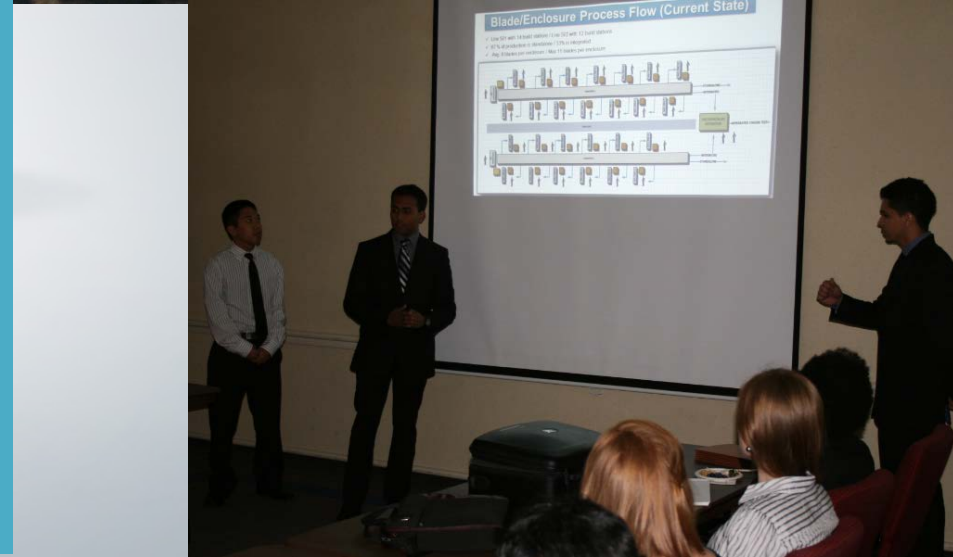
*Sponsor:* FMC Technologies

*Title:* Consignment Spaces Process Improvement

## **Project 6:**

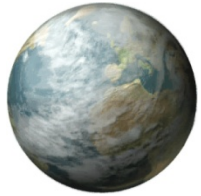
*Sponsor:* Cook Compression of Dover Corporation – Pearland Plant

*Title:* Product Quantity Process Routing Analysis and Lean Improvement



December 5, 2014

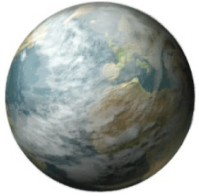




# Development Activities

- **Currently the department sponsors several awards and recognitions**
  - **Texas IE Lifetime Achievement Award**
  - **Academy of Industrial Engineering Alumni Award**
  - **Legacy Award**
  - **Chair's Leadership Award**





# Our Alums are doing GREAT!



**Dr. Durga Agrawal (Ph.D. in IE) appointed as a member of the University of Houston System Board of Regents**



**Dr. Daryl Santos (MSIE '90, PH.D. IE '93) was named a Vice Provost for Diversity and Inclusiveness and Professor of Systems Science and Industrial Engineering The State University of New York – Binghamton**



**Dr. Nancy Currie  
(Ph.D, UHIE)  
Astronaut, NASA**

**Mr. L. Xavier  
Cano (BSIE '04  
(UH), MBA '08(UT))  
recently published a  
book about resume  
writing**

