



# Academic Personnel Department Chair Fall Forum

The Role of the Chair in ensuring  
Environmental Health & Safety

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# Environmental Health & Safety Obligations of Chairs

## *Sources of Obligations*

### *Care for self & others*

- US Constitution
- Legal Rulings
- International Agreements
- Federal & State Laws & Regulations
- UC Policy & Contracts
  - UCR Policy & Procedures
    - College policies & practices
    - Department polices & practices

## *Types of Obligations:*

- Occupational Safety
  - Employer (Regents)
  - Supervisors
  - Employees
- Environmental Protection
  - Air, Water, Land
- Radiation Use
- Public Safety & Health
- Grant HSE Compliance



# **EH&S Supports Academia *through***

- ▶ Industrial Hygiene & Safety Engineering
- ▶ Fire & Life Safety
- ▶ Laboratory / Research Safety
  - ▶ Biosafety
  - ▶ Laser Safety
  - ▶ Radiation Safety
  - ▶ Controlled Substances
  - ▶ Travel and Field Safety
  - ▶ Drone Safety
- ▶ Environmental Programs
  - ▶ Hazardous Materials
  - ▶ Waste Management
- ▶ Environmental Health
- ▶ Training & Communications

# Industrial Hygiene & Safety Engineering

- ▶ Protects worker health and safety
  - ▶ Implementation of the Injury and Illness Prevention Program
  - ▶ Oversight of
    - ▶ Ventilation & fume hoods,
    - ▶ Hearing conservation & noise reduction
    - ▶ Heat stress prevention,
    - ▶ Indoor air quality & mold remediation,
    - ▶ Personal protective equipment
    - ▶ Exposure monitoring, etc.
  - ▶ Electrical Safety
    - ▶ Lock-Out/Block-Out
    - ▶ Arc Flash Hazard Awareness
  - ▶ Confined Space Entry
    - ▶ Atmospheric Testing
    - ▶ Ventilation
    - ▶ Rescue Planning
  - ▶ Fall Protection
    - ▶ Fixed & Mobile
  - ▶ Accident Investigation & Prevention
- ✓ Industrial Hygiene & Safety Manager, Safety Engineer
- ✓ CCR Title 8, NIOSH, ACGIH



# Fire & Life Safety

- Management of fire prevention, fire inspections, and fire protection engineering
  - Engages with Construction and Remolding Projects
- Prevents loss of life and property from fire related incidents.
  - Oversight on testing, inspection & maintenance of detection and suppression systems
  - Review of fire cause and origin, prevents reoccurrence
  - Reports to State Fire Marshal
- ✓ Designated Campus Fire Marshal, two Fire Safety Inspectors
- ✓ California Code of Regulations Title 19 & Title 24, Memorandum of Understanding with State Fire Marshal, Industry Standards



# Laboratory & Research Safety

- Provides safety guidelines for hazards found in the laboratory and research setting.
- Oversight of
  - Chemical hygiene plans,
  - Laboratory Manual,
  - Standard Operating Procedures,
  - Laboratory Audits, and
  - Laboratory Safety Officers program
- ✓ Research Safety Manager, Lead Safety and four Safety Mentors
- ✓ California Code of Regulations, Title 8 section 5191, 5194 and others



# Biosafety

- ▶ Prevents against infectious agents and biohazardous materials.
- ▶ Ensures compliance with
  - ▶ Bloodborne pathogens regulations
  - ▶ Biological Use Authorization
  - ▶ Exposure Control Plans, and
  - ▶ Biosafety Cabinets Use
- ✓ Biosafety Officer, Assistant Biosafety Officer, Director of High Containment Laboratories
- ✓ California Code of Regulations, Title 8, California Medical Waste Management Act, Bloodborne Pathogens Standard, CDC/NIH BMBL, USDA & CDC Select Agent Standard



# Laser Safety

- ▶ Facilitates safe use, design, and implementation of lasers
  - ▶ Oversight of Class 3B and Class 4 laser registration
  - ▶ Improves and maintains Laser Safety Manual
- ✓ Laser Safety Officer, Radiation Safety Specialist
- ✓ California Code of Regulations Title 8 section 3382, Industry Standards & Best Practices



VISIBLE AND/OR INVISIBLE  
LASER RADIATION

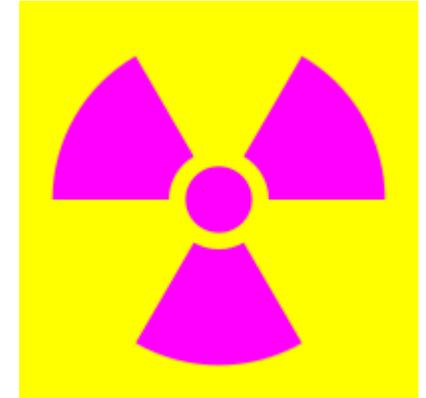
AVOID EYE OR SKIN EXPOSURE  
TO DIRECT OR SCATTERED RADIATION  
LASER PROTECTIVE EYEWEAR REQUIRED



Laser type  
Emitted wavelength  
Pulse duration (if appropriate)  
Max output

# Radiation Safety

- ▶ Ensures compliance with ionizing and non-ionizing radiation such that exposure is as low as reasonably achievable
  - Oversight of radioactive materials, the campus Broad Scope License, Radiation Safety Committee, Radiation Use Authorization, and the Radiation Safety Manual
- ✓ Radiation Safety Officer, Radiation Safety Specialist
- ✓ California Code of Regulations Title 17. California Radiological Health Branch processes and procedures, Nuclear Regulatory Commission regulations, UCR Broadscope License





# Controlled Substances (& California Precursors)



- ▶ Manages authorization of Federal Drug Enforcement Agency scheduled or listed controlled substances and California precursor chemicals for research use.
  - Oversight of Controlled Substance Use Authorization, ordering, storage requirements, use logs, and disposal
- ✓ Controlled Substances Program Administrator, EH&S Director
- ✓ UC Code of Federal Regulations, Title 21, Chapter 13, Subchapter I & II, US DOJ, DEA, Diversion Control Division practices & procedures, California Controlled Chemical Substance Program

# Travel and Field Safety

- Travel Insurance & Safety Guidance, Timely Alerts, Plan for a safe field excursion
- ✓ Research Safety Manager
- ✓ Best Practices, Risk Reduction, Travel Insurance Contracts



# Drone Safety



**UNMANNED AIRCRAFT SYSTEM  
SAFETY**

- UC Unmanned Aircraft Systems Safety, flight authorization, UAS registration
- ✓ Research Analyst
- ✓ Best Practices, Risk Reduction, FAA regulations, Californian law, UC Policy



# Environmental Programs

- ▶ Ensuring compliance with environmental regulations
  - ▶ Air Quality Management
  - ▶ UCR Integrated Pest Management,
  - ▶ Separate Sewer Stormwater Systems Management and
  - ▶ UCR Clean Water program
- ✓ Environmental Programs Manager & Specialist
- ✓ Clean Air Act, South Coast Air Quality Management District,  
Clean Water Act, Regional Water Quality Board



# Hazardous Materials

- ▶ Protects against chemicals that pose significant risk to people, property or the environment
  - ▶ Oversight of chemical inventory, placards, and Safety Data Sheets
  - ▶ Facilitates compliance with Hazardous Materials Business Plan Reporting
  - ▶ Supports Maximum Allowable Quantity Fire Code Limits
- ✓ Hazardous Materials Specialist, Chemical Inventory Specialist
- ✓ Department of Homeland Security Chemical Facility Antiterrorism Standard, Title 8 Hazardous Communications Standard, California Community Right to Know Act – Hazardous Materials Business Plan



# Waste Management

- ▶ Servicing of hazardous chemical, radioactive, and biohazardous waste
  - ▶ Oversight of hazardous waste using the Waste Management and Labeling Software (WASTE),
  - ▶ Specific Medical and Biohazardous waste disposal,
  - ▶ Radioactive waste disposal
- ✓ Hazardous Waste Specialist, two Hazardous Waste Technicians
- ✓ EPA, Resource Conservation & Recovery Act, California Department of Toxic Substances Control, CCR Title 22



# Environmental & Public Health

- ▶ Prevents human health and diseases caused by environmental factors.
  - ▶ Oversight of Food Permits,
  - ▶ Swimming pool and Spa compliance
  - ▶ Drinking water quality
- ✓ Registered Environmental Health Specialist
- ✓ California Retail Food Code, Pool & Spa regulations, Memorandum of Understanding with Riverside County Environmental Health



# Training & Communications

- ▶ Delivers classes, records, and resources for learning about health and safety responsibilities
- ▶ Oversight of schedule of classes, transcripts, online training courses, needs assessment, publications, and videos
- ✓ Training & Communications Manager
- ✓ National & California Laws & Regulations, UC Policy Training and best practice



# EH&S Related Services By Others

- ▶ Enterprise Risk Management
  - ▶ Emergency Management
- ▶ Parking & Transportation Service
  - ▶ Driving and Pedestrian Safety
- ▶ Human Resources
  - ▶ Ergonomics
  - ▶ Learning Management System Administration
- ▶ Not Yet Fully Covered
  - ▶ Occupational Health
  - ▶ Diving and Boat Safety
    - ▶ Evaluating need



# EHS Challenges





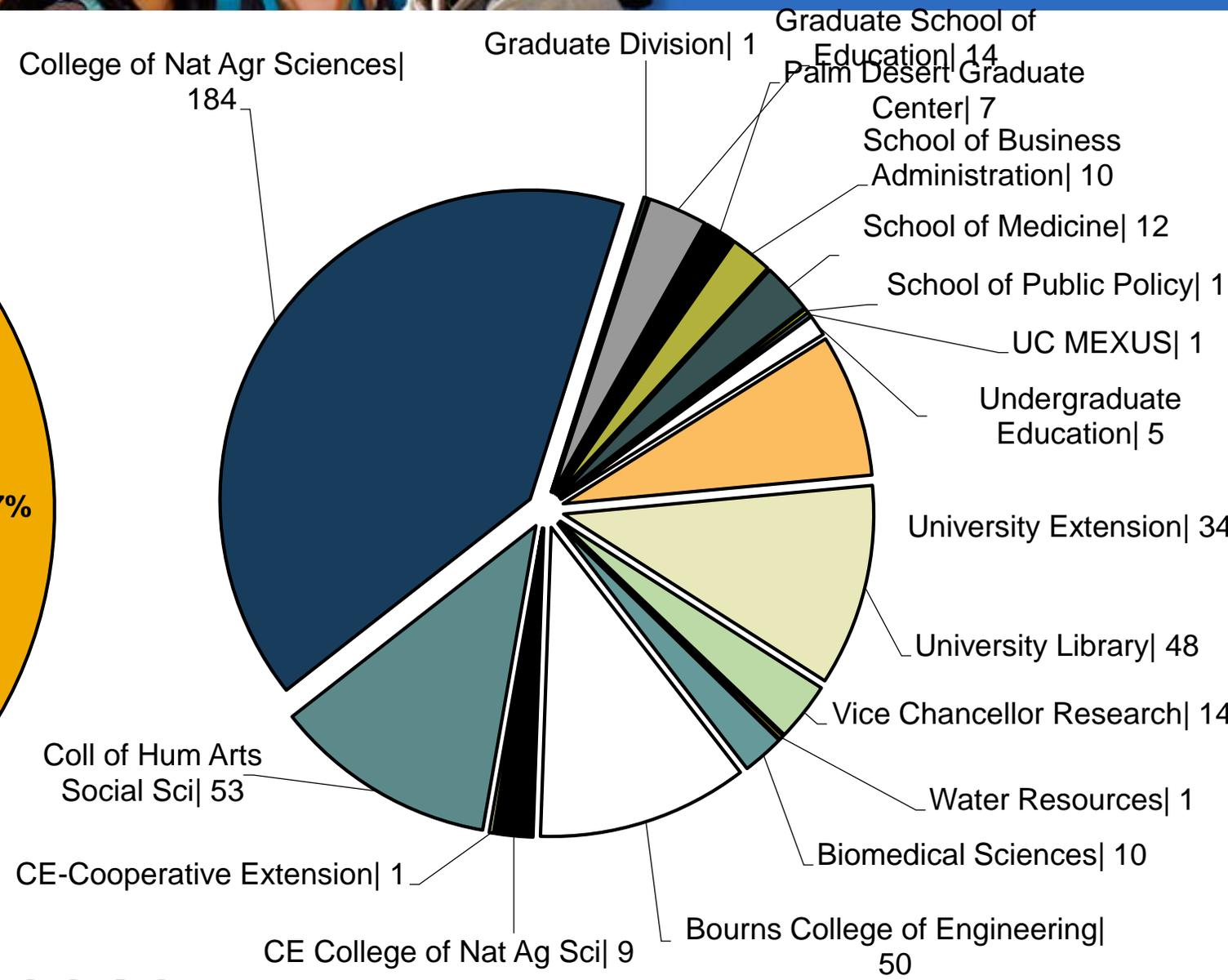
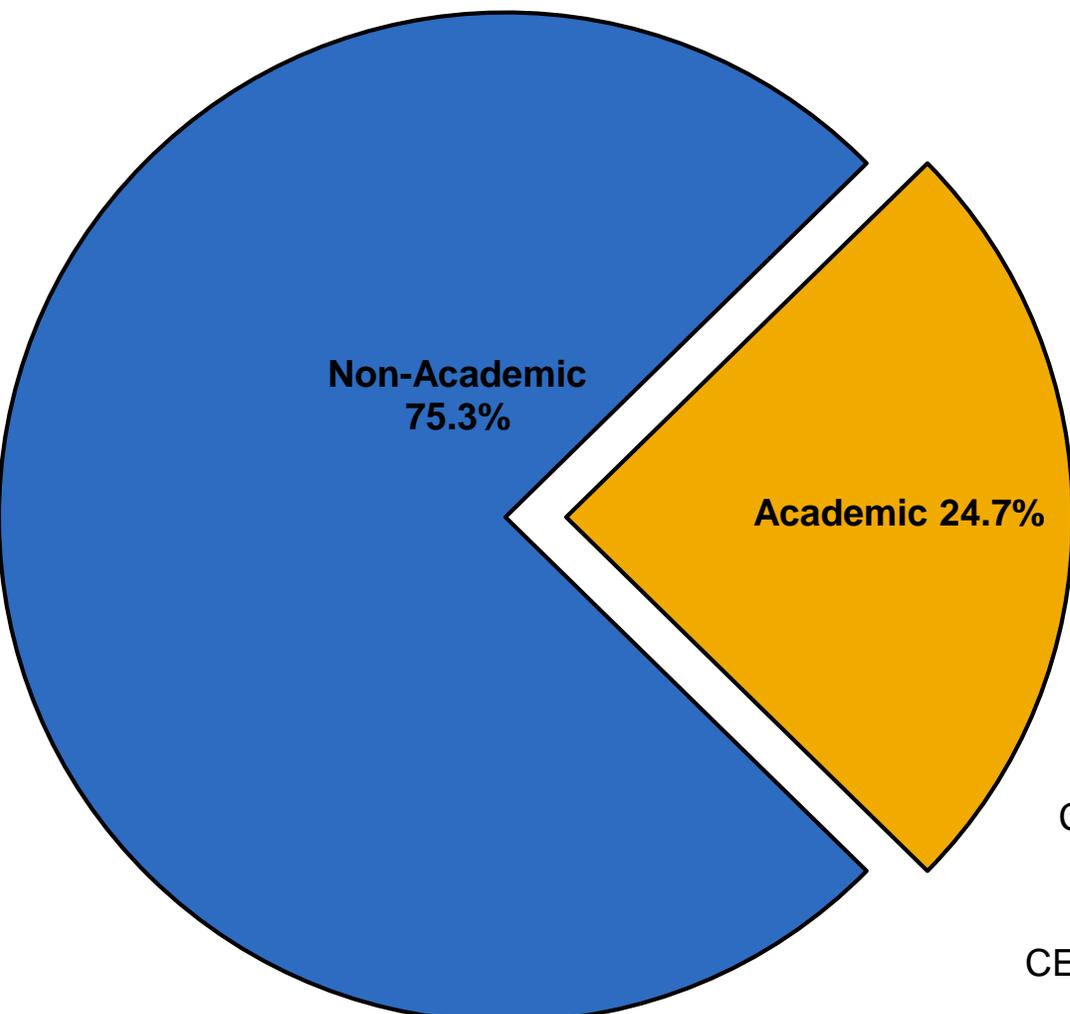
# Webber Hall Before & After Fire





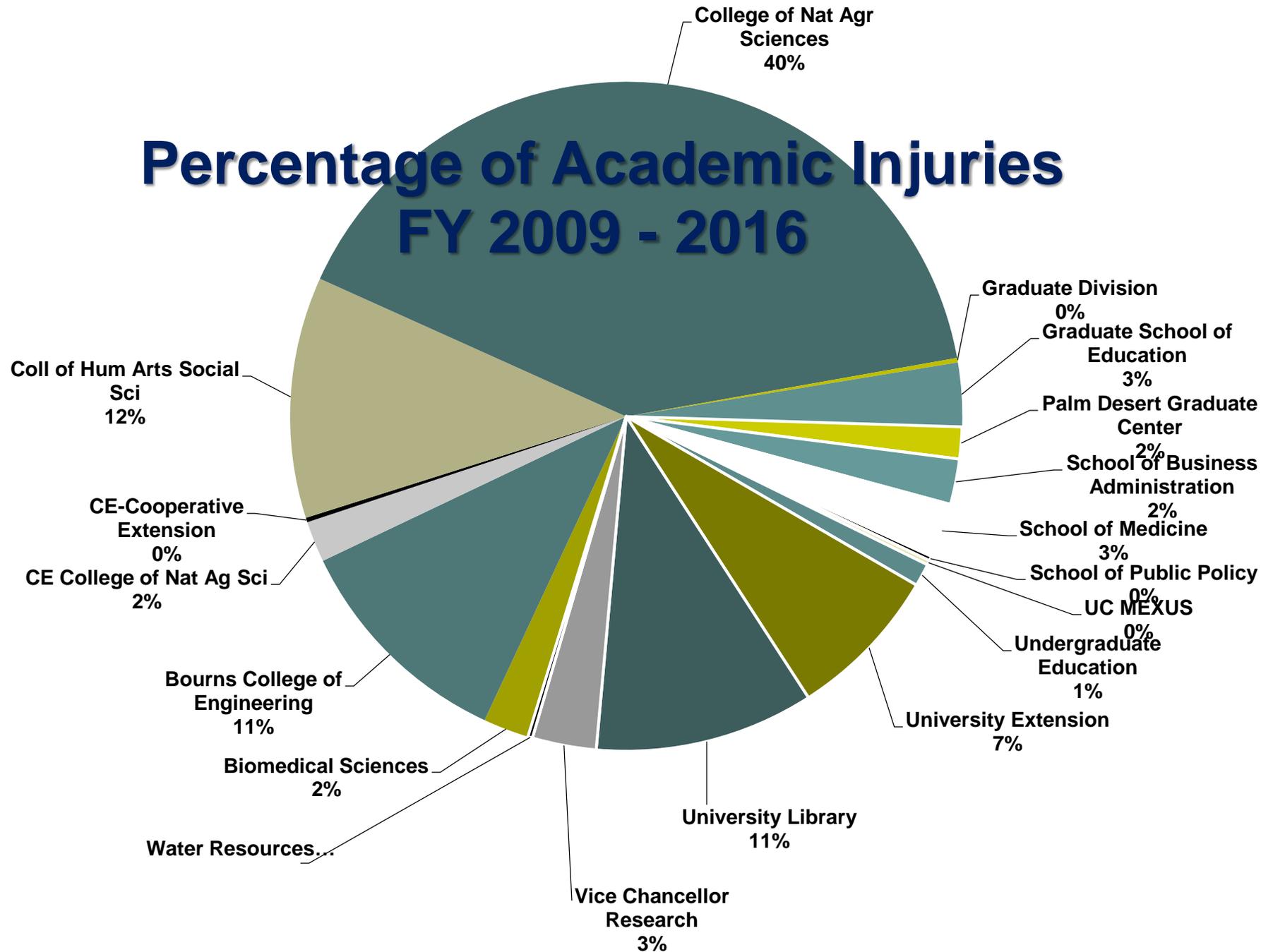
Injury Data

# MEASURING TO MANAGE



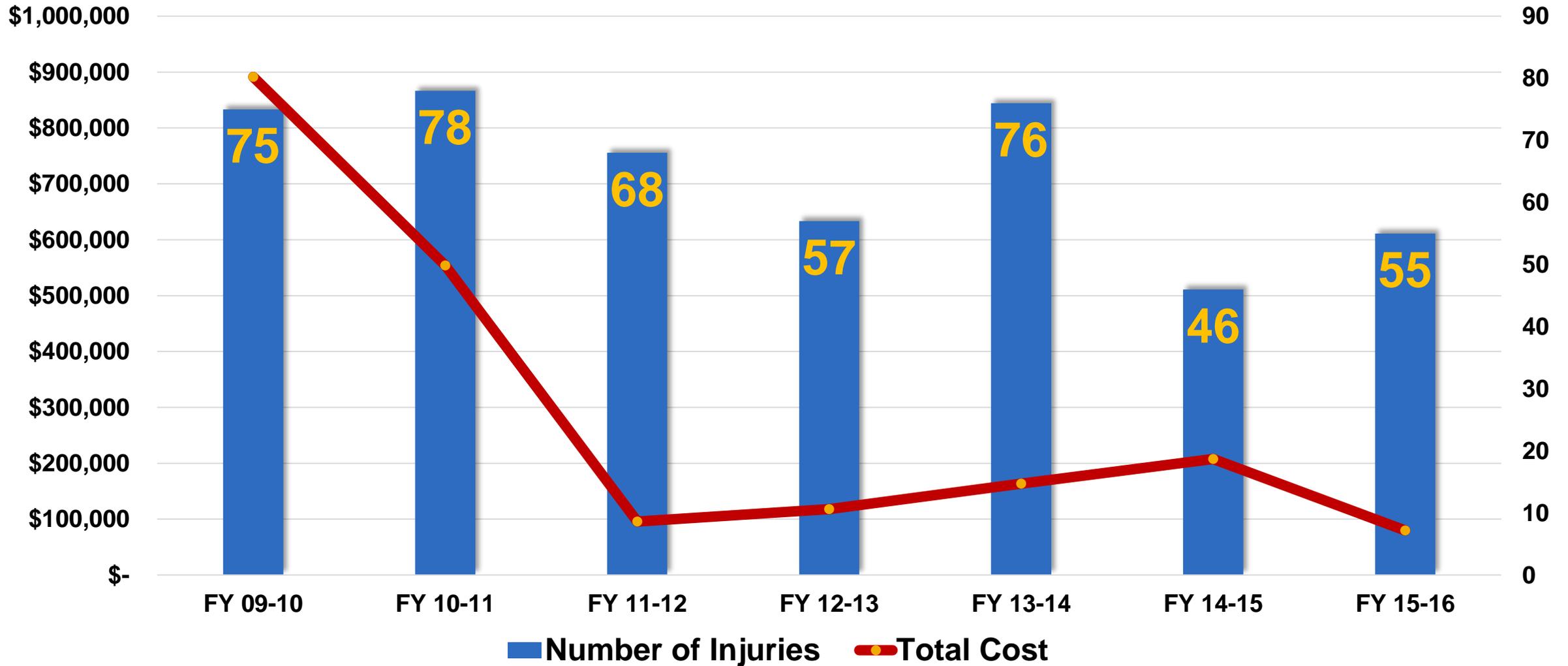
# UCR Injuries FY 2009-2016

# Percentage of Academic Injuries FY 2009 - 2016



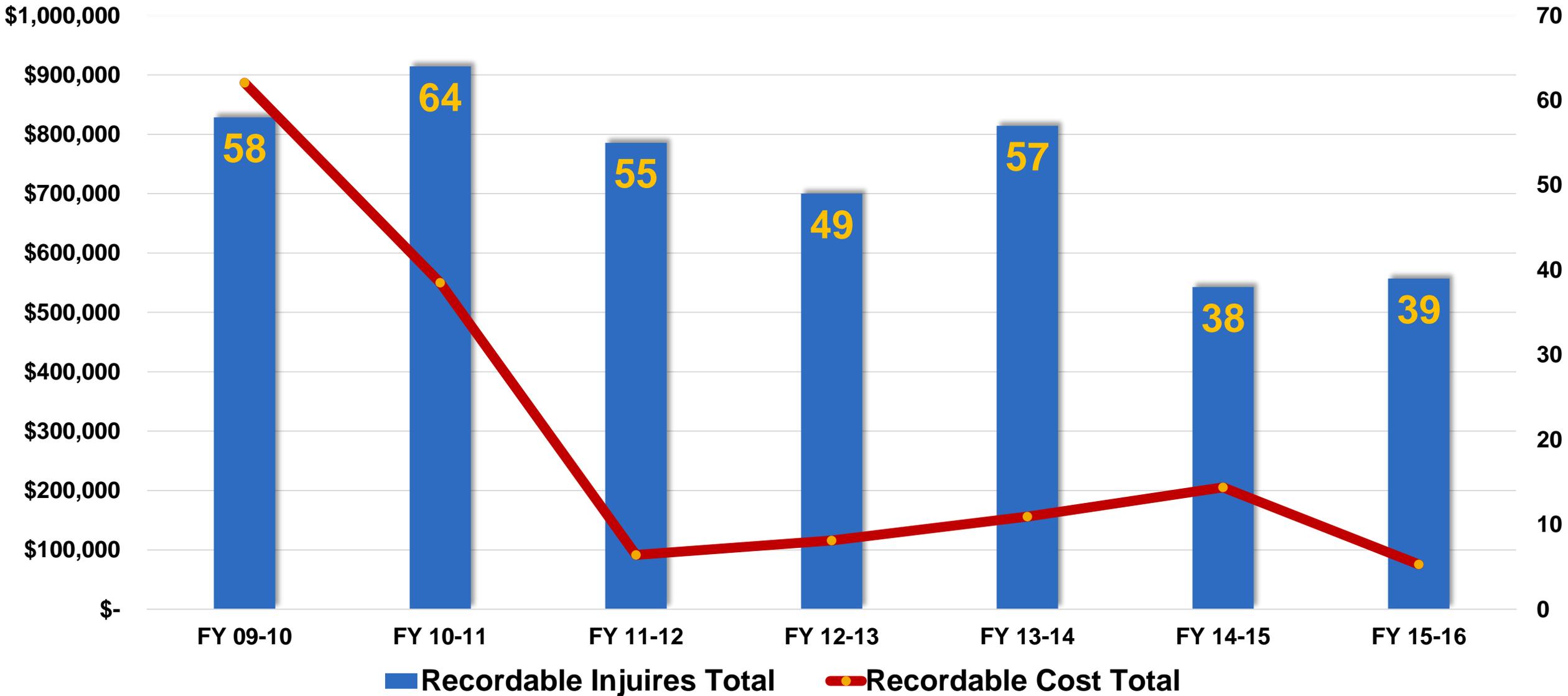


## Academic Cost vs **All** Injuries FY 2009 - 2016



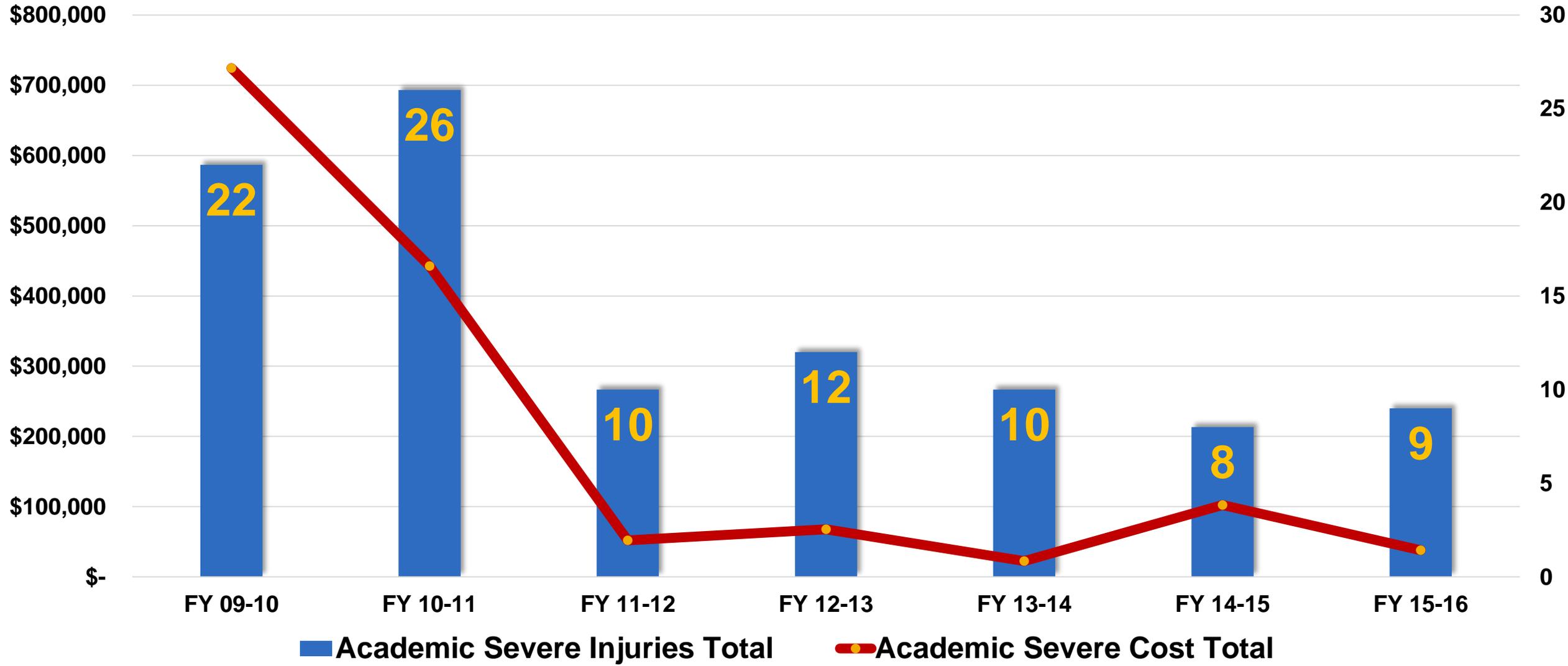


### Academic Recordable Cost vs Injuries FY 2009 - 2016





# Academic Severe Cost vs Injuries FY 2009 - 2016



# Improving Communication about Injuries & Loss

- › EH&S is partnering with Risk Management and Human Resources
- › Developing a real-time monthly review of injuries and claims with the organization in which the loss occurs
- › EH&S Safety Engineer investigates all reported employee injuries and develops guidance to prevent reoccurrences
- › Created a way to collect near-miss reports  
[www.ehs.ucr.edu/forms Near Miss Report](http://www.ehs.ucr.edu/forms_Near_Miss_Report)



# Questions, Suggestions

