

# National Academies Review of NIOSH research programs

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# Presentation Objectives

- Charge to framework committee
- Why is NIOSH sponsoring this review?
- Introduction of NIOSH presentations
- Overview of NIOSH research programs





# Review of NIOSH Research Programs

Conduct a series of studies to review  
NIOSH research activities with respect to:

- Impact of completed research in the workplace
- Relevance of completed research
- Significant emerging issues



# Methodology

- “To achieve consistency, an ad hoc framework committee will be established to develop the framework and methodology for the program reviews.”
- “Separately appointed panels will review the programs using this methodology.”





# Methodology

- “The project will begin with a pilot study to develop the framework and initiate the first two reviews” (mining and noise/hearing loss prevention).



# Methodology

- “. . . . The framework committee would have developed the framework and methodology for the reviews and have defined general guidance and a consistent set of rules for evaluating the program elements.”





# Quantitative Results

- “The committee will rate the performance of each program activity on a scale of 1 – 5 for the impact of the program in the workplace and for the success of the program in achieving its goals. For cases where the impact is difficult to measure, the committee may evaluate performance by using existing intermediate outcomes to estimate impact.”



# Why is NIOSH sponsoring this review?

Towards ever better public service





# NIOSH Presentations

- Today
  - ◆ Overview of NIOSH research programs (L. Wade)
  - ◆ Introduction to hearing loss prevention program (G. Lotz)
  - ◆ Foundation of NIOSH logic models (V. Greenfield)
- Tomorrow
  - ◆ Introduction to mining program (J. Kohler)



# Overview of NIOSH research programs



WORKPLACE SAFETY AND HEALTH





# U.S. Occupational Illness and Injuries

- Work-related fatalities per day
  - ◆ 16 from injuries (5524 in 2002)
  - ◆ 137 from diseases
- 4.4 million non-fatal illnesses and injuries (2003)
- \$49.6 Billion -- Direct costs for occupational injuries (2002)\*



\*Liberty Mutual Safety Index, 2004

# OSH Act of 1970

- PL 91-596 (1970)  
Created OSHA and NIOSH
- To assure safe and healthful working conditions for working men and women.





# Occupational Safety and Health

Regulation/Enforcement

Research, Training, and  
Prevention Recommendations

Department of Labor  
(DOL)

Department of  
Health and Human Services  
(HHS)

Mine Safety  
and Health  
Administration  
(MSHA)

Occupational  
Safety and Health  
Administration  
(OSHA)

Centers for Disease  
Control and Prevention  
(CDC)

National Institute for  
Occupational Safety  
and Health (NIOSH)



# NIOSH Vision

- Delivering on the nation's promise—safety and health at work for all people through research and prevention.





# NIOSH Values

- Relevance
- Diversity
- Quality
- Partnership
- Access
- Performance
- Accountability



# NIOSH Values

- **Relevance**—Our programs are responsive to the occupational safety and health problems found in today's workplaces and the workplaces of tomorrow.
- **Diversity**—Our employees reflect the full spectrum of diversity found in the American workforce and our research and interventions reflect the diversity of solutions needed for the American workplace.
- **Quality**—We utilize only the best science, the highest level of data quality, and the most transparent and independent peer review.





# NIOSH Values

- **Partnership**—We accomplish our mission in partnership with industry, workers, governments and scientific and professional communities, both nationally and internationally.
- **Access**—Our customers can obtain all NIOSH products and services through expanded traditional and electronic access.
- **Performance**—Our programs are results-oriented.
- **Accountability**—Our programs are evaluated by how well they solve the occupational safety and health problems found in today's workplaces and the workplaces of tomorrow.



# NIOSH Values

- Relevance
- Diversity
- Quality
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# NIOSH Strategic Goals

- **Conduct research to reduce work-related illnesses and injuries.**
- **Promote safe and healthy workplaces through interventions, recommendations and capacity building.**
- **Enhance global workplace safety and health through international collaborations**



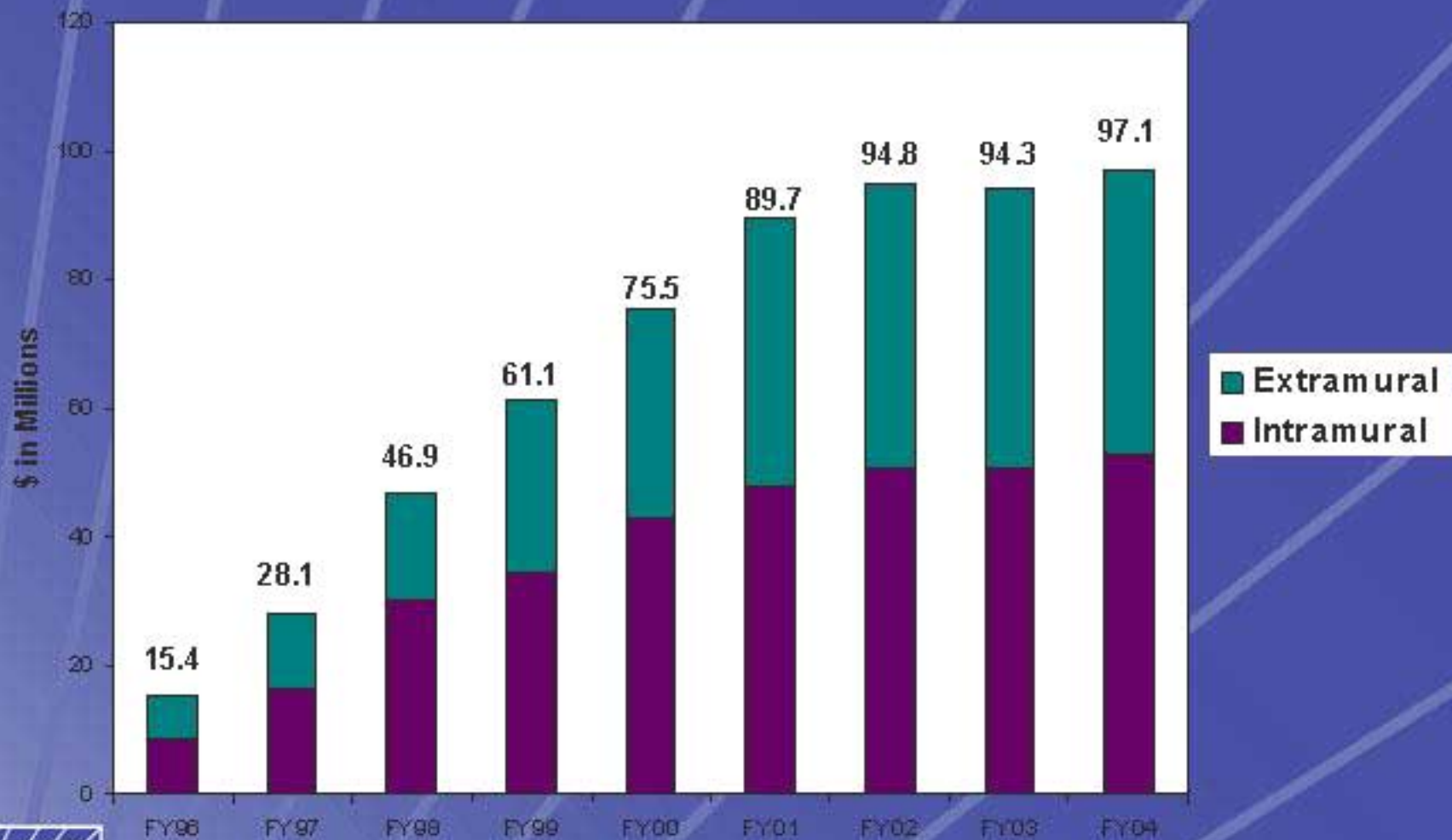
# National Occupational Research Agenda (1996)

- A national partnership effort
- 500 organizations and individuals outside NIOSH
- 21 research priorities to guide OSH research in the nation for the next decade





# NIOSH NORA (1996) Research Funding



# National Occupational Research Agenda (1996)

## Ongoing Effectiveness Evaluation

- Pre-award competitive external scientific review
- Mid-course external review of program impact
- Annual internal assessment of progress and success
- NORA at nine review





# National Occupational Research Agenda (2006)

- Develop sector specific research agendas to bring research to practice in the workplace
- Accept stakeholder input ([www.cdc.gov/niosh/nora](http://www.cdc.gov/niosh/nora))
- Kick-off at the 2006 NORA Symposium on April 17-20, 2006



# National Occupational Research Agenda (2006)

- Research Councils:
  - ◆ Agriculture, forestry, and fishing
  - ◆ Construction
  - ◆ Health care and social assistance
  - ◆ Manufacturing
  - ◆ Mining
  - ◆ Services
  - ◆ Transportation, warehousing, and utilities
  - ◆ Wholesale and retail trade
  - ◆ Cross-sector issues





# Performance Measurement

- GPRA: Government Performance and Results Act of 1993, PL 103-62
  - ◆ Strategic and performance plans
  - ◆ Performance reports
- PART: Program Assessment Rating Tool, President's Management Council, 2002
  - ◆ Systematic method of assessing performance of program activities



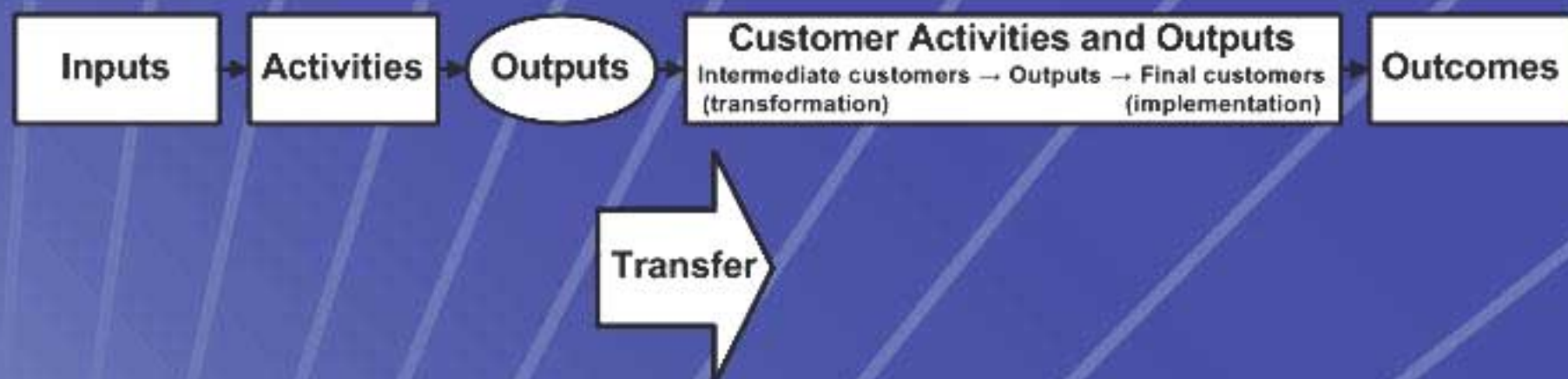
**Mission: To Provide National and World Leadership to Prevent Work-Related Illness and Injuries**



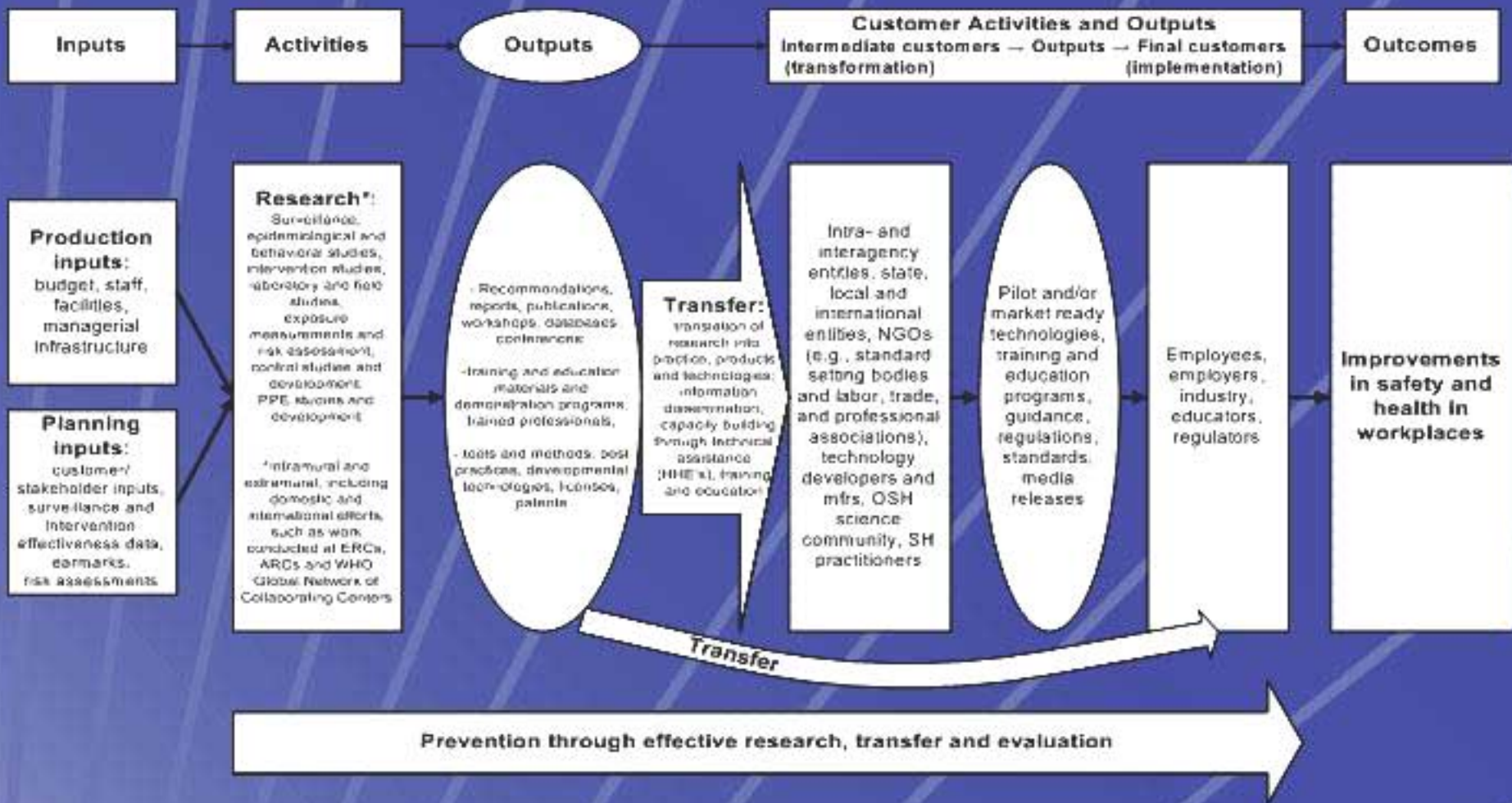
**External Factors:**  
Economic and social conditions and regulatory environment







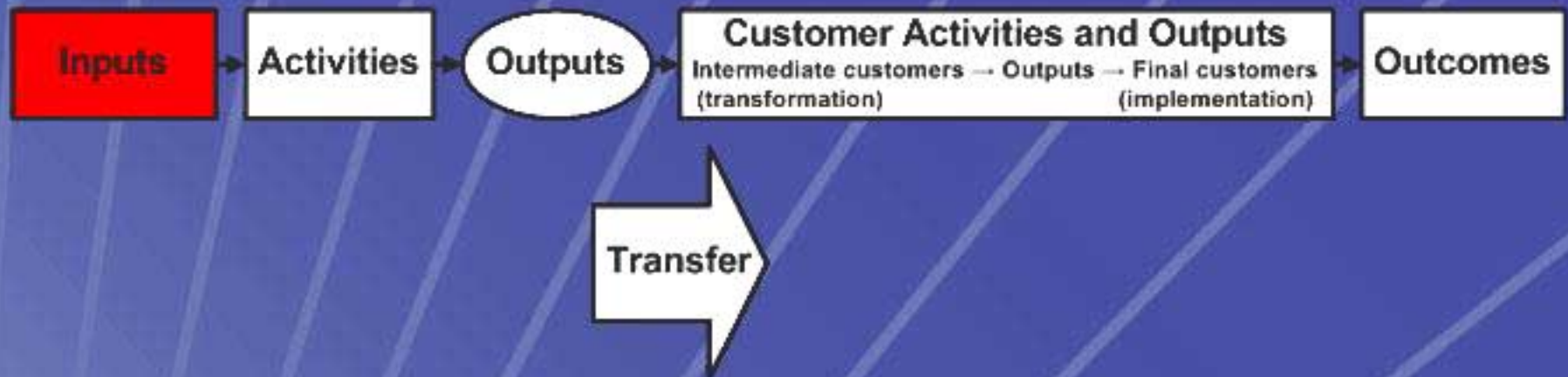
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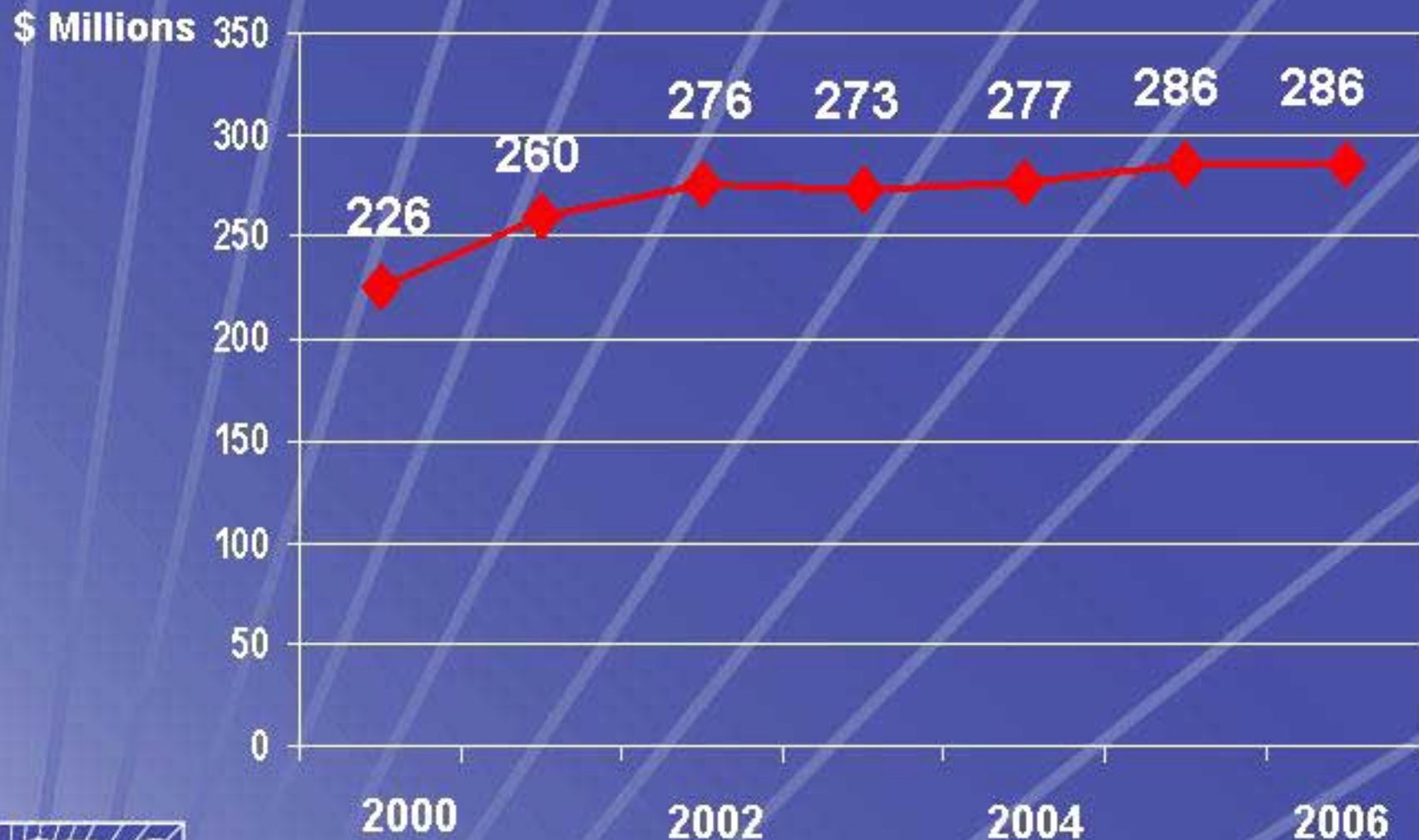
**External Factors:**  
Economic and social conditions and regulatory environment







# NIOSH Budget: 2000 – 2006 (proposed)





# NIOSH Locations and Staff

1291 FTEs in:



Cincinnati

Morgantown

Pittsburgh

Spokane

Atlanta

Washington

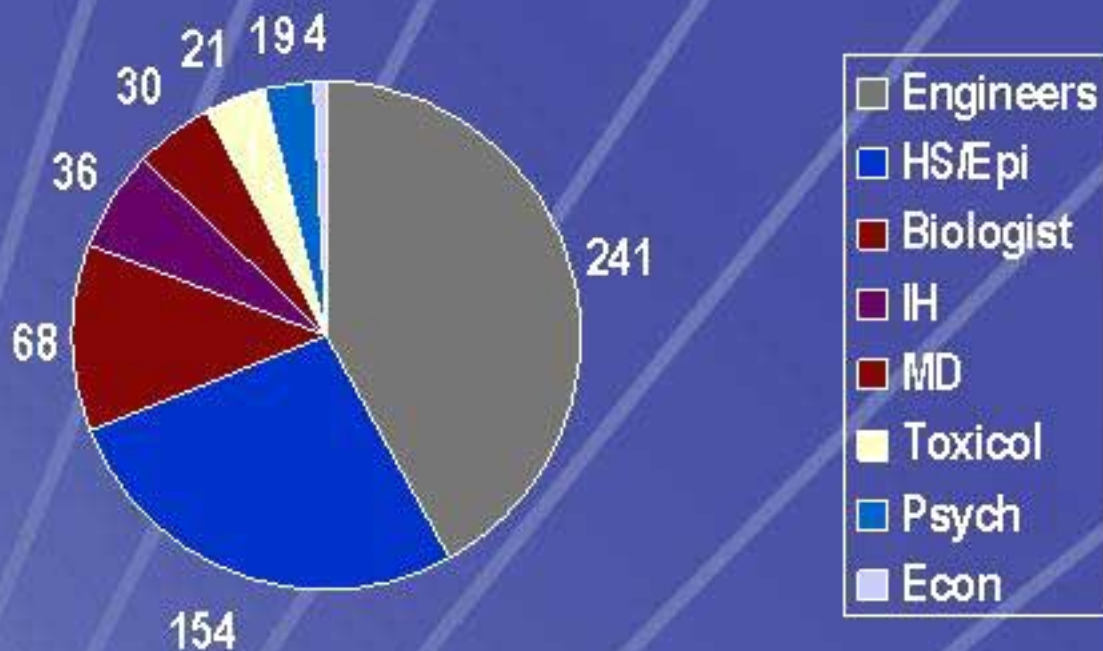
Anchorage

Supervisory ratio: 13:1



# NIOSH Staff Census by Occupation

(Selected Research Categories)





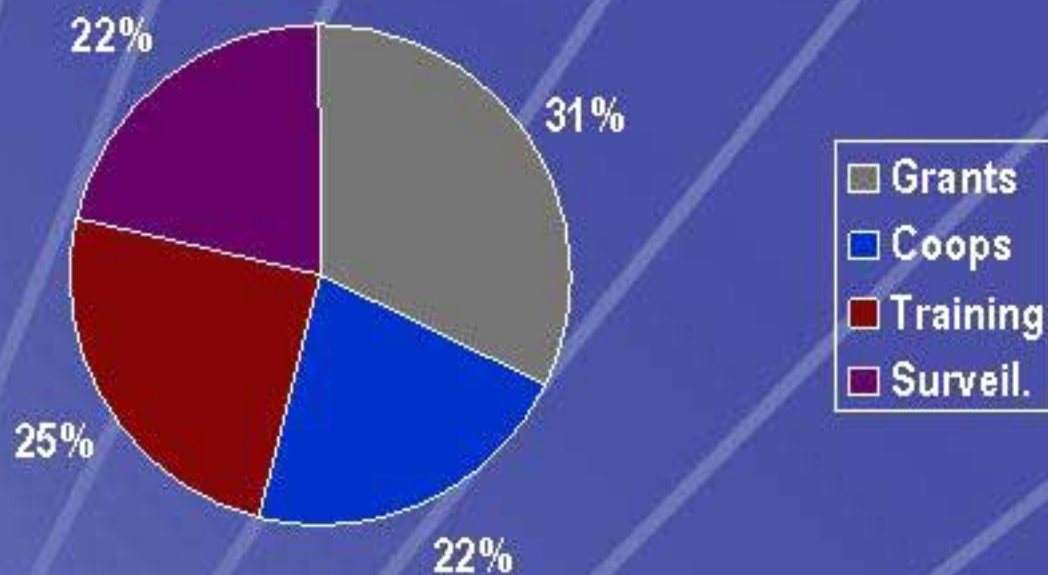
# Divisions, Labs, and Offices

- Division of Respiratory Disease Studies
- Division of Safety Research
- Health Effects Laboratory Division
- Spokane Research Laboratory
- Pittsburgh Research Laboratory
- National Personal Protective Technology Laboratory
- Education and Information Division
- Division of Applied Research and Technology
- Division of Surveillance Hazard Evaluation and Field Studies
- Office of Compensation Analysis and Support



# Extramural Programs

Total: ~\$100M





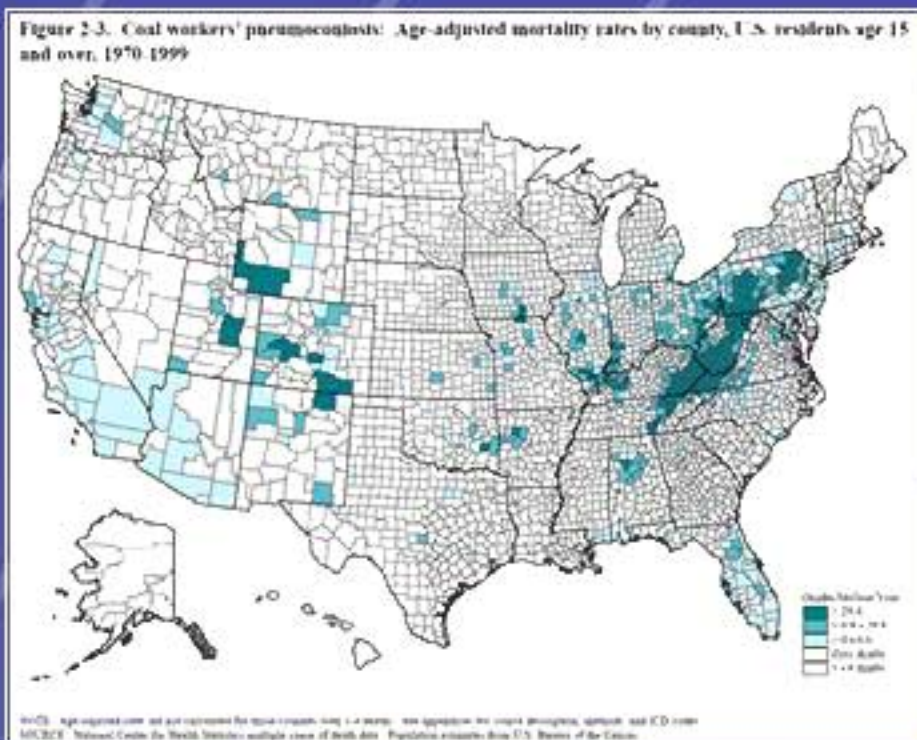
# Surveillance

- systematic, ongoing **collection and/or acquisition** of information for occupational diseases, injuries, and hazards
- **analysis and interpretation** of surveillance data
- **dissemination** of data or information derived from surveillance to appropriate audiences for prevention and control
- **development** of surveillance methodology

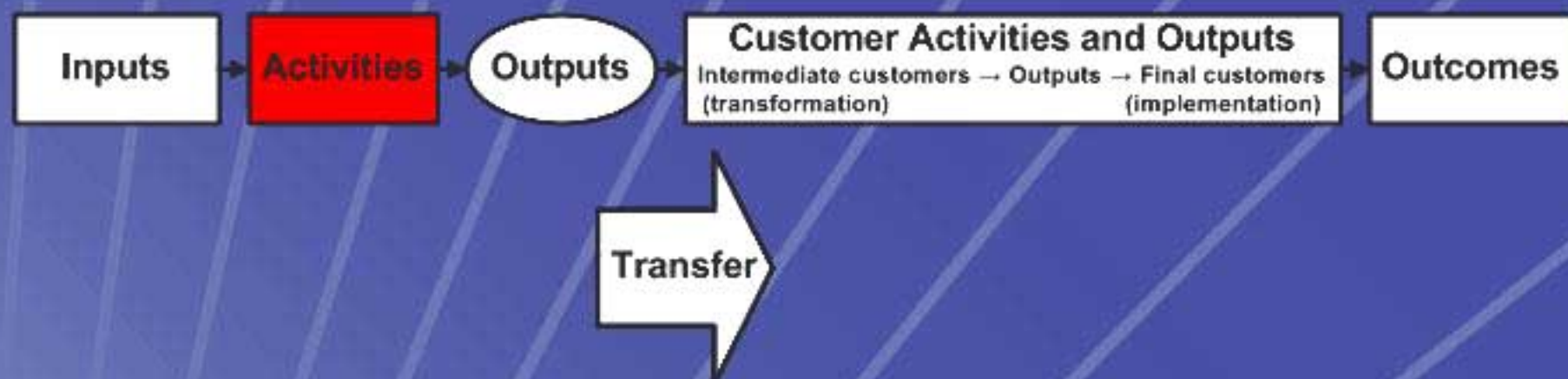


# Surveillance

- Illnesses
- Injuries
- Fatalities
- Exposures
- Hazards
- State-based surveillance







# Research Program Portfolio

- Sector Programs
- Cross-Sector Programs
- Tools and Emphasis Areas





# Research Program Portfolio

- Sector Programs
  - ◆ Ag, Forestry, Fishing
  - ◆ Mining
  - ◆ Construction
  - ◆ Manufacturing
  - ◆ Trade
  - ◆ Transportation, Warehousing and Utilities
  - ◆ Services
  - ◆ Health Care



# Research Program Portfolio

- Cross-Sector Programs
  - ◆ Traumatic Injury
  - ◆ Musculoskeletal Disorders
  - ◆ Respiratory Diseases
  - ◆ Hearing Loss Prevention
  - ◆ Chronic Disorders
  - ◆ Stress-related Disorders
  - ◆ Recommendation Development
  - ◆ Immune, Dermal and Infectious Diseases





# Research Program Portfolio

- Cross-Sector Programs
  - ◆ Health Hazard Evaluation Program
  - ◆ Personal Protective Technology Program
  - ◆ Emergency Preparedness and Response Program
  - ◆ Radiation Dose Reconstruction Program



# NIOSH Tools and Emphasis Areas

- Exposure Assessment
- Engineering Controls
- Surveillance
- Economics
- Priority Populations
- Small Business
- Information Dissemination
- Research and Training Grant Program





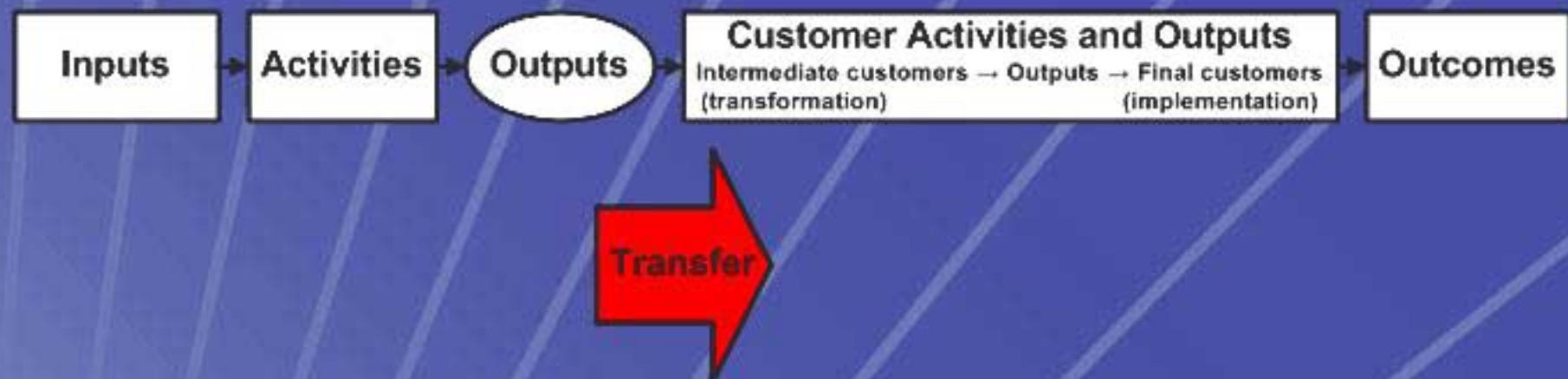


# Research Outputs

- Peer-reviewed publications
- NIOSH publications
- Communications to regulatory agencies or Congress







# Transfer of Outputs to Customers

- Translation of research into practice, products and technologies
- Information dissemination:
  - ◆ Web site
  - ◆ Technical information inquiry services





# Transfer of Outputs to Customers

- Capacity building through
  - ◆ technical assistance
    - ★ Health hazard evaluation program
    - ★ Fatality investigation programs
      - Firefighters
      - Other targeted groups
  - ◆ training and education
    - ★ Educational research centers
    - ★ Training project grants



# NIOSH Research-to-Practice Program

- Conceiving, Planning, Conducting, Evaluating, and Translating Research with our Partners... and with Impact in Mind

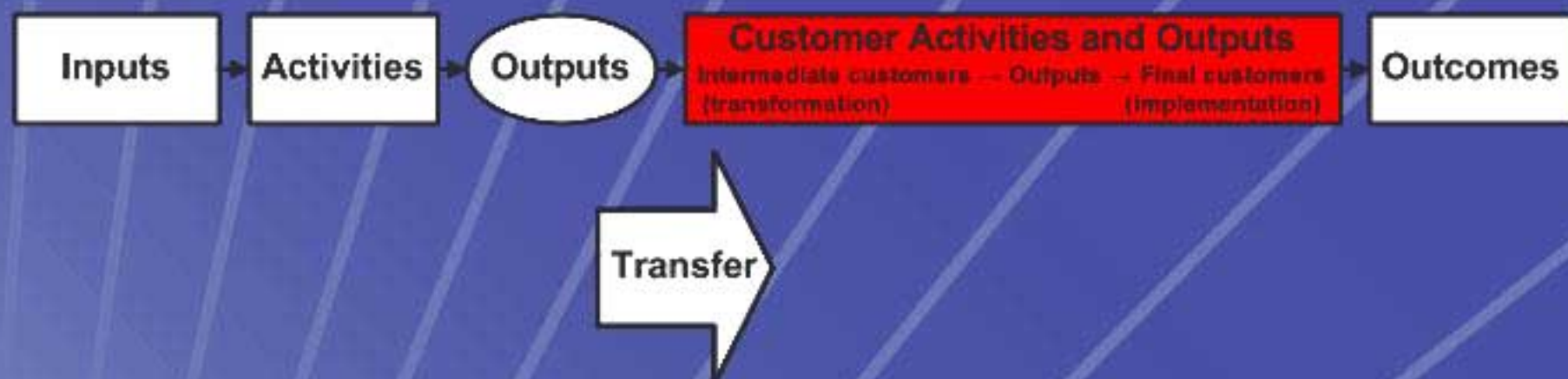




# Many Partners

- American Society of Safety Engineers
- Center to Protect Workers' Rights
- American Industrial Hygiene Association
- Association of Occupational and Environmental Medicine
- World Health Organization
- Pan American Health Organization







# Outputs of intermediate customers aimed at outcomes

- Regulations
- Guidance
- Standards
- Training and education programs
- Pilot technologies



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Conduct a series of studies to review  
NIOSH research activities with respect to:

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# NIOSH thoughts on review process

- Programs, not projects
- Importance of quantitative assessment
- Bottom line effectiveness, not just a review of processes

