



# **Making Green Jobs Safe:** **Integrating Occupational Safety and Health into Green and Sustainability**

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## *Safety and Health Professional Perspective*

**John L. Henshaw, CIH**

# Results of the Safety and Health Culture in United States

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- >5,000 workplace fatalities\*
- >~3.7 million non-fatal injuries\*
- Est. ~294,000 are made sick\*
- Est. \$128 to \$155 B - direct /indirect costs\*
- Social consequence of occupational morbidity and mortality impacts families, communities, and personal mental health

*Clearly Not Good Enough!*

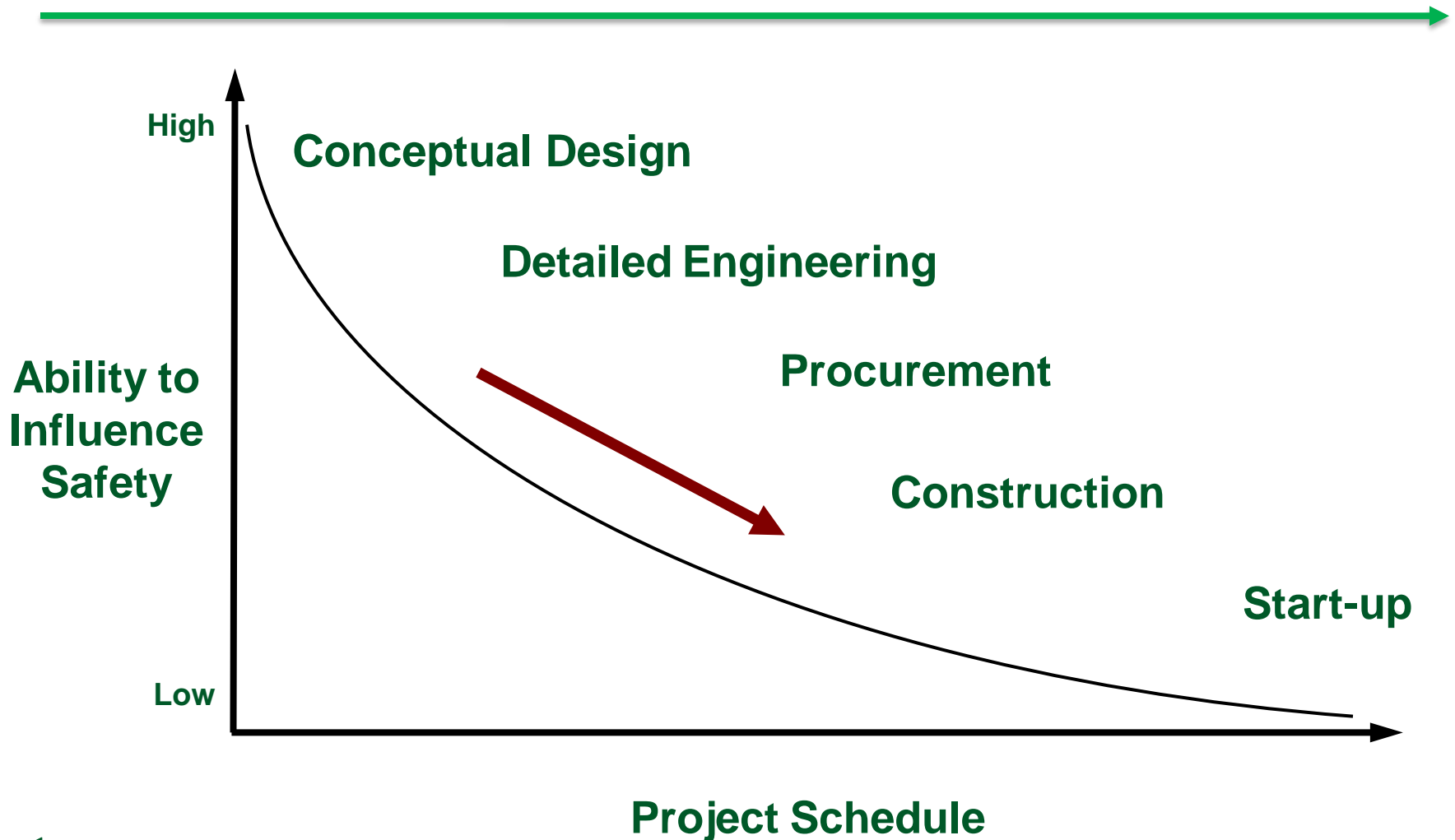
\*Source: BLS; Schulte, 2005; Leigh & Robins, 2004

# USGBC/Booz Allen Report Green Jobs

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- **Total Green Construction**
  - 2000 - 2008 = 2.4 million jobs
  - 2009 - 2013 forecast 7.9 million jobs
- **Contributions to GDP**
  - 2000 - 2008 = \$173 billion
  - 2009 - 2013 forecast \$554 billion

# Considering Safety During Design Offers the Most Payoff



<sup>1</sup> Szymberski (1987)

# Barriers to PtD

## in Construction



- **No formal training in safety and health and best practices - curricula do not include industrial safety.**
- **Avoiding potential for liability**
- **Perceived increase costs for engineering.**
- **Engineers, academics, safety professionals, and designers work solo**
- **Contracts, procurement, and scheduling do not include safety reviews**

# What's Green Today



- Green Jobs
- Green Technologies
- Green Products
- Green Investments
- Green Companies
- Green Organizations
- Green Rating Systems
- Green Governmental Initiatives

# CSR/Sustainability Programs



The ethical question – should there be a CSR program in companies today?

*“Companies are doing it. It’s one of the social pressures they’ve absorbed.” Its not a matter of weather, but how...*”

John Ruggie  
Harvard University’s Kennedy  
School of Government

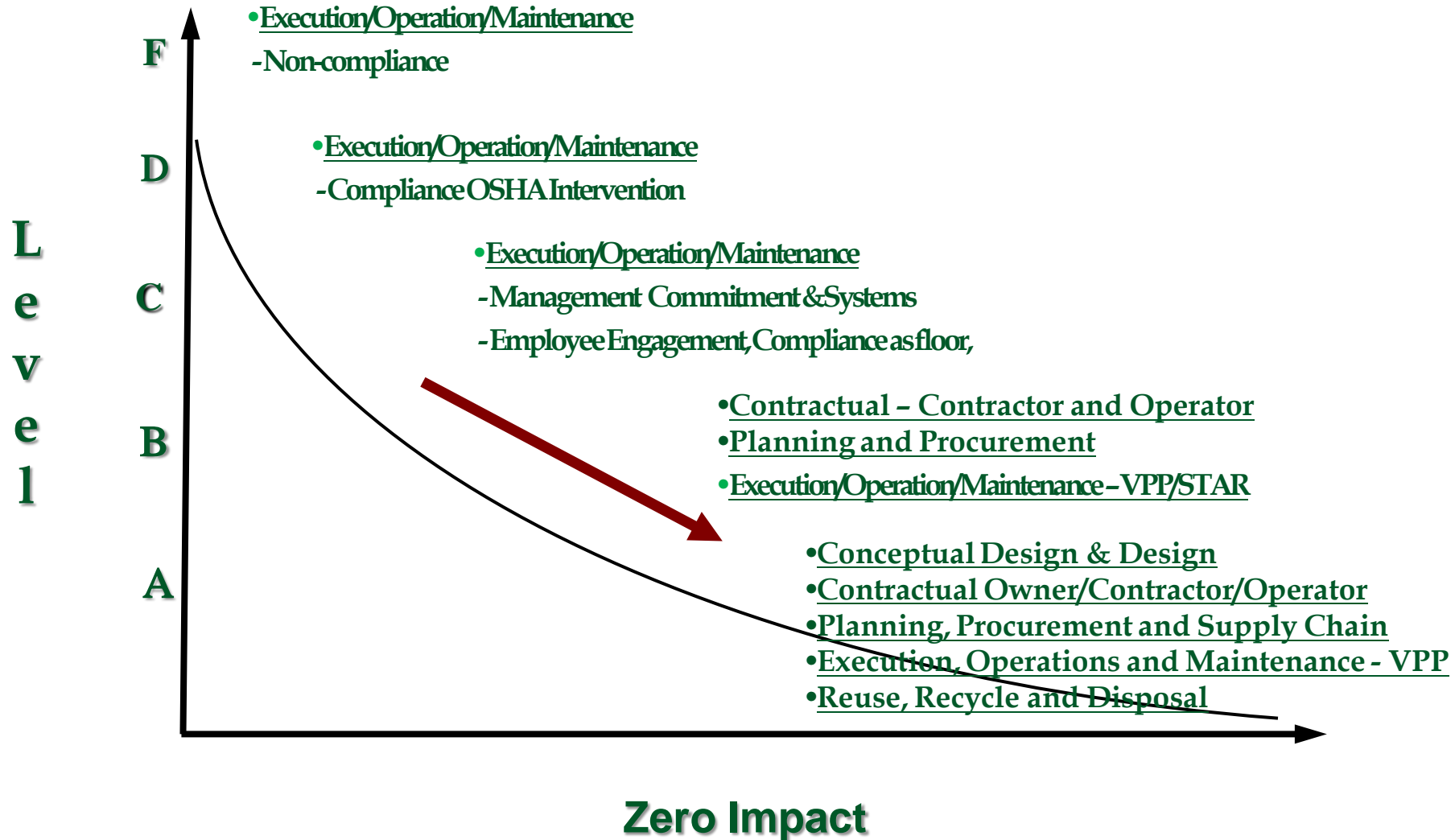
# *Green Jobs - Sustainability*

## Preserve/Optimize Capital



- **Natural Resource Capital**
  - energy/water/raw material usage, emissions, waste, reuse/recycle, disposal
- **Human Resource Capital**
  - injury, illnesses, performance, productivity, wellbeing, community
- **Financial Capital**
  - savings, costs, return on investments

# Safety and Health Integration



# Challenges – Making Green Jobs/Sustainable Businesses Safe and Healthful

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1. Hold owners, investors, contractors, operators, recyclers, waste handlers accountable for safety and health - throughout life cycle?
2. Integrate safety and health into design, procurement, operations, maintenance sourcing, use, reuse and recycling policies and decision-making.
3. Assure safety and health professionals are involved in design, planning, procurement, execution, operations, marketing, maintenance, supply chain, recycling and disposal.
4. Integrate safety and health integrated into rating, indexes, validation and certification systems?

# What's Green Tomorrow



- Green Jobs
- Green Technologies
- Green Products
- Green Investments
- Green Companies
- Green Organizations
- Green Rating Systems
- Green Governmental Initiatives



**Worker, Public and  
Community Safety  
and Health**

# *Regardless of Green Moniker*

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*“it can't be Green unless it properly considers worker Safety and Health throughout design, procurement, operations, marketing, maintenance, use, reuse, recycle and disposal”*

*“it can't be Sustainable unless it properly considers public/worker Safety and Health throughout the entire product/service concept-to-grave life cycle”*

