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Owner perspective on  
immigrant labor for industrial  
construction projects

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# Types of Projects

- Petrochemical
  - Manufacturing
  - Utilities
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# Typical Owner

- Small professional construction organization
  - Using Best Practices
  - Few do direct construction or management
  - Most hire CM's or General Contractors
  - Many have long term relationships
  - Mixed labor relations
    - All union
    - Mixed union and open shop contractors
    - All open shop
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# Owner Objectives

- Best Value Projects
    - Safe
    - Quality to meet specs, good startups
    - Best cost possible
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# Construction Skills Needed

- ❑ Project Managers
    - Project Controls, Quality, Safety
  - ❑ Supervision (superintendents, foremen)
  - ❑ Skilled trades
    - Pipefitters
    - Boilermakers
    - Electricians
    - Ironworkers
    - Sheet Metal Workers
    - Millwrights
    - Carpenters (formwork, scaffolding)
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# Current Major Issue

- Skilled resources shortage
    - Engineering
    - Project Management
    - Field Supervision
    - Skilled crafts
  - 80% of projects affected
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# Shortages caused by:

- Demographics
  - Construction cycles
  - Wages and benefits
  - Image and recruiting
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# Impact on Current Projects

- >20% labor cost increases
  - Missed schedules
  - Fewer contractors bidding on projects
    - Limited resources
      - Supervision --- Superintendents, Foremen
      - Skilled Workforce
    - More projects to choose from
    - Less willing to take on project risks
  - Higher bids for projects.
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# Current Approaches to Mitigate Shortages

- To attract a skilled workforce:
    - Incentives
    - Per diems, travel pay
    - Overtime
    - Wage increases
  - Scheduling projects around peaks
  - Off site fabrication, modules
  - More contractors involved in projects
    - Contractors with core workforces
  - Moving projects to other area of U.S.
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# Immigrant labor on Industrial Projects

- Small numbers
    - Insulators
    - Civil trades
    - Unskilled labor
  - Mostly on residential construction
    - Very little movement to industrial projects
  - Growing in Gulf Coast
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# Owner approaches to illegal immigrants

- Contractors with Illegal employees not allowed to work on owner sites
  - Contractor Prequalification
    - Proven Capability
    - Cost Effectiveness
    - Proven resources
    - Safety Programs and results
  - Preferred Suppliers
    - Long term relationships
    - Annual performance reviews
  - Contractor Selection for a project
    - Prequalified contractors
    - Best Value Selection
      - Cost
      - Quality
      - Schedule
      - Safety
      - People
        - Who will supervise
        - Where will skilled crafts come from
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# Owner approaches to illegal immigrants

- Contract ---Legal Requirement
    - Meet all government regulations
      - Difficult to audit
      - Issues investigated
  - Tighter security since 9/11
    - Background checks for all contractors
  - Skill certification for skilled labor
  - Safety Requirement – English speaking
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# Immigration as a solution???

- Industry needs
    - Engineers
    - Project Managers
    - Skilled Labor
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# Owner Global Experience

- Many industrial owners have experience with global projects
    - Large workforces
      - Limited Skills
      - High Manual operations
      - Low wages
      - Overtime
    - Limited local supervision
    - Expat supervision required
      - Planning
      - Quality
      - Safety
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# US vs. Global Projects

- Total projects costs about the same
  - Low wages are balanced with
    - More hours
      - High Manual
      - Lower skills
    - Higher costs of expat supervision
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# Is there skilled labor available?

- Major growth areas need resources
    - Middle East
    - China
    - India
    - Alberta, Canada
    - Europe
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## Firms Are Now More Selective

The international construction market continues to flourish, as business remains strong for developed countries, and developing countries increasingly invest their own money and foreign investors' cash in infrastructure. This has led to a boom time for contractors working around the world. But it also has led to uncertainty, as materials and **qualified personnel remain in short supply.**

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# Immigration as a solution??

- Three approaches
    - Large project work camp
    - Encouraging Skilled immigrant labor
    - Using unskilled immigrant labor
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# Large project work camp?

- Large global contractor
  - International workforce available
    - Experienced in petrochemical work
    - Available between other projects
  - Transportation and work camp
  - Temporary work visa's?
  - Cost effectiveness?
    - What will be wages, benefits?
    - Costs of transportation, work camp, etc?
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# Encouraging skilled immigrant labor

- Focused on
    - Engineering
    - Project Management
    - Supervision
    - Skilled Crafts
  - Legal Status
    - Temporary or permanent?
    - Possible to get government support?
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# Using unskilled immigrant labor

- Legal status?
  - Employ as unskilled labor? How?
  - Enroll in craft training programs?
    - Accelerated?
    - Language?
    - English requirement?
  - Funding for training?
  - Location of training and employment?
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# Developing Approaches

- National Labor supply and demand reporting
    - Regional approaches
    - National Rollup
    - Based on Canada's system
    - Using combined data
      - Project forecasts
      - Economic forecasts
  - Owner or government funded programs for
    - Image improvement
    - Recruiting
    - Training programs in areas of need
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# Owner Long Term Approaches

- Improved labor productivity
    - Elimination of waste
    - More effective planning and management
  - Improved engineering (more efficient construction)
    - Building Information Modeling (BIM)
    - Internet based collaboration Tools
  - Lean Manufacturing Tools
    - Lean Project Delivery
  - Collaborative contracting
    - AIA new model contract documents
    - Consensus Docs (AGC and others)
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# Opportunity for Organized Labor

- Market Share Gain
  - Possible advantage in contractor selection
    - Able to staff the project
      - Foremen
      - Skilled Workforce
    - Proven training programs underutilized
  - Open Shop cost difference is reduced
    - Higher wages
    - Incentives and Overtime
    - Reduced productivity
  - Barriers
    - Limited union strength in high growth areas
    - Willingness to increase apprentices
    - Contractors willing to bid on new work
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# Questions

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