



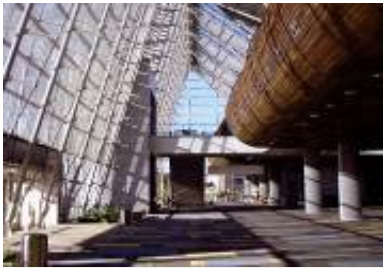
Establishment, Implementation and Enforcement of Building Codes and Standards

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Solutia Inc.

Advanced Interlayers



Performance Films



Technical Specialties



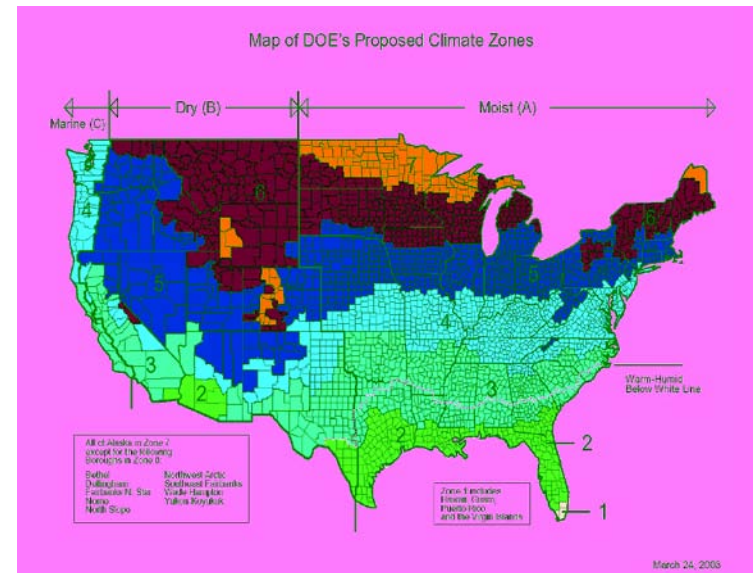
2010 Revenue
Facilities
Employees

\$1.9 billion USD
50+
3,300



U.S. Building Codes and Standards

- Developed, updated and published on regular intervals at the national level for use locally
- Adopted by federal agencies, state and local governments
- Typically enforced by local building departments
- Applies to new construction, additions and major renovations for nearly all buildings





Model Building Codes

- National development committees
 - Architects, engineers, builders, scientists, insurers, government researchers, agencies and building officials
- Funded through sales
 - Code organizations also provide fee based training
- Performance based
 - Residential and parts of energy code are prescriptive
- Updated every 3 years
 - Allows incorporation of latest research and technologies



Current Model Building Codes

- International Code Council (ICC)
 - Building, Residential, Fire, Energy Conservation, Plumbing, Mechanical, Existing Buildings and Green Building Codes, etc.
- National Fire Protection Association (NFPA)
 - National Electrical and Life Safety Codes
- American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE)
 - 90.1 Energy Standard



Building Code Effectiveness

- Building codes are only effective if adopted and enforced
- Federal and state government policies provide incentives for adequate adoption and enforcement
 - Federal law requires state to “evaluate” current energy codes for adoption
 - States typically mandate enforcement and make local officials liable for noncompliance
- Insurers audit and provide incentives for good enforcement

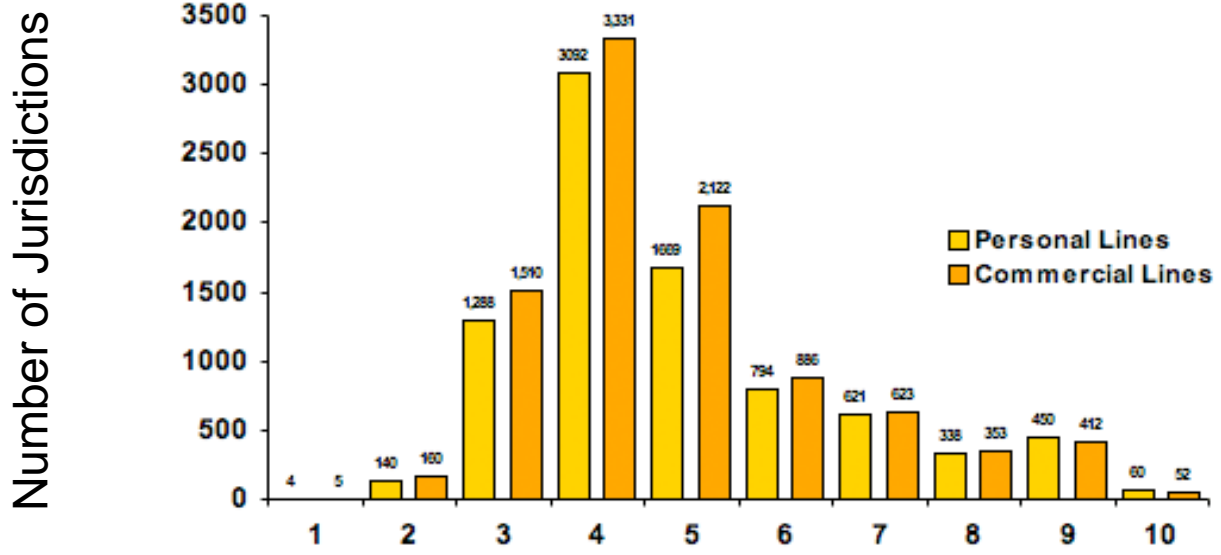


Building Code Effectiveness Grading Schedule (BCEGS)

- National insurance organization created to track and incentivize code enforcement
- Grades building departments on adopted building code, education, number of inspections and adequate staffing
 - Good grades are associated with voluntary insurance discounts
 - Florida mandates use



National BCEGS Grades



Good

Grades

Poor – No discount.
Codes usually > 5 years old

Courtesy Insurance Services Office (ISO)



More is Needed to Ensure Existing Buildings are Upgraded

- Existing Buildings Codes typically cite new construction requirements
 - Only triggered for additions or major renovations
 - New construction requirements are becoming too too expensive for existing buildings
- “Retrofit codes” must be developed to make upgrades more acceptable and affordable for existing buildings
 - California is currently developing a retrofit energy code
- Government buildings should be retrofitted
 - Proposed U.S. legislation mandates public building retrofits

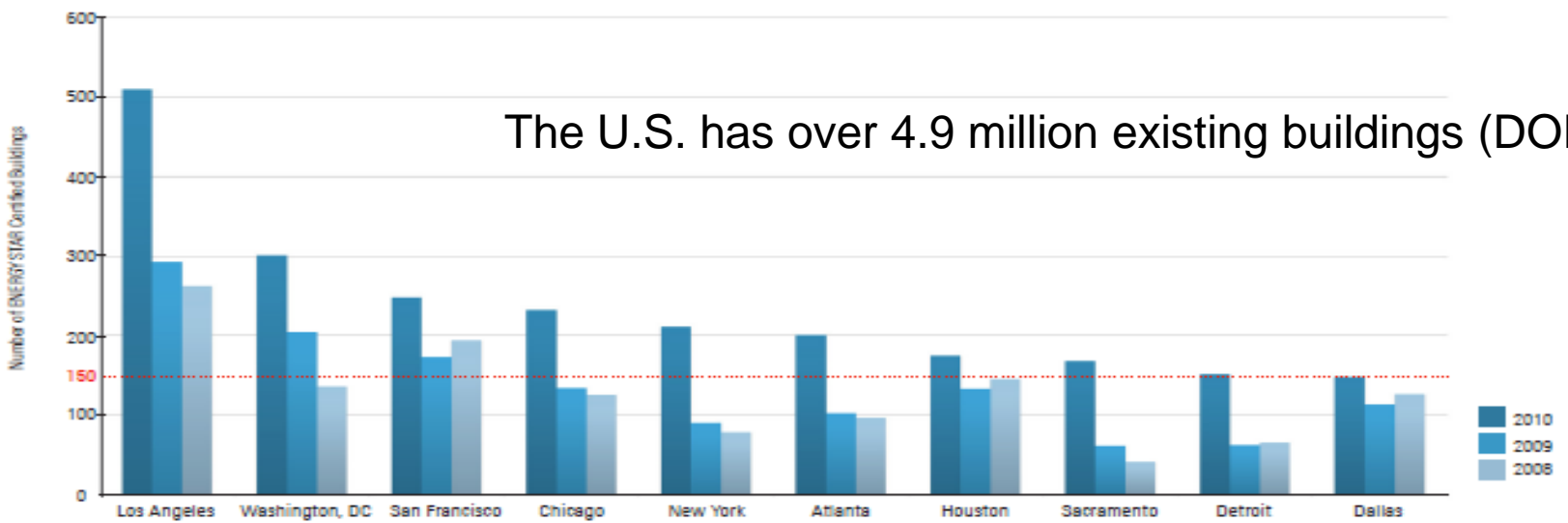


Incentives Alone are Not Enough!

Energy Star for Buildings

- Evaluate existing buildings and categorize performance
- Prioritize conservation measures based on anticipated performance
- Rating requires performance in top 25% of buildings in same category

Top 10 Cities with the Most ENERGY STAR Certified Buildings in 2010:
Number of Buildings in each city over a three-year period



The U.S. has over 4.9 million existing buildings (DOE)



Thank you!

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