

The Evolution of Departments, Professionals and Practices



National Institute of
BUILDING SCIENCES

*An Authoritative Source of Innovative Solutions
for the Built Environment*

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Public Law 93-383, Sect. 809

Congress directed the Institute to “exercise its functions and responsibilities in four general areas.....”

- **Develop and maintain** performance criteria for maintenance of life, safety, health, and public welfare for the built environment
- **Evaluate and prequalify** building technology and products
- **Conduct** related and needed investigations
- **Assemble, store, and disseminate** technical data and related information



National Institute of
BUILDING SCIENCES

The Institute at Work

Industry Advocacy & Outreach

Consultative Council

Council on Finance, Insurance and Real Estate (CFIRE)

Off-Site Construction Council (OSCC)

Science, Technology, Engineering and Mathematics (STEM)

Commercial Workforce Credentialing Council (CWCC)

National Council of Governments on Building Codes and Standards (NCGBCS)

Facility Performance & Sustainability

Building Enclosure Technology and Environment Council (BETEC)

Sustainable Buildings Industry Council (SBIC)

High Performance Building Council (HPBC)

National Mechanical Insulation Committee

Facility Maintenance and Operation Committee (FMOC)

Information Resources & Technology

Whole Building Design Guide

National Clearinghouse for Educational Facilities

Building Research Information Knowledgebase (BRIK)

buildingSMART alliance

National BIM Standard-U.S.

Security & Disaster Preparedness

Building Seismic Safety Council (BSSC)

Multihazard Mitigation Council (MMC)

Integrated Resilient Design Program

Multihazard Risk Assessment/HAZUS



High-Performance Buildings

High-Performance building means a building that integrates and optimizes on a life-cycle basis all major high-performance attributes, including energy [and water] conservation, environment, safety, security, durability, accessibility, cost-benefit, productivity, sustainability, functionality, and operational considerations.

-Energy Independence and Security Act of 2007 §401 (PL 110-140)

An Industry Evolving

- Drive for high-performance
 - Integrate and optimize to achieve multiple requirements
- We've done the easy stuff
 - Optimized current equipment/methodologies
 - Honed individual disciplines
- Owners, Occupants, Policymakers demanding results
- Shifting to life-cycle performance
 - Driving new tools, contracts, delivery methods
- Collaborative approaches
 - Integrated Design, BIM, Delivery Methods, Contracts, Commissioning
- Data overload
 - Tools emerging for analysis

Meanwhile...



USA TODAY
A GANNETT COMPANY

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SPORTS **LIFE** **MONEY** **TECH** **TRAVEL** **OPINION**  54° **CROSSWORDS** **YOUR TAKE** **INVESTIG**

Construction companies face worker shortage

Krystal Nichols, The Tennessean 8:10 p.m. EDT April 16, 2014



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NASHVILLE, Tenn. -- A recent development boom here has sparked worries among construction industry leaders about a [looming worker shortage](#).

The Associated General Contractors of America, which represents 30,000 companies nationwide, estimates that a majority of the 2 million construction workers who lost their jobs during the Great Recession have either retired or found

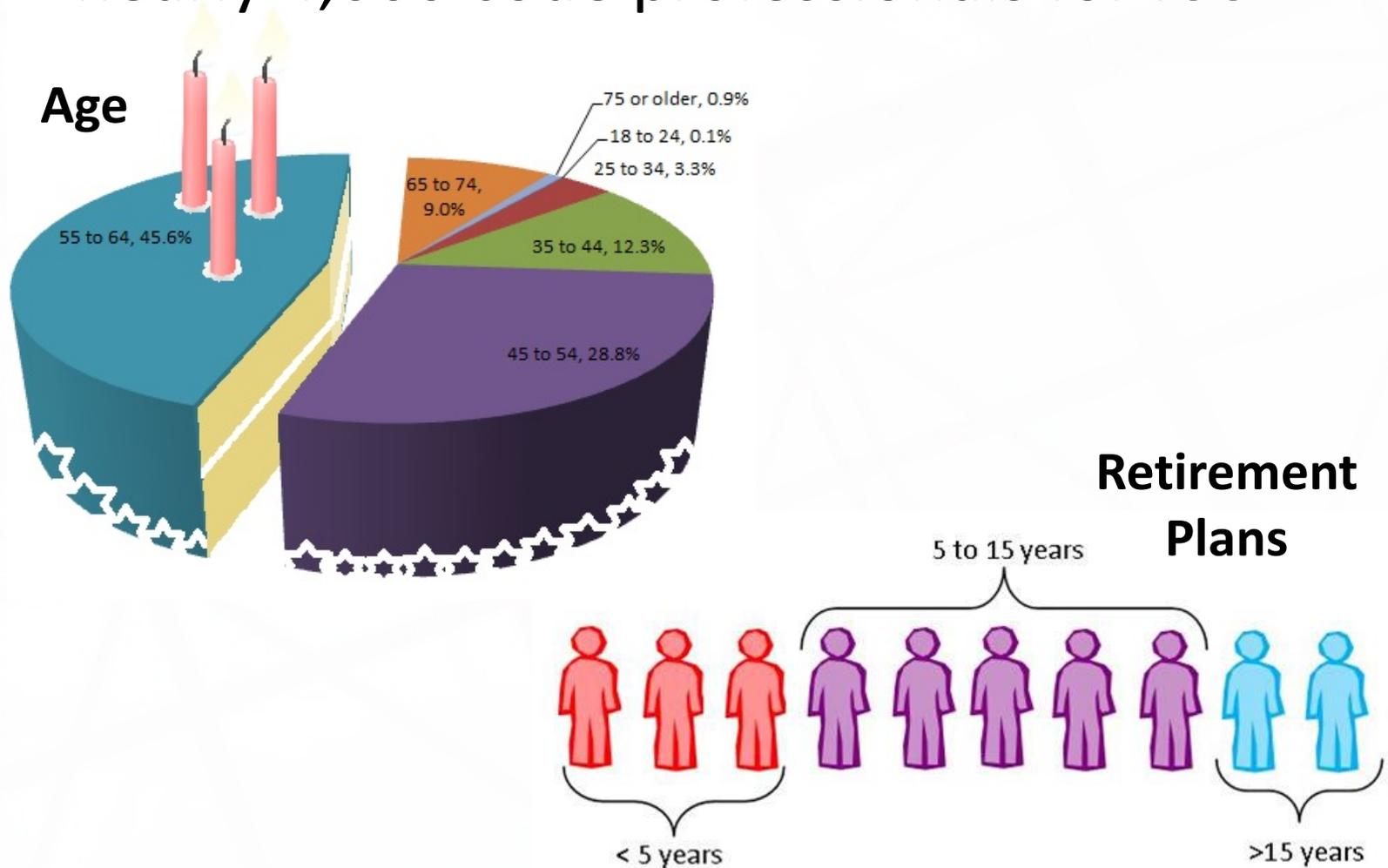
(Photo: Paul J. Richards, AFP/Getty Images)

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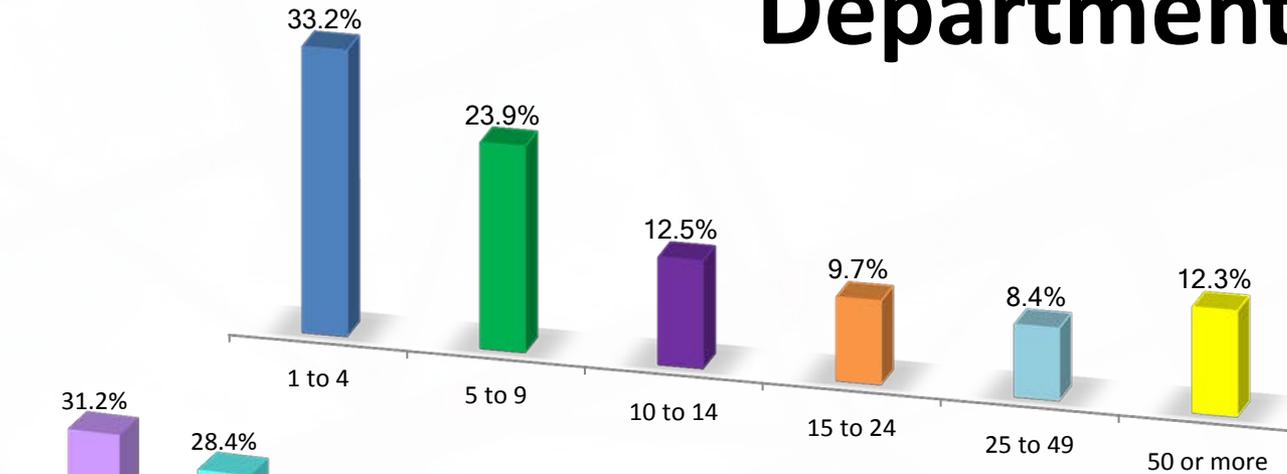
The Future of Code Officials

- Institute conducted demographic survey of nearly 4,000 code professionals for ICC

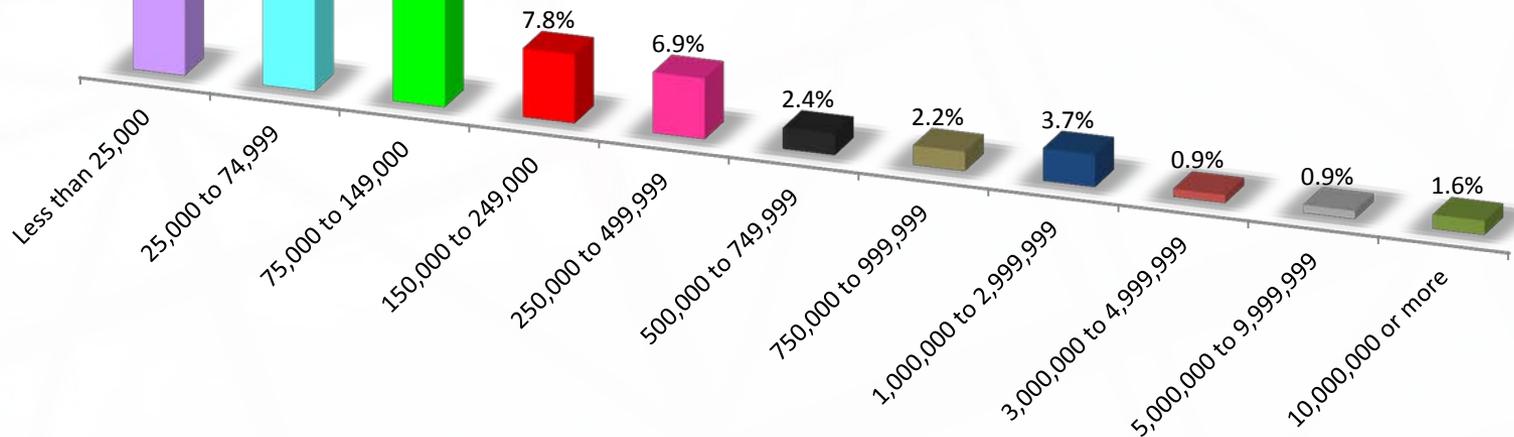


Departments and Communities

Department Size



Community Size



Tackling the Energy Code Challenges

- Bring wider focus to design → construction → operations
- Tie to actual, measured results
- Limit burdens on code departments
- Incent smooth handover
- Move beyond prescriptive and component-by-component approach
- All energy uses covered
- Compliance through most cost-effective means

A Holistic Approach to Achievement of Code Intent

Policies

- ⇒ Benchmarking & Reporting
- ⇒ Target setting
- ⇒ Compliance

Incentives

- ⇒ Utility
- ⇒ Tax
- ⇒ Permitting

Codes

- ⇒ Metering
- ⇒ Reducing Uncovered Loads

Outcome Focused Goals

Greenhouse Gas Emission Reductions
Zero Energy Buildings
Energy Use Reductions
111(d) Plans

Regulation

- ⇒ Taxes
- ⇒ Audit & retrofit

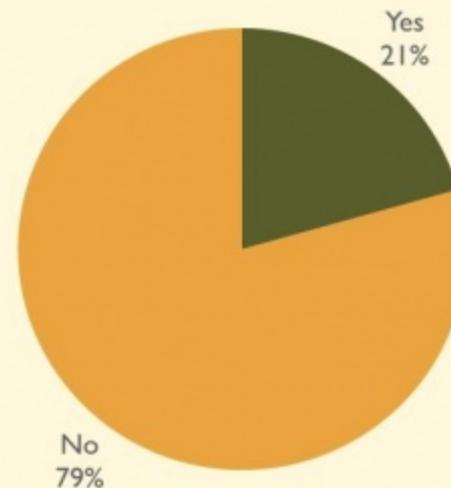
Building Industry

- ⇒ Contracting
- ⇒ O&M Training
- ⇒ Licensure/Professional Ethics

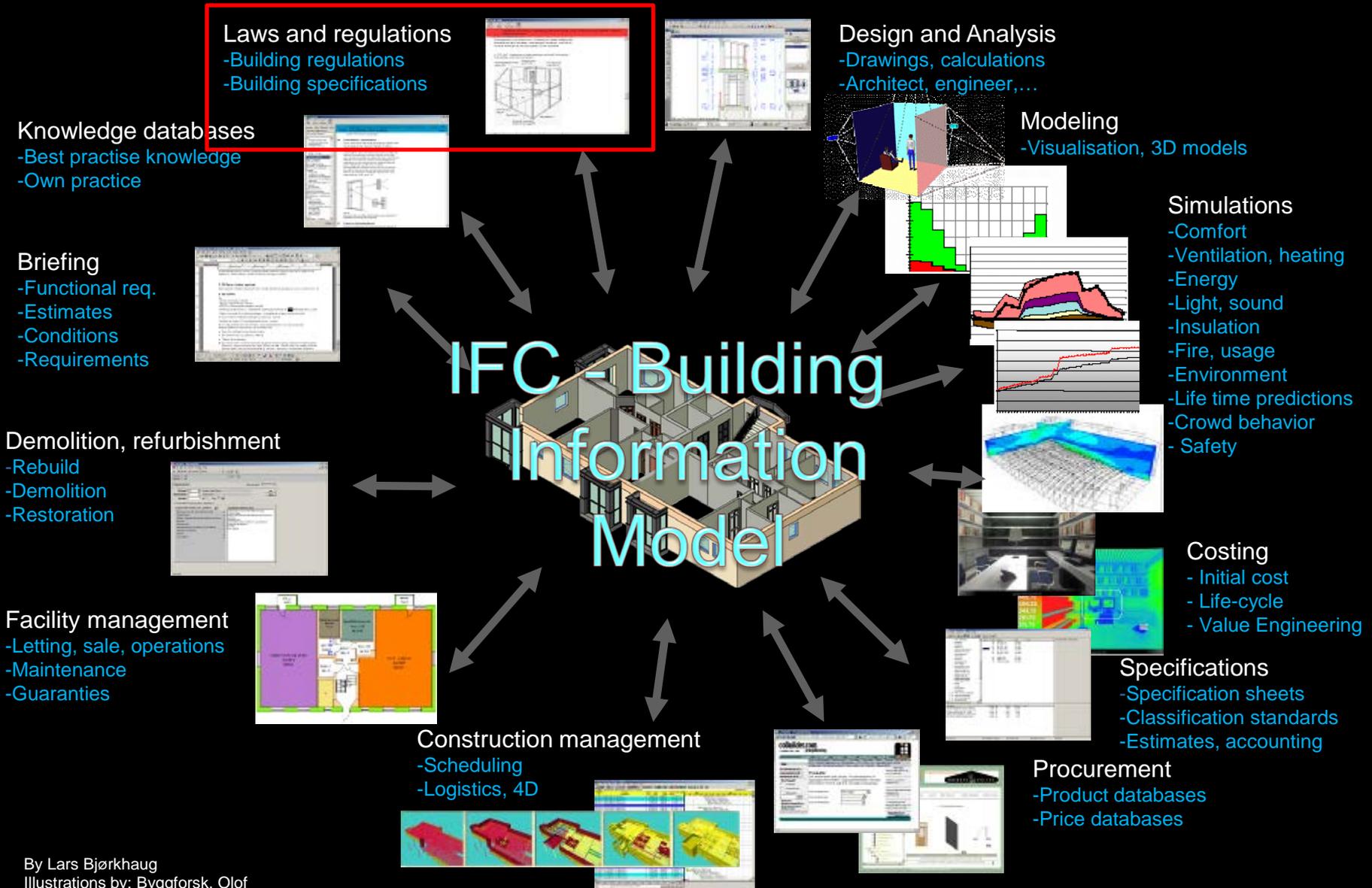
EXCLUSIVE

City Planning Department Technology Benchmarking Survey 2015

Permitting Offered Online
on City Planning Dept. Websites



October 2014, N=523 U. S. City Planning Dept. Websites



Evolved Engagement



Mercy
Emergency
North,
Janesville, WI

The departmental philosophy is that the City is a "facilitator partner" in a development. That partnership approach creates an environment where staff can be a partner by guiding the applicant where solutions can be implemented to move forward. Although inspection includes detailed minimum standards for approval, [the partnership approach places the inspector in a "coaching" position which expedites corrective action and allows the project to pass approvals.](#)

The Mercy project became an excellent demonstration of how a project can be quickly facilitated while protecting the health/safety/welfare of those who are occupants in the facility.

http://wbdg.org/references/cs_men.php



Findings and Recommendations from a Code Professional Town Hall

- Many code professionals/departments content on staying “under the radar”
 - Diminishes respect, resources and recruitment
 - Must highlight contributions to the community
 - Build policymaker understanding
- Need the compelling story to attract next generation (includes technology)
- Today’s professional more focused on interactions than technical content
- Opportunity to focus on technology and qualifications



THE AMERICAN
INSTITUTE
OF ARCHITECTS

Ethics

FROM THE OFFICE OF GENERAL COUNSEL

CANON II

Obligations to the Public

Members should embrace the spirit and letter of the law governing their professional affairs and should promote and serve the public interest in their personal and professional activities.

E.S. 2.1 Conduct:

Members should uphold the law in the conduct of their professional activities.

Rule 2.101 Members shall not, in the conduct of their professional practice, knowingly violate the law.

Rule 2.105

If, in the course of their work on a project, the Members become aware of a decision taken by their employer or client which violates any law or regulation and which will, in the Members' judgment, materially affect adversely the safety to the public of the finished project, the Members shall:

- (a) advise their employer or client against the decision,
- (b) refuse to consent to the decision, and
- (c) report the decision to the local building inspector or other public official charged with the enforcement of the applicable laws and regulations, unless the Members are able to cause the matter to be satisfactorily resolved by other means.



INTERNATIONAL
CODE COUNCIL
People Helping People Build a Safer World™

THE FUTURE OF CODE OFFICIALS

*Results and Recommendations
from a Demographic Survey*

AUGUST 2014



<http://www.nibs.org/resource/resmgr/ncgbcs/future-of-code-officials.pdf>

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People Helping People Build a Safer World™

Raising the Profile, Filling the Gaps

*Report from a Town Hall Meeting
on the Future of Code Officials*



http://www.nibs.org/resource/resmgr/Docs/Final_Rprt_Future_of_Cde_Off.pdf

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