Future Trends and Implications

Objectives:

14.1 Demographics

14.2 Technology

14.3 Professionalism and accreditation

14.4 Academia

14.5 Improving the disaster recovery model in the United States
Demographics

• Rapid urbanization and migration from rural areas
  - Los Angeles (earthquake)
  - Miami (hurricane)
  - New Orleans (hurricane, flood)

• An eventual Hispanic majority
  - Language, culture, political factors
  - Political power

• Growing number of non-English speaking population
Demographics

• Growing elderly population
  – Hospitalized and infirmed
  – Disaster response and resident mobility

• Migration of individuals to high hazard areas
  – Coast
  – Urban-wildland interface
  – Earthquake-prone areas of the west coast
  – Floodplains
  – Steep-sloped areas (prone to landslides)

• Hazardous areas and quality of life
Technology

• Geographic Information Systems
  – Hazard identification and analysis
  – Identification of at-risk populations
  – Deployment of resources
  – Post-disaster assessments

• Remote sensing
  – Regional-level images
  – Impact area images
Technology

• Computer modeling
  – Simulation of hazard scenarios
    • Visualization and training

• Risk assessment tools
  – Challenges
    • Determining acceptable risk
    • Establishing comparable baseline data
    • Interpreting and disseminating the findings
    • Developing methods that can be used by various stakeholder groups
  – HAZUS-MH
Technology

• Computer-based communications
  – Internet
  – World Wide Web

Adapted from Disasters by Design: A Reassessment of Natural Hazards in the United States. 1999. Chapter 8: Innovative Paths and New Directions. pp., 241-265
Technological Issues and the Future of Recovery

• The use of data management techniques to aid in decision making
  – Gathering, analyzing and displaying information
  – Shrinking state and local budgets, increased federal expectations and rapid development in known hazard areas
  – Optimizing available resources

• Recognizing the balance between technology and the user
  – Capability
  – Accreditation
  – Shared governance
  – Developing alternatives
Technological Issues and the Future of Recovery

• Use of technology
  - Over reliance on technology
  - Using tools that exceed technical, fiscal or administrative capability
  - Sharing information
    • Interoperability
Professionalism and Accreditation

• The profession of emergency management
  - Lack of understanding among Congress, state legislators or locally-elected officials
  - Low pay relative to other municipal or state jobs
  - Response-oriented focus
  - Shift towards a more comprehensive set of duties
  - Adopting widely recognized standards
Emergency Management Accreditation Program

- 14 emergency management functions and 54 standards

- Developed by practitioners

- State and local government evaluation
  - Documentation
Emergency Management Accreditation Program

• Primary goals
  – Established structure for identifying areas of improvement
  – Method for strategic planning
  – Catalyst for improved interoperability and professionalism
  – Strengthened state, territorial and local preparedness
Emergency Management Accreditation Program

- Functional areas
  - Program management
  - Laws and authorities
  - Hazard identification and risk assessment
  - Hazard mitigation
  - Resource management
  - Planning
  - Direction, control and coordination
  - Communications and warning
  - Operations and procedures
  - Logistics and facilities
  - Training
  - Exercises, evaluations and corrective action
  - Crisis communications, public education and information
  - Finance and Administration
Emergency Management Accreditation Program and Sustainable Disaster Recovery

• Emphasis is placed on federal recovery programs

• Recovery planning

• Focus on existing documents rather than their use during an event
Accreditation and Accountability

• Agency autonomy and accountability

• Bridging the divide

• Identifying needed resources

• Rivals

• State capabilities

• Change in organizational culture

• Increasing state and local capability
Accreditation and Accountability

- Disaster-based funding is not enough
- Issue salience
- Over-reliance on federal funding
- Developing and sustaining a cadre of state and local experts
Academia in Recovery

• Training the next generation of emergency management practitioners and scholars
  – Critically analyzing complex systems

• Balancing scholarship and practice
  – Educators and practical experience
  – Field research, co-teaching courses with practitioners
  – Student internships
  – Improved scholarship and education
  – Technical training
Academia in Recovery

- Technology transfer
  - Research institutes
  - Providing user-friendly guides to research findings
  - Limited rewards
  - Increased emphasis and reward for applied research

- Role of the hazards research institute
  - Distributional networks

Improving the Disaster Recovery Model in the United States

• Sustainable redevelopment and multi-objective planning
  – Encourage and reward sound pre and post-disaster recovery planning
    • Needs based funding
    • Reduced cost-share requirements
    • Recovery planning research
Improving the Disaster Recovery Model in the United States

- Take advantage of available resources
  - Array of post-disaster funding
  - Over-reliance on funding

- Build consensus through participatory planning
  - Consensus-building measures
    - Multi-objective planning
Improving the Disaster Recovery Model in the United States

- Disasters as opportunity
  - Solving pre and post-disaster problems
  - Recovery advocates and technical experts
  - Local needs and federal programs
  - Rethinking the reconstruction process
Improving the Disaster Recovery Model in the United States

- Building federal, state and local capability and commitment
  - Improving technical skills
  - National training program
  - Rethinking current recovery program implementation
  - Developing baseline recovery planning standards
    - Flexible planning approach
- Evaluating post-disaster planning
  - Improvements based on past experience
Improving the Disaster Recovery Model in the United States

- Social learning: building on existing strengths and eliminating chronic weaknesses
  - After action reports
    - FEMA Disaster Recovery Task Force
    - President’s Action Plans for Long-term Recovery and Redevelopment
    - Hazard mitigation success stories
  - Grant program emphasis
  - Institutional or programmatic changes
Improving the Disaster Recovery Model in the United States

• Facilitating the sharing of lessons learned
  – Emphasizing the stated role of EMAP to share lessons learned
  – Developing lessons learned across stakeholder groups
  – Improving the dissemination of findings
Improving the Disaster Recovery Model in the United States

• Sustainable disaster recovery – the forgotten side of emergency management
  • Disaster recovery is the most ill-defined and complex part of emergency management
    – Defining the process and steps associated with a comprehensive recovery
    – Focus on the administration of existing programs rather than assessing chronic problems facing the community
Improving the Disaster Recovery Model in the United States

• Disaster recovery is the most ill-defined and complex part of emergency management
  – Response focus of emergency managers
  – Stakeholders tasked with recovery
    • Limited coordination between planners and emergency managers
  – States, FEMA and recovery programs
  – State assistance
  – The evolving roles of federal and state officials in mitigation and recovery
  – Roots of the emergency management profession
  – New cadre of emergency managers
Improving the Disaster Recovery Model in the United States

- Improving the link between mitigation preparedness response and recovery
  - Role of pre-disaster recovery plans
    - Notify homeowners post-disaster about preparedness and mitigation measures
    - Pre-identify mitigation projects
    - Develop response plans that identify the tasks necessary to facilitate the transition from response to recovery
Improving the Disaster Recovery Model in the United States

• Improving the link between data and planned outcomes
  • Improvements in the assessment of hazard risk
Improving the Disaster Recovery Model in the United States

• Coordination and cooperation across organizations
  • No federal coordinating mechanism – where’s the plan for recovery?
    - Federal recovery plan and local needs
    - Holding state’s accountable
    - Federal programmatic constraints
      » Inter-organizational task force
    - Involving local government officials and non-profits
    - Adaptive planning
• Federal Response Plan
  - No planning framework
Improving the Disaster Recovery Model in the United States

• The role of hazards insurance
  • Revisiting hazards insurance
    – Subsidizing growth in high-hazard areas
    – Complacency among policyholders
    – Access to insurance
  • Risk-based premiums
  • Investing in high-risk properties
  • Spreading the risk
  • Increased federal insurance
Class Discussion

• Should the federal government provide all hazards insurance to willing policy holders?
  – Arguments against federal all-hazards insurance
    • Federal government should not subsidize high risk development
    • Program solvency
    • National Flood Insurance Program
    • Catastrophic disasters
    • Limiting housing options
  – Arguments for federal all-hazards insurance
    • Risk based premiums will reduce total exposure
    • Linking premiums to hazard mitigation
    • Federal sponsorship may increase legitimacy
Improving the Disaster Recovery Model in the United States

- Crafting policy in the pre and post-disaster environment: the role of participatory planning, negotiation and policy dialogue
  - Failure to involve all relevant stakeholders
  - Participatory planning is contentious
  - Role of advocate, mediator or facilitator
  - Obtaining information post-disaster
  - Negotiation and recovery
    - Policy making skills
    - Prerequisite of emergency managers
    - Mandating negotiation to resolve policy conflicts
Improving the Disaster Recovery Model in the United States

• Crafting policy in the pre and post-disaster environment: the role of participatory planning, negotiation and policy dialogue
  – Institutional change
    – Agreement of parties to use negotiation as a problem solving technique
    – Involvement of decision makers
    – Clearly define issues
  – Dispute resolution principles and policy formulation
    • Variations in state and federal policy
      – Bargaining position
Improving the Disaster Recovery Model in the United States

• The role of adaptive planning and innovation: rewarding success
  – Recovery planning literature
    • Adaptive planning
  – Improvisation and innovation
    • Rewarding innovation
      – Reducing inefficiency
      – Modifying outdated organizational cultures
      – Facilitating change among organizations reluctant to alter the status quo
Improving the Disaster Recovery Model in the United States

• Rewards
  - Public recognition
  - Mentoring program
  - Increased autonomy
  - Reduction in cost-sharing requirements
Improving the Disaster Recovery Model in the United States

- Breaking the cycles of federal paternalism: enhancing state and local capability
  - Current system encourages paternalism
    - Episodic periods of federal assistance
    - States and local governments are not held accountable for their actions
  - Improving state and local capability
    - Identifying non-federal funding
    - Linking pro-active pre-disaster planning to incentives and penalties
      » Disaster Mitigation Act of 2000
Improving the Disaster Recovery Model in the United States

- Creating a sustainable disaster recovery ethic
  - Educating local decision makers and elected officials
  - Integrating sustainable recovery principles into day-to-day decision making and the operations of local government agencies and stakeholder groups
- Land use, hazards management and sustainable recovery
Improving the Disaster Recovery Model in the United States

• Educating citizens and the media: creating a less vulnerable society
  – The media and the dissemination of information
  – Harnessing the resource
    • Underutilizing the media
    • Negative reporting
    • Role of government
    • Reactionary approach
    • Standardized messages
    • Conveying preparedness and mitigation messages
Improving the Disaster Recovery Model in the United States

• The Disaster Recovery Act
  - Linking plans to tangible benefits
  - Pre-disaster funding
  - Reducing federal dependence
  - Developing a meaningful federal recovery plan
    • Creation of a national-level risk assessment
    • Federal capability assessment
    • Recovery planning agenda
    • Creation of specific goals, objectives and actions
Improving the Disaster Recovery Model in the United States

• Increased reliance on measurable outcomes/indicators
  - Improved decision making among stakeholders
    • Local, state and federal policy makers
    • Elected officials
    • Disaster victims
  - Measurable indicators
    • Achievement or accreditation
    • Reduced hazard vulnerability
    • Effectiveness of mitigation measures
Improving the Disaster Recovery Model in the United States

- Increased reliance on measurable outcomes/indicators
  - Use of measurable indicators
    - Provide defensible rationale for organizations
    - Wise use of public expenditures
  - Indicators of recovery planning benefits have not been quantitatively assessed
    - Future research
      - Pre-disaster planning versus adaptive planning
      - Quantitative benefits of dispute resolution
      - Quantitative benefits of multi-party recovery committees
      - Quantitative benefits of sharing lessons learned
Improving the Disaster Recovery Model in the United States

• Class discussion
  – The instructor and students should review Recommendations for Further Traditional Research in *Disasters by Design: A Reassessment of Natural Hazards in the United States*. Based on the course readings, class assignments and role playing exercises, students should discuss areas that may need further research.