Wednesday, February 16, 2011

Workshop Session II

Time of Session: 1:30-3:00pm

Session Title: Risk Assessment Methodologies

Speaker: Alessandra Jerolleman

Andre Le Duc

Room: 257

Head Count: 31

Note Takers: Carrie Beth Lasley and K. Brad Ott

Notes:

Alessandra Jerolleman, NHMA (Natural Hazard Mitigation Association)

“Innovative Risk Assessment Methodologies at the Campus Level”

[PowerPoint presentation assisted]

Alessandra Jerolleman – gave an introduction – announced that this panel presentation would be more interactive with attending participants

Alessandra Jerolleman – the challenges to accomplish risk assessment in a campus environment

Question (for the audience): What is a risk assessment?

Unidentified female /exposure to different types of hazards

Unidentified male /types of vulnerabilities and resilience

Alessandra Jerolleman – what we already have in place can already reduce vulnerability … i.e. having bottled water for students moving in on campus to their dorms in the summer

Alessandra Jerolleman – ways to modify facilities – i.e. dealing with protecting archival materials

Unidentified male comment / the probability/possibility of some risk to occur

Alessandra Jerolleman – challenges and benefits of working in a campus environment –

● stakeholder involvement

   ● Data limitations – i.e.: when and where a hailstorm had occurred
• National data sets --
  • Census boundaries –
  Temporary Populations -

  • range of geographic backgrounds – i.e. preparing the campus for a hurricane; different kinds of students (new, non-traditional, students with kids)

Unidentified male response / students with disabilities remain a challenge – especially international students

Alessandra Jerolleman – campuses historically aren't ADA compliant … tracking students …

Unidentified male response / problems of decentralization – campuses usually are open

Unidentified male response / defining the geographic boundaries of the campus are a challenge …

Alessandra Jerolleman – i.e. – will the campus be held responsible for what they do or not do?

Alessandra Jerolleman – Advantages of the campus environment –

  • access to various experts
    • smaller study area
    • connection to research community – practioners and new studies
  • students (learning and researching); campus newspapers
  • campus-specific data
  • Universities know how to 1) teach 2) research

Alessandra Jerolleman asked audience about other advantages –

Unidentified male response / innovation

Unidentified male response / dealing with environmental hazards …

Alessandra Jerolleman – labs have specific protocols on campus – but might not have no control over outside hazards (location near railroads, factories, etc)

Alessandra Jerolleman – Special Considerations:

  • Researching
  • Special collections and archives
  • university mission – different than the larger community
    • multiple campuses across multiple geographies
  • Revenue streams – university funding / services generating revenue on campus
  • Legal concerns –
    • Perceptions of the university – public perceptions
  • Relationship with municipalities, counties/parishes, etc.

Alessandra Jerolleman – what else?
Campus violence

Unidentified male / campuses can be far more diverse than the neighboring community – causing tensions

i.e. Alessandra Jerolleman – what happens on campus could impact off campus; shared power grid; campus violence impacting the wider community

Building categorization and prioritization

- Which buildings serve unique functions – only dormitory? – could it be relocated, have students housed at a hotel,...etc
- Which functions can be easily relocated?

*Which can you least afford to loose?

Alessandra Jerolleman asked – what of child care centers? Do you have a “safe room”

Alessandra Jerolleman –

Innovative risk assessment

Adapt to the level of data available

Use all tools available

- HAZUS boundary files
- local mitigation plans
- building modeling

Qualitative Risk Assessment

- Probability
- Potential impact
- Level of preparedness – prioritization of tasks

Stakeholder involvement

- Risk assessment workshop
- student survey
- faculty survey
- off-campus stakeholders

Questions for Alessandra Jerolleman

Unidentified male / are there examples of questions / surveys to risk assessment surveys?

Alessandra Jerolleman – I can share some survey instruments
Carrie Beth – commented i.e. buildings particularly at risk (exposed windows, etc)

Alessandra Jerolleman concurred

Andre Le Duc, University of Oregon, Director of Emergency Management

“Getting on the Map: Using GIS to Assess Risk and Create Resilience Throughout Campus”

Andre Le Duc’s Powerpoint presentation – “Getting on the Map!”

Building off the risk assessment – sensitivity analysis – do we have systems in place to help students cope with stress …

Risk assessment is complex – UO-GIS – there is no data that we can't geographically define on campus GIS group which feeds other departments on campus – tying data together i.e. – following use of the power grid to determine where people are on campus – helps with campus safety and energy use

CHIRVA – Campus Hazard Identification and Risk / Vulnerability Assessment

cataloguing aspects

CHIRVA is a feedback loop – process model

we're able to assist in space utilization on campus

we have tons of data – that we must push back into data system

BAD (Best Available Data)

Multi scale –

* room level
* floor level
* building level
* campus level

we can tell you where all the data ports are in a building

ensure good utilization of the buildings – show all access points to buildings without having to enter the actual building

look at risks on campus – buildings mapped by hazards (asbestos hazards, etc)

FEMA data tools poor for campus (good for census blocks but not campus blocks)
earthquake assessment – UO developed their own GIS mapping

mapping of where students live in the wider community – preparation for mass-scale earthquake – worried about privately held properties housing students

If I can pinpoint data to a spatial location, the data becomes more powerful …

spotlighting potential threats – i.e. bomb threats challenge – evacuate during finals!

Assets – economy – we map all equipment valued at over $5,000.00 What is a room or building worth? – contents – include grants – map economy activity

I can tell you a facility is worth a certain amount, based on the number of grants received – mitigation measures (data back-up, storage, accessibility in emergencies)

system connectivity

Assets – critical infrastructure – where are water shut off values? – pipe breaks

dealing with campus underground utilities – affording systems analysis – can run simulations to assess hazards and system breakdowns – thinking through to spend limited dollars

Questions of Andre Le Duc –

Unidentified female/ did you have documentation of 1920s piping and electrical infrastructure?

Andre Le Duc – referenced Google Street view – “Google tunnel view” – retaining institutional knowledge with MP3 players!

Unidentified male /how do maintain the quality/with co$?t?

Andre Le Duc – not easy – but with mapping, we can be useful – we have to show the bottom-line … decent graduate assistanceships accomplishing this mapping work

Unidentified male / a technical IT question – how do you get permissions to do this?

Andre Le Duc – use your iPhone! – referenced edit functions built in to the GIS

Unidentified female /how do you work on securing this data?

Andre Le Duc – background checks are required – clearance is vital – this is the upmost concern … encryption key … sit down with general counsel – review the Patriot Act (affording restrictions on security limitation) only 15 individuals have access to everything – with another ten vetted graduate students
Andre Le Duc -- GIS today is much more advanced than when I learned it

Unidentified male /when will most campuses get to the point of having such data access?

Andre Le Duc – the main question is “Does your school have a geography department?” Do you have a GIS course?

Carrie Beth (comment) – some places have GIS capability in other departments – urban studies

Andre Le Duc =GIS – you must operationalize it for day-to-day functions – not just for emergency management … help with coordination issues

Unidentified male / are you able to track folks coming onto the campus?

Andre Le Duc = yes – U.S. Olympic track and field trials – using Google Earth to map venues … Special events are an ideal venue for showcasing / testing emergency management plans … able to disclose and represent before anyone steps on campus

i.e.: example of a U.S. Presidential visit – detail of rooms

Unidentified male /question about where the Emergency Management office vis-a-vis other campus agencies … decision-making …

Andre Le Duc – a challenge in power relationships initially – when other campus agencies and departments saw the utility of this, they bought in

Unidentified male / what is the size of the University of Oregon?

Andre Le Duc – 24,000 / 5,000 staff .. Eugene campus, plus a campus on the coast