



The Role of Schools in Creating Weather Aware Communities

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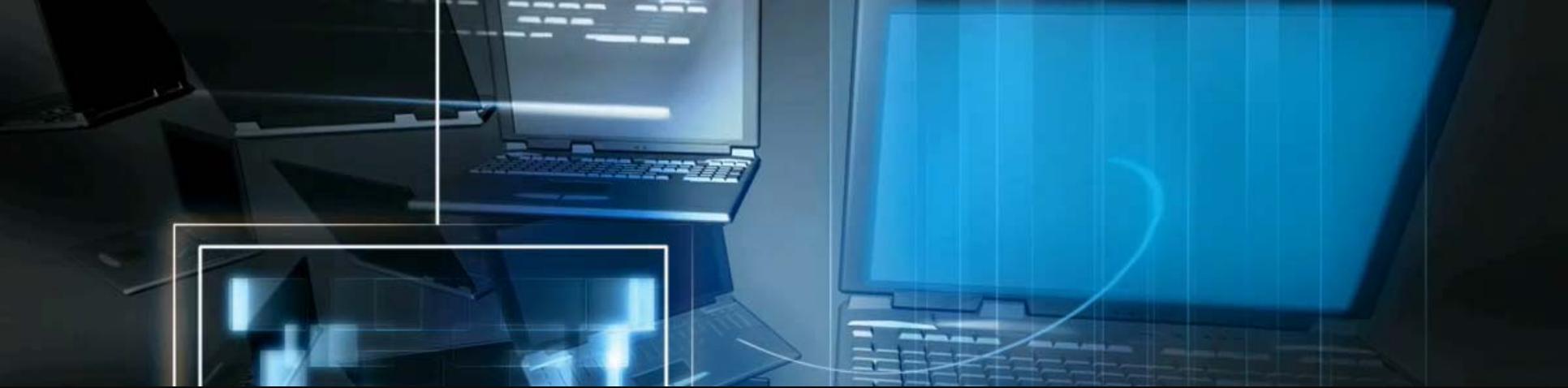
Schools and the Community



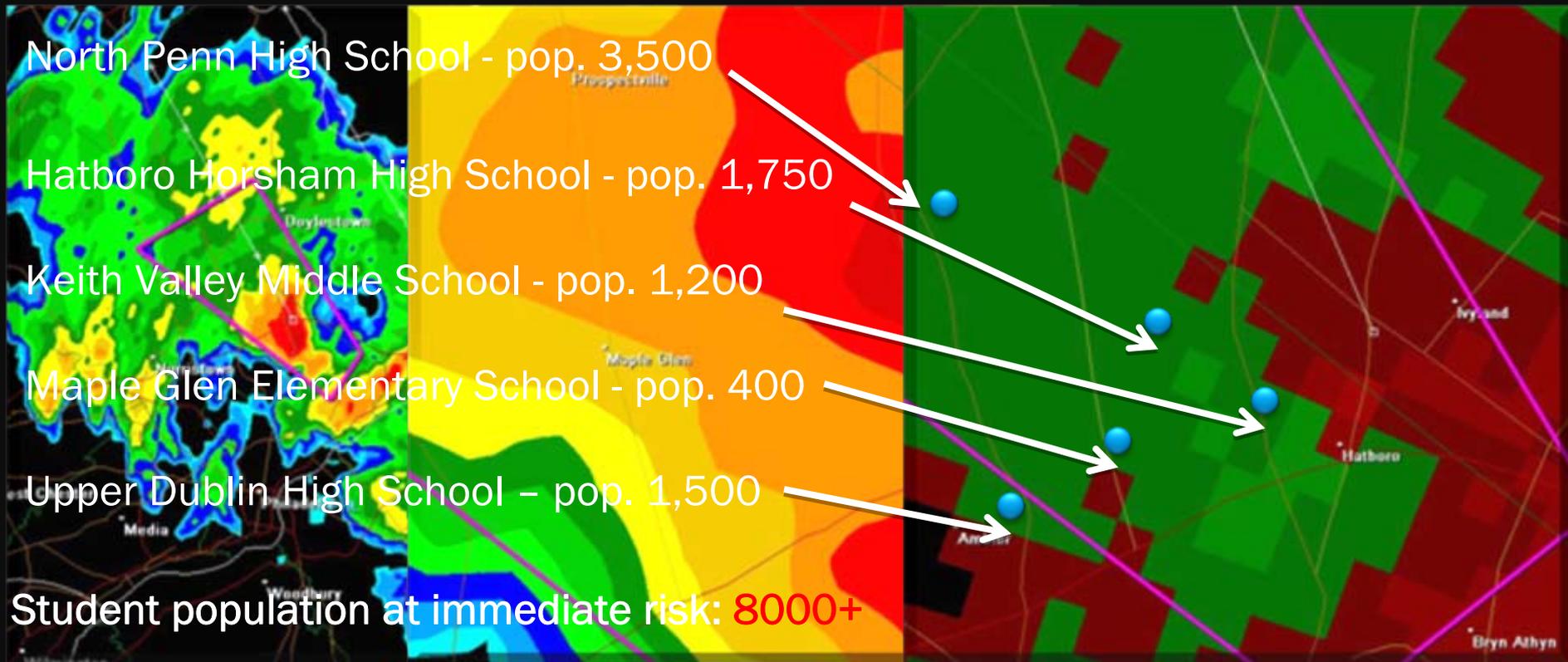


Schools and the Community

- One of the most significant life hazards in a community
- Often not prepared for emergencies
- Preoccupied with normal criteria for evaluation
 - Standardized tests
 - Differentiated instruction
 - IEPs
 - Success for all students



Areas not prone to severe weather are especially vulnerable



Education Programs

- Rarely include emergency management or specifically target school safety
- Focus on instructional techniques and models conducive to effective school management



Management Differences

Education

- Slow moving and cautious
- Loose management structure
- Semi-autonomous at the classroom level

Emergency Management

- Designed for rapid, decisive deployment
- Paramilitary command structure
- Highly interoperable



We don't speak the same language...



The Incident Command "Committee"...



Changing the Mentality

- Prime focus of schools is still on an active shooter
- Can be used as jump off point to refocus on “all hazards” approach
- Apply emergency management principles to non-emergency events
- HSA (2002) and HSPD-5 (2003) support NIMS integration
- Teach NIMS/ICS and link to alternative funding

Changing the Mentality

Optimize tools already available from
Dept. of Education and other agencies

KEY PERSONNEL AND NIMS TRAINING FOR SCHOOLS AND HIGHER EDUCATION INSTITUTIONS

“Key personnel” are *required* to complete four courses in order for an individual or organization to be considered NIMS compliant through FY 2007. To date, the following courses are required:

- IS-100: *Introduction to the Incident Command System*
- IS-200: *ICS for Single Resources and Initial Action Incidents*
- IS-700: *NIMS, An Introduction*
- IS-800.B: *National Response Framework, An Introduction*

NOTE:

1. Completion of course *IS-100.SC Introduction to the Incident Command System, I-100, for Schools,*

Changing the Mentality

Involve all parts of school community



Create Confidence and Partnerships

- Competency creates confidence at all levels of local government
- Include district personnel in planning and simulations to raise proficiency
- Reduce anxiety and increase interoperability





The Earth Science Deficit

- Earth science curricula largely missing from U.S. high schools
- 7 states reported earth science graduation requirement
- Most courses offered at low level of academic rigor
- Does not attract high achieving students

Advancing the Earth Sciences

Grassroots efforts can be found scattered around the country



Source: Willyard, C. (2008). Rocks: not just for jocks anymore. *Geotimes*, 53(5).



The A.P. Problem

- The power in high school curriculum lies in College Board approved coursework
- Earth science is the only K-12 science certification area not represented
- Catastrophic blow to prestige of the earth sciences
- Last concerted effort in 2006 failed to produce an approved course



“This study shows that Earth system science education in the U.S. is in need of significant improvement.”

As a whole, we found that there is great variation in the degree to which states currently incorporate modern earth science perspectives into their science standards.”

Source: Hoffman, M. & Barstow, D. (2007). *Revolutionizing earth system science education for the 21st century*. Center for Earth and Space Science Education, TERC, Cambridge, MA.

The A.P. Solution

- ✓ Dual enrollment solves the A.P. problem
- ✓ Some universities already have programs in place
- ✓ Provides a valid alternative to A.P. credit for high achieving students

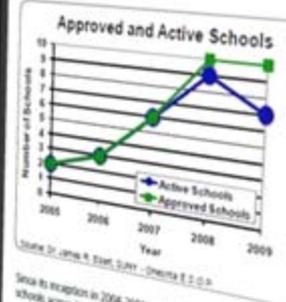
American Geological Institute GEOSCIENCE CURRENTS

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Earth Science Outreach Program Recruits New Majors

The most significant choke point in the geoscience career pipeline is at its source: secondary schools. Unfortunately, most U.S. high schools do not provide courses that expose students to the geosciences. This problem is exacerbated by the lack of Advanced Placement courses in the geosciences. A lack of student awareness creates a substantial impediment to creating viable geoscience majors in college or for choosing the geosciences as a career.

To address these issues, the State University of New York College at Oneonta has instituted an Earth Science Outreach Program (E.S.O.P.) that enables high-school teachers to teach E.S.O.P. courses at their home high school. E.S.O.P. courses are equivalent E.S.O.P. courses earn undergraduate credit through SUNY Oneonta. To provide further incentive for participation, the college has waived tuition for these courses and only charges a nominal fee.



Since its inception in 2004-2005, 402 students from 10 high schools across New York have taken advanced geoscience courses in their high schools through E.S.O.P.

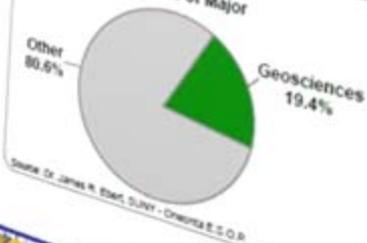
A snapshot of the most recent year for 5 schools shows 12 of 63 students (19.0%) have decided to major in the geosciences as a result of participating in E.S.O.P.

For more information about E.S.O.P., visit <http://employees.oneonta.edu/ebert/ESOP.htm>



Source: Dr. James R. Ebert, SUNY - Oneonta E.S.O.P.

E.S.O.P. Students Choice of Major



Source: Dr. James R. Ebert, SUNY - Oneonta E.S.O.P.



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Keys to Success

1

Reinforce communications like NIMS/ICS so all parties “speak the same language.”

2

Involve schools in all levels of emergency planning. Show them their value.

3

Use grants to reinforce compliance, allay costs and entice schools to get involved.

4

Actively support teachers attempting to create advanced earth science curricula through grants and/or accreditation



Questions
&
Thank you!



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