Workforce Development at the Frontier of DHS Science, Technology, Engineering and Mathematics

S&T Stakeholders' Conference West January, 2008

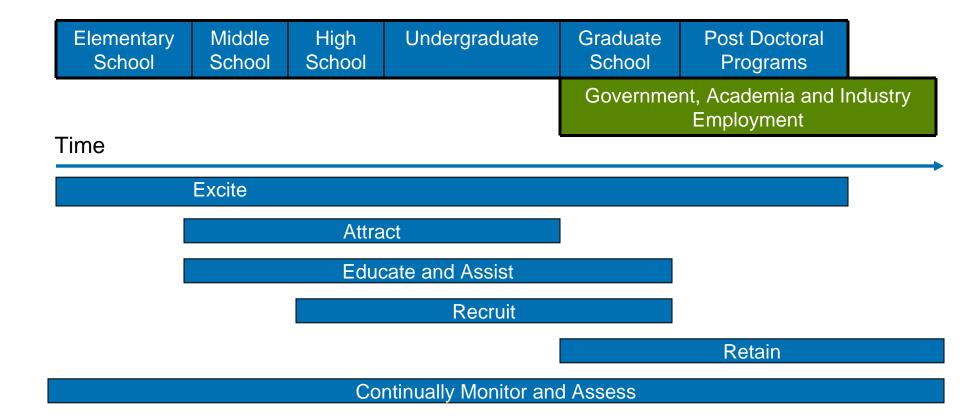
Quick Review of Our Objective:

- DHS S&T Directorate Goal #3
 - "In conjunction with other public and private institutions, proactively provide leadership, opportunities and resources to maintain and develop the necessary intellectual basis for a national S&T workforce and focused research disciplines that will ensure the safety of our homeland."

Workforce Development at the Frontier of DHS relevant STEM

- This session will address a DHS sponsored initiative to apply innovative content delivery strategies to the task of developing the future workforce. The session will include an in-depth look at the field of immersive games and simulations in addition to an update on a specific DHS initiative that addresses immersive simulations for the middle school population. Attendees will be provided with an opportunity to bring this initiative back to their communities.
 - Moderator, Mr. Tom Kowalczyk, DHS Office of University Programs
 - Dr. Mike Zyda, Director of USC GamePipe Lab, USC
 - Dr. Isaac Maya, Research Director, CREATE, USC
 - Mr. Daniel Wendel, Teacher Education Program, MIT
 - Mr. Adam Jascoff, NIST, Dept. of Commerce
 - Ms. Cindy Randall, FIRST (For Inspiration and Recognition of Science and Technology)

DHS S&T Workforce Development Strategy



DHS Relevant/Unique Core Competencies

DHS Relevant/Unique Core Competencies Education in Homeland Security Frameworks for Higher Risk Management **Systems Integration** Social, Cultural, Decision-Legal, and Analysis and Management Psychological, Political, and Making Tools Political. ethical Issues and Process Historical, and for the in Threat Operational Response Management Dynamics of and Resolution **Threat** of Complex **Problems** Workplace Competencies - Productively Use Interpersonal Skills Information **Technology** Resources **Systems** SCANS The Foundation **Basic Skills** Thinking Skills **Personal Qualities**

STEM Workforce Development View from 60,000 Feet

- National Academy Report (Feb 2006) <u>Rising Above the</u>
 <u>Gathering Storm</u> provides a current perspective and action
 plan for Energizing and Employing America for a Brighter
 Economic Future.
- Rising Above the Gathering Storm included a model Science, Technology, Engineering and Mathematics (STEM) Workforce Development Strategy.
- The National Academy Convocation on the report (September 25, 2006) examined actions at the State/Regional/Local Level.
- Social Cognitive Career Theory says" 'start with math selfefficacy.'