Education Facilities Sector-Specific Plan

An Annex to the Government Facilities Sector-Specific Plan

2010

Homeland Security

Department of Education

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Executive Summary

Critical infrastructure and key resources (CIKR) provide the essential services that support basic elements of American society. Compromise of these CIKR could disrupt key government and industry activities, facilities, and systems, producing cascading effects throughout the Nation's economy and society and profoundly affecting our national prestige and morale. Protection of U.S. CIKR is therefore vital to our Nation's security, economic vitality, and way of life. Because the functional categories of schools and higher education are aligned with the Government Facilities Sector (GFS), the Education Facilities Subsector (EFS) is a GFS subsector under the National Infrastructure Protection Plan (NIPP) for coordinating infrastructure protection efforts for schools and higher education institutions. The U.S. Department of Education's (ED) Office of Safe and Drug-Free Schools (OSDFS) serves as the Sector-Specific Agency (SSA) for the subsector under the NIPP, as designated by the U.S. Department of Homeland Security (DHS).

ED's mission is to promote student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access. Within ED, OSDFS administers, coordinates, and recommends policy for improving quality and excellence of programs and activities involving student health and safety, including guidance and information on emergency management efforts for schools and higher education institutions. OSDFS supports ED's mission by building school emergency management capacity and resilience at the Federal, State, and local levels. As the EFS SSA, OSDFS provides guidance and information to the education community in relation to infrastructure and security programs and resources for subsector CIKR protection.

Prior to ED's work under the NIPP, OSDFS was involved in various joint efforts with Federal agencies, including DHS, health and mental healthcare professionals, various associations and organizations, school district security chiefs, and State School Safety Centers to promote school preparedness and protection regarding emergency management as it relates to schools. In 2006, ED's OSDFS became engaged in DHS' NIPP effort and, as the SSA, developed a Sector-Specific Plan (SSP) that focused on school and university protective efforts. As part of the NIPP process, EFS participates in sector activities and assumes NIPP-related responsibilities while continuing to provide emergency management guidance and information to the education community.

Throughout its history with school emergency management, OSDFS has developed a substantive knowledge base for understanding key issues, concerns, and challenges facing education facilities as they refine comprehensive, all-hazards emergency management plans. OSDFS' knowledge and experience of key principles and elements of emergency management as they relate to schools informed EFS' goal that all education facilities, preK–12 through higher education, including DoD and American-sponsored overseas schools, have comprehensive emergency management plans to deal with all hazards (including cyber) and that address the four phases of emergency management—prevention-mitigation, preparedness, response, and recovery.

EFS consists of prekindergarten (preK) programs; all public and private K–12 schools (including charter schools); public and private higher education schools and institutions; U.S. Department of Defense schools; and American-sponsored overseas schools assisted by the U.S. Department of State.

Education facilities (preK through postsecondary) differ in comparison to other CIKR sectors or subsectors requiring infrastructure protection, as education facilities house mostly students for the majority of the day, five days a week or more, and often include after-school and evening activities and events. Further, education facilities are nontraditional emergency response agents, making comprehensive, all-hazards emergency management plans that are practiced and coordinated with community partners (e.g., law enforcement, fire, emergency management services, public health, local government) critical for the subsector. EFS realizes that although most schools have some level of security, plans that increase infrastructure protection and resilience constitute a universally applicable and subsector appropriate protective measure that can work to prevent or mitigate an incident and the subsequent consequences, enhancing resilience for the education facility and the surrounding community. Therefore, such plans are the primary focus of EFS infrastructure protective efforts and are the focus of EFS' CIKR protection goal and objectives under the NIPP.

The need for comprehensive, all-hazards plans has been highlighted historically and in recent years, as the subsector has been affected by incidents from school violence (e.g., the Virginia Tech shooting) to devastating natural disasters (e.g., Hurricane Katrina). In addition, education facilities have been affected by hazardous materials and chemical spills that have forced students and staff to evacuate. Also, infectious disease outbreaks, (e.g., H1N1, Methicillin-Resistant Staphylococcus Aureus), and food recalls have also had significant impacts on the subsector.

A challenge to this goal for the SSA is that given the decentralized role of our Nation's education system, education facilities are not required to report emergency management efforts to ED. As a result, comprehensive data does not currently exist regarding whether existing school or higher education emergency management plans are all-hazards and comprehensive, or if the plans are developed and exercised with community partners, reviewed, or updated regularly.

OSDFS and Emergency Management

A focus on emergency management for schools is not new to OSDFS. Part of the mission of OSDFS is to provide guidance and information to the education community regarding safe schools. Through its discretionary grant programs, training, a variety of tools, and established partnerships, OSDFS is directly involved with emergency management for the subsector. OSDFS works with a host of partners at the Federal, State, local, and tribal levels to enhance school and university preparedness. Throughout the years, these established relationships have fostered cooperation and mutual understanding of the key principles for school emergency management. Such collaborative efforts have produced a variety of tools for the education community to assist in all aspects of increasing infrastructure protection and enhancing resilience that are available via emergency management Web sites established by ED (**www.ed.gov/emergencyplan**; **http://rems.ed.gov**). The Readiness and Emergency Management for Schools (REMS) discretionary grant and the Emergency Management for Higher Education (EMHE) discretionary grant are key protective programs available to local educational agencies (LEAs) and to higher education institutions (HEIs) for developing and refining emergency management plans. OSDFS' REMS Technical Assistance Center supports the subsector in its emergency preparedness efforts including the development and implementation of comprehensive emergency management plans through posting emergency management guidance, information, materials, and technical assistance for the subsector. In addition, OSDFS has conducted trainings for REMS and EMHE grantees and nongrantees, public school districts, school security and law enforcement officials, Federal partners, and private schools interested in enhancing their preparedness efforts for schools and HEIs. Historically and ongoing, OSDFS works to provide guidance and information to the education community in relation to safe schools and emergency preparedness in the form of grants, training, collaborations with partners, tools, and emergency management-related materials for education facilities in the interest of comprehensive, all-hazards emergency management plans.

Summary of the Education Facilities Document

Consistent with specific DHS guidance, the 2010 EFS SSP addresses key changes to the 2009 NIPP (e.g., all-hazards approaches and an emphasis on resilience), describing the EFS vision and goal in terms of these changes and as they relate to protective efforts and associated metrics. The SSP also provides an overview of the education facilities profile, assets, risk assessment, prioritization, protective programs and resilience strategies, metrics, research and development (R&D), and subsector management. Protective efforts for EFS assets emphasize primarily the protection of human life, and secondarily the protection of physical (structural) assets, followed necessarily by cyber assets. To address growing concerns regarding cyber protective measures for all sectors, EFS provides supplementary information to the 2007 iteration of the SSP as it relates to cybersecurity in the subsector.

In addition to addressing changes to the NIPP, this iteration more fully addresses CIKR partnerships and protection, including updates to protective efforts and emergency management guidance, information, and tools. The plan presents important partnerships and collaborative efforts that have resulted in additional protective efforts for the subsector, including programs, guidance, and tools, in addition to cross-sector efforts to enhance CIKR protection and resilience. This document also identifies ongoing and emerging information and data collection efforts at the Federal and State levels.

Further, this document relates the NIPP risk management framework to schools and HEIs regarding the use of risk assessment, the screening of infrastructure, and the assessment of consequences, vulnerabilities, and threats. EFS has worked with Federal and non-Federal partners, including DHS, to develop a guide to the risk assessment process and risk assessment tool selection for schools. Therefore, EFS' plan not only states that all schools and universities should conduct a vulnerability assessment as part of their overall emergency management efforts, but now also provides a tool to assist them in doing so.

EFS' plan also describes the key protective programs for the subsector (discretionary grants, training, collaboration, emergency management-related materials, and implementation of emergency management plans). Although the 2006 EFS SSP identified one protective program limited to one component of education facilities (LEAs), EFS now has an additional program to address higher education emergency management, in addition to increased tools, trainings, collaborations, and documents. These are described throughout the document and are available on ED's emergency management Web sites.

To measure progress, the document identifies EFS' approach to measuring effectiveness as it relates to the goal, and has identified, along with partners, specific metrics to assist in this measurement process that are applicable to the goal and appropriate to the unique subsector.

The document also presents an updated overview of existing R&D school technology efforts, including categories of technology in use by the subsector. Finally, the plan describes the current approaches to managing subsector responsibilities and information-sharing structures.

EFS has achieved much since its first iteration of the SSP. Expanding partnerships, programs, training, tools, guidance, and emergency management tools have moved EFS forward toward its goal. More LEAs and now institutions of higher education[1] have received emergency management discretionary grants, affecting thousands of students and staff and their communities nationwide. Subsector awareness can be further enhanced by additional emergency management resources available online to the subsector at large. Partnerships and ongoing initiatives have provided additional guidance in relation to emergency management for extant and emergent needs. However, more work is required to reach its ultimate goal of all schools and higher education institutions having an all-hazards, comprehensive plan. Overall, the 2010 SSP helps to demonstrate tremendous progress made to date, and illuminates the path forward toward the subsector goal.

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[1] Institutions of higher education (IHEs) refer to 2- and 4-year degree granting institutions.

Introduction

Critical infrastructure and key resources (CIKR) provide the essential services that support basic elements of American society. Protection of U.S. CIKR is therefore vital to our Nation's security, economic vitality, and way of life. Because the functional categories of schools and higher education are aligned with the Government Facilities Sector (GFS), the Education Facilities Subsector (EFS) is a GFS subsector under the NIPP for coordinating infrastructure protection efforts for schools and higher education. The U.S. Department of Education's (ED) Office of Safe and Drug-Free Schools (OSDFS) serves as the SSA for the subsector under the NIPP as designated by DHS.

OSDFS has developed a Sector-Specific Plan (SSP) that focused on school and higher education protective efforts under the National Infrastructure Protection Plan (NIPP). Subsequently, the role of EFS is to provide guidance and information to the education community regarding the protection of education facilities. Toward that end, EFS provides guidance and information primarily on topics of school or higher education emergency management to the subsector.

EFS consists of prekindergarten (preK) programs; all public and private K–12 schools (including charter schools); higher education schools and institutions; U.S. Department of Defense (DoD) schools; and American-sponsored overseas schools assisted by the U.S. Department of State (DOS).

The EFS goal remains: That all education facilities, preK–12 through higher education, including DoD and American-sponsored overseas schools, have comprehensive emergency management plans to deal with all hazards (including cyber) and that address the four phases of emergency management—prevention-mitigation, preparedness, response, and recovery. These plans would be practiced and updated regularly; coordinated with appropriate State and local partners; developed in close collaboration with first responders and the community; and include a written plan for infectious disease, including a pandemic influenza outbreak, and a written food defense plan that includes the four phases of emergency management and is designed to safeguard the school's food supply, including all food storage and preparation facilities and delivery areas within the school district. In addition, the plan should incorporate measures to address special needs students and staff.

Tied to the goal, protective efforts include emergency management grants, training, emergency management-related tools, collaborations, and emergency management plan implementation. The 2010 SSP demonstrates its protective efforts' inherent relationship to all hazards (comprehensive plans are all hazards by definition) and resilience. In addition, numerous updates, including expanded protective programs, partnerships, metrics development, data sources, and initiatives are described in this plan.

For example, since the 2007 plan, EFS has expanded its protective programming to higher education, has expanded its partnership and outreach to nonpublic education and preK. Further, since the 2007 plan, EFS has increased its resources to include an emergency management guide for higher education and a vulnerability assessment guide for schools, increased its online resources, coordinated with cross-sector partners to produce mitigation guidance for schools in response to the H1N1 pandemic influenza, and increased the number of emergency management grantees.

1. Subsector Profile and Goal

1.1 Subsector Profile

In 2006, DHS asked OSDFS to develop a subsector plan that focused on school and university protective efforts as part of the overall NIPP effort; this document serves as the triennial iteration of the first plan, which was published in 2007. OSDFS serves as the Subsector-Specific Agency (SSA), and is referred to throughout this report as the SSA and EFS; when referencing the subsector itself (preK–12 and higher education institutions (HEIs)), it is referred to simply as the subsector.

ED's mission is to promote student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access.[2] The OSDFS administers, coordinates, and recommends policy for improving quality and excellence of programs and activities designed to prevent drug use and violence; support emergency management efforts for schools and institutions of higher education and address student health concerns including physical activity, nutrition, and counseling and mental health service needs. OSDFS supports ED's mission by building school emergency management capacity and resilience at the Federal, State, and local levels. Within ED, OSDFS serves as the EFS SSA. OSDFS' Center for School Preparedness (CSP) manages the EFS. CSP provides guidance and information to the education community regarding emergency management. EFS consists of preK programs; all public and private K–12 schools (including charter schools); higher education schools and institutions; DoD schools; and American-sponsored overseas schools assisted by DOS.

EFS has human, physical, and cyber assets. However, the EFS assets of primary concern are human and physical. Human assets include people on school or campus grounds, including students and staff of all ages. These include preK–12 public school districts, charter schools, nonpublic schools, public and private higher education schools and institutions, and staff. Physical assets include school buildings, portable classrooms, and school or campus grounds. Comparatively, cyber elements may play a smaller role in the subsector than in other sectors. Cybersecurity concerns, although important throughout the subsector, increase with education level given the type and amount of data and computer-dependent systems. Although cyber assets play a relatively minor role for preK–12, the increasing use of online student information management systems in upper grades increases the need for cyber-protective measures.

The predominant characteristics of individual preK–12 schools vary tremendously within EFS. Facilities supporting these students and staff are widely dispersed throughout the country and in all geographical regions with differing social and physical environments. The communities supporting the schools vary by population density as well, including urban, suburban, and rural locations. The owners/operators of these preK–12 school facilities are most often local educational agencies (LEAs) or, in some cases, their own boards or individual States. Proprietary schools or nonprofit facilities are often owned by private entities. For HEIs, the owners and operators are primarily private entities although a significant number of these institutions are

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[2] http://www.ed.gov/about/landing.jhtml.

operated by State or local entities. The physical size of a campus and the size of its student body, faculty, and staff vary as well, with some schools educating tens of thousands of students and providing housing for a significant proportion of those students and others enrolling fewer than 100 students.

Schools often serve as the hub of their community, providing meeting places for a range of community-based activities. As a result of this role, education facilities are usually easily identifiable and generally accessible to the public. Unique to this subsector is the fact that the preK–12 schools predominantly house children and youth, as well as staff, five days a week, most for at least one-third of the day. For many students, time at school (K–12 through higher education) is even longer as they participate in extracurricular school activities taking place on school grounds after traditional educational hours or community activities held at the school or campus. For many students, schools are the primary setting for critical services including food, health, and mental health services. Furthermore, there is an expectation that schools provide for the cognitive, physical, social, and emotional development of students. Therefore, the priority for this subsector surrounds guidance and information for and administration of appropriate protective measures that not only complement a positive learning environment, but also support the promotion of protective measures as appropriate for the school setting.

Higher education facilities share some but not all of the same characteristics as K–12 schools, though they are more often larger entities. HEIs are often small communities and sometimes small cities unto themselves. Some higher education campuses have their own infrastructure, including police forces, public works departments, and health care facilities, and maintain multiple types and sizes of facilities (e.g., academic, research, administrative, housing, athletic, social). These facilities provide for a large number of students and staff living, studying, and working on campus; are used to collect, manage, and store sensitive information; and are sometimes responsible for the safe storage and use of hazardous materials. Therefore, protective measures must be able to take into account the variety of characteristics and circumstances unique to higher education.

For higher education, the importance of cyber assets increases due to large databases of student and staff personal, educational, health, and financial information, as well as emergency management and security information. In addition, institutions of higher education also frequently maintain data that support research, including research projects sponsored by DHS and DoD. Some of these projects may include maintenance and use of sensitive data or storage and use of hazardous materials.

Cybersecurity considerations for the subsector identified in previous subsector reports involved (1) risks associated with the compromise of personal data (including health information), and (2) emergency management data housed electronically, i.e., institutions whose business continuity relies on a functioning information technology system and malicious exploits, such as distributed denial-of-service attacks on data systems and networks that implement essential functions (e.g., governance, utility service, maintenance, and campus security). These issues remain important cybersecurity considerations for EFS, and the SSA continues to work with partners to understand cyber issues and security throughout the subsector.

Key Authorities

EFS recognizes that the ultimate responsibility for the protection of particular assets in the subsector lies within local communities, the individual States, or private owners, as the United States has a highly decentralized system of education. The Tenth Amendment (1791) of the U.S. Constitution (1787) states: "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people." Therefore, the general authority to create and administer public schools is reserved for the States. There is no national school system nor are there national requirements that prescribe curricula or control most other aspects of education. Although it plays an important role in education, the Federal Government does not establish or license schools or govern educational institutions at any level.[3]

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[3] "Education in the United States: A Brief Overview" U.S. Department of Education. (September 2005).

Commonly, key attributes of State education governance structures affect policy development and the policy implementation process. One common governance role is that of the Chief State School Officer, who heads the State Education Agency (SEA) and the State Board of Education. The Chief State School officer can be appointed or elected and can distribute State funds to local education authorities (about 94 percent of all funds spent on public elementary and secondary schools in the United States comes from State or local sources); interpret and administer State school laws; and provide advisory services to local superintendents and school boards.

At the local level, governance occurs through local school districts or LEAs and a local board of education, members of which are most often elected by citizens within the district but in some instances are appointed by government officials. Consistent with State law and official policy, the local board operates the public school system, or LEA, through the superintendent and the district staff, who enact State regulations to govern the operation of schools. Indeed, the limitations of school boards are those established by the State legislature, or by the SEA, which in most cases prescribe minimum standards for all local school districts. In addition, LEA enrollments range from fewer than one hundred students to more than one million students.

Legislation Supporting School and Higher Education Emergency Management Capacity Building and Data Gathering[4]

The Elementary and Secondary Education Act of 1965, as amended (ESEA), requires that LEAs that receive funding from the Safe and Drug-Free Schools and Communities Act State Grants Program have a crisis management plan for responding to violent or traumatic incidents on school grounds. For general institutional data gathering, the Higher Education Act (HEA) requires that institutions that participate in the Federal student financial assistance programs must participate in the Integrated Postsecondary Education Data Systems (IPEDS) data gathering system (to provide data such as enrollments, faculty and staff, graduation, and finances). Finally, Safe and Drug-Free Schools and Communities Act (SDFSCA), National Programs authorizes use of program funds for a variety of purposes related to preventing youth violence and drug use. ED has used this authority to implement Project School Emergency Response to Violence (Project SERV), an initiative that provides rapid assistance to LEAs, SEAs, or institutions of higher education whose learning environments have been disrupted by a violent or traumatic incident.

Nonpublic schools are operated privately and are not subject to all of the requirements that must be met by public schools. However, Title IX of ESEA does require that some programs provide equitable services to private school students and teachers. Title IX, section 9501 of ESEA requires that SEAs, LEAs, or other entities receiving funds under SDFSCA provide for the equitable participation of private school children, their teachers, and other educational personnel in private schools located in areas served by the grant recipient. In order to ensure that grant program activities address the needs of private school children, LEAs must engage in timely and meaningful consultation with private school officials during the design and development of the program. This consultation must take place before any decision is made that affects the opportunities of eligible private school children, teachers, and other education personnel to participate.

In order to ensure equitable participation of private school children, teachers, and other educational personnel, an LEA must consult with private school officials on such issues as: hazards/vulnerabilities unique to private schools in the LEA's service area, training needs, and existing emergency management plans and resources already available at private schools.

State Mandates and School Emergency Management

Since its 2007 SSP, EFS has begun identifying common State mandates that are aligned with and therefore help promulgate the EFS vision and goal. Such legislation includes information on school emergency management. Across the Nation, EFS has identified common State mandates (e.g., statutes, rules, and regulations, and administrative code) on the following activities regarding school emergency management: establishing a plan, performing assessments in relation to school emergency management,

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[4] Key authorities are listed in Appendix 1.

and conducting drills. The number of common mandates demonstrates an additional data source when making nationwide assessments of local school emergency management capacity. This data effort will be further described in section 2.2.

Interdependencies

Interdependencies in the subsector relate to the relationship between EFS' schools and their surrounding community. Education facilities are not traditional response organizations; they are more typically recipients of first responder services provided by fire and rescue, emergency medical, and law enforcement agencies. This traditional relationship is acknowledged in building emergency management capacity. District, school, and campus participation in the local government's preparedness efforts is essential to ensure that first responder services are delivered to campuses in a timely and effective manner. This relationship and mutual goal is supported and facilitated by the EFS mission and protective programming put forth. Additional interdependencies include community use of schools as shelters during emergencies (recent examples include Gulf Coast hurricanes and West Coast wildfires).

Furthermore, EFS facilities and campuses have additional assets that fall under the purview of other sectors whose protective measures include those specific assets. For example, the school campus can possess numerous critical assets and systems to be administered and maintained, such as transportation systems, campus stadiums and arenas, and food delivery, storage, preparation, and distribution, including the Department of Agriculture Child Nutrition Programs such as the National School Lunch and School Breakfast Programs. Many higher education campus settings can also include hospitals and research facilities employing chemical or nuclear materials, in addition to biologically hazardous or radioactive material. Such assets constitute cross-sector assets and fall within the primary authority of other sectors (described in section 1.2) and their respective protective initiatives and efforts. EFS coordinates with cross-sector Federal partners as appropriate. For example, EFS works with the Transportation Systems Sector's highway motor carrier mode to provide insight to their efforts as well as identify and disseminate applicable resources to the school and higher education community.

1.2 CIKR Partners

Both within ED and under the NIPP, the role of OSDFS as the SSA is to provide guidance and information to the education community. Within ED, this focuses particularly on safe schools. Under the NIPP, the focus is on the protective and resilience efforts for education facilities. As EFS is a subsector within GFS, this subsector plan is attached as an annex to the GFS SSP.

OSDFS has a long history of multi-disciplinary partnerships with educational and security representatives at the State and local levels and from the private sector. For example, ED works with agencies, organizations, and representatives associated with school security and emergency management, such as Chief State School Offices, SEAs, LEAs, and campus and school safety and law enforcement groups. EFS utilizes and builds on the history OSDFS has working with a host of partners at the Federal, State, local, and tribal levels to build and enhance school and university security and infrastructure protection. These relationships inform EFS initiatives, work to create an understanding of school emergency management nationwide, create a mechanism for information sharing, and work to build capacity and resilience. ED and OSDFS have partnerships with a variety of Federal departments and entities for activities relevant to the work of EFS under the NIPP. These partnerships have grown over the years and serve as a model for State and local entities and partnerships.

In addition, EFS has built on existing relationships with Federal agencies and partners via participation in the NIPP. Examples of implementation activities through such partnerships are discussed in section 5.1. For its roles and responsibilities under the NIPP, OSDFS, as the SSA, works with the NIPP Program Management Office (PMO) on subsector activities and responsibilities, including communication products and outreach. EFS also participates in the Transportation Systems Sector highway motor carrier mode Government Coordinating Council (GCC), and works directly with DHS's Federal Protective Service (FPS), GFS' designated SSA. For example, FPS develops the GFS SSP and coordinates with OSDFS in the development and submission of the EFS subsector plan, annual reports, and a variety of NIPP-related activities and responsibilities.

Although ED and OSDFS currently maintain numerous partnerships, OSDFS participates in a number of DHS groups beyond the requirements put forth under the NIPP. OSDFS currently works with DHS on multiple inter-agency national planning and preparedness groups (e.g., the National Biosurveillance Integration Center, the Defense Readiness Group, the Incident Management Planning Team, etc.), as well as Federal Emergency Management Agency (FEMA) recovery groups in support of Federal initiatives. EFS also works with DHS on specific infrastructure protection and resilience efforts to better inform the development of guidance tools and resources to the subsector. For example, OSDFS has a long-established partnership with the U.S. Secret Service, forming the Safe Schools Initiative (SSI), which serves the mutual goal of producing applicable school threat assessment tools and guidance. The SSI is designed to help school officials and their partners identify students who may pose a risk, and has produced several reports including two threat assessment reports that outline a process for identifying, assessing, and managing students who may pose a threat of targeted violence in schools; threat assessment trainings; tabletop exercise scenarios for use by local school threat assessment teams; and most recently, a bystander report. In addition, EFS has also been working with DHS through FEMA's National Integration Center Incident Management System Division to develop school-centered National Incident Management System (NIMS) implementation activities and guidance materials to not only help with the implementation of NIMS but to also facilitate the gap between school emergency management officials and traditional response personnel.

Additionally, more discreet examples of partnerships with DHS have yielded resources and tools for the subsector. For example, EFS worked with a variety of Federal partners in 2004, and again in 2007, to develop and revise the Crisis Planning Guide, and with FEMA to conduct a virtual Town Hall on school emergency management. Further, in 2008, EFS worked with DHS and other agencies to develop a vulnerability assessment guide for schools, and worked with the U.S. Department of Health and Human Services (HHS) to establish the Emergency Management for Higher Education (EMHE) discretionary grant program.

Another partnership example with FEMA was to assist schools and higher education institutions with NIMS implementation and identified those activities that address the unique role of educational facilities in a community, their needs, and their functions as response agents along the chain of command during an incident. These efforts resulted in the publication of a series of documents outlining those actions education facilities receiving Federal preparedness funds must take in order to (1) fulfill NIMS compliance requirements, (2) integrate NIMS into the educational setting, and (3) connect schools and campuses to their community partners. This information is made available to the entire subsector via posting on ED's Readiness and Emergency Management for Schools (REMS) Technical Assistance (TA) Center Web site (**http://rems.ed.gov**).

EFS Cross-Sector Partners

- HHS
  - Public, physical, and mental health; specifically, pandemic flu guidance in 2009
  - Centers for Disease Control and Prevention (CDC)
- Guidance, information, and tools
- Division of Adolescent School Health (DASH) (The School Dismissal Monitoring System)
- EMHE Grant Program
  - PreK emergency management
- DHS
  - Commercial Facilities SSA for school- and university-related commercial facilities
  - Nuclear Reactors, Materials, and Waste SSA for Research and Test Reactors
  - Chemical SSA for chemical research facilities
  - Transportation Security Administration (TSA) regarding school buses security

- Department of Defense Educational Activity (DoDEA) regarding DoD schools

- DOS regarding American-sponsored elementary and secondary schools overseas

- U.S. Department of Agriculture (USDA) for child nutrition programs

Other Federal Partners

ED and EFS work with other Federal entities individually and on joint efforts to promote preparedness within the subsector, including:

- DHS

  – National Cyber Security Division (NCSD)

- Federally sponsored cybersecurity tools and programs

  – FEMA

- Virtual Town Hall

- NIMS implementation activities for schools, higher education institutions

  – U.S. Secret Service

- Threat assessment supports and trainings

- U.S. Department of Justice (DOJ)

  – Community-Oriented Policing Services (COPS) program for training and information on school-related problem solving

  – National Institute of Justice (NIJ) School Safety Technology Working Group

- U.S. Department of Commerce

  – National Oceanic and Atmospheric Administration (NOAA) and DHS to provide all schools in the United States with all-hazards emergency radios

U.S. Department of Education Offices

EFS utilizes a variety of offices within ED that address a variety of topics related to subsector protective efforts:

- Office of Innovation and Improvement

- Office of Non-Public Education

- Office of Management

- Office of Special Education and Rehabilitation Services

- Office of Planning, Evaluation, and Policy Development

- Office of Post-Secondary Education

State, Local, Tribal, and Territorial Governments

OSDFS also has well-established, ongoing relationships with educational and school security associations and organizations, school security chiefs, and other partners at all levels of government. As ED has long-standing relationships at the State, local, and tribal levels, OSDFS works with partners associated with emergency management on school and higher education campuses. For example, at the national and State levels, OSDFS maintains relationships with Chief State School Officers, SEAs, and the National Association of School Safety and Law Enforcement Officers. In addition, ED maintains relationships with local

partners such as LEAs, campus security officers and emergency managers, and chief law enforcement personnel from the Nation's 40 largest school districts. REMS discretionary grantees from FY 2003 through FY 2009 and EMHE grantees from FY 2008–2009 are another group of partners for EFS, providing representation at the local, tribal, and territorial levels.

CIKR Owners and Operators

- School districts

- Public and private preK–12 schools

- Public and private higher education institutions, including proprietary schools

- Educational organizations and associations

1.3 Subsector Goal

The 2009 NIPP was revised to include several changes, among them an all-hazards approach, and an emphasis on resilience in relation to critical infrastructure protection. These elements have not only always been central and inherent to the EFS risk management approach, reflected in the EFS vision and goal, but also in each of its numerous programs, training, tools, and initiatives as detailed throughout this plan.

Consistent with the all-hazards risk management infrastructure protection and resilience approach described in its vision, the goal remains as stated in the 2007 EFS SSP. EFS worked with its CIKR partners in 2009 to address the relevance of the 2007 CIKR goal for the subsector and determined it is still relevant and appropriate as originally stated.

Progress in Subsector Emergency Management

EFS has made significant and continuous progress in the area of emergency preparedness for schools and higher education and currently offers:

- *Multiple discretionary grant programs to support school and higher education emergency management plans, and to fund education facilities focusing on recovery efforts following a violent or traumatic event in which the learning environment has been disrupted;*

- *Increased information on lessons learned and emergency management topical training for schools and universities; and*

- *Other tools and resources such as guides for enhancing emergency management for schools, supporting higher education, and selecting an appropriate risk assessment tool.*

Vision Statement

To allow for the unique characteristics of the subsector and its vulnerabilities in respect to a wide range of manmade incidents and natural disasters, EFS has identified all-hazards, comprehensive emergency management plans as the most important risk mitigation activity that can support school and higher education infrastructure protection and resilience. The EFS vision remains: "That all schools and higher education institutions are prepared to prevent-mitigate, respond to, and recover from all hazards, natural or manmade, by having a comprehensive, all-hazards plan based on the key principles of emergency management to enhance school safety, to minimize disruption, and to ensure continuity of the learning environment."

The EFS goal facilitates implementation of CIKR protective efforts and enhancements. Specifically, this goal states that "all schools, DoD and American-sponsored overseas, preK–12, higher education institutions (including proprietary schools), have comprehensive emergency management plans to deal with all hazards (including cyber) and that address the four phases of emergency management—prevention-mitigation, preparedness, response, and recovery. These plans would be practiced and updated regularly; coordinated with appropriate State and local partners; developed in close collaboration with first responders and the community; and include a written plan for infectious disease, including a pandemic influenza outbreak, and a written food defense plan that includes the four phases of emergency management and is designed to safeguard the school's food supply, including all food storage and preparation facilities and delivery areas within the school district. In addition, the plan should incorporate measures to address special needs students and staff."

Federal justification for this goal is found in ESEA, which requires LEAs that receive SDFSCA State Grant funds to have a crisis management plan for responding to violent or traumatic incidents on school grounds. Toward that end, the REMS grant program and the State Grants Program are vehicles the subsector uses to implement this legislative requirement. In addition, LEAs can use funds from their State allocations for the purpose of developing emergency management plans. At the State level, some States mandate activities related to emergency management and emergency management plans, as discussed throughout this report.

EFS' emergency management efforts support its vision statement and risk management approach and stem from partnerships and experience gained from years of working with Federal partners, SEAs, LEAs, school officials, school security representatives, administrators, and grantees.

The EFS vision and goal equally support all education facilities' unique characteristics and diversity from region to region and locale to locale. For example, education facilities are widely distributed geographically, yet the subsector is relatively equally at risk for manmade and natural hazards across the spectrum. Furthermore, the vision and goal addresses the common trait that education facilities are frequently intended to be easily identifiable and accessible to the local community. The EFS vision and goal provides a protective effort focus for all education communities (e.g., preK–12 through higher education, public and private) to work with community partners to build, enhance, practice, and update customized, all-hazards emergency management plans.

1.4 Value Proposition

Recognizing that it is at risk for a broad range of hazards and understanding that education facilities are not traditional response agents, EFS has worked to encourage the subsector to take an infrastructure protection and resilience approach to emergency management, including cybersecurity. The SSA has implemented various protective programs and initiatives to help the subsector reduce potential risks, including support for site-specific emergency management plans that are coordinated with community partners and maintained, updated, and practiced. The value proposition is inherent to the primary protective effort—comprehensive, all-hazards emergency management plans, which by their design promote resilience for the subsector.

Central to the design of a comprehensive emergency management plan is establishing and fostering relationships with local partners that support response and resilience. For example, under the REMS and EMHE discretionary grant programs, grantees are to collaborate, communicate, and coordinate emergency management efforts with local community-based law enforcement, public safety or emergency management agencies, public and mental health agencies, and local government to review and strengthen their emergency management plans. These relationships foster resilience with increased protection and efficiency during an emergency, reducing risk to subsector assets and disruption to the learning environment.

The process for communicating the value of EFS protective measures is done via several avenues. EFS communicates with Federal and non-Federal CIKR partners via its dedicated emergency management Web site, technical assistance center Web site, listservs, Webinars, national meetings and conferences, emergency management products, collaborations, and initiatives.

Several events have demonstrated the impact of these relationships and the resulting efficiency of response and resultant resilience for the subsector. One example is the 2007 California wildfires, where partnerships and preparedness mitigated impact and injury for both the school and the community in the face of an entire county needing to close schools and contend with a natural disaster. With the plan having already been coordinated with local partners, injury and disruption to the learning environment was minimized.

Comprehensive emergency management implications for the subsector include increased all-hazards protection and enhanced resilience. EFS works to minimize cost and maximize benefit to the subsector via administering grant programs, guidance and information, tools, and resources to help streamline efforts and mitigate costs. Further, emergency management grant requirements and guidance reinforce the importance of relationships between the school and the community, where both cost and expertise can be leveraged with local partners.

2. Identify Assets, Systems, and Networks

2.1 Defining Information Parameters

EFS' framework to collect subsector information focuses on data that facilitates increased understanding of preK–12 and higher education emergency management and preparedness. Information includes specific assets related to human, physical and cyber, but focuses on EFS' primary asset, the human asset. Although EFS continues to collect categorical asset information for the subsector, such as demographic and programmatic information and statistics, EFS data collection focuses on movement toward the EFS goal: That all education facilities have comprehensive, all-hazards emergency management plans.[5] This infrastructure information results in a blend of Federal, State, and local data sources, and is often a result of relationships at all levels of governance.

Federal data collection efforts supporting EFS include annual and situational updates to Federal and State databases and systems, data collection from partners, and OSDFS programming data collection. Such information includes schools and higher education institutions that have emergency management plans through the receipt of OSDFS emergency management grants. This information supports EFS planning activities as well as its efforts to support subsector emergency management programs throughout the four phases, before, during, and after emergency incidents.

Such subsector data are divided into categories based on the entity charged with collection and maintenance of the related data. Data collected by ED describing HEI and preK–12 school information include common identifiers such as grade level, public or nonpublic status, type of conferring institution, and enrollment and staffing, as well as geographic and contact information. When available, EFS reviews discreet analysis and related reports on K–12 schools. Such analysis is derived from the outcome of reports on climate (e.g., safety and crime), protective measures, building infrastructure and school-related physical assets, and cyber assets (business systems and safety, security, and support systems), as available.

The number of active ED information collection efforts is driven by congressional legislation and includes common identifiers. Data collected by ED's National Center for Education Statistics (NCES) is the primary source used to obtain ongoing and basic subsector data. NCES data collections provide the foundation for national school and postsecondary educational data for EFS and a host of other entities.

To inform subsector asset information and data collection, EFS utilizes NCES data for reporting and planning purposes, in addition to requests for information and subsector status updates.

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[5] It should be noted that although information collection falls under the EFS umbrella, EFS coordinates with DoDEA but defers to DoDEA authorities regarding emergency management planning and implementation. Similarly, EFS also defers to DOS authorities in relation to overseas schools and emergency preparedness.

Specifically, EFS turns to the following NCES data sources:

- Common Core of Data (CCD)

- Indicators of School Crime and Safety

- Private School Universe Survey (PSS)

- IPEDS

These NCES annual data collection programs collect fiscal and nonfiscal data about preK–12 public and nonpublic schools, public school districts, and SEAs in the United States, in addition to higher education. PreK–12 public school and LEA data describes schools and school districts, including descriptive information about students and staff. When applicable, CCD includes information on schools and districts offering public preK–12 programming efforts. Nonpublic school data is collected separately through the PSS. IPEDS is the primary, higher education institution data source (for more details on each NCES data sources, see appendix 3).

Subsector preparedness information is also gathered from other Federal CIKR partners (e.g., HS, CDC, and DHS) and State agencies (e.g., regarding the number of States with mandates regarding school emergency management, including plan content and risk assessment). However, EFS primarily relies on ED's data collection as described above. For information not obtainable at the Federal level, EFS utilizes its partnerships at the local level to glean necessary data from the appropriate sources. For example, EFS works with the historical OSDFS partnerships to collect descriptive data as well as to inform the subsector of pertinent risk information. Partnerships include those with Federal agencies, at the State level with SEAs and the State Safe School Centers, and at the local level with LEAs, and school law enforcement officials, as well as current and former REMS and EMHE grantees.

This subsector's information collection process does not include direct reporting of cross-sector assets such as school buses, stadiums, and arenas located on campus grounds; Department of Agriculture Child Nutrition Programs such as the National School Lunch and School Breakfast Programs; and hazardous materials associated with hospitals or research facilities, as these assets fall under different sectors and are therefore being addressed in their respective sector plans. Although these cross-sector assets fall under the primary authority of other sectors, EFS coordinates with the other SSAs to understand how these issues are addressed as they apply to schools or HEIs.

Infrastructure Data Warehouse

EFS will continue its coordination efforts with GFS to contribute and participate in, as applicable, DHS asset information systems, including those administered through the DHS Infrastructure Information Collection Division (IICD), and the related protective programs. EFS will coordinate with IICD on updates to EFS taxonomy information and to review the need for any subsector asset data identified as appropriate for inclusion in the Infrastructure Data Warehouse (IDW). If asset data is identified for inclusion, EFS will work with DHS to ensure that data is accurate, current, and secure.

2.1.1 Identifying Cyber Infrastructure

EFS' approach to identifying cyber assets, systems, and networks remains based on the primary usage and vulnerabilities relevant to the subsector. These include risks associated with emergency management data and capabilities (access control, warnings and alerts, communication systems) that are housed electronically, education institutions whose security and business continuity relies on a functioning information technology system, and the compromise of personal data (inclusive of health and financial information). Cyber considerations are part of comprehensive, infrastructure and resiliency plans. Therefore, identifying specific cyber infrastructure is often done at the facility level by owners and operators. Although not comprehensive, EFS reviews annual reporting data from grantees that can further identify this infrastructure for the subsector.

Interdependencies can occur within the subsector as school and higher education cyber systems are often part of district or State-level systems and therefore fall under the purview of the larger entities' protective efforts.

2.2 Collecting Infrastructure Information

EFS collects protective efforts and steady-state information on general subsector data, the number of schools that report having emergency management plans as available through NCES surveys and CIKR partners, the number of LEAs and IHEs that have received REMS and EMHE grants, and information on preK emergency management, as available. EFS has established and maintains Federal-level partnerships facilitating collection and analysis of asset data as well information sharing. During steady-state conditions, EFS works to strengthen relationships and considers joint functions through information awareness and information-sharing activities. Information is also collected on the number of grantees located in the Urban Areas Security Initiative (UASI) eligible sites, as available, and school dismissal data in response to an incident such as the 2009 H1N1 outbreak. Recent partnerships in support of local education and public health officials during the 2009 H1N1 outbreak exemplify how EFS continually maintains relationships with related Federal, State, and local agencies in mutual support of protecting the subsector. At the onset of the outbreak in April 2009, EFS' Center for School Preparedness collaborated with the CDC to detect, collect, and report information on school dismissals related to H1N1, creating the School Dismissal Monitoring System. Since the initial outbreak, the system has been enhanced and now includes voluntary, direct reporting from local school and public health officials.

The National Center for Education Statistics

NCES is the primary Federal entity for collecting and analyzing data related to education in the United States. NCES is located within ED and the Institute of Education Sciences. Further, NCES is the primary data resource for school and higher education statistical information for the EFS SSA.

Much school data already exists in the public domain, including the number of school and, for each school, its type, name, and location, and whether it is a State, local, or private entity. For example, to gather basic preK–12 and higher education data, EFS uses data compiled by NCES to understand subsector characteristics, including information and research on such subjects as basic school preparedness, protection, asset tallying, location/contact information/demographics, and school cultural climate. Further, EFS works with ED's internal office of nonpublic education to coordinate nonpublic K–12 data to inform information requests and status updates for nonpublic education.

It should be noted that, given the decentralized educational system, information limitations, including the lack of regulatory requirements to provide ED with information systematically, inhibit the comprehensiveness of information gathered. However, an example of data collection governed by regulation in the subsector is IPEDS, through which NCES also collects information and statistical data on HEIs online via **www.nces.ed.gov/ipeds**. IPEDS collects annual data from every college, university, and technical and vocational institution that participates in the Federal student financial aid programs. The Higher Education Act of 1965, as amended, requires that such institutions report data on information such as enrollments, faculty and staff, graduation, and finances. These data are made available through the IPEDS Data Center.

To inform subsector asset information and data collection for higher education, EFS utilizes NCES data for reporting and planning purposes, in addition to requests for information and subsector status updates. IPEDS provides basic data needed to describe and analyze trends in postsecondary education in the United States, and reports on basic information. Congress, Federal agencies, State governments, education providers, professional associations, private businesses, media, and others rely on IPEDS data for this basic information on postsecondary institutions. However, postsecondary infrastructure protection and security information is obtained through CIKR partners and emergency management grantees.

State Mandates for School Emergency Management

By establishing, implementing, refining, and sustaining all-hazards emergency management plans with their community partners, LEAs and higher education facilities build capacity and resilience. These plans help the subsector prevent and mitigate, prepare for, respond to, and recover from all-hazard incidents. Furthermore, these same activities work to build the general state of preparedness and resilience, by facilitating response, and therefore hastening the restoration and recovery process.

To expand EFS' understanding of subsector emergency management, EFS now assesses State mandates of key school emergency management activities as one of many indicators measuring growth of school emergency management efforts nationwide. This was in part initiated following the 2007 U.S. Government Accountability Office (GAO) report titled, "Most School Districts Have Developed Emergency Management Plans, but Would Benefit from Additional Federal Guidance."[6] This report found that the majority (32 of 51) of States and districts responding to the GAO surveys reported having State laws and policies that require schools to have emergency plans.

Following the 2007 GAO report, and in line with EFS' goal, EFS began a new information collection procedure for the subsector. This data collection procedure is scalable to grade level or timeframe and can be updated as often as needed, depending on other determining factors. To obtain this data, EFS established the following activities as core data points for review of State mandates in relation to school emergency management:

• Establishing a plan;

• Conducting drills; and

• Performing assessments in relation to school emergency management.

OSDFS compared the common data sets (establishing a plan and conducting drills) to demonstrate progress and gathered a novel set of data (performing assessments in relation to school emergency management). This additional data set helps to capture the States' expectations for LEAs and their schools in relation to emergency management, but also is used to demonstrate progress in terms of increased or more comprehensive expectations. Further, this data helps inform the SSA of one element of subsector progress toward the goal. For example, the following information obtained in early 2009 can provide data points for future efforts in relation to gathering information on State mandates and school emergency management.

Common State Mandates: School Emergency Management	
Mandates (e.g., legislation, statutes, rules, and regulations, and administrative code) for LEAs and schools to conduct the following activities	**Number of States**
Establish an emergency management plan	41
Perform assessments in relation to school emergency management	25
Conduct fire drills and emergency evacuation	46
Conduct additional exercises (e.g., reverse evacuation, lockdown, shelter-in-place, weather specific, disease, chemical, practice of the plan)	28

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[6] http://www.gao.gov/products/GAO-07-609.

The School Dismissal Monitoring System

In spring 2009, a new data collection procedure initiative was prompted by a national incident. During the beginning of the 2009 H1N1 outbreak, EFS and CDC collaborated to create the School Dismissal Monitoring System, available on the ED and CDC Web sites,[7] to report on novel influenza A (H1N1) related school or school district dismissal in the United States. Although this is a voluntary data submission, EFS owners and operators may now report novel influenza A (H1N1) related school and district closures by downloading and filling out an online reporting form and submitting it online or via facsimile. During its development and planning, EFS worked collaboratively with partners to develop and maintain a process for collecting, sharing, and protecting these data in a manner that met the needs of the schools and that would also help ED understand the situation across the Nation.

Further, EFS utilizes its various information-sharing vehicles, such as the Information Sharing Network (ISN) and a host of listservs that span public and private K–12 through higher education CIKR partners, to obtain and share information from subsector owners and operators, inclusive of school and higher education emergency managers. EFS also communicates with higher education partners to obtain H1N1-related information for higher education.

Therefore, the current collection of EFS data falls across multiple sources from owners and operators to non-Federal CIKR partners to Federal entities. Going forward, EFS will continue to coordinate with partners at all levels as needed and available to obtain and understand subsector information during steady-state conditions and emerging data in the wake of an incident.

2.3 Verifying Infrastructure Information

To ensure the accuracy of infrastructure information, the EFS SSA relies on existing processes and structures established by reliable sources, and directly confirms data points with the originators of the information as available. EFS relies primarily on Federal- and State-level data for obtaining infrastructure information.

NCES, a primary data resource for EFS, has an established procedure for verifying data collected. For example, NCES' School Demographic Data System implemented a geographic information system to disseminate decennial census and administrative data on public schools and school districts.[8] NCES started the process of geocoding U.S. schools by using the statistical data found in its CCD school file. After geocoding, a random sample of 10 percent of schools was verified by various means, including geocoding software and directly through school staff.

2.4 Updating Infrastructure Information

Currently, ED's NCES consistently updates school and higher education survey data on a regular basis, often annually. State mandates are updated continuously and are driven by legislative schedules at the State level. EFS collects State mandate data on a regular basis and compiles the data annually to help inform progress toward the goal. School dismissal monitoring information is provided daily by subsector owners and operators, and summarized daily and weekly for Federal and State partners; grantee data is updated annually and ongoing. EFS maintains close contact with partners to collect and retain relevant preK–12 public and private school and higher education school data, and monitors public information sources to help the EFS SSA remain as current as possible. EFS will notify DHS of updates to infrastructure information as appropriate.

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[7] **http://www.ed.gov/admins/lead/safety/emergencyplan/pandemic/index.html**
http://www.cdc.gov/h1n1flu/schools/dismissal_form/.

[8] This NCES mapping site makes publicly available national information about local educational agencies in the 50 States and the District of Columbia at **http://nces.ed.gov/surveys/sdds**.

EFS will continue to coordinate with CIKR partners and continually look for updated and additional, reliable data sources for subsector information as it relates to infrastructure assets. During both steady-state conditions and in the event of an incident, EFS will work with its partners to ensure information is accurate and reliable.

3. Assess Risks

3.1 Use of Risk Assessment in the Subsector

Risk assessment is central to the NIPP risk management framework, and is part of a comprehensive, all-hazards emergency management plan, the focus of the EFS risk management approach. EFS realizes that the subsector remains at risk for a host of natural or manmade hazards. At this time, the SSA relies largely on the independent assessments of education facilities. Sector-wide assessments can be considered in the future, if and when they are needed or appropriate. Therefore, as OSDFS provides guidance and information to the education community, EFS provides guidance and information to the subsector in relation to risk assessment as a process that is integral to an all-hazards emergency management plan, the focus of EFS CIKR protective efforts and the subsector goal. Specifically, EFS and other partners, including DHS, developed a guide to vulnerability assessments for schools, as described in section 3.4. Through this guidance, EFS promotes risk assessment, inclusive of cyber considerations, for both grantees and nongrantees.

Many vulnerability assessments for schools exist and many address school preparedness using risk assessment. In addition, ED's emergency management discretionary grants encourage schools and IHEs to evaluate their risks and hazards as a first step in strengthening both district and individual school emergency management plans. LEAs and IHEs are urged to survey the district, campus, and surrounding community to determine potential risks and hazards in order to develop a comprehensive plan. The REMS and EMHE discretionary grant application guidelines urge LEAs and IHEs to work with local law enforcement and public safety agencies, public health partners, mental health organizations, and other government agencies when assessing these vulnerabilities and developing subsequent preparedness strategies.

With few exceptions in individual State mandates, risk assessments, inclusive of cybersecurity, are voluntary in the subsector. Although individual schools, districts, or higher education facilities may have State or local regulatory requirements to perform assessments, ED does not have an overall regulatory framework through which to mandate risk assessment in the subsector. Although ED does not have the regulatory authority to enforce risk assessment in the subsector, under ESEA, schools receiving Safe and Drug-Free Schools and Communities Act (SDFSCA) State Grant funding are required to have a crisis management plan for responding to violent or traumatic incidents on school grounds (although plan content is not included in this legislation, risk assessment can be part of these plans). However, the support and guidance of an OSDFS emergency management grant provides the incentive and encouragement to the recipient owners and operators to perform risk assessments and subsequently inform emergency management efforts.

Further, EFS continues to coordinate with DHS' Homeland Infrastructure Threat and Risk Analysis Center (HITRAC) on the threat and risk environment for the subsector, including cyber. Cybersecurity considerations are included in ED's Vulnerability Assessment Guide and, as part of infrastructure protection and resiliency plans, are allowable activities under both of the SSA's protective programs, REMS and EMHE.

3.2 Screening Infrastructure

Screening in the subsector occurs in a couple of ways. First, through FY 2009, the REMS grant program used the UASI program to provide a level of screening for the subsector in terms of locations deemed at higher risk. Second, through the development of comprehensive plans, educational facilities are screening for threats and hazards for their individual facilities.

Further, through DHS' National Protection and Programs Directorate, Office of Infrastructure Protection (IP), the SSA shares information with higher education partners regarding the Chemical Facilities Anti-Terrorism Standards (CFATS) that could potentially apply to colleges or universities. CFATS regulates the security at chemical facilities determined by DHS to be high risk. Facilities are identified as potentially "high-risk" chemical facilities if they possess one or more Chemicals of Interest (COI)[9]. The CFATS program covers both traditional chemical facilities (e.g., chemical manufacturers) and nontraditional chemical facilities (potentially including some higher education facilities). If a facility is in possession of a COI at or above the applicable Screening Threshold Quantity, that facility is required to complete and submit a Top-Screen to DHS. Upon review of the Top-Screen, DHS will either determine that the facility is not "high risk," and thus not regulated under CFATS, or will pre-liminarily place the facility in one of four high-risk tiers (Tier 1, 2, 3 or 4, with Tier 1 representing the highest risk facilities). Given the role of the SSA, EFS coordinates with DHS and shares information about the CFATS program with higher education CIKR partners.

3.3 Assessing Consequences

Assessing consequences involves measuring the range of loss or damage that can be expected from the human, economic, governance, or public confidence impact as a result of a terrorist attack or a natural or manmade disaster.

Consequences from an incident at one or more schools or higher education facilities may have significance locally for the education facility and for the surrounding community. In addition, incidents in the subsector could have a national impact. For example, the recent (2009) H1N1 outbreak served as an example that numerous, extended closures have the potential for serious economic impact not only locally, but nationally as well. Further, a consequence assessment for education facilities may involve cross-sector protective efforts that help mitigate the consequences from an incident. It could include the physical, cyber, and human assets mentioned by identifying protective efforts by other sectors, for example, Healthcare and Public Health (health and well-being, higher education emergency management), Transportation Systems (school transportation), Commercial Facilities (stadiums and arenas), and Information Technology Communications (information security).

In addition, a consequence assessment for schools should include the disruption of both the social and physical learning environment, including cyber, on the local educational system, and subsequent psychological impact on the school community and public confidence and morale. EFS has explored such consequences with DHS and has begun coordinating with cross-sector and non-Federal partners as well to understand and collaborate on efforts for mitigating consequences to cross-sector assets.

Under the CFATS regulation, a facility that possesses a threshold quantity of any COI regulated under CFATS completes an online Top-Screen questionnaire, allowing DHS to roughly estimate the consequences that could result from an incident at a facility. If DHS deems a higher education facility Top-Screen submission as high risk, the facility completes a Security Vulnerability Assessment, which provides DHS information to make a more detailed consequence and vulnerability assessment. EFS will continue to work with DHS on possible consequences for potential situations that could affect subsector-specific assets, systems, or networks, as well as activities.

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[9] Chemicals of Interest (COI) are listed in Appendix A of 6 CFR 27.

EFS has limited cyber CIKR dependencies and interdependencies, reducing but not eliminating the consequences of destruction, incapacitation, or exploitation of subsector cyber elements, such as those relating to personal data (including financial and health) and infrastructure and security data or control systems housed electronically.

3.4 Assessing Vulnerabilities

Within the general framework of the NIPP, risk is considered a function of consequence, vulnerability, and threat (CVT). Vulnerability assessments are considered part of a comprehensive, all-hazards emergency management plan, and are the focus of the EFS goal for the subsector.

In the subsector, risk assessments occur at the facility level. EFS has worked with partners to conduct comprehensive vulnerability assessments—of school buildings and grounds, school cultures and climates, staff skills, and community resources—to help crisis response teams identify, analyze, and profile hazards to inform the development of appropriate policies and procedures. These assessments inform all-hazards emergency plans and activities to prevent and mitigate risk, supporting the EFS all-hazards risk management approach to subsector infrastructure protection appropriate for the educational environment.

Additionally, EFS supports this aspect of infrastructure and security planning at the school level through the creation and posting on the REMS TA Web site, a guide to assist with this process. This vulnerability assessment product, created with DHS and other CIKR partners, is available online and is designed to assist schools with the implementation of an effective vulnerability assessment process, which includes choosing an appropriate vulnerability assessment tool.

Given the uniqueness and variability in the subsector, and the numerous assessments available to choose from (a concern raised by constituents), many available assessments have a narrow focus or are so complex that they inhibit use by schools. Therefore, a universally applicable vulnerability assessment was not feasible for the subsector. In response to this need, and in place of a vulnerability assessment tool, EFS, along with other partners, developed an assessment guide to provide a streamlined and practical approach for assisting schools as they navigate through the assessment process and the available products. The guide, although not prescriptive, focuses on key elements to be considered in the assessment process and when selecting an assessment tool appropriate for the particular school environment. The guide is intended to be a companion piece to the 2003 and 2007 "Practical Information on Crisis Planning: A Guide for Schools and Communities." EFS worked in partnership with school and security specialists and with DHS to develop a guide focused on developing a set of general principles that apply to all schools as they attempt to assess consequences, vulnerabilities, and threats.

Cyber concerns are included as a potential risk in this guide. As stated, comprehensive, infrastructure protection and resiliency plans can include cybersecurity measures to mitigate risk to cyber infrastructure. For example, the guide encourages schools to consider computer networks as a potential technological risk within the physical environment of the education facility that could become compromised through attack, intrusion, or other breach of security.

The guide is designed to be consistent with the CVT approach to risk assessment and, subsequently, the core criteria in relation to CVT, as appropriate, for education facilities. The core criteria guidance for vulnerability assessments set out in the NIPP and reflected in the guide describe the desired attributes of vulnerability assessment methodologies and include identifying the vulnerabilities associated with physical, cyber, or human factors and physical proximity to hazards, an assessment of current measures in place, and an assessment of the likelihood of potential natural hazards that pose a threat to the particular school or institution. The "Guide to Vulnerability Assessments: Key Principles for Safe Schools" (2008) is available to the entire school and higher education community and the public at **www.ed.gov/emergencyplan** or **http://rems.ed.gov/index.cfm?event=resources**.

3.5 Assessing Threats

As EFS has no threat analysis capability, EFS works closely and regularly with DHS' HITRAC to obtain threat information and coordinated with HITRAC on this section of the 2010 SSP. Following this coordination, threat in the EFS subsector is addressed and understood in relation to that originally stated in the inaugural 2007 EFS SSP.

Generally speaking, threat to the subsector includes both manmade and natural hazards, weather-related events, public health hazards, and school violence. As in the first iteration of the EFS SSP, these same threats continue to pose risks to education facilities and their surrounding communities. Further, upon consultation with HITRAC, threats to specific EFS assets, such as cyber and cross-sector assets, remain similar to previous years. EFS communicates regularly with HITRAC on subsector threat and risk and will continue communication throughout this next triennial SSP process.

Following are examples of incidents, both manmade and natural, that continue to pose threats and impact subsector assets:

- Weather-related events (e.g., hurricanes, wildfires);

- Public health hazards (e.g., Methicillin-Resistant Staphylococcus Aureus (MRSA),[10] food recall (e.g., beef), salmonella outbreaks (e.g. tomatoes, peanuts), H1N1); intentional adulteration of food; and

- School shootings (e.g., Virginia Tech); cybersecurity (e.g., computer system hacking, phishing exploits).

Although in terms of EFS infrastructure protection, less emphasis is placed on cyber assets than human and physical assets, it is nonetheless important, and threats to this asset are communicated with and coordinated through HITRAC. Higher education institutions often collect and store sensitive, personal student data and databases (social security numbers, health, financial, and educational). Similarly, education facilities with emergency management data housed electronically require cybersecurity efforts to maintain the integrity of their plans (i.e., emergency management plans, floor plans). EFS recognizes that disruptions to institutional data systems could impact the capacity to effectively perform essential business operations and could cause a temporary to long-term school closure. However, although a cyber attack on an education facility would not likely impose cascading effects for the Nation, it can have such effects on the campus community through the compromise of personal data, security systems, and research facilities that rely on cyber elements or of emergency management data housed electronically.

EFS does not have a formal threat analysis process but instead works with a variety of appropriate partners at the Federal and State levels to address threats in the subsector. For overall threats to the sector, EFS coordinates regularly with HITRAC to obtain such threat information. In addition, EFS maintains relationships with non-Federal partners to obtain threat information in the subsector, and has worked with both Federal and non-Federal partners in relation to threat in the subsector, providing training and information products to assist the subsector.

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[10] MRSA is a form of Staphylococcus aureus, a common bacterium that has developed resistance to several forms of antibiotics. Infections can be seen anywhere, but are mostly seen in settings where people have close contact, such as schools.

4. Prioritize Infrastructure

As a rule, EFS does not prioritize assets, as the primary asset for the subsector is the human element (students and staff), which cannot be prioritized. Instead, through FY 2009, EFS prioritization occurred within a subsector protective program via the DHS UASI program. The UASI program works to enhance regional preparedness in major metropolitan areas, and is intended to assist participating jurisdictions in developing integrated regional systems for prevention, protection, response, and recovery. Therefore, the parties responsible for prioritizing within the subsector for this program are DHS and EFS. In terms of prioritization process, through the UASI program, the prioritization is risk-based. UASI applies a risk-based formula that defines high urban threat areas as those with a high level of consequence, vulnerability, and threat potentials, based on factors such as the presence of international borders, population/population density, and location of CIKR.

The ultimate goal of this subsector is that all schools and higher education facilities have comprehensive, all-hazards emergency management plans, but those within UASI-eligible areas are, according to DHS, at a higher risk than others. Through FY 2009, REMS grantees whose districts fell within a DHS-designated UASI zone were subsequently awarded priority preference in the application review process. Further, this process included applicant status, in terms of whether or not the applicant was a new applicant and within a UASI zone, as both received eligibility for EFS' prioritization efforts in relation to REMS discretionary grants. Therefore, the process for prioritizing sector assets, systems, or networks, including those in the UASI program, considered both risk and grantee status.

The frequency of these prioritization efforts coincides with the annual grant process. OSDFS reviews this process during its annual REMS grant competition to determine applicability and use for the upcoming cohort. The REMS discretionary grant program is available to K–12 LEA applicants. These emergency management grants, though directly available to public school districts (LEAs) only, can also serve private schools in the grantee's district, as REMS grantees are required to provide equitable access to private schools per grant guidelines.

Therefore, EFS' prioritization has occurred through its REMS grants via the UASI program based on location rather than function, because all schools have similar functions (all are learning environments and occupied by students and staff). However, since every education facility faces some hazards, all are encouraged to take measures to reduce and mitigate risk from an all-hazards approach. Grantees and nongrantees not located within UASI zones have received the same protective program benefits as those within UASI zones. ED makes the guidance, information, core training, and resources available to all education facilities through a variety of training, materials, guides, and publications to assist all schools and universities in their preparedness and infrastructure protection and security efforts. Many of these resources are described in appendix 2.

EFS' approach for prioritizing cyber elements is encompassed within the all-hazards framework for the subsector's emergency management grants that relate to this prioritization, and is informed subsequently by the competitive preference afforded to those applicants that meet the criteria set forth in the REMS grant application. EFS considers a comprehensive, infrastructure protection and resiliency plan to include cybersecurity considerations, which is therefore an allowable activity

under the emergency management grants. Responsibilities for prioritization of cyber assets, systems, networks, or functions is addressed first via competitive preference points, and second via the grantee that applies the grant to their cybersecurity needs, as appropriate.

5. Develop and Implement Protective Programs and Resilience Strategies

5.1 Overview of Subsector Protective Programs and Resilience Strategies

EFS has been working to address CIKR protection and resilience through several key protective programs that focus on the human physical, and cyber elements of the subsector. Through use of the four-phase framework for emergency management, EFS protective programs are designed to prevent and mitigate potential threats and vulnerabilities, and work to increase resilience and minimize consequences. The EFS vision and goal reflect the central theme of all EFS protective programs and efforts: to support comprehensive emergency management plans that are coordinated and leveraged with local partners and include assessment as an integral part of the plan. Additional programs are also leveraged by the subsector in relation to infrastructure protection and security efforts. Following are brief descriptions of some of these programs.

U.S. Department of Homeland Security Programs and the Subsector

LEAs and their community partners, in concert with their local government, can participate in and benefit from a variety of Federal programs that help to build State and local emergency management capacity. DHS programs award funds, training, and equipment to States that in turn can disseminate to local governments. Depending on the level of integration and collaboration between LEAs and their local government, schools may benefit from these programs that are offered through their State and local governments. The integration of schools and local community partners can facilitate school emergency management capacity building by helping schools access effective practices, partnerships, and equipment in support of all-hazards emergency management plans. Further, integration and partnerships with community partners increases resilience for the subsector.

Some Federal programs can provide indirect support to the EFS subsector through the States. Following are several such programs that can provide indirect financial and technical support for school and higher education protective efforts.

The Commercial Equipment Direct Assistance Program

DHS' FEMA also has made grants available for equipment and training awards for first responders through the Commercial Equipment Direct Assistance Program (CEDAP). Although school districts are not eligible to receive these grants directly, they can sometimes benefit from them through partnering with their States. The FY 2009 pool of grantees was drawn from the FY 2008 pool. In FY 2008, 1,045 awards were given in 47 States; 79 percent of these awards were given to law enforcement agencies and the remainder were given to fire departments, emergency medical services, emergency management, and public safety agencies.[11]

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[11] Information on the DHS CEDAP is available at: **http://www.fema.gov/government/grant/cedap/index.shtm**.

The Citizen Corps Program

The Citizen Corps Program (CCP) supports Citizen Corps Councils in efforts to engage citizens in personal preparedness, exercises, ongoing volunteer programs, and surge capacity response, in order to better prepare citizens to be fully aware, trained, and practiced on how to prevent, protect-mitigate, prepare for, and respond to all threats and hazards. This program provides funding on a formula basis to all 56 States and territories.[12] As some schools engage as community members of CCP, they can become indirect beneficiaries of some of these funds.

Homeland Security Grant Program

The DHS FY 2010 Homeland Security Grant Program (HSGP) provides funding to build State, local, and UASI-designated area emergency management capacity as well as local law enforcement terrorism prevention capabilities. With schools as integrated members of the State and local emergency management teams, there is opportunity for indirect support through partnerships and relationships with the following programs:

- The State Homeland Security Program enhances State, territorial and local capabilities through planning, equipment, training, and exercise activities.[13]

- The DHS UASI Nonprofit Security Grant Program (UASI-NSGP) provides funding to support target-hardening activities of nonprofit organizations that are deemed at high-risk for a potential terrorist attack and are located within one of the specific UASI-eligible urban areas.[14] It is possible that nonpublic educational entities located within a UASI area may be eligible through their State Administrating Agencies.

- The HSGP grant programs indirectly help support EFS' approach to emergency management for schools in general and specifically support those located in UASI zones as they consider their heightened risk. Through the HSGP programs, schools can potentially leverage opportunities through their States to help address their preparedness needs.

Programs Designed and Supported by the SSA

Following years of building partnerships and working with partners, both prior to and throughout the NIPP process, EFS is poised to continue to administer and enhance its protective programs and resilience strategies aimed at building subsector all-hazards infrastructure protection and resilience capacity at the local level. The primary principles and tenets of EFS protective programming stem from the EFS risk management approach and other capacity building, serving to foster resilience throughout the sector. Further, these principles and tenets are also encapsulated in all its key protective initiatives. Additionally, the EFS principles are used as the foundation for its inter-agency collaborative initiatives.

Through emergency management grants, guidance, training, materials, tools, and technical assistance, the SSA assists the subsector in advancing toward its goal. There are a variety of subsector protective programs that support and complement each other.

Aligned with its vision and risk management approach, EFS programming efforts address the nontraditional role of school officials in emergency management, their collaborative role with traditional response officials and other partners, as well as the need for school- and higher education-centered all-hazards training, resources, and information. Each program, strategy, and initiative within the subsector is intended to help protect the human, physical, and cyber assets within the subsector; directly supports the EFS vision; and builds on EFS' key principles and tenets.

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[12] DHS, "Secretary Napolitano Announces Grant Guidance for More than $2.7 Billion in Fiscal Year 2010 Grant Programs," 12/8/09. **http://www.dhs.gov/ynews/releases/pr_1260283102665.shtm**.

[13] DHS, "Secretary Napolitano Announces Grant Guidance for More than $2.7 Billion in Fiscal Year 2010 Grant Programs," 12/8/09. **http://www.dhs.gov/ynews/releases/pr_1260283102665.shtm**.

[14] "Urban Areas Security Initiative Nonprofit Security Grant Program, (UASI-NSGP)" Press Release, **http://www.fema.gov/government/grant/hsgp/index.shtm**.

EFS protective programs and resilience strategies are intended to help build the capacity of schools and universities to work with their partners throughout all stages of emergency management—preparing for, responding to, and recovering from an incident. Such programs foresee outcomes that result in mitigated risk, increased effective response, reduced long-term impacts, hastened recovery and restoration processes, and, inherently, enhanced resilience at the school building, campus, and district levels. As schools are often the hub of the community, these programs and efforts also emphasize community collaboration to further strengthen communication and coordination with the same partners that collaborate with the education entity on developing school emergency management plans, policies, and procedures. Following is a brief overview of the key EFS protective programs and resilience strategies building subsector emergency management capacity.

SSA Protective Programs: Discretionary Grants

Consistent with the NIPP's risk management approach, the SSA has several protective programs that support risk management for the subsector and align directly with the subsector goal. Two of the SSA's discretionary grant programs promote the NIPP tenets as well as the EFS vision; both the REMS and the EMHE competitive discretionary grant programs provide funds to work with local community partners to build emergency management. In addition to funds, grantees receive technical assistance and tailored K–12 and IHE emergency management training. To support grantee and nongrantee infrastructure protection and security efforts, and fulfill critical needs, EFS develops and makes available general and specific emergency management-related materials (e.g., tools, publications, resources, and guidance) on extant and emergent issues and initiatives. These efforts are further supported and informed through EFS collaborating, coordinating, and communicating activities with partners aimed at identifying and tailoring emergency management guidance, information, and tools to school and higher education settings. Each of these programming efforts work to contribute to mitigating risk, build capacity, and help move education facilities toward the subsector goal.

SSA Protective Programs: Training

Consistent with the NIPP partnership model, information sharing, and training elements, EFS efforts for the subsector include a variety of trainings provided online, with OSDFS staff, with Federal and non-Federal CIKR partners and emergency management specialists. EFS trainings for LEAs and IHEs alike support the vision and EFS emergency management tenets, and include risk assessments, mitigation strategies, partnership building, and continuity planning. Trainings for the K–12 district and school setting are two-tiered. The first focuses on key elements of comprehensive, all hazards (including cyber), emergency management planning (e.g., the four phases of emergency management, assessments, collaborations, and exercises); the second addresses more advanced topics, such as continuity of operations. The IHE trainings also include topics such as developing, reviewing, improving, and fully integrating campus-based all-hazards emergency management planning efforts within the framework of the four phases of emergency management. Both sets of training take into consideration current events, identified needs within the subsector, and lessons learned from both actual incidents and partnerships leveraged at the Federal, State, and local levels. Further, because the trainings are instrumental in assisting the subsectors emergency management capacity, both the K–12 and the IHE trainings are made available to grantees and nongrantees alike, including CIKR partners and larger representative groups, such as the State Safe School Center Directors.

SSA Protective Programs: Developing Security and Emergency Management-Related Materials

Consistent with both the NIPP's partnership and information-sharing models, EFS focuses on content development by creating security and emergency management materials for the subsector and information exchange by maintaining information-sharing mechanisms. To help build the knowledge base for school and higher education emergency management, EFS develops emergency management guides, tools, publications, resources, and guidance. These materials have focused on critical information on key subsector emergency management issues, such as addressing topics specific to higher education emergency management, providing guidance and information for schools on choosing a vulnerability assessment tool among the many

available, the importance of collaborations, and how to conduct exercises. Further, to raise awareness, EFS posts these materials to its emergency planning Web sites and disseminates documents via listservs and the information-sharing network. Listservs also facilitate the exchange of information with partners, with listservs created for current and past grantees, school law enforcement officials, and State School Safety Center directors.

SSA Protective Programs: Collaborating, Coordinating, and Communicating with Partners

With the NIPP partnership model as a framework in SSA efforts to assist the subsector build emergency management capacity and resilience, EFS collaborates, coordinates, and communicates with Federal and non-Federal partners to support the subsector in preventing-mitigating emergencies and preparing for, responding to, and recovering from incidents. These partnerships address the specific command and management roles of education facilities, and have resulted in the creation of the EMHE grant program, H1N1 guidance for schools, the provision of public alert radios to preK–12 schools, nonpublic schools and postsecondary schools, and serve to inform education officials on how to recognize students who may pose a risk to themselves or others as well as to help school officials better understand the role of students in recognizing threats or hazards to the school campus and community. Further, these partnerships have included collaborating with partners, based on their respective expertise, to understand the status of State-wide pandemic influenza planning, and to provide the subsector with guidance on NIMS implementation activities.

Additional Sector Initiatives and Extant Programs

Project School Emergency Response to Violence

Although the REMS and EMHE grant programs focus on all four stages of emergency management, Project SERV focuses specifically on recovery efforts following a significant traumatic event in which the learning environment has been disrupted. Project SERV funds can be used for expenditures that are reasonable, necessary, and essential for education-related activities needed to restore the learning environment following a violent or traumatic event. Project SERV also supports activities that assist LEAs and IHEs in managing the practical problems created by the traumatic event. Traditionally, Project SERV funds have been provided directly to IHEs or school districts for allocation to specific schools. However, there are circumstances where funds have been provided to States or LEAs for district-wide services when the effects of an incident have been widespread or beyond the traditional boundaries of a particular school district.

Community Oriented Policing Services Program

A Federal program providing direct assistance to schools is DOJ's COPS program. This program provides funding for school safety efforts through a variety of programs and initiatives under the Office of Community Oriented Policing Services. In 2009, $16 million in grants was awarded to 128 local law enforcement agencies and municipalities to enhance school safety in 38 States. The grants were awarded under COPS' Secure Our Schools program, which provides funds to improve security in schools and on school grounds.[15]

Threat Assessment

Through guidance, information, and training, OSDFS continues to work with the U.S. Secret Service on the issue of threat assessment; together, they have developed two publically available guides for use by school personnel, law enforcement officials, and others with protective responsibilities in our Nation's schools to help in identifying, assessing, and managing students who may pose a threat of targeted violence in schools and in providing ideas for creating safe school climates. In addition to these guides, OSDFS and the U.S. Secret Service have trained thousands of educators and law enforcement officials,

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[15] U.S. Department of Justice, "COPS Office Awards $16 Million in School Safety Funds," Press Release, 10/01/09. Available at
http://www.cops.usdoj.gov/Default.asp?Item=2287.

both nationally and internationally, to assist educators and school resource officers regarding students who may pose a threat of targeted school violence. The training, designed to tailor to the particular knowledge and expertise of the participants, is geared toward a multidisciplinary audience, with participants from both the education and law enforcement communities.

In addition to this training, in 2008, EFS worked on a study with the U.S. Secret Service to explore how students with prior knowledge of attacks (or bystanders) made decisions regarding what steps, if any, to take after learning about planned school violence.[16]

The School Dismissal Monitoring System

In an effort to provide guidance and information to the education community for the 2009 H1N1 influenza outbreak, and to help minimize disruption to the learning environment, ED worked with its Federal partners to develop and distribute guidance for schools and higher education institutions. To monitor the effects of H1N1 on schools, ED and CDC developed the CDC K–12 "School Dismissal Monitoring System," a voluntary reporting system that includes daily, direct reporting of school dismissals from State and LEAs as well as daily, systematic searches and confirmations of media reports. The voluntary system is built on a nationwide Federal and State partnership and is supported by national nongovernmental education and public health organizations.

Guidance for School Closure and Child Nutrition Programs

During the 2009 H1N1 outbreak, USDA and ED worked to put together guidance on providing school meals to eligible children through school nutrition programs during an H1N1 outbreak.[17] This guidance assists schools if they close (e.g., due to H1N1) for an extended period of time. Meals may be claimed either through the Summer Food Service Program or the National School Lunch Program's Seamless Summer Option. USDA is providing added flexibility by using program waiver authority to waive the requirement of serving meals in a congregate setting to provide meals to children.[18] In addition, USDA has authority to approve State Supplemental Nutrition Assistance Program (SNAP) agency plans to provide SNAP benefits to households including children certified as eligible to receive free or reduced price school lunches who are enrolled in a school or school district that will be or has been closed for at least 5 consecutive days due to a pandemic emergency. This guidance can be accessed at: **http://www.fns.usda.gov/cnd/Governance/Policy-Memos/2010/SP_05_SFSP_03-2010_os.pdf**".

School Bus Security

As a result of information exchange and collaboration between EFS and DHS' TSA Highway Motor Carrier Government Coordinating Council, EFS disseminates copies of the "School Transportation Security Awareness" DVD to participants at EFS emergency management training events. Additionally, EFS has been included in TSA's development process of a school bus threat assessment tool. Further, EFS has assisted TSA in multidisciplinary and multiagency exercises, helping to identify stakeholder participants (e.g., education officials, school emergency managers, and school police).

Developing Non-Federal Protective Programs

EFS' process for development of non-Federal protective programs is done in a variety of ways, often through partnerships. For example, ED recently worked with nongovernmental organizations to support schools and their response to H1N1. In 2009, ED worked with the business community (e.g., educational publishers, national companies in media and technology) to make

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[16] The May 2008 study titled, "Prior Knowledge of Potential School-Based Violence: Information Students Learn May Prevent A Targeted Attack," (known as the Bystander Study) sought to identify what might be done to encourage more students to share information they learn about potential targeted school-based violence with one or more adults.

[17] This guidance can be accessed at: **http://www.fns.usda.gov/cnd/Governance/Policy-Memos/2009/SP_31-2009_os.pdf**.

[18] This information can be accessed at **http://www.fns.usda.gov/disasters/pandemic/default.htm**.

resources available to students, including a variety of high- and low-tech opportunities, to allow them to stay connected to their classrooms if they are at home sick or if their school is temporarily closed due to a public health concern, such as pandemic influenza. As part of this effort, ED developed continuity of learning guidance, mindful of the need to be applicable to a variety of schools and school settings. Additionally, in spring 2009, ED convened groups of representatives from education's major associations (preK through higher education)—teachers, principals, school administrators, school boards, colleges and universities, counselors, and, importantly, school nurses and parents—to discuss the 2009 H1N1 influenza, current guidance, and prevention and preparedness efforts, as well as resources and tools supporting the education communities.

EFS' process for development of and assistance with non-Federal protective programs evolves as a result of the grant process, nongrantee training, emergency management training and materials available online, collaborations, and State requirements for emergency management efforts. For example, grant guidance and absolute priorities require emergency management grantees to establish, implement, and sustain their plans in close coordination with community partners. Further, as technical assistance, trainings, and emergency management materials are available online, nongrantees are also afforded the tools and information necessary to assist them in developing comprehensive infrastructure protection and resiliency plans that address all hazards. As a result of these SSA efforts, each facility can create its own protective program as it relates to infrastructure protection and security plans and procedures. The EFS SSA also involves sector partners in protective program development and implementation through collaborations. For example, collaboration has resulted in piloting new initiatives, trainings, and products with subsector specialists and owners and operators. Here, the SSA relies on the feedback of partners to enhance and augment development and delivery of subsector emergency management products (e.g., training modules, guides) for the subsector. Also, some State mandated emergency management efforts, for schools exist, as described in chapter 2. Such mandates can increase subsector emergency management capacity.

EFS' process to work with partners to develop and implement protective programs and to review protective program progress occurs through inter-agency and cross-sector collaborations, technical assistance, and grants. Federal and non-Federal collaborative efforts have and continue to occur in relation to infrastructure protection and security efforts across the subsector, as detailed in EFS annual reports and referenced throughout this subsector plan. Implementation and review happens through emergency management grants, grantees, and their community partners, the REMS TA Center, Federal and non-Federal CIKR partners, and the EFS SSA. The SSA and its CIKR partners (emergency management specialists, Federal partners) and the REMS TA Center work together to provide guidance and information, grants, trainings, and materials; the subsector works to establish, implement, and sustain its emergency management plans with community partners. It is through this reciprocal relationship that the subsector progresses toward its goal. Review of this dynamic exchange happens at the SSA level, where the SSA and the REMS TA Center continually review and assess protective programs to ensure they are working to address extant and emergent needs in the subsector. EFS reviews and incorporates, as appropriate, partner input into various products and trainings for the subsector. As part of this review process, EFS solicits feedback and reviews research programs from subsector owners and operators, and other Federal and non-Federal CIKR partners that help the SSA, to better understand subsector infrastructure concerns, challenges, resources, and security programs for all levels of education facilities.

Although EFS does not have a specific evaluative element to this process, it accounts for the number of education facilities with emergency management plans as a result of OSDFS grants, Federal data sources (e.g. GAO, NCES), and the number of States with mandates to better understand non-SSA emergency management efforts and implementation breadth and scope. Further, emergency management program efficacy indicators can be gleaned through ongoing information sharing with previous grantee cohorts.

Cyber Programs

Cyber elements of the subsector protection and resilience strategy are typically included as a natural part of any comprehensive, all-hazards emergency management plan. Cyber is discussed as a potential risk in ED's vulnerability assessment guide (see chapter 3) for schools, and all education facilities are encouraged to include assessment of any such risks. Although EFS does

not have specific cybersecurity programs, education facilities are encouraged to include cyber components in their emergency management plans as appropriate. Further, through EFS' multiple information-sharing vehicles, it can provide the subsector with guidance and information relative to cybersecurity during both steady state and incidents, as available and appropriate. In addition, EFS can receive information on subsector cybersecurity efforts, programs, or needs. EFS has and will utilize applicable Federal data sources to share cyber infrastructure security and protective information with the subsector, such as the United States Computer Emergency Readiness Team (US-CERT) Web site (**www.uscert.gov**), a DHS-established resource that analyzes and disseminates threat information, works to reduce cyber vulnerabilities, and coordinates incident response. EFS can monitor and share with the subsector, as appropriate, US-CERT vulnerability information, security bulletins, and links to other information sources, including NCSD's Control Systems Security Program and Software Assurance Program. EFS can utilize its multiple information-sharing vehicles and partners to share relevant US-CERT information with the subsector.

Given the decentralized nature of U.S. education, cybersecurity occurs at State and local levels. The subsector participates as appropriate in cyber protective efforts and programs. Although ED does not systematically or comprehensively receive information on these activities, it does obtain some school cybersecurity -related data via voluntary information submitted from K–12 schools through NCES surveys. For example, beginning in 2001, the NCES surveys on Internet access asked whether public schools used any technologies or procedures to prevent student access to inappropriate material on the Internet, the types of technologies or procedures used, and whether such technologies were used on all computers with Internet access used by students. NCES found that as early as 2005, nearly 100 percent of public schools in the United States had access to the Internet, compared with 35 percent in 1994. Public schools have also made consistent progress in expanding Internet access in instructional rooms. Since Internet access is so prevalent, schools that are subject to the Children's Internet Protection Act (CIPA) are required to put protective measures in place, such as restrictions on access to the Internet. Moreover, under CIPA,[19] no school may receive discounts under the Federal Education rate (E-rate) program,[20] which provides discounted rates for services such as Internet access, unless it certifies that it is enforcing a policy of Internet safety that includes the use of filtering or blocking technology. Among schools using technologies or procedures to prevent student access to inappropriate material on the Internet in 2005, the NCES survey found that almost all survey participants used blocking or filtering software, and most used monitoring software. Although not comprehensive, such information can increase EFS' understanding of a portion of subsector cyber protective efforts.

5.2 Determining the Need for Protective Programs and Resilience Strategies

As evidenced historically and in recent events, it is clear that education facilities are at risk for a variety of manmade and natural threats and in need of comprehensive infrastructure protection and resilience planning. OSDFS seeks to provide programs, tools, guidance, and information to help the subsector increase infrastructure protection and enhance resilience. Although EFS does not have a formal process to identify gaps, it is in constant contact with K–12 and higher education emergency management grantees, subsector owners and operators, school security chiefs, State School Safety Centers, and Federal, State, and local partners that provide subsector emergency management information and partner with OSDFS on initiatives, products, and program augmentation and development.

Since the inaugural SSP, the SSA has utilized the 2007 GAO report (see chapter 2) and State data for school emergency management mandates, in addition to grantee data, to understand subsector protection needs. Although REMS grants are available to awarded public LEAs only, private schools may benefit through the equitable participation required in REMS application guidance. However, to supplement this avenue, the SSA, along with Federal partners, has now agreed on an information-sharing

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[19] More information about CIPA (Public Law 106–554) can be found at the Web site of the Schools and Libraries Division, Universal Service Administrative Company at **http://www.sl.universalservice.org/reference/CIPA.asp**.

[20] The E-rate program was established in 1996 to make telecommunications services, Internet access, and internal connections available to schools and libraries at discounted rates based on the income level of the students in their community and whether their location is urban or rural.

approach to include outreach to the majority of all U.S. nonpublic education schools regarding school emergency management. As this process unfolds and information is shared, it is expected that future iterations of the SSP and annual reports can provide an update on this school emergency management information-sharing effort.

An additional data source is NCES, whose surveys provide some information on school emergency management, such as the existence of a plan and whether it is exercised. Although voluntary and not comprehensive, these data also help inform the SSA about subsector preparedness. In addition, through Federal partnerships, EFS has begun to understand the state of preK emergency management, especially as it relates to pandemic planning. EFS is also in the process of obtaining another Federal data source to obtain information on Federal preK emergency management preparedness and plan content; EFS is exploring this avenue for potential partnerships and data source for status and identification of need in this element of the subsector.

As discretionary grants cannot address all education facilities, the SSA provides a wealth of guidance, information, tools, and other materials online for use by the entire subsector. As evidenced in the previously mentioned examples, subsector partners are involved in the development and implementation of protective programs, resilience strategies, and initiatives. When a gap is identified, OSDFS works with other ED offices and partners to address the need. A recent example is the joint creation of the EMHE grant program between ED and HHS to provide support to emergency management planning for higher education. Since the 2007 SSP, this has resulted in a variety of tools, resources, programs, initiatives, and partnerships, including a vulnerability assessment guide, a higher education emergency management guide, the EMHE grant program, a bystander study with the U.S. Secret Service, H1N1 guidance for schools, NIMS implementation activities for K–12 schools and higher education, preK partnerships, and an information-sharing approach to reach the majority of nonpublic schools.

5.3 Protective Program/Resilience Strategy Implementation

EFS subsector protective programs and resilience strategies are implemented and sustained through the SSA and the subsector owners and operators, and include grants, trainings, materials, guidance, and information. Although these resources originate with the SSA, implementation occurs at the local level. Further, in SSA emergency management grants, sustainability is a core component (absolute priority) for grantees. SSA grant programs are designed to facilitate sustainment of all-hazards emergency management plans at the school district or IHE level. To support this, EFS provides ongoing technical assistance, guidance and information, tools, and training for both grantees and nongrantees.

Further, EFS supports the recovery phase for LEAs and IHEs through its REMS, EMHE, and Project SERV programs. For example, for the subsector, a key to recovery includes restoring the learning environment. Therefore, as part of their comprehensive emergency management plans under the REMS and EMHE programs, LEAs and IHEs are required to develop plans designed to ensure that strategies are in place to facilitate recovery following an emergency. Although recovery involves restoration of infrastructure and continuity of learning, it also involves the psychological and emotional needs of students and staff. In the event of a significant traumatic event, LEAs and IHEs can receive funding under Project SERV to provide services designed to restore the learning environment, such as emotional triage (e.g., psychological first aid) and mental health interventions for students and staff.

In addition, EFS coordinates its subsector CIKR protective efforts with existing DHS and other CIKR partner actions. For example, REMS and EMHE grants must be coordinated with State and local homeland security plans. In addition, through FY 2009, OSDFS utilized the UASI program to prioritize within the REMS discretionary grant program, and shares information with the subsector, as appropriate, from DHS programs (e.g., US-CERT). Further, EFS shares additional emergency management information with the subsector as a result of coordination and collaboration with other Federal partners, as described throughout this plan.

5.4 Monitoring Program Implementation

Two of the key EFS protective programs for the subsector are its emergency management discretionary grants: REMS and EMHE. REMS and EMHE grant programs demonstrate merit for continued support through reporting requirements under the Government Performance and Results Act of 1993 (GPRA).

GPRA is a statute that requires all Federal agencies to manage their activities with attention to the consequences of those activities. Each agency is to state clearly what it intends to accomplish, identify the resources required, and periodically report its progress to the U.S. Congress. The GPRA is intended to contribute to improvements in accountability for the expenditure of public funds; enhance congressional decisionmaking through more objective information on the effectiveness of Federal programs; and promote a new government focus on results, service delivery, and customer satisfaction. ED has developed GPRA measures for the both the REMS and EMHE grants. The GPRA measure identified for these grants constitutes the way in which ED will measure the success of this initiative. REMS grantees are required to collect and report data on this performance measure. ED subsequently aggregates the data and uses the information in developing future budget proposals.[21]

The subsector communicates implementation success through sharing lessons learned (**http://rems.ed.gov**), publishing results from individual grants to illustrate how education facilities are making progress toward program objectives and highlighting promising practices on its dedicated emergency management Web sites (**www.ed.gov/emergencyplan**; **http://rems.ed.gov**), and communicating with partners and owners and operators through listservs, conferences, meetings, and trainings.

Further, grant monitoring also results in continuous improvement and updates to protective programs and resilience strategies. For example, REMS and EMHE grant guidance is continually updated to reflect emerging emergency management needs and issues affecting the subsector. EFS' numerous CIKR partnerships help inform these changes. For example, since its inception in 2003, the REMS grant program has augmented its application requirements to include several additional requirements, including development of infectious disease planning, a food defense plan, and support for NIMS.

Although EFS does not have a formal process to monitor technological developments that could improve or modify protective programs and resiliency strategies, it does share emergency management-related information with the subsector through conferences where technology information and initiatives are addressed. Finally, EFS obtains information from CIKR partners to help understand needs and use of technology as it relates to emergency management for the subsector.

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[21] 2009 REMS and 2008 EMHE applications can be accessed at **http://www.ed.gov/programs/dvpemergencyresponse/applicant.html** and **http://www.ed.gov/programs/emergencyhighed/applicant.html**.

6. Measure Effectiveness

6.1 Risk Mitigation Activities

DHS defines a Risk Mitigation Activity (RMA) as a program, tool, or initiative that directly or indirectly reduces risk in the sector, including providing for the sector's resilience. RMAs for EFS were identified as being the most important activity for mitigating risk in the subsector and increasing its resilience.

Subsector risk mitigation programs and activities are key as they help build the capacity and subsequent resilience of schools, universities, and ultimately their surrounding communities to address the human, physical, and cyber elements throughout all stages—preparing for, responding to, and recovering from an incident. Such programs help to mitigate risk and reduce long-term impacts.

EFS has identified seven key RMAs that support the subsector goal and align with DHS criteria for having the highest potential impact and making the largest contribution to mitigating risk to the subsector. These activities represent EFS-administered programs as well as those efforts carried out in coordination with partners, including information sharing and owner/operator activities. Activities are aimed at further advancing school and higher education infrastructure protection and resilience throughout the subsector and supporting the goal that all education facilities have a comprehensive, all-hazards emergency management plan.

Although some of the RMAs are programs, they have also been identified as key activities for inclusion in measuring effectiveness and progress for the subsector. The key RMAs for the subsector are: administering the REMS and EMHE discretionary grant programs; sponsoring REMS and EMHE grantee trainings; collaborating, coordinating, and communicating with partners to identify and tailor emergency management tools to school and higher education settings; developing and making available emergency management-related materials (e.g., tools, publications, resources, and guidance) on current issues and initiatives; and establishing, implementing, and sustaining all-hazards emergency management plans by the subsector. EFS supports these activities by administering grants, sponsoring training, providing technical assistance, and developing a variety of security and emergency management products and publications with CIKR partners. Owners and operators support this activity by establishing, implementing, and sustaining all-hazards emergency management plans.

6.2 Process for Measuring Effectiveness

EFS employs outcome-based metrics to measure the benefits to the subsector resulting from its protective programs, training and technical assistance, and development of emergency management products and publications. The metric for each RMA is designed to measure progress toward EFS' goal: that all education facilities have comprehensive, all-hazards emergency management plans. Such progress is measured by ongoing growth relative to breadth and scope of protective programs (grants, training, products, and collaboration on development of emergency management products). For example, the number of

districts and IHEs that are discretionary grant recipients provide some information on the number of education facilities with all-hazards emergency management plans. These data provide a snapshot of subsector emergency management planning and can inform decisions regarding where it needs to go. Further, as these data are limited, EFS continually looks to supplement this information with additional data sources to provide information on subsector emergency management implementation and status. Although not comprehensive, EFS currently draws on a variety of sources for this information.

Although specific cyber metrics would be inappropriate given the limited role of cyber assets in the subsector, all EFS key RMAs are all-hazards oriented, and inherently include cyber. EFS' vision, key RMAs, and evaluation efforts are triangulated and assist in the achievement of its vision, reflect the EFS risk management approach, and support DHS measurement efforts. EFS focuses its RMA efforts on increasing supports and knowledge throughout the subsector to facilitate school and higher education officials work with community partners in building and refining customized all-hazards emergency management plans. Furthermore, EFS key RMAs account for the nontraditional roles between the subsector and their partners in emergency management and response.

6.2.1 Process for Measuring Sector Progress

The EFS process for identifying and tracking the progress indicators occurs on multiple levels. In 2009, EFS established a metrics progress team to collaborate between owners and operators and the SSA on metrics development for the subsector. Through this partnership, metrics were identified that related to the status of emergency management plans within the subsector.

EFS engaged this team to define the most relevant progress indicators to demonstrate that EFS is making progress toward its vision and goals and supporting its diverse membership. EFS was able to create a comprehensive and varied team of State and local representatives from the preK–12 and higher education settings alike. The team also validated existing measurement efforts of discretionary grants, training opportunities, and development and dissemination of critical school- and higher education-centered resources and tools. More important, the team created a process for capturing data illustrating the growth nationwide on behalf of owners and operators to build capacity at the school building and campus level. The team subsequently identified publicly available data sources and a process for further collection specific to the EFS measurement process.

EFS has the capacity to collect and verify much of the information relevant to the metrics outlined for the subsector, as the SSA and ED in general are involved in some of the protective activity or initiate the activity itself. Although owners and operators provide the SSA with some information, it is generally the SSA or ED that collects the data, in addition to other Federal agencies and entities. Information reported to DHS is vetted through the SSA.

The subsector's progress toward its goal is measured in terms of the measured collective benefits of the key RMAs. Specific benefits of measured growth may be categorized as follows:

- Discretionary grant programming benefits are measured based on breadth and scope of direct support.
- Training initiatives' benefits are also measured based on breadth and scope, including the number of training modules created and made available each year.
- Benefits of school- and higher education-centered resources and tools are measured based on the number available and the breadth and scope of availability.
- Effects of EFS owners and operators putting forth the EFS vision are illustrated through assessment of State mandates and available Federal data.

As subsector awareness and capacity increases, progress indicators will evolve. For example, with the EMHE grant now in its second year, the 2010 Subsector Annual Report (SAR) can have data to compare to its baseline presented in 2009. Concurrently, EFS will work to expand reviews of State mandates to capture additional complementary data. This approach can serve to capture and illustrate potential and realized benefits to the subsector.

6.2.2 Information Collection and Verification

EFS collects metrics and data information from a variety of reliable public sources, including other Federal and State agencies and entities (e.g., GAO reports, NCES, State data sources), in addition to SSA data collection and analyses, such as the REMS TA Center analyses of grantee plans as they relate to the subsector goal. Therefore, Federal, State, and SSA processes will provide for the verification of subsector data. Information and data for each metric is collected by the SSA and understood in relation to the EFS goal for measuring progress. Typically, this information is not sensitive or proprietary; however, EFS will work to protect, as appropriate, any such data acquired for the metrics process. Although subsector data are gathered throughout the year in a variety of forms from a variety of sources, EFS generally reports on these data to DHS on an annual basis within the SAR, the metrics portal, and in response to discreet data calls requested by DHS. Although the NIPP reporting process does not align with other SSA reporting responsibilities, when it becomes available, these data are reflected in the annual SARs and triennial SSP iterations.

6.2.3 Reporting

Per guidance from DHS, the EFS SSA will provide DHS with subsector progress indicator results through the annual reporting process and the metrics portal. NIPP metrics can be used to understand requirements and implementation in relation to subsector emergency management plan status, some of which will derive from State legislative requirements, Federal data sources, and grantee data. Metrics data will be shared with CIKR partners via the ISN. Although sharing metrics data with the subsector at large is not a current SSA practice, EFS will consider sharing these data as appropriate with a wider subsector audience in the future.

6.3 Using Metrics for Continuous Improvement

The EFS process for measuring progress is achieved by ongoing growth relative to protective programs (grants, training, products, and collaboration on development of emergency management products). Progress indicators are shared externally with DHS and are used internally to inform continuous improvement. For example, EFS utilizes descriptive and output data and analysis of technical assistance requests and training reviews and feedback to inform new products, trainings, resources, guidance, and information. In this way, metrics can support owner/operator and partner communication, and also support adjustments to the subsector's risk management guidance and information to address subsector needs or issues that arise.

Metrics data can be used to measure subsector progress toward the goal of all education facilities having comprehensive, all-hazards emergency management plans. For example, each data source can be used as a source for future analysis. Understanding that building school emergency management capacity is an evolving process, this key RMA is also appropriate for measuring subsector progress toward the goal, and has a high potential for growth over time. Further, although not comprehensive, EFS can review a variety of reliable data sources that address various elements of the subsector and its goal, potentially adding to this initial metric identified by EFS and its partners.

Insufficient progress toward the goal has been addressed on multiple fronts. For example, along with its Federal partner HHS, EFS created the EMHE grant program to expand its protective programs to higher education, and has since created a section on its REMS TA Center Web site specifically for this program. EFS has also expanded its partnerships to all elements of the subsector, including nonpublic education and preK. In addition, EFS continues to provide the entire subsector with emergency management materials via its dedicated emergency management Web sites (**http://rems.ed.gov; www.ed.gov/emergencyplan**). The Web sites offer guidance and information for preK (such as a link to the Sesame Street Project for family preparedness) through higher education (publications and links to higher education emergency management publications and the EMHE grant) in relation to preparedness in general and for specific hazards and threats, such as H1N1, food safety, etc. According to its history and in the spirit of the NIPP, EFS will continue to work with both Federal and non-Federal partners to address subsector infrastructure protection and security efforts, emerging issues, and progress toward the EFS goal. Every effort will

be made to increase emergency management planning awareness and access for the subsector at large through the provision of subsector-specific guidance, tools, training, resources, and materials via the dedicated Web sites.

A challenge to outcome-based metrics is the nature of discretionary grants (limited funding, competitive processes) that make up a significant portion of subsector protective programs; the voluntary data submission on the part of subsector owners and operators (e.g., participation in the school dismissal monitoring system, GAO reports, NCES surveys, data calls from the SSA to partners); and the regulatory gaps that limit ED's authority over subsector emergency management. The SSA will continue to make efforts to leverage resources, partnerships, and expertise in order to maintain and expand its assistance to the subsector in infrastructure protection.

7. CIKR Protection Research & Development

7.1 Overview of Subsector R&D

In 2007, in its inaugural EFS SSP, EFS, following consultation with research and development (R&D) researchers designated to assist sectors in SSP development, established that a formal R&D plan did not exist for the subsector. Since then, EFS has worked to determine whether a formal R&D plan, inclusive of cybersecurity needs and priorities, is appropriate or possible for the subsector. Although EFS does not currently utilize a coordinated subsector R&D plan, it continues to explore applicable R&D opportunities and leverage extant R&D activities that support its vision and goal. EFS also continues to participate in activities and initiatives to help inform potential R&D initiatives, including established partnerships under the NIPP as well as with other Federal agencies and CIKR partners. Although technology continues to evolve in relation to emergency management, EFS has not identified any technologies that fit schools universally or that appropriately address DHS guidance.

To date, EFS has demonstrated progress in subsector CIKR R&D through increased knowledge of how technologies are incorporated into subsector infrastructure protection and security efforts, and the identification of categories of technologies that are currently in use by subsector owners and operators.

Technology relates to the subsector goal as it continues to be used by schools and higher education facilities to support emergency management efforts. Specifically, EFS is aware that some schools utilize online systems, primarily for emergency management, that increase their ability to collaborate with first responders before, during, and after emergency situations; other educational institutions utilize technology in relation to protection and prevention, entry and access portals, cybersecurity, housing of emergency management plans, and critical information storage related to emergency management. Such technology can include cybersecurity as it relates to the protection of personal data, security systems, or critical information. However, as with many emergency management systems useful in a school or higher education setting, although generally applicable to many educational settings, the cost, functionality, and capacity of each of these systems vary and do not universally account for the uniqueness and diversity of the subsector.

7.2 Subsector R&D Requirements

Given the uniqueness of the subsector, there is great variety in the need for and use of technology to implement the EFS risk management framework in relation to protective efforts; any one technology supporting infrastructure protection and security efforts at a particular location may be inappropriate or otherwise not feasible or practical for another. Therefore, subsector R&D requirements can continue to be understood in terms of their general purpose in emergency management, and within categories of technologies for specific use under the umbrella of emergency management, such as detection and sensor systems; protection and prevention; entry and access; response, recovery and reconstitution; systems design; and human and social issues.

Currently, there is no formal process to identify technology requirements, but the SSA has identified subsector technology usage, including cybersecurity technology, from subsector owners and operators that can offer greater insights into potential R&D issues applicable to schools. Specifically, EFS has worked to identify the most common uses of technology in the subsector for emergency management purposes. EFS found that schools most commonly use technology tools in the prevention-mitigation and preparedness phases of emergency management, with surveillance being the most common along with access control, information security, and interoperable communications.

Informally, the SSA and CIKR partners utilize several mechanisms to address technology in the subsector. One example is the REMS grants. Grant application guidance encourages a portion of the monies awarded to go toward technology. Through grantee cohort listservs, information exchanges often include discussions of technology usage and lessons learned. Although not comprehensive or formal, such communication illustrates the need for, usage, and challenges involved in subsector technology in relation to infrastructure protection and security (such as emergency notification systems or crisis communications technology). In addition, the REMS TA Center regularly compiles voluntary information from grantees regarding emergency management plans for trends and practices. The SSA will review these reports on an annual basis and identify technology requirements from these owners and operators.

EFS shares information and other emergency management-related technology, including technology requirements, in use by the subsector with owners and operators, CIKR partners, and emergency management grantees. One mechanism for sharing subsector emergency management-related information is through conferences, meetings, and trainings. For example, at the 2008 OSDFS National Meeting on Alcohol and Other Drug Abuse and Violence Prevention in Higher Education, an overview was provided of ongoing and emerging technology programs that have potential to support postsecondary institutions in relation to emergency management. In addition, at the 2009 OSDFS National Conference, OSDFS hosted a session on "Leveraging Technology and Community Collaboration to Assist with School Preparedness," to share technology and facility-related information and initiatives and provide participants with information applicable to school emergency management. In this session, participants learned how to use technology in emergency management planning to track their hazards and vulnerabilities, resources, and actual facilities data. Working collaboratively with local community partners and sharing these data can increase resilience by building or enhancing relationships and facilitating response with community partners.

Further, OSDFS participates in the NIJ's Technology Working Group (TWG), which identifies technology needs and operational requirements for school security technologies. Discussions and work from this group are used to inform the research, development, test, and evaluation process within the Office of Science and Technology at NIJ. EFS continues to participate in this group to learn of existing and emerging school security technologies that could be applicable across the sector. Through its relationship with DHS IP and related R&D work, in addition to the annual reporting process, EFS communicates the subsector's technology requirements to DHS.

7.3 Subsector R&D Plan

As stated in section 7.1, there currently is no formal R&D plan for the subsector. However, as appropriate, EFS leverages potentially beneficial initiatives that respond to technology requirements for emergency management in support of the subsector goal. To remain active in, aware of, and open to R&D activities and initiatives that may be fitting for the subsector, EFS participates in a Federal R&D working group, the Infrastructure Capstone Program, and other Federal initiatives to learn about other R&D initiatives and to consider potential relevance and application to the subsector. For example, EFS continues to work closely with the GFS SSA representatives to leverage potential R&D possibilities. Also, through ongoing participation in NIJ's TWG, the SSA can remain aware of additional Federal initiatives that may be relevant or applicable to the subsector.

Cybersecurity is an important part of comprehensive infrastructure protection and resilience planning for the subsector, especially, but not exclusively, for HEIs. Cybersecurity efforts are allowable activities under the REMS and EMHE grants however,

cyber initiatives separate from those included within an all-hazards, comprehensive emergency management plans would be inappropriate for the subsector, given cyber's role among assets for EFS.

With ongoing input from Federal and non-Federal CIKR partners both directly and through TA Center reports, the SSA can begin to understand technology requirements as themes, trends, and categories of emergency management-related technologies in the subsector. However, any summary would not likely carry a universal application across the subsector. Rather, it would allow for the variety of technology requirements in terms of trends or themes fitting for the subsector, and incorporate the general categories of emergency management-related technology in use within or applicable to the subsector. Any technologies identified by the SSA would reflect the criteria of both addressing school and higher education emergency management and general education facility applicability. Nonetheless, given the nature and mission of schools and higher education institutions, the use of technologies needs to be considered in light of the sensitivities required to maintain a positive and healthy learning environment.

7.4 R&D Management Processes

The SSA is responsible for addressing R&D for the subsector, and responds by identifying technology requirements, trends, usage, and applicability to the subsector as described. Through partners, the SSA can monitor and stay abreast of technology developments for possible applicability to subsector emergency management. As such, the SSA will continue to monitor R&D efforts and initiatives by its various CIKR partners, assess their feasibility for the subsector, and explore and leverage those that may be of benefit. Further, EFS will continue to collaborate with Federal and non-Federal partners to understand ongoing R&D and technology requirements and usage and, as appropriate, make the information available to the subsector.

8. Managing and Coordinating SSA Responsibilities

8.1 Program Management Approach

EFS CIKR protection activities, management functions and management approach, and NIPP-related responsibilities (e.g., reporting, implementation, and monitoring) are embedded within OSDFS, the subsector's existing SSA office, and its programming.

As a separate PMO is unnecessary for this subsector, ED has been staffing and managing NIPP-related responsibilities by assigning various responsibilities to extant OSDFS staff. As CIKR protection needs and NIPP requirements change and evolve, the SSA will remain flexible to address the changing need and will continue to assess the effectiveness and suitability of this management approach for coordinating SSA responsibilities.

8.2 Processes and Responsibilities

8.2.1 SSP Maintenance and Update

EFS plans to update this subsector-specific plan on a triennial basis per DHS reporting guidance and schedules. In between SSP iterations, EFS will prepare annual reports and maintain and update the SSP, including conducting reviews with CIKR partners. Further, EFS will work to address subsector CIKR activities as detailed throughout this document and subsector annual reports. The SSA and its partners review and update the SSP through a collaborative process involving all sector partners that together provide a broad representation of each element of the subsector, from preK through higher education, utilize a review and adjudication process that ensures consistency in tone, style, and content, and complies with NIPP PMO guidance and internal ED requirements. The process used by the SSA to conduct triennial, annual, and as-needed reviews and updates to the SSP involves CIKR partners in small, specific subsections of the broader group of partners for as-needed updates or reviews, as appropriate, and utilizes the full group of partners for annual and triennial reviews, reports, and plan updates.

8.2.2 SSP Implementation Milestones

EFS has identified milestones in relation to the overall subsector goal that are subject to review by subsector CIKR partners. Implementation milestones are tracked by the SSA via the key RMAs. Key RMAs have been vetted with the broad group of EFS partners and with a subset of the overall group that is focused on metrics, and demonstrate the subsector's progress in developing and managing CIKR protection programs and related activities.

Key RMAs for EFS support the EFS risk management approach as they support implementation of the goal. With the goal that all education facilities have a comprehensive, all-hazards emergency management plan, EFS has developed key indicators that

can be used to measure progress toward the goal and subsequently, provide more broad implementation milestones as it relates to progress in developing and managing subsector protective programs and resiliency strategies.

Implementation milestones for this subsector encompass the overall efforts and processes involved to provide REMS grants to LEAs and EMHE grants to IHEs, trainings to subsector constituents, collaboration with partners, and development of emergency management-related materials. These efforts also include CIKR partners at all levels—Federal, State, and local—as all contribute to such implementation milestones. In relation to the risk management framework, these implementation efforts are based on reaching the EFS goal. They include ongoing progress in identifying assets, systems, and networks; assessing risks; prioritizing infrastructure; implementing protective programs and resilience strategies; and measuring effectiveness as detailed throughout this report. Therefore, both DHS' risk management framework and EFS' risk management approach are addressed in the implementation process set forth by the subsector.

8.2.3 Resources and Budgets

As schools are decentralized and governed at State and local levels, responsibility for managing resources is not an SSA activity. However, the SSA does provide protective programs in the form of discretionary grants, and, as the Federal agency administering these grants, the SSA is fiscally responsible as it relates to administration of protective programs. In this way, the SSA is responsible for managing resources relative to CIKR protection activities. This grant process will continue as the yearly Federal budget appropriations process allows. However, protective programs involve a host of partners, including Federal and non-Federal partners, that share this role.

The process used to develop subsector CIKR resources involves the annual budget request process. ED requests funding for safe school initiatives every year, of which a certain amount of funding is used to fund protective programming discretionary grants. The subsector's risk mitigation activities are informed by the protective programs already in existence (REMS, EMHE). The SSA tracks and manages the budget designated for protective programming as part of the OSDFS mission; therefore, these responsibilities are embedded within OSDFS. The process for developing subsector-specific investment priorities is the annual budget request process outlined above.

8.2.4 Training and Education

Training is a key component of SSA CIKR protection activities, and serves to expand emergency management awareness and capacity to the subsector at large through online trainings and training modules, and related emergency management materials for preK through higher education. Further, training is a primary vehicle for SSA outreach and awareness to the subsector, inclusive of its online resources. To help increase the knowledge base for school and higher education infrastructure protection and security efforts, the SSA develops emergency management tools, publications, resources, and guidance. Examples of recent publications include an "Action Guide for Emergency Management at Institutions of Higher Education," a "Guide to School Vulnerability Assessments," and "NIMS Implementation Activities for Schools and Institutions of Higher Education," each of which addresses critical information on key subsector emergency management topics. Further, to raise awareness, EFS posts these materials to Web sites and disseminates documents via listservs and the ISN. Listservs also facilitate the exchange of information between key school and higher education officials (e.g., current and former grantees, school law enforcement officials, State school safety center directors). Further, the SSA sponsors multiple training for discretionary grantees (see chapter 5). Training focuses on key elements of comprehensive, all-hazards emergency management planning (e.g., the four phases of emergency management, assessments, grant administration, collaborations, exercises, lessons learned from incidents), and the second training addresses more advanced topics, such as continuity of operations.

Often a tabletop exercise is integrated into the training module to provide hands-on experience in managing and responding to an incident. For EMHE grantees, the SSA provides support to them for developing, reviewing, improving, and fully integrating campus-based all-hazards emergency planning efforts within the framework of the four phases of emergency management.

The inaugural training for the first cohort of EMHE grantees included the four phases of emergency management as they pertain to higher education emergency management, lessons learned from K–12 emergency management, and information sharing on the Family Educational Rights and Privacy Act. Subsequent trainings include information on stadium security, pandemic influenza planning, and crisis communication and the media, and social media as it pertains to risk communication, as well as training on how to develop threat assessment teams.

Further, EFS continues to coordinate with the U.S. Secret Service to conduct threat assessments (see chapter 5) regarding students who may pose a threat of targeted school violence. This training is geared toward a multidisciplinary audience, with participants from both the education and law enforcement communities, and has occurred both nationally and internationally and at both the school and higher education levels.

8.3 Implementing the Partnership Model

Homeland Security Presidential Directive 7 (HSPD-7) describes sector coordinating mechanisms that "identify, prioritize, and coordinate the protection of CIKR; and facilitate the sharing of information about physical and cyber threats, vulnerabilities, incidents, potential protective measures, and best practices."

The NIPP sector partnership model includes Sector Coordinating Councils (SCCs) to allow the SSAs to collaborate and share information with the private entities that broadly represent each sector. However, since EFS owners and operators represent a mix of public and private entities and GFS does not have an SCC, EFS has developed a modified SCC model. The ISN has been in existence since EFS' inception in 2006 and constitutes the formal subsector partnership model. The ISN includes broadly representative groups and associations, as well as school and higher education security specialists. This group includes State, regional, and local government entities and organizations from across the country that represent each element of the subsector. This formal structure maintains both compliance with SSP guidance and the spirit of HSPD-7, and is the mechanism utilized to develop sector-specific CIKR priorities, in addition to the Federal process described above. Further, the EFS SSA participates in the GFS GCC. Informal information sharing mechanisms continue to exist and serve as a vehicle for partnerships with the SSA in relation to subsector infrastructure protection and security efforts and reporting. EFS' relationship to the Critical Information Protection Advisory Council is through its parent sector, GFS.

Further, EFS does not have international partners in relation to participation in subsector emergency management activities or an information sharing structure. EFS' understanding of international school emergency management occurs through its relationship with DoDEA and DOS as it relates to overseas schools sponsored by DOS. As indicated in chapter 1, EFS defers to these Federal partners in relation to these assets.

8.4 Information Sharing and Protection

In addition to the ISN noted above, the subsector collaborates with partners and facilitates communication via listservs among current and previous grantees, among school security officers, and among State education officials responsible for school safety. Such communication enhances situational awareness and information sharing as it relates to subsector emergency management. Although this information-sharing mechanism is limited to those groups specified above, the SSA can communicate with the entire education community through its emergency management Web sites, which are designed to provide critical preparedness and protective measures information to the subsector via Web postings during steady-state conditions as well as incidents, such as H1N1 mitigation guidance for schools. Further, EFS uses the ISN and other Federal and non-Federal partners for subsector CIKR information sharing as needed, and for review and input during the annual reporting and SSP update and review processes. The SSA information-sharing partners consist of representatives from Federal preK, public and private K–12, higher education, and education associations, as well as school security chiefs and State school safety center directors, Federal partners, and K–12 school and higher education emergency management subject matter experts. As this group is made up of

a mix of public and private owners and operators, EFS can learn about owner/operator concerns, needs, and lessons learned to provide greater insight into the subsector as it relates to emergency management. Subsector information sharing occurs via listservs, Web postings, trainings, conferences, and meetings. EFS will continue to review this approach and determine its effectiveness for an information-sharing vehicle that meets the needs of the subsector emergency managers and the broader group of owners and operators.

EFS also engages Federal cross-sector partners to obtain and update cross-sector asset information and protective efforts, including threat information, as the SSA coordinates regularly with HITRAC to share subsector threat, vulnerability, and consequence information. The SSA and HITRAC follow information protection rules as they relates to sensitive or classified information. Typically, if there is such information, DHS' HITRAC maintains and stores the information. Although information is generally circular (both top down and bottom up) regarding CIKR activities, it is anticipated that all information sent to CIKR partners is public in nature. To the extent that nonpublic information may need to be transmitted to partners, EFS will work with those partners so that the sensitivity of the information is clearly articulated and acknowledged.

List of Acronyms and Abbreviations

CCD	Common Core of Data
CDC	Centers for Disease Control and Prevention
CFATS	Chemical Facilities Anti-Terrorism Standards
CIKR	Critical Infrastructure and Key Resources
CIPA	Children's Internet Protection Act
CIPAC	Critical Information Protection Advisory Council
COPS	Community-Oriented Policing Services
CVT	Consequence, Vulnerability, Threat
DASH	Division of Adolescent School Health
DHS	Department of Homeland Security
DoD	Department of Defense
DoDEA	Department of Defense Education Activity
DOJ	Department of Justice
DOS	Department of State
ED	Department of Education
EFS	Education Facilities Subsector
EMHE	Emergency Management for Higher Education
FEMA	Federal Emergency Management Agency
FPS	Federal Protective Service
FY	Fiscal Year
GAO	Government Accountability Office
GFS	Government Facilities Sector
GIS	Geographical Information System
HEA	Higher Education Act
HHS	Department of Health and Human Services

HITRAC	Homeland Infrastructure Threat and Risk Analysis Center
HSPD	Homeland Security Presidential Directive
IDW	Infrastructure Data Warehouse
IHE	Institutions of Higher Education
IICD	Infrastructure Information Collection Division
IP	Office of Infrastructure Protection
IPEDS	Integrated Postsecondary Education Data Systems
ISN	Information-Sharing Network
K–12	Kindergarten through 12th Grade
LEA	Local Educational Agency
NCES	National Center for Education Statistics
NCSD	National Cyber Security Division
NIJ	National Institute of Justice
NIMS	National Incident Management System
NIPP	National Infrastructure Protection Plan
NOAA	National Oceanic and Atmospheric Administration
OII	Office of Innovation and Improvement
OM	Office of Management
ONPE	Office of Non-Public Education
OSDFS	Office of Safe and Drug-Free Schools
PMO	Program Management Office
PreK	Prekindergarten
Project SERV	Project School Emergency Response to Violence
PSS	Private School Universe Study
R&D	Research and Development
REMS	Readiness and Emergency Management for Schools
RMA	Risk Mitigation Activity
SAR	Sector Annual Report
SCC	Sector Coordinating Council
SDFSCA	Safe and Drug-Free Schools and Communities Act
SEA	State Education Agency
SSA	Sector-Specific Agency
SSI	Safe Schools Initiative
SSP	Sector-Specific Plan
TA	Technical Assistance

TSA	Transportation Security Administration
TWG	Technology Working Group
UASI	Urban Areas Security Initiative
US-CERT	United States Computer Emergency Readiness Team

Appendix 1: Authorities

Authorities (governing laws, rules, regulations, or orders) applicable to the protection of EFS assets, systems, networks, and functions within the subsector are as follows:

Crisis Management Plans: Public K–12 Local Educational Agencies Receiving Title IV Funds

Safe and Drug-Free Schools and Communities Act (20 U.S.C. 7101 et seq.): Title IV of the Elementary and Secondary Education Act of 1965, as amended; Section 4002 states that the purpose of the legislation is to support programs that prevent violence in and around schools; prevent the illegal use of alcohol, tobacco, and drugs; involve parents and communities; and are coordinated with related Federal, State, school, and community efforts and resources to foster a safe and drug-free learning environment that supports student academic achievement through the provision of Federal assistance to:

- States for grants to local educational agencies and consortia of such agencies to establish, operate, and improve local programs of school drug and violence prevention and early intervention;

- States for grants to, and contracts with, community-based organizations and public and private entities for programs of drug and violence prevention and early intervention, including community-wide drug and violence prevention planning and organizing activities;

- States for development, training, technical assistance, and coordination activities; and

- Public and private entities to provide technical assistance; conduct training, demonstrations, and evaluation; and to provide supplementary services and community-wide drug and violence prevention planning and organizing activities for the prevention of drug use and violence among students and youth.

Safe and Drug-Free Schools and Communities Act (20 U.S.C. 7114(d)(7)(D)): Section 4114(d)(7)(D) requires that each local education agency submit, as part of its application for funding under the State Grants Program, an assurance that the applicant has, or the schools to be served have, a crisis management plan for responding to violent or traumatic incidents on school grounds.

School Emergency Response to Violence (Project SERV) Program

Safe and Drug-Free Schools and Communities Act (20 U.S.C. 7131): In FY 2008 and in several previous fiscal years, Congress appropriated funds for Project SERV under section 4121 of the SDFSCA for local educational agencies and to institutions of higher education in which the learning environment was disrupted due to a violent or traumatic incident. The funds are to remain available until expended. Project SERV funds help to provide education-related services to restore a safe environment conducive to learning.

Integrated Postsecondary Education Data Systems

Integrated Postsecondary Education Data Systems (20 U.S.C. 1094 (a)(17)): Section 487(a)(17) of the Higher Education Act (HEA), as amended (20 U.S.C. 1094(a)(17)), requires that institutional participants in the Federal student financial assistance programs authorized under Title IV of the HEA must "complete surveys conducted as part of the Integrated Postsecondary Education Data Systems (IPEDS) in a timely manner and to the satisfaction of the Secretary [of Education]…"

Appendix 2: Emergency Management: Protective Programs, Tools, Resources, and Sample Activities

To help build the knowledge base for school and higher education management, EFS develops emergency management guides, tools, publications, resources, and guidance. These materials have focused on critical information on key subsector emergency management issues, such as addressing topics specific to higher education emergency management, providing guidance and information for schools as they choose a vulnerability assessment tool among the many available, and the importance of collaborations and how to conduct exercises. Further, to raise awareness, EFS posts these materials to ED Web sites and disseminates documents via listservs and the information-sharing network. Listservs also facilitate the exchange of information, with listservs created for current and past grantees, school law enforcement officials, and State School Safety Center directors.

Education Facilities Subsector Protective Programs

The Readiness and Emergency Management for Schools Discretionary Grant Program

The REMS competitive discretionary grant program provides funds to LEAs to create, strengthen, and improve comprehensive, all-hazards emergency management plans. The grant funds LEA projects designed to improve and strengthen emergency management plans at the district and school-building levels by addressing the four phases of emergency management: prevention-mitigation, preparedness, response, and recovery. In addition to addressing the four phases of emergency management, plans must include (1) training for school personnel in emergency management procedures; (2) coordination with local law enforcement, public safety or emergency management, public health, mental health agencies, and local government; (3) a plan to sustain the local partnership after the period of Federal assistance; (4) a plan for communicating school emergency management policies and reunification procedures to parents and guardians; and (5) a written plan for improving LEA capacity to sustain the emergency management process through ongoing training of personnel and the continual review of policies and procedures. The program also requires implementation of NIMS. All these activities support all-hazards, comprehensive emergency management plans and reflect the EFS's goal.

Through participation in the REMS discretionary grant program, awardees are to maintain and refine comprehensive, all-hazards emergency management plans; collaborate with community partners; customize plans and supporting activities (training, exercises) using site-based assessments; address infectious disease, including a potential pandemic influenza; develop a food defense plan; and integrate the needs of students and staff with disabilities and special needs.

With individual awards ranging from less than $100,000 to more than $1 million, REMS grants have been used by school districts to improve and support comprehensive, all-hazards emergency management planning with community partners. Funds have been used, for example, to establish an alert system to inform caregivers of closings and other school-related emergencies and to conduct drills and exercises.

To continually expand the number of individual school districts receiving REMS grants, there is a competitive preference priority for LEA applicants that have not previously received a grant under the REMS program. And even those school districts that have received multiple REMS grants are continuing to make advances and provide lessons learned on key approaches for improving, enhancing, and sustaining their emergency management plans, thereby increasing their resilience to all hazards.

In addition, many of the LEAs that received REMS funding represent the 25 largest school districts, meaning a significant number of schools, students, and staff can benefit from services provided under the REMS grant program. Further, since REMS LEAs are required to provide equitable participation of private school children, their teachers, and other educational personnel in private schools located in the areas served by the grant recipient, this program can have cascading positive effects on additional members of the subsector.

The grant program spans up to 24 months and crosses over two fiscal years and two academic years, extending opportunities for knowledge acquisition and transfer of knowledge to constituents. Since the grant requires awardees to participate in community partnership-building efforts, there is potential for developing long-lasting partnerships that could continue far beyond the 24-month grant period. In all, through the REMS discretionary grant program, each year the cumulative number of school districts receiving direct emergency management plan support increases. Consequently, even more school districts have received school emergency management planning support, once again adding to the cumulative total number of school districts that have been provided support, tools, and training on comprehensive school emergency management planning. Another REMS grant competition is currently underway for FY 2010. Between 2003 and 2009, 717 grants totaling more than $201 million have been awarded under this program.

The grants are housed within ED's Office of Safe and Drug-Free Schools, which supports efforts to create safe schools, respond to crises, prevent drug and alcohol abuse, ensure the health and well being of students, and teach students good citizenship and character. The office also coordinates ED's efforts in these areas with other Federal agencies, including HHS and the Department of Agriculture.

Emergency Management for Higher Education Discretionary Grant Program

In 2008, OSDFS, in collaboration with its Federal partner HHS' Substance Abuse and Mental Health Services Administration (SAMHSA), developed a new discretionary grant program to assist IHEs in their emergency management planning efforts. The EMHE grant program is the primary program of OSDFS supporting infrastructure protection for higher education facilities. The EMHE discretionary grant program is the first of its kind administered by EFS for the specific purpose of emergency management at IHEs. Although ED has been assisting K–12 LEAs in emergency management through the REMS discretionary grant program for more than six years, no such program was available to higher education until 2008. In FY 2008, 17 EMHE grants were awarded.

In summer 2009, OSDFS announced the EMHE grant recipients for FY 2009, awarding a total of 26 grants totaling over $11.3 million. The list of FY 2009 EMHE grantees is available at: **http://www.ed.gov/programs/emergencyhighed/09awards.html**. Specifically, the EMHE grant program provides funding to IHEs to develop, or review and improve, and fully integrate all-hazards, campus-based emergency management planning efforts. EMHE grantees must also agree to coordinate emergency plans with all campus offices and departments, as well as with local and State emergency management efforts; develop a written plan that incorporates medical, mental health, communication, and transportation needs to include those with disabilities, special needs, and other circumstances (such as cultural, language, location relative to campus, etc.) into emergency protocols; develop or update a written plan that prepares the campus for a possible infectious disease outbreak, such as pandemic influenza; and develop or enhance a written plan for preventing violence by assessing and addressing the mental health needs of students who may be at risk of causing harm to themselves or others. Since the establishment of this discretionary grant program in FY 2008, the EMHE program has awarded approximately $18.4 million in grants to 43 IHEs, many of which support a large number of

students in their emergency management efforts. ED and SAMHSA are currently developing application materials for a FY 2010 EMHE competition, with an expected release in spring 2010.

In FY 2008, an absolute priority was given to applications using the four phases of emergency management to develop, or review and improve, and fully integrate a campus-wide, all-hazards emergency management plan; train campus staff, faculty, and students in emergency management procedures; ensure coordination of planning and communication across all relevant components, offices, and departments of the campus; coordinate with local and State government emergency management; develop a written plan with emergency protocols that include medical, mental health, communication, and transportation of persons with disabilities or other unique needs; develop or update a written plan for infectious disease outbreaks; and develop or enhance a written plan for preventing violence on campus by assessing and addressing the mental health needs of students who may be at risk of causing campus violence by harming themselves or others. All these are consistent with and directly support the EFS vision and goal.

EFS works on a number of fronts to encourage emergency management grantees to coordinate and collaborate with State and local partners. For example, EMHE grantees' projects must be coordinated with their State homeland security plan. To ensure that emergency services are coordinated and to avoid duplication of effort within States and localities, applicants must include in their applications an assurance that the grantee will coordinate with and follow the requirements of the State or local homeland security plan for emergency services and initiatives. Additionally, the application process requires applicants to establish partnership agreements detailing the roles and responsibilities of two key partners. One partner agreement must detail coordination with, and participation of, a representative of the appropriate level of State or local government for the locality in which the IHE to be served by the project is located (e.g., the mayor, city manager, or county executive). The second partner agreement must detail coordination with, and participation of, a representative from a State or local emergency management coordinating body (e.g., the head of the local emergency planning council that would be involved in coordinating a large-scale emergency response effort in the campus community). EMHE grantees are also required to provide a signed partner agreement with a representative from their State or local emergency manager coordinating body in order to be eligible to receive a grant.

Grantees must also agree to support the implementation of NIMS. In addition, during trainings, EFS not only highlights the importance of collaboration and coordination with partners, but also provides resources to educate participants on emergency management issues, including NIMS and the Incident Command System.

Project SERV—School Emergency Response to Violence

Although the REMS and EMHE grant programs focus on all four stages of emergency management, another ED program called Project SERV focus on recovery efforts following a violent or traumatic event in which the learning environment has been disrupted. Project SERV funds can be used for expenditures that are reasonable, necessary, and essential for education-related activities needed to restore the learning environment following a violent or traumatic event.

Project SERV also supports activities that assist LEAs and institutions of higher education in managing the practical problems created by the traumatic event. ED has established a two-tier process for reviewing requests for Project SERV funding. Under the first tier (Immediate Services), ED provides emergency, short-term assistance to affected school districts or institutions of higher education. Under the second tier (Extended Services), ED assists schools and institutions of higher education in address-ing the long-term recovery efforts that may be needed following a significant, traumatic event. Generally, Immediate Services grants may provide a maximum of $50,000 over a project period of up to six months; however this amount may be increased or decreased based on need. Extended Services grants may provide a maximum of $250,000 (this amount can be exceeded in special circumstances) over a period of up to 18 months to help maintain safety and security in an affected school and to help students, teachers, school staff, and family members recover from the traumatic event.

Traditionally, Project SERV funds have been provided directly to institutions of higher education or school districts for alloca-tion to specific schools. However, there are circumstances where funds have been provided to States or LEAs for district-wide

services when the effects of an incident have been widespread or beyond the traditional boundaries of a particular school district. For example, following the terrorist events of September 11, 2001, Project SERV grants were awarded to several States to provide services to multiple school districts that were impacted. In these situations, States and LEAs are required to provide equitable services to private schools that fall within this extended area. Since FY 2001, OSDFS has awarded over 70 grants under Project SERV, including grants to four States following Hurricanes Katrina and Rita, as well as to New York City and Washington, D.C., following the terrorist attacks of September 11, 2001. Since its inception, the Project SERV grant program has awarded more than $26.3 million.

U.S. Department of Education's Emergency Management Web Sites

Office of Safe and Drug-Free Schools (www.ed.gov/emergencyplan)

As schools and communities across the United States develop plans for responding to potential emergency situations, ED maintains a Web resource to help. It is designed to be a one-stop shop that provides school leaders with the information they need to plan for any emergency, including natural disasters, violent incidents, terrorist acts, or pandemic preparations. Included are links to three examples of school emergency response plans (Fairfax County Public Schools, Fairfax, VA; Montgomery County Public Schools, Rockville, MD; and the North Carolina Critical Incident Response Kit Project). This information can be found at **www.ed.gov/emergencyplan**. All of the tools described below can be found at this emergency planning Web site. For more information about what families and communities can do to be ready for an emergency, the site also contains a link to the DHS Ready Web site at **www.ready.gov**.

REMS Technical Assistance Center Web site (http://rems.ed.gov)

The REMS TA Center's primary goal is to support schools and school districts in emergency management, including the development and implementation of comprehensive emergency and crisis response plans. Established by the OSDFS in October 2004, the REMS TA Center supports REMS grantees in managing and implementing their grants and in sustaining their efforts over time. Nongrantee LEAs and schools may also receive support to improve and strengthen their emergency management plans.

The Center disseminates information about emergency management to help school districts learn more about developing, implementing, and evaluating crisis plans. In addition, the Center helps the OSDFS coordinate technical assistance meetings, manage a listserv for sharing emergency management planning information, and respond to direct requests for technical assistance. The REMS Technical Assistance Center can also be accessed at 1-866-540-REMS.

Resources and Planning Tools for Emergency Management

Action Guide for Emergency Management at Institutions of Higher Education

The Action Guide, which was released in January 2009, offers higher education institutions a useful resource in the field of emergency management. Produced by the OSDFS, in collaboration with the REMS TA Center, the guide is intended to serve as a resource for all types of IHEs. It aims to offer support to community colleges, two- and four-year colleges and universities, graduate schools, and research institutions associated with higher education entities, both public and private, in their emergency management planning efforts. Depending on need and experience, the information provided in the Action Guide can help personnel from higher education institutions and their partners better understand the field of emergency management within a higher education context, develop and implement an institution's emergency management plan, and serve as a reference and resource to improve an institution's existing plans. The Action Guide is not meant to serve as a prescriptive document; rather, it is intended to provide a number of resources and references to facilitate the emergency management planning process

for institutions at all levels of knowledge and development. This guide can be accessed from the REMS TA Center Web site at **http://rems.ed.gov**.

Practical Information on Crisis Planning: A Guide for Schools and Communities (OSDFS)

ED developed this guide to provide schools and their communities with a general introduction to crisis management as it applies to schools and basic guidelines for developing school crisis management plans. The guide outlines the four phases of crisis planning (prevention-mitigation, preparedness, response, and recovery) and provides checklists of the critical issues encountered in each phase. The guide also provides information on specific elements of crisis management, including leadership, communication, and the Incident Command System (ICS).This guide can be accessed at **www.ed.gov/emergencyplan** and from the REMS TA Center Web site at **http://rems.ed.gov**.

Practical Information on Crisis Planning Brochure (OSDFS)

This companion brochure to the full Crisis Planning Guide offers general information and guidelines on how to be prepared for a crisis. The brochure provides guidelines for each of the four phases of emergency management. Both the Crisis Planning Guide and the brochures are available for download, or a free copy can be ordered through the OSDFS Web site at **www.ed.gov/emergencyplan**.

Guide to School Vulnerability Assessments (ED, DHS)

This guide is intended to be a companion piece to Practical Information on Crisis Planning: A Guide for Schools and Communities, originally published by ED in 2003 as a guide for schools and districts to prepare for a variety of crises. This new guide, published by ED in 2008, emphasizes a valuable part of emergency management planning—ongoing vulnerability assessment—and is intended to assist schools with the implementation of an effective vulnerability assessment process, including how to choose an appropriate vulnerability assessment tool. This guide is not intended to be prescriptive or to give step-by-step instructions for conducting assessments; rather, it is intended to describe the key elements to be considered when selecting an assessment tool appropriate for school environments and provide guidance for conducting an assessment that will inform school emergency management activities. This guide can be accessed from the REMS TA Center Web site at **http://rems.ed.gov**.

Pandemic Preparedness Information (ED, CDC)

Currently, the ED Web site (**www.ed.gov**) links to several resources for schools, colleges, and universities to assist in their efforts to prepare for a potential influenza outbreak. Checklists developed by CDC and ED can assist preschools through higher education facilities in developing and improving plans to prepare for and respond to an influenza pandemic. These checklists are available to the public online at **www.pandemicflu.gov/plan/tab5.html**. ED will continue to provide guidance to schools to assist with disseminating health information, planning for staff and student absences, and maintaining a learning environment during a pandemic outbreak.

At the onset of the H1N1 outbreak in April 2009, OSDFS' Center for School Preparedness joined together with CDC to detect, collect, and report information on school dismissals resulting from the virus transmission within the local community. Since the initial outbreak, the school dismissal Monitoring System has been enhanced and now includes voluntary, direct reporting from local school and public health officials. The School Dismissal Monitoring System can be found at **http://www.cdc.gov/h1n1flu/schools/dismissal_form/**.

NIMS Guidance: NIMS Implementation Activities for Schools and Higher Education Institutions

As recipients of Federal preparedness funding through the ED's REMS and EMHE discretionary grant program, LEAs and IHEs are required to fulfill the NIMS implementation activities in close coordination with members of their local government and

emergency response communities. Additionally, it is recommended that all education facilities review and implement these activities as they are key steps to take in advance of an emergency, and may also formalize many activities already being conducted by the facility.[22]

NIMS Implementation Activities for Schools and Higher Education Institutions presents a set of key school and campus emergency management activities that will enhance the relationship between schools and campuses, their respective local governments, and their community partners as they communicate, collaborate, and coordinate on these NIMS activities. The following NIMS implementation activities were provided to 2007-2008 REMS and 2008 EMHE grantees. These activities are required for education facilities receiving Federal preparedness funds:

1. Adopt NIMS at the school and campus community level.

2. Institutionalize ICS for managing all emergency incidents and pre-planned school and campus events.

3. Coordinate and support the development and use of integrated Multi-agency Coordination Systems.

4. Establish the Public Information System within the ICS framework.

5. Establish NIMS strategy and timeline for full implementation.

6. Develop and implement a system to coordinate and leverage Federal preparedness funding to implement NIMS.

7. Update emergency management plans to incorporate NIMS and reflect National Response Framework.

8. Participate in and promote mutual aid agreements.

9. Key school and campus personnel complete NIMS training.

10. Incorporate NIMS and ICS into all emergency management training and exercises.

11. Participate in an all-hazard exercise program based on NIMS that involves first responders from multiple disciplines and jurisdictions.

12. Incorporate corrective actions into preparedness and response plans and procedures.

13. Maintain an inventory of organizational response assets-equipment, resources, and supplies.

14. To the extent permissible by law, ensure that relevant national standards and guidance to achieve equipment, communication, and data interoperability are incorporated into acquisition programs.

15. Apply standardized and consistent terminology for school and campus incidents, including the establishment of plain English communication standards across the public safety sector.

OSDFS, in close consultation with the Department of Homeland Security, has created the following online tools to support subsector emergency management efforts with community partners to implement NIMS:

• NIMS Implementation Activities Checklist for Schools and Higher Education – allows tracking of progress toward implementation. Accessible at **http://rems.ed.gov/docs/NIMS_ImplementationActivitiesChecklist.pdf.**

• Interactive Activity-by-Activity Descriptions of NIMS Implementation Activities for Schools and Higher Education – includes specific NIMS activity information. Accessible at **http://rems.ed.gov/index.php?page=NIMS_activities.**

• NIMS Training for Key Educational Personnel summary document– provides a summary of training recommendations and requirements for NIMS. Accessible at **http://rems.ed.gov/docs/NIMS_KeyPersonnelTraining.pdf.**

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[22] NIMS Implementation guidance for 2009-2010 REMS and 2009-2010 EMHE grantees is currently being reviewed and expanded. The 2010 list should be reflected in the EFS 2010 Sector Annual Report.

- NIMS Implementation Activities for Schools and Higher Education – provides a full text version of all implementation guidance and resources. Accessible at **http://rems.ed.gov/docs/NIMS_ComprehensiveGuidanceActivities.pdf**.

- Frequently Asked Questions about NIMS Implementation Activities for Schools and Higher Education. Accessible at **http://rems.ed.gov/index.php?page=FAQNIMS**.

- Resources Supporting School and Higher Education Implementation of NIMS – provides links to additional NIMS and NIMS-related resources. Accessible at **http://rems.ed.gov/index.php?page=NIMS_resources**.

National Child Traumatic Stress Network

Established by Congress in 2000, the National Child Traumatic Stress Network (NCTSN) is a collaboration of academic and community-based service centers whose mission is to raise the standard of care and increase access to services for traumatized children and their families across the United States. NCTSN serves as a national resource for developing and disseminating evidence-based interventions, trauma-informed services, and public and professional education. The National Center for Child Traumatic Stress (NCCTS) coordinates collaborative activity, oversees resource development, and coordinates national training and education for NCTSN. Housed jointly at the University of California, Los Angeles Neuropsychiatric Institute and the Duke University Medical Center, NCCTS works closely with the Network's funder, SAMHSA. TNCTSN resources can be found at **http://www.nctsnet.org/nccts/nav.do?pid=abt_nccts.**

Tools and Initiatives

The Safe School Initiative—A Guide to Managing Threatening Situations and to Creating Safe School Climates and Final Report and Findings of the Safe School Initiative: Implications for the Prevention of School Attacks in the United States ("Threat Assessment") (OSDFS, DOJ, U.S. Secret Service)

Development of "Threat Assessment in Schools: A Guide to Managing Threatening Situations and to Creating Safe School Climates" and "Safe School and Threat Assessment Experience: Scenarios Exploring The Findings Of The Safe School Initiative" (Interactive CD-ROM). ED worked with the U.S. Secret Service to develop a guide for educators with practical advice on differentiating between persons making idle threats and those posing actual threats and an interactive CD-ROM. The findings, guide, and CD-ROM are based on extensive research on school-based attacks. The guide may be accessed at **http://rems.ed.gov/index.php?page=publications_General**. In addition to these guides, OSDFS and the U.S. Secret Service have trained thousands of educators and law enforcement officials nationally and internationally to assist educators and school resource officers regarding students who may pose a threat of targeted school violence.

Readiness and Emergency Management for Schools Technical Assistance Center Publications

The REMS TA Center produces publications for the emergency management community. Specifically, the REMS TA Center regularly publishes Lessons Learned from actual emergencies. Lessons Learned is a series of publications that are brief recountings of actual school emergencies and crises. All publications support an all-hazards approach to collaborative school emergency management that is guided by the four phases (prevention - mitigation, preparedness, response, and recovery) and integrates the needs of people with disabilities.

The National Clearinghouse for Education Facilities: Disaster Preparedness for Schools

ED sponsors the National Clearinghouse for Education Facilities (NCEF). NCEF provides information on planning, designing, funding, building, improving, and maintaining safe, healthy, high-performance schools. NCEF's Web site (**www.edfacilities.org**) provides information and links to books, periodicals, and electronic media related to protecting schools and their occupants from vandalism, violence, and natural disasters. The Safe School Facilities section also contains

a downloadable Safe School Facilities Checklist for assessing the safety and security of school buildings and grounds at **www.edfacilities.org/checklist/checklist.cfm**.

Campus Public Safety: Weapons of Mass Destruction Terrorism Protective Measures (DHS Office for Domestic Preparedness)

Bomb Threat Assessment Guide, OSDFS, DOJ Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF)

In October 2003, ED joined with ATF to assist school districts, administrators, and emergency responders by releasing an interactive CD-ROM on responding to bomb threats. The CD-ROM, "Bomb Threat Response: An Interactive Planning Tool for Schools," includes staff training presentations and implementation resources. OSDFS disseminated a copy of the guide to every public school in 2003. The ATF also distributed the CD-ROM to State and local law enforcement and public safety agencies. In addition to the CD-ROM, a Web site has been established (**www.threatplan.org**) to receive current requests for the CD-ROM and to provide online support regarding the CD-ROM and additional information.

Examples of OSDFS Emergency Management Activities

In recent years, ED has been involved in several activities aimed at supporting and helping schools and higher education institutions with various aspects of emergency management. Examples of some of these activities include:

* **School Emergency Management Online Courses.** ED has developed a series of online courses on school emergency management for grantee and nongrantees. There are five courses in the series, including a brief introduction to the four phases of school emergency management, and a course on each of the four phases of emergency management—Prevention-Mitigation, Preparedness, Response, and Recovery. In addition to defining and describing the four phases of emergency management, the courses provide guidelines, checklists, and specific action items for school officials to consider, and case study scenarios on emergency incidents at schools. These courses are accessible online at: **http://rems.ed.gov/index.php?page=online_courses**.

* **EMHE trainings for grantees.** These trainings occur twice during each grant cohort. Topics include general emergency management (e.g., an introduction to the four phases of emergency management) and emergency management topics specific to higher education. The most recent training for EMHE grantees occurred in December 2009.

* **Emergency Management for Schools training materials.** Training materials from 2006 to 2009 are accessible at **http://rems.ed.gov/index.php?page=training_archives#videoConference**.

* **Emergency Planning for Students with Special Needs and Disabilities Webinar.** This Webinar is available at **http://rems.ed.gov/index.php?page=training_webinars_past**.

* **Tips for Helping Students Recovering from Traumatic Events.** This brochure provides practical information for parents and students who are coping with the aftermath of a natural disaster, as well as teachers, coaches, school administrators and others who are helping those affected. The brochure is accessible at **http://www2.ed.gov/parents/academic/help/recovering/index.html**.

* **Meeting and communicating regularly with chief law enforcement officials from the Nation's largest school districts.** The chiefs help provide ED with a better understanding of the problems they face regarding school crime and safety and to discuss possible solutions.

* **Meeting and communicating regularly with School Safety Center directors from across the country.** Following September 11, 2001, approximately 20 States developed school safety resource centers to provide support, training, and information to schools in their State on issues of school preparedness and safety. The Center directors routinely provide ED with valuable information regarding emerging issues related to school safety in their respective States.

Appendix 3: Key Data Sources from the National Center for Education Statistics

- **The Common Core of Data (CCD):** CCD is one of NCES's most comprehensive data programs and annually collects fiscal and nonfiscal data about all public schools, local education agencies, and State education agencies in the United States. The data are supplied by State education agency officials and include information that describes K–12, and sometimes PreK; schools and school districts, including name, locale, and academic grades served; as well descriptive information about students and staff, including demographics.[23]

- **Private School Universe Survey (PSS):** Similar to the CCD, the PSS generates biennial data on private schools, students, and teachers. The NCES operating definition of private schools encompasses private schools that are not supported primarily by public funds, provide classroom instruction for one or more of grades K–12 or comparable ungraded levels, and has one or more teachers. Organizations or institutions that provide support for home schooling without offering classroom instruction for students are not included. Common and applicable data collected also includes name, locale, and academic grades served, as well descriptive information about students and staff, including demographics.[24]

- **Integrated Postsecondary Education Data Systems (IPEDS):** IPEDS is a system of interrelated surveys conducted annually by NCES. IPEDS collects data on postsecondary education in the United States in seven areas: institutional characteristics, institutional prices, enrollment, student financial aid, degrees and certificates conferred, student persistence and success, and institutional human and fiscal resources. The completion of all IPEDS surveys is mandatory for institutions that participate in or are applicants for participation in any Federal student financial aid program (such as Pell grants and federal student loans) authorized by Title IV of the Higher Education Act of 1965, as amended (20 USC 1094, Section 487(a)(17) and 34 CFR 668.14(b)(19)). More than 6,700 institutions complete IPEDS surveys each year. These include research universities, State colleges and universities, private religious and liberal arts colleges, for-profit institutions, community and technical colleges, non-degree-granting institutions such as beauty colleges, and others.[25]

- **The Digest of Education Statistics:** This annual report provides a compilation of statistical information covering the broad field of education from prekindergarten through graduate school. Data from these reports are used to create annual reports, such as the "Characteristics of the 100 Largest Public Elementary and Secondary School Districts in the United States," which captures data describing a significant portion of students and staff in public schools.[26]

- **Indicators of School Crime and Safety:** A joint effort by the Bureau of Justice Statistics and National Center for Education Statistics, this annual report examines crime occurring in school as well as on the way to and from school. It provides

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[23] **http://nces.ed.gov/ccd/**.

[24] **http://nces.ed.gov/surveys/pss/**.

[25] **http://nces.ed.gov/IPEDS/about/**.

[26] **http://nces.ed.gov/programs/digest/**.

the most current detailed statistical information to inform the Nation on the nature of crime in schools. The report includes data on crime at school from the perspectives of students, teachers, principals, and the general population from an array of sources, including the National Crime Victimization Survey, the School Crime Supplement to the National Crime Victimization Survey, the Youth Risk Behavior Survey, the School Survey on Crime and Safety, and the School and Staffing Survey.[27]

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[27] **http://nces.ed.gov/programs/crimeindicators/crimeindicators2008/**.