Advancing the Fifty States Initiative

Measuring Progress of the Fifty States Initiative Report

Final Deliverable

September 2, 2011

Contract Information

This document was produced under contract to the Federal Geographic Data Committee (FGDC):

Contract Number: 08HQCN0024/0002

PRIME CONTRACTOR

SUBCONTRACTORS

Table Of Contents

1 Executive Summary

This is the third and final Measuring Progress report under the current Fifty States Initiative contract (#08HQCN0024/0002) with the Federal Geographic Data Committee (FGDC). The purpose is to document **progress on statewide geospatial coordination and capacities made by the states and other eligible jurisdictions** who have received grant assistance under the Fifty States Initiative, and to describe closely related developments amongst the states. The Fifty States Initiative was jointly undertaken in a spirit of collaboration between FGDC and the National States Geographic Information Council (NSGIC).

Since 2006, FGDC has awarded approximately $2,746,000 to 59 recipients as part of the Fifty States Initiative (a.k.a. Cooperative Agreements Program, Category 3 and 4). When the 50% match from grant recipients is added, **the total investment has been over $4,119,000, nationally**; and this amount does not include the value of the time and effort contributed by participants in the hundreds of stakeholder workshops, interviews, and surveys that have been conducted under this initiative around the country. Indeed, coordinated efforts to advance the National Spatial Data Infrastructure (NSDI) have been far-reaching and effective with the support of the Fifty States Initiative.

The evident success of the Fifty States Initiative for improving intergovernmental cooperation and geospatial capacities is built on a sound strategic and business planning process, to **advance the NSDI by improving state government coordination of stakeholders**. Grant assistance for state projects under the Fifty states Initiative has been designed to help develop and implement *"statewide strategic and business plans that will facilitate the coordination of programs, policies, technologies, and resources that enable the coordination, collection, documentation, discovery, distribution, exchange and maintenance of geospatial information in support of the NSDI and the objectives of the Fifty States Initiative Action Plan."*

In parallel to the Fifty States Initiative, driven in part by the findings and recommendations of the various state planning projects, NSGIC has worked with FGDC on enhancing and augmenting the process used by the states for summarizing progress on goals related to **advancing the NSDI, by developing and implementing the Geospatial Maturity Assessment** (GMA). In fiscal year 2010, FGDC provided funding assistance to support the development of the GMA, which is an objective baseline assessment for routinely monitoring and validating a state's geospatial business performance capabilities. It was released on August 1, 2011, and is the 4th generation of NSGIC's State Summaries, **replacing the current reporting process, which has been weighted toward NSGIC's "Nine Coordination Criteria"** that were central to the Fifty States Initiative over the past 6 or more years.

Since the current state summary reporting process was used by NSGIC for 2010, the results are summarized in this report. **In 2010, forty-eight states, the District of Columbia, Puerto Rico and the US Virgin Islands provided state summary reports**, primarily related to the status of progress on the "Nine Coordination Criteria." The most notable change in 2010 is the **32% loss of Political Champions (Criteria #4)**. Given the timing of the assessments, this cannot be attributed to the Presidential or mid-term election cycle. It is possible that, due to the worsening economy over this period, elected and senior agency officials are preoccupied and unwilling to spend their time on GIS coordination activities.

Eighteen states specifically mentioned a planning related activity in their list of 2010 accomplishments. Implemented as part of the Fifty States Initiative, **the Strategic and Business Planning process is generally credited by State GIS Coordinators for greater credibility and clarity of purpose** in statewide geospatial efforts.

Another major development in the past year was the **new interface (version 4.0) for "The GIS Inventory"** (http://gisinventory.net) formerly known as "Ramona." It provides a fundamentally different interface and much more powerful search and report capabilities. On April 26, 2011, the **U.S. Census Bureau sent messages to over 44,000**

local government contacts in the nation and asked them to adopt use of the GIS Inventory to help facilitate the 2020 Census, resulting in approximately 350 new users that are approximately 80% municipal government.

In use for over 5 years, the GIS Inventory is managed and administered by NSGIC and the participating states. **There are over 4,200 registered users, and 1,300 of them have documented 20,000 data layers**, approximately. In current practice, its use is voluntary, and there is a great deal of variability across the states. Incentives to use it would further accelerate its already widespread adoption, and could help achieve greater consistency in how and why it is used. For example, it **could be used to better assess the nation's current deployment of Geospatial Platforms** for mapping data, applications, and services.

Due to the continuing state and federal budget problems and the **likelihood that Federal partnership funds and grants will continue to be reduced for the Fifty States Initiative**, progress in the coming year will be difficult to achieve. Besides lack of funding, one challenge of note is the cultural struggle to assimilate GIS into IT, where the implementation of chargebacks and fees for data, applications, and services is prevalent. These particular **IT business practices can be counter-productive to traditional GIS coordination and data sharing efforts** that have been so important to advancing NSDI; and in some states, GIS deployment is falling behind due to this struggle.

More helpful in the past year or two has been the **leverage provided by the American Reinvestment and Recovery Act (ARRA)**, mainly through grants administered by the National Telecommunications and Information Administration (NTIA), which is within the Department of Commerce. These grants have been used for **Broadband Mapping and planning across the nation**. States have benefitted from this funding, and it has become a major focus in many states for applying and growing their geospatial capacities, and supplying data for use at the national level, as well as locally**. It points to the importance of having a specific set of business drivers in focus for the justification**

of GIS programs, which has also been reinforced by the Strategic and Business Planning efforts across the states, funded with assistance from the Fifty States Initiative CAP grant categories 3 and 4.

2 Background

The background information first presented in the 2010 "Measuring Progress of the Fifty States Initiative" report remains relevant in 2011 and is largely reiterated below. The description of the CAP categories has been updated to reflect the current status.

2.1 PURPOSE

The purpose of this report is to assess how the Fifty States Initiative, Cooperative Agreement Program (CAP), grants may have enhanced geospatial coordination and advanced the development of the NSDI through the improvement of state government geospatial capacities. Coordination has produced benefits, both internally within a state and externally with a state's neighbors or federal government partners. This "Measuring Progress Report" assesses the Fifty States CAP grant program and its impacts on furthering state geospatial coordination and, by extension, advancing the NSDI.

2.2 SCOPE

The scope of this analysis is a multi-faceted examination of the various data available from several sources. It provides both quantitative and meaningful qualitative information that are individually and collectively suggestive of the success of the Fifty States Initiative in improving geospatial coordination, and making progress on the NSDI.

2.3 CONTEXT

Since the National Research Council coined the phrase National Spatial Data Infrastructure (NSDI) in 1993, there has been a great deal of thought and considerable effort made to advance what is still an incompletely defined concept. The Fifty States Initiative was jointly conceived by the Federal Geographic Data Committee (FGDC) and the National States Geographic Information Council (NSGIC).

The initiative aims to encourage the creation of the NSDI by pursuing the notion that the NSDI can best be achieved through active intergovernmental cooperation and coordination built on a sound strategic and business planning process. These aims remain valid and of great importance to the successful advancement of NSDI, even as federal efforts shift toward the concept of establishing Geospatial Platforms.

2.4 FIFTY STATES CAP GRANT CATEGORIES

The Cooperative Agreement Program (CAP) administered by FGDC provides federal funding opportunities in support of the NSDI, including two grant categories for states in support of the Fifty States Initiative. These grants (i.e. Fifty States CAP grants) purposefully seek to assist states to develop strategic and business plans to improve geospatial coordination in support of their own statewide spatial data infrastructures (SSDI) and the NSDI. As the 2011 CAP guidance describes, state projects for this category are designed to help develop and implement "statewide strategic and business plans that will facilitate the coordination of programs, policies, technologies, and resources that enable the coordination, collection, documentation, discovery, distribution, exchange and maintenance of geospatial information in support of the NSDI and the objectives of the Fifty States Initiative Action Plan." Fundamentally, the Fifty States Initiative recognizes the need to build the NSDI with the essential involvement of state and local government partners.

Fifty States Initiative CAP grants have been awarded annually since 2006 totaling 59 grant awards. Of the grant assistance provided by FGDC for the Fifty States Initiative, 46 were "Category 3" (Strategic Planning) and 13 were "Category 4" (Business Planning). Category 3 grants totaled $2,276,000, and Category 4 grants totaled $470,000, with the recipients matching 50% of the award with funding or in-kind services. The combined total of FGDC funding was $2,746,000; when the 50% match from grant recipients is added, the total investment has been $4,119,000.

In 2011, there were two Fifty States CAP categories – Category 3 for Strategic Planning (2 grants of $50,000 each), and Category 4 for Business Planning (8 grants of $40,000 each).

3 Characterization of the Geospatial Maturity Assessment (GMA)

The Geospatial Maturity Assessment (GMA) is an objective baseline assessment for routinely monitoring and validating a state's geospatial business performance capabilities. FGDC provided funding assistance in FY 2010 to support the development of the GMA. Without it, decision-makers in each state (e.g., state Chief Information Officers (CIOs), Geographic Information Officers (GIOs), Governors, Legislators, etc.) have little sense of the extent and value of geospatial assets and capabilities within their state. These assets and capabilities include, but are not limited to, the following components:

- Geospatial Coordination and Collaboration
- Geospatial Data Development (documentation and maintenance)
- Geospatial Asset Discovery and Access (sharing and distribution)
- Statewide Partnership Programs
- Participation in Pertinent National Partnership Programs and Initiatives
- Geospatial Policies, Standards, Guidelines and Best Practices
- Geospatial Training, Education and Professional Networking Activities
- Governance, Policy, Management and Planning
- Enterprise Integration and Design
- Societal Impacts

The GMA was released on August 1, 2011, and it the 4th generation of NSGIC's State Summaries. In 2012, it will be incorporated into the GIS Inventory System (see next section). A process has been implemented to allow multiple individuals to complete the

different parts of the assessment. The GMA is broken down into four fundamental areas that provide 1) a general look at activities and challenges in each state, 2) Governance issues, 3) Framework Data assets and 4) Services. The GMA will serve the following purposes:

- Inform other national assessments such as the PEW Grading the States Report Card, ASCE Infrastructure Report Card, the Digital Government Survey and COGO's planned Geospatial Report Card, through access to GMA results posted by individual states and/or the national compilation.
- Enable policy decisions necessary for state-level strategic and business planning activities, score cards (or other metrics) and other actionable items.
- Reveal cross-agency and enterprise geospatial investment opportunities to Governors, Legislators and other decision-makers. These items can be reviewed independently, placed within the State Strategic Plan or otherwise leveraged.
- Enable GMA components to be assembled into or from more detailed Report Cards. Alternatively, county GMAs, if and when they begin to surface, may feed pertinent assessment categories in the state GMAs.
- Offer a framework for enhancing awareness and assessment of local to state to federal capabilities.
- The GMA results can help guide the FGDC's visioning and the development of any resulting programs, such as the Geospatial Platform effort.

4 GIS Inventory: System Utilization by State and Local Governments

The GIS Inventory (http://gisinventory.net) formerly known as "Ramona", is a data-rich inventory managed by NSGIC. It inventories GIS users, organizations, systems, policies and data across the states, Washington DC, Puerto Rico and the Virgin Islands. This tool is made available to each state so they can better understand their user community and it has been in use for over 5 years. The System is administered by NSGIC and the participating states, but includes individual inputs from private, municipal, county, state, tribal, federal and other users. In current practice, its use is voluntary, and there is a great deal of variability across the states, due to their rate of adoption of the tool, the method in which it is used and the incentives employed (See Figure 1).

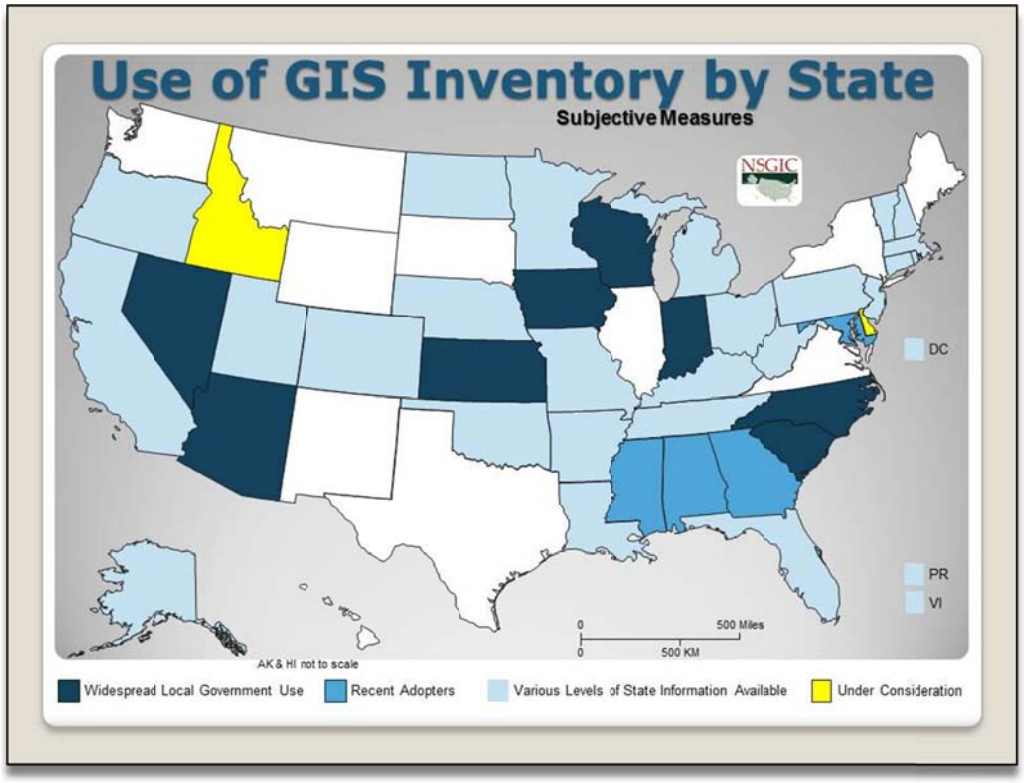

Figure 1. Use of the GIS Inventory by State and Local Governments (March 2011)

In contrast, the Clearinghouse system maintained by the FGDC has 61 state nodes at state government agencies or academic institutions. Eleven states have from 2 to as many as 4 separate Clearinghouse nodes that range from inactive to active sites. The Clearinghouse is a distributed, electronically connected network of geospatial data producers, managers and users. It is neither a central repository where data sets are stored nor a set of Web sites referencing spatial data. It is a federated system of compatible geospatial data catalogs that can be searched through a common interface which is the Geodata.gov (GOS) portal.[1]

For the 61 state government nodes, the harvesting history is provided as an aggregate in Table 1 and graphically by state in Figure 2 below. Twenty-five (25) of these nodes have been harvested within the last ~18 months by manually forcing a harvest or selecting 'settings' on their systems that causes an automatic harvest by the GOS Portal.

Not Harvested	2005	2006	2007	2008	2009	2010	2011
10	11	3	4	3	5	6	19

Table 1. Harvesting History of State Clearinghouse Nodes by GOS[2]

[1] http://www.fgdc.gov/library/factsheets/documents/chouse.pdf
[2] Information provided by the GOS Portal Team

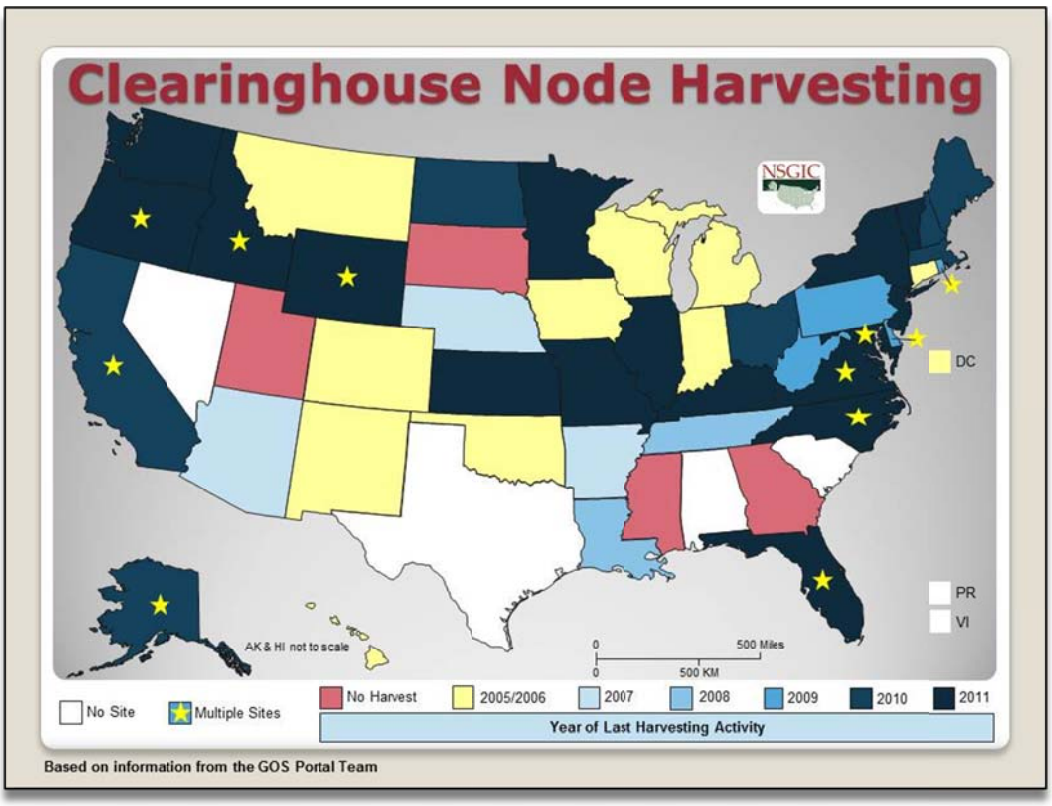

Figure 2. Harvesting Activity for State Clearinghouse Nodes

In the GIS Inventory, the variety of participants from different stakeholder groups and the varying usage patterns have resulted in a non-uniform distribution of responses, with no single characteristic approach from state-to-state. For example, in some states, participants in the GIS Inventory may typically be just state agencies, focusing on statewide data sets. In other cases, the participants are principally counties that are inventorying geospatial data files within their respective jurisdictions without influence by the state. This is to be expected given the nationwide scope, where it takes time to achieve normalization, consistency and reliability of results. Nonetheless, the results are already substantive and measurable.

There are over 1,300 users documenting data assets out of the 4,200 total registered users. Together, they have documented 20,000 data layers. Typically, new users register in the system every day and the number of data layers grows each week as

evidenced by the GOS harvesting reports. Version 4.0 of the GIS Inventory interface was released in February 2011. It provides a fundamentally different interface and much more powerful search and report capabilities. The release of Version 4.0 was very well received by the user community. On April 26, 2011, the U.S. Census Bureau sent messages to over 44,000 local government contacts in the nation and asked them to adopt use of the System to help facilitate the 2020 Census. That action resulted in approximately 350 new users that are approximately 80% municipal government. It will be followed by additional efforts to market the system to local government. In 2011, the Department of Homeland Security is funding NSGIC to work with the National Alliance for Public Safety GIS (NAPSG) to conduct workshops and provide training materials focused on the Public Safety community to encourage their use of the system. A flyer on this subject was recently published by NSGIC.

In 2010 the State of Georgia used the GISInventory.net platform to roll-out a 6-week geospatial audit across all levels of government. A Bill passed by the Georgia Legislature O.C.G.A § 12-5-9 (b)(3) prompted this effort. Their inventory effort captured information on 88% of Georgia's 159 counties, including the following information that's automatically packaged into GIS Inventory: People, Systems, Policies, Data and Geography. A 52-page report documents this first-ever statewide geospatial audit in Georgia. The Georgia Geospatial Advisory Council (GGAC) made five recommendations in support of the following objectives: 1) to use geospatial capabilities to meet Federal Emergency Management Agency floodplain notification recommendations; and 2) to formulate GGAC recommendations for advancing governmental data interoperability to enhance service delivery to Georgia citizens through geospatial technologies.

The State of Maryland, through the Maryland State Geographic Information Committee (MSGIC), launched an intense three-week challenge to inventory Maryland's GIS data. The Center for GIS (CGIS) at Towson University led the initiative, which was funded by Maryland's FY 08 Interoperable Emergency Communications Grant Program. Their effort began with a Proclamation by Governor Martin O'Malley that declared February 2011 as GIS Inventory Month. The Inventory Challenge used the GIS Inventory System.

A report on this effort is available to help better understand how to effectively conduct similar surveys.

Utilization could be expanded and enhanced with incentives and funding assistance. The GIS Inventory provides valuable information for assessing geospatial programs across levels of government and other stakeholder groups, and insights into the feasibility of federated scenarios based on the availability of and access to authoritative sources of geospatial data.

5 Overview and Analysis of 2010 State Summaries

Beginning in 2003, NSGIC asked each state to self-assess their status in relation to nine Coordination Criteria that were adopted by the membership. The nine Coordination Criteria are:

1. A full-time, paid coordinator position is designated and has the authority to implement the state's business and strategic plans.
2. A clearly defined authority exists for statewide coordination of geospatial information technologies and data production.
3. The statewide coordination office has a formal relationship with the state's Chief Information Officer (or similar office).
4. A champion (politician or executive decision-maker) is aware and involved in the process of coordination.
5. Responsibilities for developing the National Spatial Data Infrastructure and a State Clearinghouse are assigned.
6. The ability exists to work and coordinate with local governments, academia and the private sector.
7. Sustainable funding sources exist to meet projected needs.
8. Coordinators have the authority to enter into contracts and are capable of receiving and expending funds.
9. The Federal government works through the statewide coordinating authority.

The first report on these criteria was titled “State Model for Coordination of Geographic Information Technology” and published in 2004. It simply provided a summary total for all states for each of the criteria and did not provide a detailed rating for each state. In 2006, NSGIC standardized the responses. The subsequent annual reports provided state-specific rankings for each of the Coordination Criteria. They were based on the following range of answers so that progress could be measured.

- Lost this function over the past year
- No plans to implement criteria
- Expect to implement criteria in 12 to 18 months
- Expect to implement criteria in < 12 months

- Criteria is implemented at this time
- Did not respond to survey or to this particular question

In 2010, forty-eight states, the District of Columbia, Puerto Rico and the US Virgin Islands provided the following assessment of their current relationship to the Coordination Criteria in response to the State Summaries Survey.

Key to Colors		
		Lost this function over the past year
		No plans to implement this criteria
		Expect to implement this criteria in 12 to 18 months
		Expect to implement this criteria in < 12 months
		Criteria is implemented at this time
	x	**Did not respond to survey or this particular question**

Criteria	Has a Fulltime GIO or Equivalent	Clearly Defined Authorities Exist	Have a Formal Relationship with CIO	A Political Champion is Aware & Involved	NSDI & Clearinghouse Duties Assigned	Coordinate Effectively with Local Govt. & Stakeholders	Sustainable Funding Exists	Authority to Contract Exists	Federal Govt. Works through Coordination Authority
State									
Alabama									
Alaska									
Arizona									
Arkansas									
California									
Colorado									
Connecticut	x	x	x	x	x	x	x	x	x

Criteria	Has a Fulltime GIO or Equivalent	Clearly Defined Authorities Exist	Have a Formal Relationship with CIO	A Political Champion is Aware & Involved	NSDI & Clearinghouse Duties Assigned	Coordinate Effectively with Local Govt. & Stakeholders	Sustainable Funding Exists	Authority to Contract Exists	Federal Govt. Works through Coordination Authority
Delaware									
District of Columbia									x
Florida									
Georgia									
Hawaii									
Idaho									
Illinois									
Indiana									
Iowa									
Kansas									
Kentucky				x	x				
Louisiana									
Maine									
Maryland									
Massachusetts									
Michigan									x
Minnesota									
Mississippi									
Missouri									
Montana									
Nebraska									
Nevada	x	x	x	x	x	x	x	x	x
New Hampshire									
New Jersey									

Criteria	Has a Fulltime GIO or Equivalent	Clearly Defined Authorities Exist	Have a Formal Relationship with CIO	A Political Champion is Aware & Involved	NSDI & Clearinghouse Duties Assigned	Coordinate Effectively with Local Govt. & Stakeholders	Sustainable Funding Exists	Authority to Contract Exists	Federal Govt. Works through Coordination Authority
New Mexico									
New York									
North Carolina									
North Dakota									
Ohio									
Oklahoma									
Oregon									
Pennsylvania									
Puerto Rico									
Rhode Island									
South Carolina									
South Dakota				x					
Tennessee									
Texas									
Utah									
Vermont									
Virginia									
Virgin Islands									
Washington									
West Virginia									
Wisconsin									
Wyoming									

Considering the current economy and its overall negative impact on the States, they have surprisingly 'held their ground' over the past year in spite of some obvious functions that were lost (noted in the table above using red). The following table indicates the aggregate change from 2009 to 2010 with regard to the Criteria that are fully implemented. The one notable change is the 32% loss of Political Champions (Criteria #4). Given the timing of the assessments, this cannot be attributed to the Presidential or mid-term election cycle, so this significant loss of political champions can't be attributed to any tangible event. It is possible that due to the worsening economy over this period that elected and senior agency officials are preoccupied and unwilling to spend their time on GIS Coordination activities. Also, some relocation occurred between agencies as coordination offices were moved to implement their plans or gain other efficiencies. It's possible that this movement resulted in the loss of some political champions. There was a slight improvement in the number of states that have assigned NSDI and Clearinghouse responsibilities (Criteria #5), and those experiencing improved coordination with Federal agencies (Criteria #9). Again, the improvement is slight, but it may be an outcome of the Strategic and Business Planning efforts associated with the Fifty States Initiative. There is some variation between the states that responded to the 2009 and 2010 assessment. Therefore, a more detailed analysis is not possible.

Criteria	Fully Implemented in 2009	Fully Implemented in 2010
1	30	29
2	39	37
3	36	38
4	31	21
5	31	36
6	45	42
7	12	14
8	35	36
9	32	36

No questions were asked in the survey to determine why the states have been able to perform this well, but the following reasons may have played a role.

1. The Strategic and Business Planning process implemented as part of the Fifty States Initiative may have brought greater credibility and clarity of purpose. This was evident in the survey of State GIS Coordinators done as part of last year's (2010) Measuring Progress report. The partnerships that come from these planning activities are critical in difficult economic times. Eighteen states specifically mentioned a planning related activity in their list of 2010 accomplishments.
2. Focusing on the coordination criteria, particularly the relationship with the CIO and clarifying responsibilities may have helped to sustain their efforts.
3. Increased recognition of the value of Geospatial Technologies and their widespread use to support business needs may have helped.
4. A considerable number of state GIS Coordination Offices are directly involved in the FCC/NTIA Broadband Internet Mapping Program. The level of funding provided through that program helped these offices sustain their operations.

Due to the continuing state and federal budget problems and the likelihood that Federal partnership funds and grants will continue to be reduced for the Fifty States Initiative, states will need to 'do more with less.' Focusing coordination activities to meet specific state-level business needs will become increasingly important to help them ensure continuity of operations, let alone make progress on advancing NSDI.

6 State Case Studies

6.1 Snapshot of State Results

The past CAP awards in the Fifty States Initiative categories (3 and 4) have produced many successful and 'measurable' actions that are direct results of the planning process. The following examples help to illustrate the successes.

- **AL** established a new GIS Coordinator position, GIS Program Office, and a new GIS Council through a Gubernatorial Executive Order.
- **AR** is implementing a parcel mapping grant program that provides state matching funds to county participants. Round one of the program included 27 applicants. If all were awarded it would exceed state funding availability.
- **AZ** is moving toward a statewide Clearinghouse based on recommendations in their Business Plan.
- **CO** moved the State GIS Coordinator position under the CIO based on their Strategic Plan recommendations.
- **CT** created a new full-time position dedicated to GIS Coordination. The state also funded parcel grants for regional planning agencies and statewide collection and standardization. In addition, the state was able to fund (along with DPS, DOT & USGS) a statewide ortho-imagery collection effort managed by the Geospatial Council's Imagery subcommittee.
- **DC** established a new Executive Board as part of their GIS Steering Committee through a Mayoral action on a recommendation in the Strategic Plan on governance. The City also established a blueprint for applying Portfolio Management to GIS assets.
- **KS** has made incremental progress on enhanced statewide elevation data (LiDAR) based on Business Plan recommendations.

- **MA** has moved forward on both statewide parcels (i.e. with Executive Office of Public Safety funding) and also on the reorganization of their group into the Information Technology Division based on Strategic Plan recommendations.
- **ME** has made progress Strategic Plan recommendations for a statewide parcel program.
- **MN** reorganized their GIS program as recommended by their initial CAP grant for a Strategic Plan.
- **SC** commenced 5 pilot studies between local and state government entities as a direct result of their Strategic Plan recommendations.
- **WY** established a State GIS Coordinator role under the CIO based on their Business Plan recommendations.

The following sections provide streamlined cased studies of what several Fifty States Initiative grant recipients encountered, learned, and achieved as part of the planning efforts made possible by FGDC funding assistance. They all follow the same basic format for case study content and reporting progress. The profiled states are as follows:

- Arizona
- Idaho
- Oregon
- US Virgin Islands

6.2 Arizona

Geographic Information Council (AGIC) GIS Strategic and Business Planning Project

6.2.1 Prior to Project

The use of Geographic Information Systems (GIS) and the presence of a community of geospatial data users go back more than 30 years in Arizona. The current Arizona Geographic Information Council (AGIC) started as a state-agency-centric organization in 1989, but it was not the first GIS organization in the state. Over the years, AGIC has

achieved broader participation beyond state agencies, as evident from the diversity of the current AGIC executive and committee rosters, which include all levels of government and the university community.

An active and knowledgeable stakeholder community of GIS professionals exists across the state, involved in many different aspects of government and the economy. Expertise in the technology is a prerequisite for many jobs that depend on the availability of geospatial data. The productivity-related benefits of GIS are generally recognized in the professional community, and geospatial data is used in many jobs and business processes related to the generation of revenue and the delivery of services, such as taxation, utilities, permitting, public safety and many other daily operations.

Key GIS milestones in Arizona that preceded this project include the following selected items:

- **1980's**
    - Arizona Mapping Advisory Council (AZMAC) established by Executive Order 1982-10, by Governor Babbitt
    - Arizona Land Resource Information System (ALRIS) in 1982, and the State Cartographer's Office established under state statute, in 1989
    - AGIC formed to replace AZMAC by Executive Order 1989-24, by Governor Mofford
- **1990's**
    - Regional GIS consortia added to AGIC by Executive Order 1992-17, by Governor Symington
    - AGIC Strategic Plan developed in 1992
        - Administrative and Legal Recommendations
        - Data Resources Recommendations
        - Technology Recommendations
        - Education Recommendations
        - Information Exchange Recommendations
- **2000's**
    - State Homeland Security Strategy (SHSS) developed, 2003

- AZ Map populates The National Map, c. 2005
- AZ Geodata Portal developed, c.2005
- FEMA grant received; Mapping Arizona document produced, 2005
- Height Modernization undertaken, 2006
- AZ3D initiative, 2008
- FGDC grant received to assist Strategic and Business Planning
- Senate Bill 1318 signed into law by Governor Brewer, 2009

6.2.2 Project Overview

The Arizona Geographic Information Council (AGIC) initiated this planning project to more effectively meet the geospatial needs and requirements of Arizona. AGIC applied for funding assistance through the Federal Geographic Data Committee (FGDC), as part of the Fifty States Initiative to advance the National Spatial Data Infrastructure (NSDI). In February 2009, Arizona was selected as a grant recipient, specifically to support Strategic and Business Planning for Geographic Information Systems (GIS). When Senate Bill 1318 (SB1318) was signed into law by Governor Brewer in July of 2009, it became a key focal point for the AGIC Steering Committee leading the planning process.

Outreach was conducted and input was collected from the diverse community of geospatial stakeholders throughout the state during 2009, including a series of Regional Workshops held in Flagstaff, Kingman, Phoenix (Peoria), and Tucson. In addition, an online survey was conducted to gather input from GIS users and managers. Based on the input from the workshops and survey, preliminary findings and recommendations were compiled and presented at the Annual AGIC Conference, which was held in Tucson, in November 2009.

6.2.3 Project Activities

AGIC followed the methodology outlined in the Strategic Planning Guidelines produced for the Federal Geographic Data Committee (FGDC) Fifty States Initiative. A Steering

Committee was formed to provide oversight and direction, and the members are acknowledged in the Foreword to this document. The following list includes the major milestones for the project:

- **June 2009:** Project Initiation Meeting
- **July 2009:** Project Initiation Report
- **July-Oct. 2009:** Online Survey
- **Sept-Oct. 2009:** Regional Workshops (Flagstaff, Kingman, Phoenix/Peoria, Tucson)
- **October 2009:** Preliminary Findings Summary Report
- **November 2009:** AGIC Annual Conference (Prelim. Findings and Additional Input)
- **December 2009:** Submit Draft Plans
- **January 2010:** Make Plan Revisions
- **February 2010:** Present Plans to AGIC Board
- **February 2010:** Plans Approved by AGIC Board

6.2.4 Project Outcomes

The project resulted in the development of strategic goals as part of the strategic planning effort, and a specific business plan to implement a statewide Clearinghouse. The goals were formulated to support the key requirements of Arizona Senate Bill 1318 (SB1318). They focus strategic efforts onto the creation, sharing, and governance of geospatial data and services that support the business drivers in Arizona, and enhance well-being and prosperity for all Arizonans. They also support the provisioning of reliable and accessible geospatial basemap data to support key statewide initiatives,

including the Arizona Renewable Energy Project, AZ3D, and the Arizona Broadband Mapping Project.

The project also resulted in the alignment between the activities of the current AGIC committees and the goals of the plan. The leadership and membership of the current committees are key resources for enabling concerted action. AGIC committees were aligned with the overarching strategic goals, whereas the more granular programmatic goals varied by committee.

Things That Worked Well.

- The entire Arizona Geographic Information Council got involved in supporting the grant request and in creating a review committee to become involved in the project.
- SB1318, which facilitated data sharing in Arizona and established AGIC in legislation, was advanced and promoted. As SB1318 proceeded through the legislative process, changes were made to it based on findings from the Strategic Plan. SB1318 became law in September 2010 (ARS 37.171 - 178).
- Internal resources and expertise were lacking to conduct a strategic and business plan project, so AGIC obtained the services of highly knowledgeable and experienced consultants to provide guidance and expertise.

Problems That Were Encountered.

- Geography made it difficult to hold enough workshops throughout the state to obtain input from all GIS stakeholders in Arizona and outreach efforts did not draw a crowd proportionate to the GIS activities in the Phoenix area.
- The burst of the housing bubble and large State budget deficits posed obstacles.

- The unexpected transition of Governor and replacement of most senior State executives was disruptive.

Successful Results.

- The planning process and the resulting strategic plan and goals helped to focus and prioritize the efforts of AGIC as a statewide body.
- The resulting business plan provided a "how to" guide for implementing a statewide Clearinghouse, to fulfill one of the key requirements of the legislation that became law (ARS 37-178) during the planning process.

6.3 Idaho

Eastern Idaho Regional Resource Center Business Plan

6.3.1 Prior to Project

For decades, Geographic Information Systems in east Idaho has been developing at a steady rate due, in large part to the efforts of numerous individuals within the GIS community. As a result, pockets of GIS infrastructure exist throughout the region. More recently, Idaho's GIS business plan identified an organizational component known as a Regional Resource Center (RRC), which was intended to anchor state spatial data infrastructure objectives regionally. However, the exact mix of services and capabilities of each RRC was left for interested groups to define.

In September 2009, several regional groups were identified in response to a call for proposals by the Geospatial Information Office. These proposals identified geographic regions, overviews of GIS resources, and GIS practitioners within their respective regions that were associated with each proposed RRC. In February 2010, the east Idaho GIS community was awarded a CAP grant to support the development of a regional resource center business plan.

6.3.2 Project Overview

The project scope included the development of a Business Plan specifically for the East Idaho Regional Resource Center, as well as the creation of a Business Plan guideline for use by other Regional Resource Centers, both in Idaho and in other parts of the country. GIS Regional Resource Centers (RRCs) are organizational components of Idaho's statewide GIS program --The Idaho Map (TIM) -- and have the primary mission of supporting and coordinating GIS activities and users in specific geographic regions of the state, in coordination with the Idaho Geospatial Council (IGC) and Idaho Geospatial Office (IGO).

The business plan and guideline project was managed by the Idaho State University GIS Training and Research Center (ISU GIS TReC) and was funded by a Category 4 NSDI CAP Grant. The preparation of the plan was carried out with a project team that included personnel from the ISU GIS TReC, Eastern Idaho Regional GIS (EIRGIS) and Southeast Idaho GIS Users' Group (SEIGUG). In addition to this core project team RRC business planning has included input from GIS stakeholders throughout Idaho. The intention of the guidelines is to provide a foundation and support for RRC development throughout the state. While the primary focus is on Idaho, it has applicability for any statewide GIS program for which improved regional participation and coordination is needed.

The project successfully garnered tremendous participation from stakeholders across the state using e-mail, the list serve, in-person and teleconference meetings, and a dedicated web forum. As geography presented significant challenges to travel, technology was key in gathering input from this broad spectrum of stakeholders.

6.3.3 Project Activities

The following research, information gathering and deliverable review activities were conducted as part of this project beginning in May 2010:

- **June 2010:** RRC Business Planning kick-off meeting
- **June 2010:** RRC discussion at the North Idaho GIS User Group meeting
- **Summer 2010:** Comments posted to the "RRC Forum", a publicly accessible web forum
- **Summer 2010:** Results of a Web-based survey deployed and managed by the RRC project team
- **Summer 2010:** Preparation followed by a review and comment on a companion document, "Notes on Investigations about Potential Host Organizations and Outside Support"
- **August 2010:** RRC planning meeting
- **August 2010:** RRC discussion (EIRGIS meeting)

6.3.4 Project Outcomes

As a result of the business plan, the East Idaho Regional Resource Center developed the following Mission Statement:

> *The East Idaho Regional Resource Center will be a vital component of The Idaho Map and enhance geospatial capabilities in the region by:*
>
> - *Sharing scarce resources*
> - *Avoiding duplication of effort*
> - *Bridging local and state activities*
>
> *The East Idaho RRC empowers local people to participate in The Idaho Map without leaving the office. Even better, governments in the region benefit from*

ready-to-go trans-boundary information assembled by people they know and trust. Anchored to Idaho State University's GIS Training and Research Center for stability and maximum leverage, the EIRRC can rapidly facilitate regional mapping and geospatial data needs.

Organizationally connected to Idaho's GIS coordinating body, linked with other RRCs, and the Idaho Geospatial Office and guided by a steering committee, the EIRRC will accelerate The Idaho Map and unleash latent potential in the region. Harnessing personal relationships and economic engines, like INL, provide an additional catalyst and opportunity to create enduring benefits for all sectors and citizens.

The plan also identified key partners and resources and made specific recommendations for the development and operation of regional resource centers including:

- A balance of services and capabilities
- An organizational structure
- A physical location and operation strategy
- A communication and coordination approach with the Idaho Geospatial Council and The Idaho Map
- Staffing strategies
- Technical architecture
- Interaction with other RRCs
- Potential funding sources

These recommendations and the comprehensive guidelines document now available to other regions serve as a valuable template and set of tools for establishing the next regional resource center.

The East Idaho Regional Resource Center (EIRCC) was officially formed through recognition by the Idaho Geospatial Council. EIRCC management is located at Idaho

State University's GIS Training and Research Center. The EIRCC, as well as other RCCs, will help connect local activities and coordination with statewide coordination and facilitate interaction among regional efforts that are currently operating independently.

Things That Worked Well.

- Communication was effective and key to the success of the project. Tremendous stakeholder participation was sought and received.
- Project momentum was maintained through active project management and communication. As a result the project team adhered to the original project timeline.
- The project sought to achieve more than the "minimum" required components of a business plan.

Problems That Were Encountered.

- Originally two Regional Resource Centers were involved (East Idaho and Southeast Idaho) but these merged nearly half-way through the process which required significant adjustment. Fortunately, no serious project set-back was experienced.
- Geography presented a significant challenge to stakeholder participation. This was overcome by leveraging telecommunications and web-based collaboration tools.
- In the search for a consultant to support the project, many requests were sent out but only two proposals were received. Fortunately, both proposals were strong and a selection was made.
- Legislative and decision maker input was sought but very little interest was expressed.

- The length of the final business plan was deemed to be too long according to some (43 pages). The executive summary was written to communicate the key components in an accessible format.

Successful Results.

- An important step in the overall Idaho SDI strategic plan has been achieved.
- A useful guideline is now available to other Regional Resource Centers.

6.4 Oregon

Oregon Geographic Information Council - Strategic and Plan for Geographic Information Management

6.4.1 Prior to Project

Oregon has a long history of investments in digital mapping starting in 1969 with the effort by the Department of Forestry to capture map information on keypunch cards to be processed on a mainframe computer and sent to a plotter. In the 1970s, Oregon counties began to move toward digital parcel mapping, often through contracts with the Department of Revenue. In the 1980s, a few local and state agencies began testing a new type of mapping system that directly linked with a database, which allowed them to begin comparing and analyzing spatial data. Since these early endeavors, GIS has evolved technologically and has integrated with key government agencies and programs putting the tools into the hands of the problem solvers and decision makers. In September 1994, Executive Order EO-94-16, the Oregon State Map Advisory Council (SMAC) was reorganized and renamed the Oregon Geographic Information Council (OGIC). Today, the Council's scope includes local, state and Federal agencies and establishes a relationship between the policies and guidelines of OGIC and the State's Enterprise Information Technology Strategy.

Oregon's first geospatial strategic plan was created in 2001, prior to the Fifty States Initiative. While that plan was for development of Oregon's spatial data infrastructure, a refreshed plan was needed to align with the NSDI. In 2008, a detailed business plan was

developed for the Oregon NavigatOR program, which was based on strategic discussions with the Council and their understanding of the Fifty States Initiative but no documentation of the strategy behind that business plan was produced.

The 2009 project was aimed at producing a refreshed strategic plan for geographic information management and coordination for Oregon. In addition to involving as many local, regional, tribal, academic, business, state, and federal partners as possible, the plans proposal called for a group of approximately ten GIS and accounting professionals from around the country to develop an accounting mechanism to track the accrual of benefits from coordinated development of GIS. This tool was intended to serve government agencies, at any level, in justifying the continued investment in coordinated GIS development.

6.4.2 Project Overview

The scope of the project was to refine the state's existing strategic plan and update the goals based on progress and events that took place since the completion of the original strategic plan in 2001. The Oregon Geographic Information Council (OGIC) was focused on several key goals with this project:

- More inclusive government model
- Expanded data sharing
- Improved Communication
- Formalized data stewardship

OGIC applied for funding assistance through the Federal Geographic Data Committee (FGDC), as part of the Fifty States Initiative to advance the National Spatial Data Infrastructure (NSDI). In 2009, Oregon was selected as a grant recipient, specifically to support Strategic and Business Planning for Geographic Information Systems (GIS). The Oregon plan was completed in September 2010.

The Council's steering committee included representative members from state, regional and local government. Outreach was conducted and input was collected from the diverse community of geospatial stakeholders including private, tribal, academic, and federal (in addition to local, regional, and state). The steering committee was integral in providing guidance and feedback on the strategies drafted by the council.

The ultimate project vision was to "Support the business of Oregon government by enabling efficient and effective use and sharing of geospatial information."

6.4.3 Project Activities

The following activities were conducted in support of the project:

- A series of facilitated group discussions was conducted focusing on open communication and frank dialog to elicit information about navigatOR, how it's working, what needs to change and where it needs to go. Meeting locations were dispersed around the State and included GIS in Action (ORURISA, WA URISA), Portland Metro area, Pendleton, Ontario, Lakeview, Bend, Portland, Salem and Roseburg.
- Meeting results were summarized and distributed back to those individuals that attended each meeting to allow for edits or additional comments to be captured. These comments were added to the results and used as direct input to the Plan.
- Oregon project staff met with Gail Ewart, GIO, State of Idaho and Danielle Ayan, Georgia GIS Clearinghouse Manager, State of Georgia to discuss their respective 50 States GIS Strategic Planning efforts.
- A Strategic Plan Steering Committee composed of representatives from State, Regional and Local Government and the University System was convened. This group discussed information gathered to date and provided

strategic guidance. Metro's Data Resource Center (the GIS business group in Oregon's largest regional government) was simultaneously refreshing their strategic plan. Coordination with Metro was initiated to align planning activities.

- A nationally attended WebEx/teleconference focused on benefit accrual tracking was held and volunteers were solicited for additional working teleconferences. One additional WebEx/teleconference with a smaller workgroup was conducted.
- The Strategic Plan draft was widely reviewed by the GIS community and revisions were made prior to OGIC endorsement.

6.4.4 Project Outcomes

The project resulted in the development of a strategic plan that provides a long-term strategic direction and foundation for geographic information management in Oregon. Other key outcomes of the plan included:

- The definition of an organizational environment for accomplishing geographic information management goals.
- Promotion of geographic information management programs and initiatives, within the context of the overall government information resources enterprise.
- Provision of programmatic objectives for more detailed tactical plans and programs.
- Vision and overarching strategy within which all geographic information stakeholders can develop strategies and tactics for improved collaboration, coordination, and geographic information management
- The next steps are to achieve support for the proposed data sharing legislation, formalize the data stewardship model and process, and revise the Council governance model to be more inclusive and equitable.

Things That Worked Well.

- The Council achieved excellent stakeholder participation through the outreach sessions and Steering Committee participation.
- The planning initiative was aligned with the goals of the Metro regional government.
- An ROI study was initiated that will ultimately inform the goal to modify the Council's funding model.

Problems That Were Encountered.

- It was difficult to stay focused on the strategic planning initiative thus it was not completed as quickly as desired.
- The ROI study was not completed during the planning period thus could not inform the strategic plan to the degree desired.
- Local governments were reluctant to take ownership for the plan's success
- The plan was not completely aligned with the new Governor and Legislature.
- The results should have been more widely broadcast.

Successful Results.

- There was nearly unanimous support for continuing in the current direction
- Support for additional business planning efforts was garnered. The Council was enthusiastic about refreshing business plans even before the strategic plan was completed.
- GIS strategy is now leading enterprise IT planning and providing direction

6.5 US Virgin Islands

United States Virgin Islands Geospatial Strategic Plan

6.5.1 Prior to Project

In many ways the Territory, with its approximately 108,000 people spread across 133 square miles functions as *both* a state and a medium sized city or county. Since both states and counties have traditionally been major consumers and users of GIS technology the Territorial Government has a tremendous variety of potential uses. At the same time, the USVI is only in the beginning stages of GIS development and the extent of GIS penetration is currently modest.

Currently, the Lieutenant Governor's Office of the Tax Assessor and the Department of Planning and Natural Resources (DPNR) are the longest standing and most functional users. In addition to governmental departments other significant geospatial technology users include the University of the Virgin Islands and private non- profits that operate in the USVI (e.g. The Nature Conservancy). Finally, a variety of federal agencies are involved in mapping the territory whether or not they have permanent operations on-island.

The Virgin Islands Geographic Information Council (VIGIC) was formally recognized as the geospatial coordinating entity in 2006 via Executive Order. VIGIC provides a forum and authority for geospatial coordination and has helped coordinate key investments such as the territory-wide orthophotography, LiDAR-based elevation, and parcels.

6.5.2 Project Overview

In 2008, the territory was awarded a Fifty States Initiative category 3 CAP grant to support geospatial strategic planning and strengthen both the USVI SDI and the National Spatial Data Infrastructure. The project commenced in May 2009 and was completed in

June 2010.

The plan's overall strategic goal was documented as the following:

> *To develop a territory-wide spatial data infrastructure that can be shared by all units of the government and makes the territory's geospatial data assets readily available to the territory's partners and the general public. The U.S. Virgin Islands spatial data infrastructure (USVI-SDI) will be a key asset that serves the residents and visitors daily and makes the Territory resilient in times of natural or manmade disasters. The USVI-SDI will assist in the efficient and effective delivery of government services and functions that include, but are not limited to:*
>
> - *Economic development*
> - *Protection of the environment and natural resources*
> - *Providing public safety*
> - *Supporting tourism*
> - *Delivering government services*
>
> *An enterprise GIS approach, spanning the entire territory will be pursued for establishing the USVI spatial data infrastructure.*

The plan also identified seven programmatic goals that represent the activities that are necessary to create an enterprise GIS approach for the territory. These goals included:

1. A full-time paid territorial geospatial information office/coordinator
2. Finding sustainable funding that can span administrations
3. Territory-wide street naming/addressing initiative
4. Finalization of parcels
5. Develop digital polling district layer
6. Develop a geospatial data clearinghouse
7. Develop an enterprise GIS technological infrastructure

6.5.3 Project Activities

Strategic planning project activities included the following:

- **November 2009:** Kick-off and project planning meeting
- **November 2009:** Stakeholder Workshop (in association with the 5th Annual GIS Conference held on St. Croix)
    - Participation from over 120 conference attendees including participation by the following sectors:
        - Territorial government
        - Neighboring territories and nations
        - Federal government
        - Non-governmental organizations
        - Private sector
        - Academia
- **January 2010:** Development of a prototype web viewer to expose existing USVI data.
    - Existing data sets included including parcels, orthophotos and elevation were published via a prototype GIS web viewer deployed by AppGeo. This web-site serves as a proof-of-concept for making USVI geospatial data more readily available.
- **January 2010:** Department head briefing sponsored by the Lieutenant Governor
    - Attended by 33 individuals representing 28 territorial departments/agencies
- **February – May 2010:** Report Authoring

  - Drafted by project consultant (AppGeo)
  - Editing by the VIGIC Executive Committee
- **June 2010:** Formal release of plan
  - Educational meetings to describe the plan including one-on-one briefings with key territorial government officials
  - Initial advocacy for carrying out the recommendations

6.5.4 Project Outcomes

The strategic planning project resulted in a plan that outlines the comprehensive uses and applications of Geospatial Information Systems (GIS) data and makes several recommendations for advancing the territory's GIS program. The primary goal identified in the plan is to develop a territory-wide spatial data infrastructure that can be shared by all units of the government and makes the territory's geospatial data assets readily available to the territory's partners. The next steps for VIGIC include:

- Pursue funding to create a GIO position
- Implement Territory-wide street addressing project
- Pursue Enterprise GIS implementation for the U.S. Virgin Islands

Things That Worked Well.

- The integration of the workshops with the Territorial GIS conference contributed to substantive stakeholder participation
- One-on-one interviews with present and past leadership contributed significantly to the output
- The project team established a good working relationship with Governor's cabinet

- The project obtained legislative support and initial funding for the street addressing project

Problems That Were Encountered.

- Procurement process was painstakingly slow;
- Individuals were more interested in their political agendas than actually contributing to the plan;
- It was difficult to obtain comments and feedback on-line early in the process;
- More budgetary detail should have been prepared for inclusion in the FY 2011 project.

Successful Results.

- Completion of the Territory's first plan for launching GIS throughout the Territory
- The prototype on-line GIS viewer provided an exemplar of how GIS data can be consumed and made accessible to Territory GIS users

7 Conclusions & Recommendations

The following are the important overarching conclusions and recommendations from this year's Measuring Progress study:

7.1 Conclusions

- ★ Despite difficult economic times, states have generally "held their ground" on the nine coordination criteria. The strategic and business plans implemented as part of the Fifty States initiative have brought great clarity and purpose to these states allowing them to better withstand economic down times.

- ★ The strategic and business planning processes have helped states forge key partnerships that have contributed to their stability and progress. In particular, a relationship with the state CIO appears to a key component to the success of a state GIS coordination program.

- ★ The FCC/NTIA Broadband Mapping Program has had a positive impact on state GIS Coordination Offices that are directly involved in this effort. The program has further demonstrated the value of geospatial data for analysis and planning, and focused attention on state GIS coordination programs.

- ★ The Fifty States Initiative CAP grants have helped to formalize efforts toward and improve statewide coordination, communication and collaboration among stakeholders. State case studies show that successful stakeholder outreach is an essential part of the planning process and greatly improves the chances of a successful implementation of strategic goals.

- ★ As the political and technological landscape changes over time, geospatial coordination plans need to be refreshed to identify new requirements and opportunities. Many strategic and business plans are over five years old and should be refreshed to reflect the current situation.

7.2 Recommendations

Build on the success and leverage the gains made over the past several Fifty States Initiative CAP grant cycles with ongoing investment in the planning and coordination process, and related efforts, as follows (echoing and expanding previous years recommendations):

- ★ Document demonstrable progress toward advancing NSDI, and identify gaps between plan goals and actual results. For example, for goals related to developing or enhancing framework layers and themes such as elevation, what has been funded and achieved?

- ★ Catalog and foster exchange of information, lessons-learned, best practices and success stories among states and federal partners.

- ★ Continue with state case studies as a vehicle for information exchange and documenting progress and obstacles to advancing NSDI.

- ★ Revise and modernize the Strategic and Business Plan Guidelines, which were last updated in 2009; specifically, the concept of Geospatial Platforms and associated Data, Applications, and Services need to be explicitly addressed in the current Guidelines.

- ★ Provide funding to stimulate the refreshment and advancement of prior plans or to establish new ones, in recognition of the cyclical nature of planning, and evolving national objectives and expectations.

- ★ Expand support and incentives for the GIS Inventory and GMA efforts and link these to Strategic and Business Planning efforts, and to Geospatial Platform objectives.

- ★ Increase awareness across federal agencies of the successful outcomes of the planning process, and the value of products from the Fifty States Program for coordinated place-based strategies across different levels of government.

8 Appendix

State	Award Year	Category 3	Category 4	Total Awards by Year
CT	2006	$50,000		
LA	2006	$50,000		
MD	2006	$50,000		
MN	2006	$50,000		
NH	2006	$50,000		
NC	2006	$50,000		
OK	2006	$50,000		
TX	2006	$50,000		
WV	2006	$50,000		
WI	2006	$50,000		
WY	2006	$50,000		
ANNUAL SUBTOTAL	**2006**	**$550,000**		**11**
CA	2007	$50,000		
DC	2007	$50,000		
FL	2007	$50,000		
IA	2007	$50,000		
IL	2007	$50,000		
IN	2007	$50,000		
ME	2007	$50,000		
MO	2007	$50,000		
NY	2007	$50,000		
SD	2007	$50,000		
UT	2007	$50,000		
VT	2007	$50,000		
ANNUAL SUBTOTAL	**2007**	**$600,000**		**12**
CO	2008	$50,000		
ID	2008	$50,000		
SC	2008	$50,000		
GA	2008	$50,000		
NE	2008	$50,000		
VI	2008	$50,000		
HI	2008	$50,000		
PA	2008	$50,000		
ANNUAL SUBTOTAL	**2008**	**$400,000**		**8**

State	Award Year	Category 3	Category 4	Total Awards by Year
AR	2009	$47,000		
AZ	2009	$47,000		
DE	2009	$47,000		
KY	2009	$47,000		
MI	2009	$47,000		
OR	2009	$47,000		
VA	2009	$47,000		
WA	2009	$47,000		
ANNUAL SUBTOTAL	**2009**	**$376,000**		**8**
AL	2010	$50,000		
AK	2010	$50,000		
MA	2010	$50,000		
MI	2010	$50,000		
OH	2010	$50,000		
DC	2010		$30,000	
HI	2010		$30,000	
ID	2010		$30,000	
ME	2010		$30,000	
NY	2010		$30,000	
ANNUAL SUBTOTAL	**2010**	**$250,000**	**$150,000**	**10**
NJ	2011	$50,000		
TN	2011	$50,000		
CA	2011		$40,000	
FL	2011		$40,000	
ID/MT	2011		$40,000	
LA	2011		$40,000	
MN	2011		$40,000	
WV	2011		$40,000	
WI	2011		$40,000	
UT	2011		$40,000	
ANNUAL SUBTOTAL	**2011**	**$100,000**	**$320,000**	**10**
ALL YEARS SUBTOTAL		**$2,276,000**	**$470,000**	
TOTAL		**$2,746,000**		**59**