



An Association of Photogrammetry, Mapping, and Geospatial Firms

## MAPPS Comments to the Bureau of the Census for the Commission on Evidence-Based Policymaking

*Docket ID USBC-2016-0003*

*"Commission on Evidence-Based Policymaking Comments"*

Formed in 1982, MAPPS ([www.mapps.org](http://www.mapps.org)) is the only national association exclusively comprised of private sector firms in the remote sensing, spatial data and geographic information systems field in the United States. The MAPPS membership spans the entire spectrum of the geospatial community, including Member Firms engaged in satellite and airborne remote sensing, surveying, photogrammetry, aerial photography, LIDAR, hydrography, bathymetry, charting, aerial and satellite image processing, GPS, and GIS data collection and conversion services. MAPPS also includes Associate Member Firms, which are companies that provide hardware, software, products and services to the geospatial profession in the United States and other firms from around the world. Independent Consultant Members are sole proprietors engaged in consulting in or to the geospatial profession, or provides a consulting service of interest to the geospatial profession. MAPPS provides its member firms opportunities for networking and developing business-to-business relationships, information sharing, education, public policy advocacy, market growth, and professional development and image enhancement.

### **MAPPS Recommendation:**

The Commission on Evidence-Based Policymaking should establish a priority on Federal government collection and application of geospatial data, particularly the National Spatial Data Infrastructure ([NSDI](#)), to address national policies and priorities.

### **Background**

The United States is a world economic power in spite of its surveying and mapping, not because of it. According to the Congressional Research Service (CRS) and the Federal Geographic Data Committee (FGDC), there are estimates that as much as [90%](#) of government information has a geospatial component. Executive Order [12906](#), issued in 1994, called for the development of the NSDI, but it has languished. Accurate surveying and mapping, via the NSDI, can be a matter of life or death.

An independent review team tasked by the Coalition for Geospatial Organizations ([COGO](#)) gave the NSDI a report card grade of ["C" in 2014](#). As a result, the United States would rank behind some 15 other countries. That's the conclusion of the former Wyoming Governor Jim Geringer who pointed to the United Arab Emirates as an example of a nation that has an excellent spatial data infrastructure and uses it in almost every government decision and program.

According to Geringer, NSDI is "not complete and not well governed" and called for a "move into a coordinated and integrated data set."

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The COGO report card encourages government agencies to improve the NSDI to better support efficient government operations at all levels. “The goal of the report card evaluation is to bring attention to the need for current and accurate geospatial data for the nation,” he said. As governor, geospatial framework data was “my reference” when making policy or doing analysis, Geringer explained. “You don’t even know you’re making an erroneous assumption,” when using dated, incomplete or inaccurate spatial data. That “impacts the quality of a decision.” He went on to say spatial data affects “decision-making, policy and economics.”

Why is our nation’s surveying and mapping infrastructure as important as its roads, bridges, airports, waterworks and other physical infrastructure? Let’s look at the ways:

- The Affordable Care Act, commonly known as “Obamacare,” includes [814](#) provisions requiring location/geographic/place-based data for implementation. The lack of data, or a geospatial management office in the Department of Health and Human Services, could be a factor in the failure of websites, exchanges and other methods of delivering quality, affordable medical attention to those in need.
- The federal government wastes \$2 billion a year on some 77,000 unneeded buildings, and the Government Accountability Office (GAO) [cites](#) the fact Uncle Sam lacks a current, accurate inventory of the land and buildings it owns, finding existing data is “unreliable and of limited usefulness” and “not current or reliable.”
- The lack of uniform national parcel data in United States means no government agency could properly track real estate trends or access an “[early warning system](#)” that could have prevented, or at least minimized, the trillion-dollar mortgage foreclosure crisis.
- Based on data from NOAA's [Digital Coast](#) project, rising sea levels threaten coastal watershed counties that are home to 163.8 million Americans — approximately 52 percent of the nation’s population — with the number expected to increase by more than 15 million by 2020. However, accurate data and integrated information to enable coastal communities to address many climate, environmental and emergency management issues does not exist. There is no accurate shoreline surveying and mapping data to measure, monitor, verify or validated the alleged effects of [climate change](#). This seriously affects the coastal zone, which is the home of over half of the nation’s economic productivity.
- When Congress sought to reauthorize MAP-21, the Federal highway law enacted in 2012, as well as the recently enacted FAST Act, essential were and continue to be surveying, mapping and other location-based services to plan, design, inventory, assess, operate and maintain highways and transit systems. Vehicle to vehicle (V2V) or “connected vehicle” technology to enable vehicles to communicate potential risks to drivers and avoid rear-end, lane change and intersection crashes requires accurate spatial data. The transportation layer received the COGO report card’s lowest grade of D. MAP-21 Reauthorization, via the FAST act, provided an opportunity for Congress to not only leverage investments and introduce new geospatial technology, data, products and services, but also to reduce costs, and enhance safety and efficiency in our nation’s transportation systems.
- Pipelines in the United States could encircle Earth 25 times. It is estimated an underground utility line is hit somewhere in the nation every 60 seconds. There were approximately 335,000

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underground excavation damages in 2013. Improved underground infrastructure location data would enhance public safety, environmental protection and the economy. President Obama in June signed into law the "Protecting our Infrastructure of Pipelines and Enhancing Safety" or "PIPES Act" of 2016 as Public Law 114-183. The law extends the Pipeline and Hazardous Materials Safety Administration (PHMSA), makes changes to PHMSA safety policies and gives the Department of Transportation more power in the event of pipeline emergencies. The law also includes an [issue](#) promoted by MAPPS to ensure coordination and collaboration on pipeline mapping, research, development, and technology between PHMSA, industry, and public stakeholders, including provisions strengthening geolocation data for pipelines and other underground utility infrastructure through enhanced underground utility location data requirements. The Department of Energy's (DOE) Quadrennial Energy Review also highlighted pipeline safety as an issue for the nation's energy infrastructure. Trends in pipeline accidents suggest there continues to be opportunity for safety improvement. The DOE and PHMSA have since announced an interagency task force to "initiate regulatory actions to help ensure the safety of natural gas storage facilities." "Improving data collection and reporting, including geospatial data" was one area highlighted in the January 2015 study on integrity management by the National Transportation and Safety Board (NTSB). In September 2015, NTSB Chairman Christopher Hart [testified](#) before the Senate Commerce Committee emphasizing the importance of, and increased need for, geospatial data collection as part of improving location data and "integrity management" for underground utilities and pipelines connected to PHMSA Reauthorization.

- The federal government's National Flood Insurance Program (NFIP) is at least \$24 billion in debt to U.S. taxpayers. These losses are in part due to inadequate mapping data, and result in frequent flooding or unwise construction. Current, accurate elevation and structure data, and better use of surveying technology, would help bring fairness, loss prevention and lower costs to NFIP. Fortunately to help address this problem in a coordinated process, FEMA and several other Federal agencies are working closely to collect enhanced elevation data nationwide via the US Geological Survey's [3D Elevation Program](#), commonly known as [3DEP](#).
- In 2015, [NBC News](#) reported on technical flaws in E-911 systems resulting in inaccurate location and untimely dispatching of ambulances and emergency medical personnel.

### **MAPPS Conclusion:**

To reiterate, the Commission on Evidence-Based Policymaking should establish a priority on Federal government collection and application of geospatial data, particularly the NSDI, to address national policies and priorities.