



A Summary of State DOT GIS Activities

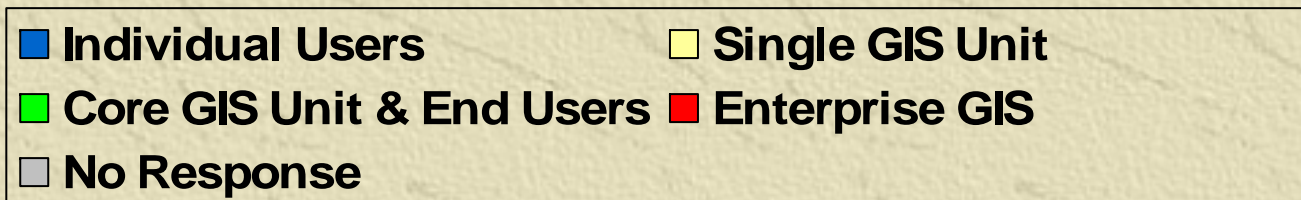
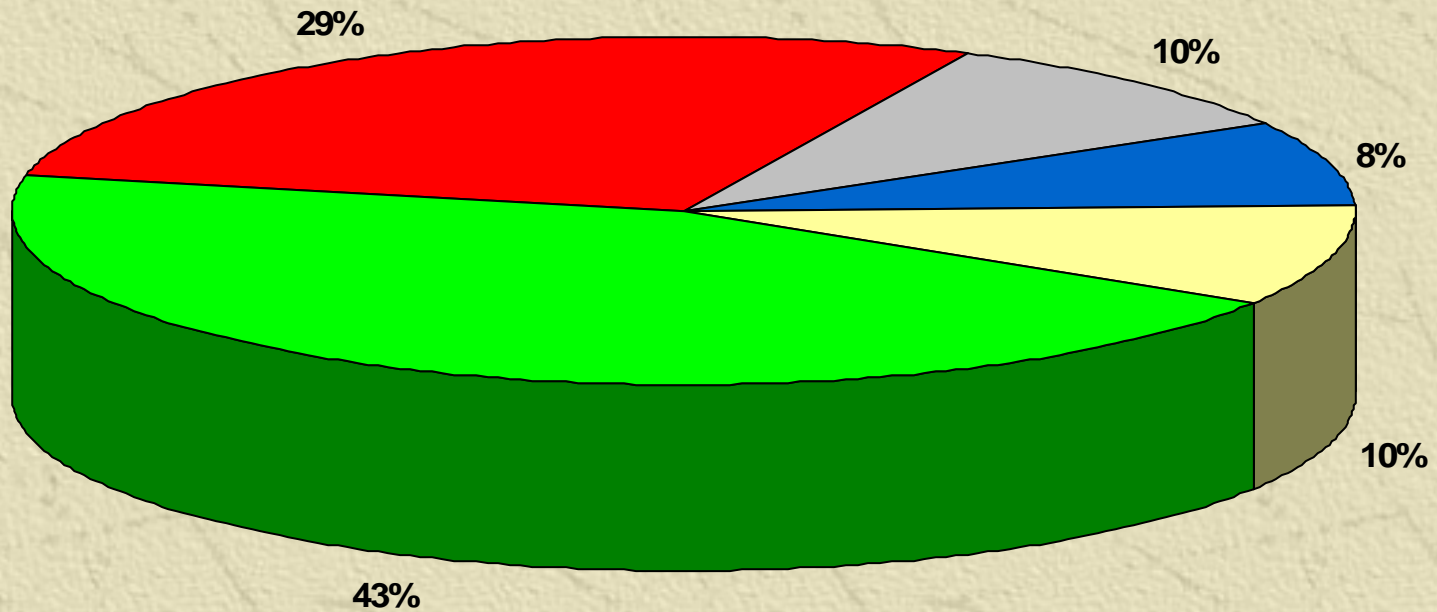


Presented at the
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Columbus, OH

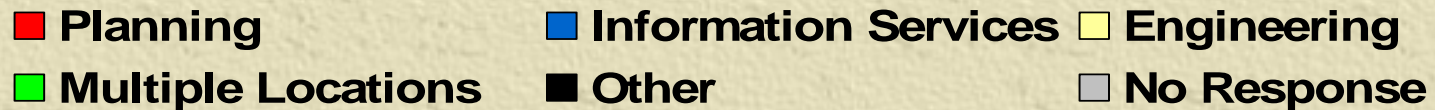
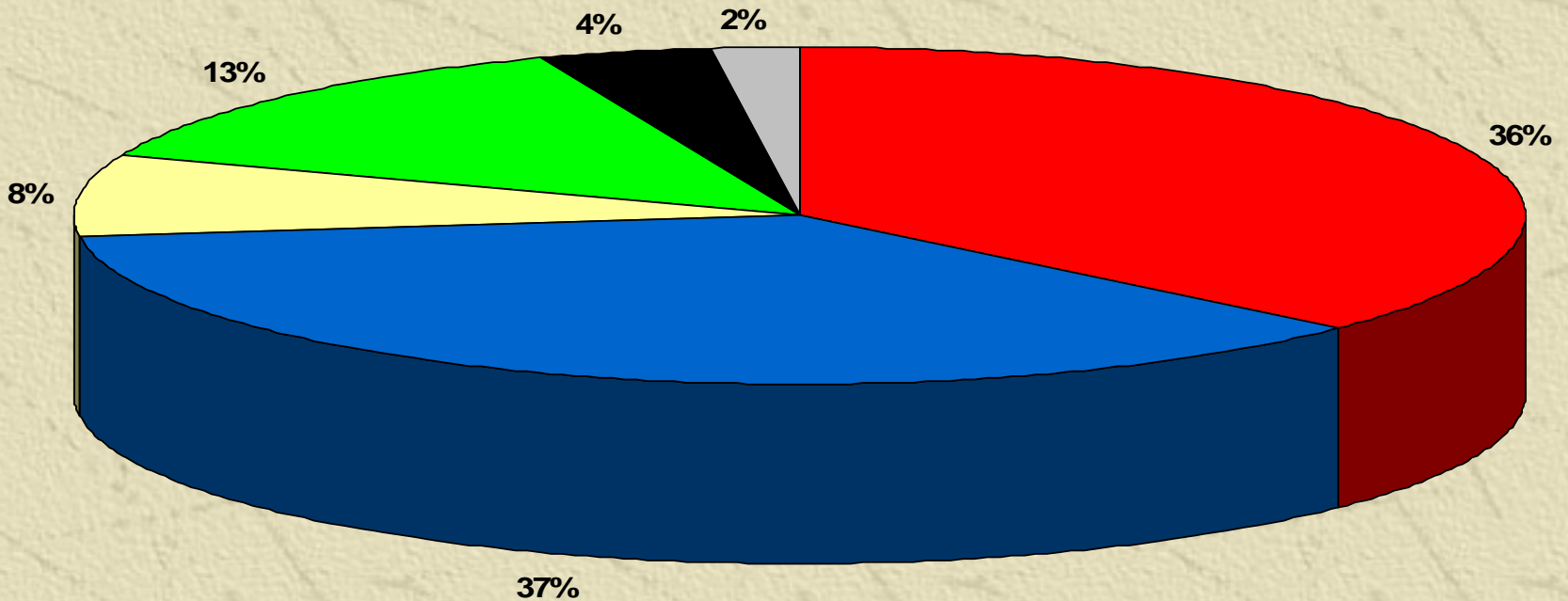
Information Sources

- ◆ Web-based survey of state DOT GIS managers
 - 48 State DOTs (plus DC & PR) responded
- ◆ New questions added:
 - Staff technical background
 - Enterprise RDBMS software
- ◆ Questions deleted
 - Maintenance of milepost markers

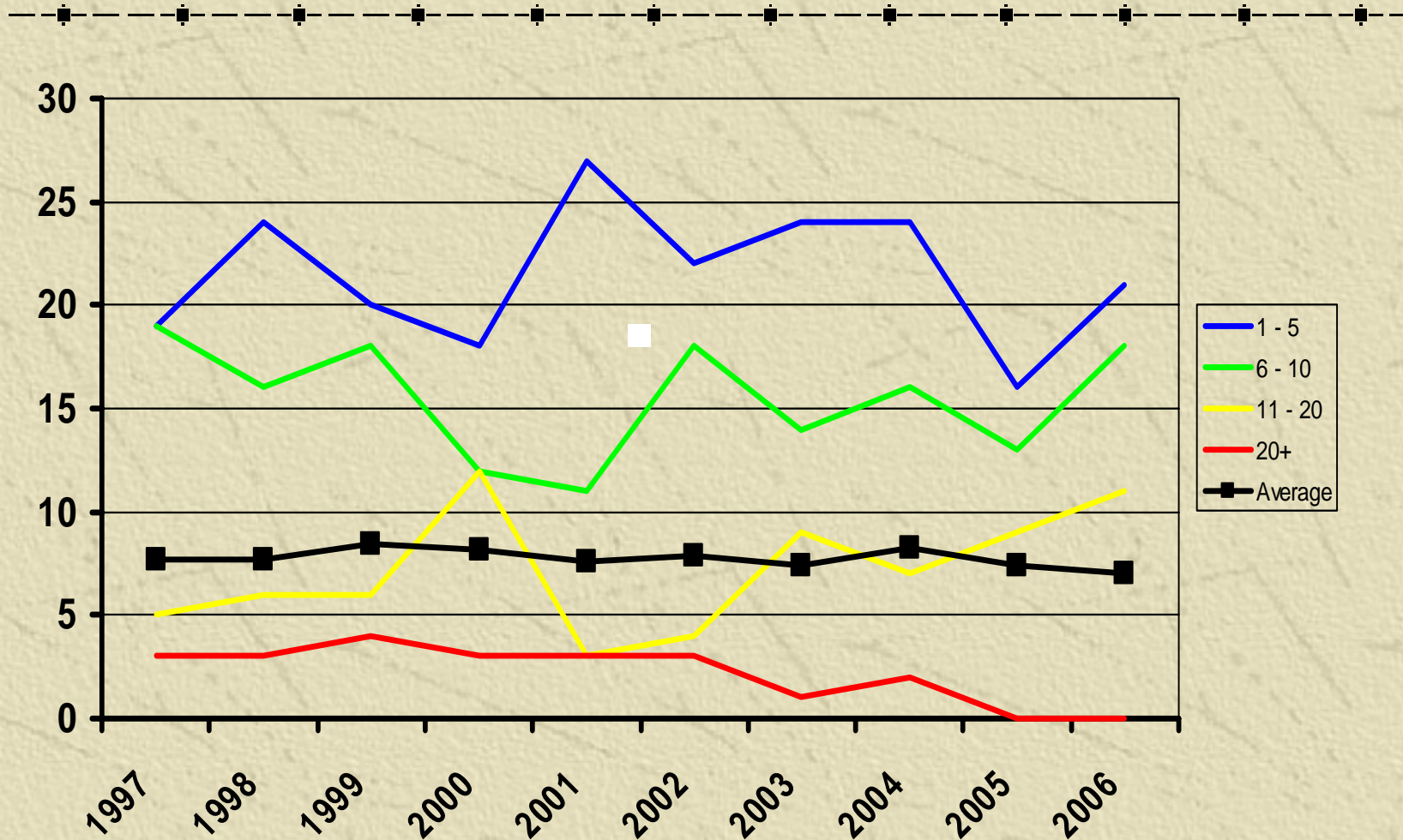
GIS Deployment in the DOT



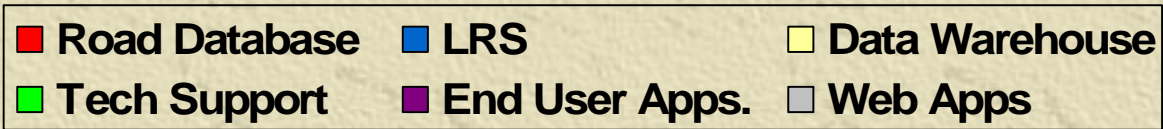
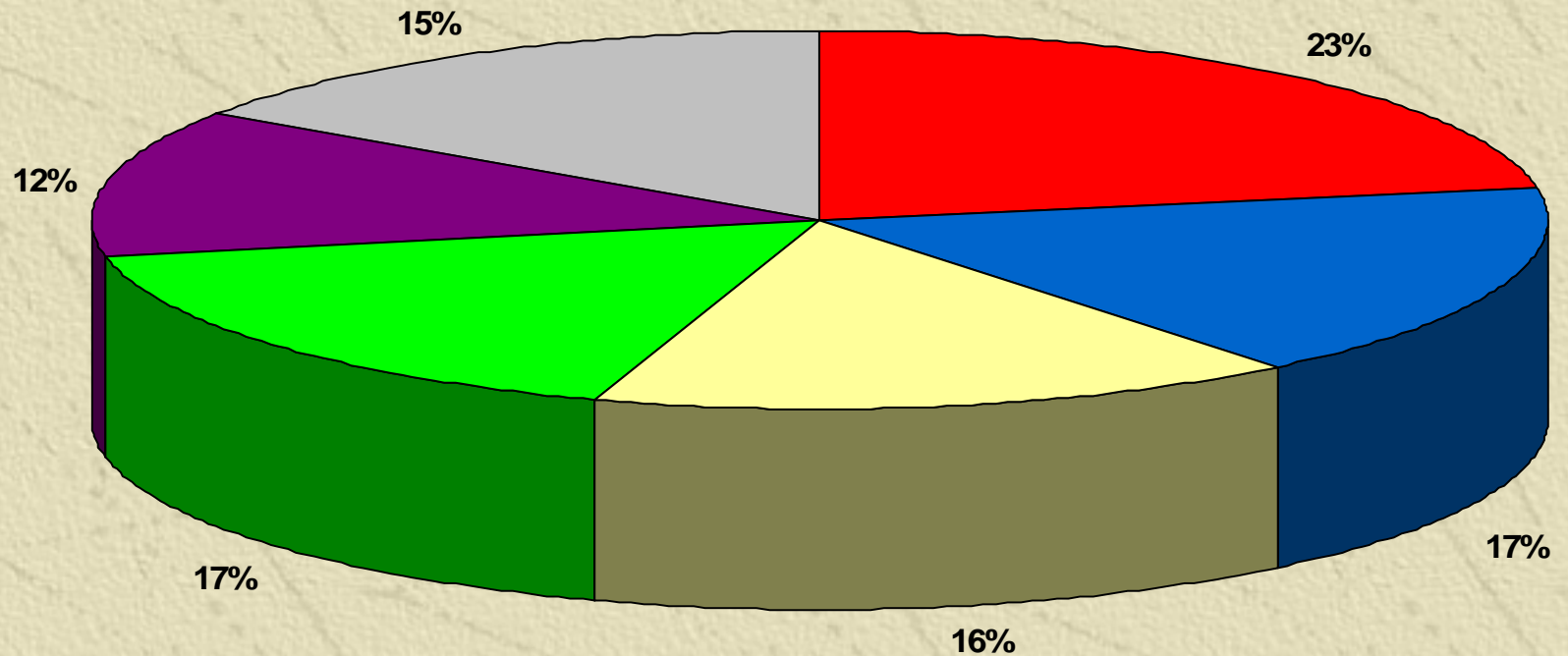
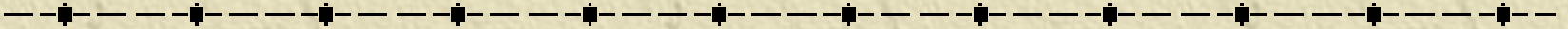
Location of GIS Unit



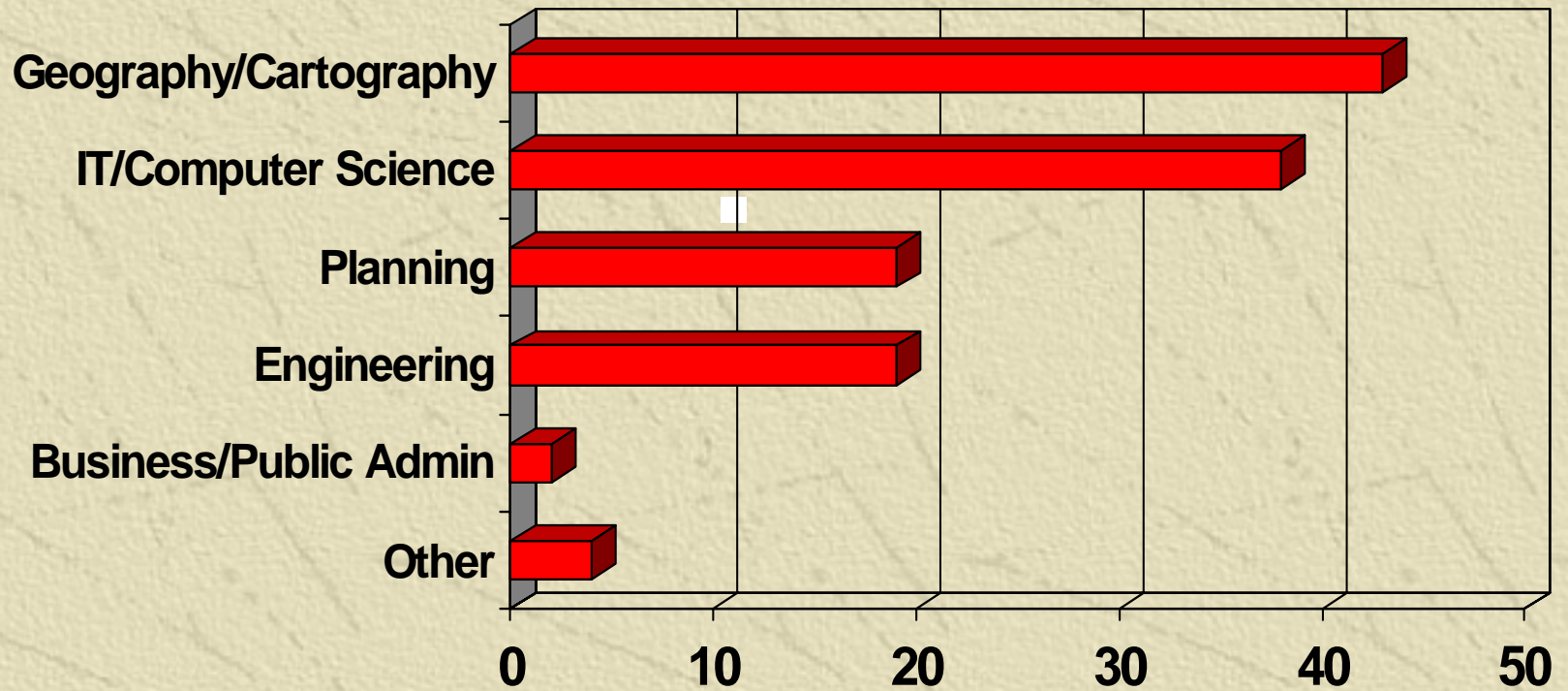
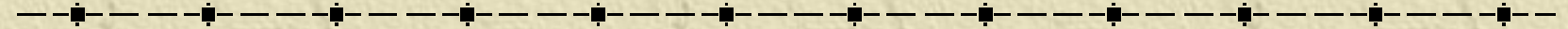
GIS Core Staff Size



GIS Staff Time Allocation



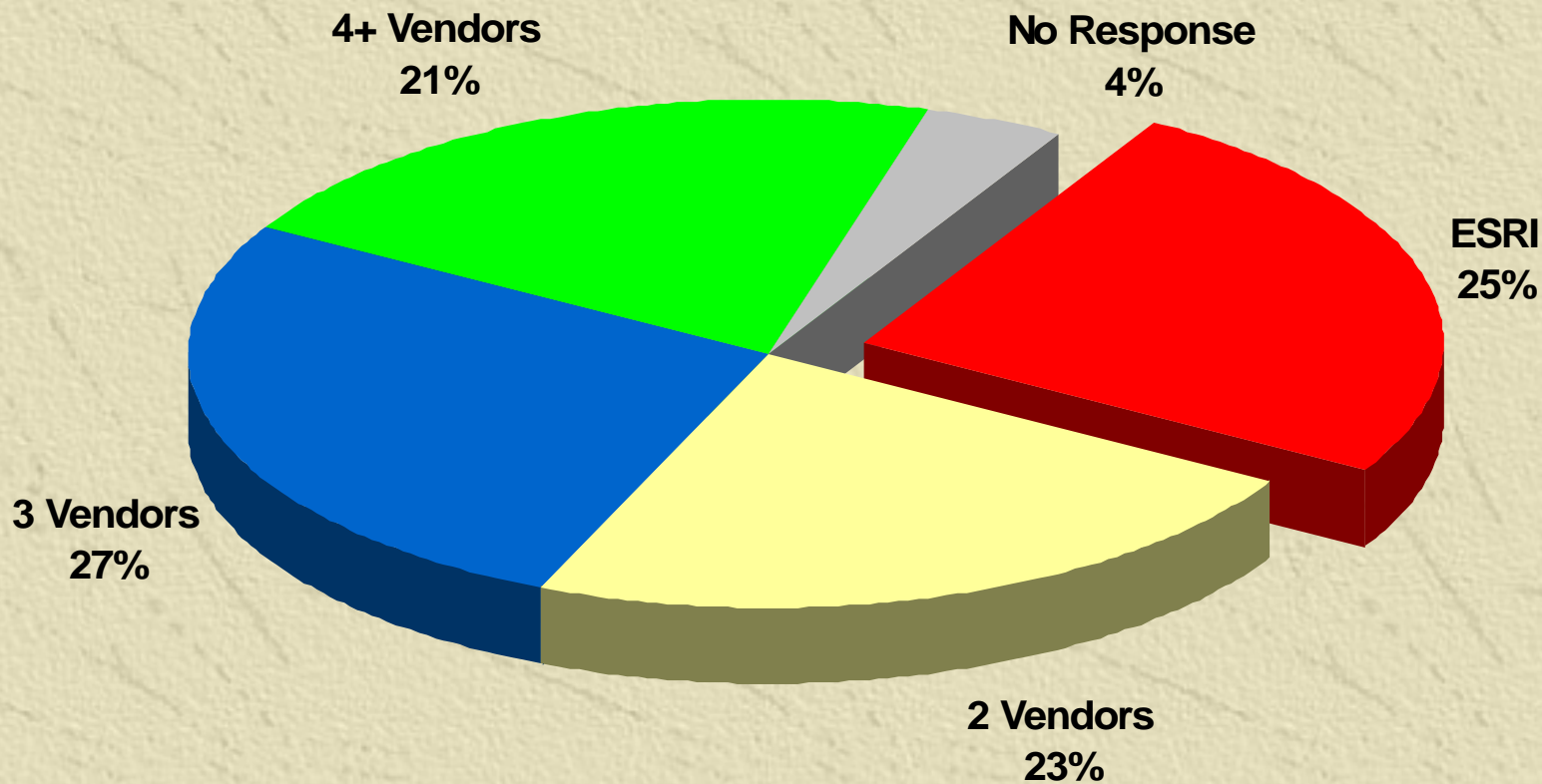
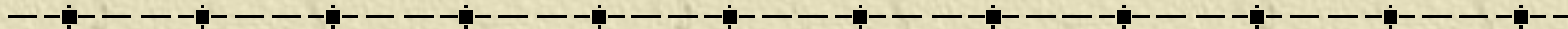
GIS Staff Expertise



GIS Staffing & Contracting

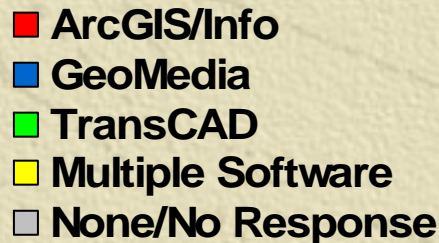
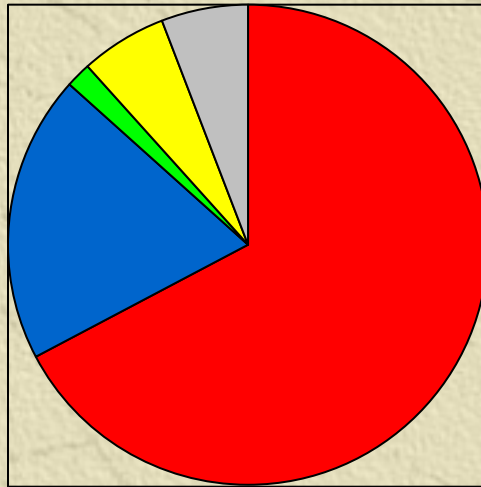
- ✦ Almost 25% of DOTs have staff with GIS professional certification (50% increase from 2005).
- ✦ About 43% of GIS work is outsourced (~10% increase from 2005).
- ✦ Average annual contract budget for GIS is about \$341,000 (~8% increase from 2005).

Current GIS Software Mix

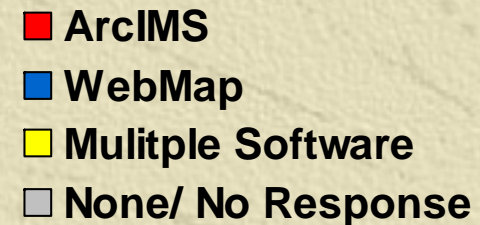
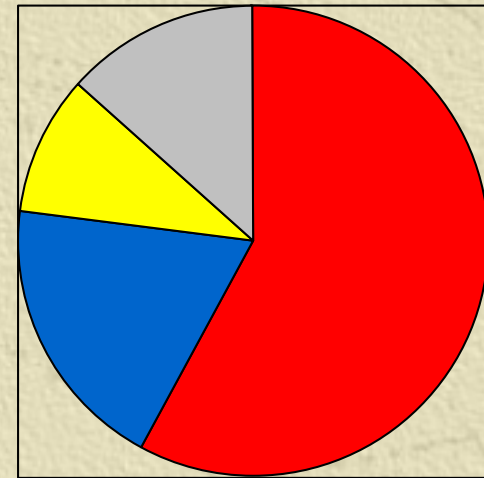


Primary GIS Software

Desktop GIS



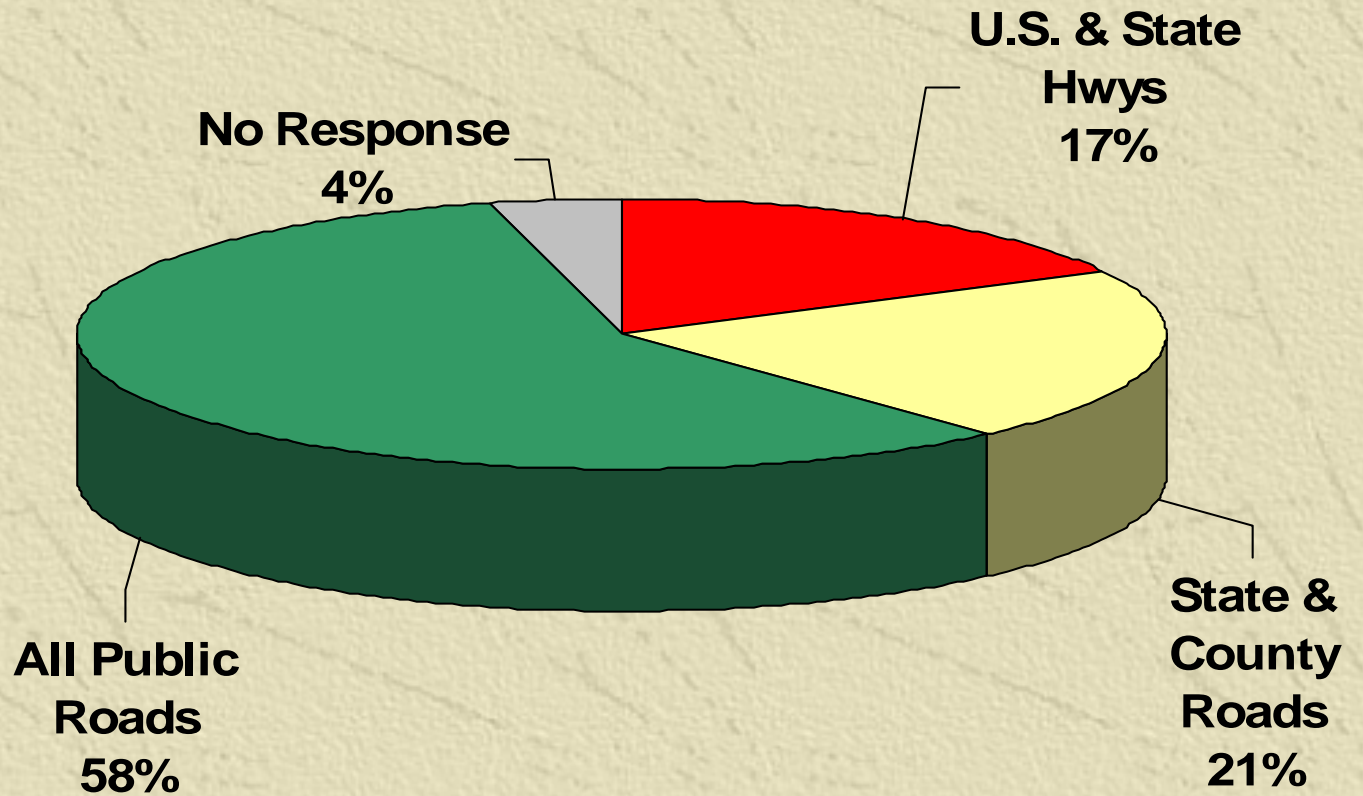
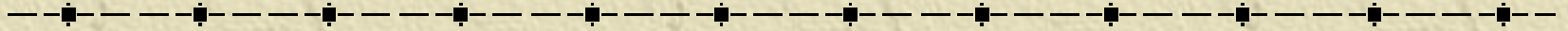
Web GIS



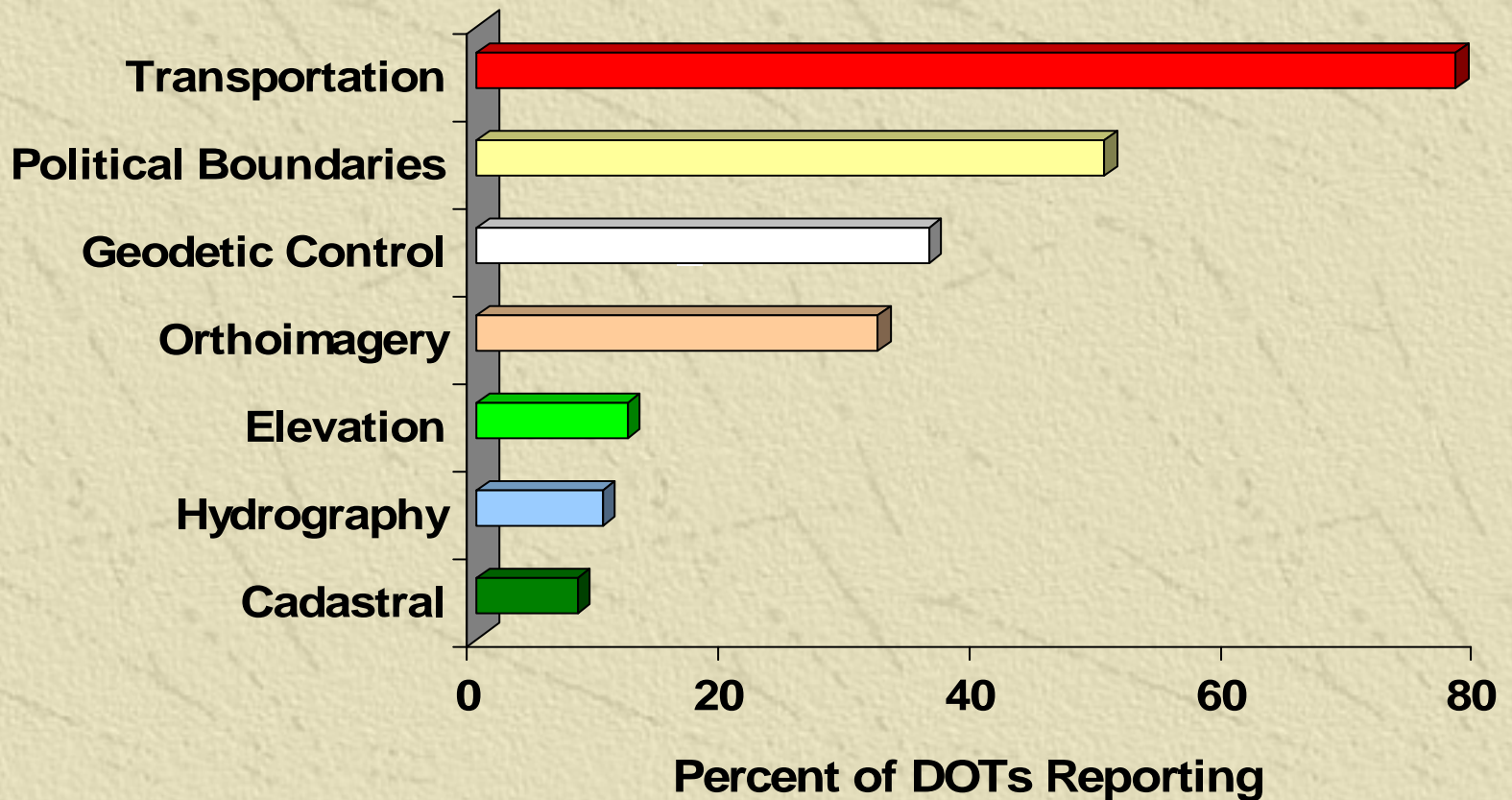
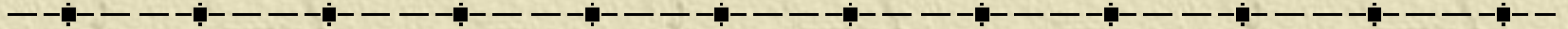
Base Map Scales



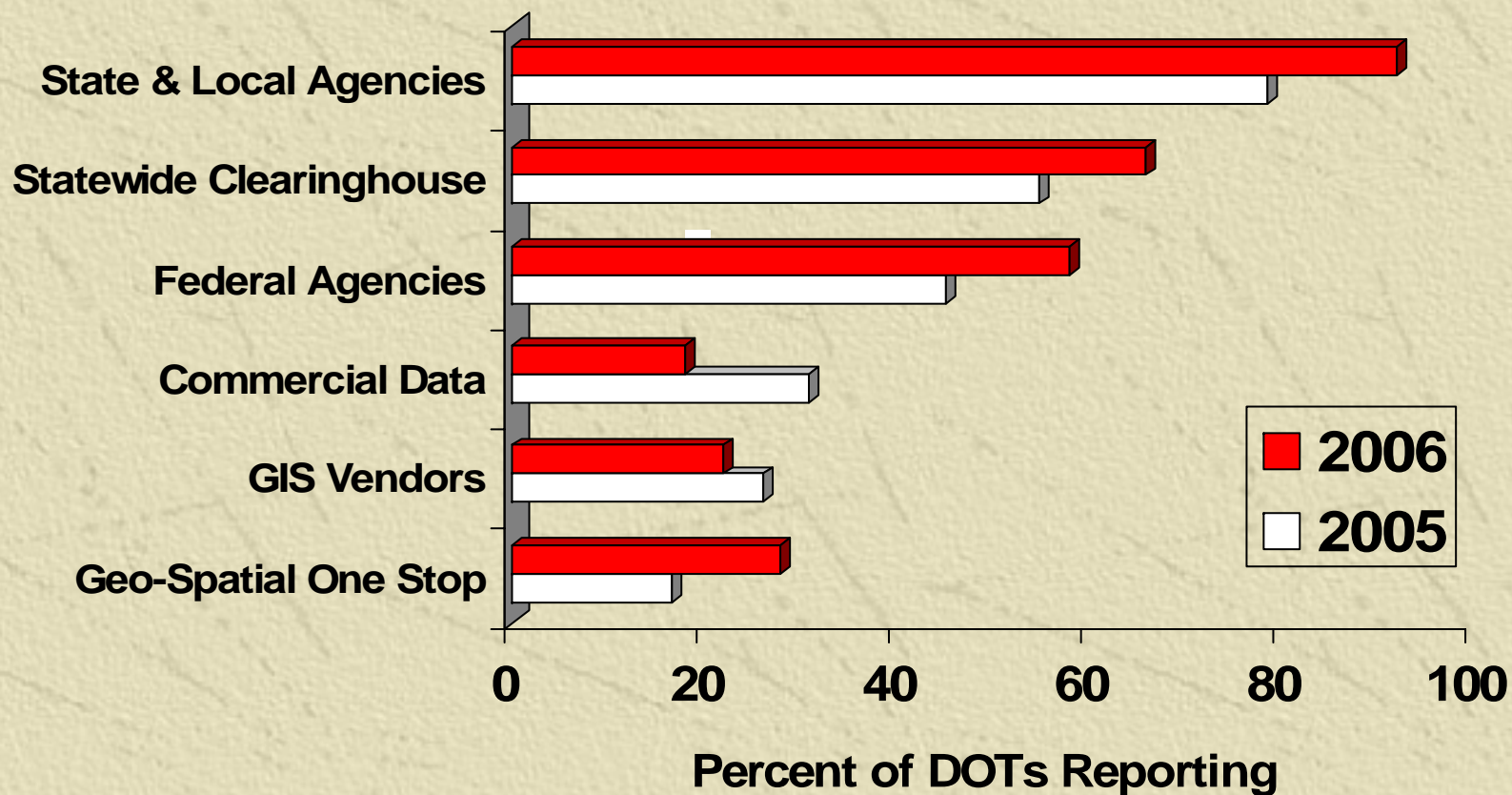
Road Network Coverage



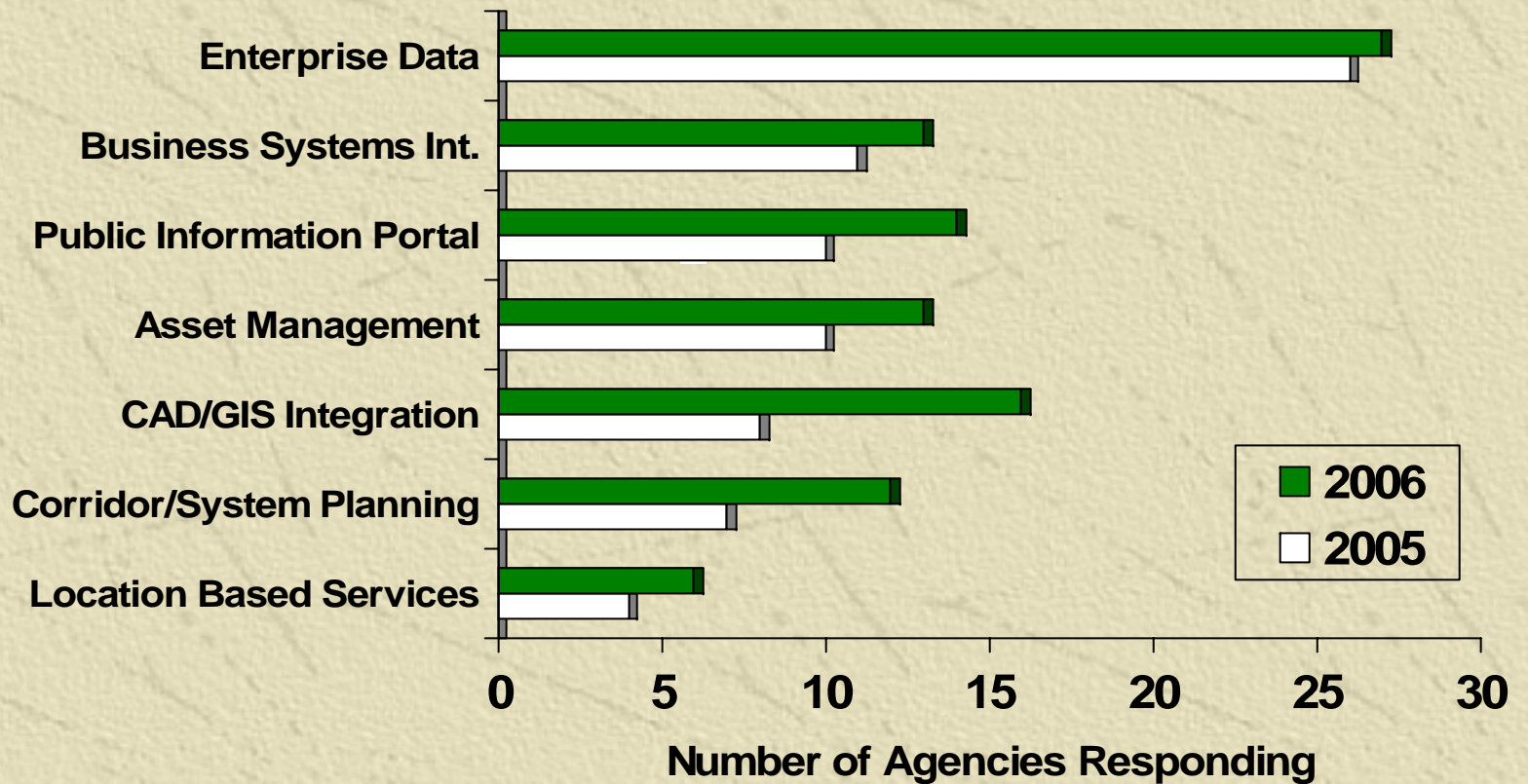
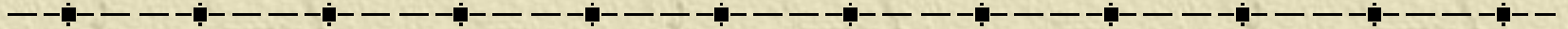
Other Geo-Spatial Data



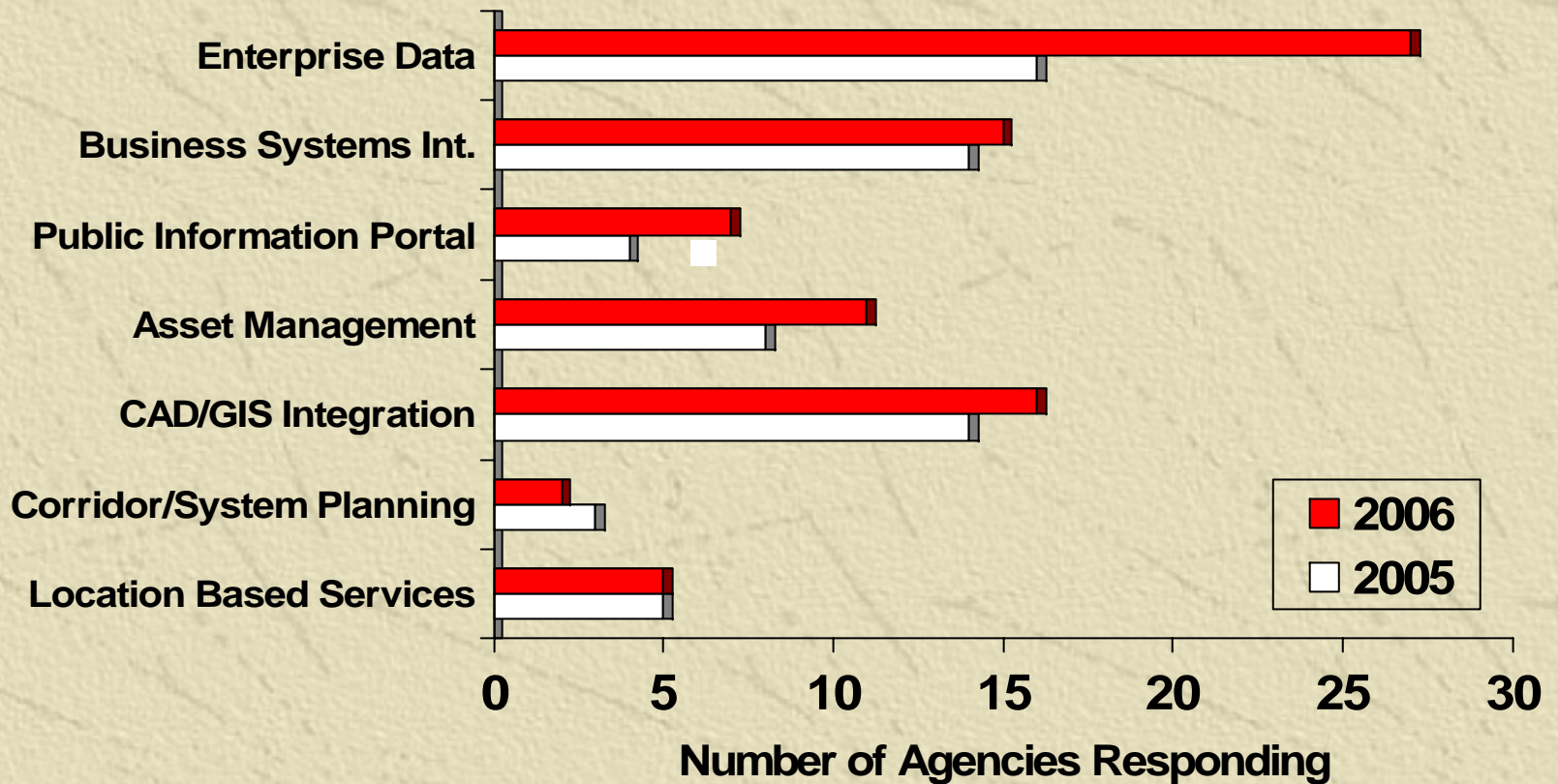
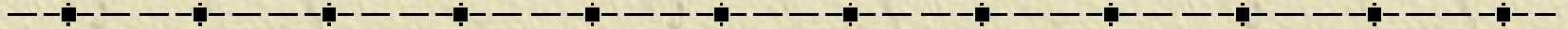
Geo-Spatial Data Sources



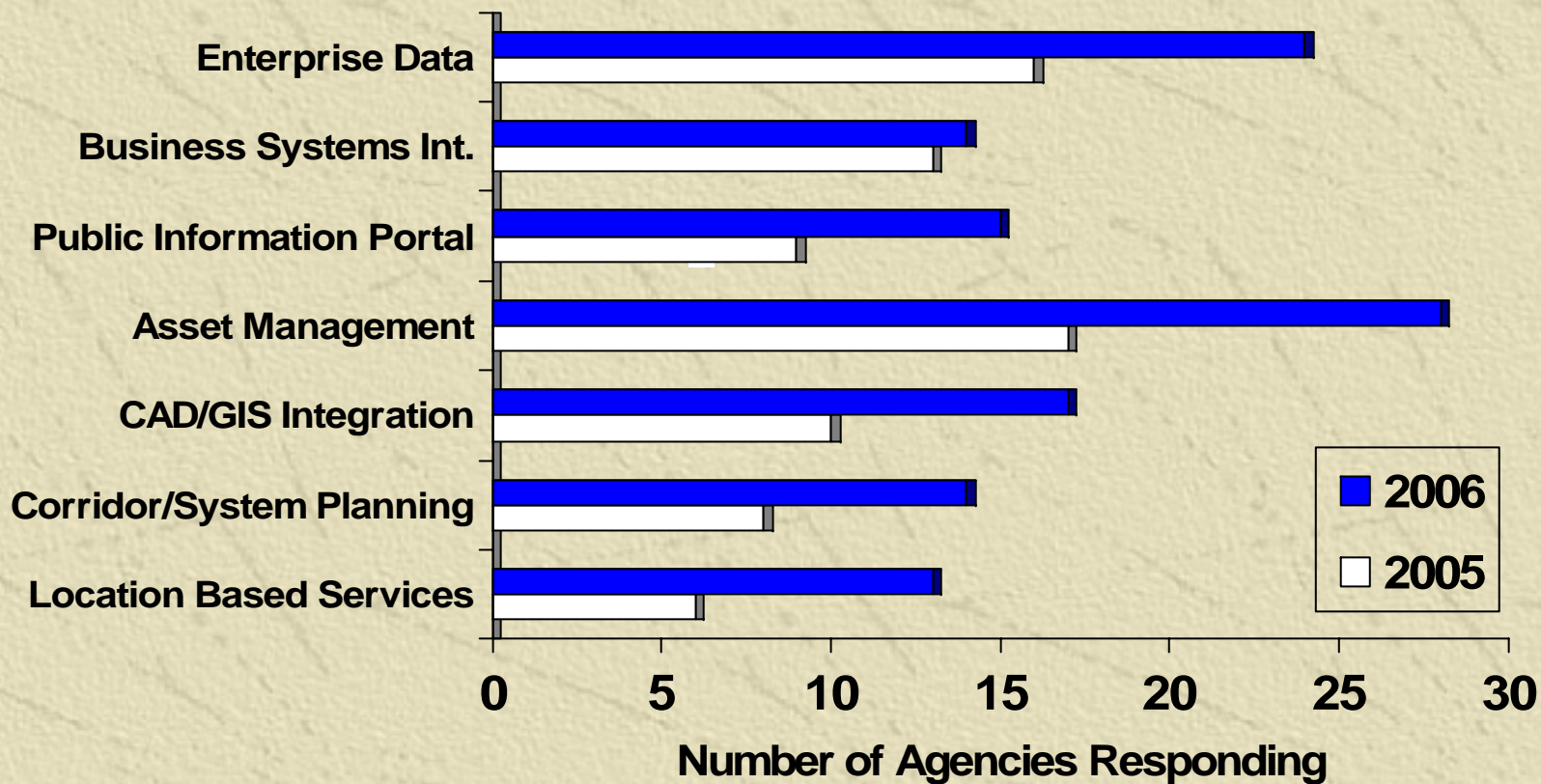
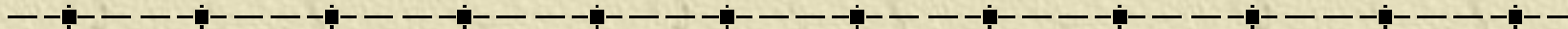
GIS Technology: Greatest Current Benefits



GIS Technology: Most Difficult to Implement



GIS Technology: Expected Future Benefits



Current GIS Staff Activities

✦ Core Functions

- ◆ Develop web applications (44)
- ◆ Location referencing (15)
- ◆ Data warehouse / Enterprise GIS (14)
- ◆ Base map maintenance / updates (12)
- ◆ Develop Other GIS Databases (10)

Current GIS Staff Activities

✦ Other Activities

- ◆ Software / hardware migration (12)
- ◆ Data sharing partnerships (12)
- ◆ Integrate imagery data with GIS (11)
- ◆ Map production / publication (7)
- ◆ Strategic Planning / Needs (6)
- ◆ GPS data collection / integration (5)

Current GIS Applications

- ✦ Road Inventory Management (13)
- ✦ Traveler Advisory / Information (10)
- ✦ Safety / Crash Analysis (9)
- ✦ ITS / Traffic Management (8)
- ✦ Project Management (8)
- ✦ Bridge Management (7)
- ✦ Environment / Cultural Mitigation (7)

GIS Activities: Summary

- ✦ Web-based applications continue to be a major activity area.
- ✦ Enterprise data integration expanding to include imagery, CAD, and GPS.
- ✦ Data partnerships and software migration continue to occupy staff time.
- ✦ Variety of GIS applications with increasing emphasis on analysis.