




# A Summary of State DOT GIS Activities 2012



Presented at the  
2012 AASHTO GIS-T Symposium  
Loveland, Colorado

# Purpose

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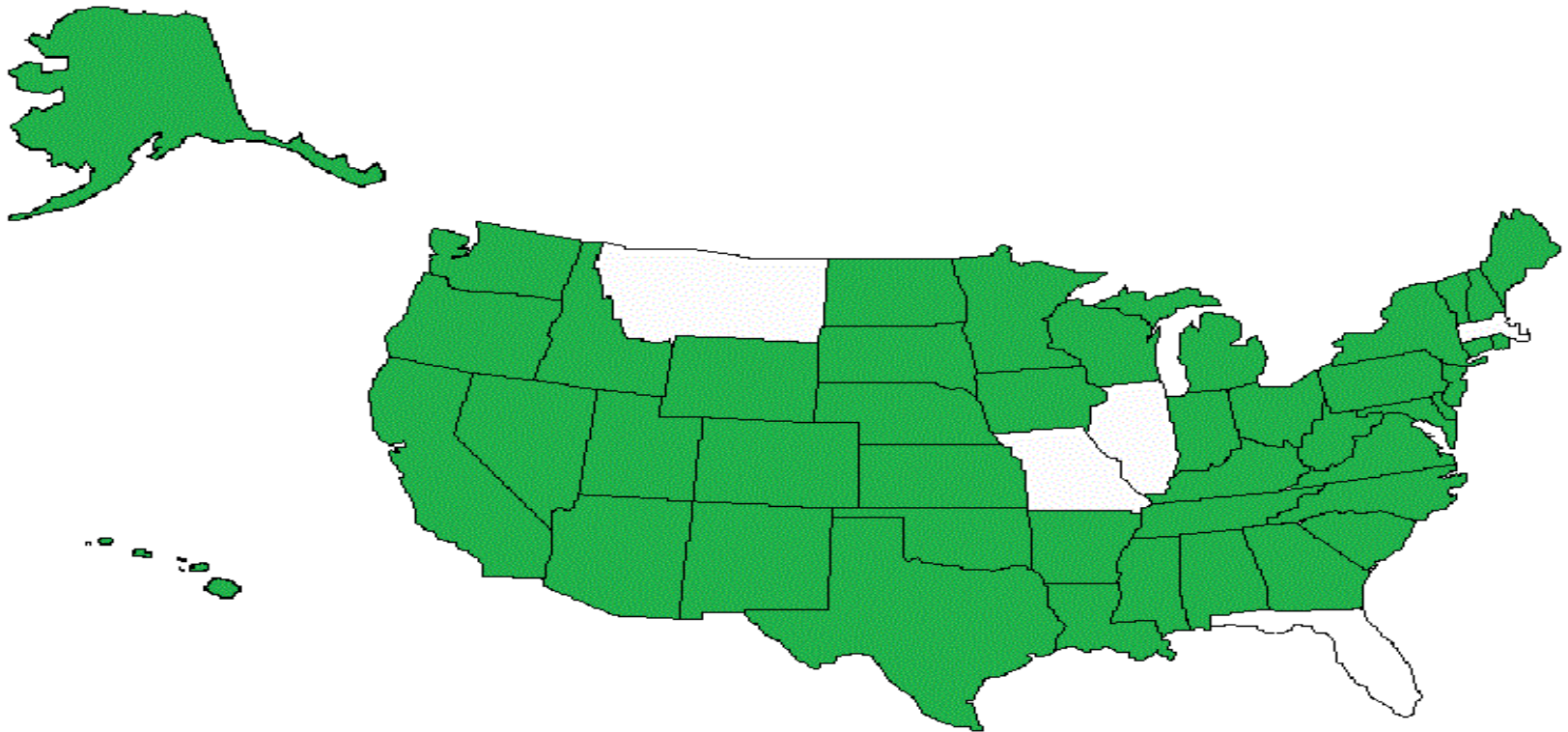
- ▶ To take inventory of the current state of the practice in particular areas of interest
- ▶ To determine what potential needs are for
  - ▶ Research
  - ▶ Capacity Building
  - ▶ Training
- ▶ To quickly obtain information for topic discussions (Roundtable Sessions)



# Information Sources

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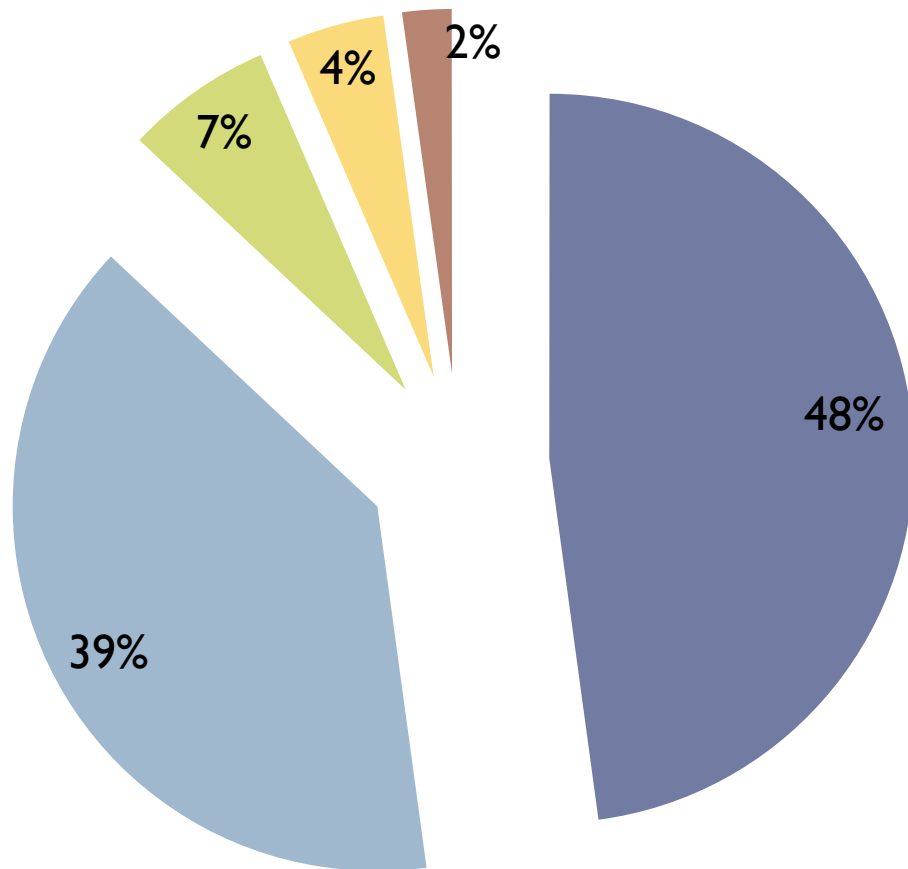
- ▶ AASHTO GIS-T State Survey
- ▶ 46 Responses



# Staffing / Resources

# GIS Deployment in Agency

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- We have GIS Unit(s) responsible for core functions and multiple end users in various program offices
- We have integrated most agency databases through an Enterprise GIS, and have developed GIS applications throughout the agency
- We have a single unit responsible for both GIS core functions and applications
- We have specific individuals involved in GIS applications, but no agency-wide coordination
- Other (Core Unit supporting decentralized users)



# GIS Staffing

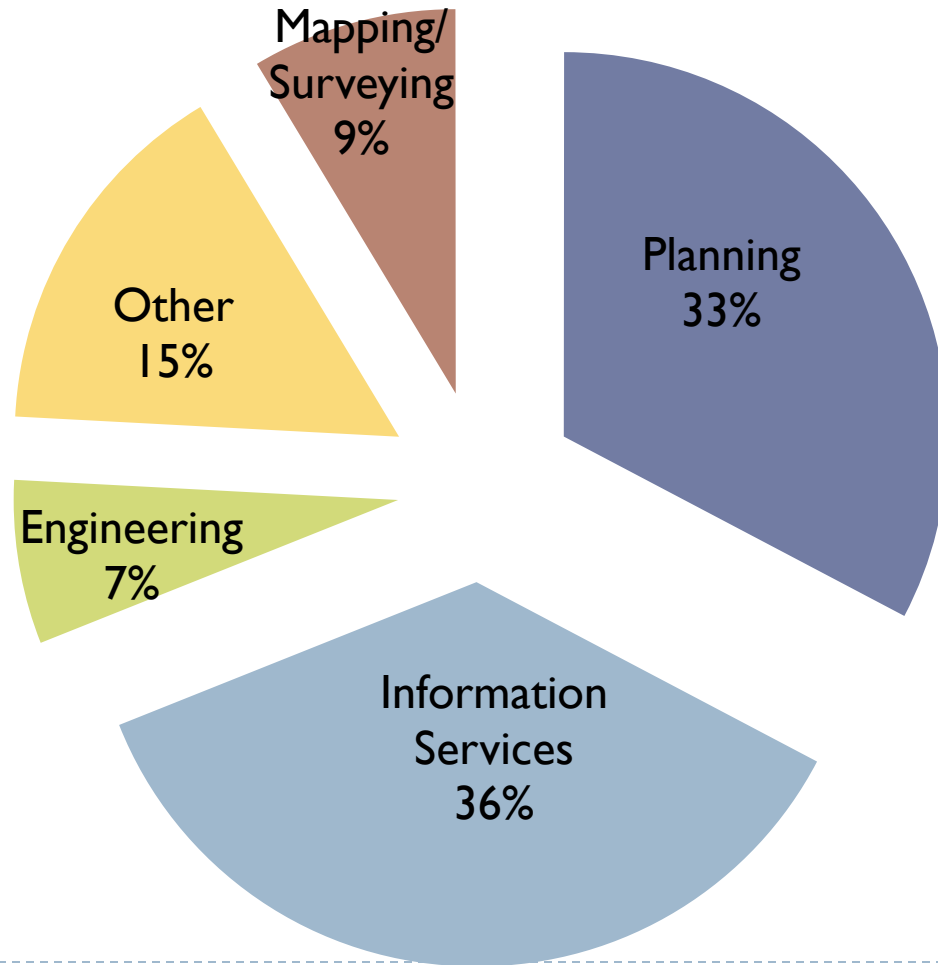
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	<b>Full-Time Employees</b>	<b>Part-Time Employees</b>	<b>On-site Contractor s</b>	<b>Off-site Contractor s</b>
Maximum	65	20	20	15
Average	10	6	4	6
Minimum	3	1	1	1



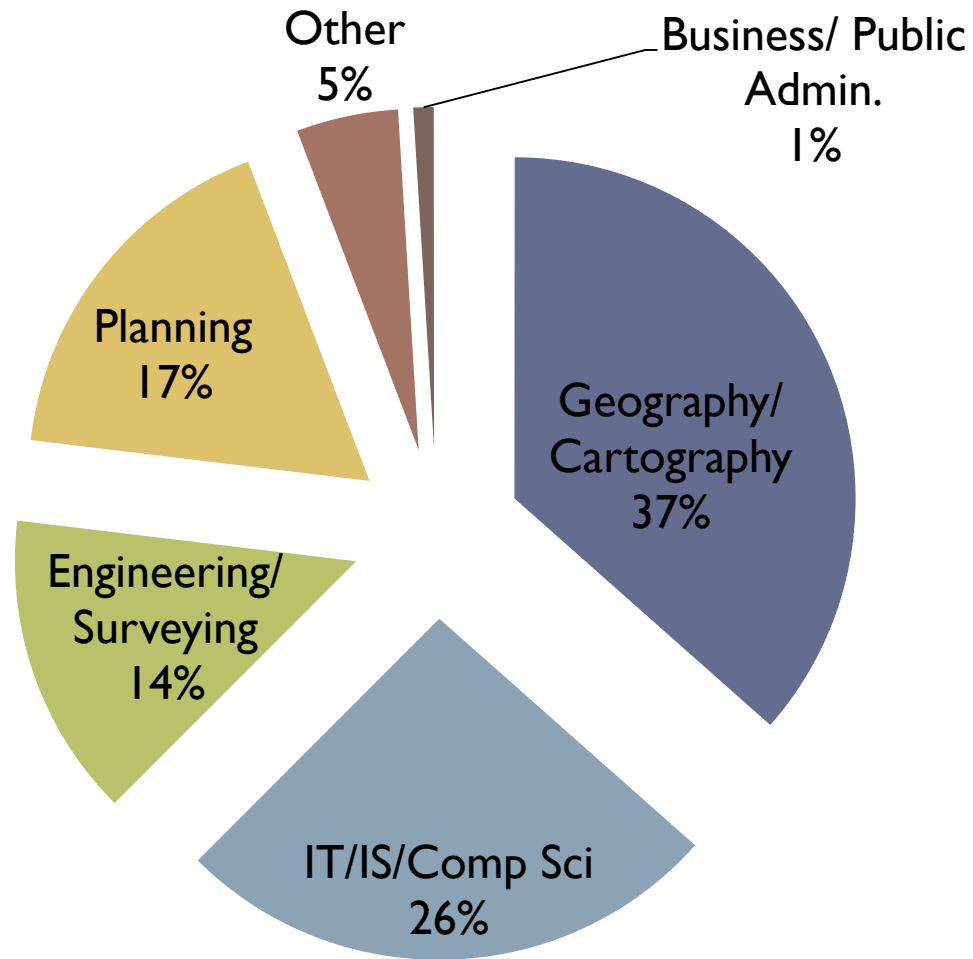
# Location of GIS Core Staff

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# GIS Staff Expertise

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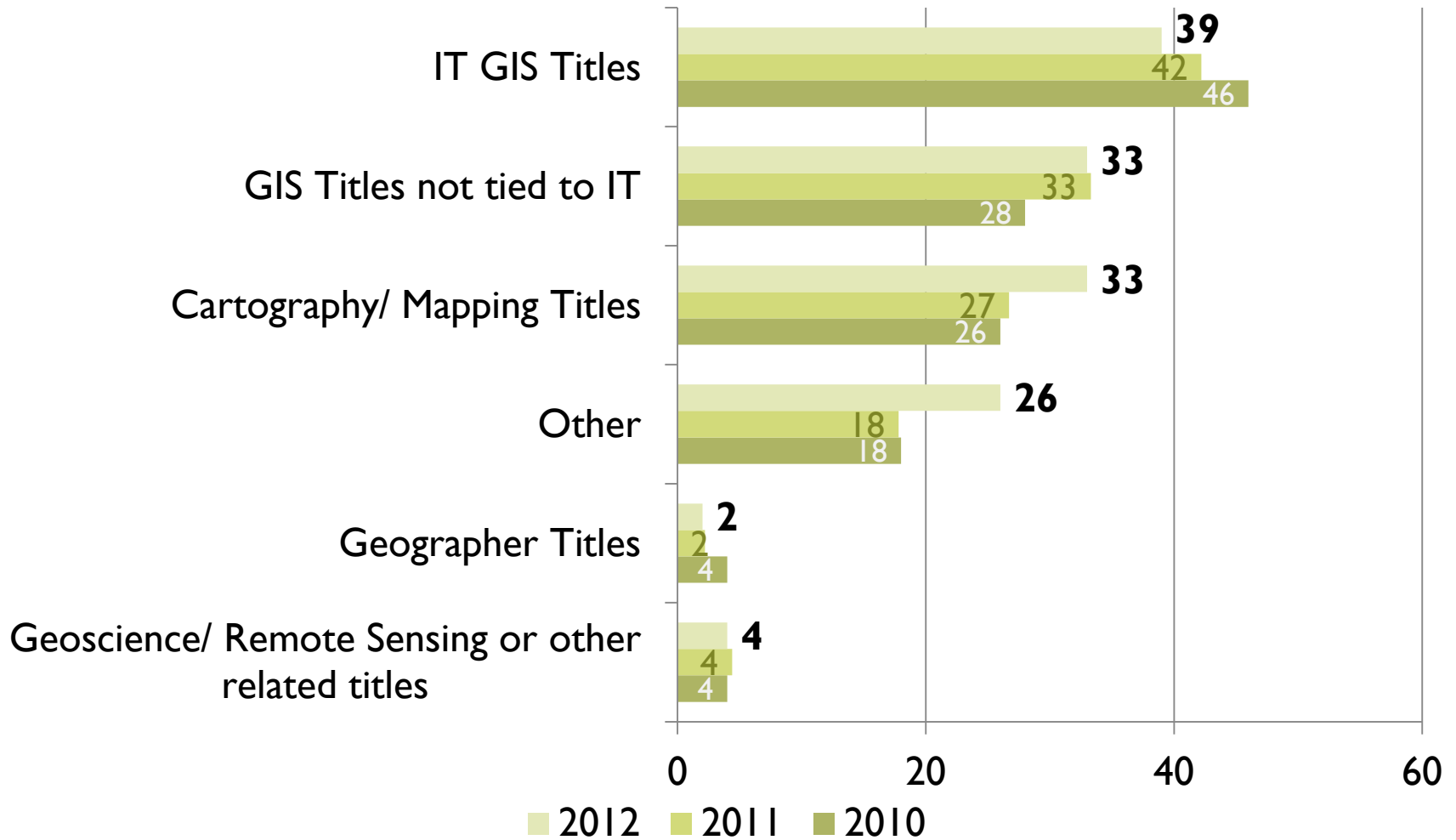


# GIS Professional Certification

	Yes	No	Not Sure
Is anyone on the GIS core staff a Certified GIS professional? 2011	<b>44%</b> 45%	<b>50%</b> 48%	<b>7%</b> 7%
Will GIS Professional Certification be an important consideration in hiring future GIS core staff? 2011	<b>17%</b> 13%	<b>52%</b> 60%	<b>30%</b> 27%

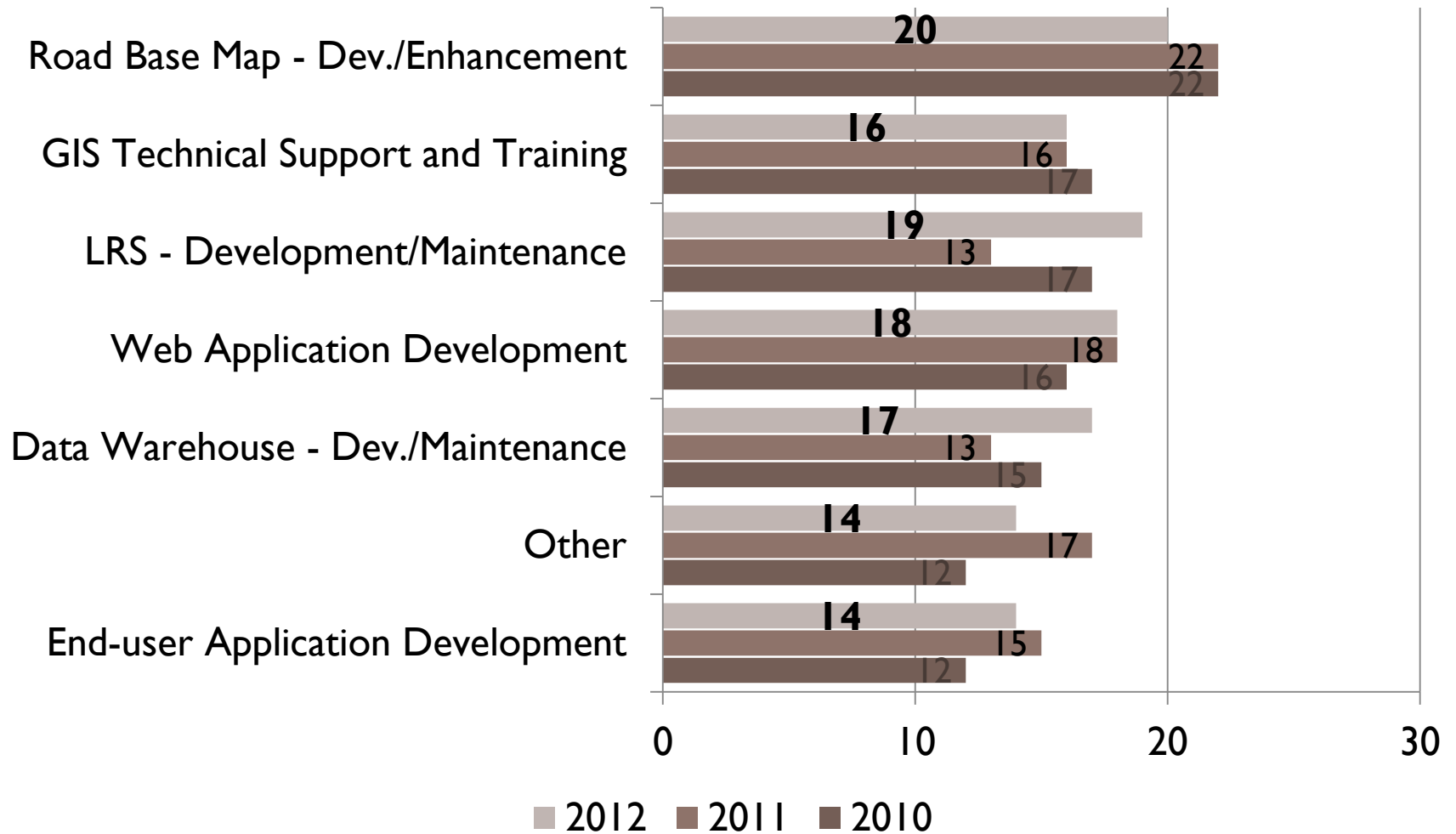


# Civil Service Job Titles



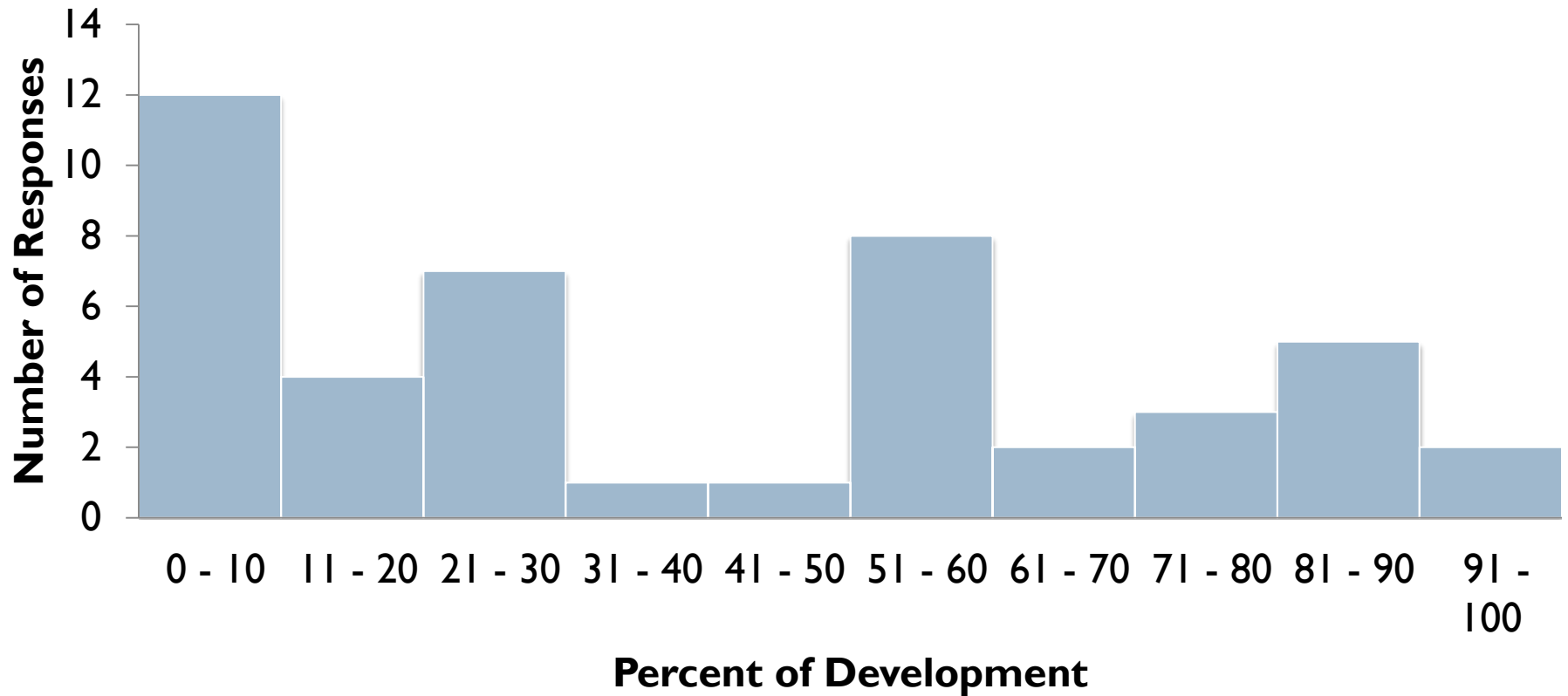
**Other** includes Non-GIS IT titles, transportation planners, general professional

# GIS Staff Time Allocation



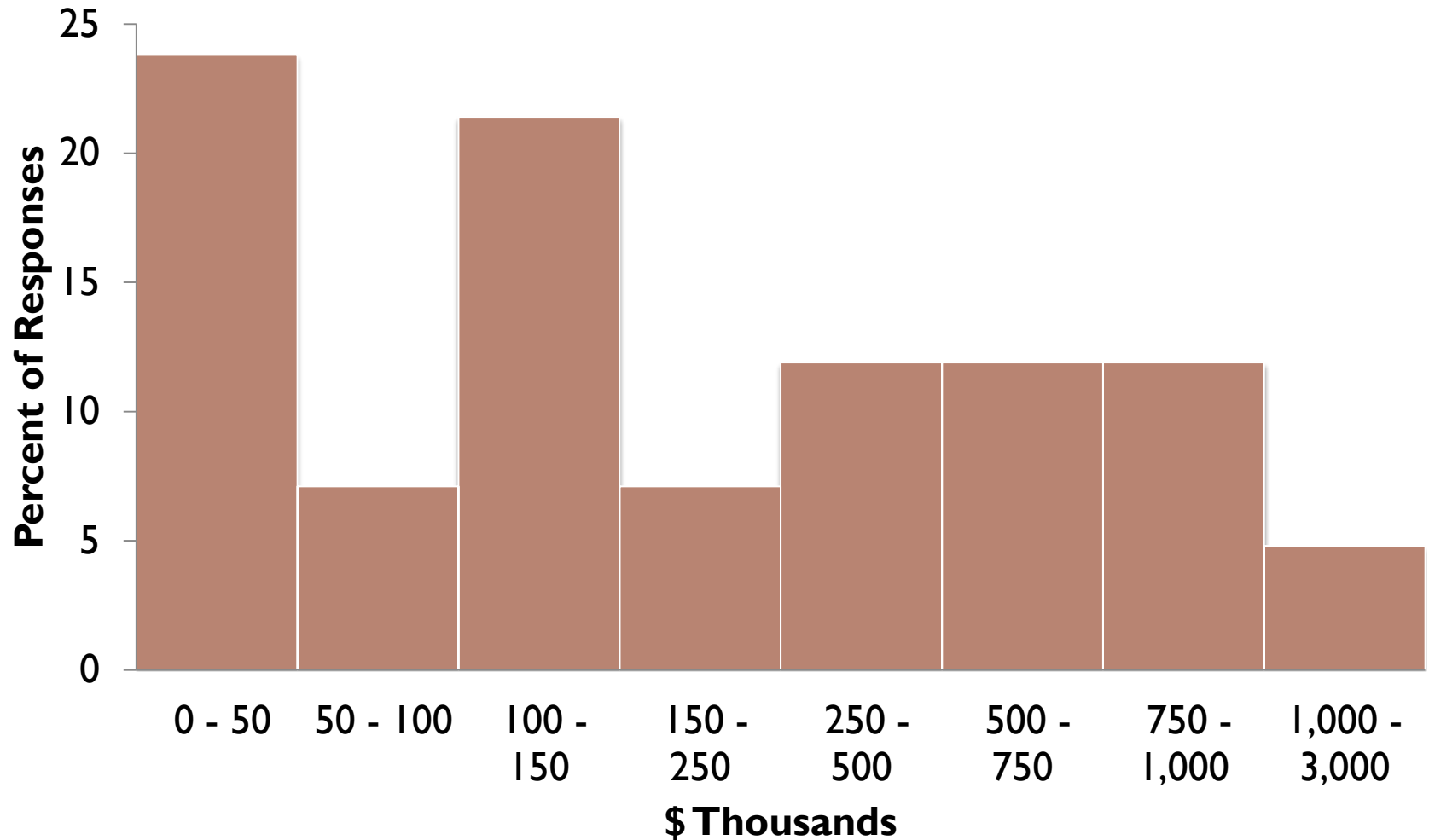
# Outsourcing GIS Application Development

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# Annual Expenditures for GIS Application Development Contracts

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# All GIS Services

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Annual Cost	Hardware	Software	Services	Data	Other
Maximum	\$1,000,000	\$800,000	\$3,000,000	\$1,080,904	\$85,000
Average	\$110,311	\$183,673	\$355,670	\$237,418	\$41,667
Minimum	\$20	\$200	\$400	\$200	\$10,000

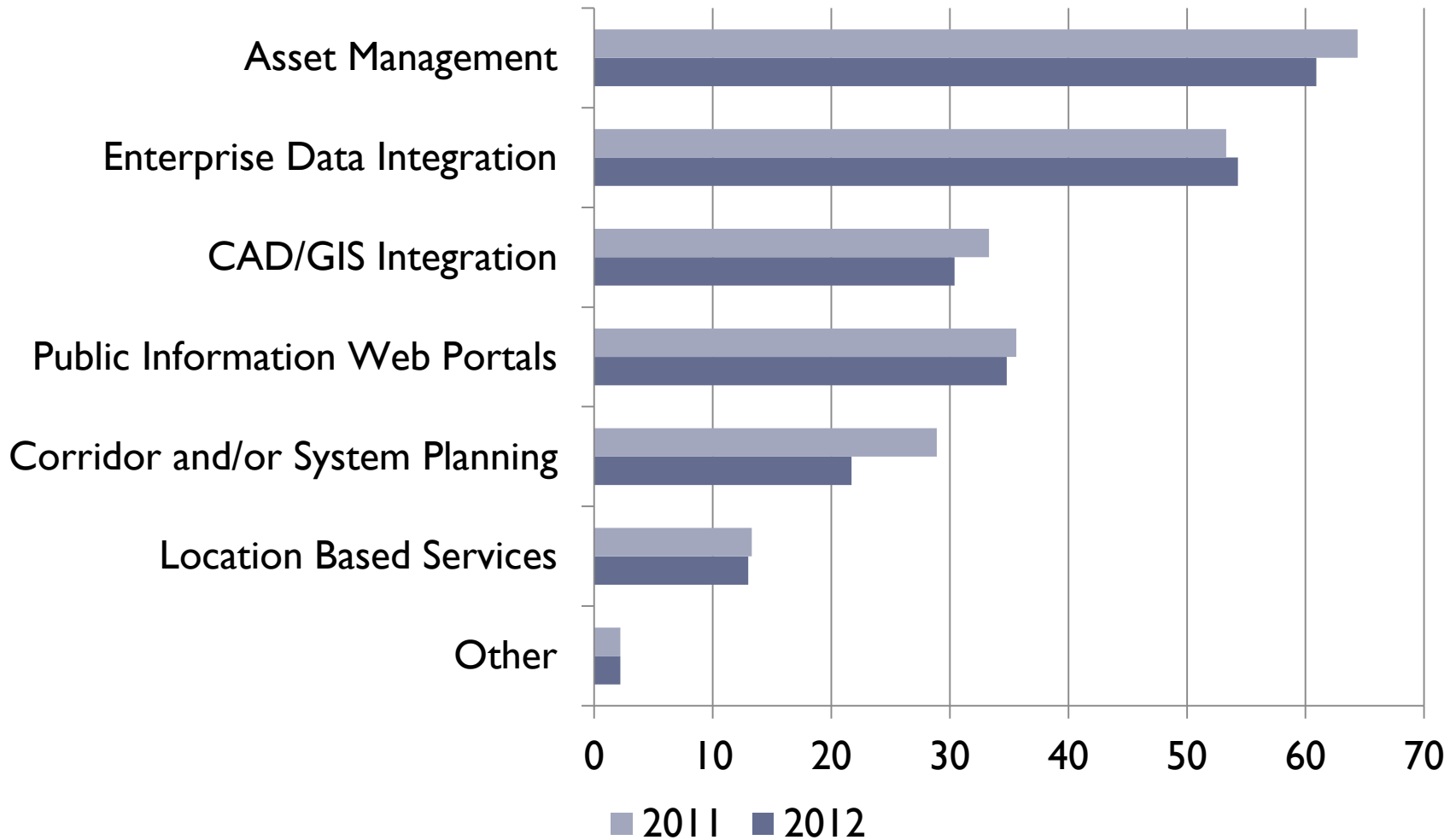
**Other** includes application maintenance and enhancement and conferences /training.



# Application Areas

# Where will geospatial technology add the most value in the future?

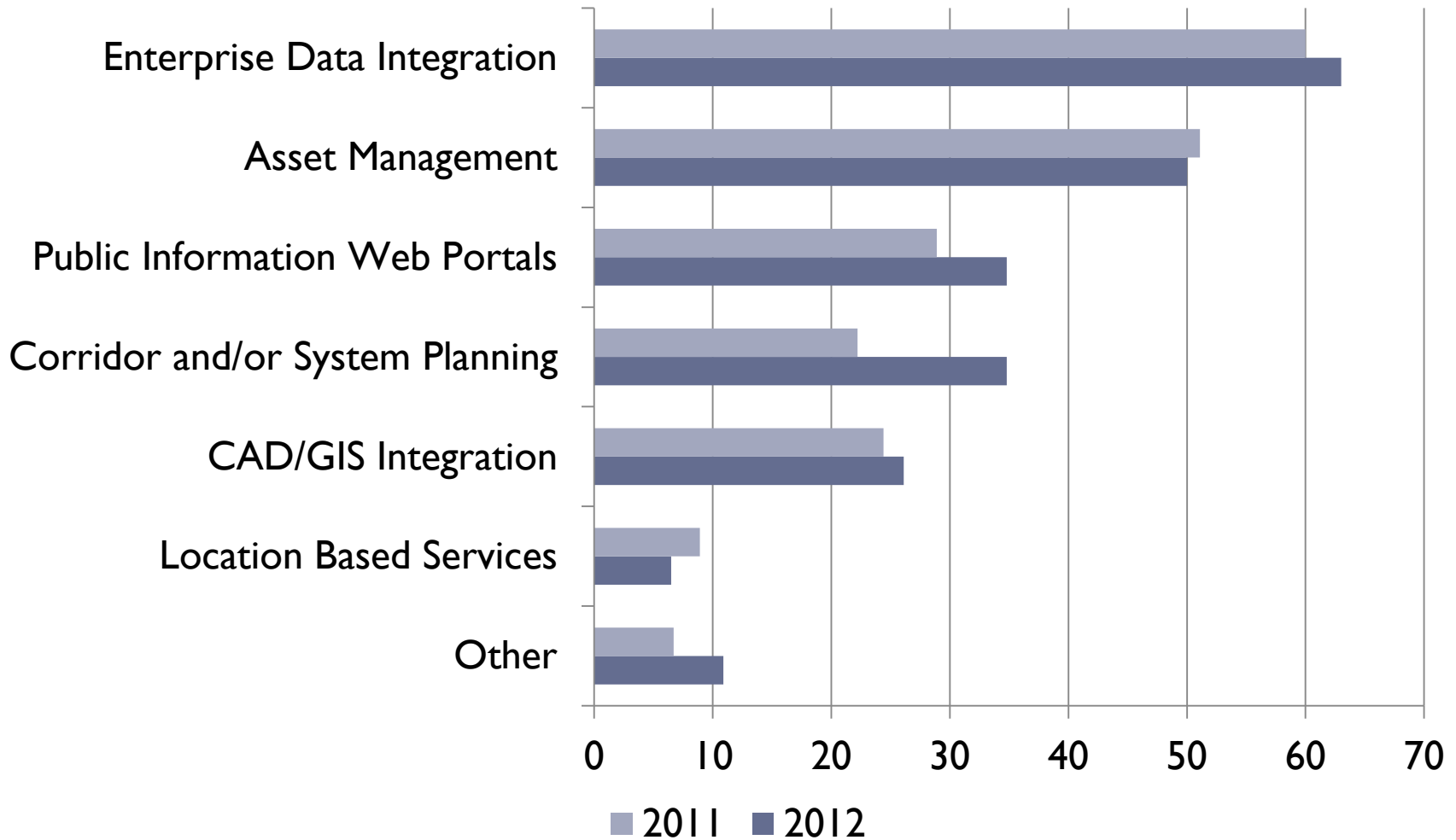
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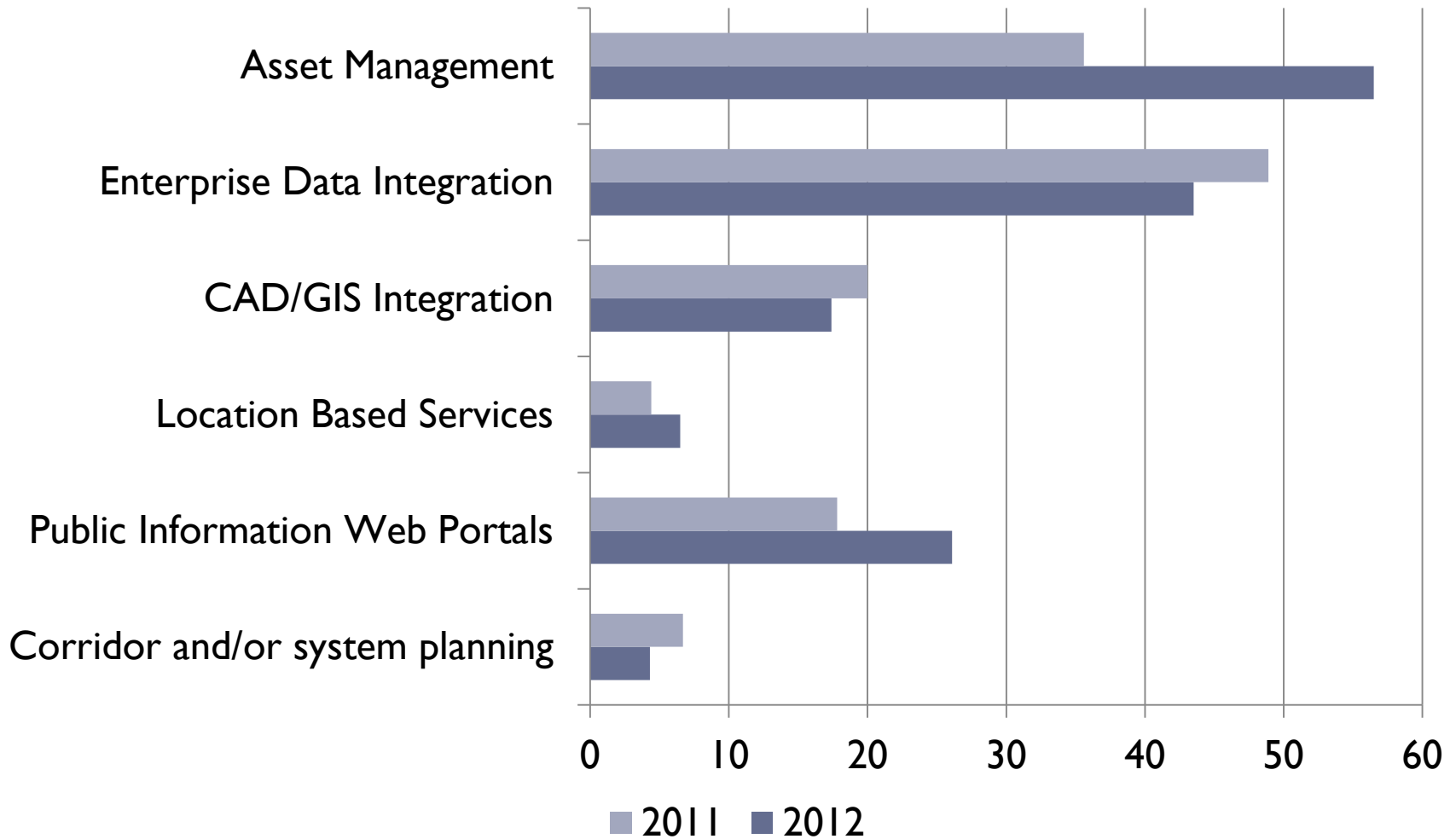
# What areas are benefitting the most from geospatial technology?

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# Where is geospatial technology the most costly/difficult to implement?

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# Trends

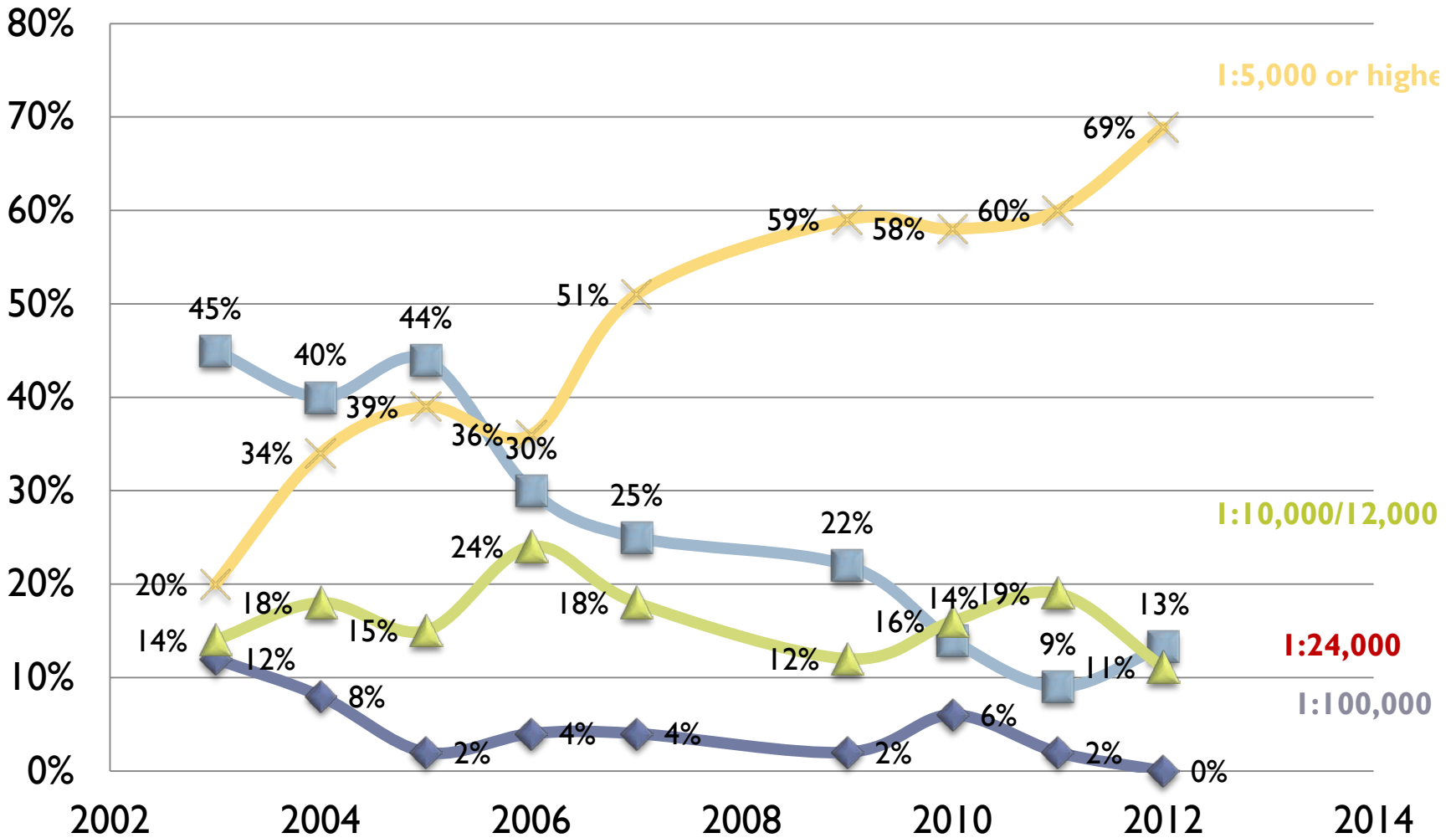
# Some Trends

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- ▶ Slight movement towards GIS core unit location within IT
  - ▶ Statewide IT consolidation
  - ▶ Enterprise GIS within DOT
  
- ▶ Focus Areas for Geospatial Technology Implementation
  - ▶ CAD/GIS Integration – Connecting Design with others
  - ▶ Public Information Web Portals – Meet public expectations
  - ▶ Asset Management – Manage assets with tighter budgets
  - ▶ Enterprise Data Integration – Holistic view of geospatial data and systems



# Base Map Scales (2003-2012)



# Roundtable suggestions

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- ▶ LIDAR
- ▶ Mobile
- ▶ LRS
- ▶ Enterprise GIS
- ▶ Asset Management
- ▶ CAD-GIS Integration



# State Survey

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- ▶ This presentation and survey results will be made available on the AASHTO GIS-T website
  - ▶ [www.gis-t.org](http://www.gis-t.org)
- ▶ Contact
  - ▶ Mark Sarmiento, [mark.sarmiento@dot.gov](mailto:mark.sarmiento@dot.gov)

