What is a GIS Professional?

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What is a GIS Professional?

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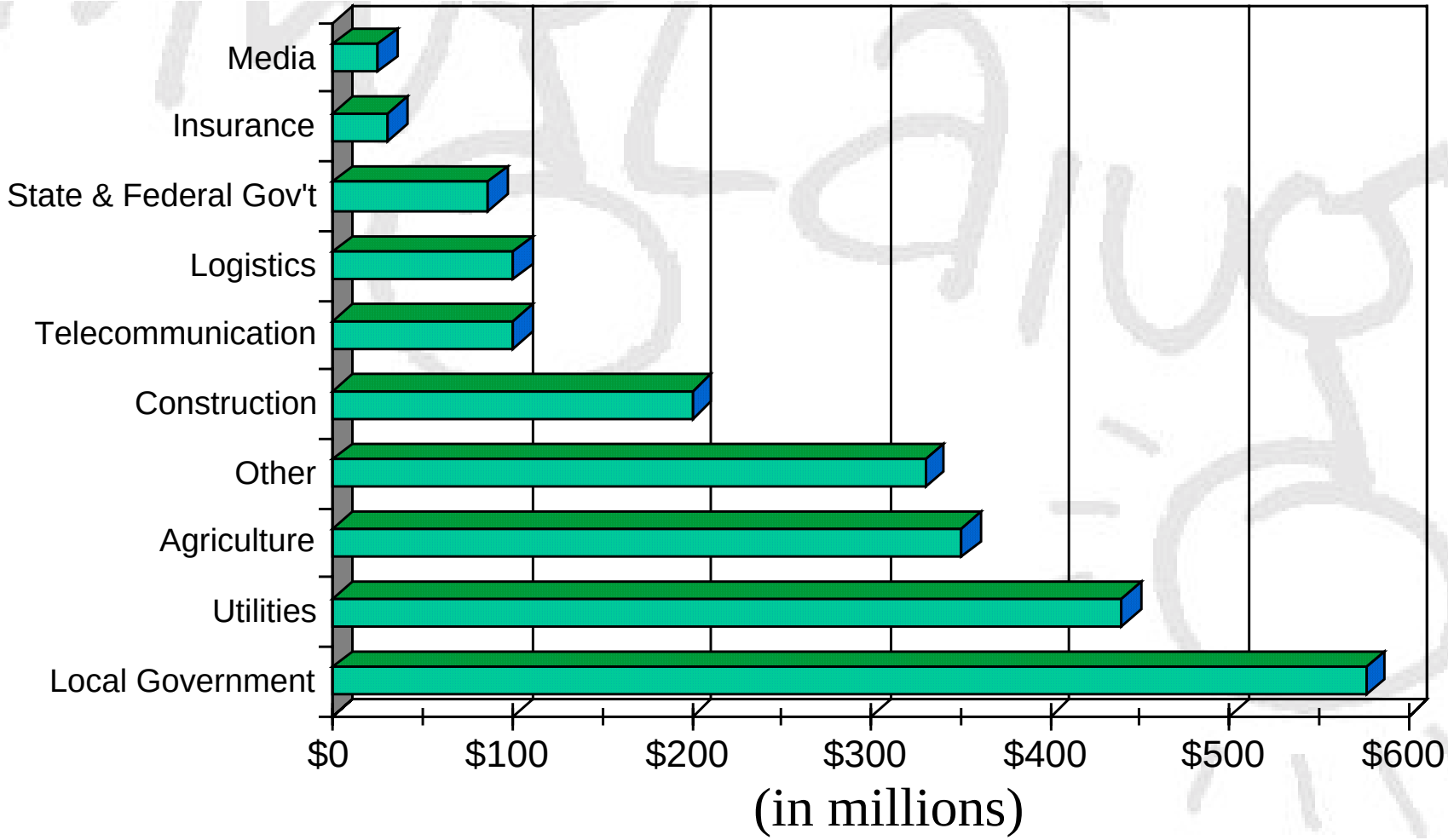
1998 North American GIS Market



POSITIONS

- GIS PROJECT MANAGER
- GIS PROGRAMMER
- GIS SPECIALIST (1-4 years/experience/ 5-10 years experience)

Senior Data Preparation Technician
Data Preparation Technician

Senior Digital Conversion Technician
Digital Conversion Technician

Cadastral Compiler
Senior Cadastral Technician
Cadastral Technician

Graphics Workstation Operator
Senior GIS Applications Specialist
GIS Applications Specialist
Scanning/Vectorization Technician

GIS resources required for each stage of GIS project development.

Full-time responsibilities depend upon the complexity of the system.

Stages of project development	GIS Resources													
	Leader	Manager	Analyst	GIS processor	Database administrator	Programmer	System administrator	Cartographer	Drafter	Digitizer	End user	Contractor/ consultant	User group	Steering committee
Study														
Long-range plan	X		X								X	X		X
Information needs study	X		X								X	X		X
Map inventory	X		X								X	X		X
Cost/benefit study	X		X								X	X		X
Implementation														
Pilot project	X	X	X	X	X	X			X	X	X	X		X
Base map conversion	X	X	X	X	X			X	X	X	X	X		X
Applications development		X	X	X	X	X		X	X		X	X		X
Operation														
Database management		X	X	X	X	X	X	X	X				X	
Network management		X	X			X	X						X	
Operations support		X		X	X	X	X		X	X			X	
Cost recovery		X		X			X						X	
Typical staff size by complexity of system														
Large multi-user system														
Centralized minicomputer														
Small microcomputer network														
Single microcomputer														

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PROFESSION

a calling requiring specialized knowledge and often long and intensive 'academic' preparation.

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PROFESSIONAL

engaged in one of the learned professions, characterized by or conforming to the technical or ethical standards of a profession.

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PROFESSIONALISM

the conduct, aims, or qualities that characterize or mark a profession or professional person.

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Current Issues

NCEES Model Law
&
Certification

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SURVEYOR ISSUES WITH GIS

National Council of Examiners for Engineers and Surveyors (NCEES)

Model Law - Includes: licensure for Land Surveyor; anything built, elevation, property boundaries; monuments, determination of features shown on any map; create or modifies computerized data.

Terminology: 'Determined' -vs- 'Referenced' or 'Represented' Depends on use and intent of the data.

Use of GIS basemaps to determine legal locations

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Points and Issues

Lack of Quality Awareness of GIS

- **No method to assess**
- **No standard methods for construction of base maps**
- **No methods for upgrade and maintenance of maps**
- **Metadata - reference back to source data**

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CERTIFICATION

Components & Implementation Issues

- Codify processes
- University accreditation
- GIS job classifications
- Vendor specific -vs- Philosophy of GIS
- Application Era moving into Information Technolgy Era
- Need for certification - Who's asking for it?
- Three components - test, experience, and peer review
- Is it a profession?
- What would you look for?

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Recommendations

- Faithfulness of reproduction goal
- Purpose - Statement of intent
- Disclaimers - 'City Speak' - Not a defensible work product as defined by . . .
- Metadata - Need to document source, locational accuracy, date of data capture, source documents, and method of compilation.

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The Bottom Line

GIS professionals need to take more responsibility for their work, judgement, and accuracy

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EDUCATION

seminars and discussions

Activities:

- Seminar booklets
- Introduction to GIS
- Meetings
- Training
- Public Involvement
- Conferences
- Management
- Metadata

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GIS DAY

Discovering the World Through GIS

Geography matters...

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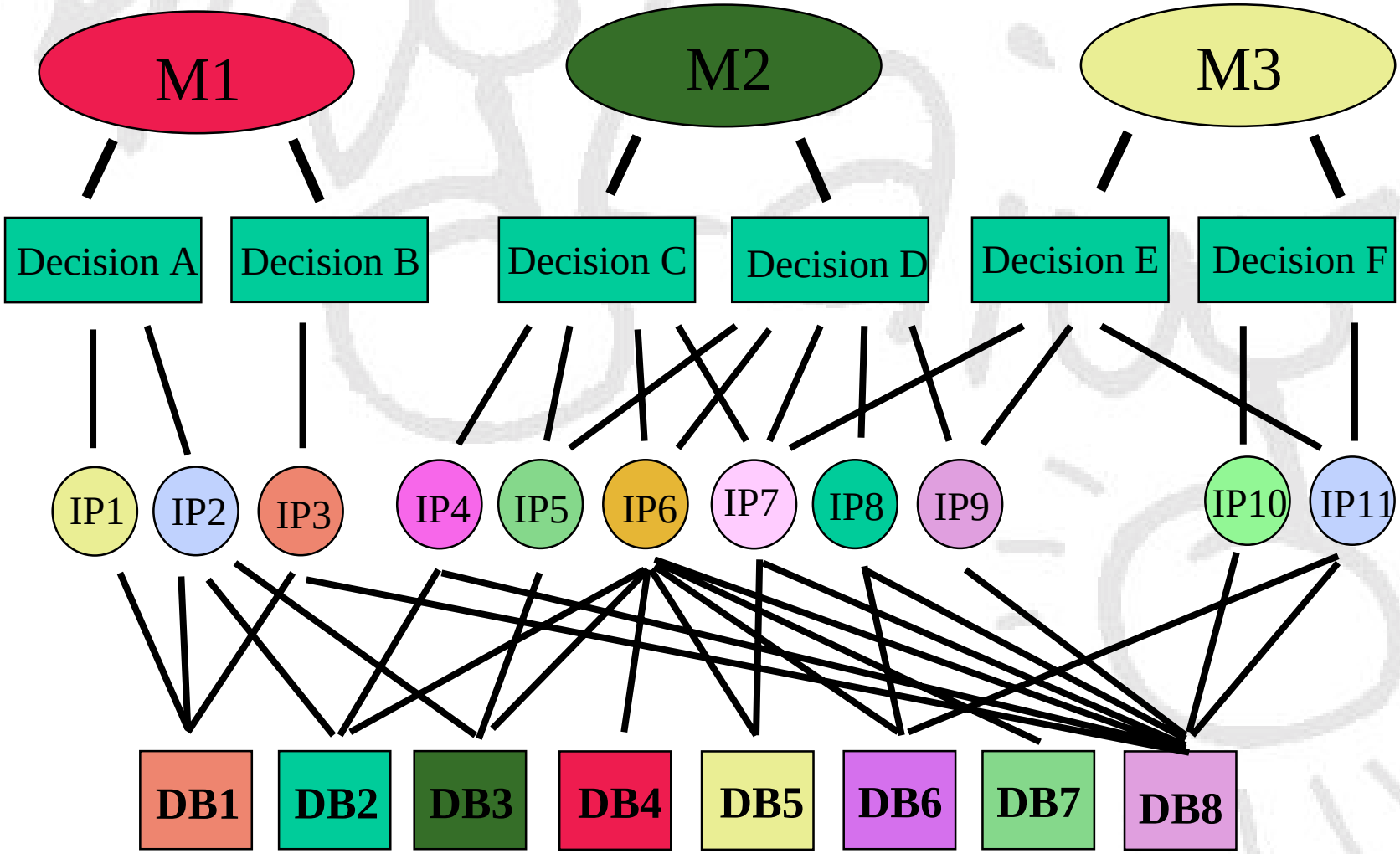
TRACK & RECORD SUCCESSES



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BENEFITS

- ☺ Benefit as a decision-making tool
- ☺ Improved work quality (through data based decisions)
- ☺ Greater use of information & increased understanding
- ☺ Satisfaction of better serving customers & public
- ☺ Recognition of contributions & impact of spatial data
- ☺ Reallocation of resources to areas of greatest need
- ☺ Cost & time savings realized
- ☺ Greater demand for services
- ☺ Fosters cooperation & communication between groups - it's as much about the social structure as technology
- ☺ Viewed as professional within organization

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