GIS and Data Accessibility for the NEOSCC Assessment of Alternatives for Storage, Maintenance & Sharing of Data

Draft Report

November 19, 2013

Presentation to NEOSCC Executive Committee

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Funded through a contract with The Center for Community Solutions

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Purpose Today

1. Provide broad information about:
    - Ways to share data/GIS
    - How Consortium member GIS users currently use data & their preferences and priorities
    - How other organizations, many SCI grantees, are dealing with data/GIS
    - General costs of building out low-, medium- and high-scale options
2. Discuss preferences for data/GIS & next steps, with or without NEOSCC 2.0

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Objectives

1. Provide a descriptive inventory of the databases and files developed by NEOSCC
2. Assess alternatives concerning how these data should be stored, maintained, and shared at the conclusion of the NEOSCC grant
   - Survey of NEOSCC member organizations and select data partners
   - Interviews with planning organizations, including HUD Sustainable Communities grantees, about data sharing

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Status

Data Inventory

- Excel inventory of data files and databases gathered and stored on NEOSCC's BOX server developed spring/summer 2013
- 4,446 files, many are image files, Word and text documents, PDFs, and Excel and CSV files, while there are GIS files (both shape and geodatabase types)
- Some data gathered was incomplete (no metadata)
- Additional documentation will be developed as time permits

Assessment of Alternatives for Storage, Maintenance & Sharing of the Data

- This presentation summarizes the findings of the draft report
- Final report due early December and will be available online

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Select Findings
Assessment of Alternatives
for Storage, Maintenance & Sharing of Data

Methodology

A. Online survey of NEO organizations

The survey includes questions on the following topics:

1) GIS staffing and resources;
2) Policies and opinions about sharing data; and
3) GIS and related data use and priorities

B. Telephone and email survey of 14 organizations from around the country that provide examples of data sharing

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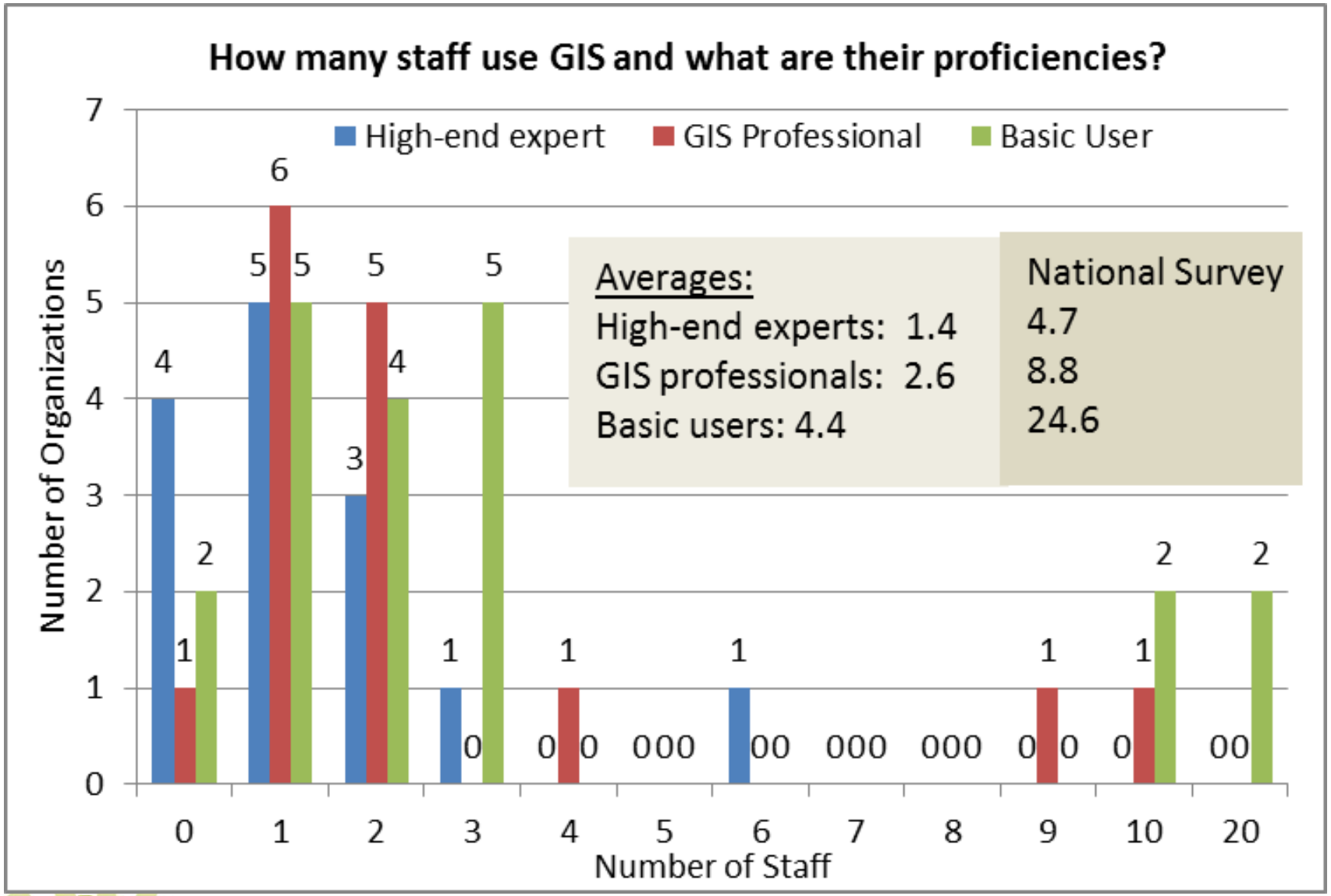
GIS Staffing and Resources

Staff and Proficiencies



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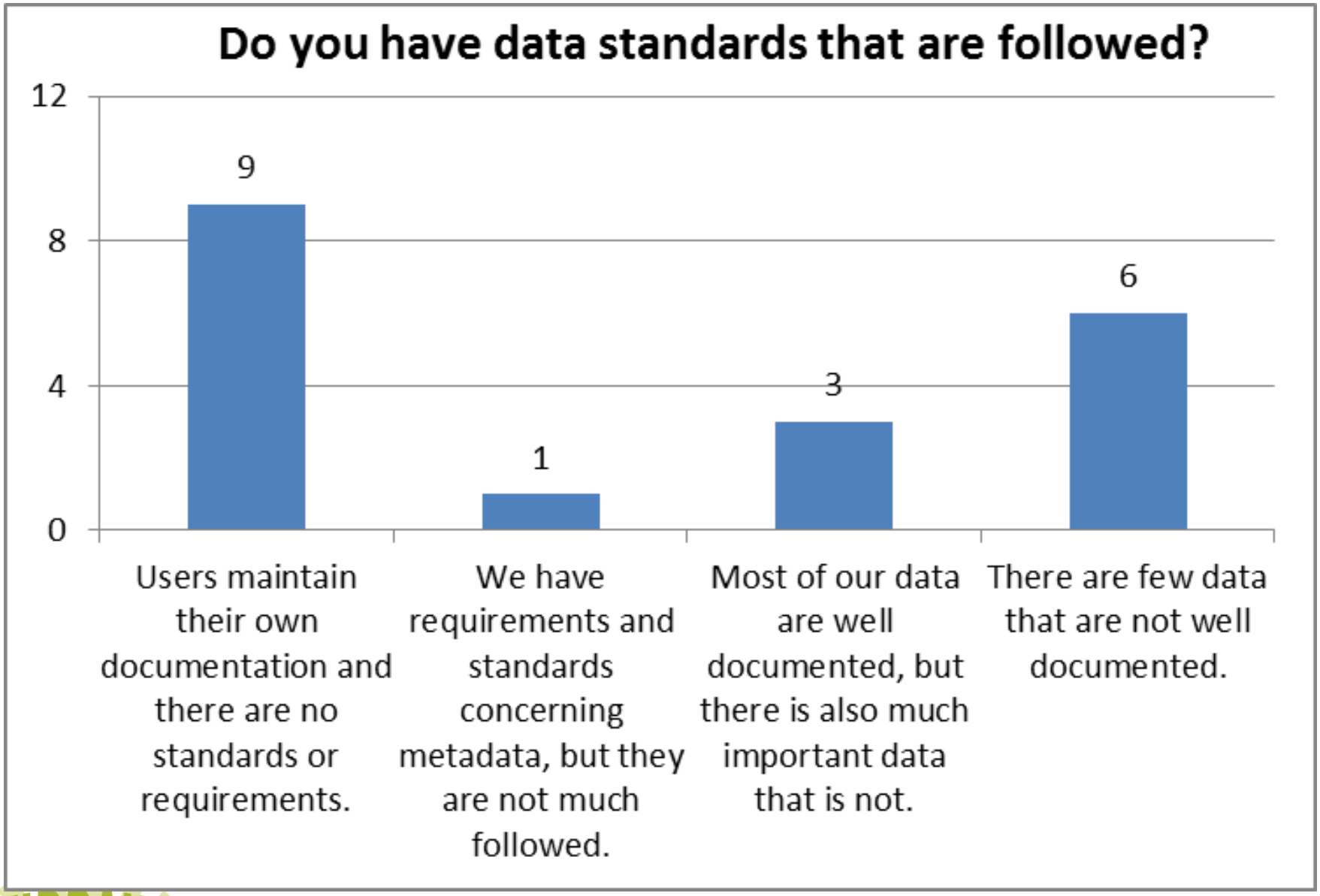
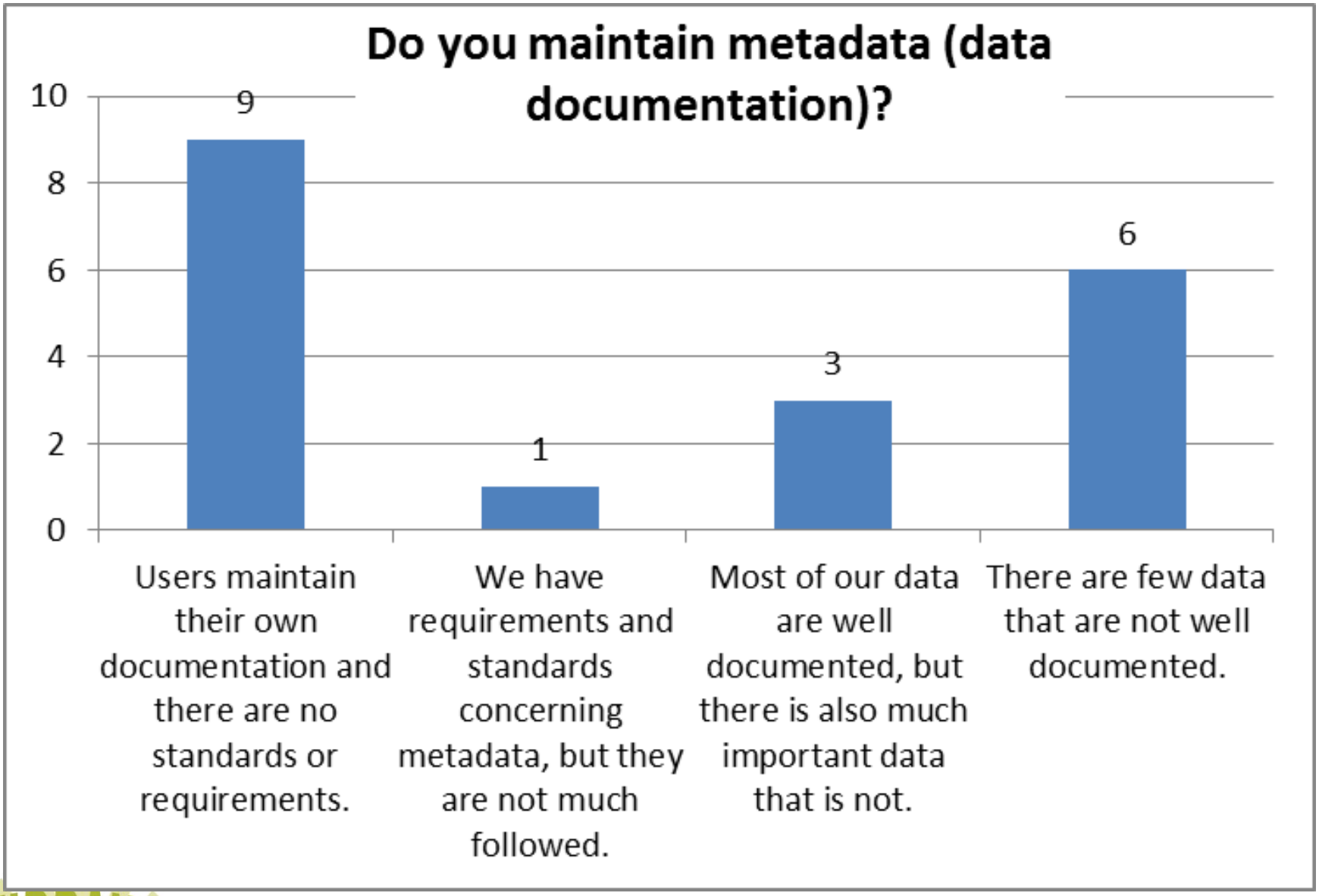
Data Standards



Data Maintenance



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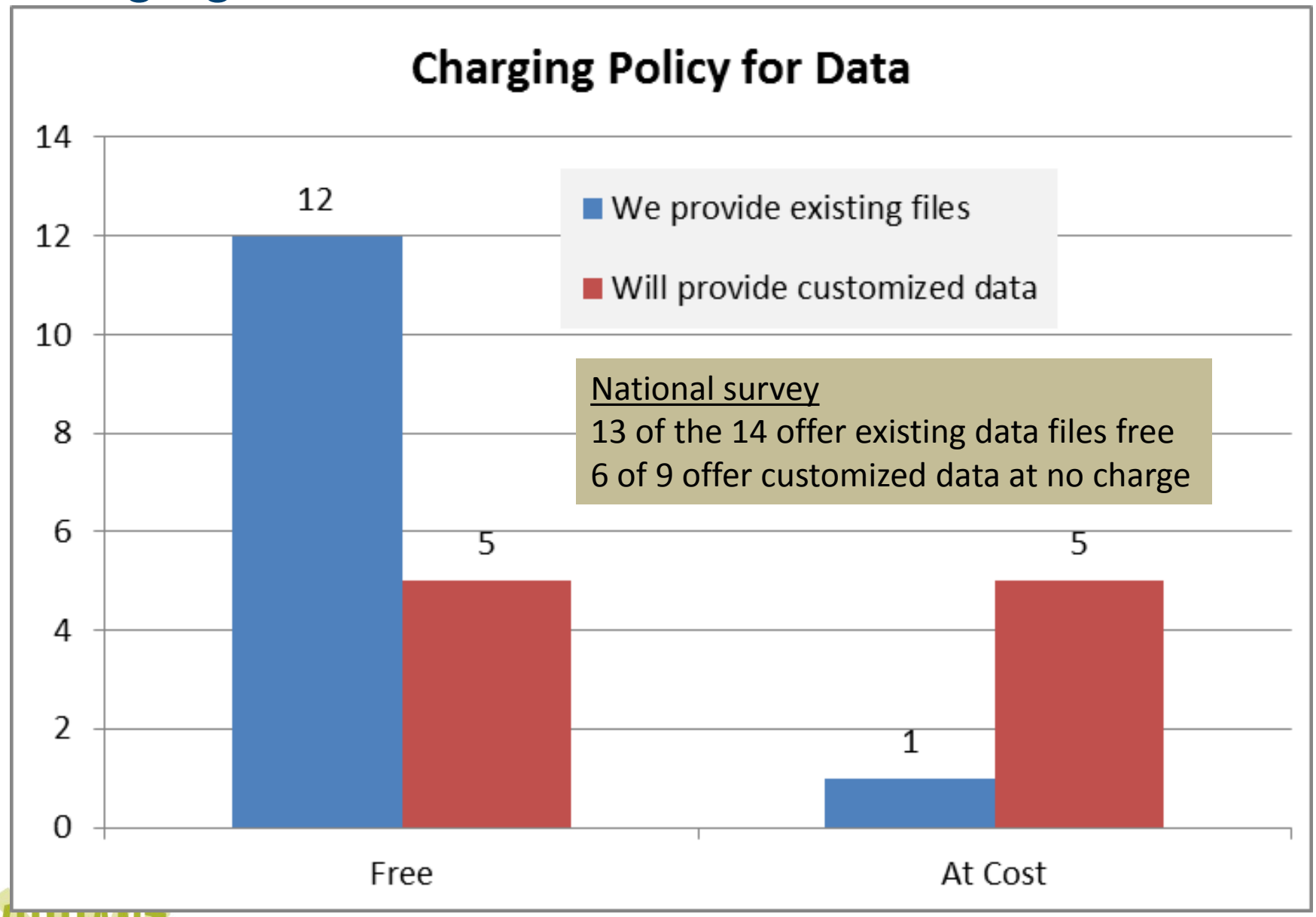
Policies and Opinions About Sharing Data

Charging for Data



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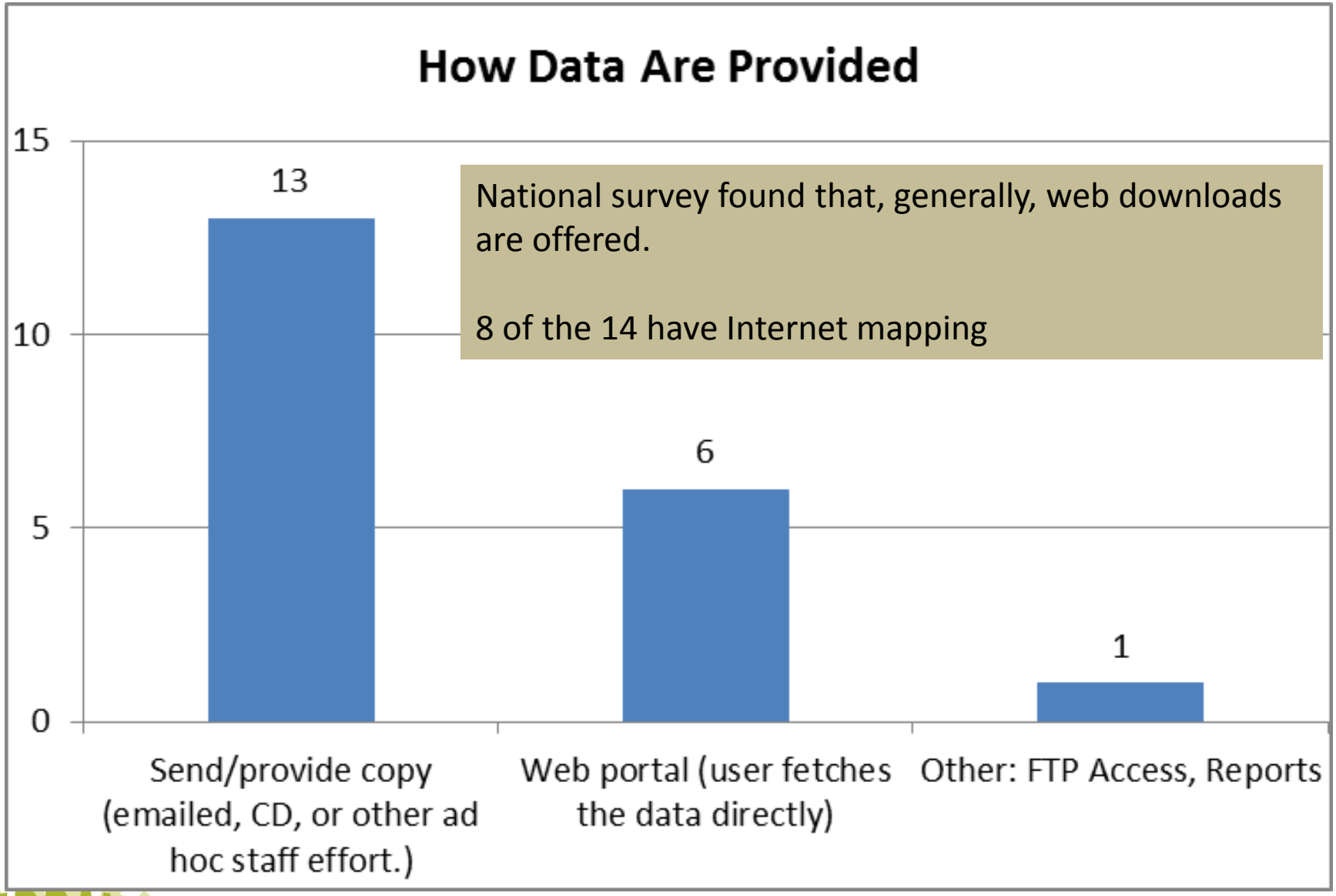
How is Data Transferred



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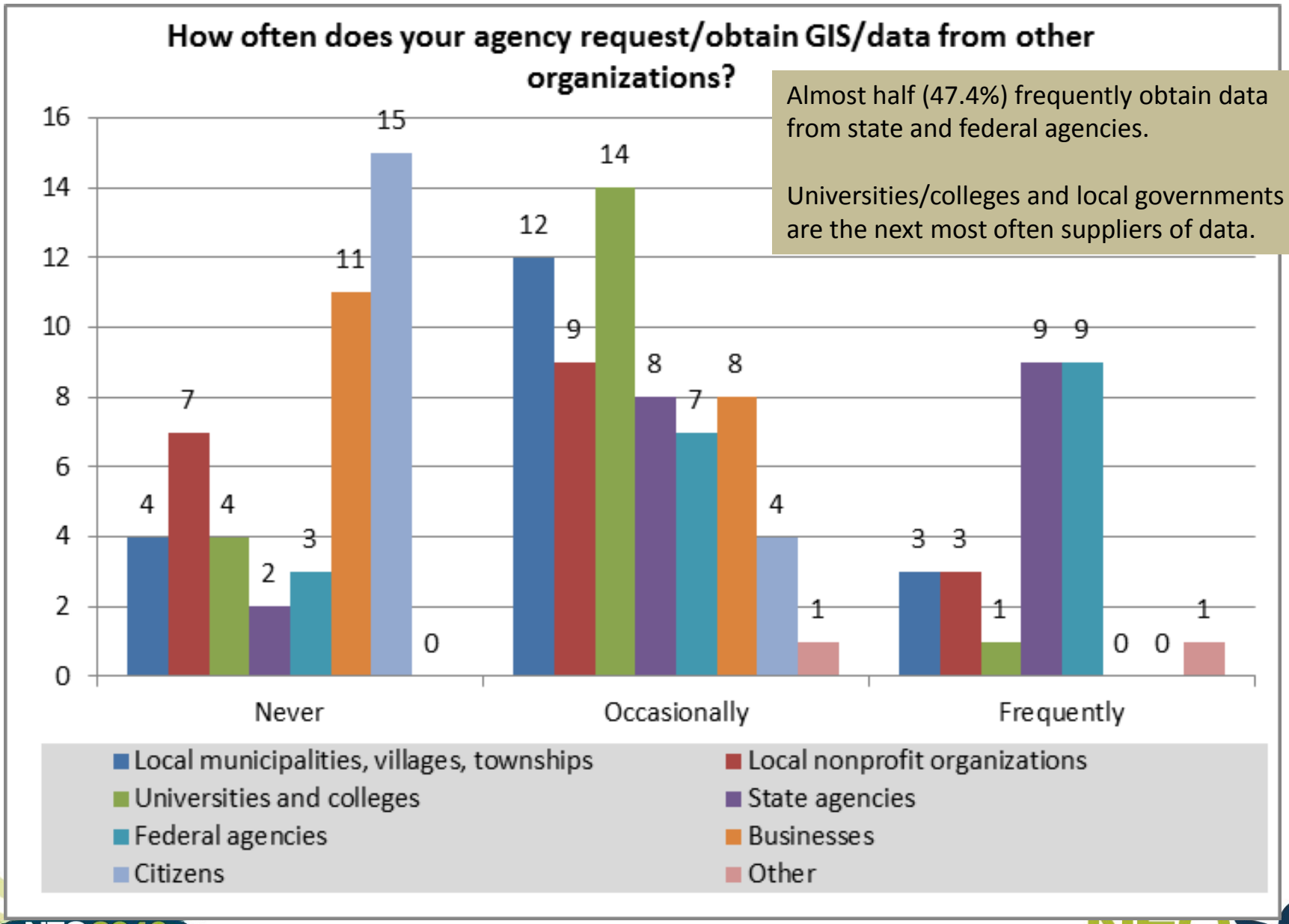
How often is Data Requested

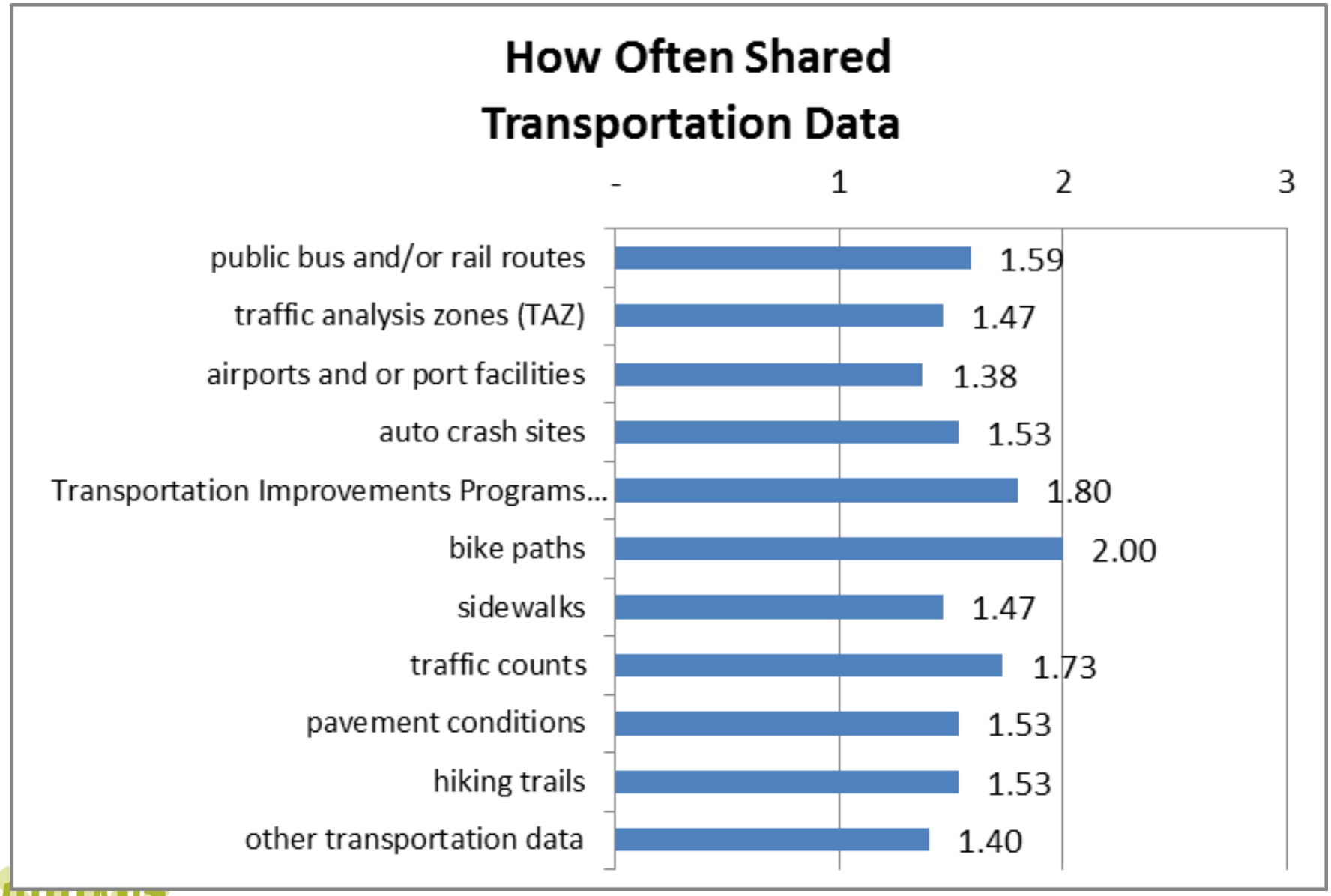


Almost half (47.4%) frequently obtain data from state and federal agencies.

Universities/colleges and local governments are the next most often suppliers of data.

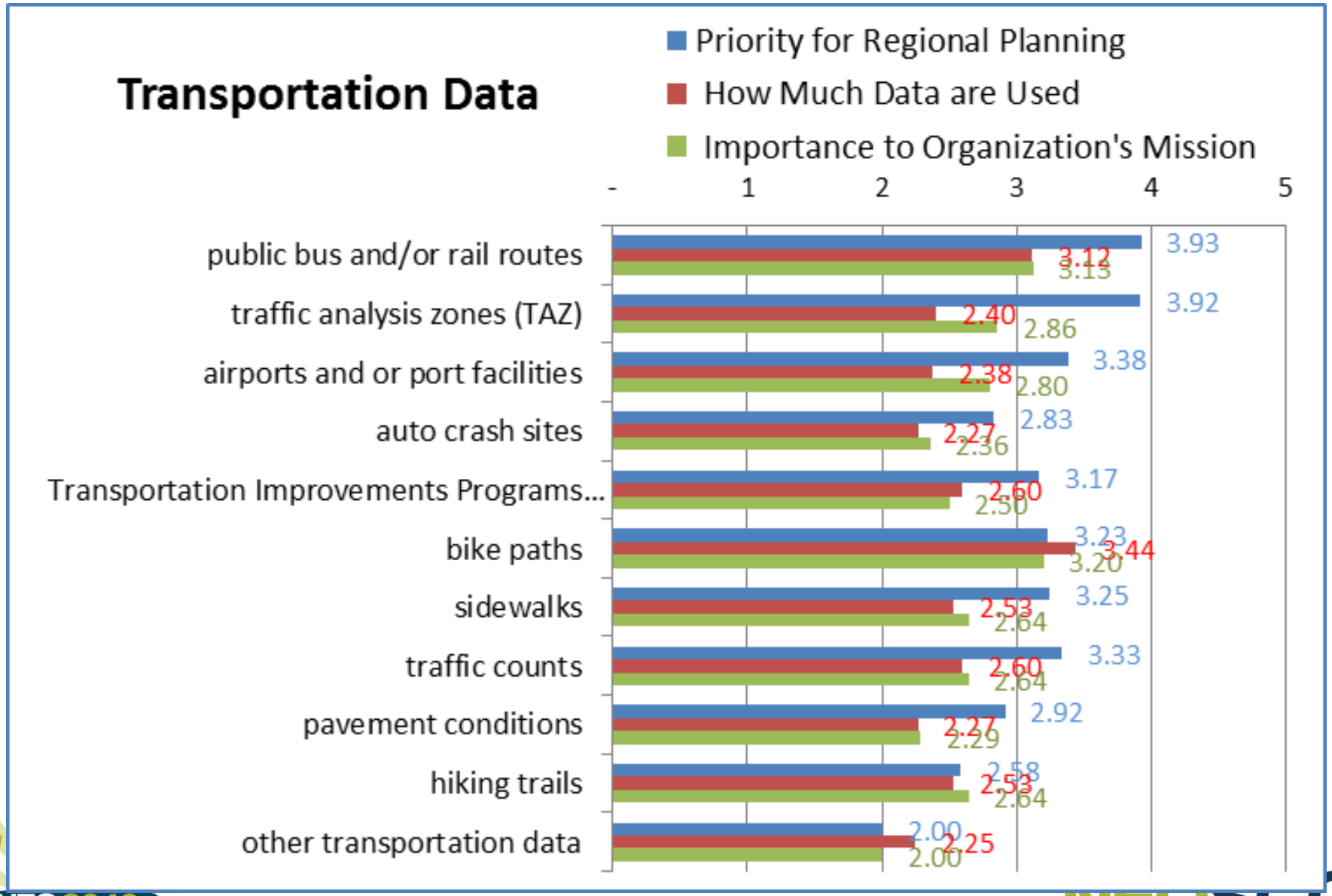
GIS and Related Data Use and Priorities

How often is Data Shared?



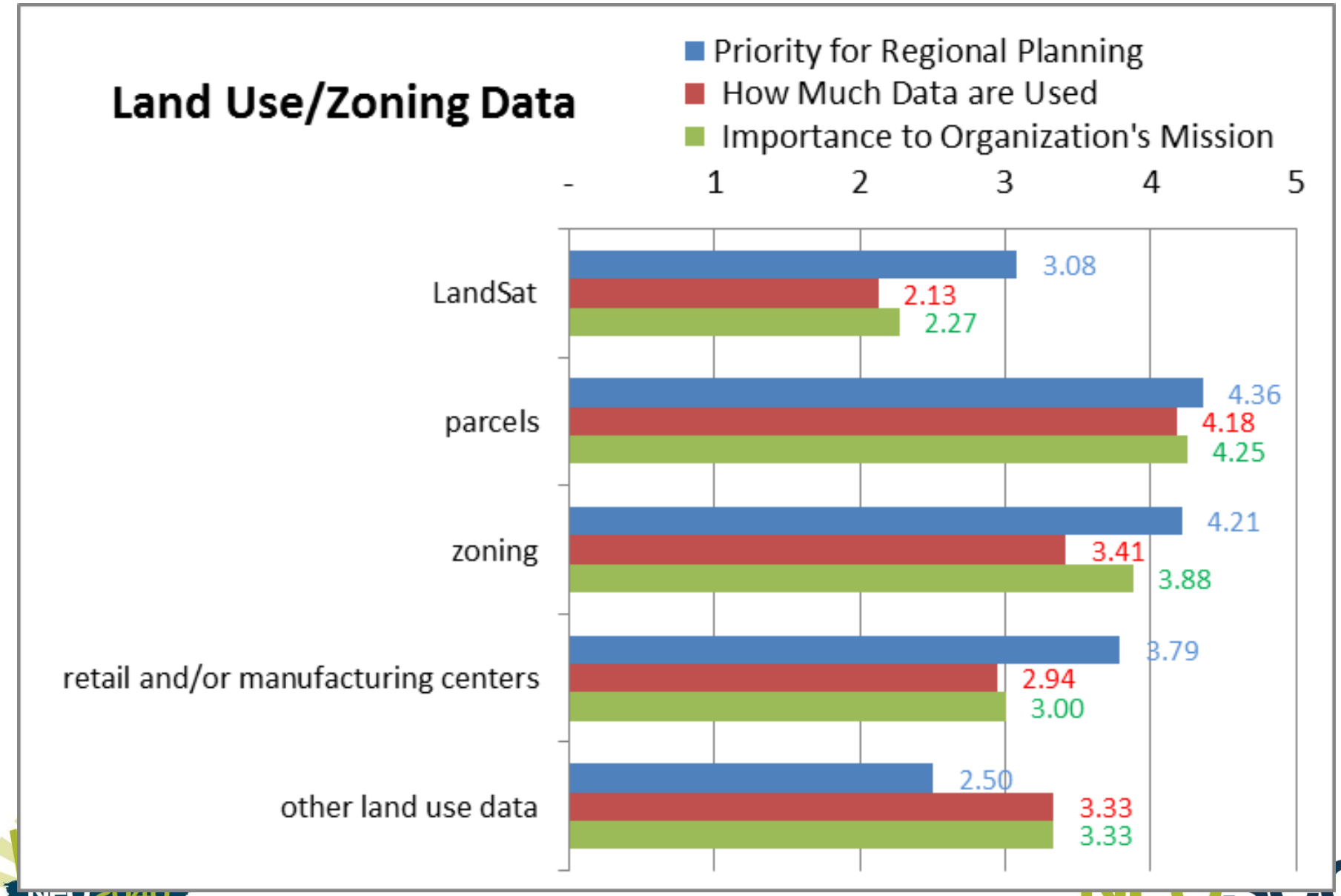
1 = never, 2 = occasionally, 3 = frequently

Data types with higher scores on priority for regional planning than on how much they are used and their importance to the organization's mission may indicate that such data are recognized as important beyond their specific importance to individual organizations.



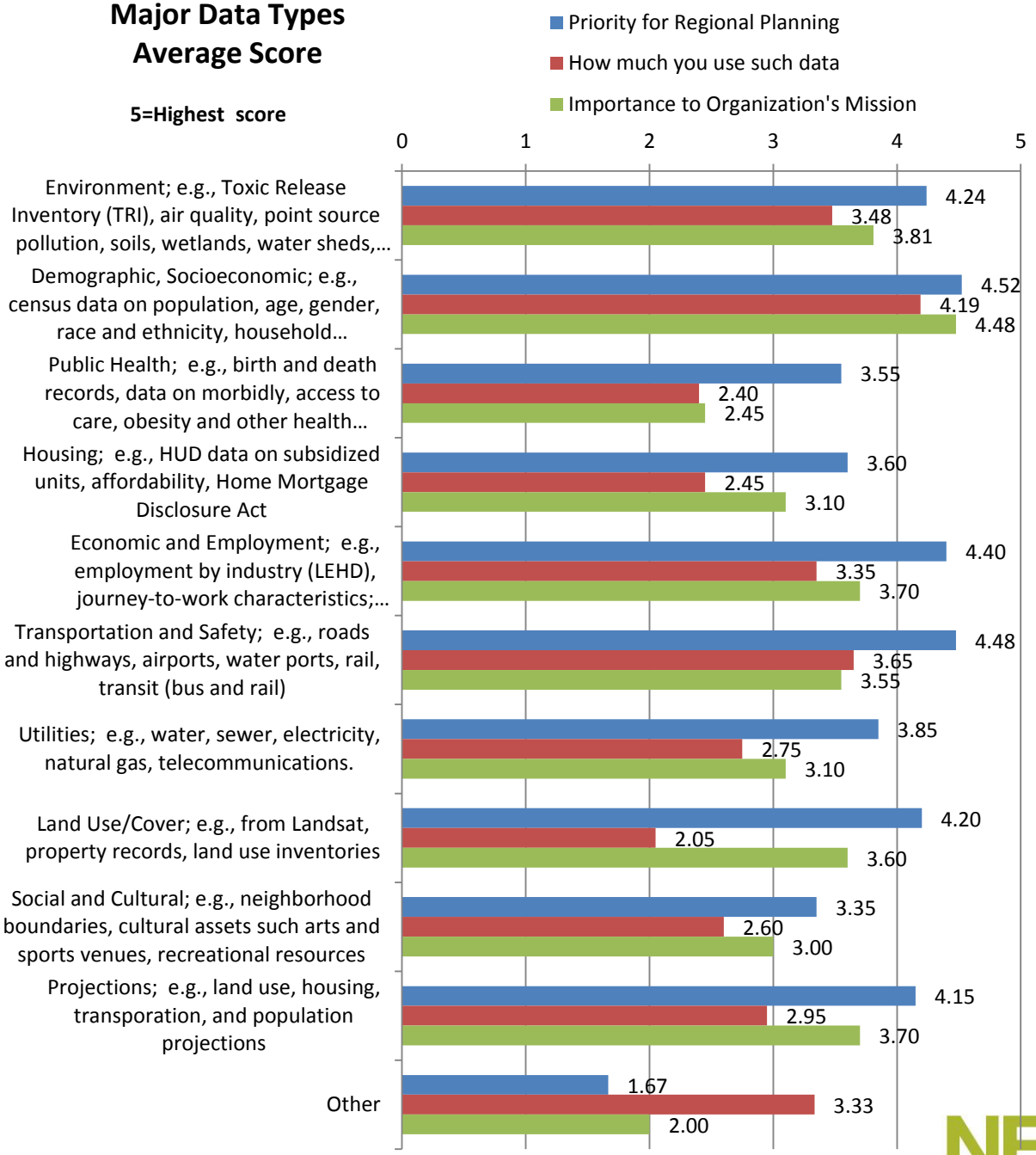
Note that LandSat and retail and manufacturing centers are seen as important for regional planning even though they are used less often by the organizations and are not strong matches for their mission.

Zoning data are needed but not used in proportion, probably because it is not very available.



Major Data Types
Average Score

5=Highest score



Interview Findings

What Other Planning Organizations Are Doing Concerning Web Portals and Data Updates

General cost information for alternative scenarios for future data sharing and maintenance is summarized below

Alternative	Description	Similarities to interviewed organizations	Total Start-up and first year	Annual ongoing
LOW	Inventory of files available online, request specific files through ftp or other ad hoc methods	NOACA	$15,100	$6,400
MEDIUM 1	a mix of online files in an accessible repository along with some files in an existing viewer like NOACA's GIS Server	Partly DRCOG (Denver)	$20,500	$3,700
MEDIUM 2	GIS coordinator obtaining data from the authoritative sources and maintaining the web site and GIS staff to maintain key layers. The website would have searching capabilities and downloading, but no editing	Low-end Metro (Twin Cities)	$148,500	$63,000
HIGH 1	Web-based GIS mapping portal using ArcGIS online and a consultant	Only done in pieces - Houston-Galveston and Columbus	$207,750	$81,750
HIGH 2	Web-based GIS mapping portal, built in-house with aid of consultant	Partly Boston	$333,000	$140,000

Highlights

- There is a wide range in types of technology used.
- Web portals can be designed for easy access to data and also with the ability to allow shared updates and automatic transfers.
- In general, members contribute to the general support of the organization and sometimes provide funding on special projects.
- Some also receive additional support when purchasing aerials (digital orthophotography or other remotely imaged data).
- Generally, members do not provide support for the cost of web portals. Most funding for the portals comes from federal and state grants, or was funded out of general operating budgets.

Highlights (Cont'd)

- Larger organizations have special grants or foundation funding.
- Nine of the sites were built in-house with only three hiring consultants and one planning on hiring a consultant.
- The GIS portion of the portals were generally all up in nine months or less, though more complex systems require more substantial on-going development for much longer.
- Web portals can be designed for easy access to data and also with the ability to allow shared updates and automatic transfers.

General Conclusions

- Most of those interviewed said that the portal has helped the organization's stakeholders make better decisions.
- Many stakeholders have come to depend on the regional organization as a reliable source of data.
- Having a substantial set of data, and data that meets required standards, is seen as an important asset for the organization.

Discussion