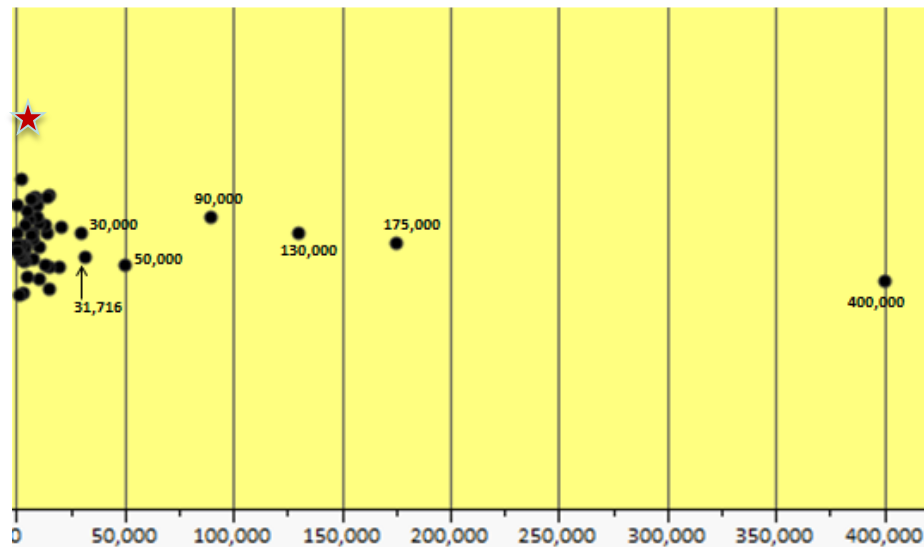# CASC

Management Benchmarks Pilot

Nick Berente, University of Georgia

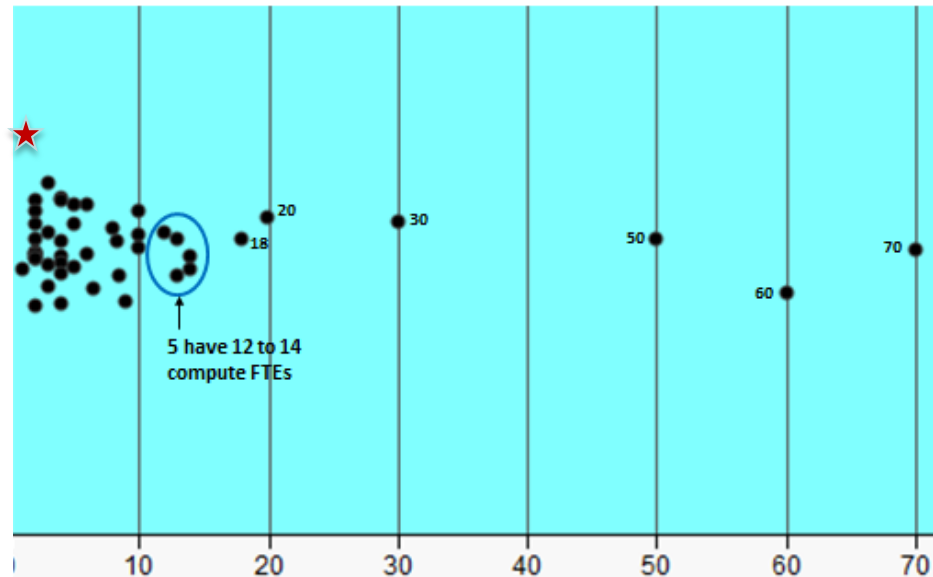Joe Rubleske, Northern Kentucky University

Benchmark #1: Number of Computing Cores Maintained by Each Responding CASC member
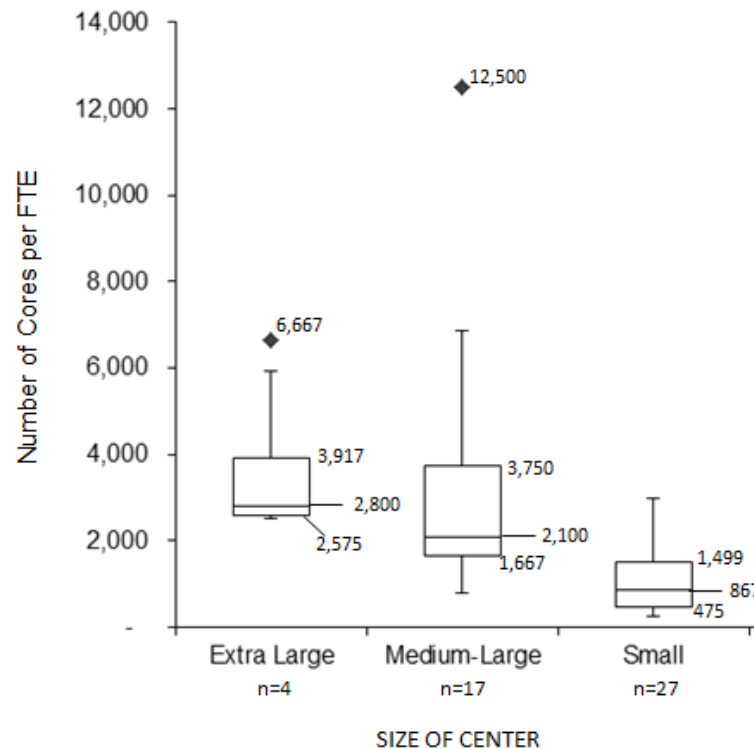
GACRC
~3,600

Benchmark #2: Number of Compute FTEs Employed by Each Responding CASC member

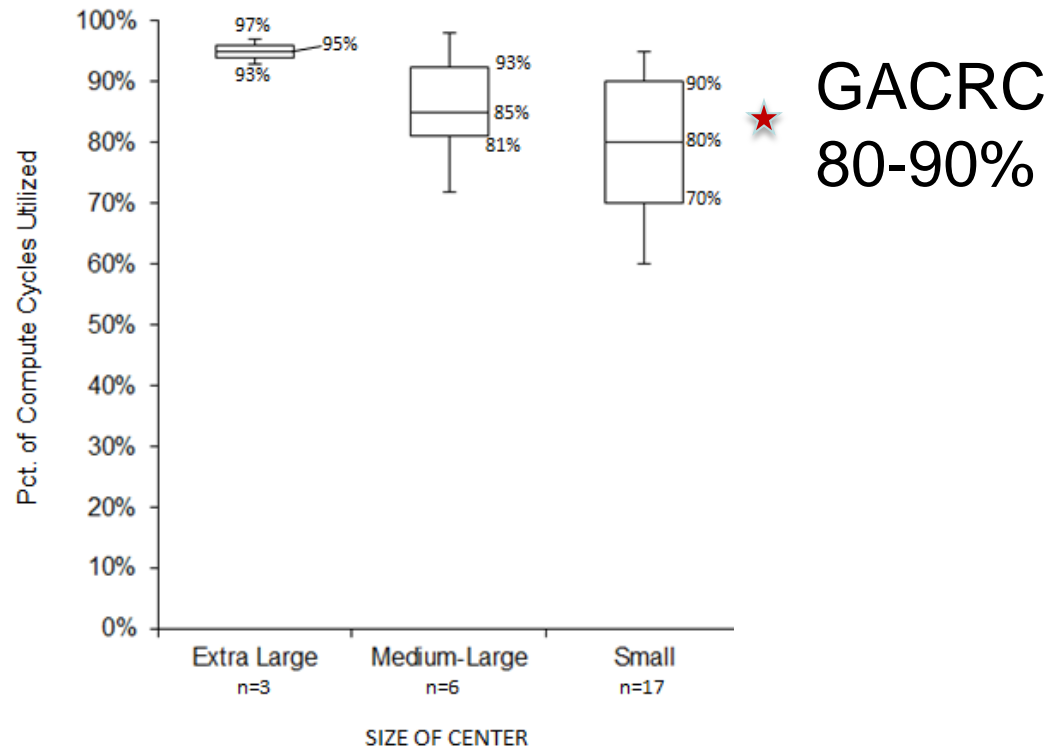GACRC
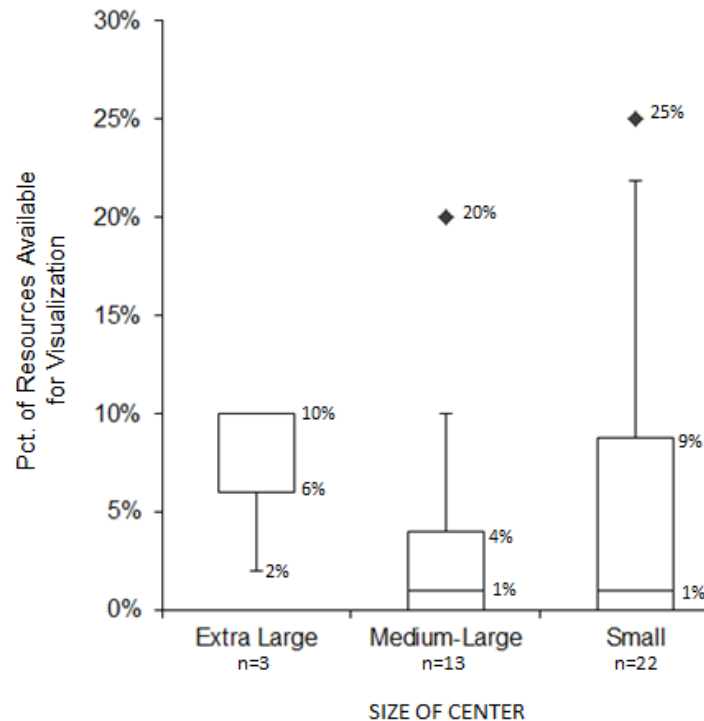2 FTEs

Benchmark #3: Number of Cores per FTE, by Group

Benchmark #4: Percentage of Computing Cycles Utilized, by Group

GACRC
80-90%

Benchmark #5: Percentage of Computing Resources Available for Visualization, by Group

GACRC
0%

Benchmark #6: Percentage of Funds from Various Funding Sources
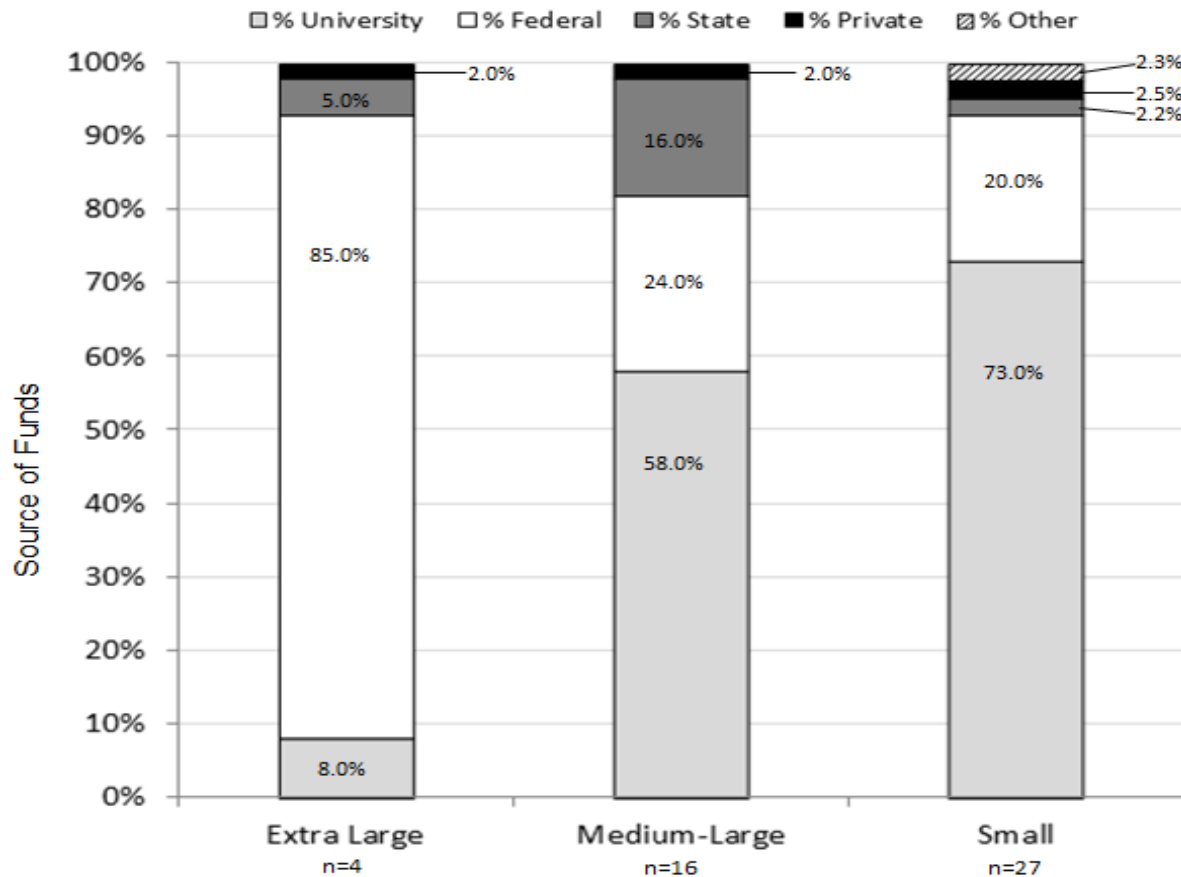
GACRC 100% University

Benchmark #7: Age of Center (in Years),
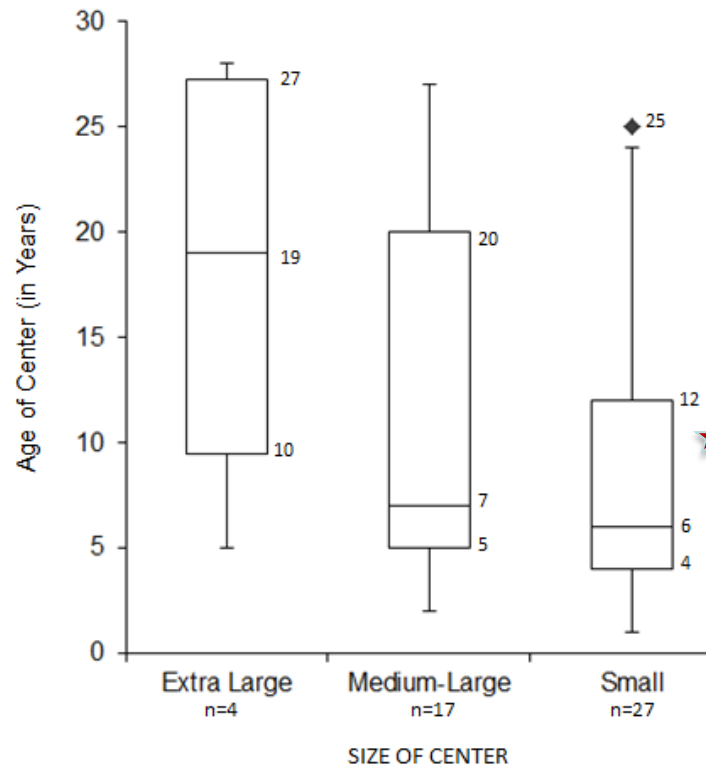
GACRC
10 years

Benchmark #8: The Authority to Which the Center Director Reports
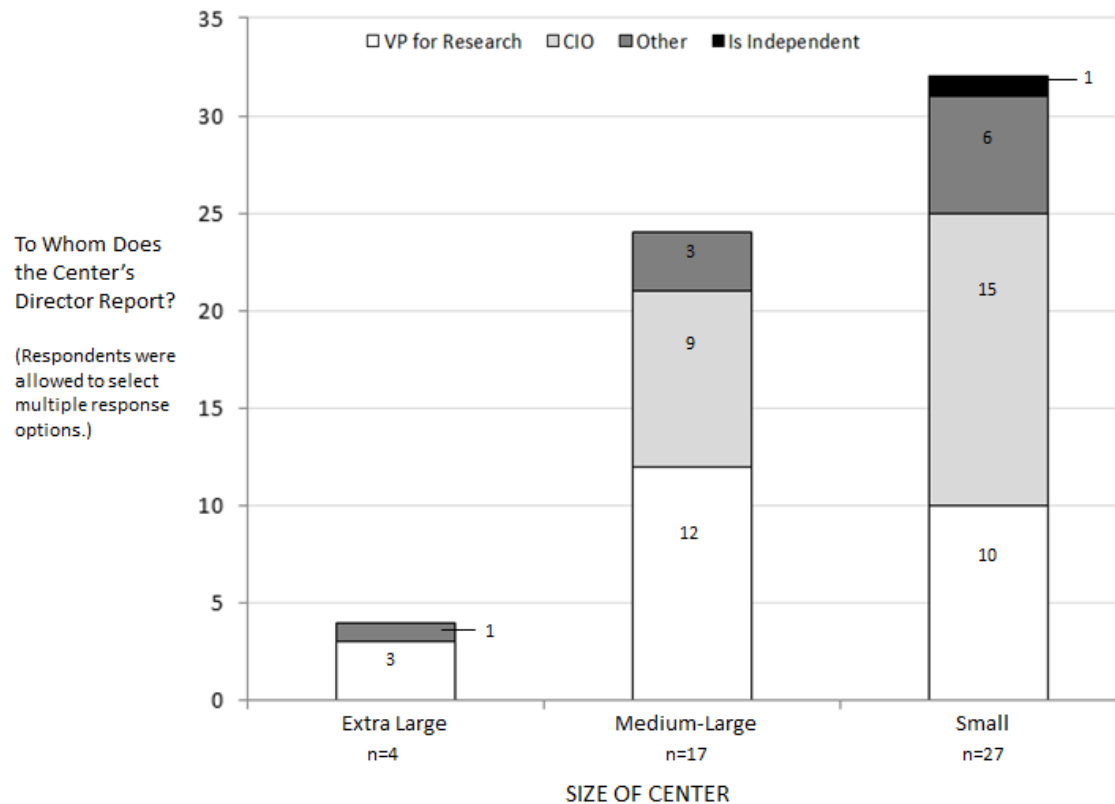
Benchmark #9: Number of FTEs Dedicated to Managing Data, by Group
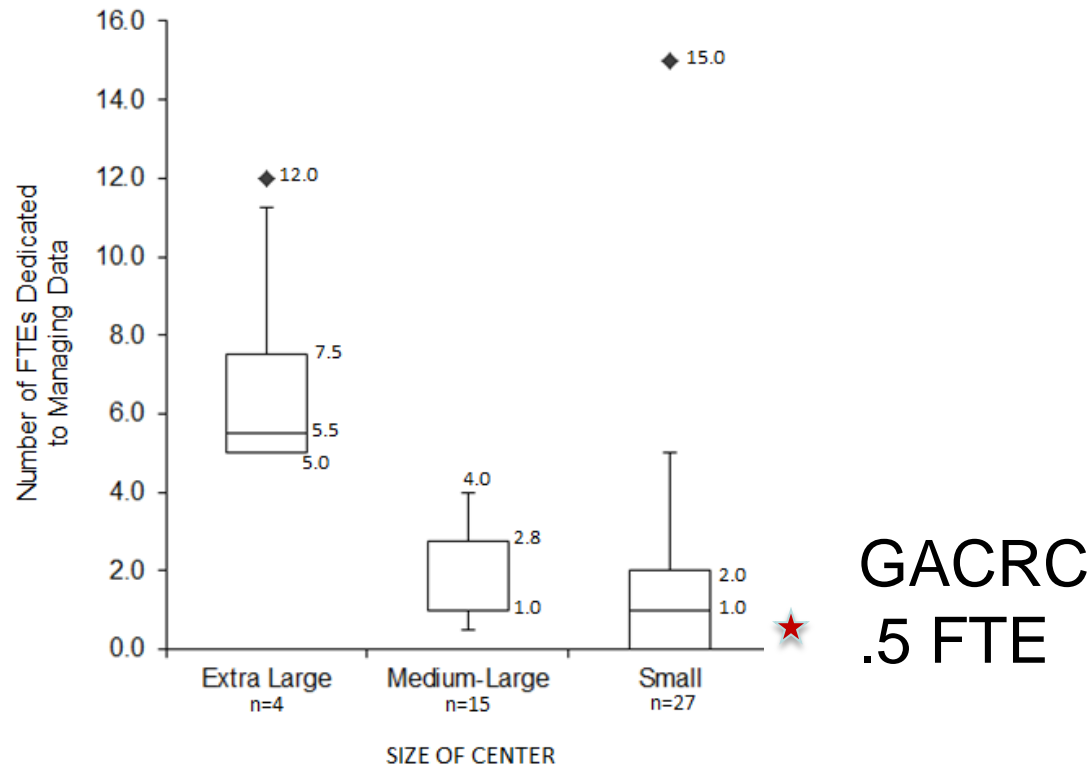
GACRC
.5 FTE

Benchmark #10: Number of FTEs Dedicated to Network Administration, by Group
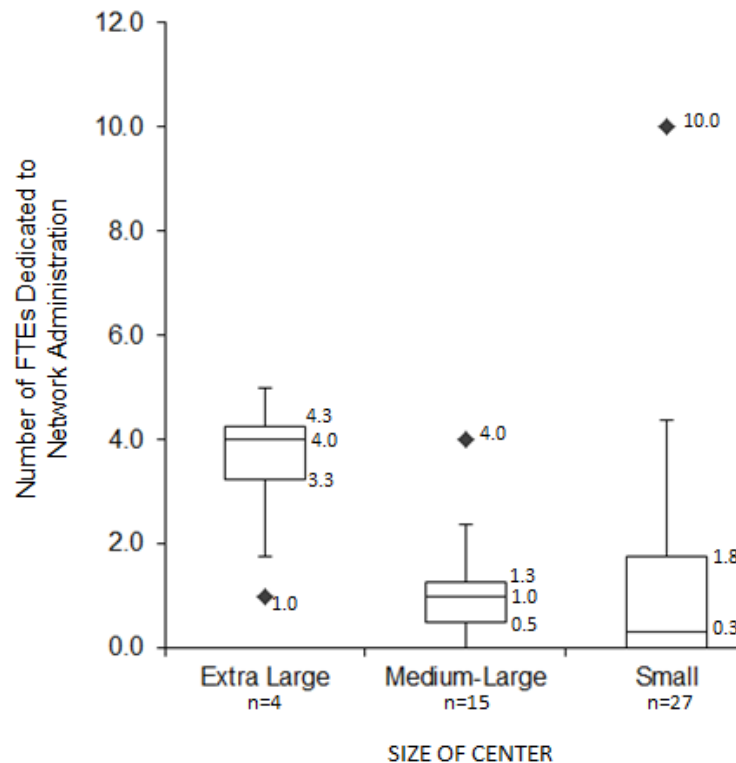
GACRC
0 FTE

Benchmark #11: Number of FTEs Dedicated to User Recruitment and
Advanced Technical Support (Not Help Desk),

GACRC
2 FTEs

Benchmark #12: Ratio of Top-of-the-Stack FTEs to Bottom-of-the-Stack FTEs
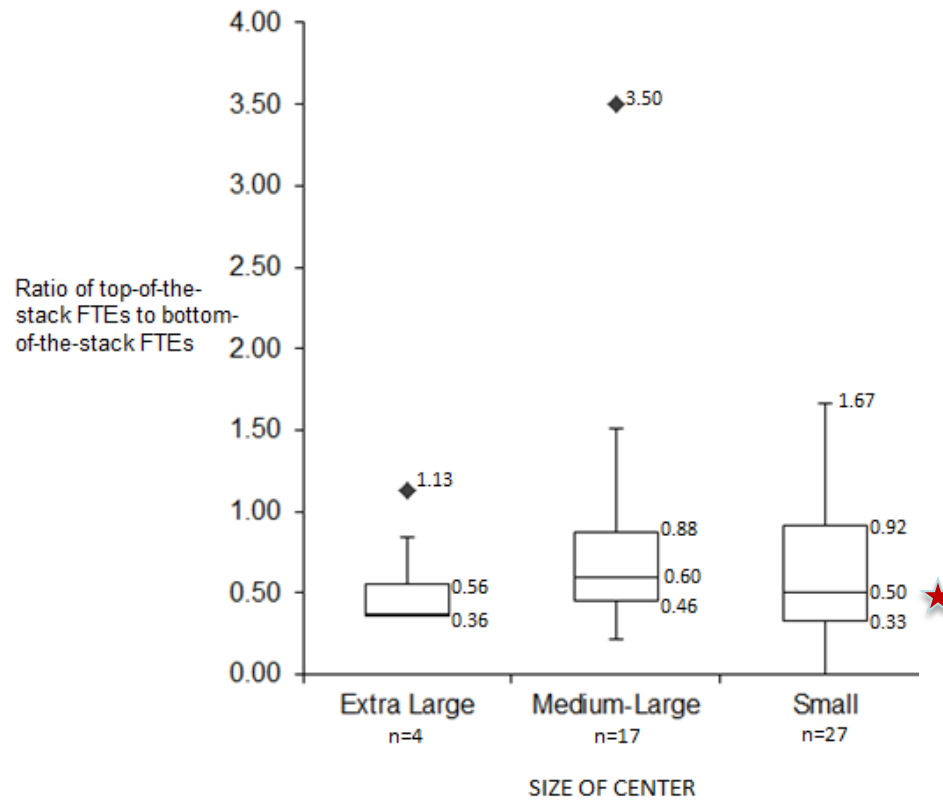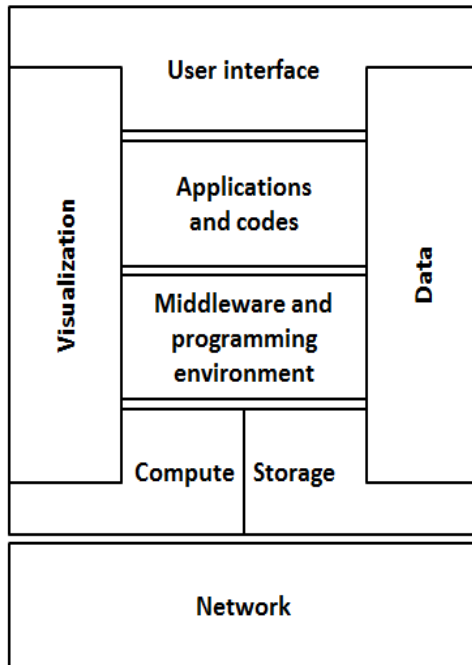
GACRC .33

Predictors of Innovativeness
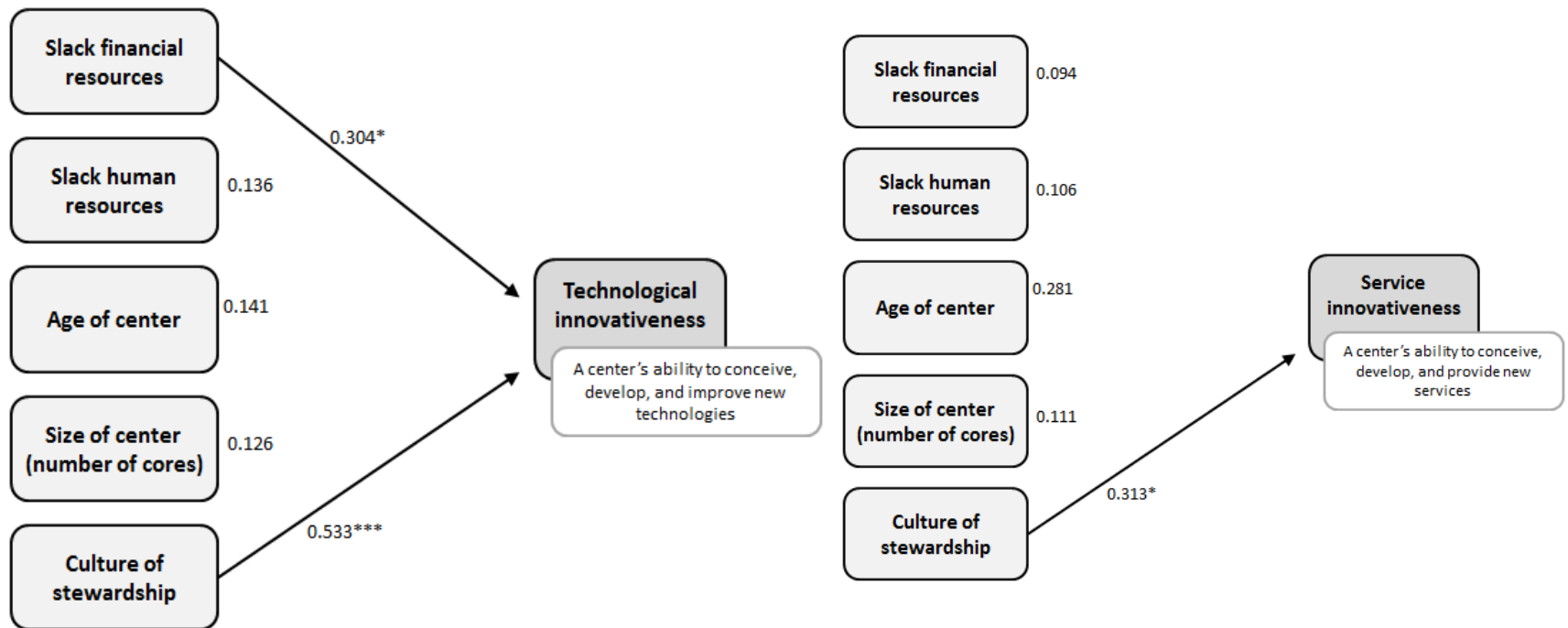
Table 4: Means and Standard Deviations of Dependent and Independent Variables

GACRC

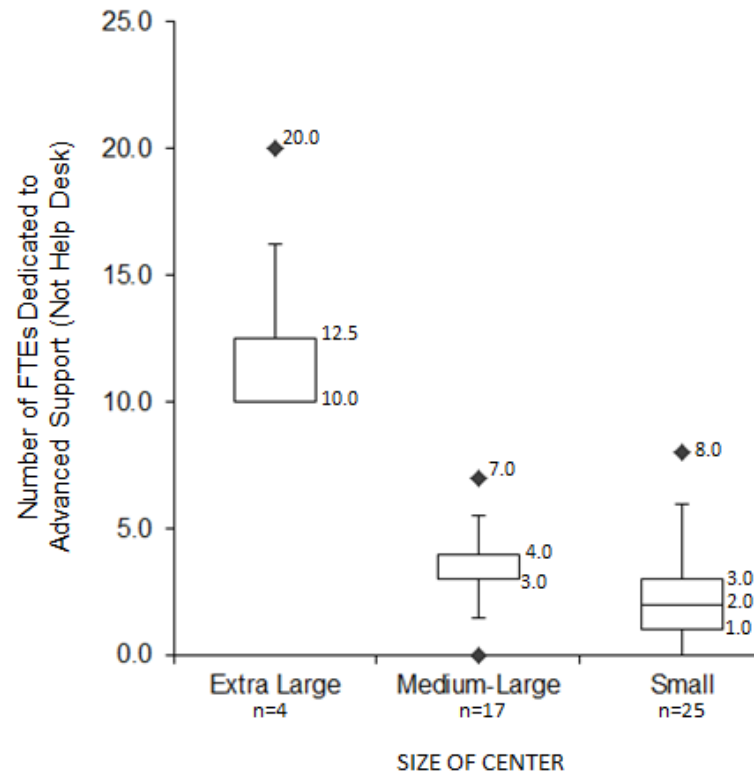|			
Service innovativeness	Mean	4.6	4
	Standard deviation	1.2	
Technological innovativeness	Mean	4.8	4
	Standard deviation	1.0	
Exploitative innovation	Mean	5.0	4
	Standard deviation	0.9	
Culture of stewardship	Mean	5.6	5.5
	Standard deviation	0.8	
Slack financial resources	Mean	3.2	2
	Standard deviation	1.4	
Slack human resources	Mean	2.9	4.5
	Standard deviation	1.2	

1 : STRONGLY DISAGREE
2 : DISAGREE
3: SLIGHTLY DISAGREE
4 : SLIGHTLY AGREE
5 : AGREE
6 : STRONGLY AGREE

The University of Georgia
TERRY COLLEGE OF BUSINESS

Management Benchmarks

- 48 CASC member out of >70
- Value of trends
- Best practices
- Governance & Value

CASC Survey: In taking this survey I agree to participate in a research study titled "Supporting Successful Design and Management of Research Centers" conducted by Nicholas Berente from the Terry College of Business at the University of Georgia. I understand that my participation is voluntary. I can refuse to participate or stop participating at any time without giving any reason, and without penalty or loss of benefits to which I am otherwise entitled. There are no foreseeable risks in participating in this research. The reason for this study is to better understand management practices in research computing centers. Results from this survey will only be reported in aggregate, and it will be impossible to identify particular participants or their organizations from any reports prepared from this survey. Identifying information such as the name of my organization and my email address will be kept confidential by the researchers in password-protected computer files. Supplying a name and email address is entirely optional, but the name of the organization will help the researchers in analyzing the data. If I supply my email address the researchers will follow up with me with a short, confidential report comparing my responses to that of the sample.

1. Name of your research computing enterprise ("center"): _____

2. What is the age (in years) of your center? _____ years

3. To whom (i.e., title) does the director of your center report (check all that apply)?
   ☐ University VP of Research   ☐ University CIO   ☐ Independent   ☐ Other _____

Please provide your best estimate of the following resources currently operational at your center:

4. Total number of nodes: _____ total
5. Total number of sockets: _____ total
6. Total number of cores: _____ total
7. Average percentage of potential compute cycles utilized: _____ %
8. Total disk-based data storage capacity (not including backup): ____ _____ total
9. Total tape-based data storage capacity: ____ _____ total
10. Maximum network bandwidth leaving the center / outside the campus: ____ _____ total
11. Percentage of resources in a "condominium" model of HPC provisioning: _____ %

The following questions are intended to get at the relative scale of computing services provided. *Please do your best to distinguish between "traditional" HPC (modeling, simulation, etc.) and others such as data-intensive applications:*

12. Percentage of compute cycles delivered for traditional HPC applications: _____ %
13. Percentage of compute cycles delivered for "big data" analysis and related visualization: _____ %
14. Percentage of compute cycles for other computational applications: _____ %
   What are these other applications? _____

Some questions about your staff, one FTE (full-time equivalent) = one year of one full-time person's effort. *Use percentages of a person's effort, so if an executive spends 25% of the year standing up machines then that person would be allocated .25 for #15 and .75 for #20 below:*

15. Annual effort for standing up and maintaining machines: _____ FTEs
16. Dedicated to network administration: _____ FTEs
17. Dedicated to data management, analysis, and visualization: _____ FTEs
18. Providing basic technical support for users (i.e., help desk): _____ FTEs
19. Providing advanced technical support & recruitment (not help desk): _____ FTEs
20. Executive leadership / management: _____ FTEs
21. Administrative / business / clerical support: _____ FTEs
22. Effort for other purposes (Name other purpose_____): _____ FTEs

23. Estimate the **percentage** of funding your center receives from the following sources (total 100%):

University: _____% Federal: _____% State: _____% Private/commercial: _____% Other: _____%

Thank You!

Nick Berente
berente@uga.edu

The University of Georgia
TERRY COLLEGE OF BUSINESS