APPA CFaR Project: Dynamic Facilities Planning

APPA Spring Conference
April, 2024

CFaR | Center for Facilities Research

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AIA Approved Continuing Education

Course Description

The prevailing view is that the current, static 10-year campus master plan process falls short in meeting the evolving campus community needs.

As a part of an ongoing CFaR project, presenters scrutinize campus planning elements, aiming for a more dynamic and living approach to be more adaptable to critical business needs.

This session shares their progress prompting a discussion with participants to explore insights and experiences in campus planning identifying opportunities to introduce flexibility.

AIA Continuing Education Provider

Learning Objectives

- To receive an update on the research objective and current progress of this CFaR research team.
- Provide feedback and experience that will help to advance the research.
- Discuss and collaborate with other attendees on the topic to explore information for potential inclusion in the research findings.

APPA's Center for Facilities Research

The mission of CFaR is to advance the body of knowledge of facilities management through research, discovery, and innovation.

~Steve Glazner, *Facilities Manager* Jul/Aug 2016

Meet the Research Team

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Research Problem Statement

It is our position that the current model of the static decennial master planning process is outdated and, with the advent of IT technology, the need for continuous campus planning should be reconsidered.

The rapid accelerated evolution in technology, developments in educational pedagogy, increase of career mobility, and other factors contribute to the challenges in remaining “on plan” years after the plan was adopted.

Research Approach

- ✓ Assembled a cross-disciplinary team of campus facilities professionals and business partners
- ✓ Literature review
- ➢ Talk to the APPA membership
- ➢ Drafting a report on our findings
- ❑ Peer review of research findings
- ❑ Publish findings for APPA membership

Too many times we spend a lot of time talking about good ideas but no change occurs.

We want to contribute something to the APPA membership that people can do something with.

We need your help…

Challenges with Current Methodology

- It is **expensive**. Typically involves architects, engineers, space planners, and other consultants to develop.
- It is time **limited and static**. Once it is complete, it may receive minor updates but, for the most part, it is fixed.
- It is **not comprehensive**. It only includes those things known to the planners at the time of the study.
- It is **impossible to incorporate unknowns** that arise without potentially going “off plan” or deferring campus needs.
- **Redo the plan** every 5 or 10 years depending on your cycle. These expenses then become reoccurring.

Other Considerations…

- Average length of service for a college or university president is **6.5 years**. The plan will likely not be fulfilled in their tenure.
- The acceleration of technology has quickened to a pace of **5 to 7 years** between disruptive technological advancements. A 10-year timeline would include technologies that haven't been invented yet.
- The plan horizon most likely includes element to be used by students that are **presently in kindergarten**.
- **Evolution of teaching methodologies** are evolving more rapidly than ever.

APPA Membership Engagement

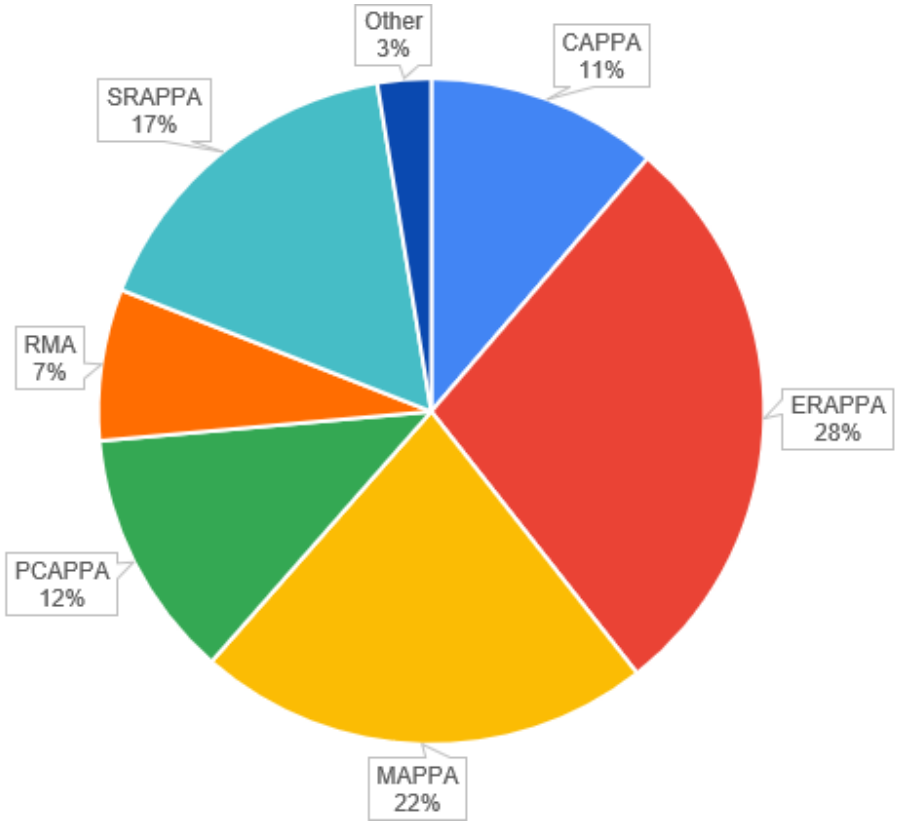
Some Key Findings to Date

- There must be **buy-in from senior leadership** of the institution.
- Grounded in the **mission of the institution.**
- There must be a **tie-in to the strategic plan** of the institution.
- There must be a **tie-in to the campus recapitalization plan**.
- The master plan **cannot have infinite flexibility**. There needs to be a "static" period in which there is time to secure funding, design, and deliver the projects.
- There should be some "**anchor projects**" that guide the other aspects of the plan.
- Granularity in the master plan creates inflexibility. **Flexibility can be found in the details** such as technology, utilization, function, etc.
- **Regulatory requirements** such as having a master plan, land use, and legislation will need to be considered as part of any framework.
- There are **challenges getting good data** upon which to build the plan.

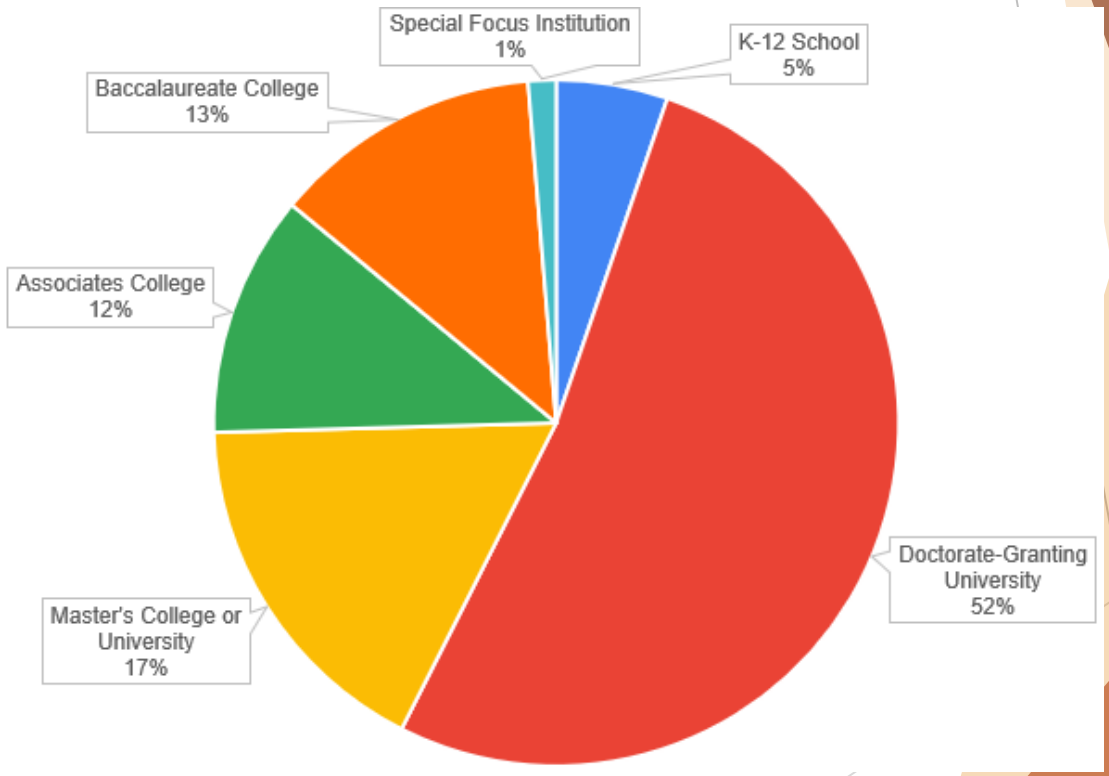
Recent APPA Membership Survey

Survey Demographics

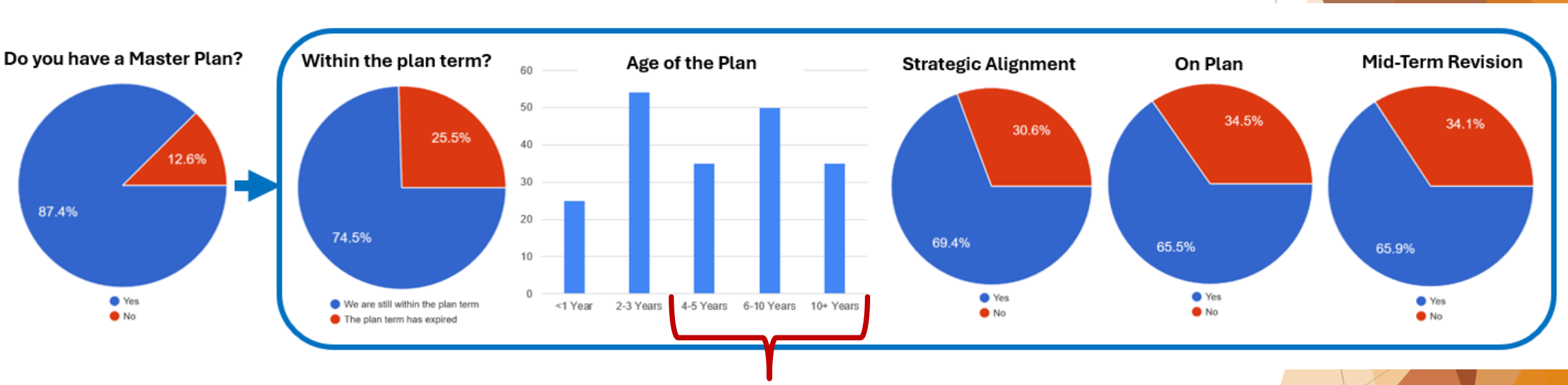
APPA Region



Carnegie Classification

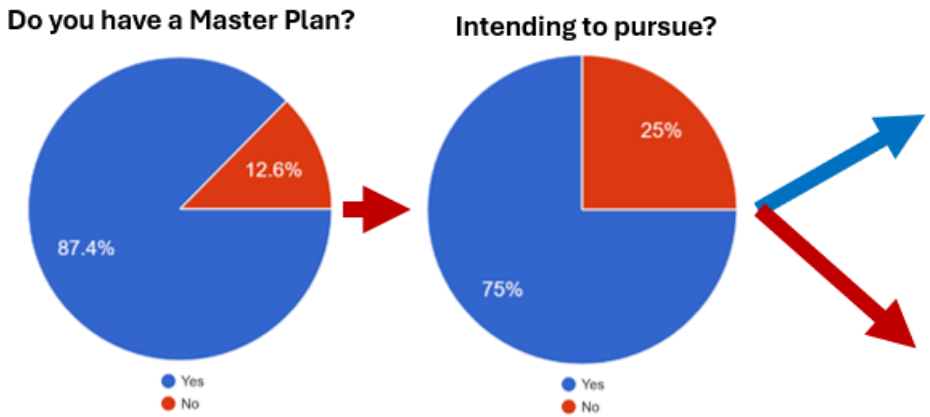


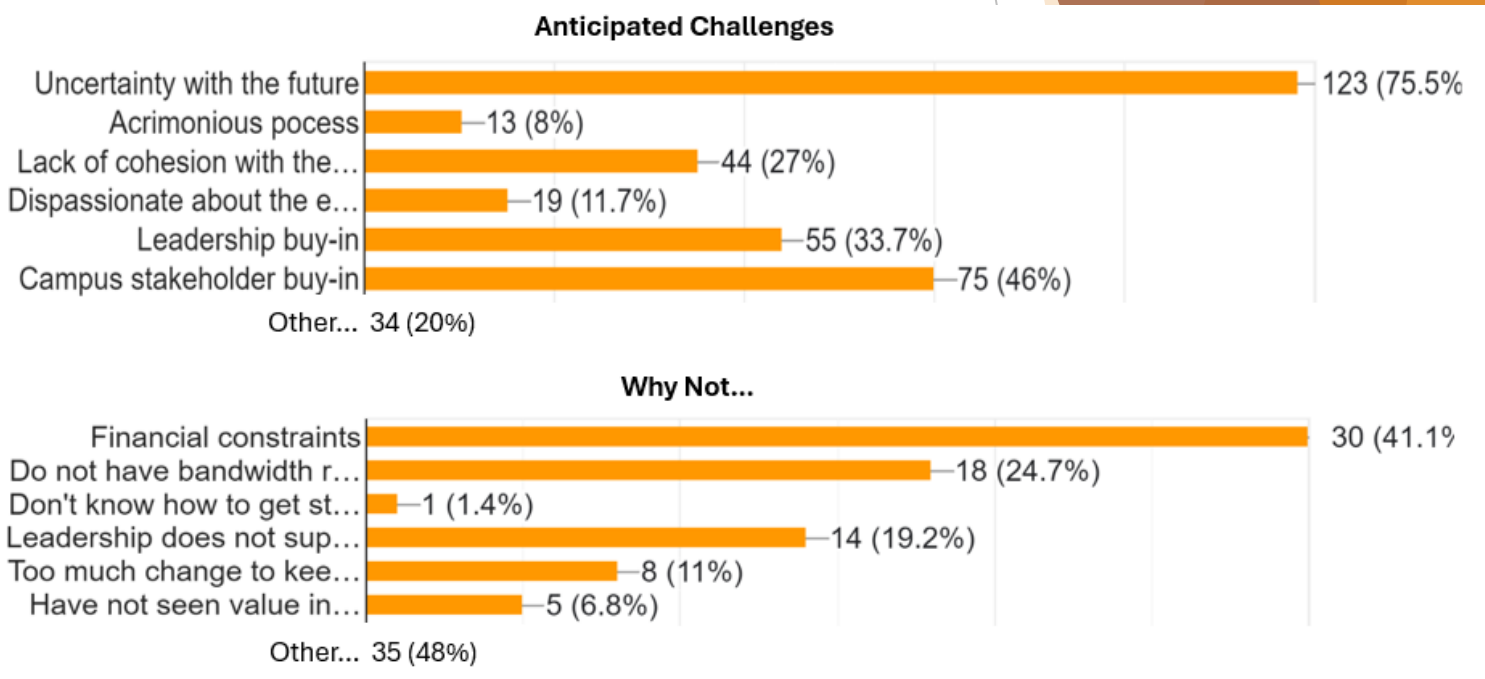
Membership Survey Findings
April, 2024



60% of these plans were developed BEFORE COVID…

Membership Survey Findings
April, 2024





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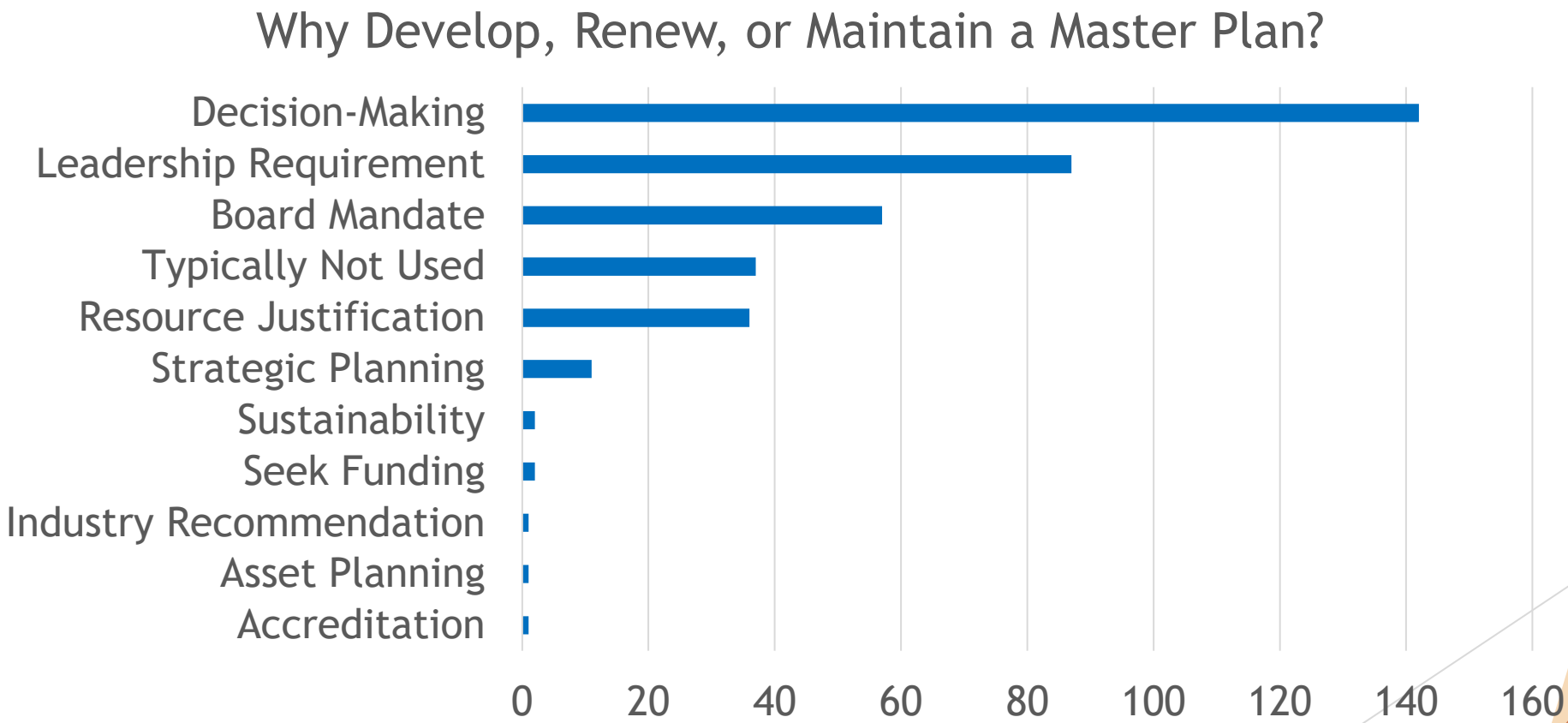

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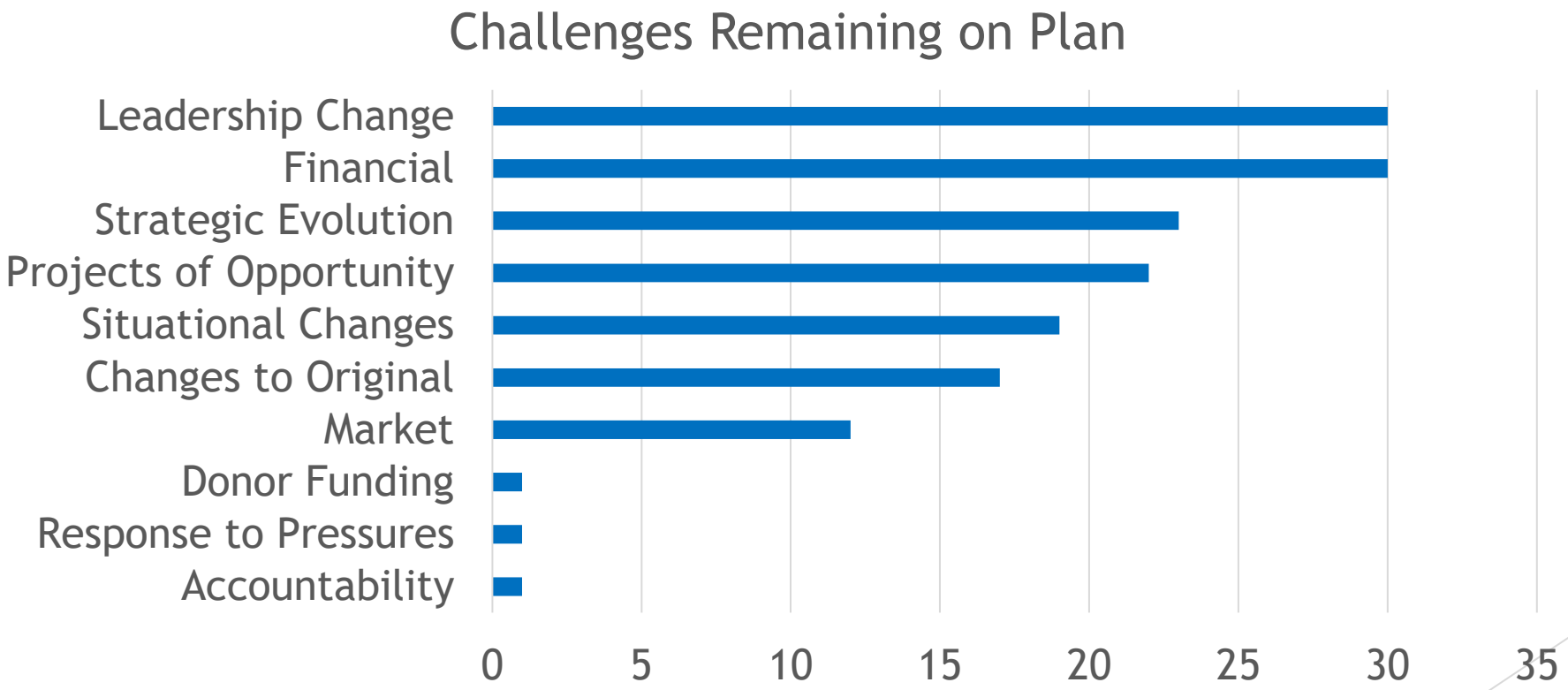

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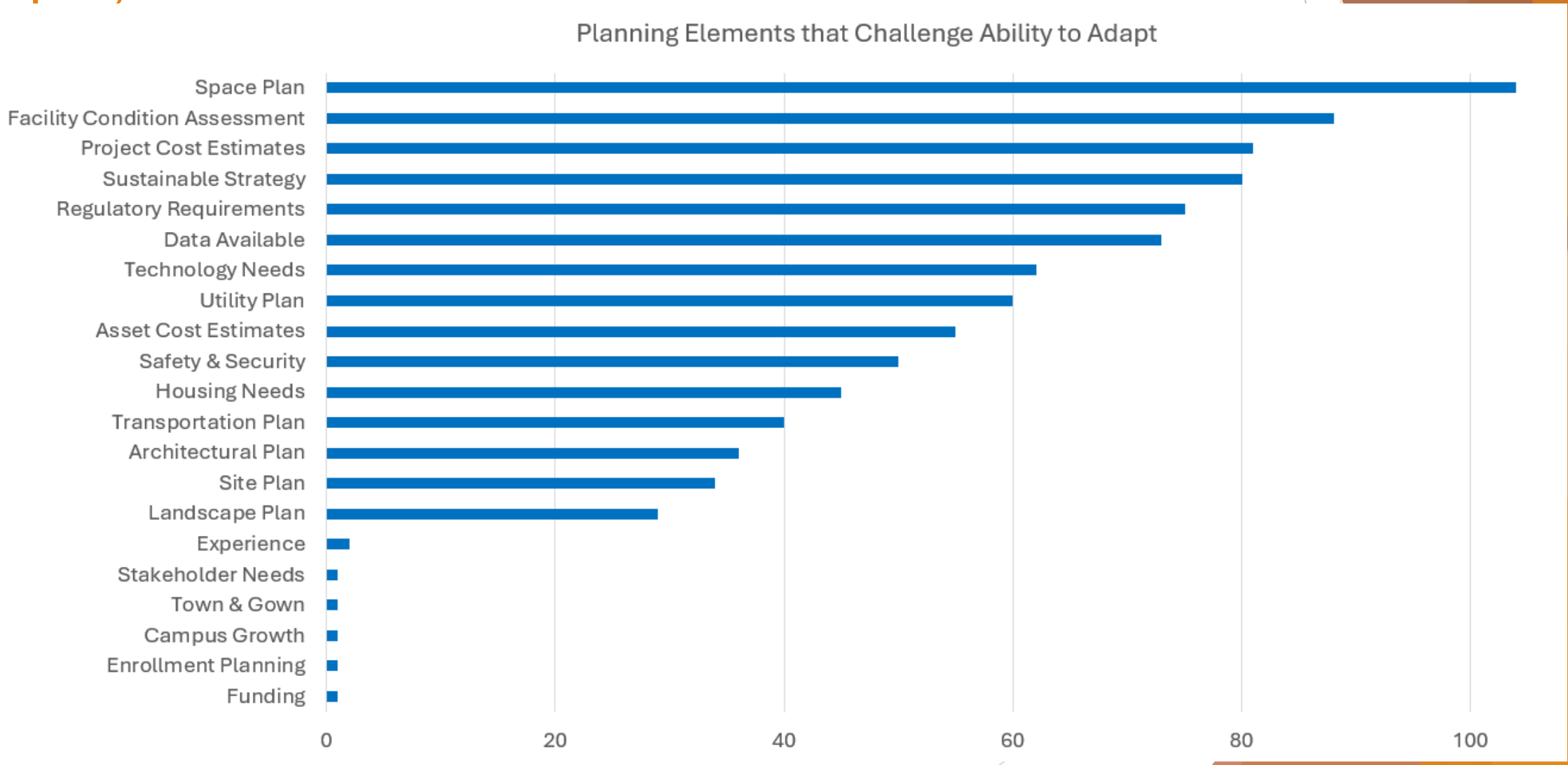

Membership Survey Findings
April, 2024

General Feedback

1. **Political Will and Leadership Commitment**: The success of a master plan depends heavily on the *support and commitment from leadership* to implement and follow through with the plan's objectives.
2. **Frequency and Adaptability**: There's a consensus that master plans *should be updated more frequently*, ideally every 5 years, to remain relevant and adaptable to changing circumstances.
3. **Community Engagement and Inclusion**: Successful master plans *involve the entire campus community* to ensure diverse perspectives and buy-in.
4. **Realistic and Sustainable Goals**: Master plans should *focus on realistic and sustainable goals*, including efficient space utilization and financial/environmental sustainability.
5. **Data-Driven Decision Making**: *Utilizing data*, such as space utilization analysis and enrollment projections, is crucial for *informed decision-making* in master planning.
6. **Challenges with Implementation**: Challenges in implementing master plans include *leadership adherence, funding issues, and competing priorities*.

Membership Survey Findings
April, 2024

General Feedback (continued…)

7. **Flexibility and Adaptability**: There's a need for master plans to be *fluid and adaptable* to changing circumstances, incorporating a "living" approach.
8. **Communication and Collaboration**: *Continuous communication and collaboration* across campus departments are essential for successful master planning.
9. **Financial Considerations**: Developing *feasible financial plans and securing funding* for construction and maintenance are key components of master planning.
10. **Mandates and Regulations**: *Compliance with state mandates and regulations* regarding master planning adds complexity and financial burden to the process.
11. **Focus on Specific Areas**: There's a shift towards developing plans focused on *specific areas* or precincts rather than campus-wide master planning.
12. **Reflection and Refocusing**: Master planning is seen as an opportunity to *reflect on past efforts and refocus on future targets and objectives*.

CFaR Report

Draft Report Outline

Summary and Research Objectives

Overview of Current Master Planning Practices

- Overview of Current Process
- Typical Feeder Plans Included

Opportunity with a New Model

- Key Elements of Dynamic Planning
- Dynamic Opportunities in Feeder Plans
- Dynamic Planning Framework

Recommendations on How to Implement

- Key Stakeholders to Include
- Change Management Strategies

We want to hear from you…

What would help you understand and implement something like this?

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Audience Question Responses

What would help you understand and implement something like this?

- Recognizing some elements have less flexibility… utilities need to be in the ground. How flexible is Princeton's transition to geoexchange heating which is to be completed by 2045?
- A known process that can form into the day job instead of being an add on task.
- Time, money, collaboration across departments
- ROI of the dynamic process versus static process
- $ Budget to accomplish what is requested
- case study
- Example and/or sample plan to get started and build upon. As well as ways to amend and change over time.
- Melding planning and action into a time
- Money
- A framework that can be consistently applied but with room for flexibility to be tailored to institutional-specific circumstances.
- Framework, team size or membership, data needs to prep in advance.
- Published research that educates state officials on national trends. Local trial runs that demonstrate what is possible.
- Ability to pivot and make changes when necessary to accomplish the overall goal
- State or federal funding that recognizes value of planning. Avoiding critical failures in infrastructure and similar resources at campus.
- $$$
- In exactly what areas of the master plan are going to be dynamic?
- $/SF budget changes needed if changes are made to the plan. Energy/ utility/ decadent master plan be inclusive. Don't forget to include the future central plant in conversations. Is the right team in place for the expected future growth or changes. What are plans to manage the talent gap.
- Training. Perhaps a short course to discuss the purpose and background and overview; followed by some methods for how this can implemented. Something easily exportable to us to share with our other stakeholders.
- State level acceptance.
- More Time

What key elements do you think should be included in a framework or guideline?

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Audience Question Responses

What key elements do you think should be included in a framework or guideline?

- Goals based on research and stakeholder inputs
- Interview stakeholders - right people at the table
- Sustainability
- Space needs
- Value of cultural resources. Personal connections to campus environments.
- Universities infrastructure capacity. Future needs
- Key stakeholder's to be engaged, recommended data structure/needs, integration of TCO, static vs dynamic elements
- Short term and long term plans.
- Stages/steps i.e what data do we need and from whom? Financial projections; enrollment projections; Deferred maintenance standing Building FCI, space utilization,
- Institution's strategic objectives (sort term, mid term, long term).
- Space usage, asset costs, labor costs, student wishlist, faculty needs
- Academic priorities, space consolidation, energy, decarb, seismic, deferred maintenance, opportunistic funding, space availability.
- Total cost of ownership
- Some measure of time less than ten years - possibly 5-7 years based on previous research shown regarding President tenure.
- Utilities Land utilization Population growth/decline projections Facility consolidation
- M&O resource needs development.
- Transportation and circulation
- Equipment ROI
- Energy/utility

What would you exclude in the framework as too granular or multi-faceted?

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Audience Question Responses

What would you exclude in the framework as too granular or multi-faceted?

- Being overly prescriptive in general - leave room for all institutions to make it their own. Specific Technology.
- Considering separating money/funding source from the plan. Often don't known when the funding will come.
- Specific Building layouts
- Linear project phasing...unless funding identified at time of plan.
- 🤔
- Security and IT change to fast to be relevant at this level of planning.
- AI continued development- the unknown
- Specific building programs
- IT and technology items as they are changing too fast.

Thoughts and Questions?

Thank you!

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