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## **The Non-Subscription Side of Periodicals: Changes in Library Operations and Costs between Print and Electronic Formats**

GIFFORD FENTON, Eileen

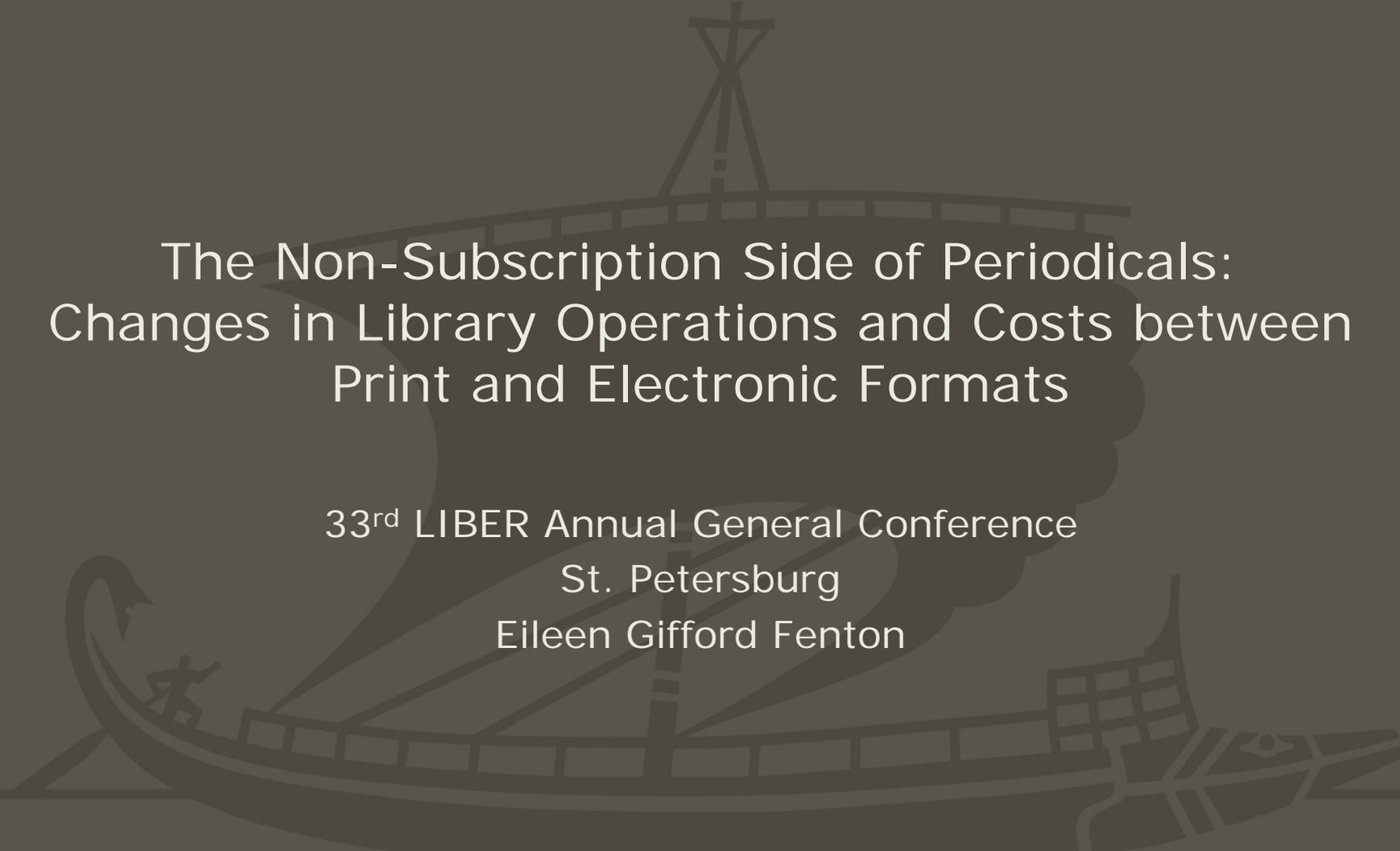
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# The Non-Subscription Side of Periodicals: Changes in Library Operations and Costs between Print and Electronic Formats

33<sup>rd</sup> LIBER Annual General Conference

St. Petersburg

Eileen Gifford Fenton

## Outline

- Introduction and Methodology for Data Collection
- Overview of Data
- Life-Cycle Analysis
- Total Costs and the Transition
- Conclusions



## The Study's Purpose

1. To test the hypothesis that there are significant savings associated with collecting periodicals in the electronic format as compared with the print format; and
2. To thereby assist in the development of the business model for an initiative to archive born-digital scholarly journals.



## A Focus on the Non-Subscription Side of Periodicals

Non-Subscription Side is:

- Library operations related to periodicals, as well as the associated costs; and
- Excludes the actual cost of the subscription or license.

Some of the significant costs include:

- The cost of space;
- The cost of computer workstations and infrastructure;
- The cost of binding; and, most importantly,
- The cost of library staff time.



## Data Collection: Participating Libraries

Small	Medium	Large
Bryn Mawr College	Drexel University	Cornell University
Franklin & Marshall College	George Mason University	New York University
Suffolk University	Western Carolina University	University of Pittsburgh
Williams College		Yale University



## Data Collection: Excluded Costs

- Electronic infrastructure. The available data suggests that these costs would not have meaningfully affected the findings.
- Microform. An extremely small component of periodicals collections at all the participating libraries.
- ILL. Although widely expected to be lower for electronic collections, our methodology could not accommodate these activities.
- STM and Law. These collections were omitted at several medium and large schools.



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## Overview of the Data

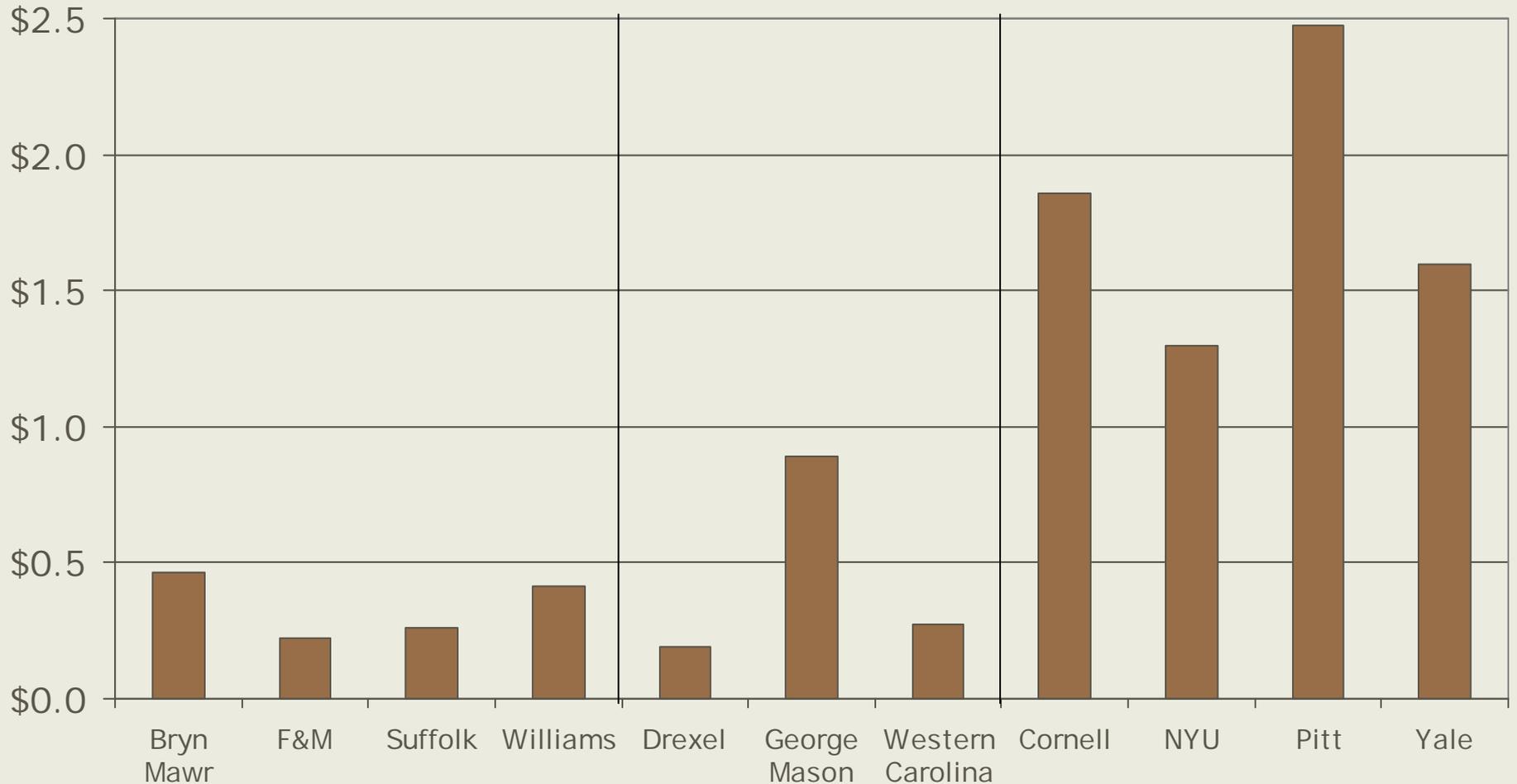


# Overview: Annual Non-Subscription Spending on Periodicals (\$ millions)

Small

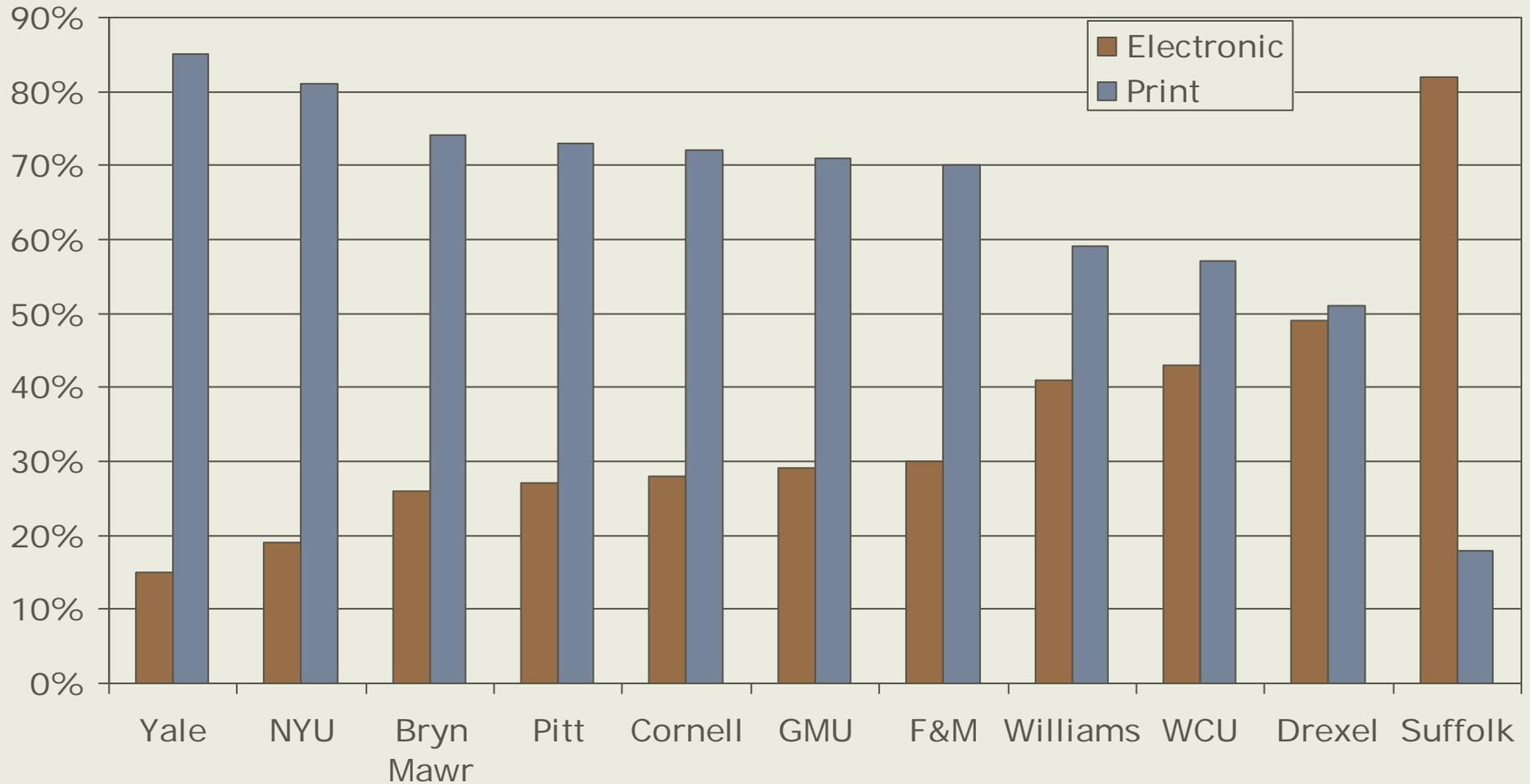
Medium

Large



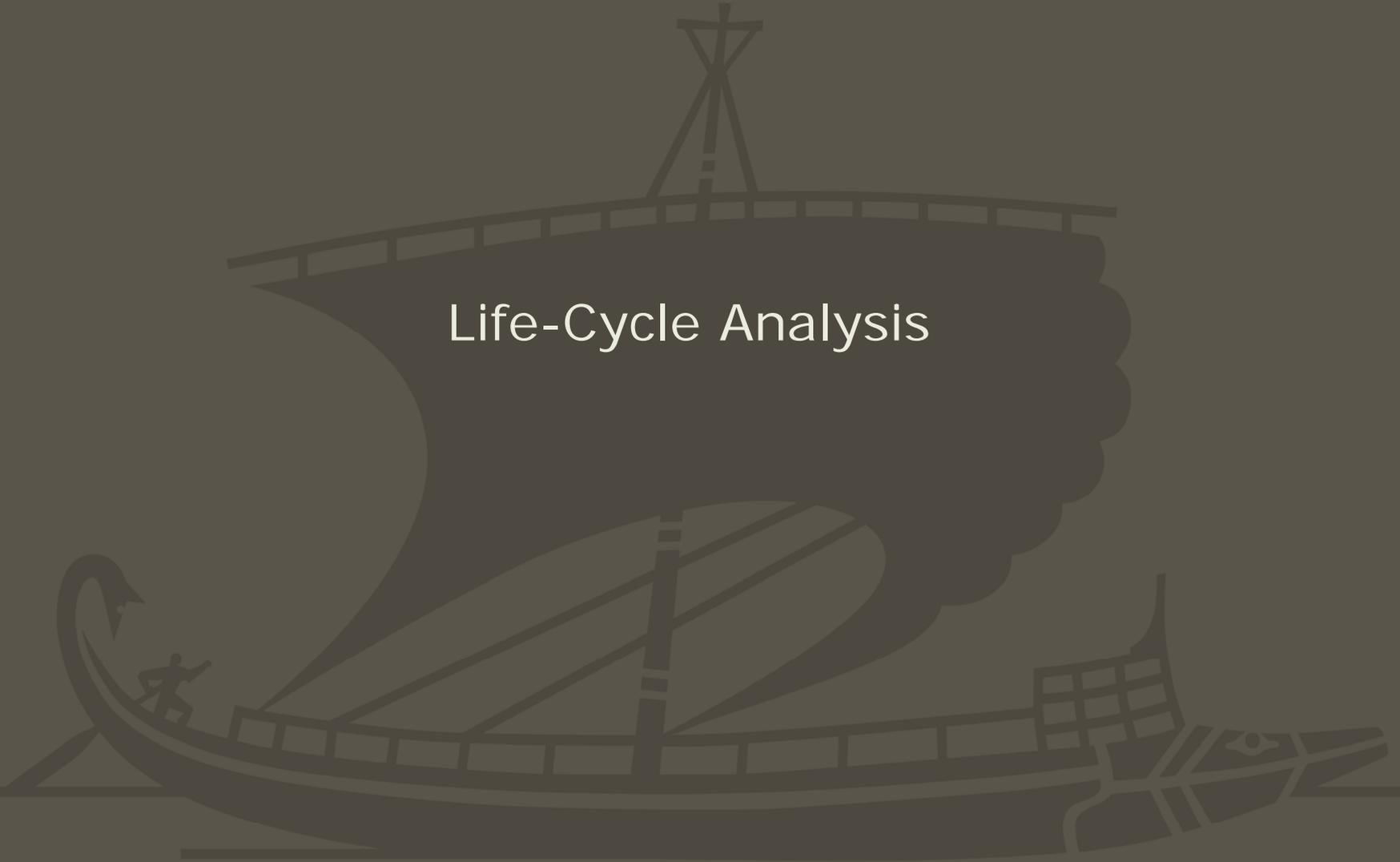
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## Overview: Share of Annual Non-Subscription Budget by Format



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# Life-Cycle Analysis

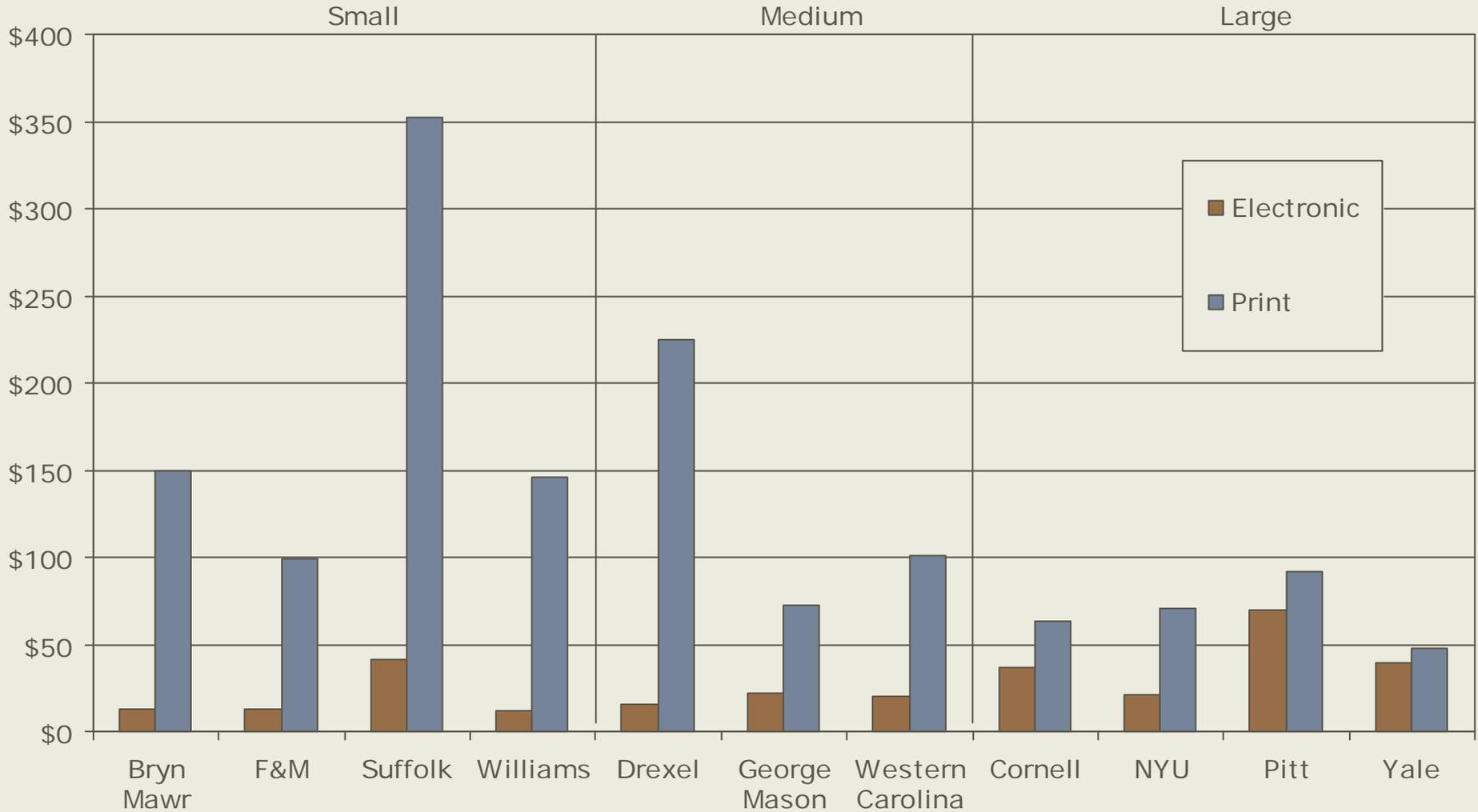


## Life-Cycle Approach: Overview

- Life-Cycle: the long-term financial commitment that a library makes when accessioning one year of a typical periodical
- A “going-forward” model that includes costs associated with “this year’s” collecting decisions, putting to the side the costs of any associated backissue collections
- Per-title costs are grouped into one-time and annually recurring components, then projected over a 25-year period
- Net present value analysis, 5% discount rate



# Life-Cycle Findings: Format Comparison



## Implications: Caveats

- Underestimated print:
  1. STM omitted at several schools
  2. Duplicate subscriptions omitted
  3. Microform omitted
  4. ILL omitted
- Underestimated electronic:
  1. Electronic infrastructure
- Net, we believe this has led us to underestimate print costs and therefore, in the section that follows, to underestimate the potential cost reductions.



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# Modeling Total Costs and the Transition

(Omitting Drexel and Suffolk universities.)



## Model: An Electronic-Only Collection

We model one scenario: a “complete” transition to the electronic format. For titles are currently held in both print and electronic formats, a complete transition will yield a savings on the print format without leading to new costs on the electronic format.

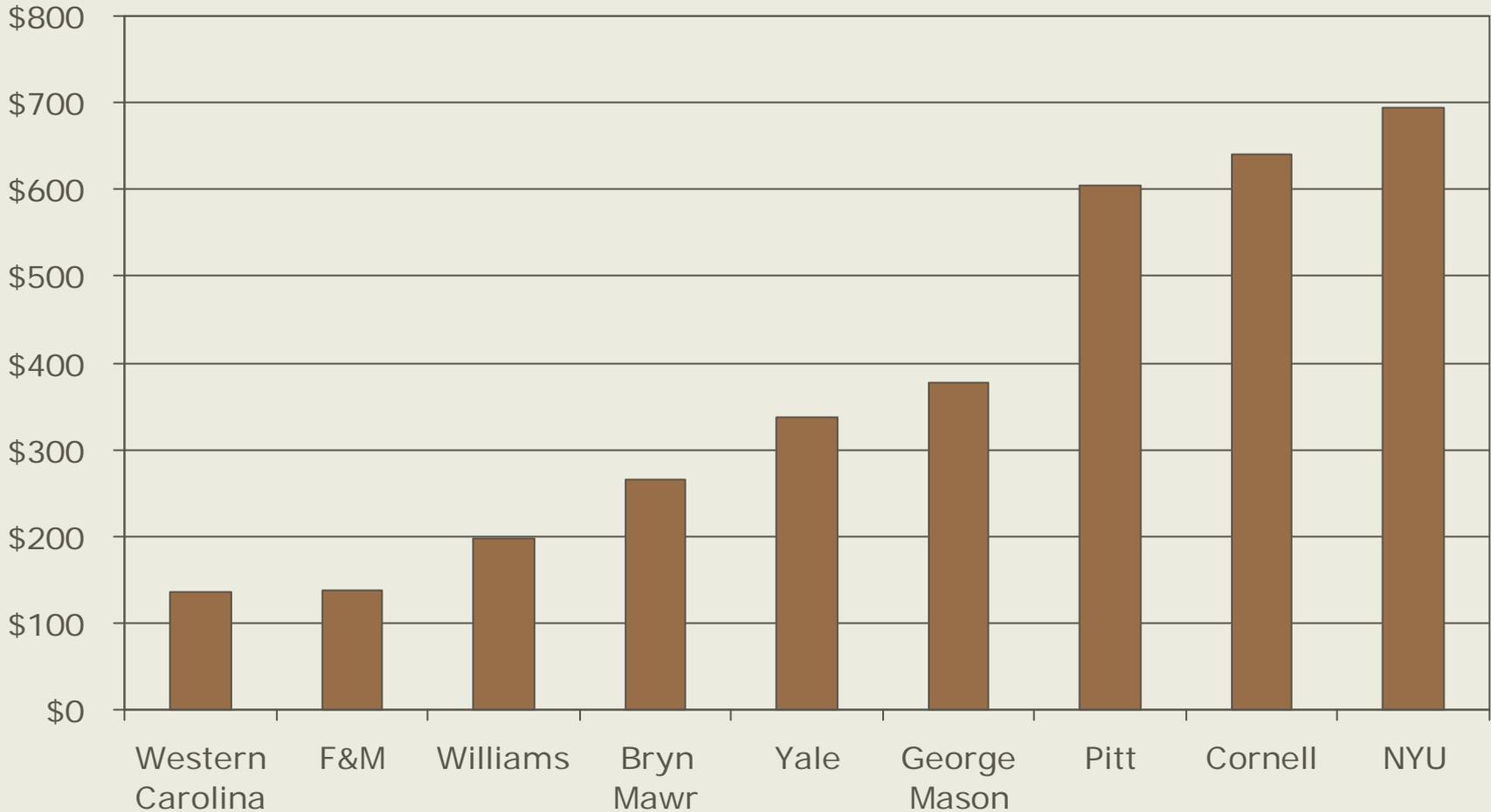
### Assumptions:

- Each existing print title is cancelled
- Each print title that did not previously have a corresponding electronic version is replaced with an electronic title
- At Yale, about 16% of print titles are duplicated in electronic
- At Cornell, NYU, and Pitt, about 30% of print titles are duplicated in electronic
- At all the medium and small institutions, about 50% of print titles are duplicated in electronic



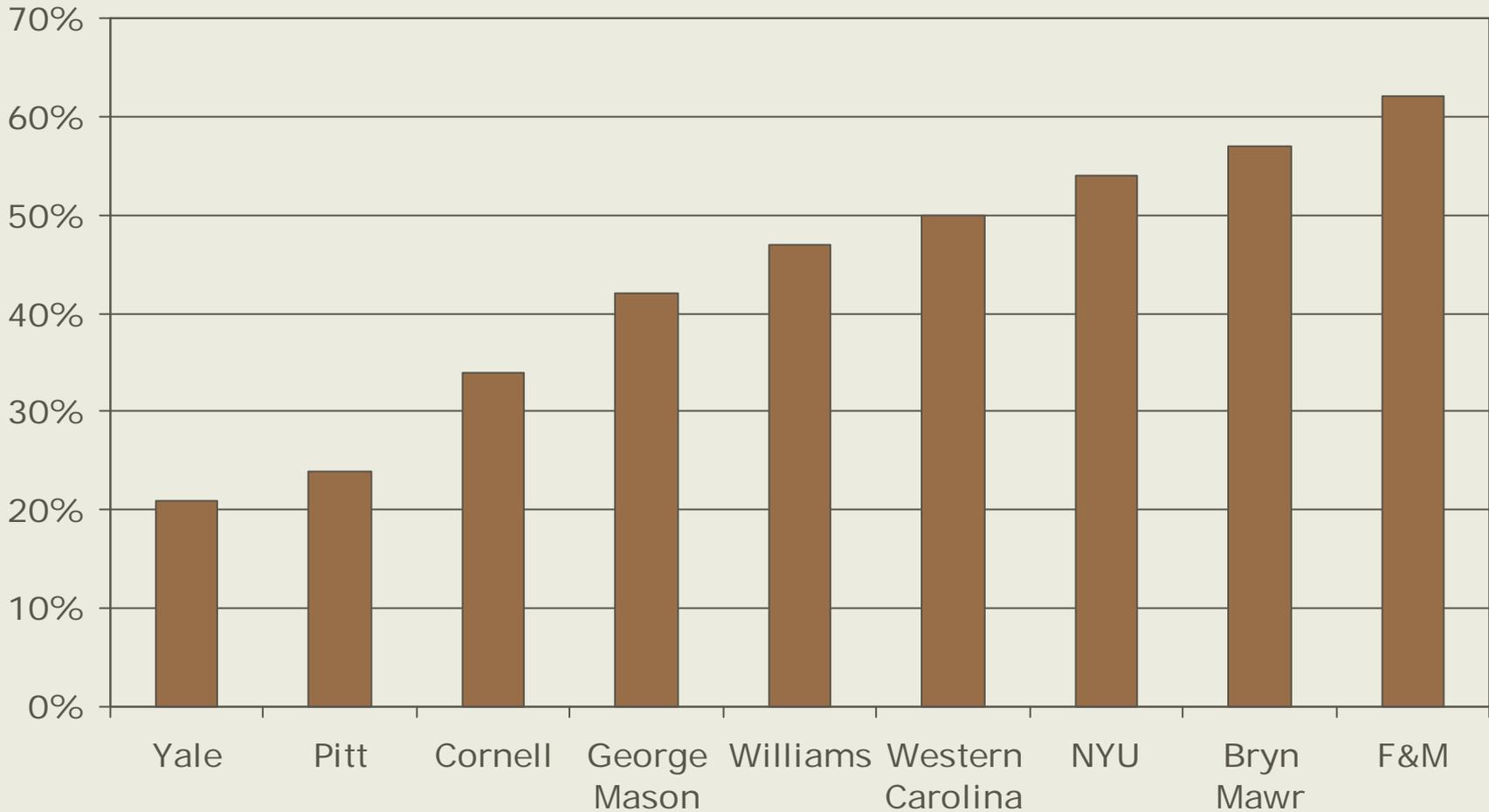
# Implications: Cost Reduction for E-Only Collection

(\$ thousands)



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## Implications: Cost Reduction of a Complete Transition, as % of Total Annual Non-Subscription Costs



## Model: The Transition Path

Transition is already taking place, gradually.

We modeled the effect of a partial transition at the participating libraries.

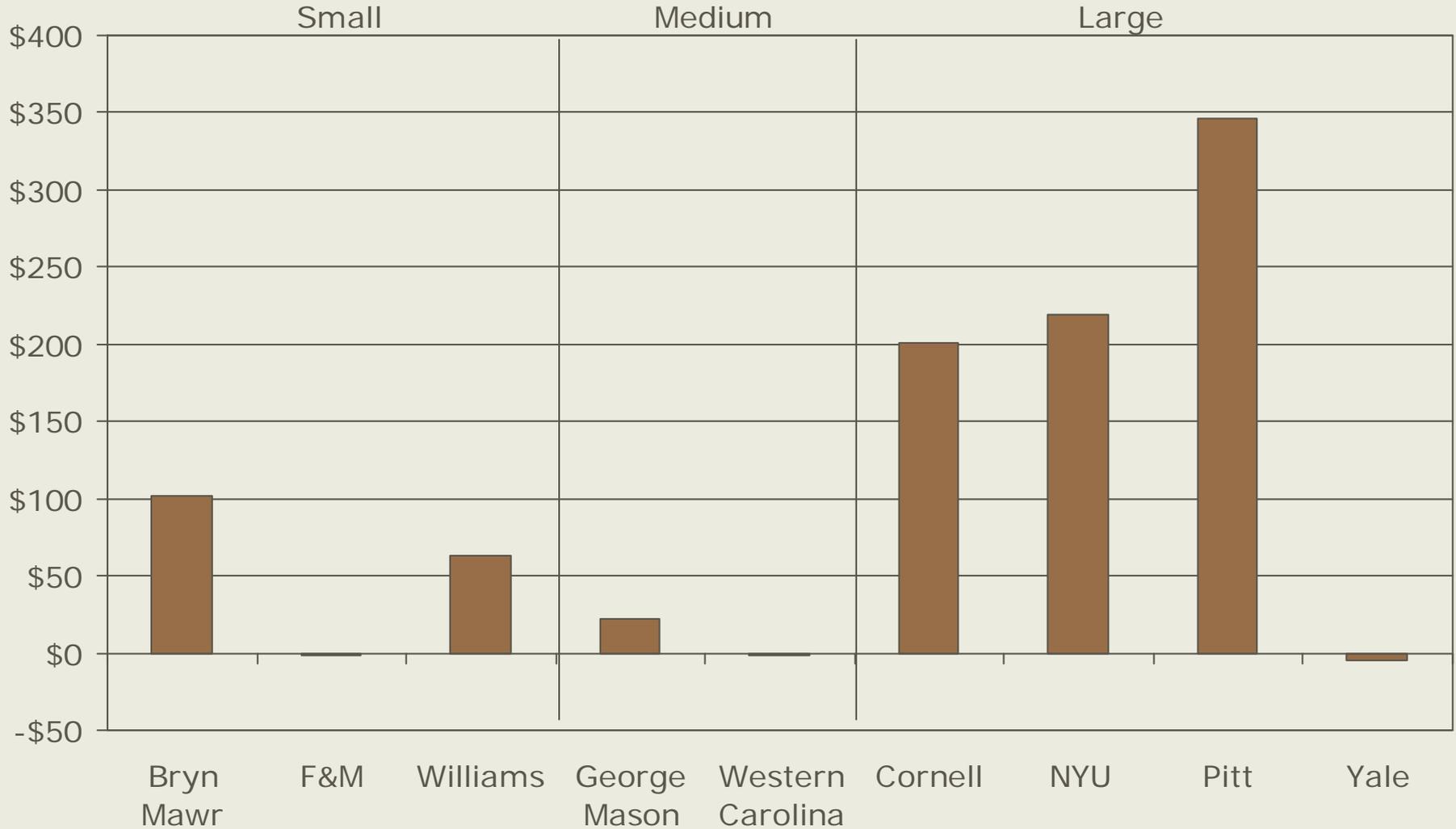
### Assumptions:

- All previous assumptions about print-electronic duplication
- 50% of existing print titles are cancelled
- The share of those cancelled print titles that would not have had corresponding electronic titles are replaced with electronic titles



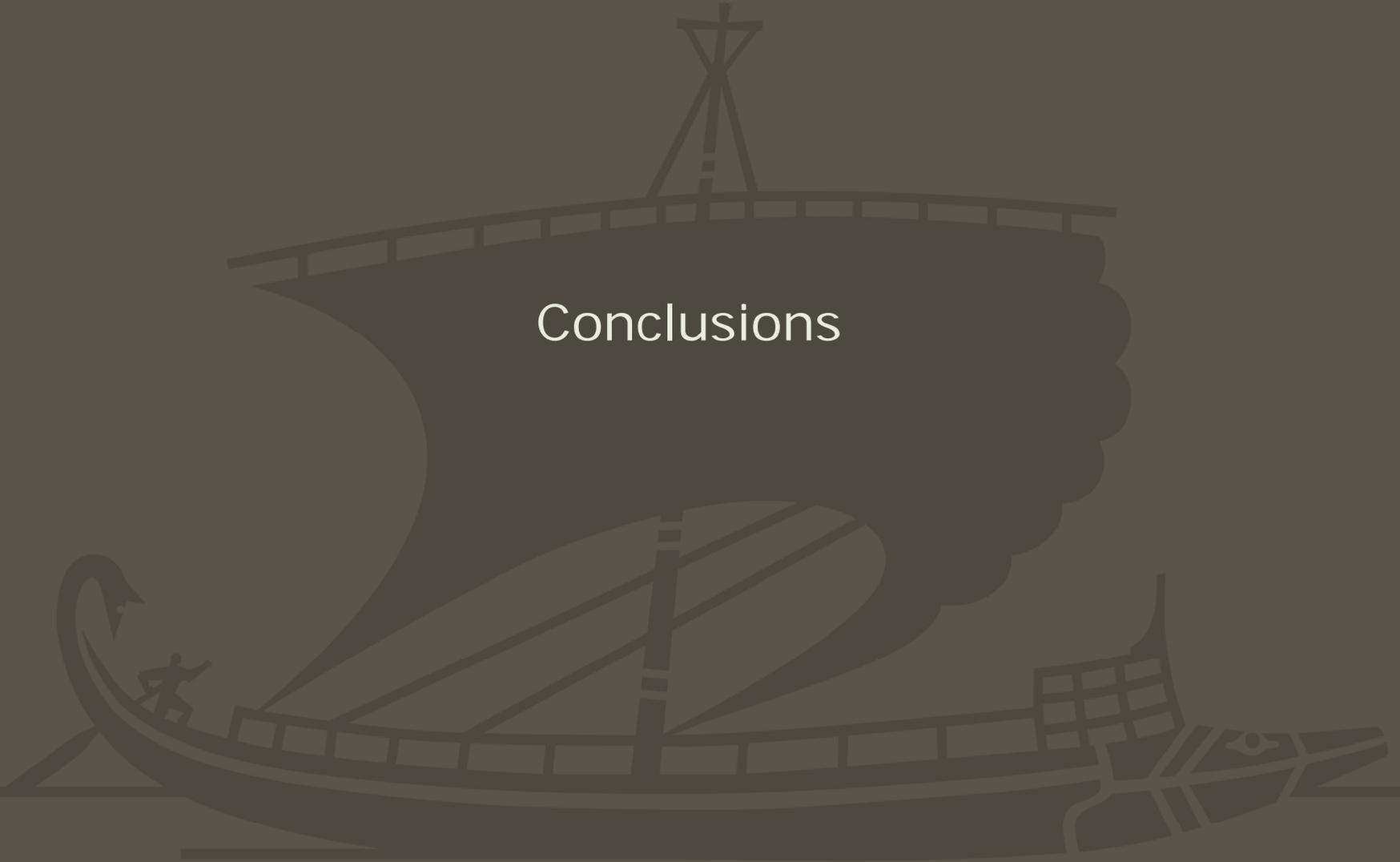
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## Net Savings of a Transition of 50% of the Print Collection to Electronic Format (\$ thousands)



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Conclusions



## Implications: What Else Is Missing?

Electronic archiving.

There is no contribution to archiving of electronic periodicals at any of the participating libraries. These are missing only from the electronic and not from the print format.



## Conclusions

1. Non-subscription unit costs are lower in the electronic format compared with print.
  - As has been widely foreseen, some manual processes can be eliminated.
  - More electronic costs occur earlier in the life-cycle, while more print costs occur later in the life-cycle.



## Conclusions

2. Although there are potential total cost reductions, these are less significant than some have expected.
  - At the larger institutions that have the most print subscriptions, long-standing print operations have already achieved economies of scale.
  - Institutions with smaller print holdings tend to have much larger electronic collections.



## Conclusions

3. The transition path poses complications that deserve consideration.
  - There are managerial challenges associated with maximizing the potential cost advantages of the format transition.
  - Costs may not fall until the transition is nearly complete (and may even rise temporarily at some libraries).
  - How will these complications impact journals that will not offer electronic versions in the foreseeable future?



## Conclusions

4. The potential cost reductions assume no contributions towards electronic archiving.
  - It is important to note that if we value the long-term accessibility of electronic resources, archiving them will somehow have to be paid for.
  - It remains to be seen to what extent any cost reductions might be re-directed towards other purposes, such as electronic archiving.



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