



# Reorganizing the Research Library: *a system-wide perspective*

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**Program Officer, OCLC Research**

- **OCLC Research**
- **(Re) organization of the research library**
  - **Boundaries and service bundles**
  - **Reconfiguring academic collections**
- **System-wide trends: from outside-in to inside-out**
- **The view from the here: Pennsylvania in perspective**

Supports global cooperative by providing internal data and process analyses to *inform enterprise service development* (R&D) and deploying collective research capacity to *deepen public understanding of the evolving library system*

Special focus on libraries in research institutions:

in US, libraries supporting doctoral-level education account for *<20% of academic libraries;>70% of library spending*

*changes in this sector impact library system as a whole;*

collective preservation and access goals, shared infrastructure, &c.

- ~45 FTE with offices in Ohio, California and the UK
- Sponsored by OCLC and a partnership of research libraries around the world that share:
  - A strong motivation to effect *system-wide change*
  - A commitment to *collaboration* as a means of achieving collective gains
  - A desire to *engage internationally*
  - Senior management ready to provide *leadership* within the transnational research library community
  - Deep and rich *collections* and a mandate to make them accessible
  - The *capacity* and the will to contribute

## *Then:*

- ARL set the tone; size matters
- Collections of distinction
- Doing the same, better
- Change is possible

## *Now:*

- Nimble institutions, unburdened by legacy print mandate
- Distinctive purpose
- Transforming the portfolio
- Change is imperative

*A new coalition is needed  
to advance the research library agenda*

# OCCL Research: *current portfolios*



## System-wide Organization

Our objective here is to use our perspective and data to understand, prepare for and help libraries, archives and museums advance through utilizing cooperative models of acquiring, managing and disclosing collections.

[▶ See All the Activities for this Theme](#)

[Research Information Management \(RIM\)](#)

[Mobilizing Unique Materials](#)

[Metadata Support & Management](#)

[Infrastructure & Standards Support](#)

[System-wide Organization](#)

[User Behavior Studies & Synthesis](#)

Research theme addresses “big picture” questions about the *future of libraries in the network environment*; implications for collections, services, institutions embedded in complex networks of collaboration, cooperation and exchange

- Characterization of the *aggregate library resource*  
Collections, services, user behaviors, institutional profiles
- Re-organization of *individual libraries* in network context  
Institutions adapting to changes in system-wide organization
- Re-organization of the *library system* in network context  
‘Multi-institutional’ library framework, collective adaptation

# Defining characteristics of SO activities

- Emphasis on *analytic frameworks and heuristic models* that characterize (academic) library service environment as a whole
- Identifying and interpreting *patterns* in distribution, character, use and value of library resource; implications for future organization of collections and services
- Provides *context for decision-making*, not prescriptive judgments about a single, best course of action
- *Shared understanding* of how network environment is transforming library organization on micro and macro level

## ***Exemplar:***

# **Re-organization of the (individual) library**



- **Boundaries of the Academic Library**
  - Application of economic ‘theory of the firm’ (Coase)
  - Transaction costs determine how services are sourced
  - Framework for thinking about future re-organization of libraries and library services
- **Organization of economic activity within the library**
  - ‘Unbundling’ the library (Singer, Hagel)
  - A shift in focus from back-office processes, routine workflows to customer relationship management, innovation

“An academic library is a bundle of information-related resources and services that a university has chosen to provide internally, rather than transact for with external parties. A crucial factor in determining which resources and services to provide internally, and which to transact for externally, is the prevailing pattern of transaction costs. . . In this way, the *boundaries of the library* are established: the demarcation between the information-related services the university chooses to provide internally, and those that it transacts for externally.

... As the pattern of transaction costs change, so too will the *boundaries of the library* as the optimal mix between internalized and externalized services shifts accordingly.”

## Externalization of ‘core business’ operations:

that plan, Pitt became the first research library in the nation to outsource the cataloging function, using off-campus business vendors to manage, label, and inventory library material.

## From infrastructure to customer relationship management:

“We began to adapt modern business principles,” he says. “When you do that, customer quality is more important than other things. We redefined the word ‘quality.’ It no longer meant perfect cataloging.”

## A new emphasis on innovation and moving ‘into the flow’:

begin to reshape library services and functions around the way people work, study, teach, and live—saving \$1 million in the process by shifting money out of cataloging and into technology services. This laid the groundwork for future innovation.

# Exemplar: Re-organization of library system



- Externalization of print repository function facilitates redirection of institutional resources; new scholarly record
- Cloud Library analysis (OCLC, Hathi, NYU, ReCAP)
  - Case study in *de-composition of library service bundle*: “cloud sourcing” research collections
  - Data-mining Hathi and WorldCat to determine where cost-effective reductions in print inventory can be achieved for *individual libraries* (micro economic context)
  - Characterizing optimal service profile for shared print/digital service providers; *collective market* for service (macro economic context)
  - Exploring *social and economic infrastructure requirements*; technical infrastructure a separate, secondary challenge

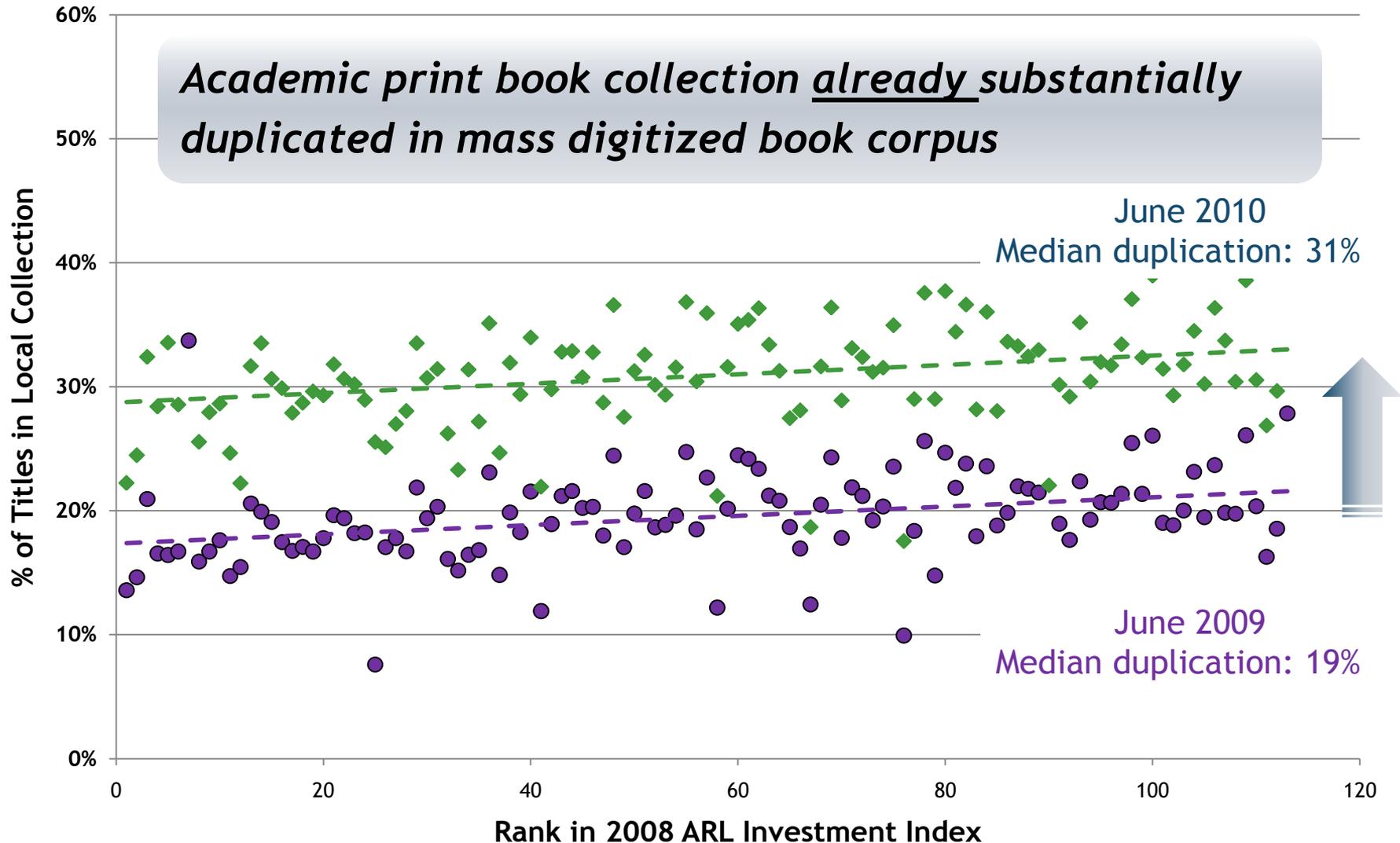
Within the next 5-10 years, focus of shared print archiving and service provision will shift to monographic collections

- *large scale service hubs* will provide low-cost print management on a subscription basis;
- *reducing local expenditure* on print operations, *releasing space* for new uses and facilitating a *redirection of library resources*;
- enabling *rationalization of aggregate print collection* and *renovation of library service portfolio*

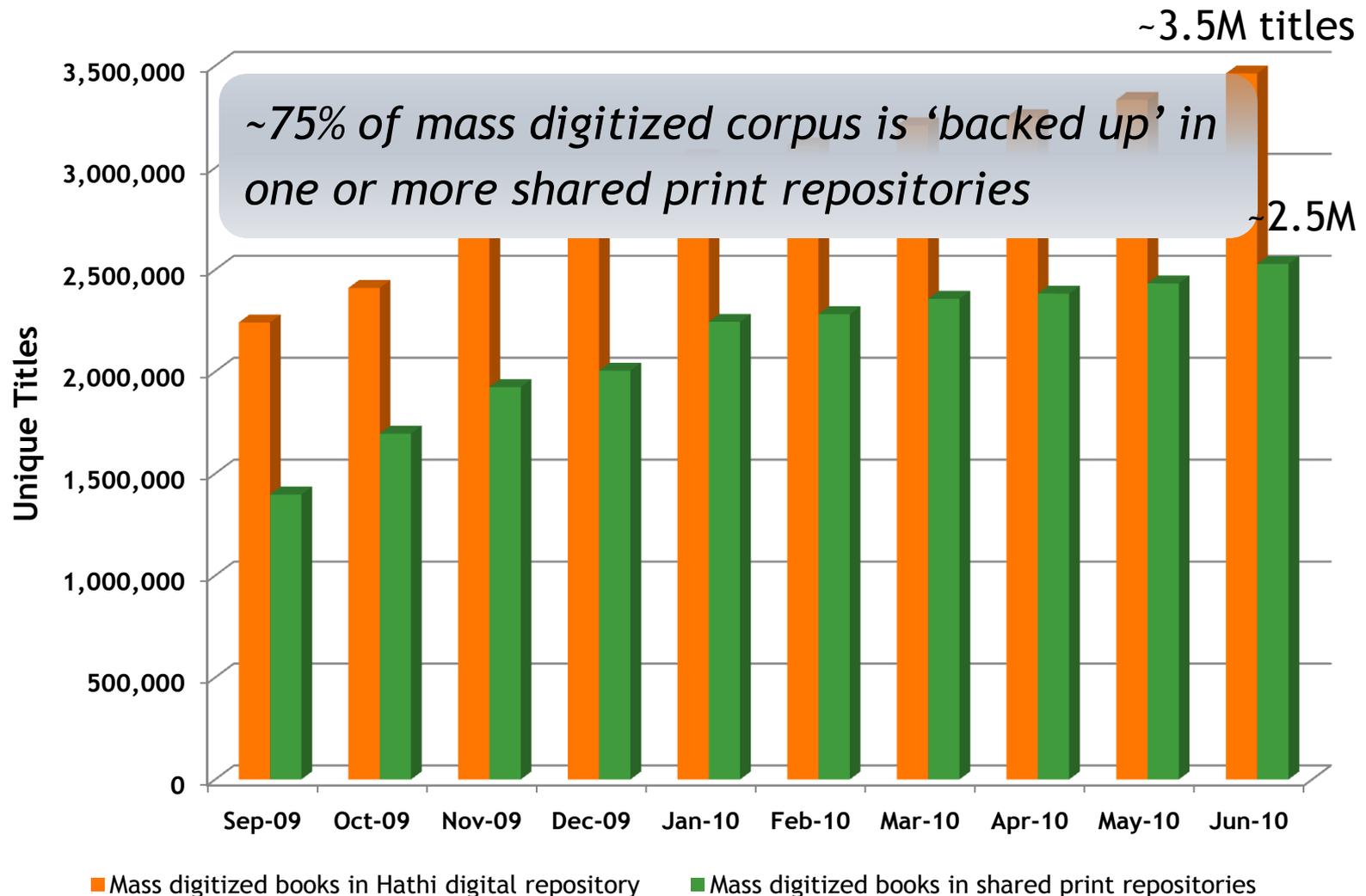
Mass digitization of retrospective print collections will drive this transition

# A global change in the library environment

*Academic print book collection already substantially duplicated in mass digitized book corpus*



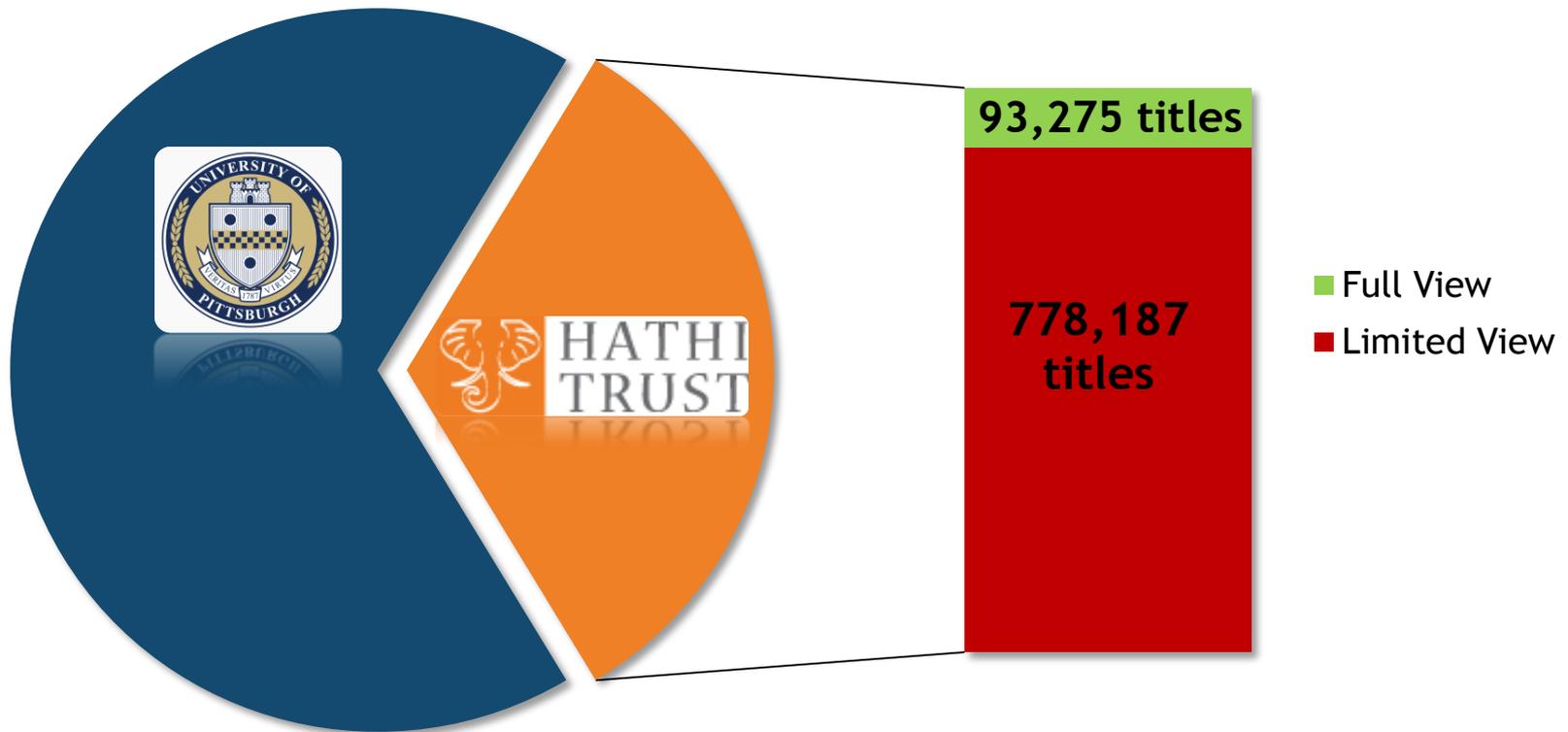
# Mass-digitized books in print repositories



# A third of titles held in Pitt Libraries are duplicated in the HathiTrust Digital Library

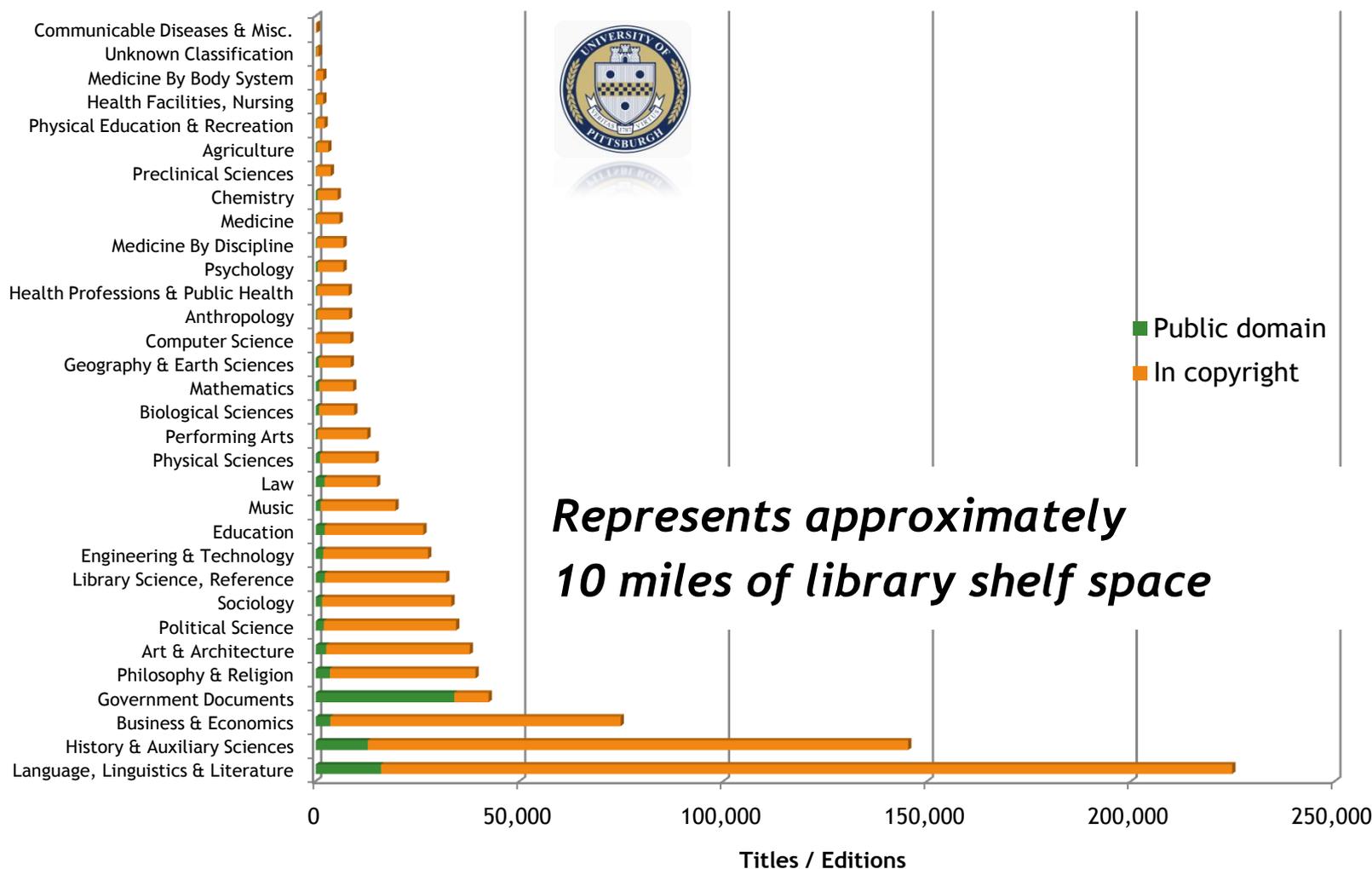


~2.67 million Pitt ULS (PIT) holdings in WorldCat

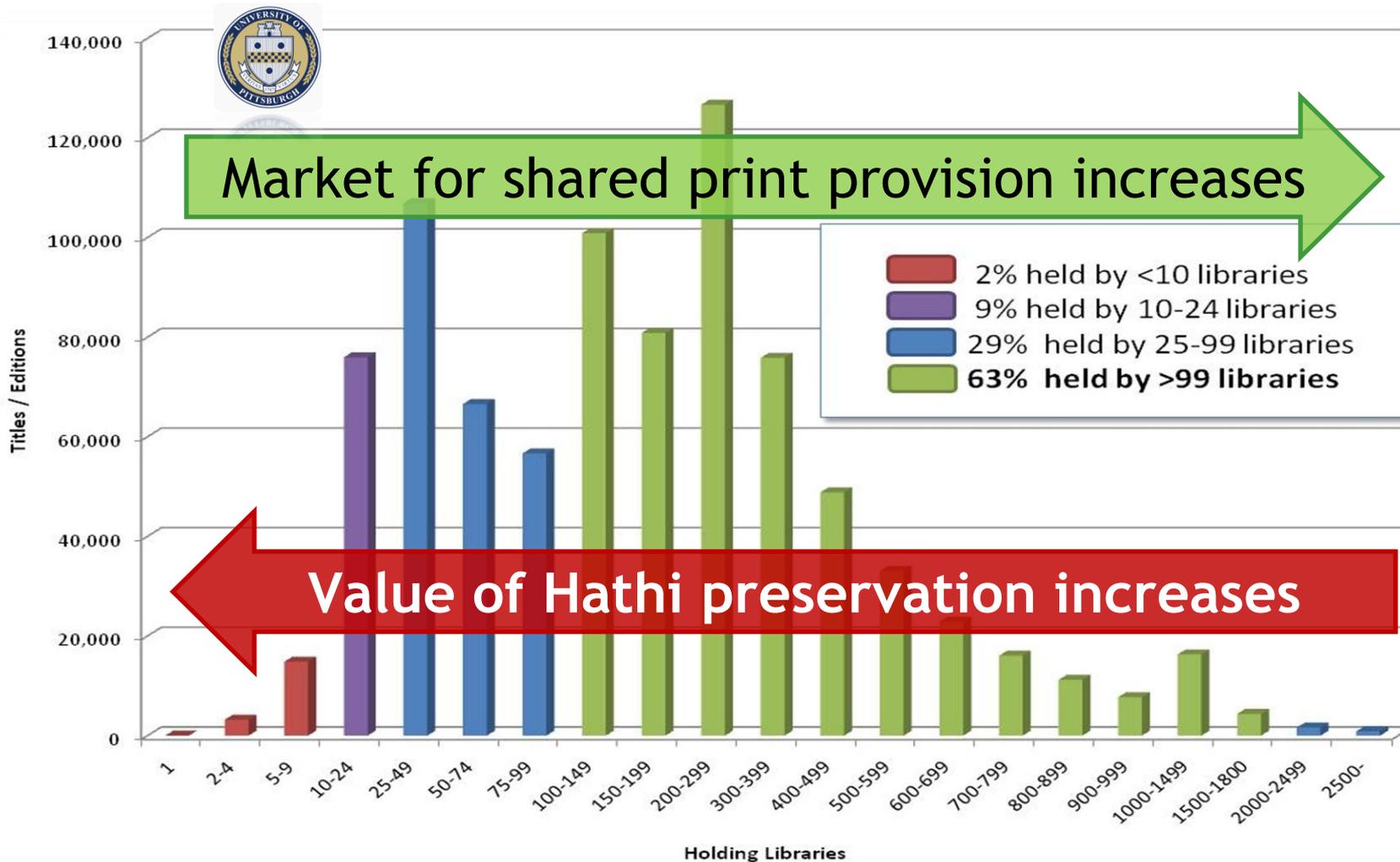


~870K duplicated in HathiTrust Digital Library

# Subject distribution of Pitt ULS-owned titles duplicated in HathiTrust Digital Library



# System-wide print distribution of Pitt ULS titles duplicated in HathiTrust Digital Library



# Stewardship and sustainability: a pragmatic view



Using recent life-cycle adjusted cost model\* for library print collections,

\$4.25 per volume per year --- on campus

\$ .86 per volume per year -- in high-density storage

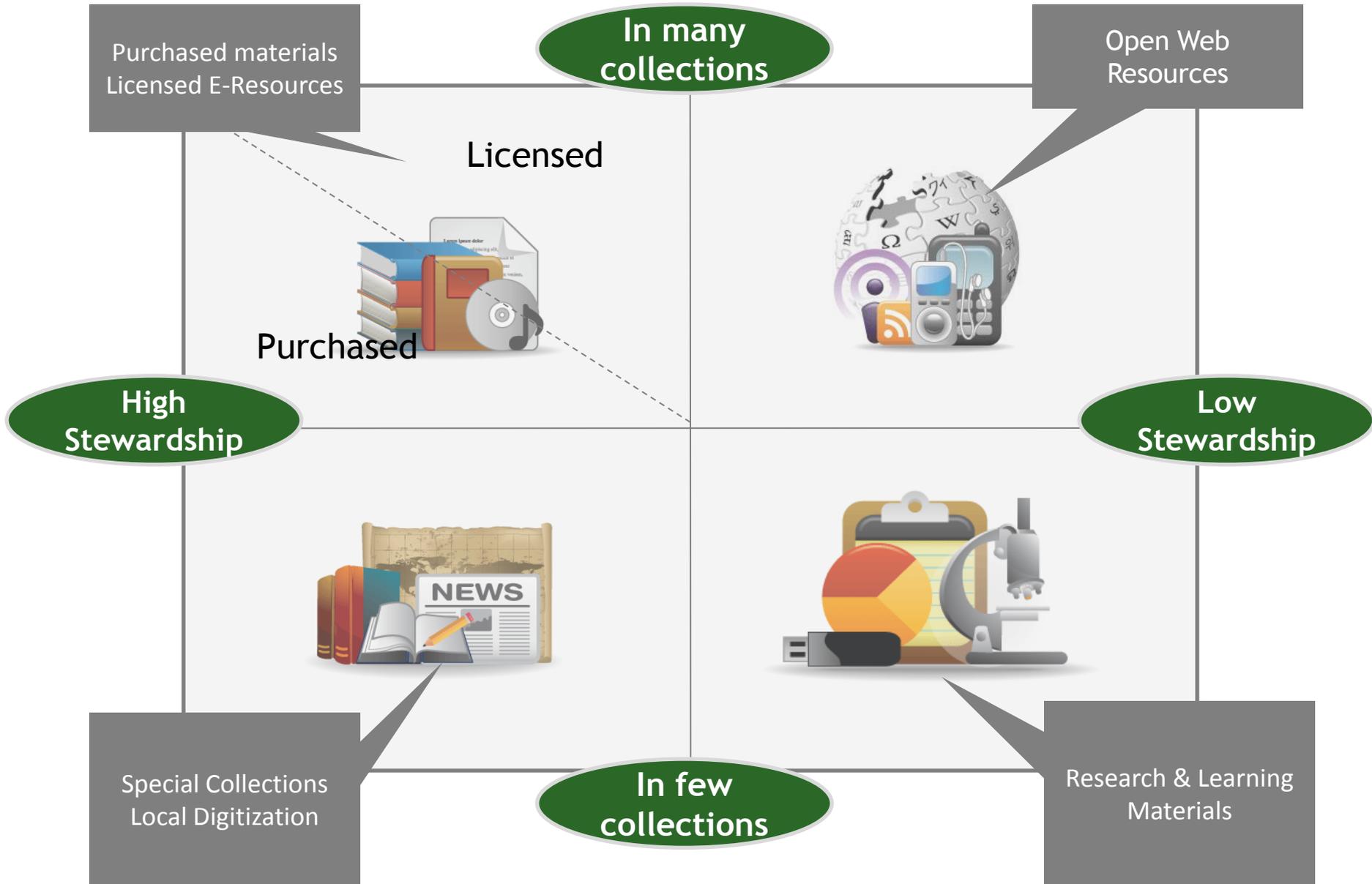
the University of Pittsburgh is spending between

[870K titles \* \$.86 =] **\$750K to \$3.7M** [= 870K titles \* \$4.25 ] **annually**

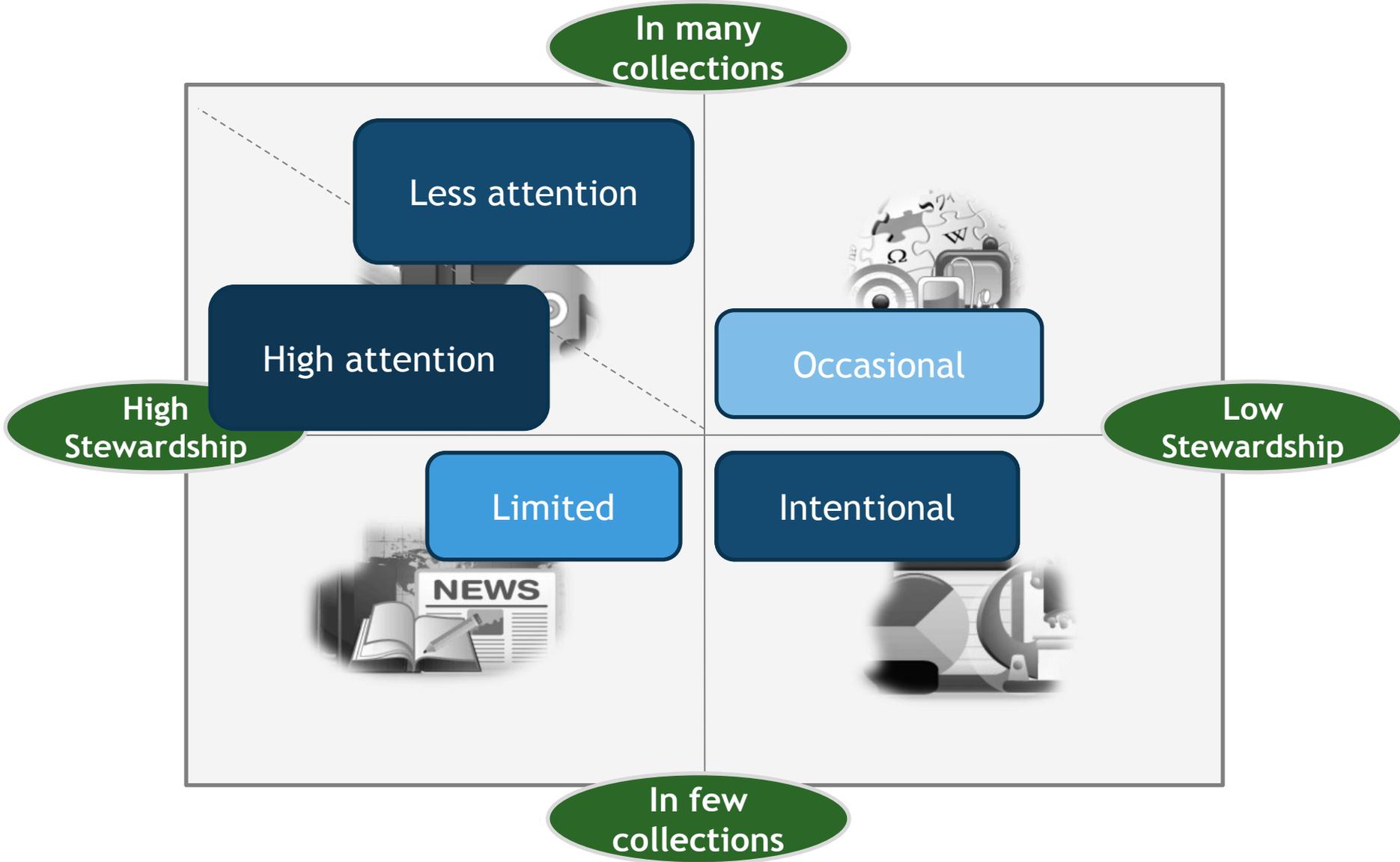
to retain local copies of content preserved in the HathiTrust Digital Library

***The library is not financially accountable for these costs  
but it is responsible for managing them***

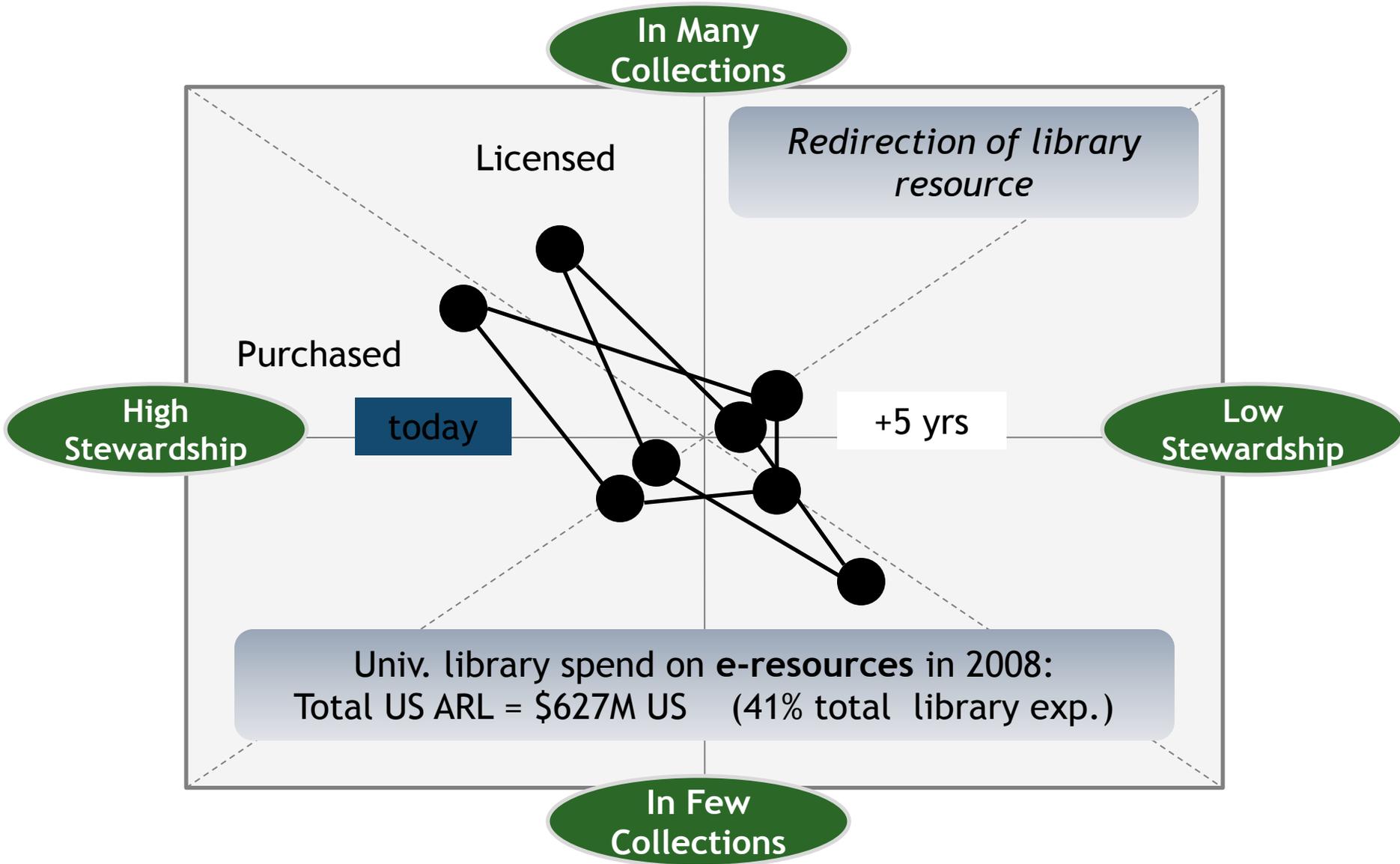
# Collections Grid



# Library attention and investment are shifting



# Academic institutions are driving this change



# Change in Academic Collections



- **Shift to licensed electronic content is accelerating**
  - Research journals - a well established trend
  - Scholarly monographs - in progress
- **Print collections delivering less (and less) value at great (and growing) cost**
  - Est. \$4.25 US per volume *per year* for on-site collections
  - Library purchasing power decreasing as per-unit cost rises
- **Special collections marginal to educational mandate at many institutions**
  - Costly to manage, not (always) integral to teaching, learning

# An Equal and Opposite Reaction



As an increasing share of library spending is directed toward licensed content . . .

Pressure on print management costs increases

Fewer institutions to uphold preservation mandate

Stewardship roles must be reassessed

Shared service requirements will change

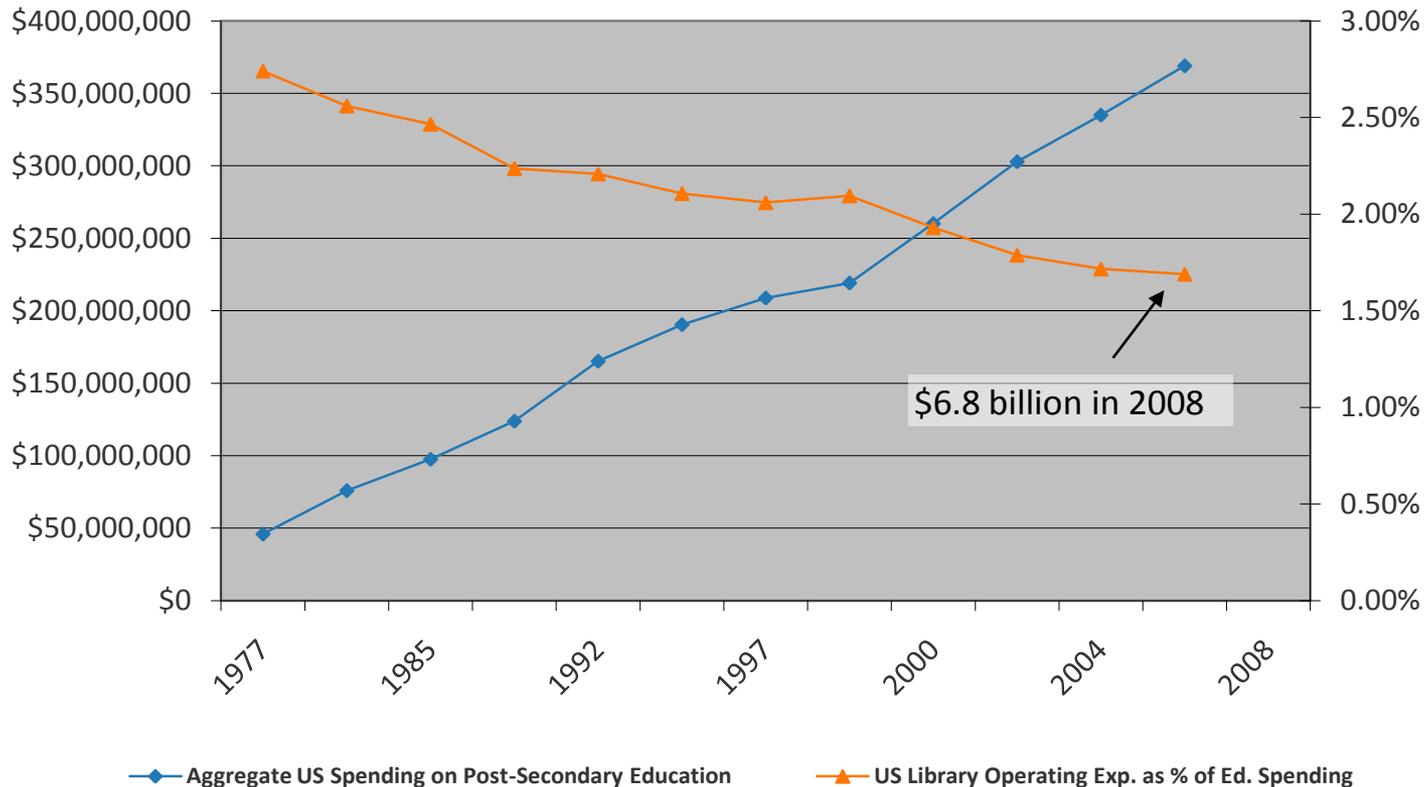
# What factors are driving this change?



- **Erosion of library value proposition in academic sector**  
*institutional reputation no longer determined (or even substantially influenced) by scope, scale of local print collection*
- **Changing nature of scholarly record**  
*research, teaching and learning embedded in larger social and technological networks; new set of curation challenges for libraries*
- **Format transition; mass digitization of legacy print**  
*Web-scale discoverability has fundamentally changed research practices; local collections no longer the center of attention*

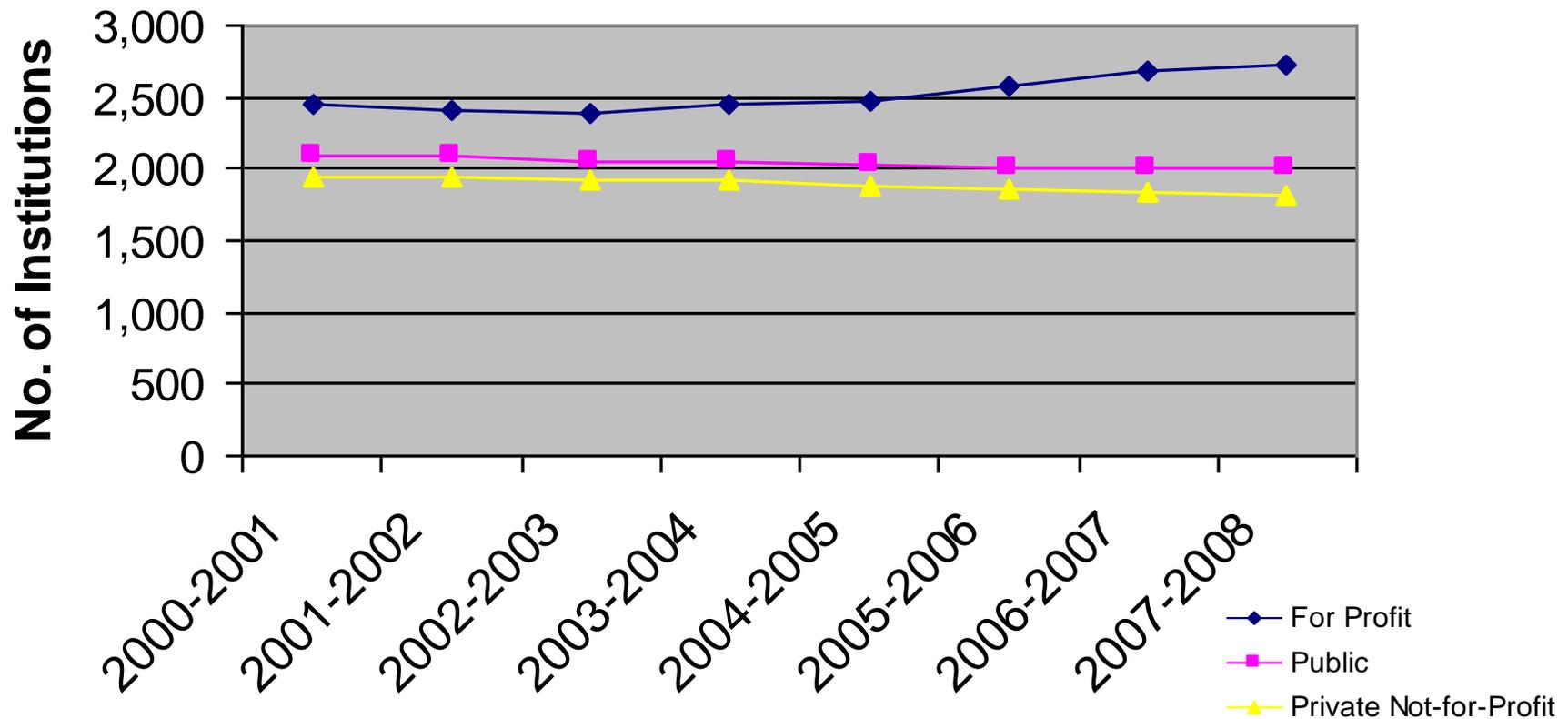
# A long term, system-wide trend

## US Academic Library Expenditures vs. Total Spending on Post-Secondary Education



# Shift in provision of higher education

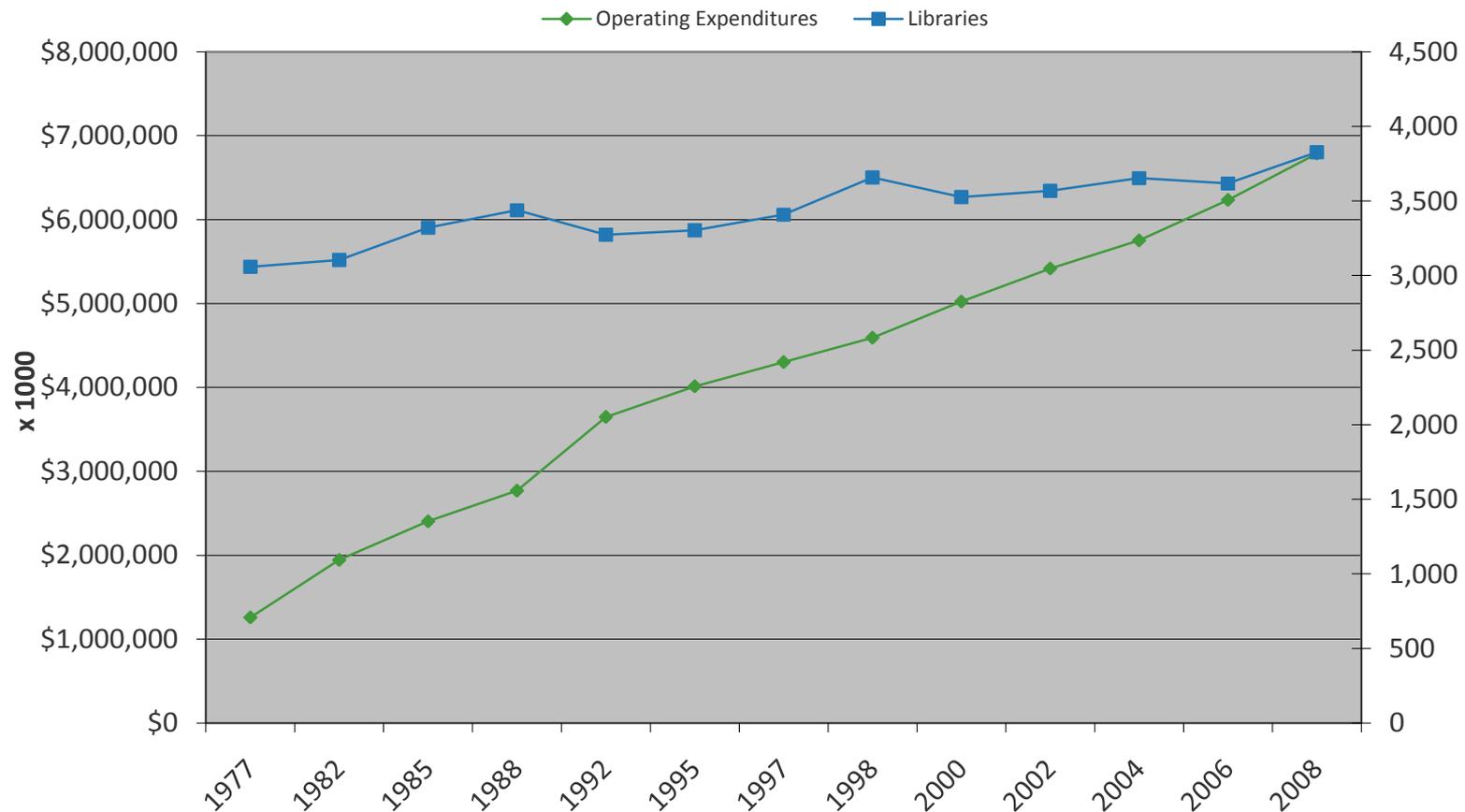
Distribution of Post-Secondary Educational Institutions  
in the United States by Source of Funding



# A limited population, growing economic pressure

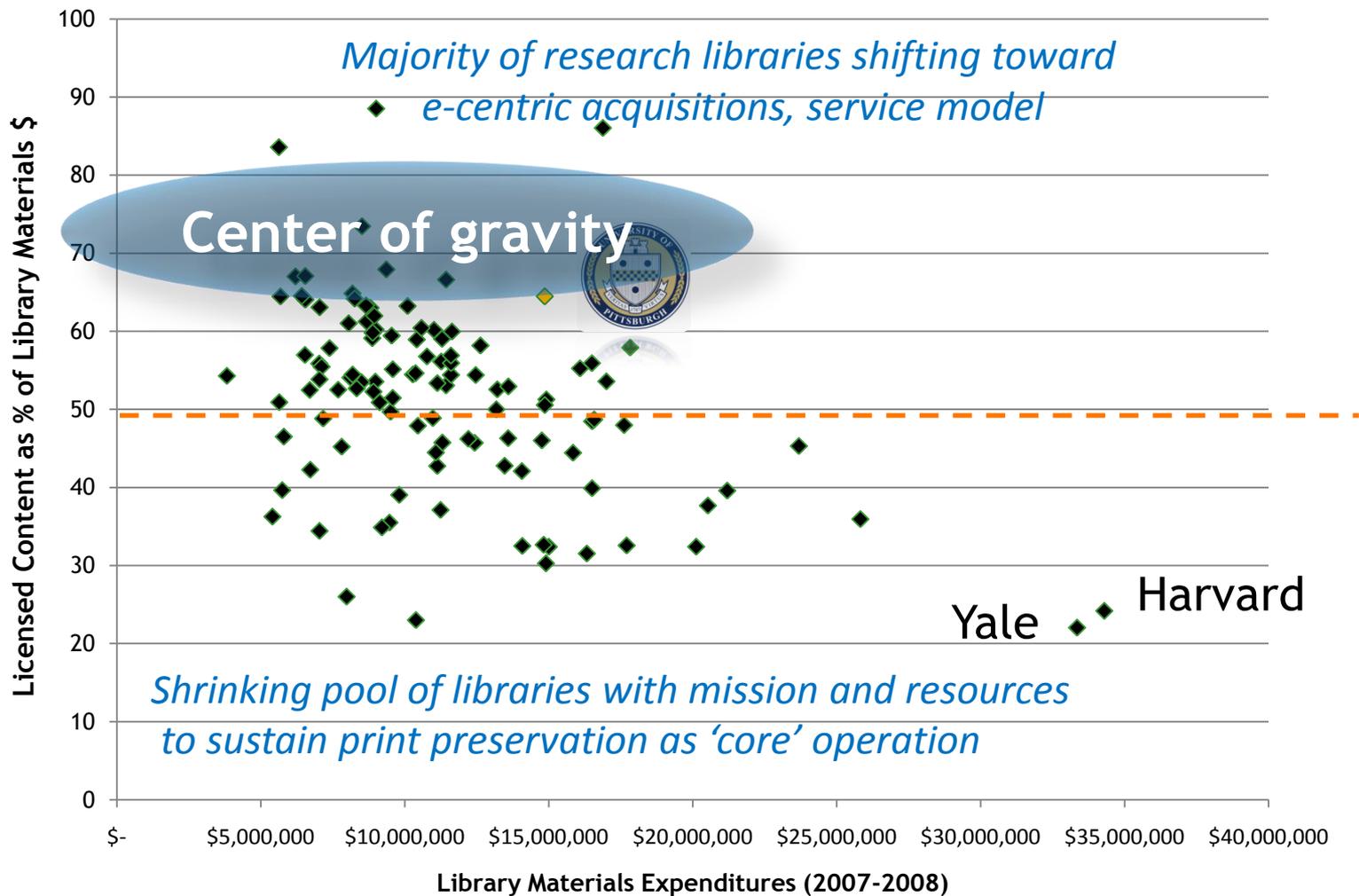


## US Academic Libraries & Operating Expenditures 1977-2008

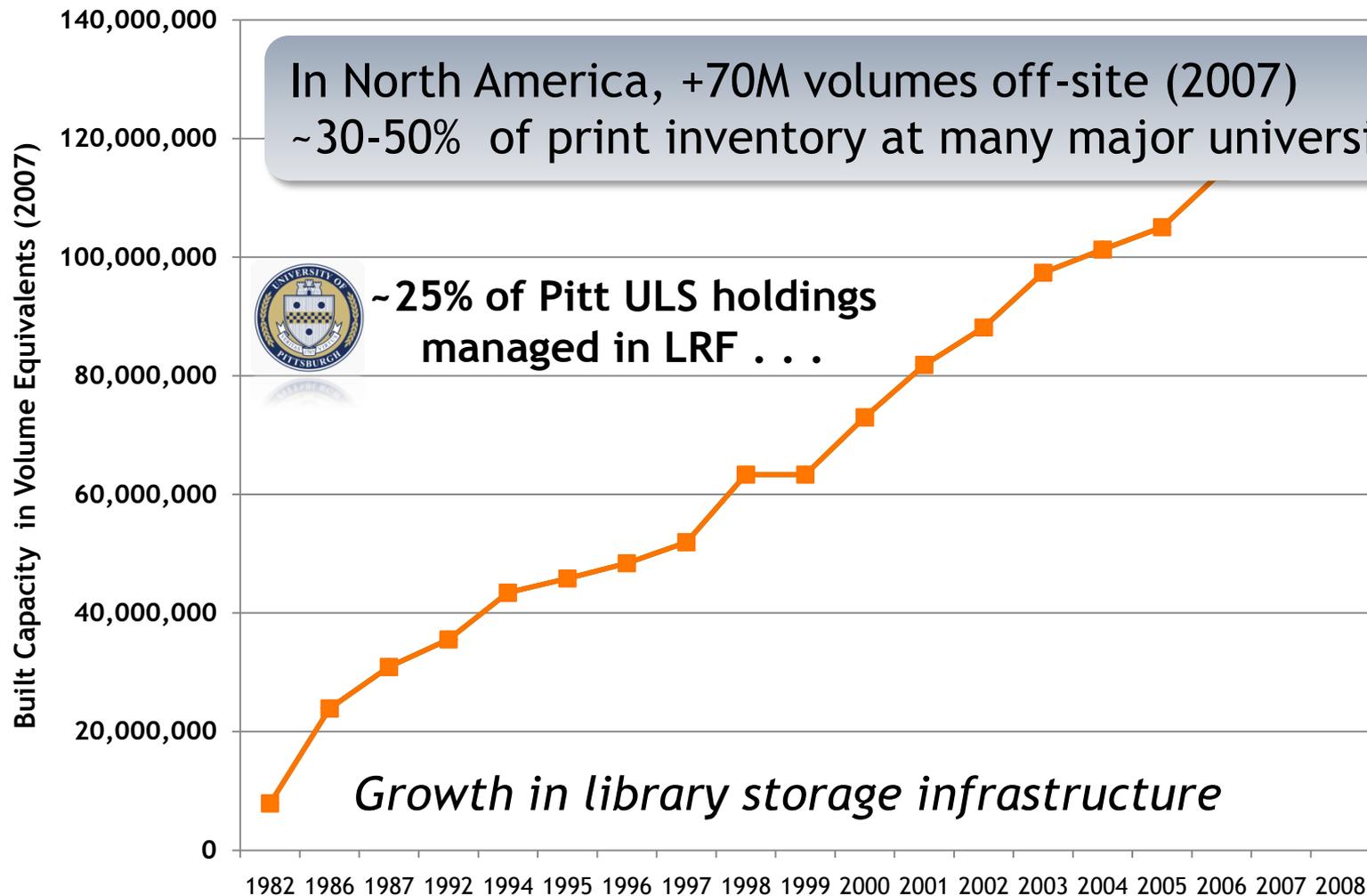


OCLC Research. Derived from data reported in *NCES Digest of Education Statistics: 2008*.

# In US research libraries, a tipping point ...



# ... the books have left the building



# It's not about space, but priorities



- If the physical proximity of print collections had a demonstrable impact on researcher productivity, *no university would hesitate to allocate prime real estate to library stacks*
- In a world where print was the primary medium of scholarly communication, a large local inventory was a hallmark of *academic reputation*

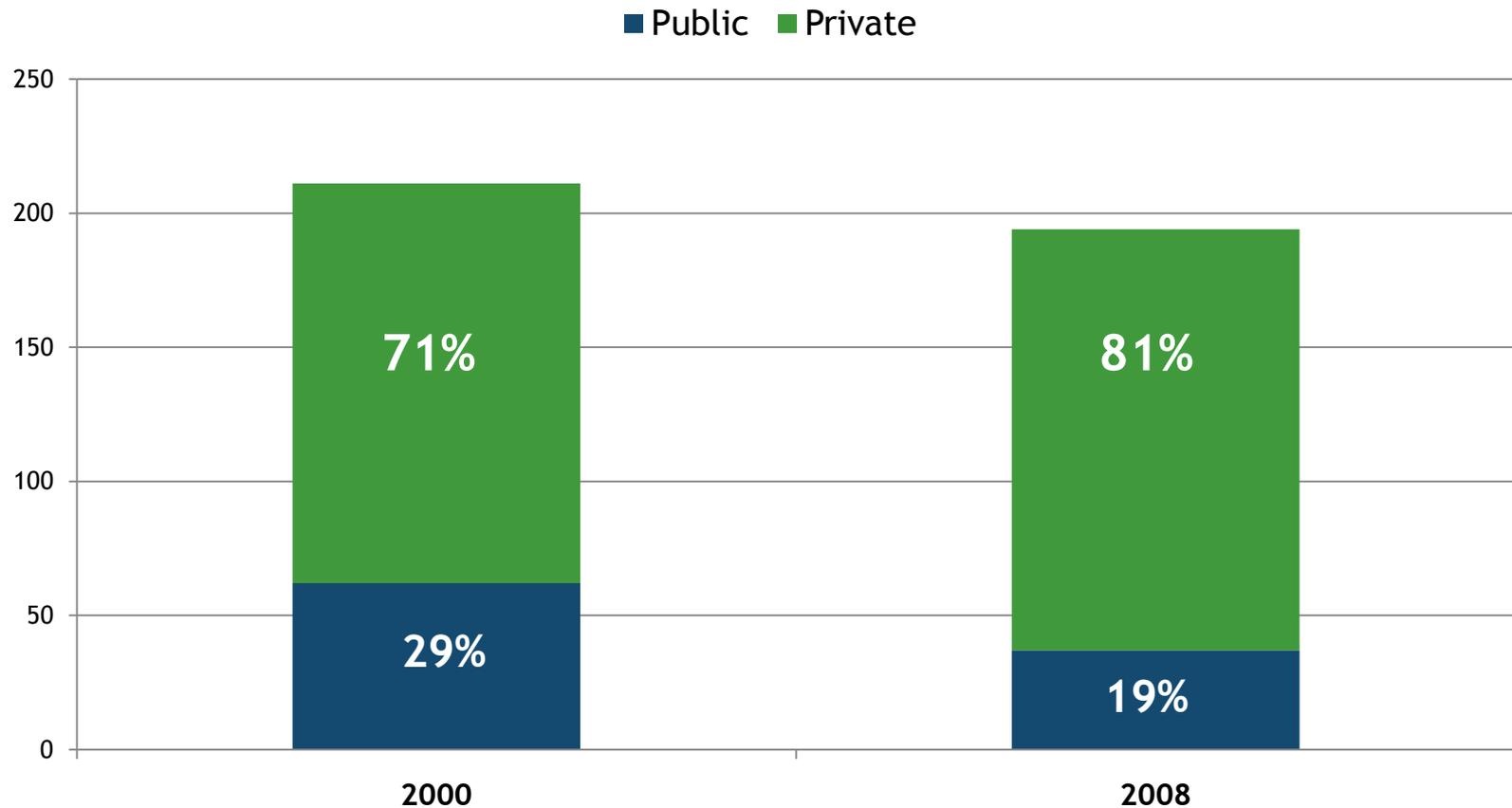
We no longer live in that world.

- 6<sup>th</sup> largest economy in the US; 18<sup>th</sup> in the world
- GSP \$553 billion in 2008
- 194 academic libraries in 2008
  - 5% of all academic libraries in the US
  - 4 AAU members (PSU, Penn, Pitt, CMU)
- Total academic library spending in 2000: \$245 million; est. \$343 million in 2008, or **%.06 of GSP**

# Shrinking public purse

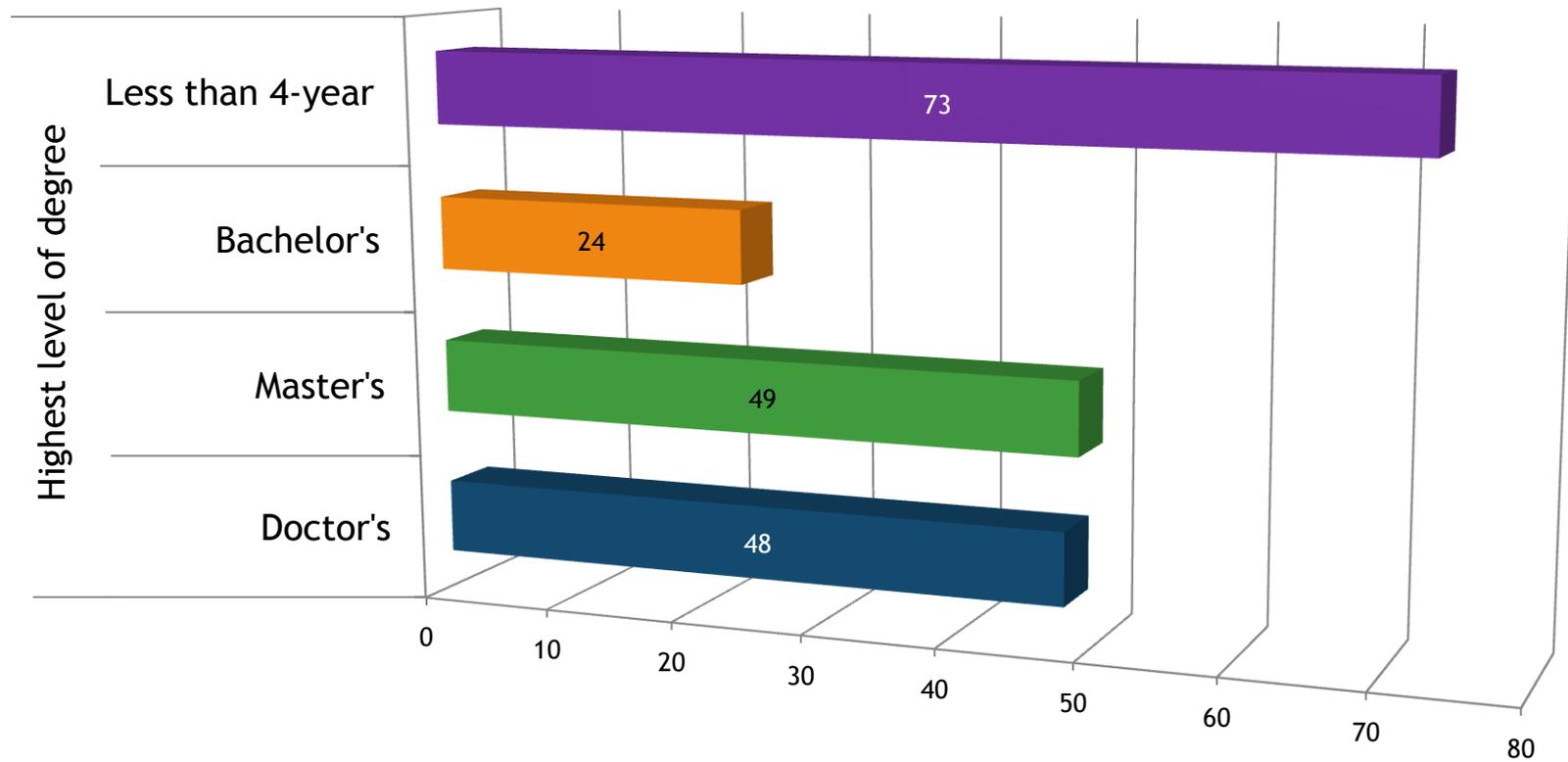


## Academic Libraries in Pennsylvania by Control & Funding

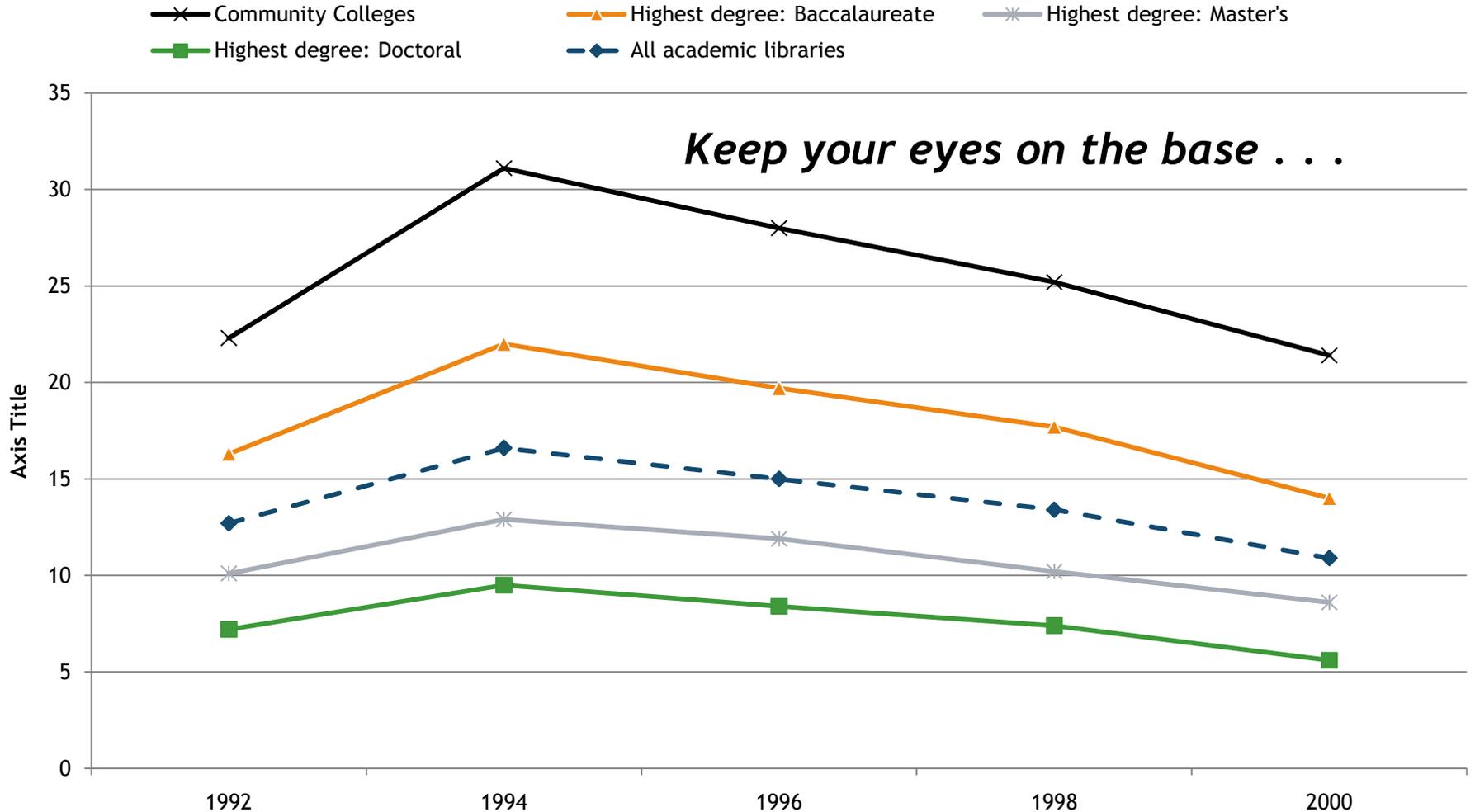


# Diversity of educational mandates

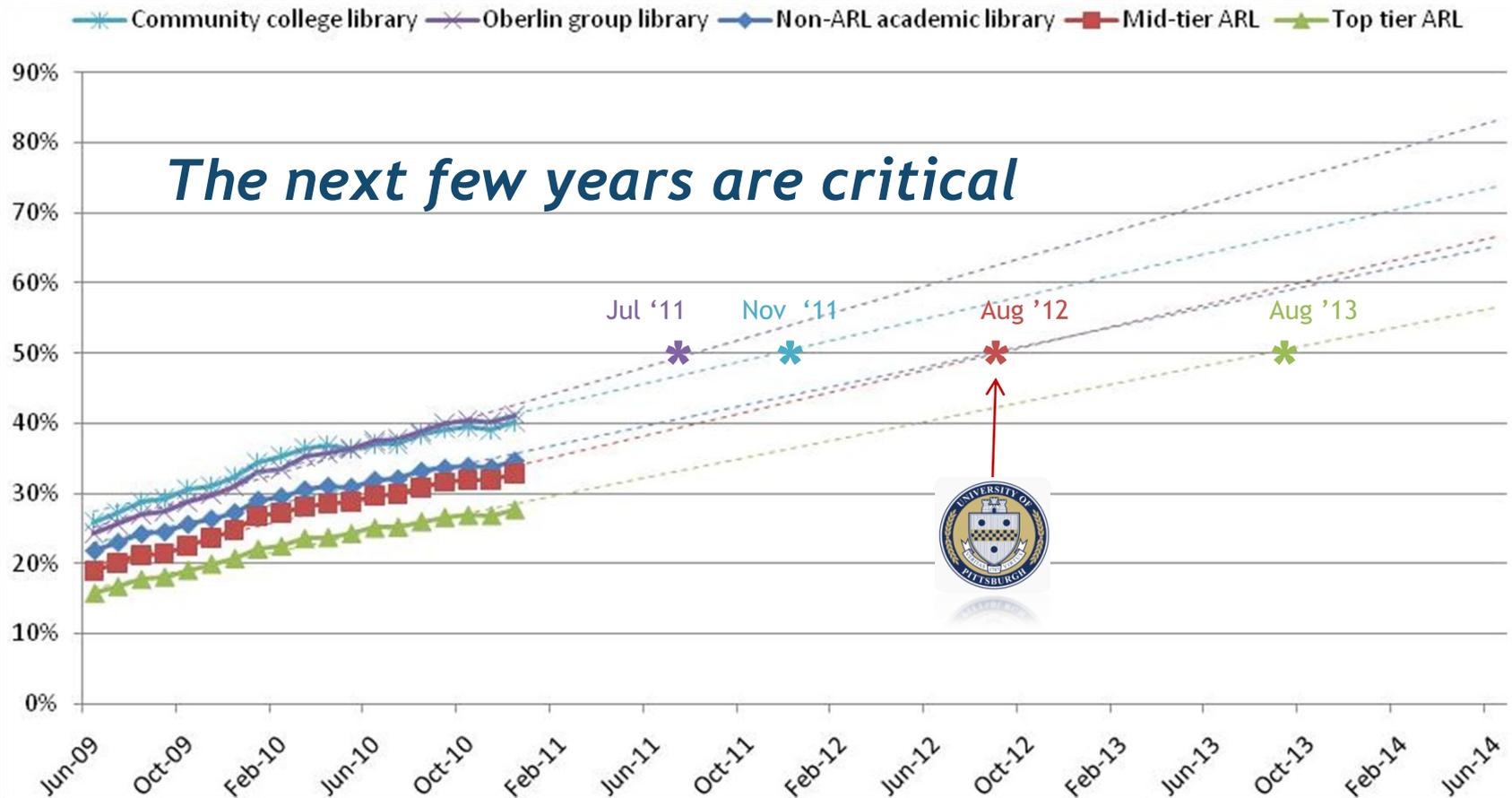
## Academic Libraries in Pennsylvania



# Declining use of print by academic sector



# Academic libraries in the Keystone State: a common trajectory, different timelines



# Academic print: it's not the end . . .



*but it's no longer the means*

Ongoing redefinition of scholarly  
function and value of print

will entail some loss

and some gain in library relevance

**"Archive of the available past" photograph by Joguldi.**

Abandoned books at the Detroit Central  
School Book Depository (6 May 2009) Flickr

**Thanks for your attention.**

**Comments, Questions?**

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