A National Study of Capital Infrastructure and Deferred Maintenance in Schools of Agriculture Facilities

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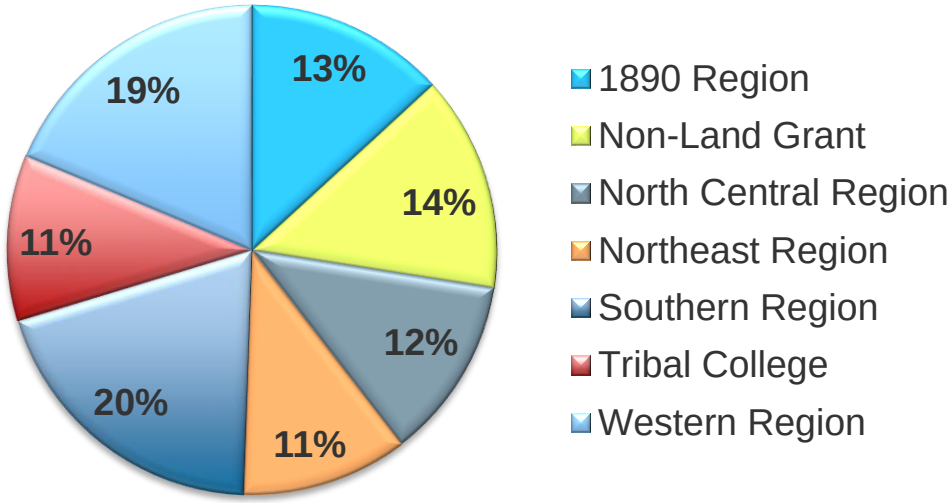
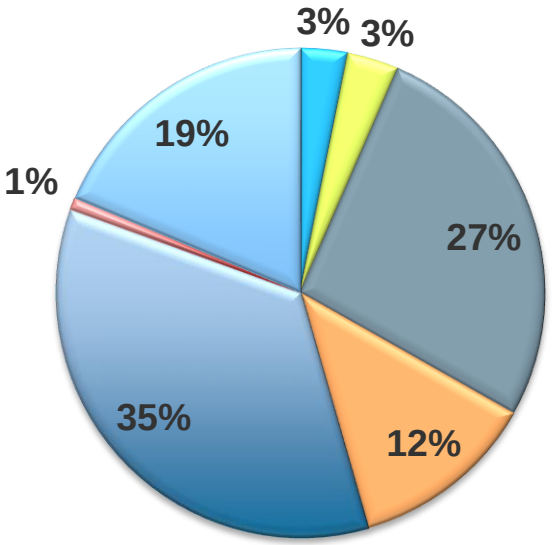
Breakdown of Survey Responses

Category	Response
Campuses	91
Buildings	15,596
Gross Square Feet	87.7 Million
Est. CRV	$28.9 Billion

Campuses Responding by Region



GSF Responding by Region



Key Findings of the Study

1. **The level of deferred maintenance identified is significant and conditions exists for it to continues to grow.**

2. **There are three main areas identified that are contributing to the growth of deferred maintenance:**
    1. *The majority of space was constructed during a period of rapid, poor quality construction.*
    2. *Most buildings have received insufficient capital investments as they have aged.*
    3. *80% of campuses are investing at such a low level that deferred maintenance will grow annually.*

3. **These conditions are consistent across the country.**

Drivers of Deferred Maintenance

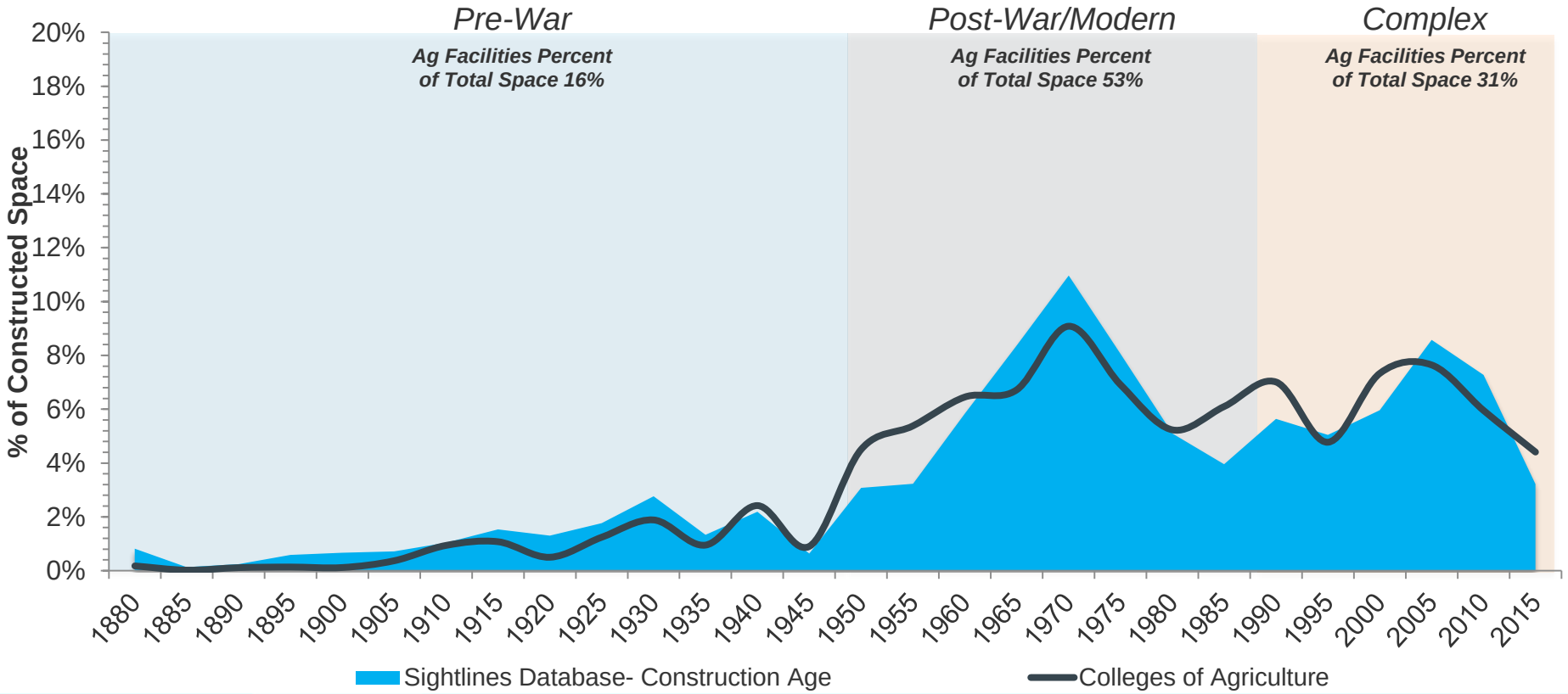
When Schools of Agriculture facilities were constructed

The campus age drives the overall risk profile

Pre-War
- Built before 1951
- Durable construction
- Older but typically lasts longer

Post-War/Modern
- Built between 1951 and 1990
- Lower-quality/Quick-flash construction
- Already needing more repairs and renovations

Complex
- Built in 1991 and newer
- Technically complex spaces
- Higher-quality, more expensive to maintain & repair



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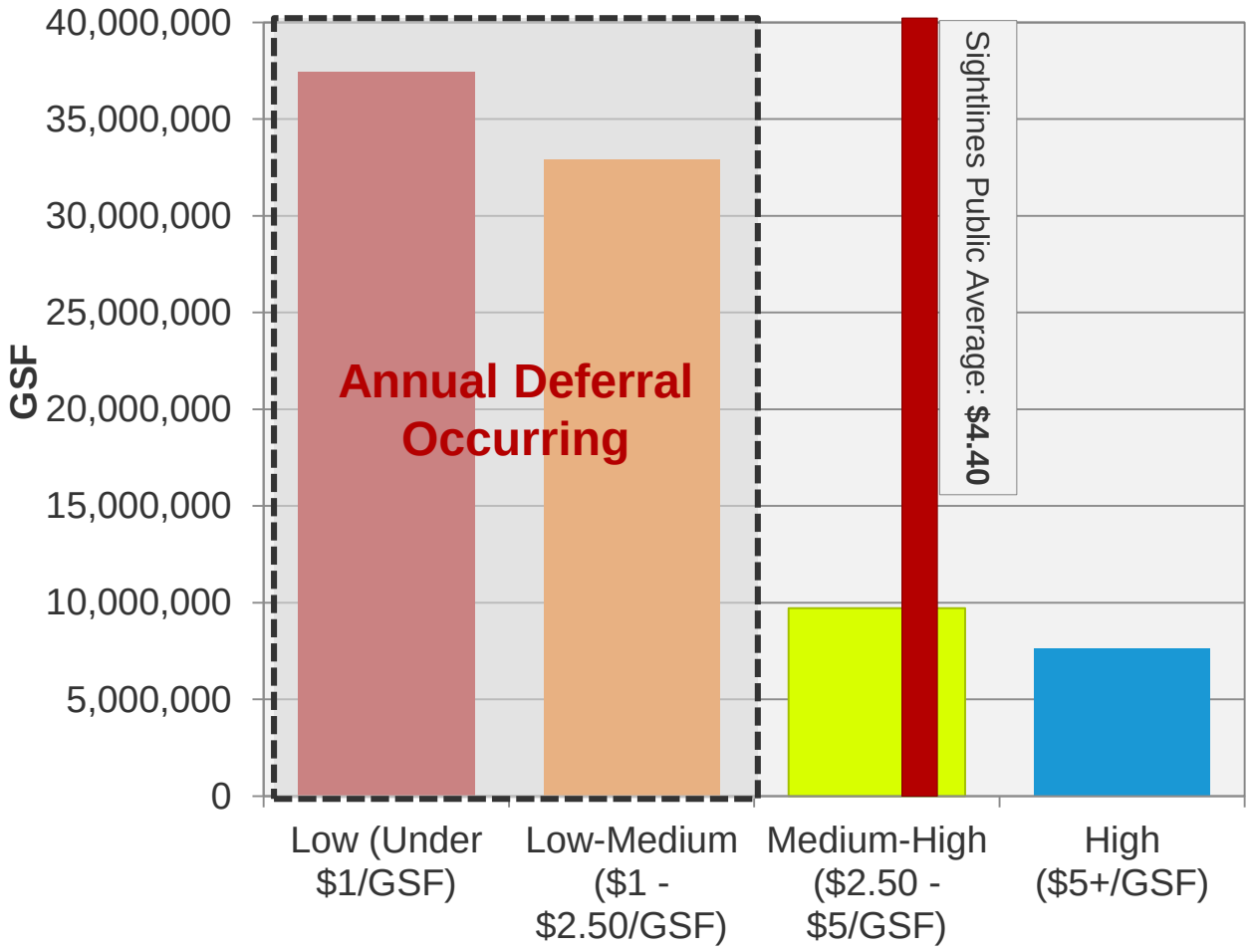
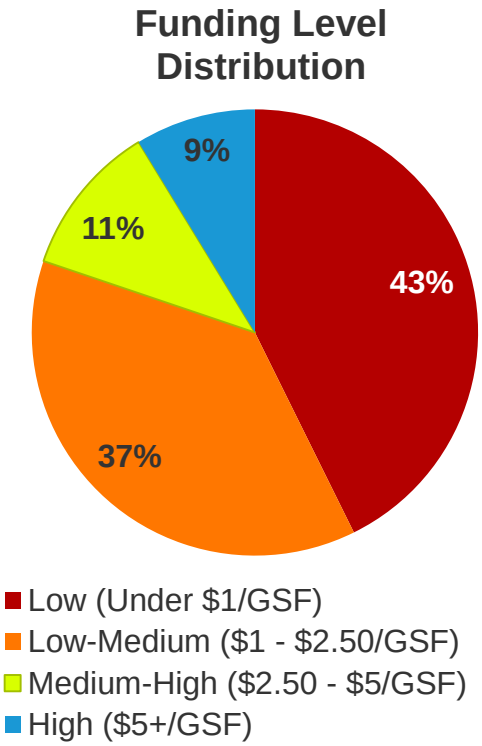
Spending Levels at Schools of Agriculture





- APLU Avg: $1.86
- APLU Sightlines Members: $2.08
- APLU Non-Sightlines Members: $1.55
- Sightlines Database Public Avg: $4.40

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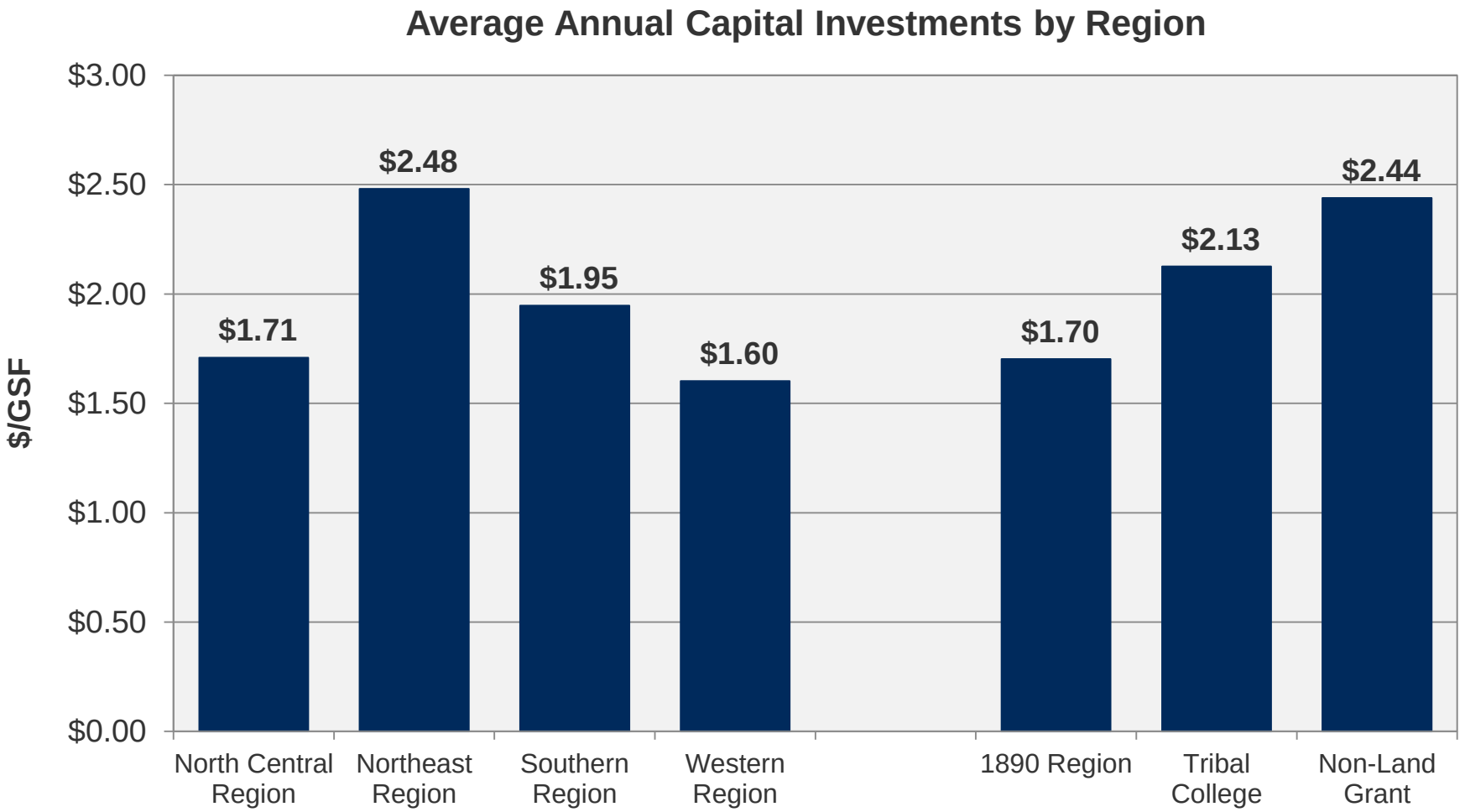
Average Spending by Region



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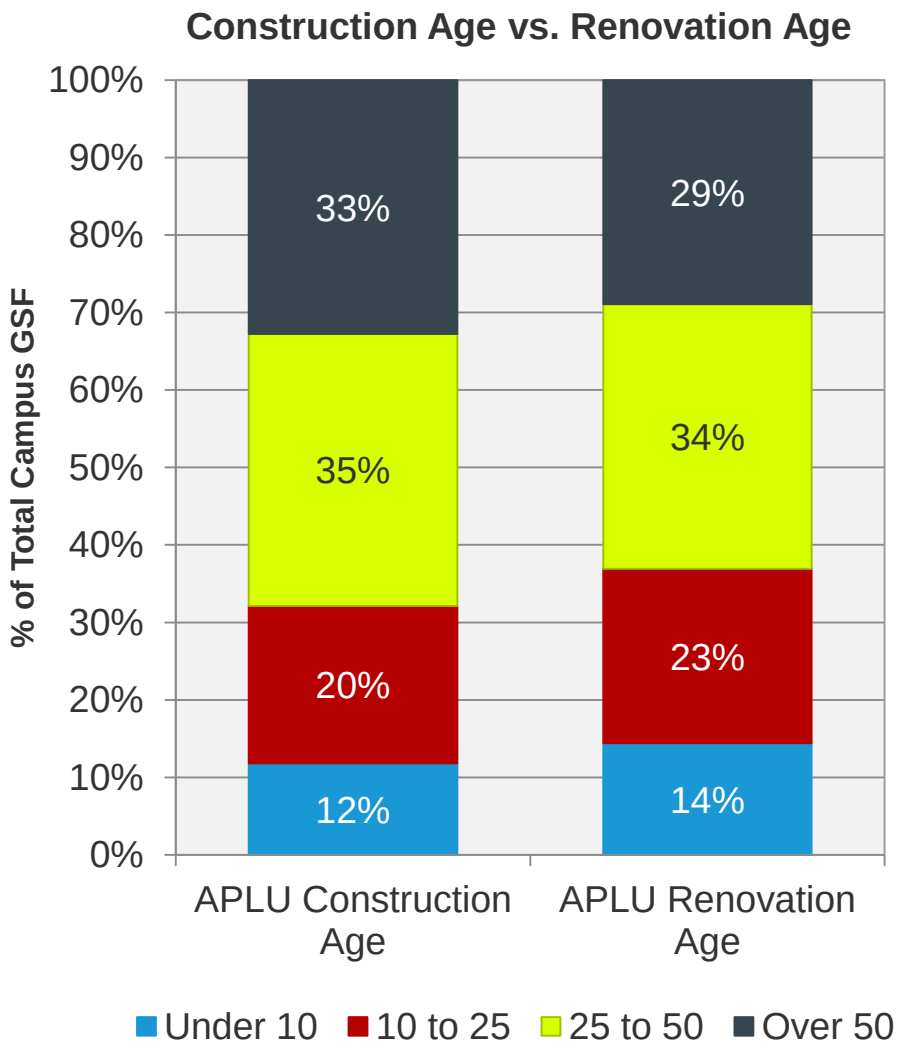
Age Profile of Schools of Agriculture Facilities



Buildings over 50

Life cycles of major building components are past due. Failures are possible.

Highest risk

Buildings 25 to 50

Major envelope and mechanical life cycles come due.

Higher Risk

Buildings 10 to 25

Short life-cycle needs; primarily space renewal.

Medium Risk

Buildings Under 10

Little work. “Honeymoon” period.

Low Risk

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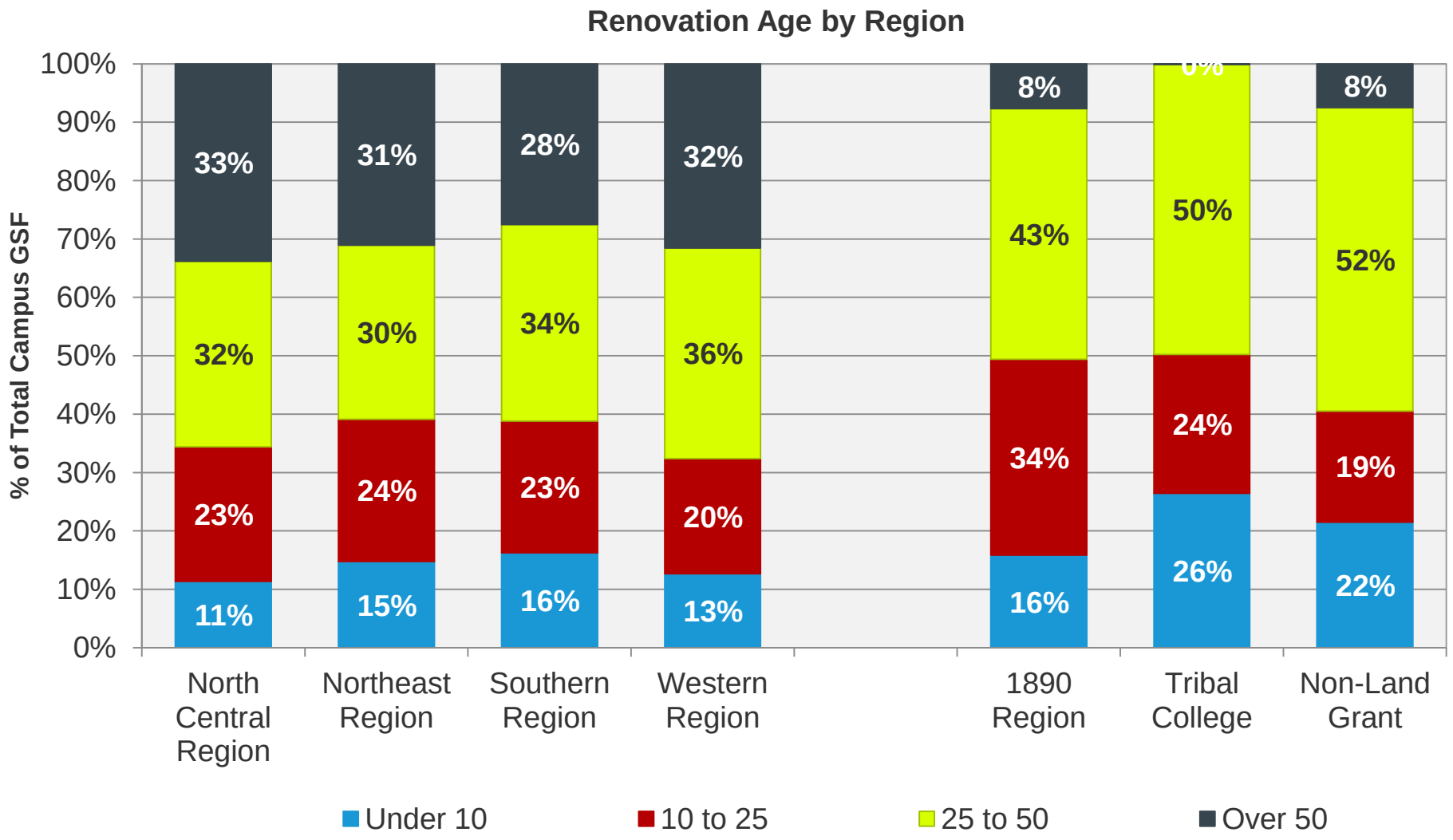
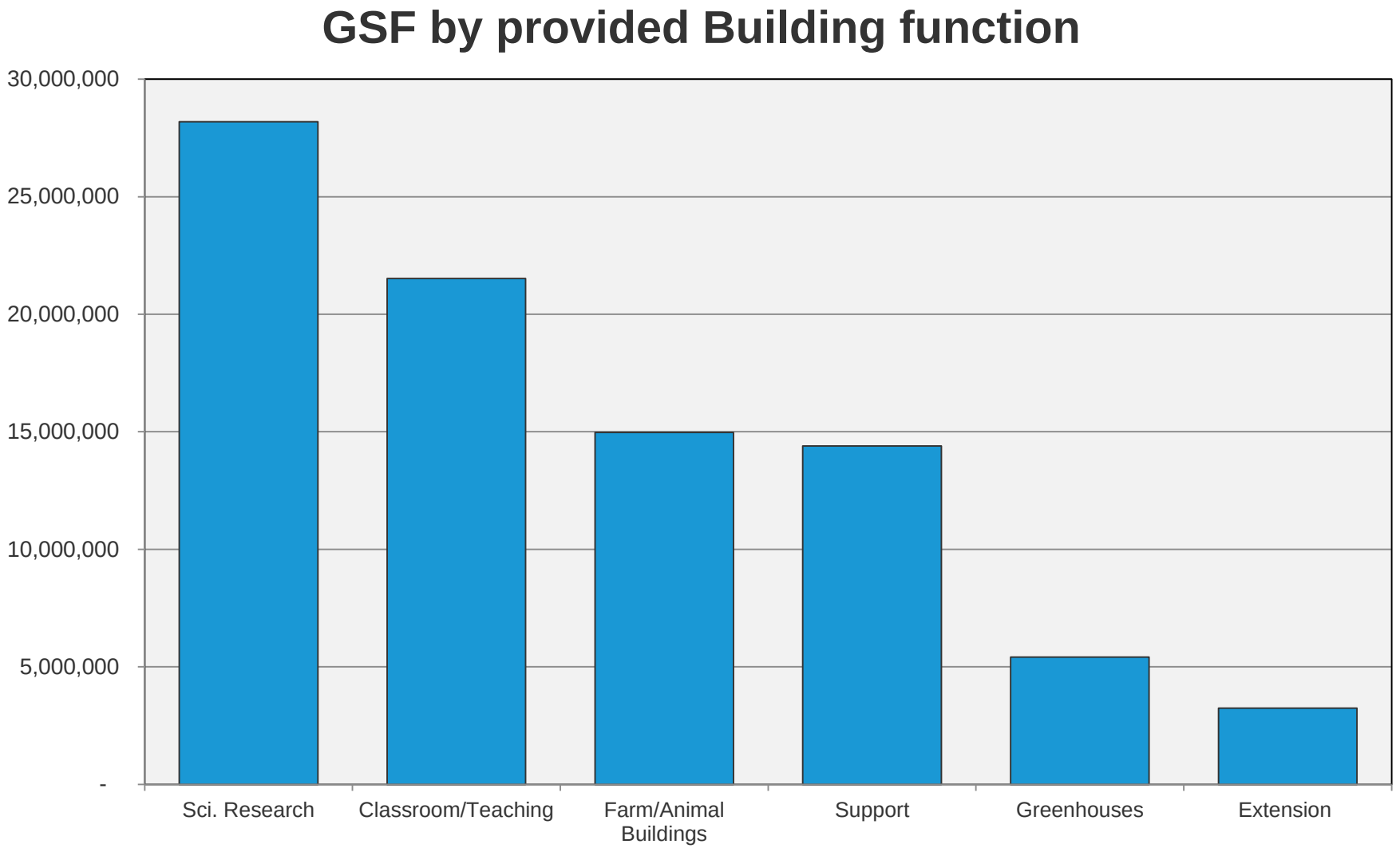
Age Profile by Regions

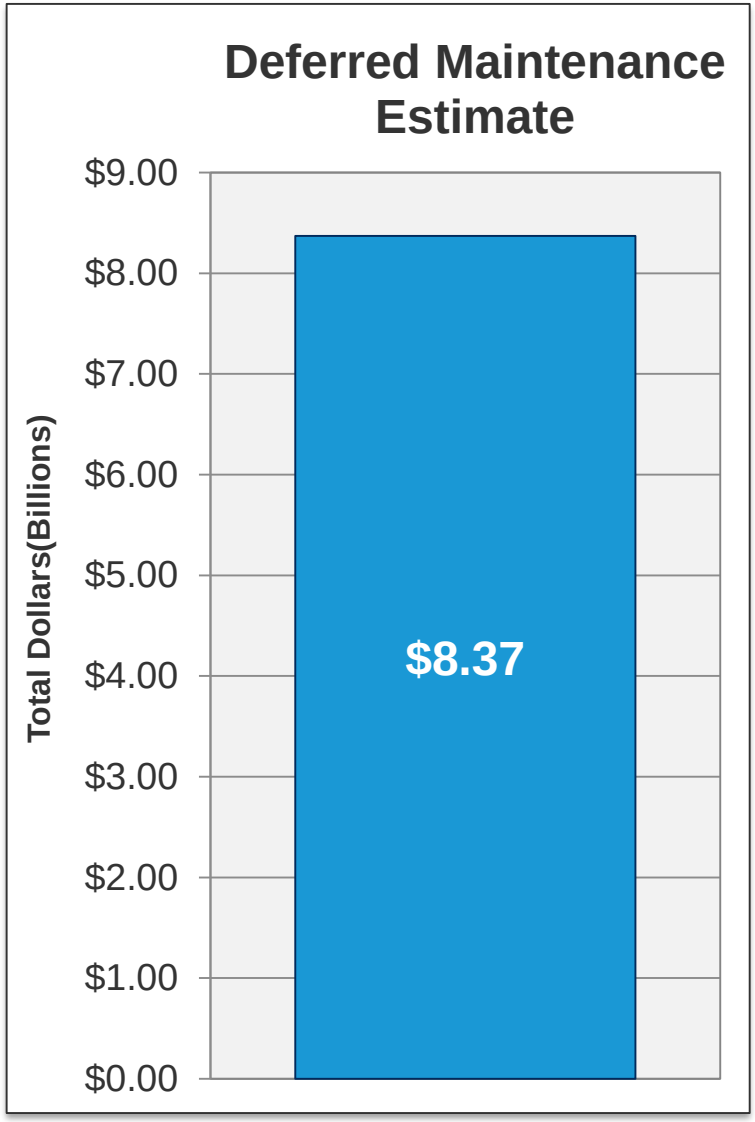


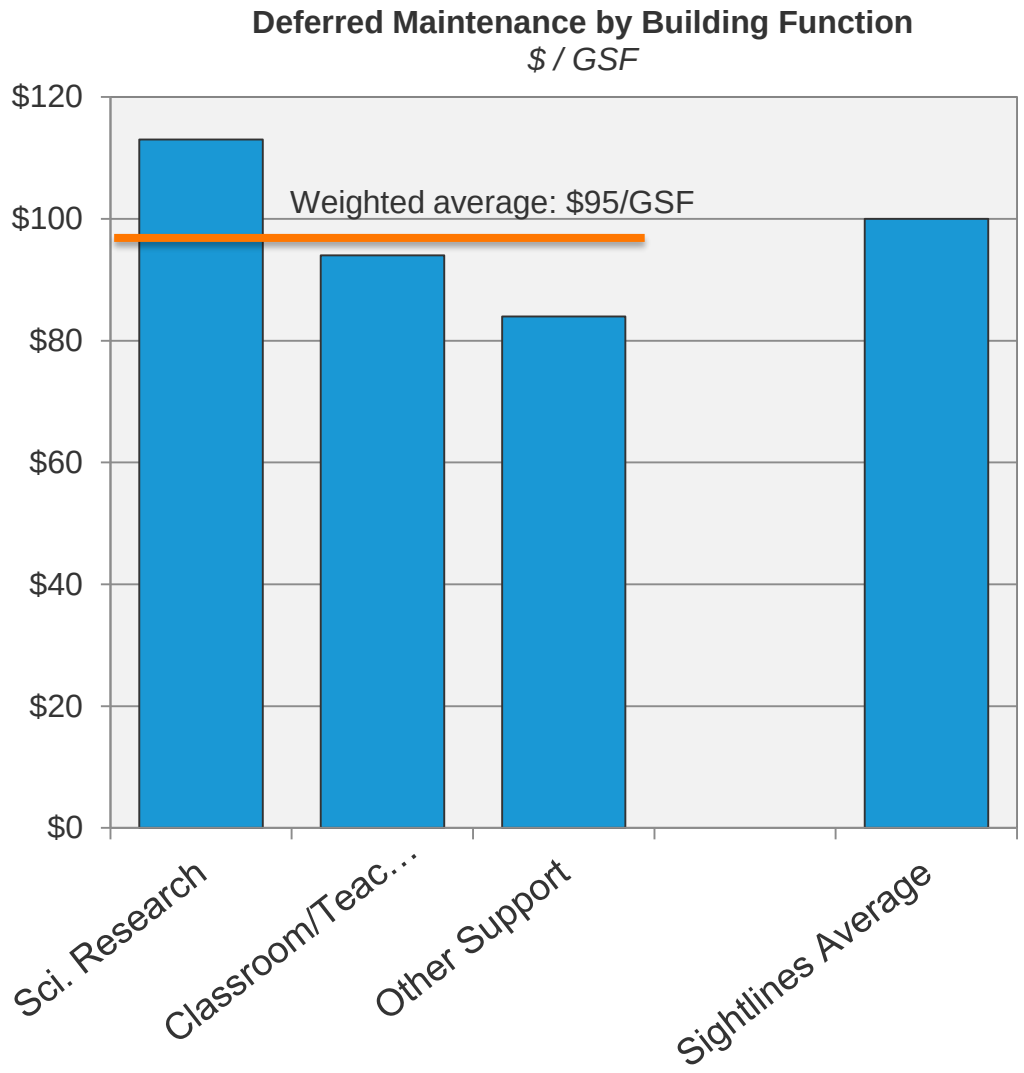
57% of space is Academic & Science Research



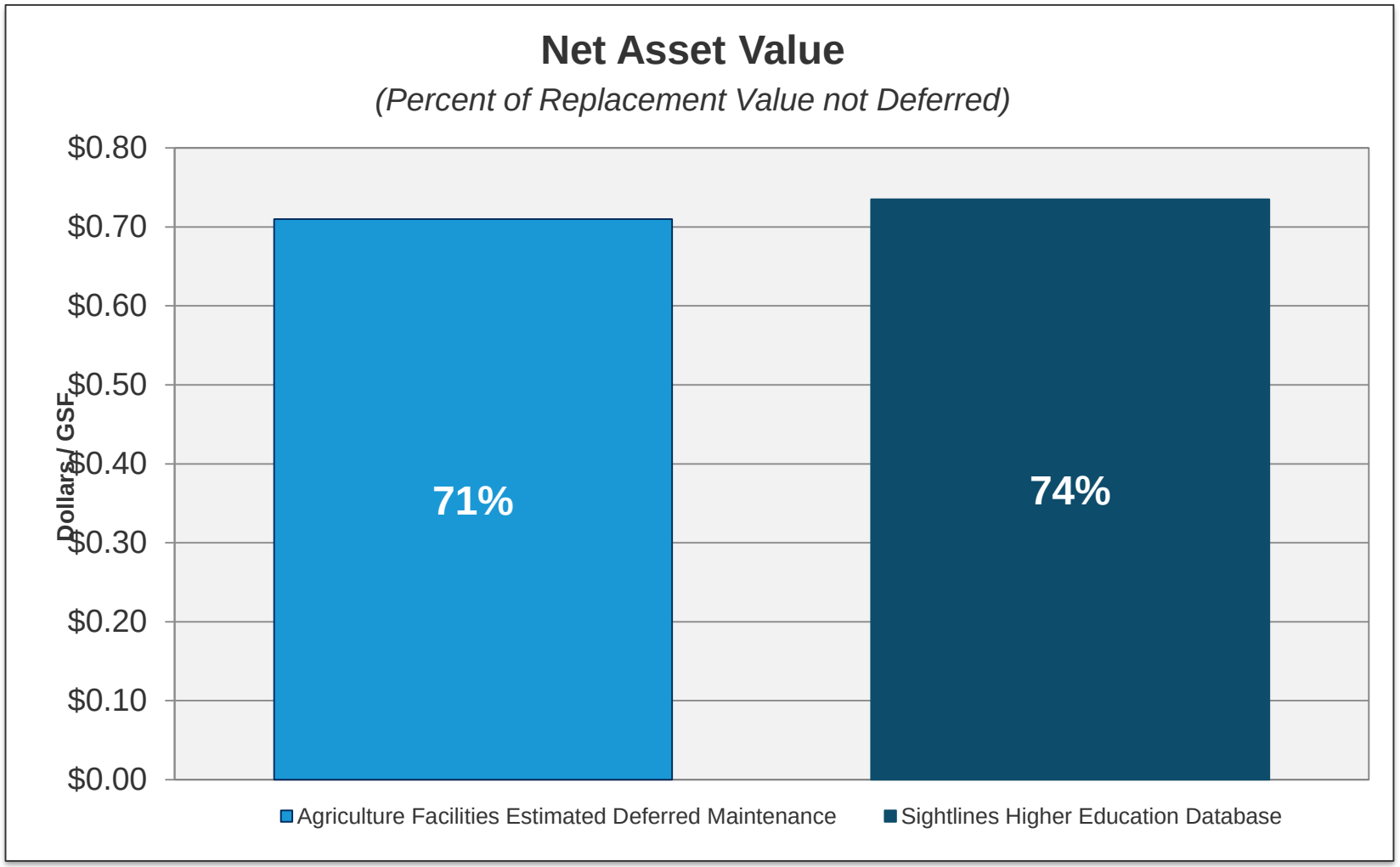
Summary of Findings

Findings – Total Identified DM





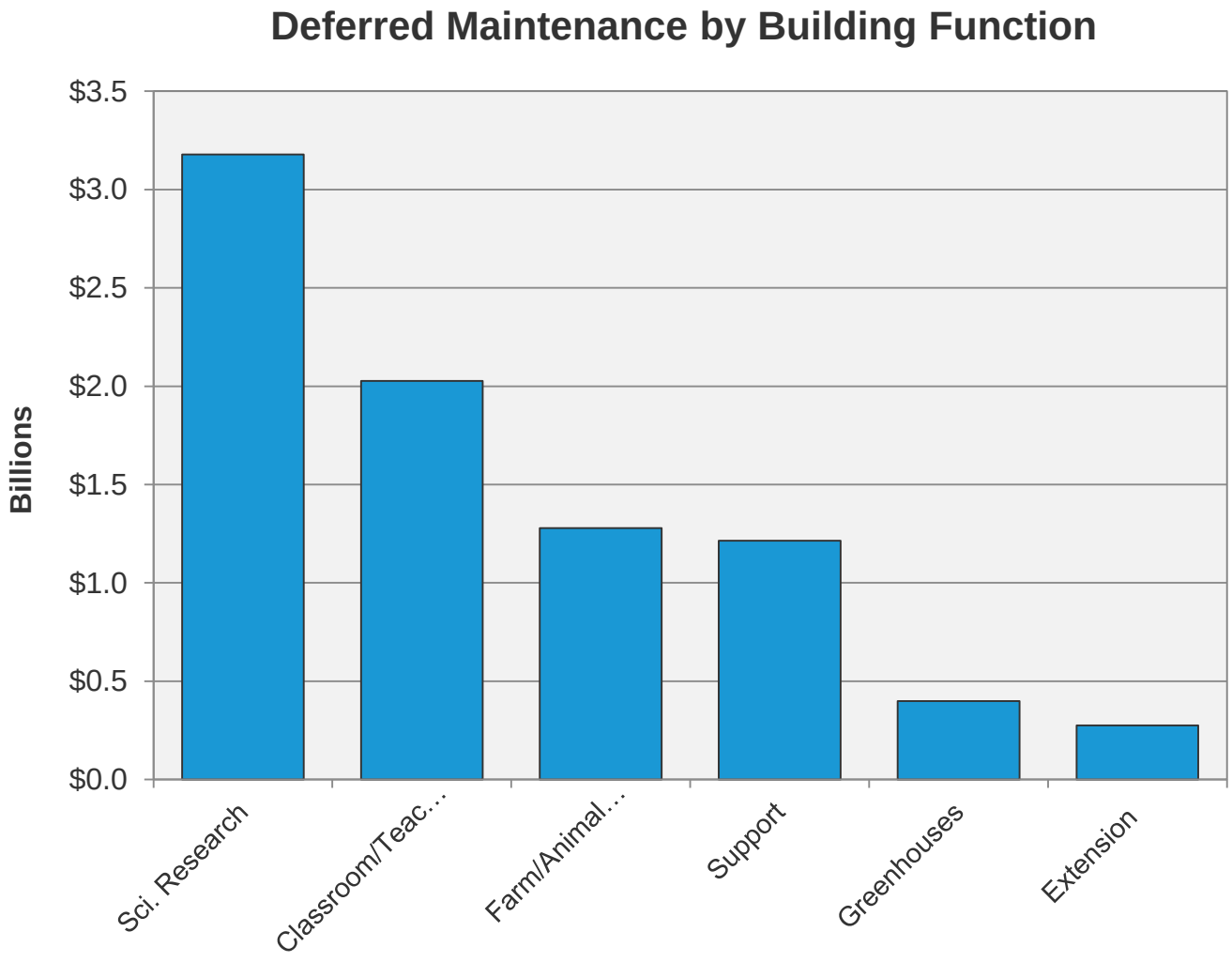
Deferred maintenance accounts for 30% of buildings value

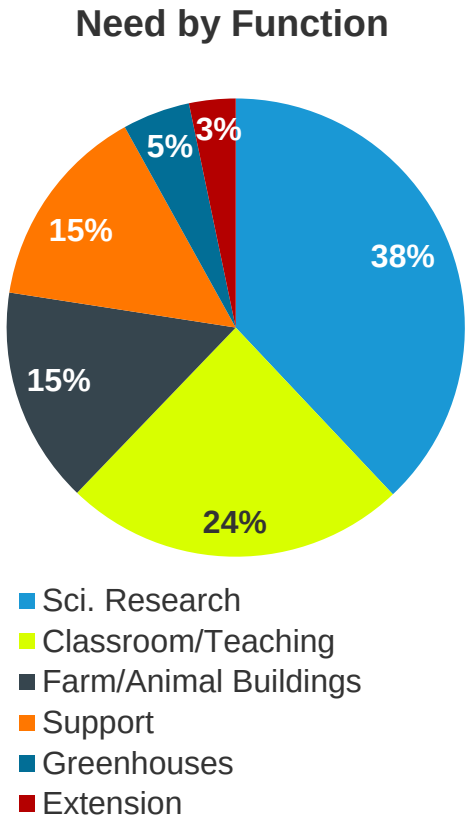


Net Asset Value = $\frac{\text{Replacement Value – DM}}{\text{Replacement Value}}$

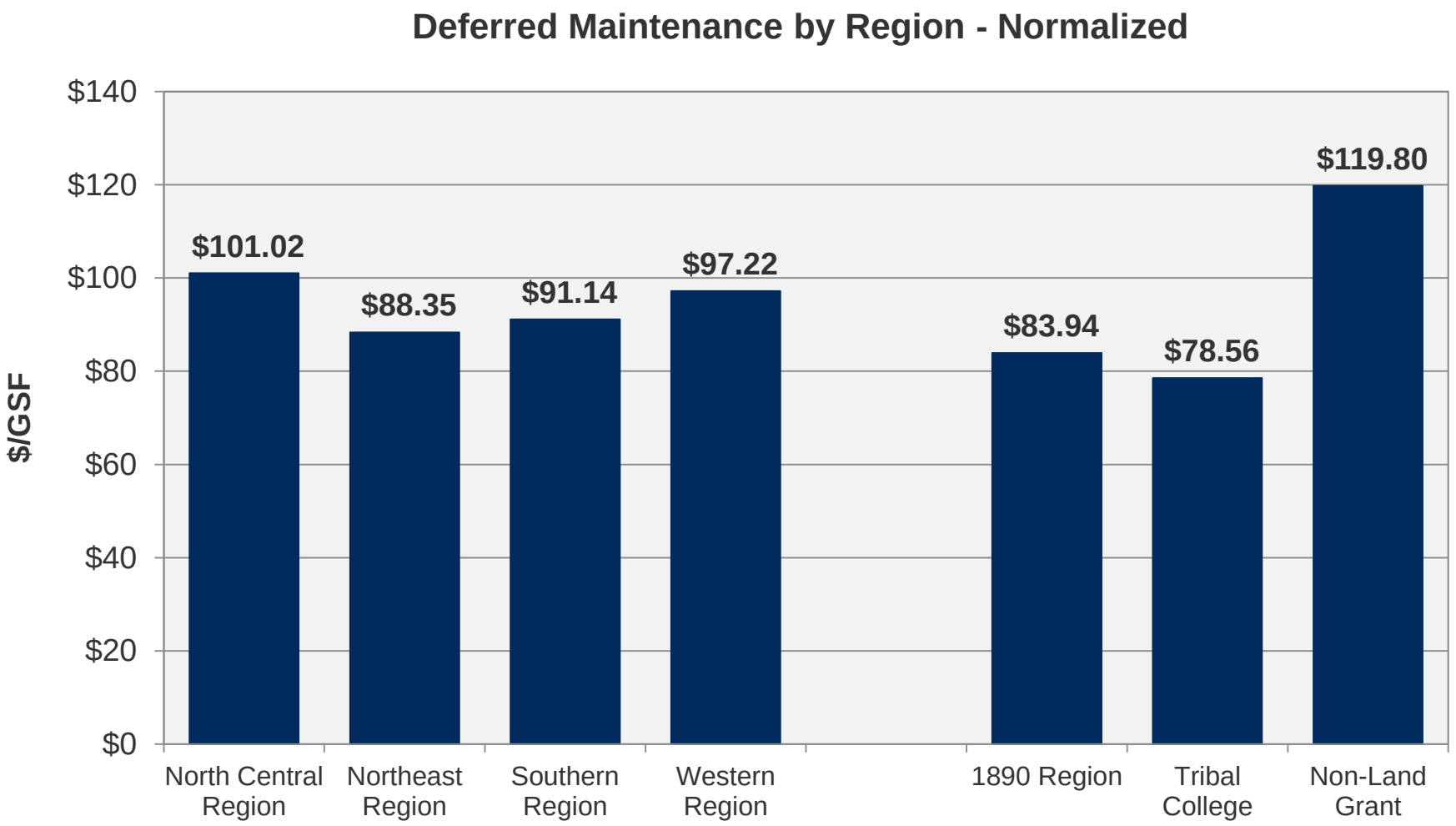
Deferred Maintenance by Building Function

Greatest need in programmatic spaces





DM by Region



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What can be done?

- **Capital Infusions are needed(federal and state):**
  - A capital infusion of funds to renovate or replace the aging facilities will have an immediate return on investment and protect the billions in research currently being done in these facilities.
- **Institutions need to develop multi-year capital plans:**
  - This means engaging in a process to set capital priorities and a plan to phase in work over time. Two specific strategies to consider:
    - Targeting major renovations
    - Demolition or renovation through replacement
- **Campuses need proactive maintenance in newer facilities:**
  - Proactive maintenance will protect capital investments and slow the rate of deferred maintenance growth

Questions and comments