

**Workgroup on the Assessment and Funding of School Facilities**  
***Delegate Maggie McIntosh, Chair***

**Agenda**  
September 22, 2021  
3:00 pm  
Virtual Meeting

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**I. Call to Order and Opening Remarks**

**II. Gross Area Baselines in Public School Construction**

Michael Rubenstein, Principal Analyst, DLS

**III. Facilities Assessment and Educational Facilities Sufficiency Standards**

Bob Gorrell, Executive Director, IAC

Alex Donahue, Deputy Director of Field Operations, IAC

Tom Bart, Bureau Veritas

Bill Champion, Bureau Veritas

**IV. Closing Remarks and Adjournment**

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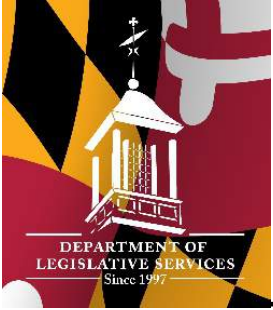
# Gross Area Baseline in Public School Construction

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**Presentation to the  
Workgroup on the Assessment and Funding of  
School Facilities**



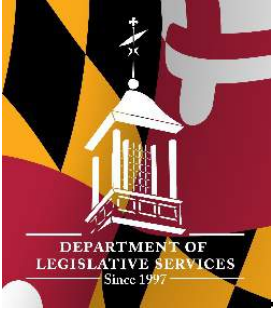
**September 22, 2021**



# Workgroup Charge

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- “Consider and make recommendations regarding the methods used to establish a Gross Area Baseline and the Maximum State Construction Allocation for each public school construction project approved for State funding.”
  - SB 551 (Chapter 698 of 2021, also known as Built to Learn 2.0)



# What Is Gross Area Baseline?

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- Major factor in determining how much the State will pay for a new or renovated public school building
- Formula-based calculation that establishes the square footage of a new or renovated building that is eligible for State funding
- Any square footage that exceeds the Gross Area Baseline (GAB) is entirely the responsibility of the local government



# Origin of GABs

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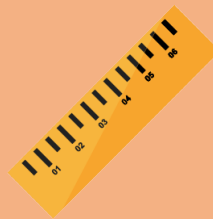
- 21st Century School Facilities Act of 2018 (Knott Commission bill) required a review of the per student square foot allocations used by the Interagency Commission on School Construction (IAC)
- IAC approved the new GABs in May 2019 based on recommendations by the Workgroup on Educational Development Specifications
- GABs replaced **maximum** Gross Area Allowance

# How Is GAB Calculated?

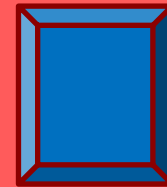
ENROLLMENT  
PROJECTIONS

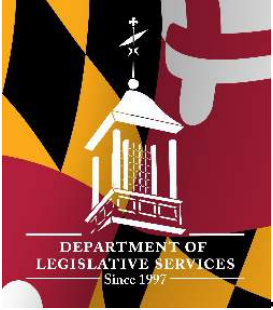


PER STUDENT  
ALLOWABLE  
SQUARE  
FOOTAGE



GROSS AREA  
BASELINE

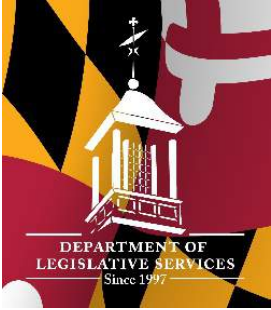




# Enrollment Projections

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- For a *Capital Improvement Program* project, local education agencies (LEAs) submit a seven-year enrollment projection for the school, including the rationale and basis for the projection
  - State does not do enrollment projections for individual schools
- LEAs also submit enrollment projections for adjacent schools
  - Allows IAC to assess if there is excess capacity in nearby facilities
- IAC reviews LEA's enrollment projection and makes a final determination regarding projected enrollment

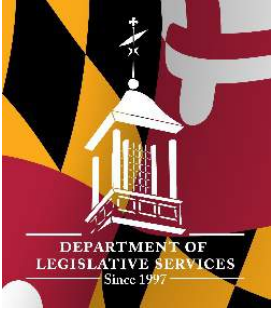


# What Are Allowable Square Feet?

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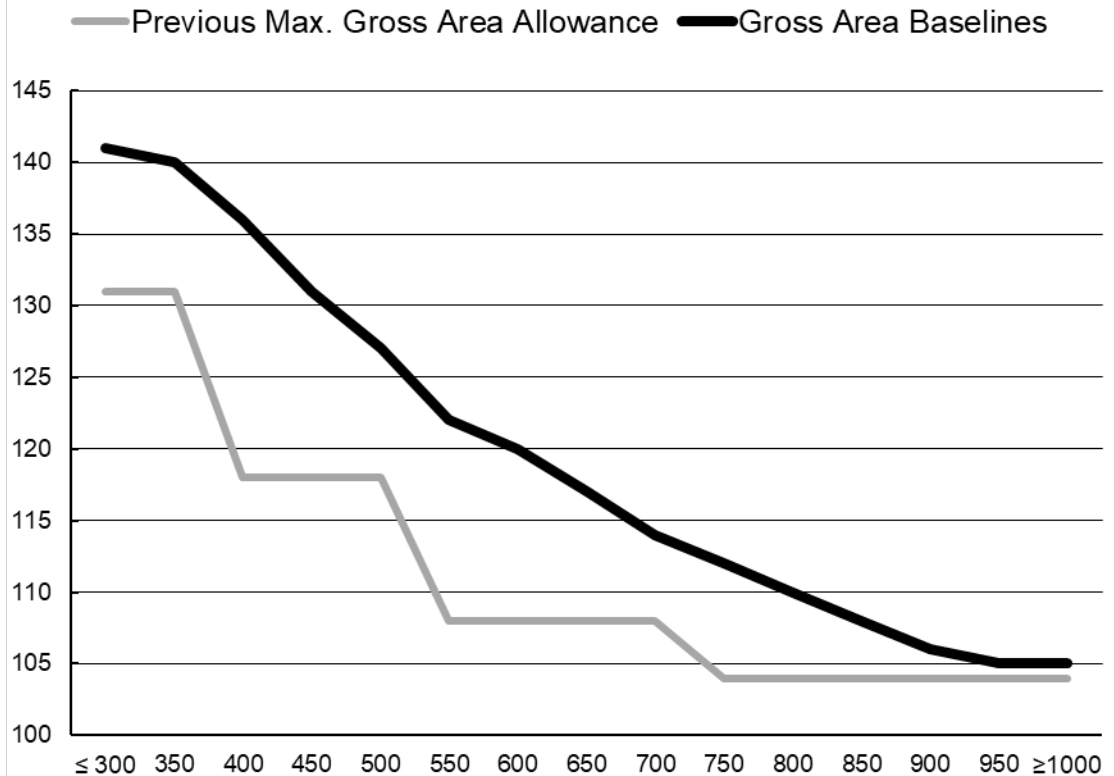
- Regular Education Students
  - 105 sq. ft. to 160 sq. ft.
  - Varies by level and size of school
- Special Education Students (Categories C/S/W)
  - 180 sq. ft. (elementary and middle schools)
  - 200 sq. ft. (high school)
- Career and Technical Education Students
  - 210 sq. ft. (high school only)

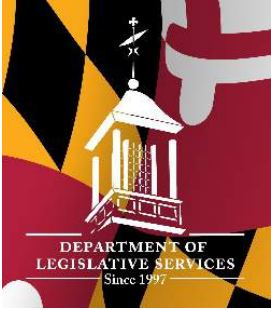




# Elementary School Square Feet

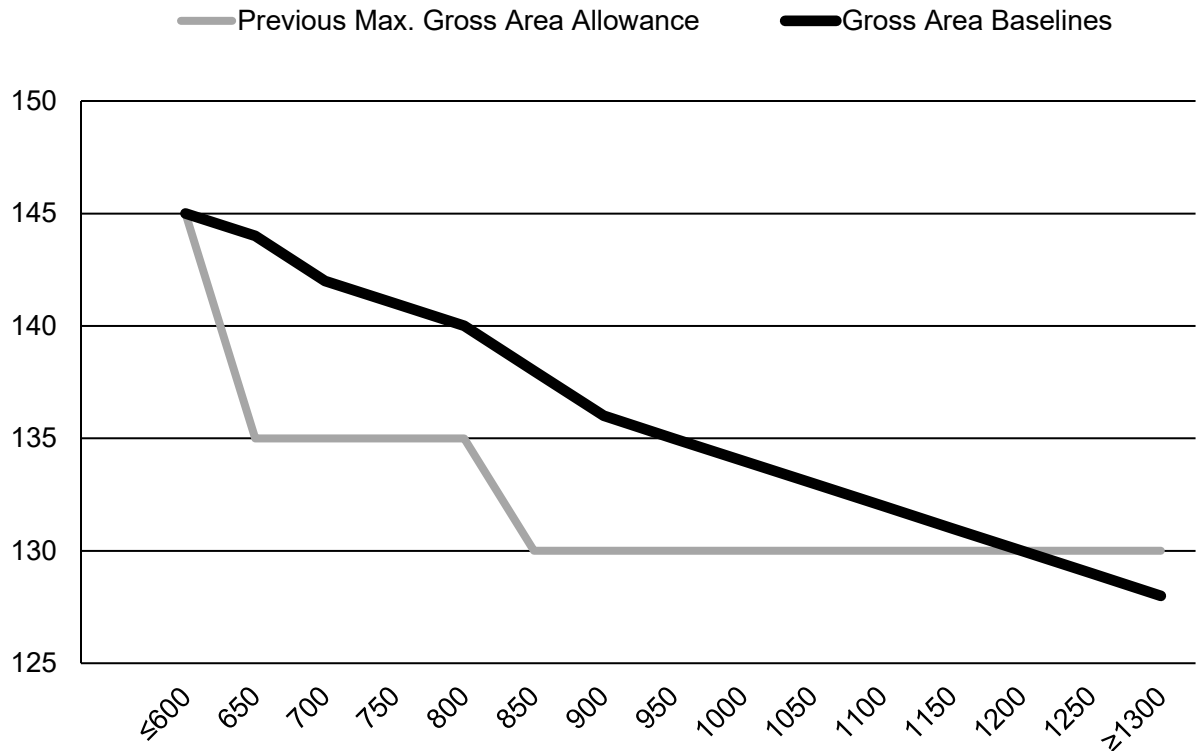
ELEMENTARY SCHOOLS			
Projected Capacity of Students*	GSF/Stu.	Total GSF	
	Previous Max. Gross Area Allowance	Gross Area Baselines	
≤ 300	131	141	
350	131	140	49,000
400	118	136	54,400
450	118	131	58,950
500	118	127	63,500
550	108	122	67,100
600	108	120	72,000
650	108	117	76,050
700	108	114	79,800
750	104	112	84,000
800	104	110	88,000
850	104	108	91,800
900	104	106	95,400
950	104	105	99,750
≥1000	104	105	

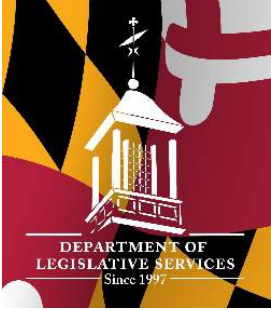




# Middle School Square Feet

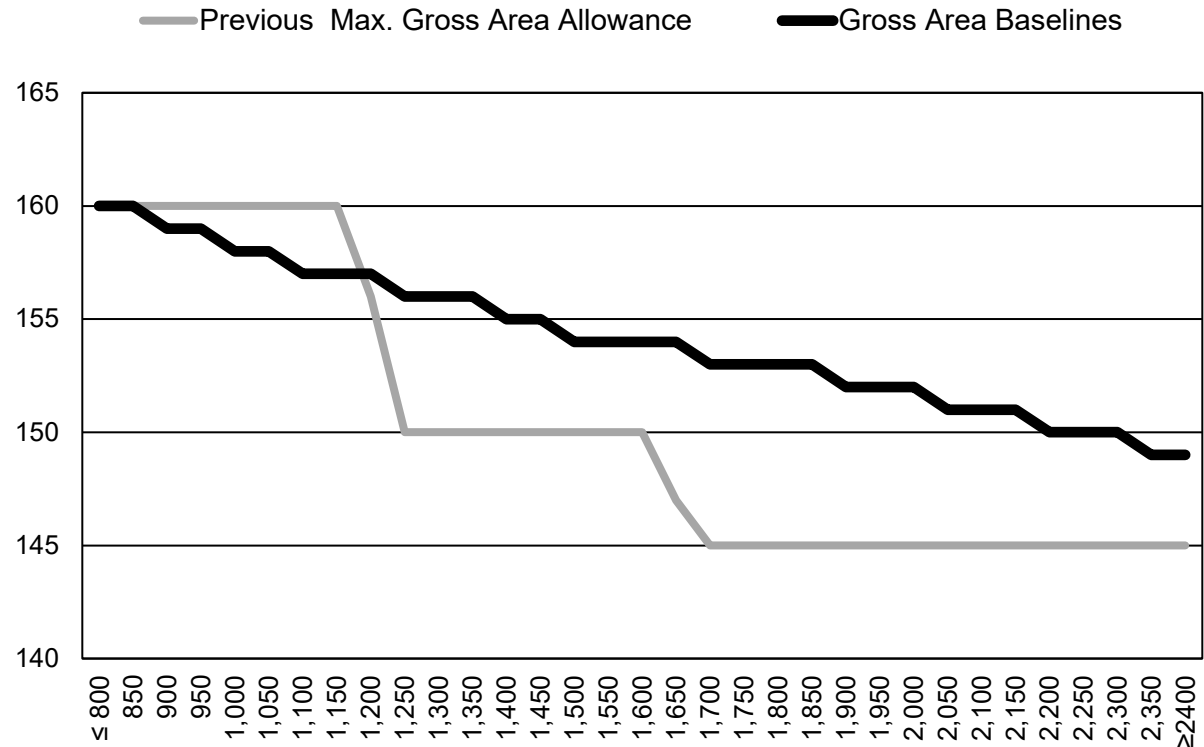
MIDDLE SCHOOLS			
	GSF/Stu	Total GSF	
Projected Capacity of Students*	Max. Gross Area Allow.	Gross Area Baselines	
≤600	145	145	
650	135	144	93,600
700	135	142	99,400
750	135	141	105,750
800	135	140	112,000
850	130	138	117,300
900	130	136	122,400
950	130	135	128,250
1000	130	134	134,000
1050	130	133	139,650
1100	130	132	145,200
1150	130	131	150,650
1200	130	130	156,000
1250	130	129	161,250
≥1300	130	128	

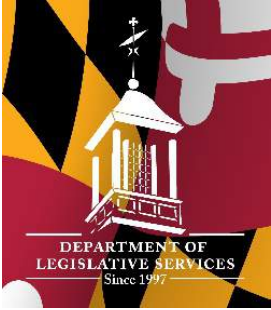




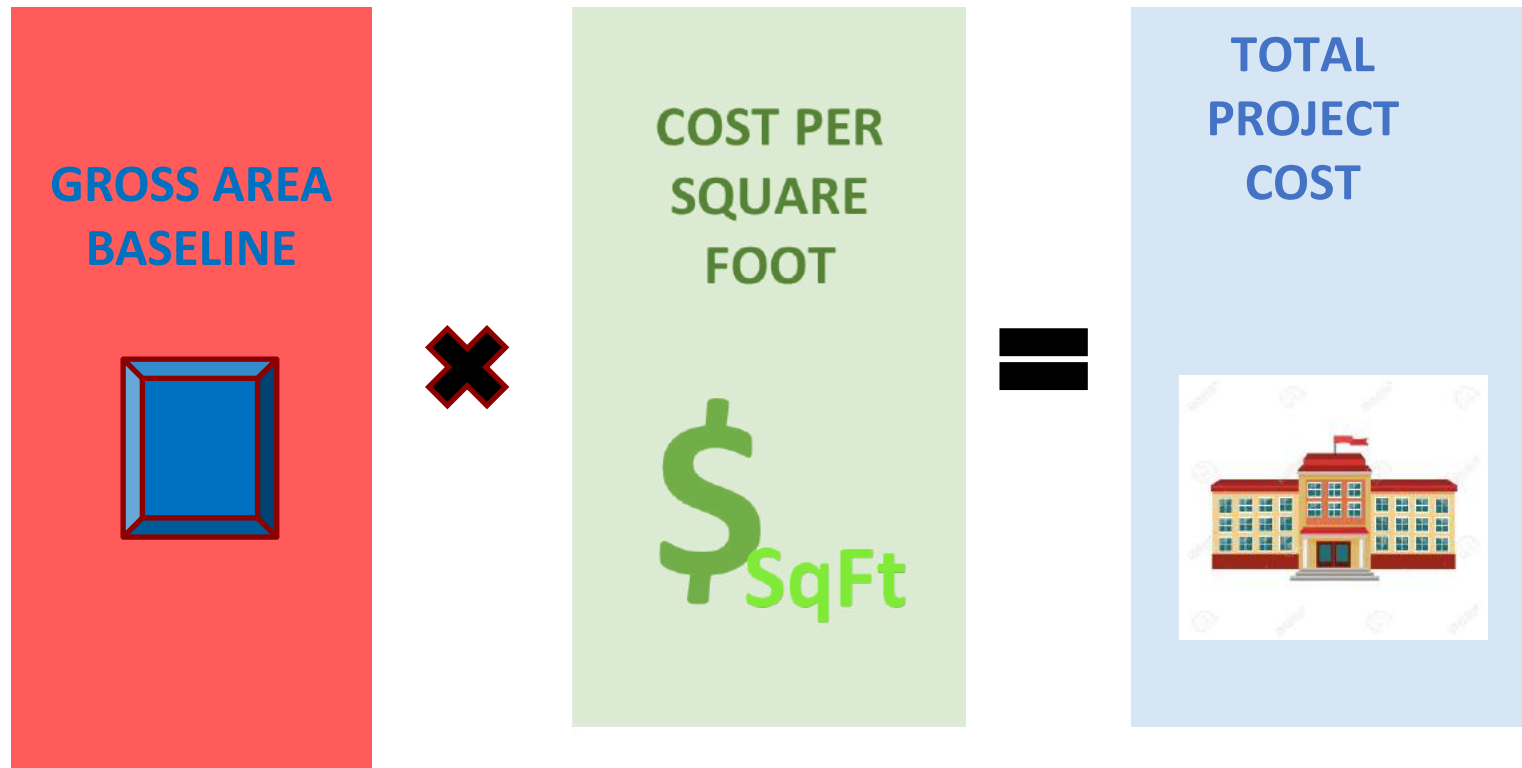
# High School Square Feet

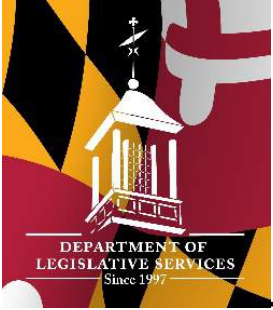
HIGH SCHOOLS			
Projected Capacity of Students* **	GSF/Stu.		Total GSF
	Existing Max. Gross Area Allowance	Proposed Gross Area Baselines	
≤ 800	160	160	
850	160	160	136,000
900	160	159	143,100
950	160	159	151,050
1,000	160	158	158,000
1,050	160	158	165,900
1,100	160	157	172,700
1,150	160	157	180,550
1,200	156	157	188,400
1,250	150	156	195,000
1,300	150	156	202,800
1,350	150	156	210,600
1,400	150	155	217,000
1,450	150	155	224,750
1,500	150	154	231,000
1,550	150	154	238,700
1,600	150	154	246,400
1,650	147	154	254,100
1,700	145	153	260,100
1,750	145	153	267,750
1,800	145	153	275,400
1,850	145	153	283,050
1,900	145	152	288,800
1,950	145	152	296,400
2,000	145	152	304,000
2,050	145	151	309,550
2,100	145	151	317,100
2,150	145	151	324,650
2,200	145	150	330,000
2,250	145	150	337,500
2,300	145	150	345,000
2,350	145	149	350,150
≥2400	145	149	





# Role of GABs in Determining State Funding





# Take Aways about GABs

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- Better alignment between educational specifications and funding
  - State funding supports more square feet
- Enrollment projections are the foundation of GAB calculations
  - School-level enrollment projections are only available from the LEAs
- New variance process allows IAC to approve larger designs based on demonstrated programmatic needs
  - On a case-by-case basis

# Presentation to the Workgroup on the Assessment and Funding of School Facilities

September 22, 2021  
IAC Staff and Bureau Veritas (SFA Vendor)

# The Data Set

- Huge and very complex
  - >250,000 asset records with millions of data points
  - Data on spaces, building-system components, and student enrollments
- Sources
  - Provided by LEA
  - Collected by BV's assessors on site
  - Calculated by BV based upon starting assumptions fitting most schools
- Living data set, not fixed
  - Starts with the 2020-2021 assessment data as the baseline
  - To be updated annually through
    - On-site assessments of 25% of schools statewide and
    - Mathematical aging of data of other 75% of schools by one year

# The Initial Data Process

State	LEA Review/Input
1) IAC provides starter school inventory and enrollment data from MSDE records	1) LEA confirms inventory and provides starting data set to the extent possible <ol style="list-style-type: none"><li>List of assets with attributes (install date, size, condition data, etc.)</li><li>List of spaces and their use assignments, floor plans</li></ol>
2) BV assessors visit sites <ol style="list-style-type: none"><li>Measure/confirm spaces</li><li>Confirm or log attributes of spaces</li><li>Assess condition of each building-system component</li></ol>	2) QA/QC phase <ol style="list-style-type: none"><li>LEA reviews collected data live onscreen and can request changes and offer corrections on<ul style="list-style-type: none"><li>Condition</li><li>Space sufficiency</li></ul></li></ol>



# The Initial Data Process, cont'd.

State	LEA Review/Input
3) BV reviews LEA suggestions and agree or disagree with explanation to LEA	3) LEA can request QA/QC meetings as desired to discuss any concerns or data questions
4) IAC shares FCI data with LEAs	4) LEA can request further meetings with BV and/or IAC staff at any time

## Future Annual Reviews of Data

- Process to take approximately six to nine months during which
  - IAC updates data on 25% via on-site assessments and 75% mathematically
  - LEAs provide updates resulting from locally funded/implemented changes
  - IAC presents draft data
  - LEAs review and comment/question/request changes

# Physical Condition



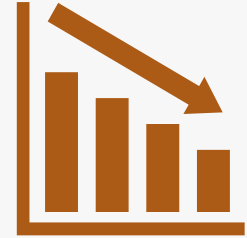
## Physical Condition

Facility Condition Index  
(FCI)



## Educational Sufficiency

The usability of the  
space for supporting  
delivery of education



## Combined Facility Score

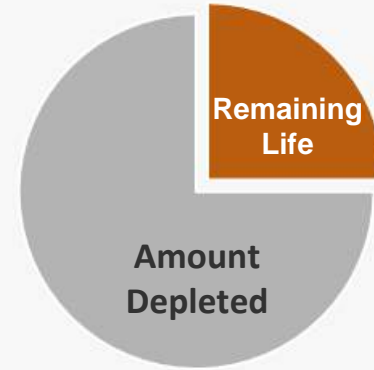
Complete score

# Calculating a Facility Condition Index

## Building-System Level

$$FCI\ 75\% = \frac{\text{Amount Depleted}}{\text{Replacement Value}}$$

*Lower is Better*



## Facility Level

$$FCI\ \% = \frac{\text{Depleted Value}}{\text{Replacement Value}}$$

Depleted Value: HVAC (FCI %) + Roof (FCI %) + Foundation (FCI %) + etc.

Replacement Value: HVAC + Roof + Foundation + etc.

# Facility Condition Index | FCI

## HIGHER FCI

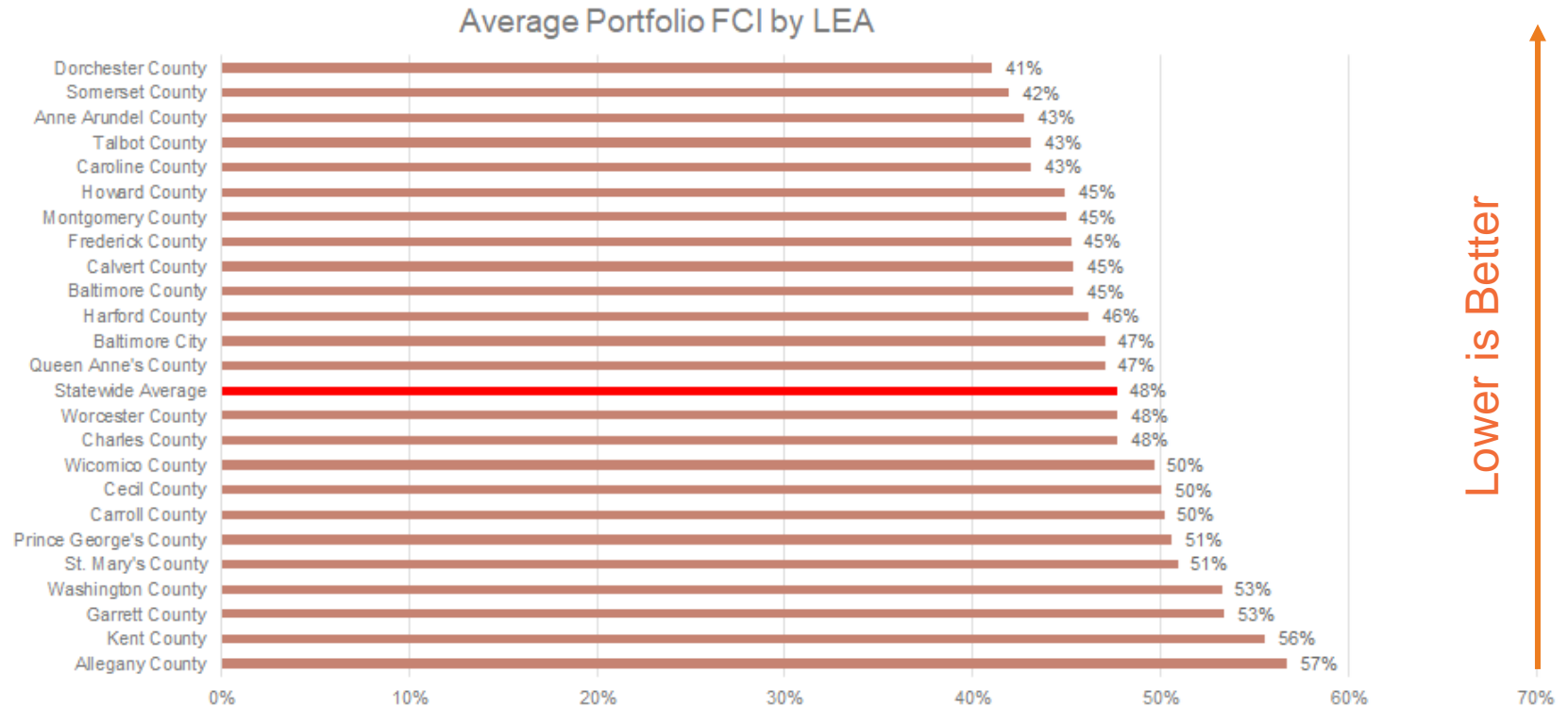
- means less remaining useful lifespan (RUL)

## LOWER FCI

- means more remaining useful lifespan (RUL)

**LOWER FCI = BETTER RELATIVE CONDITION**

# Average Facility FCI by LEA

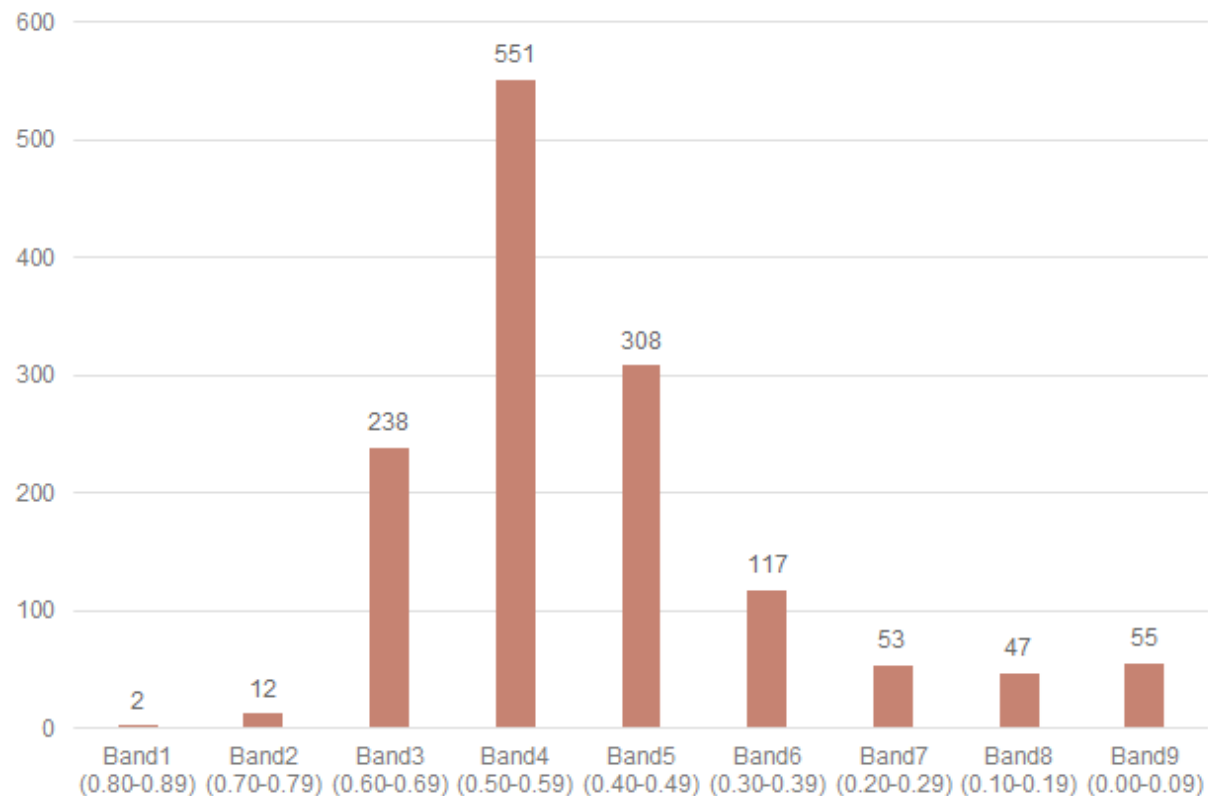


# Statewide Facility Condition Distribution by Band

- Facility Population of 1,383
- Arithmetic Mean of 48.4%
- Std Deviation of 14.9%

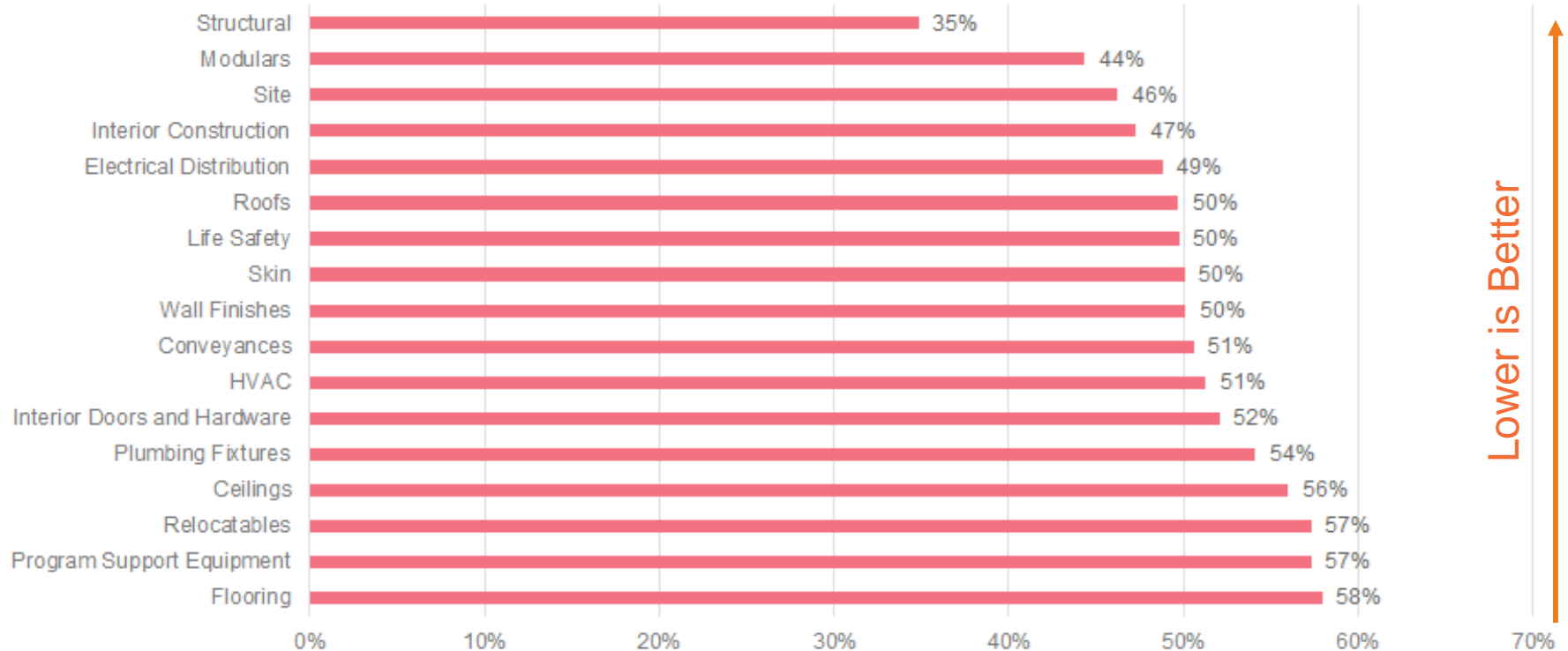
Lower is Better

FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	2	0%
Band2 (0.70-0.79)	12	1%
Band3 (0.60-0.69)	237	17%
Band4 (0.50-0.59)	551	40%
Band5 (0.40-0.49)	308	22%
Band6 (0.30-0.39)	117	8%
Band7 (0.20-0.29)	53	4%
Band8 (0.10-0.19)	47	3%
Band9 (0.00-0.09)	54	4%
<b>Total</b>	<b>1,383</b>	<b>100%</b>



# Average Depletion Level of Each Major Building System

Average Depletion Level (FCI) of Each Major Building System - Statewide



# Educational Sufficiency



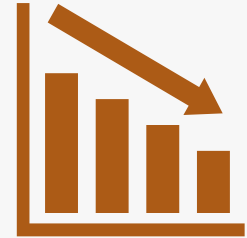
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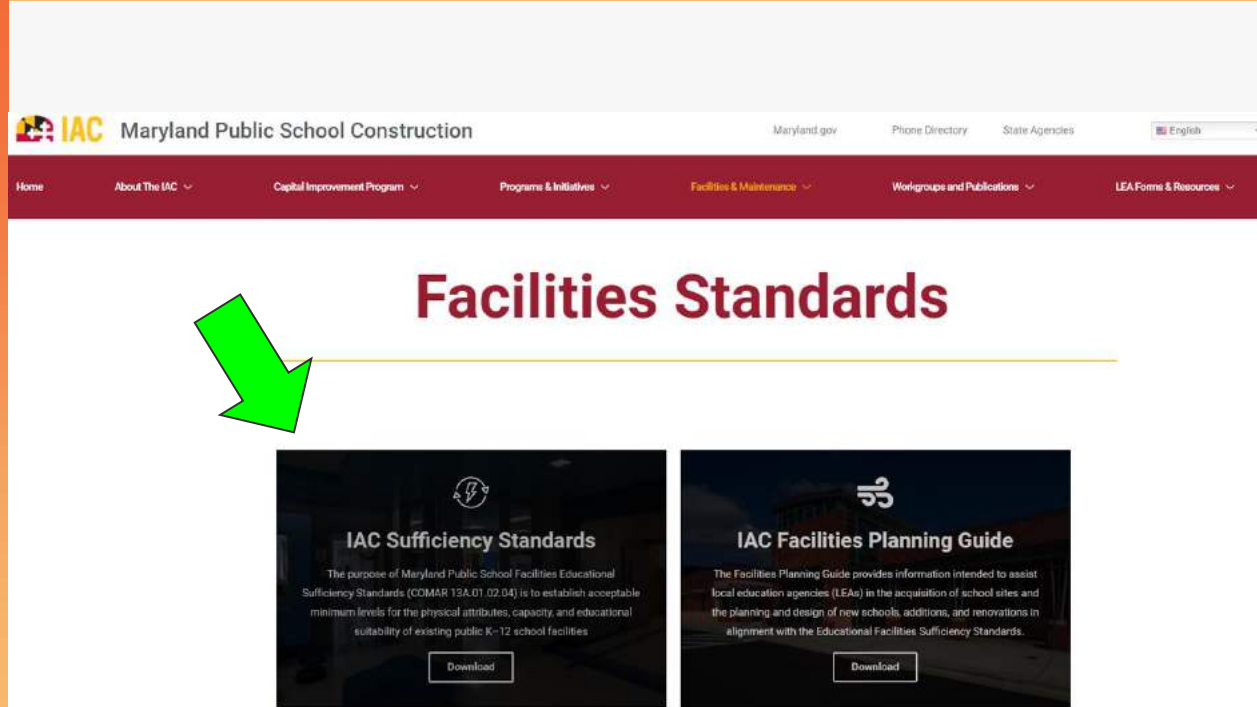
## Combined Facility Score

Complete score



# Educational Facilities Sufficiency Standards

- Bare-minimum standards
- For *existing* PK-12 facilities
- For doing triage and for comparability
- Not for use in designing facilities
- Remediation not mandatory



The screenshot shows the website for the IAC (Interagency Commission on School Construction) under the heading "Maryland Public School Construction". The navigation bar includes links for Home, About The IAC, Capital Improvement Program, Programs & Initiatives, Facilities & Maintenance (highlighted), Workgroups and Publications, and LEA Forms & Resources. A large green arrow points to the "Facilities Standards" section, which is titled in a large, bold, maroon font. Below the title, there are two main content areas: "IAC Sufficiency Standards" and "IAC Facilities Planning Guide". Each area has a brief description and a "Download" button. The "IAC Sufficiency Standards" section states that the purpose of the standards is to establish acceptable minimum levels for the physical attributes, capacity, and educational suitability of existing public K-12 school facilities. The "IAC Facilities Planning Guide" section states that the guide provides information intended to assist local education agencies (LEAs) in the acquisition of school sites and the planning and design of new schools, additions, and renovations in alignment with the Educational Facilities Sufficiency Standards.

[https://iac.mdschoolconstruction.org/?page\\_id=908](https://iac.mdschoolconstruction.org/?page_id=908)

# Sufficiency Deficiencies

**The most significant deficiencies can be grouped into two categories:**

Deficiency Type	Method of Accounting
1) SPACE: Insufficient square footage within a space type	Multiply missing square footage by the replacement value of square footage (\$400/SF).
2) SPACE ATTRIBUTES a) Lighting b) Temperature and relative humidity c) Acoustics d) Air quality	<ul style="list-style-type: none"><li>• Where the deficiency is substantial and widespread throughout the facility, adjust the Remaining Useful Lifespan (RUL) of the relevant building system to reflect its insufficiency.</li><li>• Deficiencies posing a threat to facility usability are placed into a special category for extra emphasis.</li></ul>

# Educational Facilities Sufficiency Standards

## Spaces Measured for Sufficiency

- 1) Administrative
- 2) Auditorium
- 3) Cafeteria
- 4) Career Development
- 5) Custodial & Maintenance
- 6) Dining
- 7) Fine Arts
- 8) General Classroom
- 9) Gymnasium
- 10) Health Services
- 11) Kitchen
- 12) Library/Media Center
- 13) Locker Room
- 14) Pupil Services
- 15) Science

- 16) Special Education
- 17) Storage (non-classroom)
- 18) Technology & Computer Science
- 19) Teacher Workspace/Lounge

## Items Checked for Presence and/or Number as Appropriate

- 1) Play Field
- 2) Unpaved Recreation Area
- 3) Hard-Surface Court
- 4) Parking Spaces

# Educational Facilities Sufficiency Standards

- Multiply Projected Enrollment by minimum square feet per student in the Standards

## Example:

### General-Use Classrooms

Projected Enrollment of 1,500

X

25 NSF per student

=

37,500 NSF for 1,500 students

## Square-Footage-Related Space Standards

Sample Space Types	Unit/Minimum Standard (NSF)	Minimum NSF Required for HS of 1,500
General-Use Classrooms	25	37,500
Science	4	6,000
Fine Arts	5	7,500
Technology Educ. & Comp. Sci.	4	6,000
Career & Technology Educ.	4	6,000
Special Education	450	450
Library/Media Center	3	4,500
Physical Educ. (Indoor)	6,500	7,100
Administrative	150	1,650
Faculty Workroom/Lounge	150	1,500
Health Services	500	500
Dining & Serving (3 periods)	5	7,500
Kitchen (Food Prep)	1,000	1,000
General Storage	1	1,500
Maintenance & Janitorial	1	750

# Calculating Space Deficiencies

## Step 1: Calculate Minimum Required space.

- Project fifth-year future enrollment using straight-line projection from current and previous four years' enrollments.

### Example:

	5 Years Ago	4 Years Ago	3 Years Ago	2 Years Ago	Last Year			
	2015-16	2016-17	2017-18	2018-19	2019-20			
Enrollment:	1450	1455	1460	1466	1472			
	delta	delta	delta	delta				
Change:	5	5	6	6				Average
								Growth Rate
Yearly Change of Growth Rate:	0.34%	+	0.34%	+	0.41%	+	0.41%	=
						Total		
						1.51%	/ 4 =	0.004
								Projected Enrollment 2024-2025
Growth Factor:	$(1 + 0.004)^5 = 1.0202$		X	Last Year Enrollment of 1,472 =		1502		

*Declining enrollment trends receive a growth factor of 1.0 (= flat).*

# Calculating Space Deficiencies

**Step 1 (cont'd): Calculate minimum required space for the selected space type.**

- Multiply projected enrollment by minimum square feet per student in the Standards.

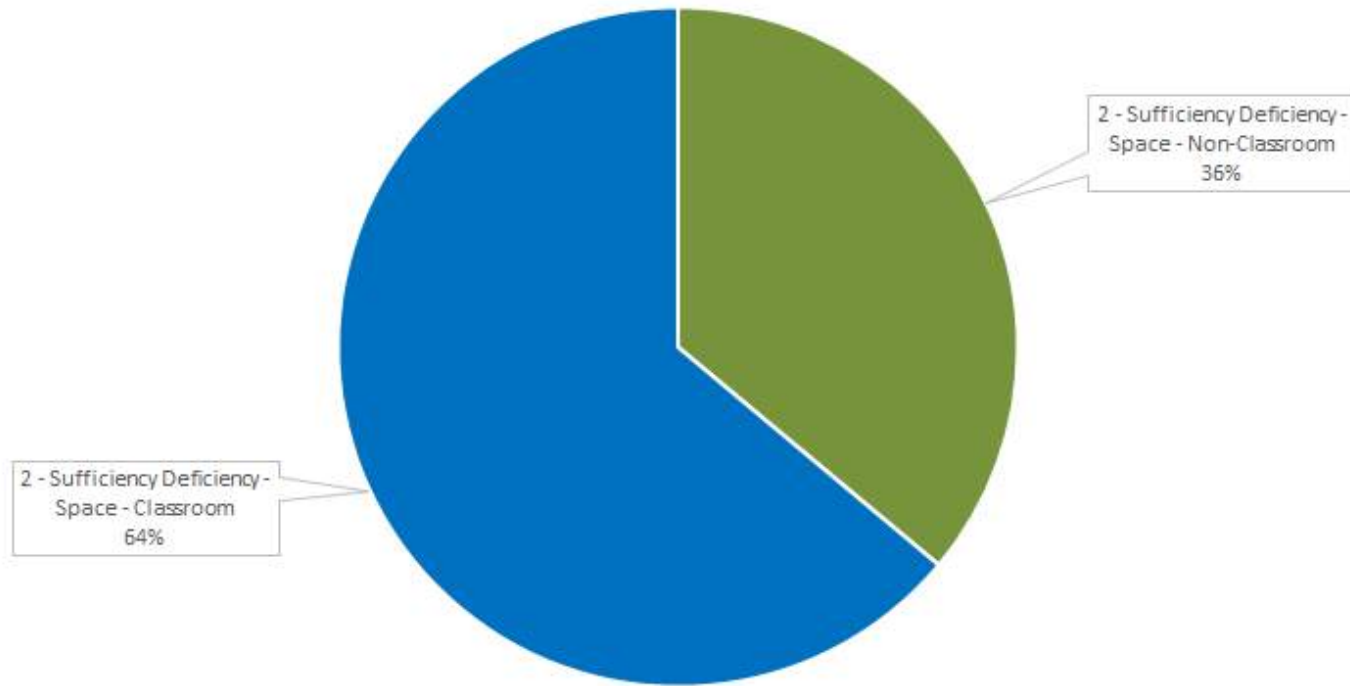
**Step 2: Subtract actual square footage from the minimum required space to determine the space deficiency.**

- Deduct 20% of the actual space for those general classrooms that are ***open-plan-type*** spaces

**Step 3: Add up all the space deficiencies into a total space deficiency figure for the facility.**

- NOTE: Space deficiencies are only “netted” against any extra space found in that space type, not against any extra space found in other types of space in the facility.

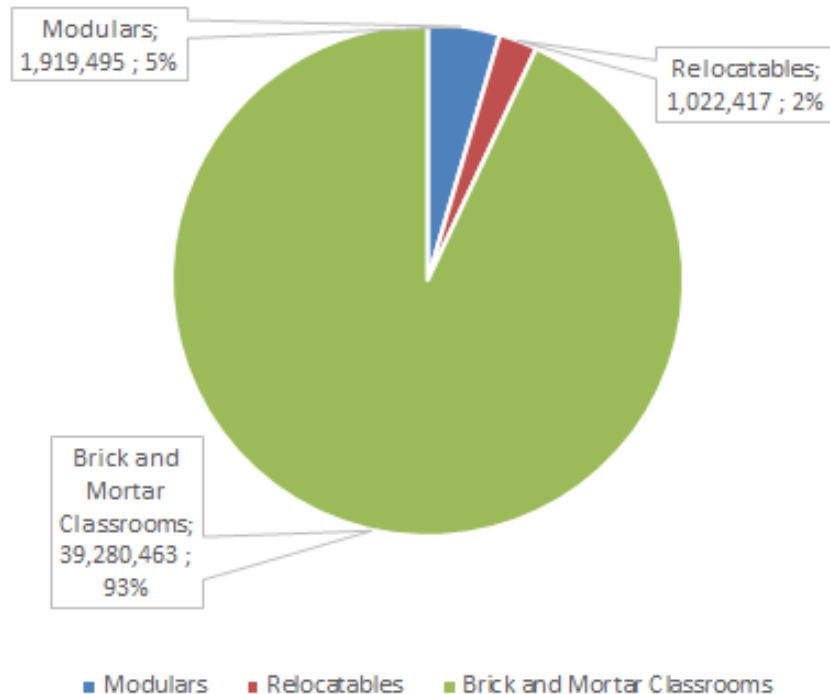
# Space Deficiencies



# Relocatables and Modulares

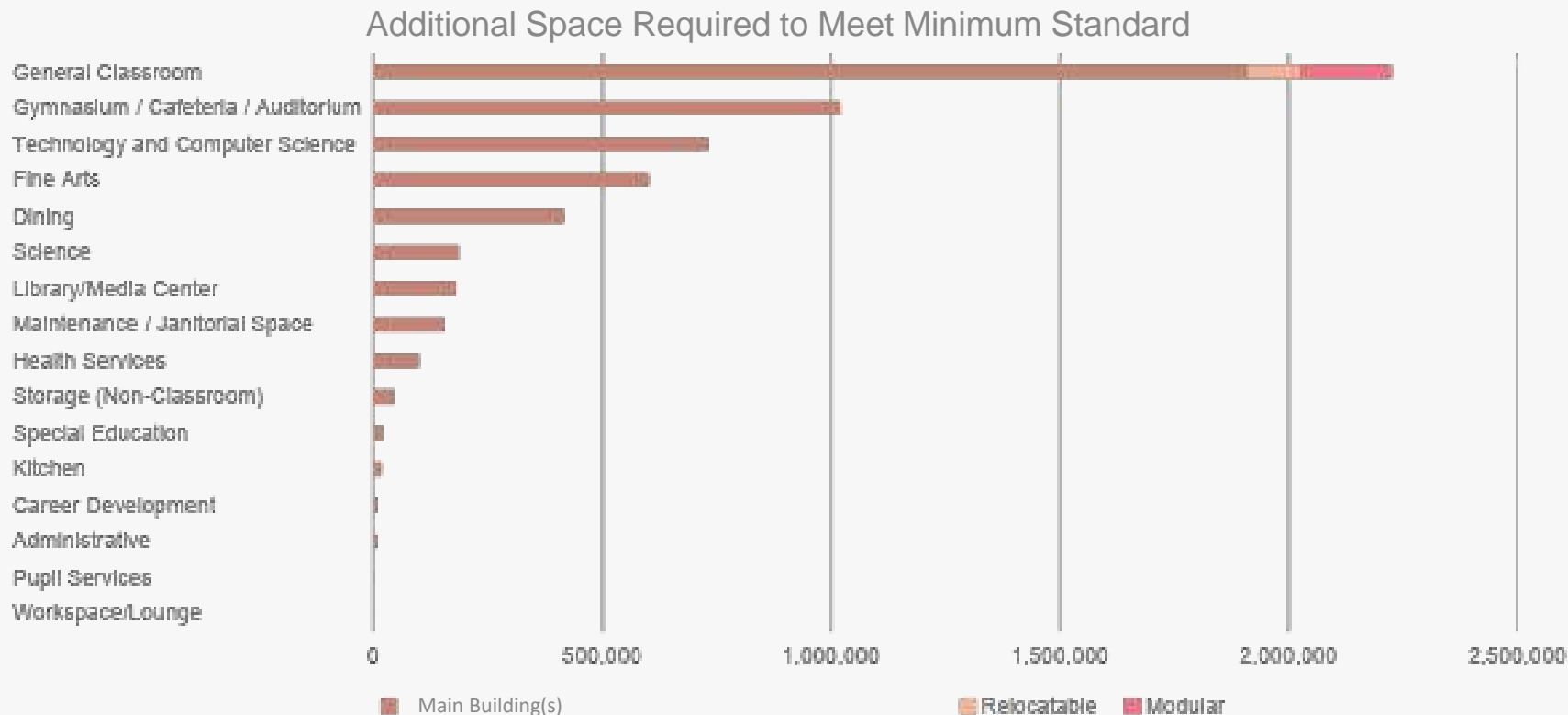
- **Relocatables:** Free-standing structure that can be relatively easily moved to another site. Expected Useful Life Remaining = 15.
- **Modulars:** More than 24 feet wide and installed upon a foundation or not easily moved to another site. Expected Useful Life Remaining = 20.
- **BOTH:** Each one is assessed as a building system and assigned a remaining useful life span (Remaining Useful Life) figure and an FCI figure.
- When RUL = zero, the square footage also gets counted as a space deficiency in the general-classroom category.
  - 116,077 SF (11%) of relocatables have an RUL of zero.
  - 199,189 SF (10%) of modulars have an RUL of zero.

Relocatable and Modular Space vs. Bricks and Mortar Classrooms (SF)





# Space Deficiencies by Type -- Statewide



**\*Data for these categories is small enough that it is not visible at current chart scale**

# Combined Facility Score



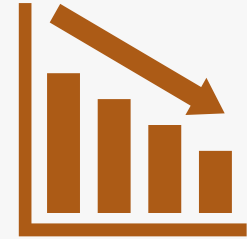
## Physical Condition

Facility Condition Index  
(FCI)



## Educational Sufficiency

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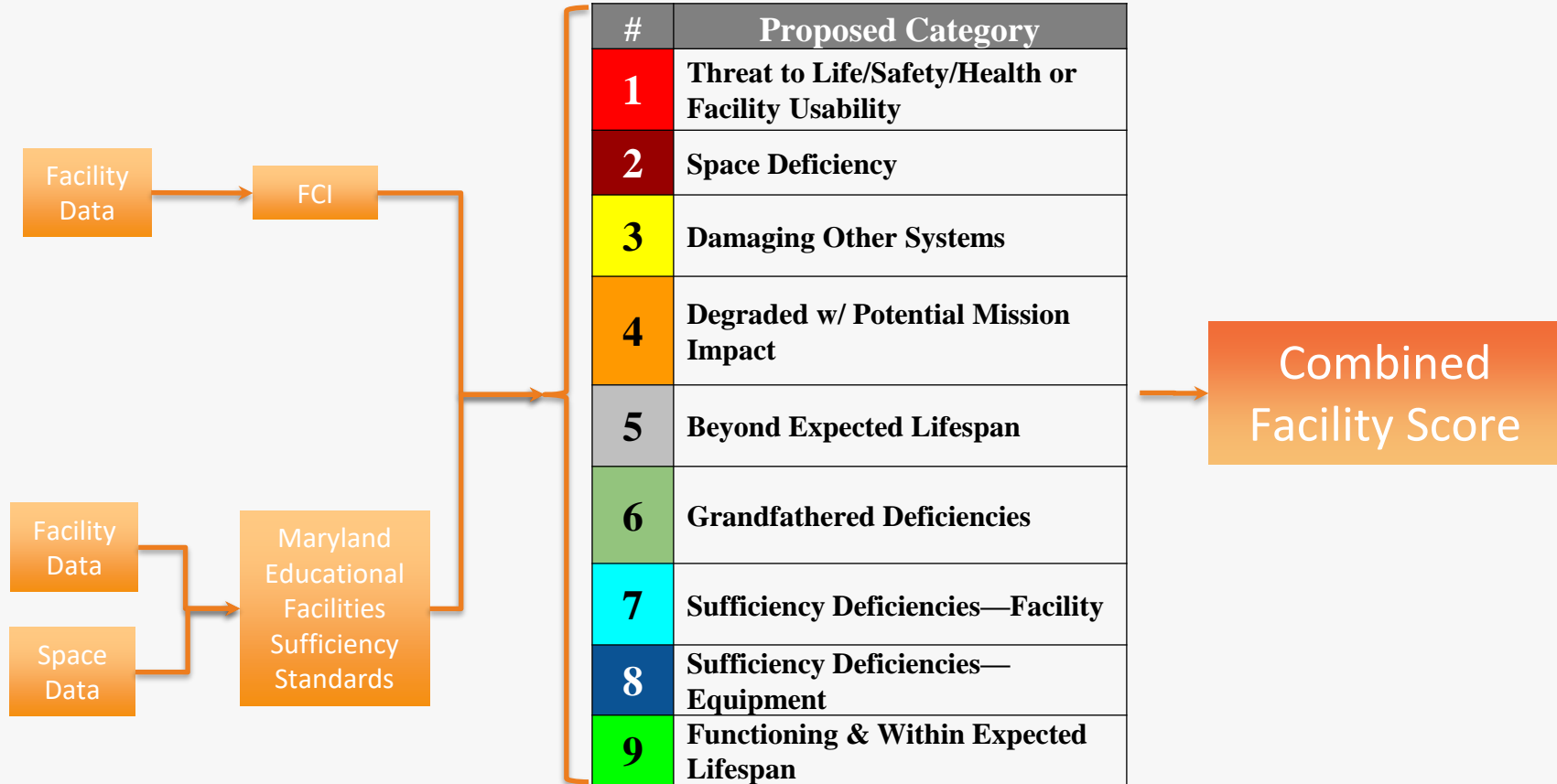
## Combined Facility Score

Complete score

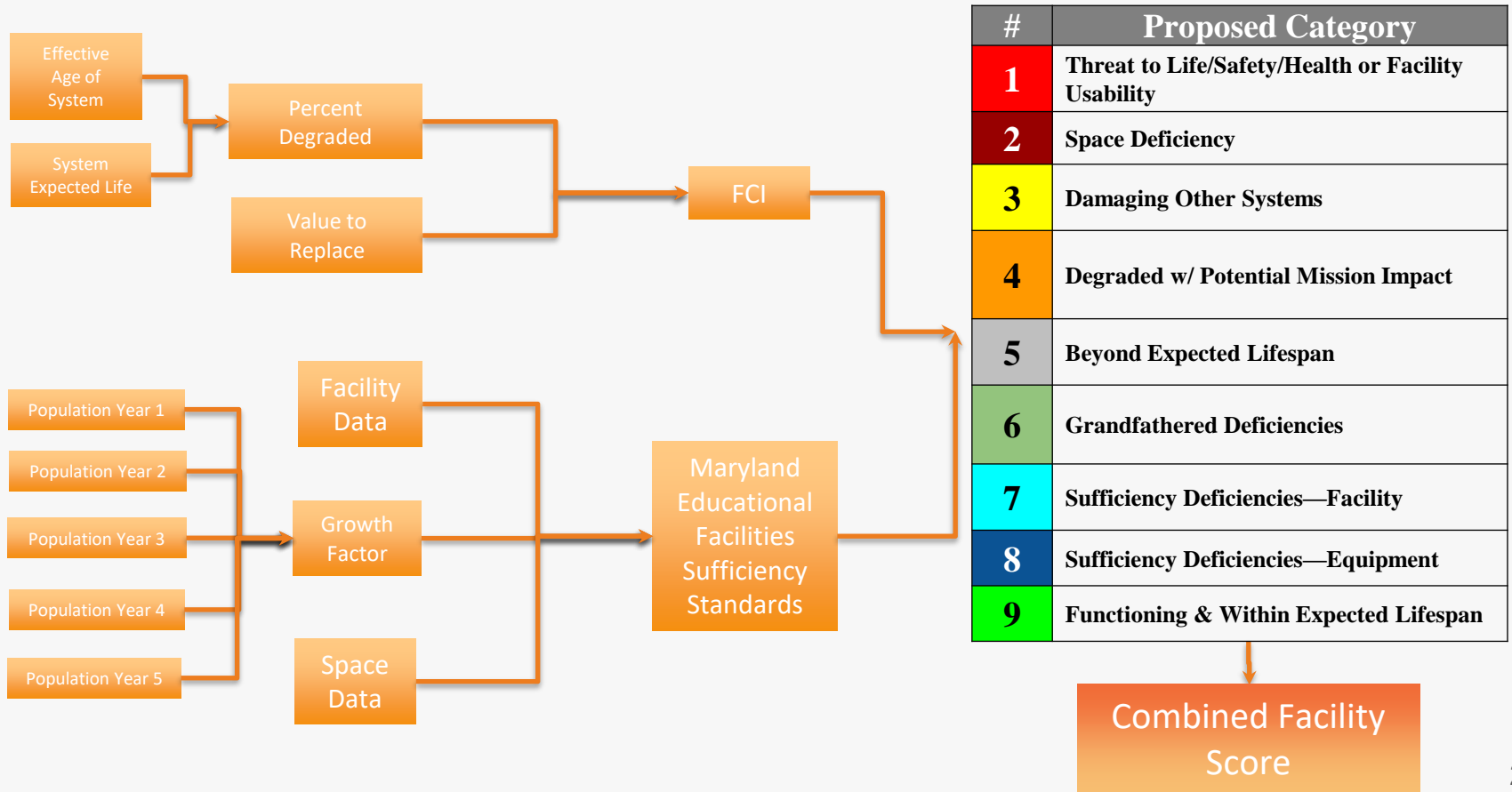
# Proposed Categories in the Combined Facility Score

#	Category Title	Description
1	<b>Threat to Life/Safety/Health or Facility Usability</b>	Issues that pose immediate or potential threats to the life, health, or safety of persons within the facility or to the usability of the facility (i.e., results in the facility having to be closed to educational uses).
2	<b>Space Deficiency</b>	Space(s) insufficient as measured against the Standard(s) for that space type.
3	<b>Damaging Other Systems</b>	Systems or deficiencies that require repairs to in order to prevent or mitigate damage occurring to other building systems.
4	<b>Degraded w/ Potential Mission Impact</b>	Systems that are mission critical and are beyond expected lifespan OR systems that are at 200% or more of expected lifespan.
5	<b>Beyond Expected Lifespan</b>	Systems that are at 100% to 200% of expected lifespan but show no signs of required repairs.
6	<b>Grandfathered Deficiencies</b>	Deficiencies that are “grandfathered” violations of State or locally adopted codes, regulations, or standards.
7	<b>Sufficiency Deficiencies—Facility</b>	Deficiencies related to sufficiency standards for <i>fixed equipment and inherent parts of the facility</i> .
8	<b>Sufficiency Deficiencies—Equipment</b>	Deficiencies related to sufficiency standards for <i>non-fixed equipment</i> .
9	<b>Functioning &amp; Within Expected Lifespan</b>	Systems that are within their expected lifespan and do not require replacement.

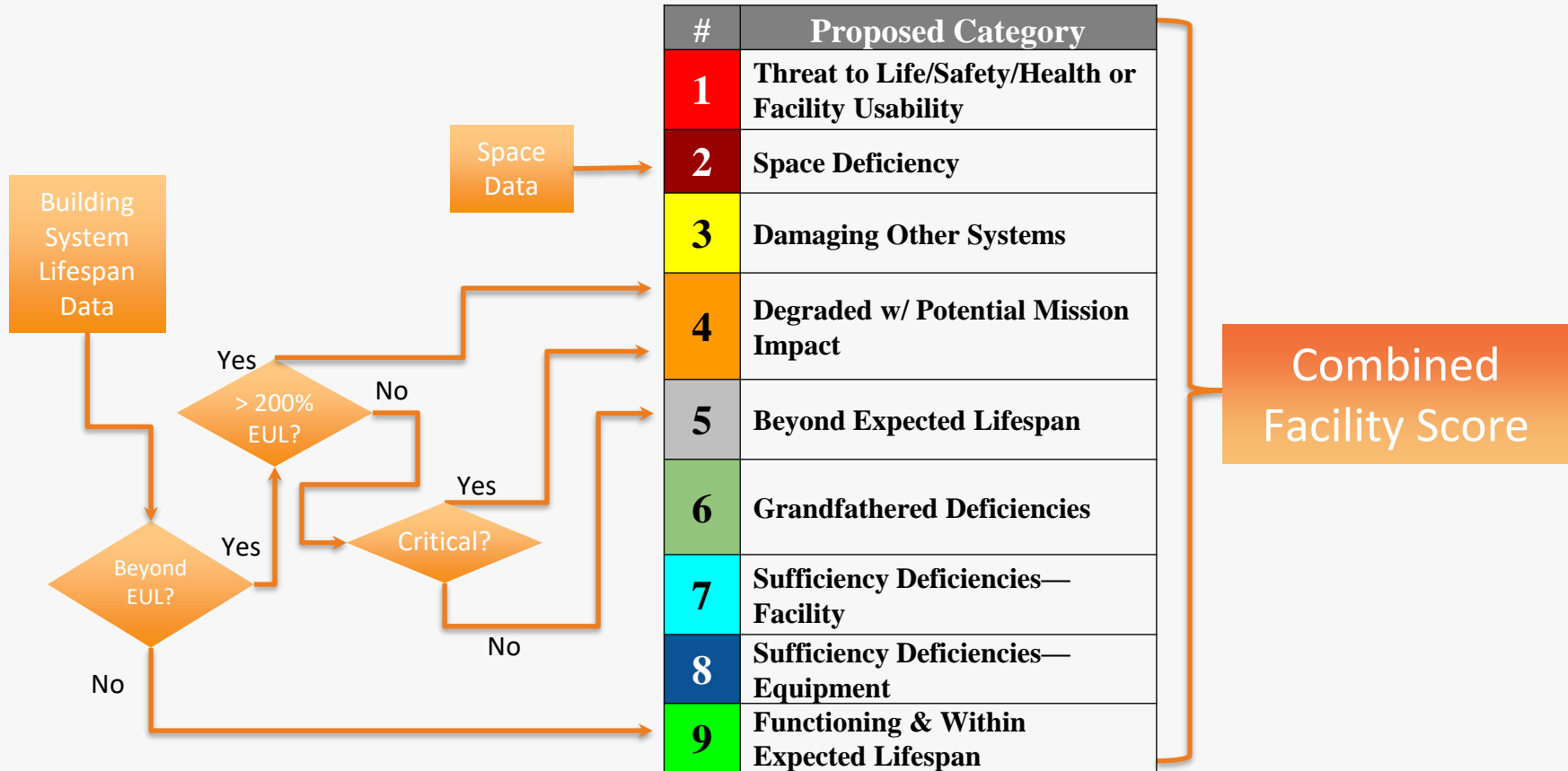
# Categorizing the Issues Found



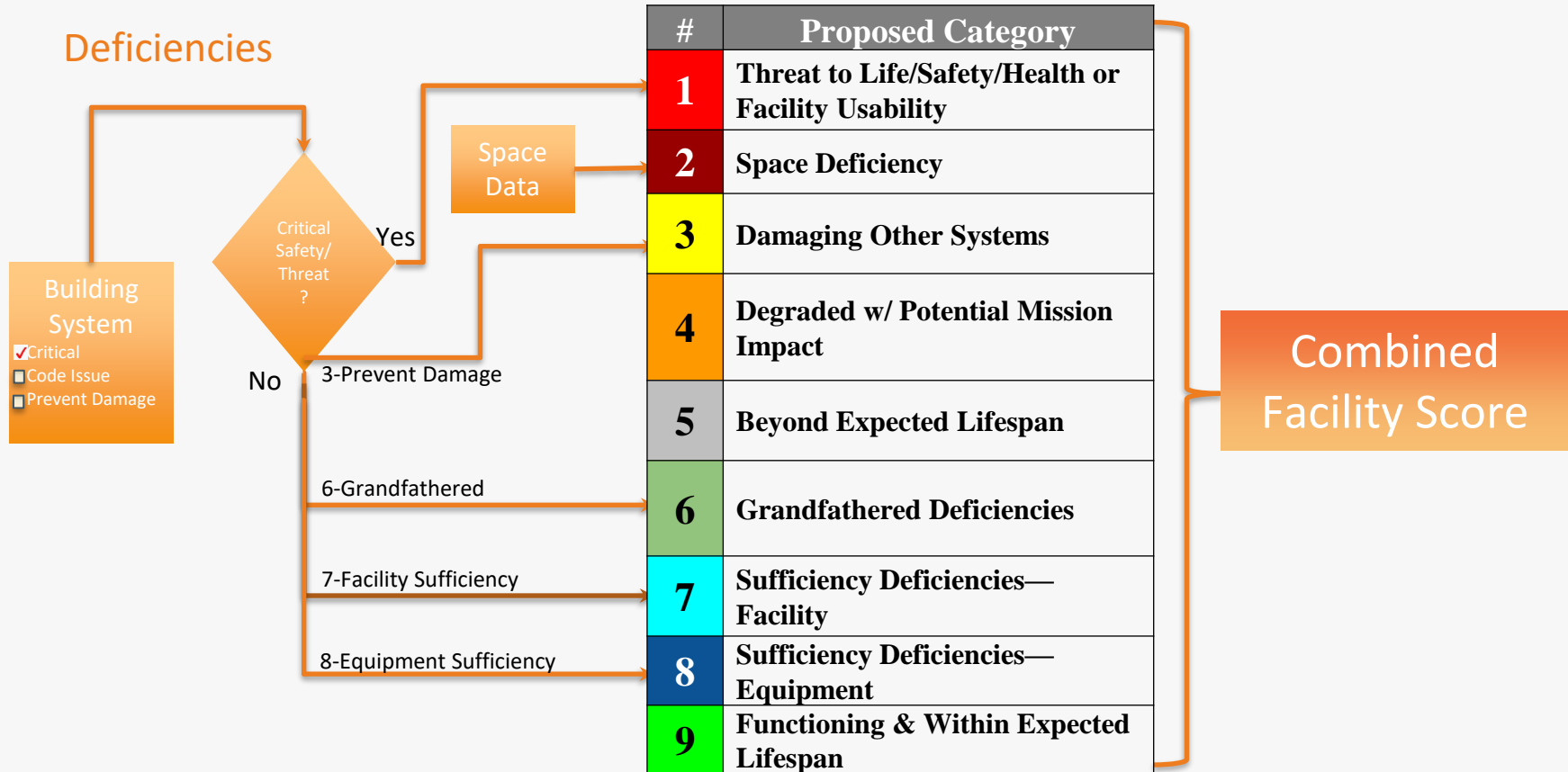
# Categorizing the Issues Found



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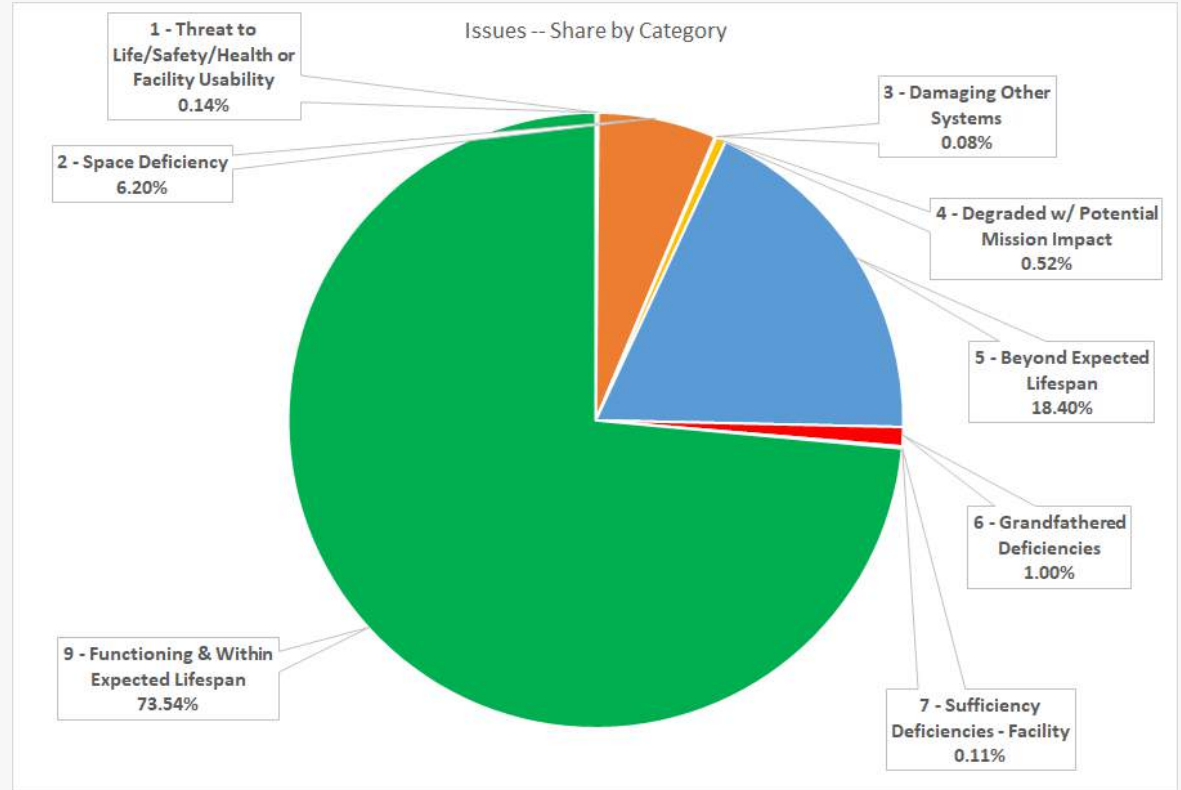


# Categorizing the Issues Found



# Issues by Category

Category	Share
1 - Threat to Life/Safety/Health or Facility Usability	0.14%
2 - Space Deficiency	6.20%
3 - Damaging Other Systems	0.08%
4 - Degraded w/ Potential Mission Impact	0.52%
5 - Beyond Expected Lifespan	18.40%
6 - Grandfathered Deficiencies	1.00%
7 - Sufficiency Deficiencies - Facility	0.11%
9 - Functioning & Within Expected Lifespan	73.54%
Total	100.00%





# Category 1: Threats to Life, Safety, Health, or Facility Usability (71)

Issues that pose immediate or potential threats to

- The life, safety, or health of persons within the facility;

OR

- The usability of the facility (*i.e.*, results in the facility having to be closed to educational uses)

- Air Conditioning Absent in 20%-plus of Classrooms (32)
- Asphalt Pavement - Pedestrian (2)
- Asphalt Pavement - Vehicular (3)
- Athletic Surface - Lawn Area (2)
- Brick (1)
- Concrete Pavement - Pedestrian (1)
- Fire Alarm System (14)
- Gypsum Board/Plaster Ceiling
- Modular Building - Classroom/Office - Standard (1)
- Quarry Tile (2)
- Relocatable Building - Classroom/Office - Standard (2)
- Sports Courts (1)
- Sprinkler System (2)
- Switchgear/board w/Sub Panels - Medium Density (1)
- Vinyl Composition Tile (VCT) (4)
- Window (1)
- Wood Sports Floor (1)

# Proposed Categories in the Combined Facility Score

#	Category Title	Description
1	<b>Threat to Life/Safety/Health or Facility Usability</b>	Issues that pose immediate or potential threats to the life, health, or safety of persons within the facility or to the usability of the facility (i.e., results in the facility having to be closed to educational uses).
2	<b>Space Deficiency</b>	Space(s) insufficient as measured against the Standard(s) for that space type.
3	<b>Damaging Other Systems</b>	Systems or deficiencies that require repairs to in order to prevent or mitigate damage occurring to other building systems.
4	<b>Degraded w/ Potential Mission Impact</b>	Systems that are mission critical and are beyond expected lifespan OR systems that are at 200% or more of expected lifespan.
5	<b>Beyond Expected Lifespan</b>	Systems that are at 100% to 200% of expected lifespan but show no signs of required repairs.
6	<b>Grandfathered Deficiencies</b>	Deficiencies that are “grandfathered” violations of State or locally adopted codes, regulations, or standards.
7	<b>Sufficiency Deficiencies—Facility</b>	Deficiencies related to sufficiency standards for <i>fixed equipment and inherent parts of the facility</i> .
8	<b>Sufficiency Deficiencies—Equipment</b>	Deficiencies related to sufficiency standards for <i>non-fixed equipment</i> .
9	<b>Functioning &amp; Within Expected Lifespan</b>	Systems that are within their expected lifespan and do not require replacement.

**We'd love**  
to hear your questions



# **Workgroup on the Assessment and Funding of School Facilities**

*Delegate Maggie McIntosh, Chair*

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**Wednesday, October 20 at 3:00 p.m.**

**Wednesday, November 3<sup>rd</sup> at 3:00 p.m.**

**Wednesday, November 17<sup>th</sup> at 3:00 p.m.**

**Wednesday, December 1<sup>st</sup> at 3:00 p.m.**

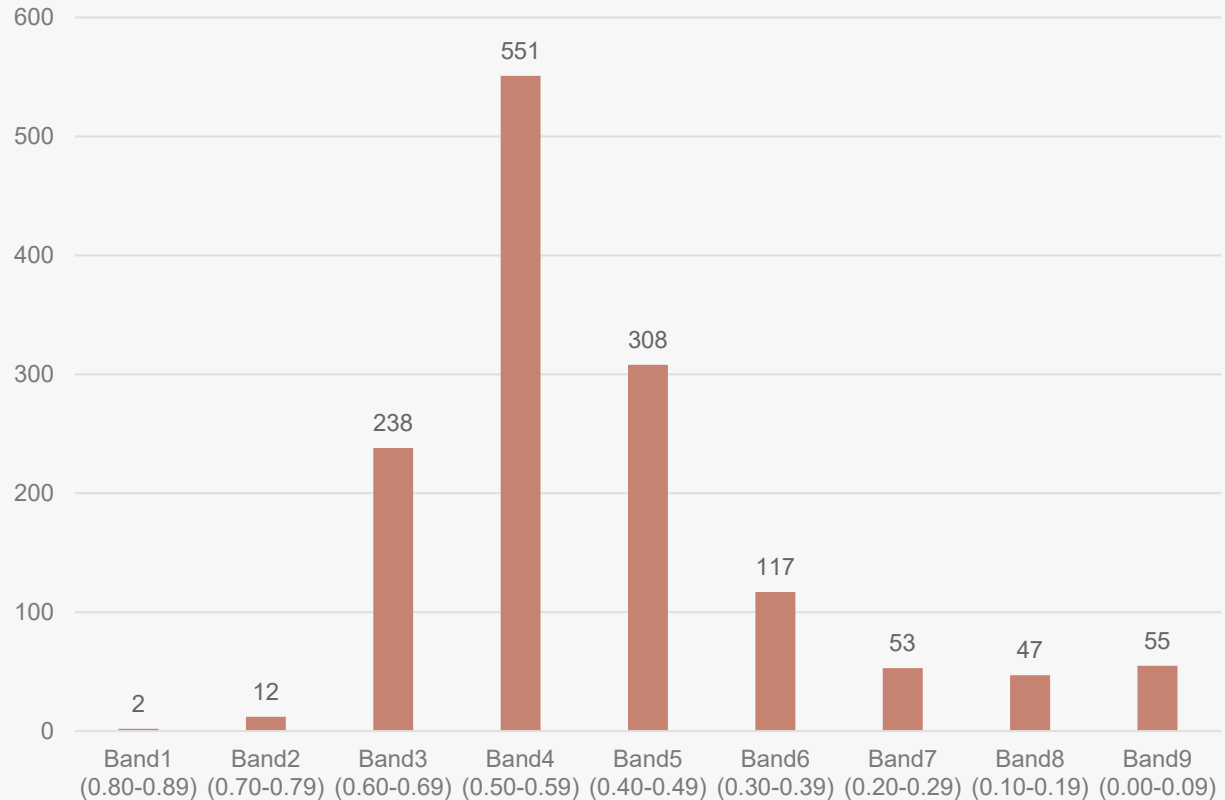
**Wednesday, December 15<sup>th</sup> at 3:00 p.m.**

# Statewide Facility Condition Distribution by Band

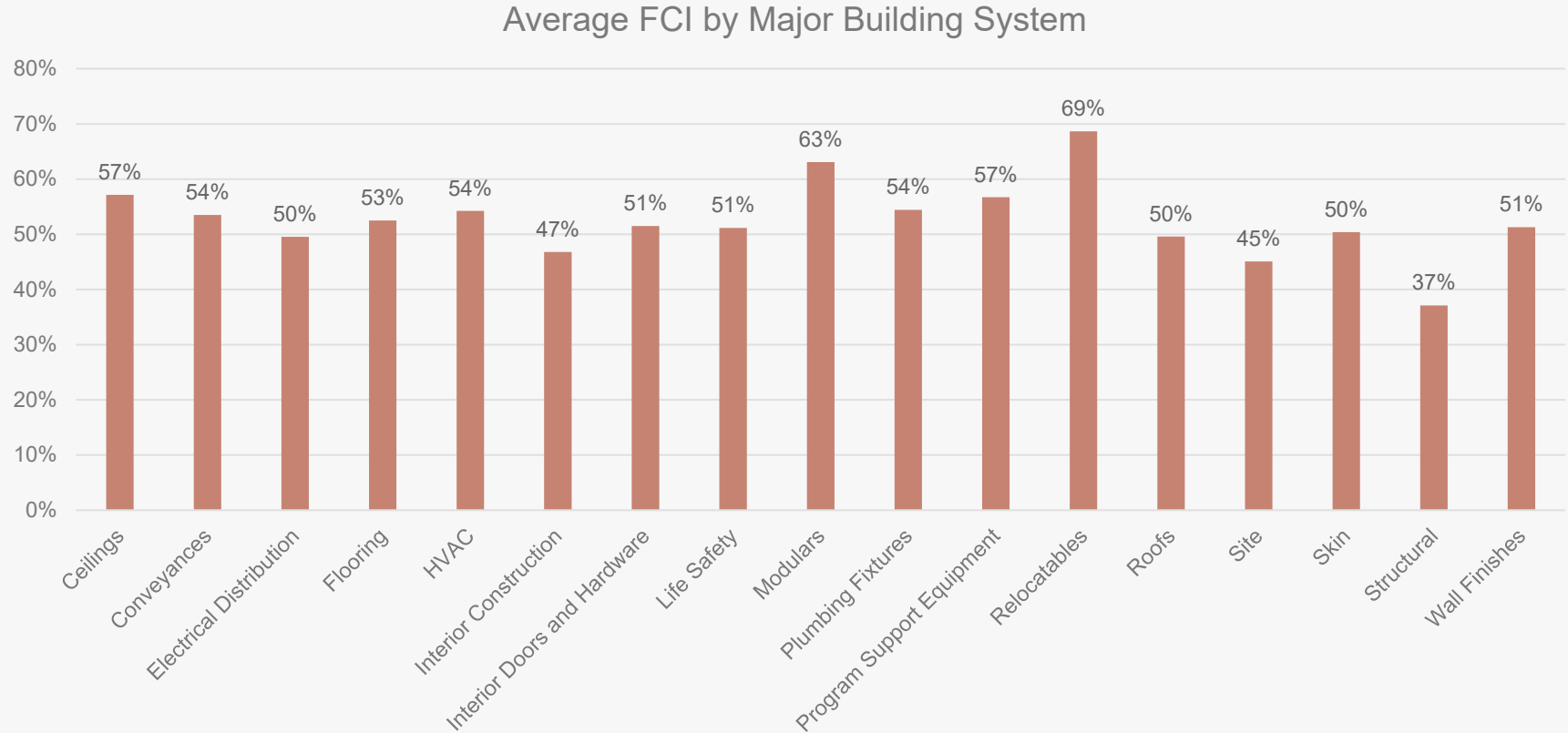
- Facility Population of 1,383
- Arithmetic Mean of 48.4%
- Std Deviation of 14.9%

Lower is Better

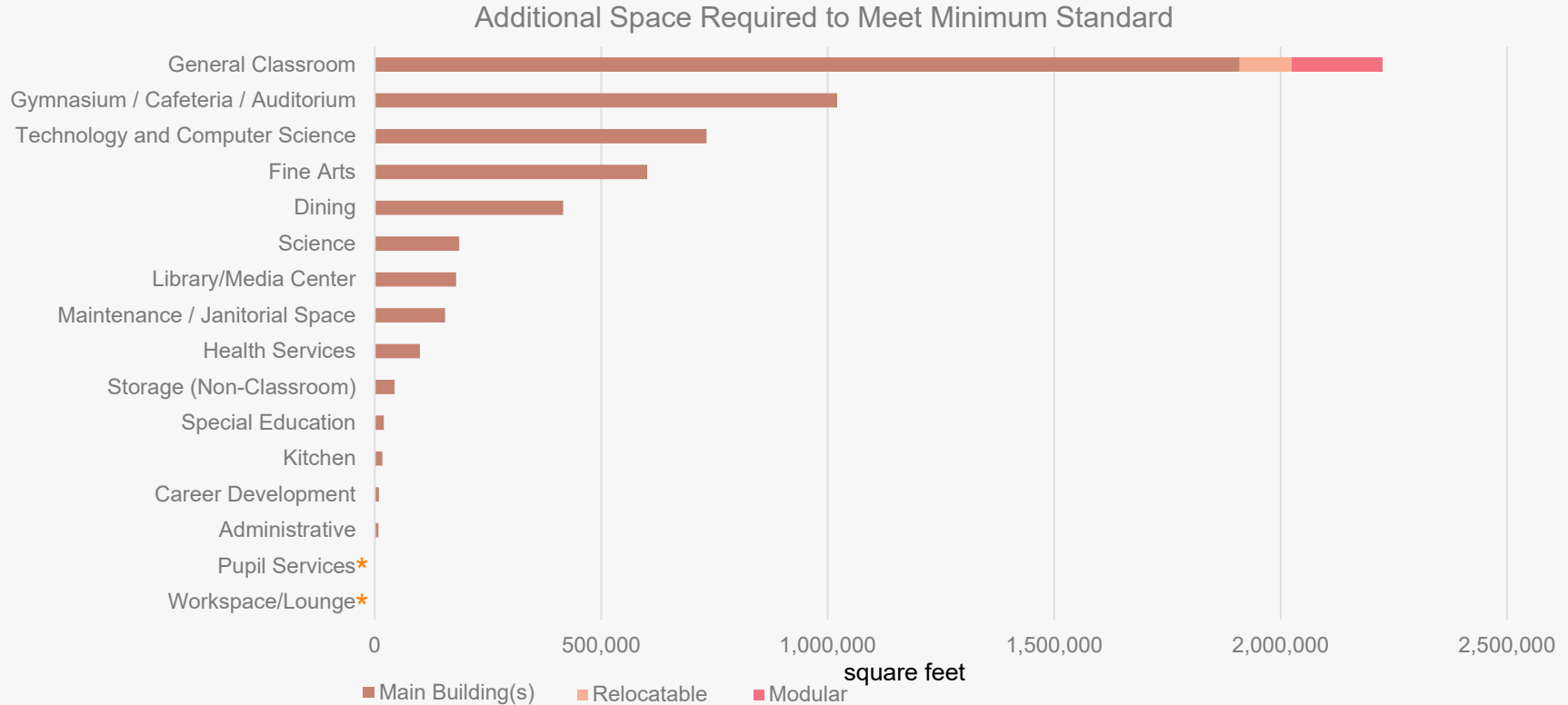
FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	2	0%
Band2 (0.70-0.79)	12	1%
Band3 (0.60-0.69)	237	17%
Band4 (0.50-0.59)	551	40%
Band5 (0.40-0.49)	308	22%
Band6 (0.30-0.39)	117	8%
Band7 (0.20-0.29)	53	4%
Band8 (0.10-0.19)	47	3%
Band9 (0.00-0.09)	54	4%
<b>Total</b>	<b>1,383</b>	<b>100%</b>



# Statewide Average FCI by Major Building System



# Space Deficiencies by Type – Statewide



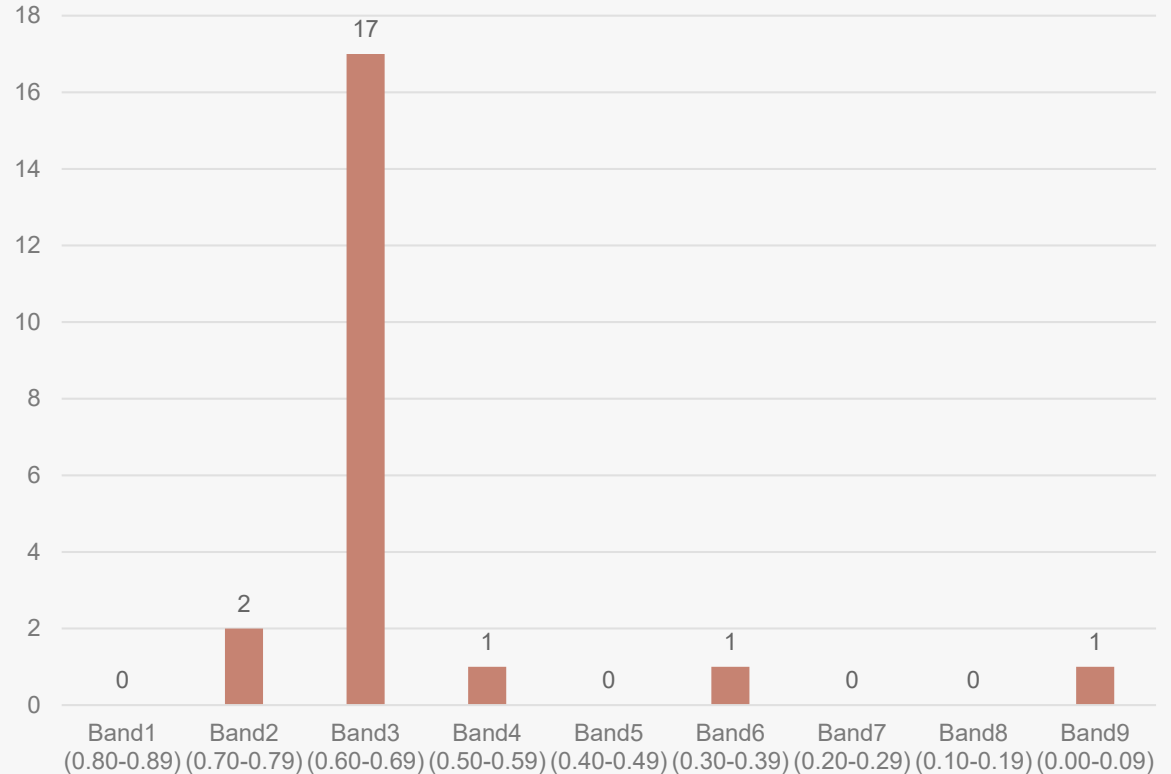
\*Data for these categories is small enough that it is not visible at current chart scale 3

# Allegany Facility Condition Distribution by Band

- Facility Population of 22
- Arithmetic Mean of 60.6%
- Std Deviation of 13.4%

Lower is Better

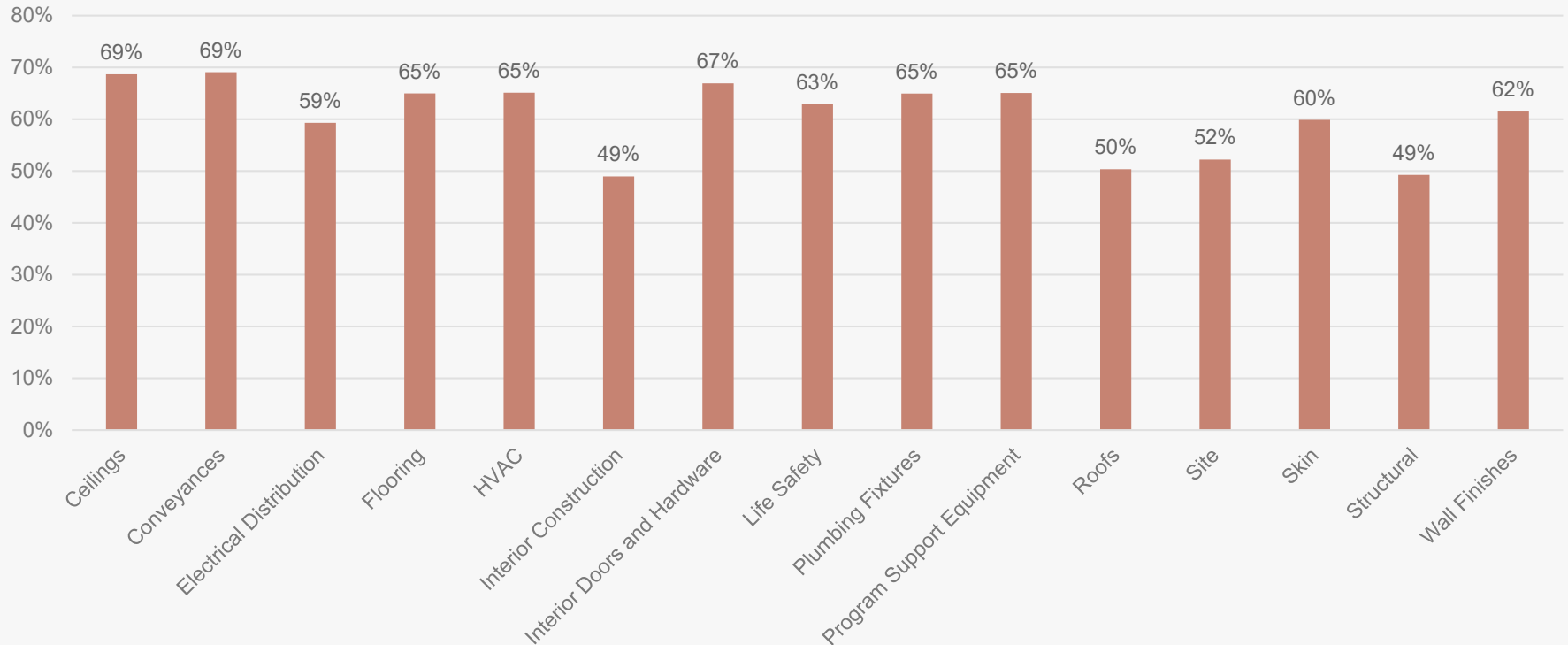
FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	0	0%
Band2 (0.70-0.79)	2	9%
Band3 (0.60-0.69)	17	77%
Band4 (0.50-0.59)	1	5%
Band5 (0.40-0.49)	0	0%
Band6 (0.30-0.39)	1	5%
Band7 (0.20-0.29)	0	0%
Band8 (0.10-0.19)	0	0%
Band9 (0.00-0.09)	1	5%
<b>Total</b>	<b>22</b>	<b>100%</b>



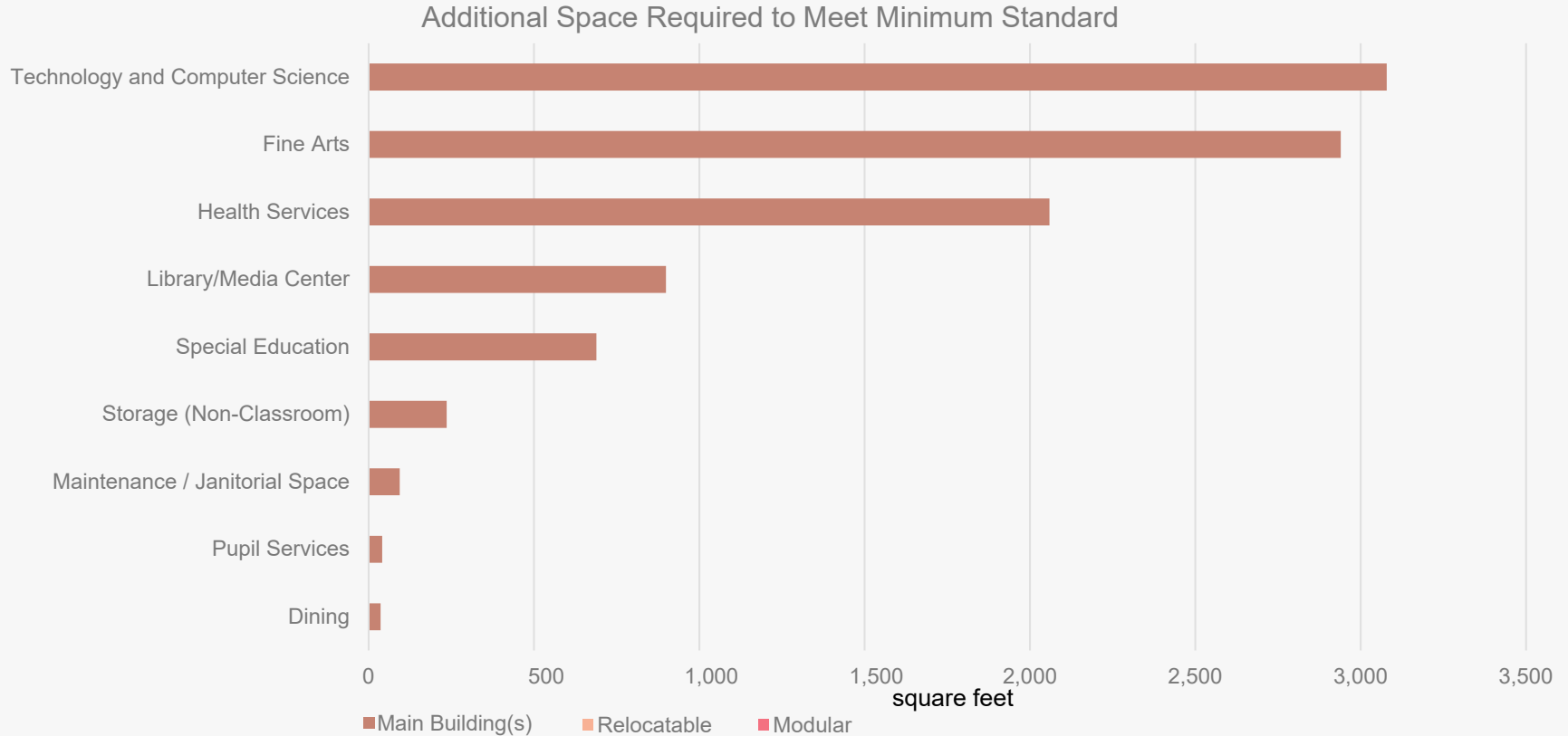


# Allegany Average FCI by Major Building System

Average FCI by Major Building System



# Space Deficiencies by Type – Allegany

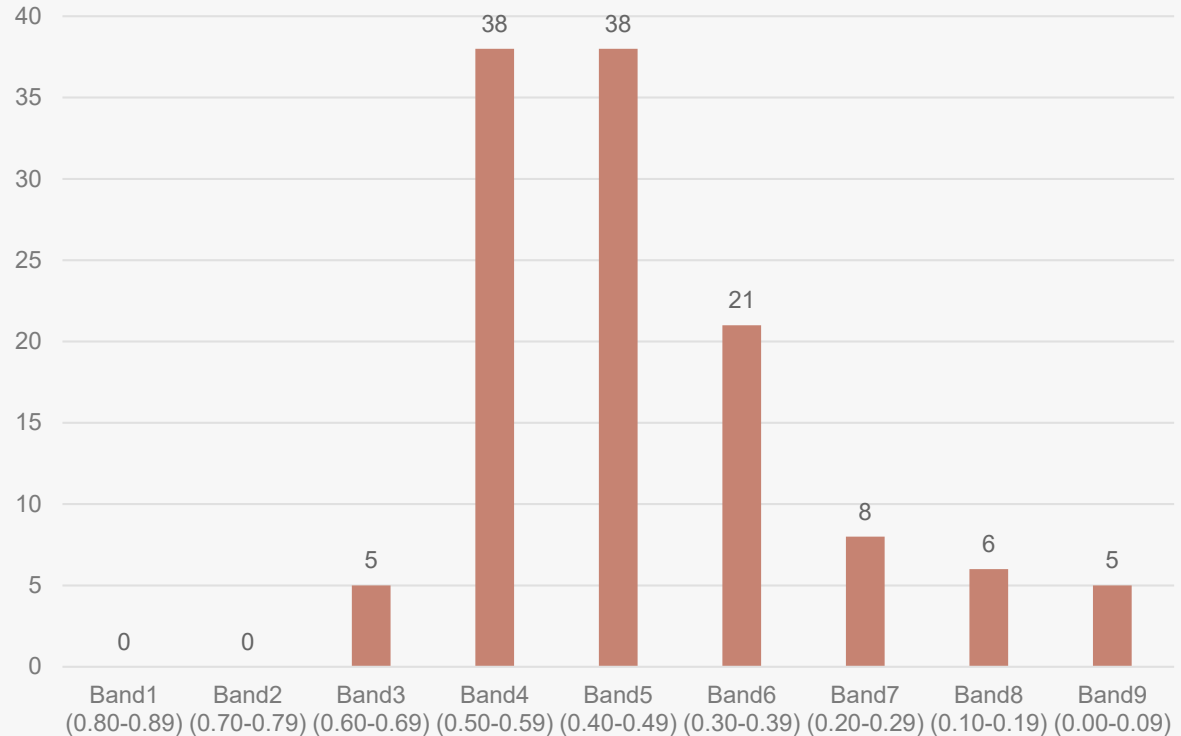


# Anne Arundel Facility Condition Distribution by Band

- Facility Population of 121
- Arithmetic Mean of 42.7%
- Std Deviation of 14.1%

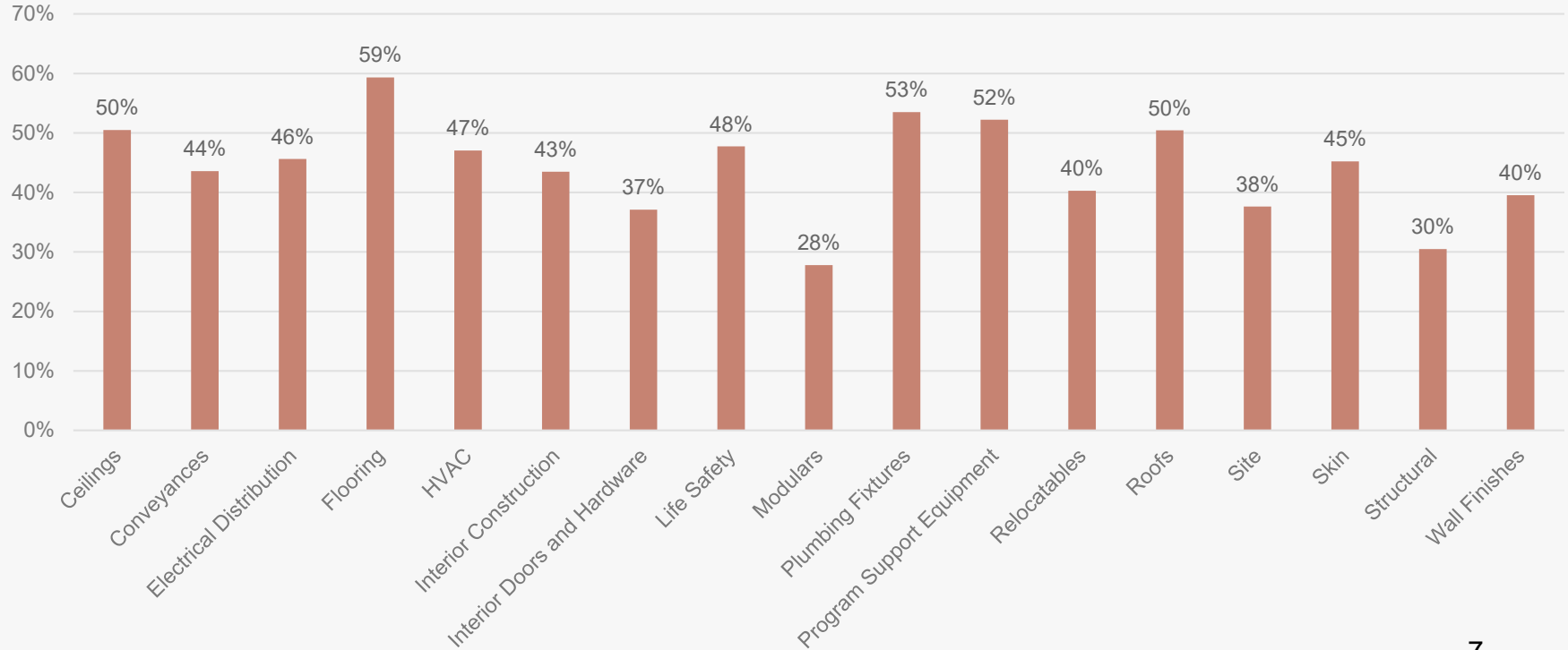
Lower is Better

FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	0	0%
Band2 (0.70-0.79)	0	0%
Band3 (0.60-0.69)	5	4%
Band4 (0.50-0.59)	38	31%
Band5 (0.40-0.49)	38	31%
Band6 (0.30-0.39)	21	17%
Band7 (0.20-0.29)	8	7%
Band8 (0.10-0.19)	6	35%
Band9 (0.00-0.09)	5	4%
<b>Total</b>	<b>121</b>	<b>100%</b>

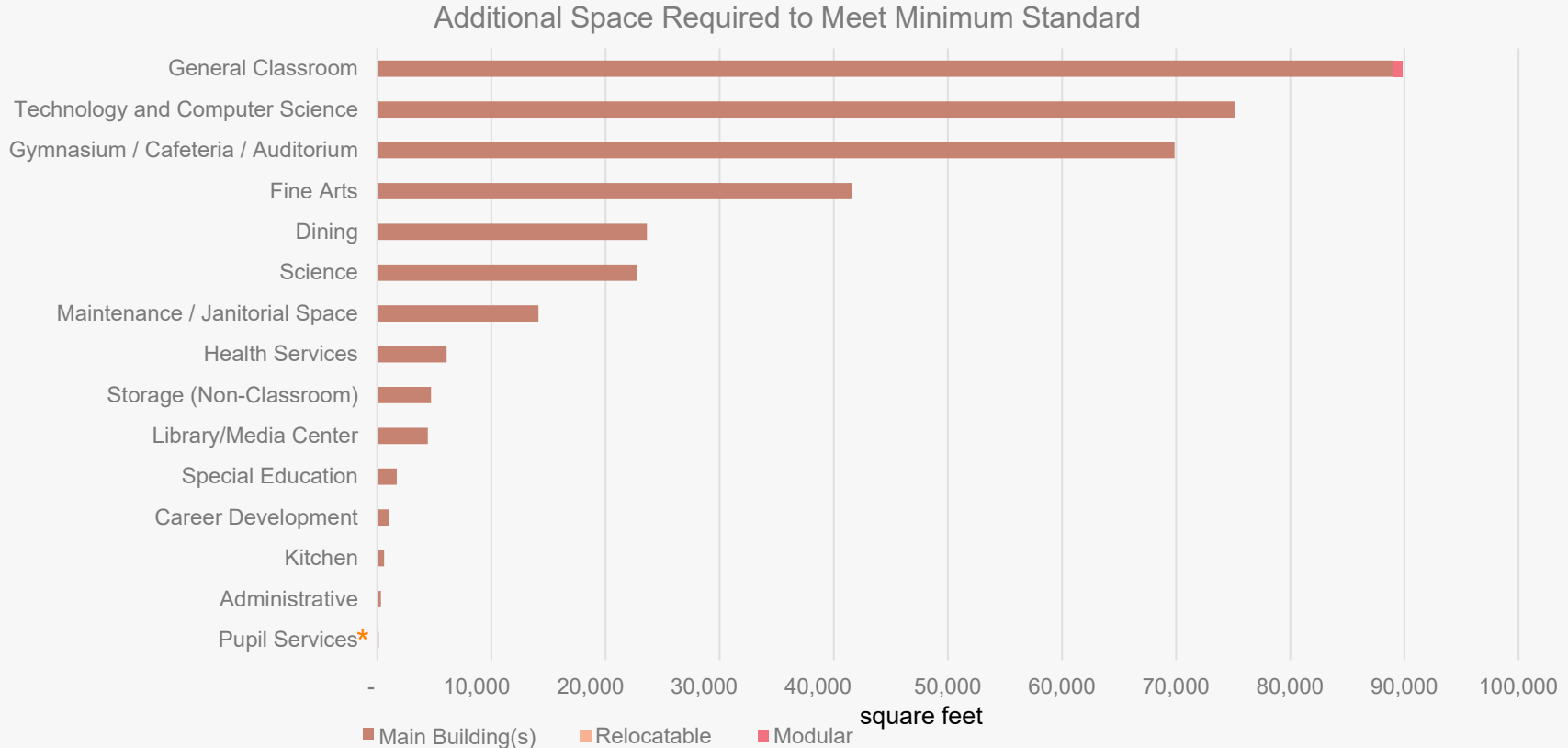


# Anne Arundel Average FCI by Major Building System

Average FCI by Major Building System



# Space Deficiencies by Type – Anne Arundel



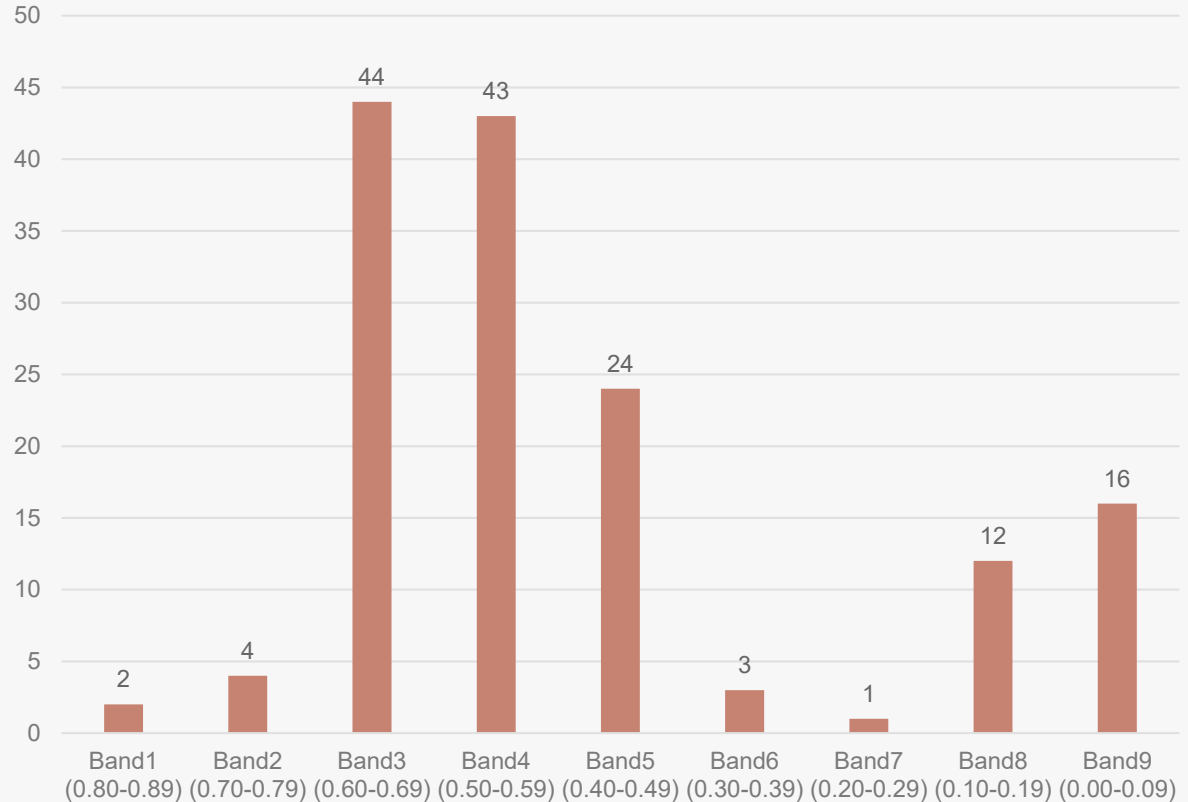
\*Data for these categories is small enough that it is not visible at current chart scale 9

# Baltimore City Facility Condition Distribution by Band

- Facility Population of 149
- Arithmetic Mean of 47.9%
- Std Deviation of 21.0%

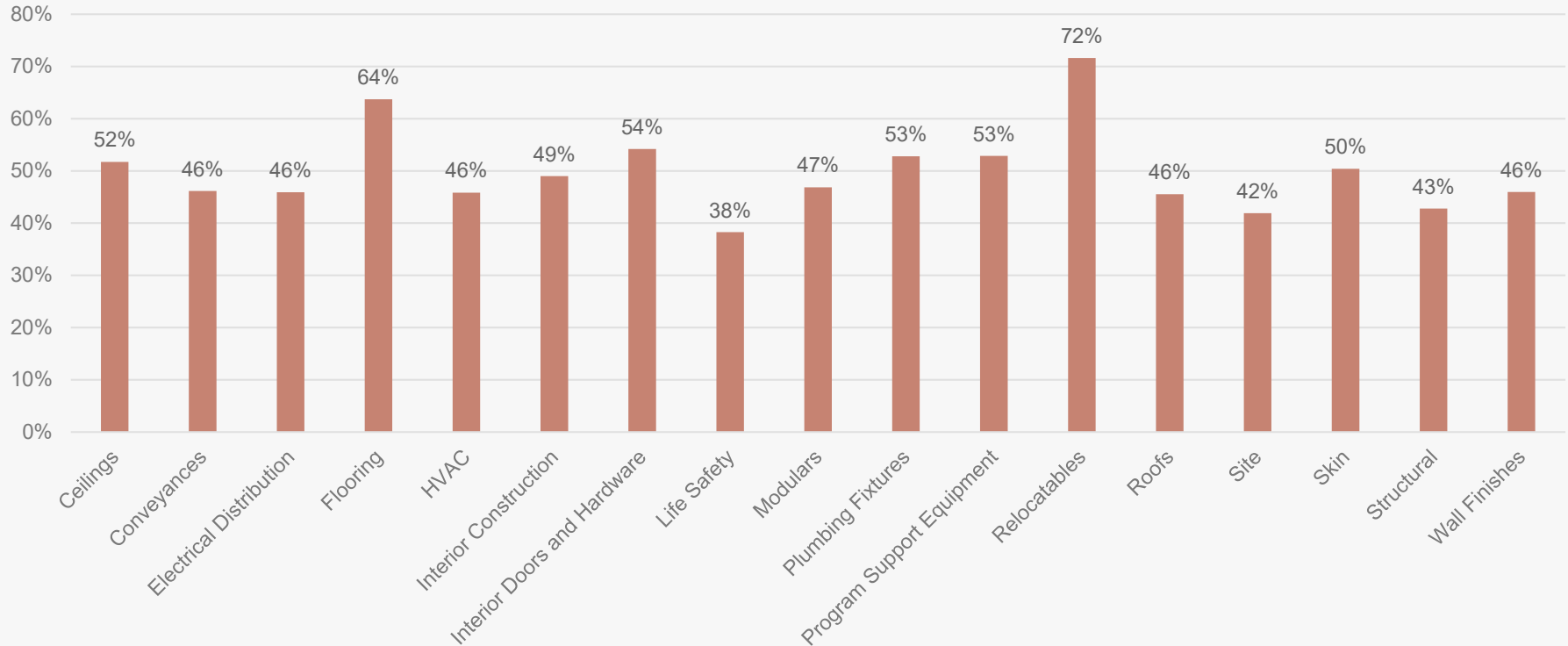
Lower is Better

FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	2	1%
Band2 (0.70-0.79)	4	3%
Band3 (0.60-0.69)	44	30%
Band4 (0.50-0.59)	43	29%
Band5 (0.40-0.49)	24	16%
Band6 (0.30-0.39)	3	2%
Band7 (0.20-0.29)	1	1%
Band8 (0.10-0.19)	12	8%
Band9 (0.00-0.09)	16	11%
Total	149	100%

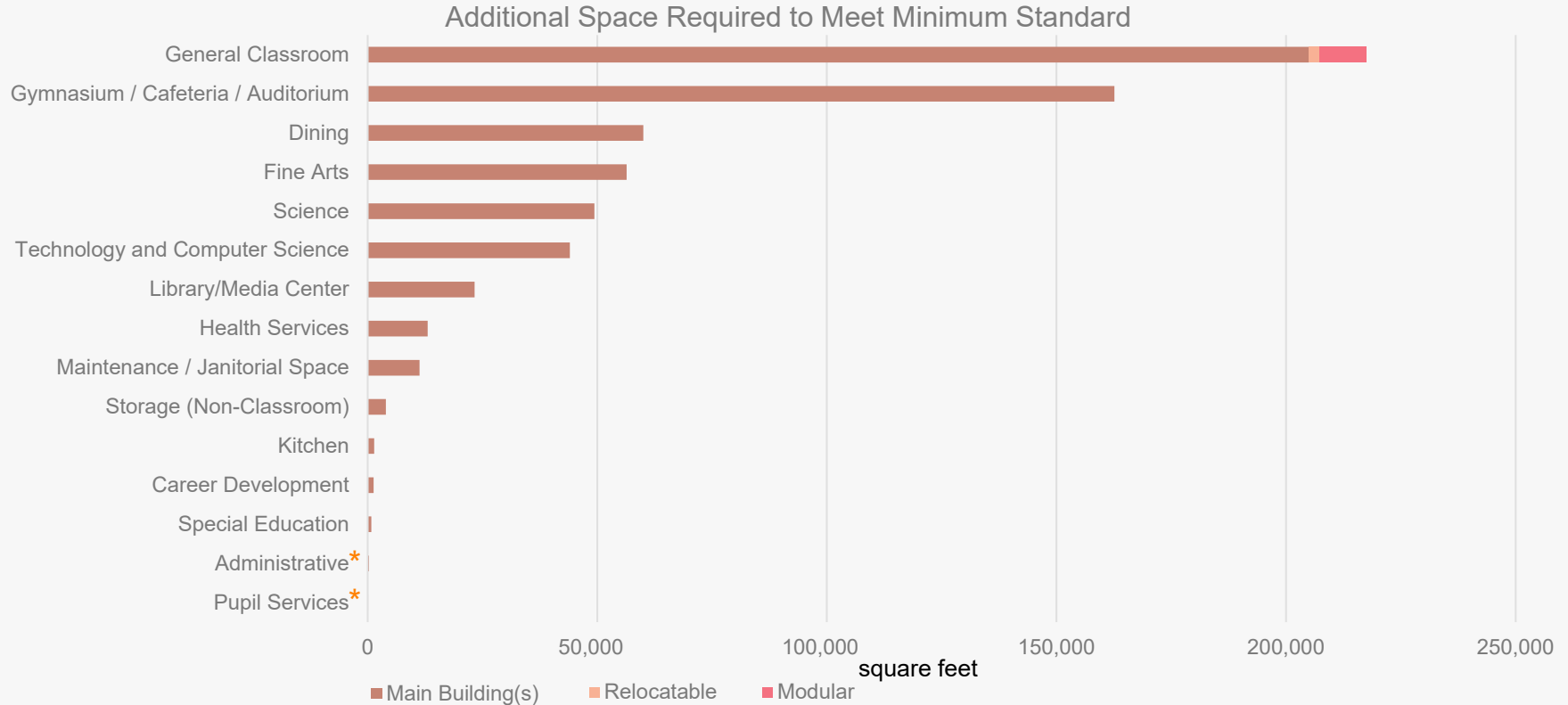


# Baltimore City Average FCI by Major Building System

Average FCI by Major Building System



# Space Deficiencies by Type – Baltimore City



\*Data for these categories is small enough that it is not visible at current chart scale<sup>12</sup>

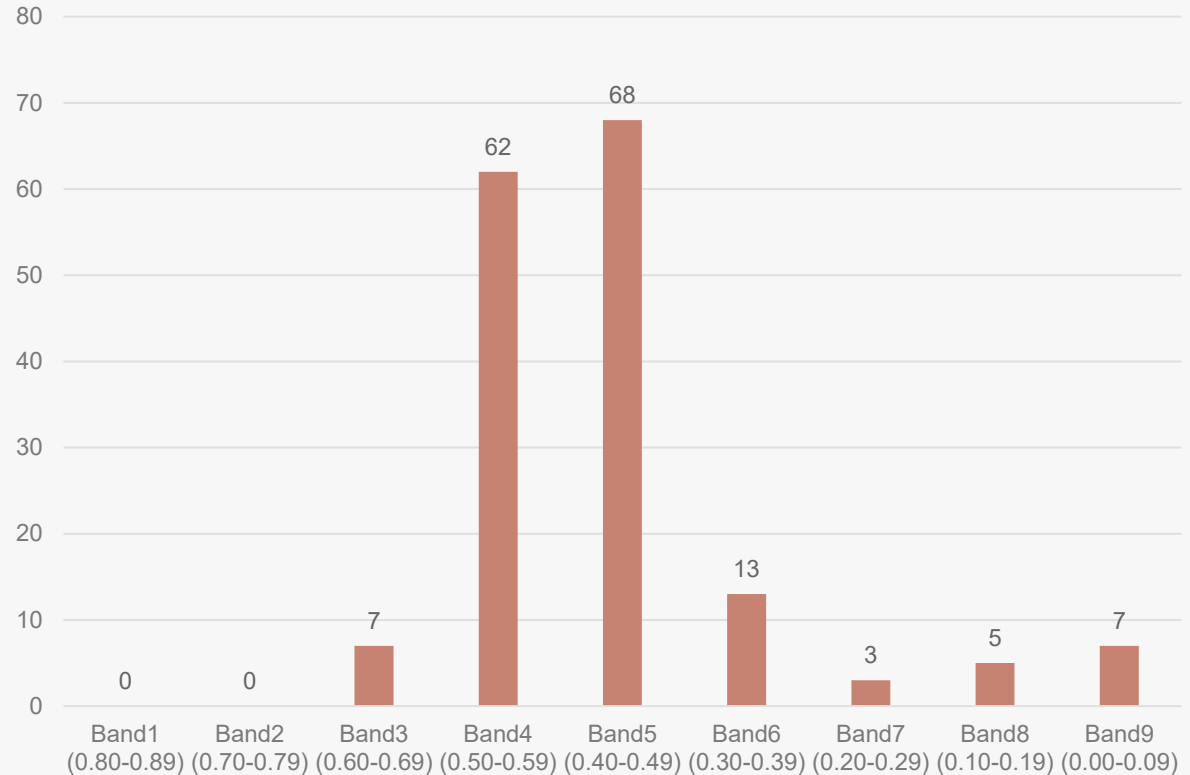


# Baltimore County Facility Condition Distribution by Band

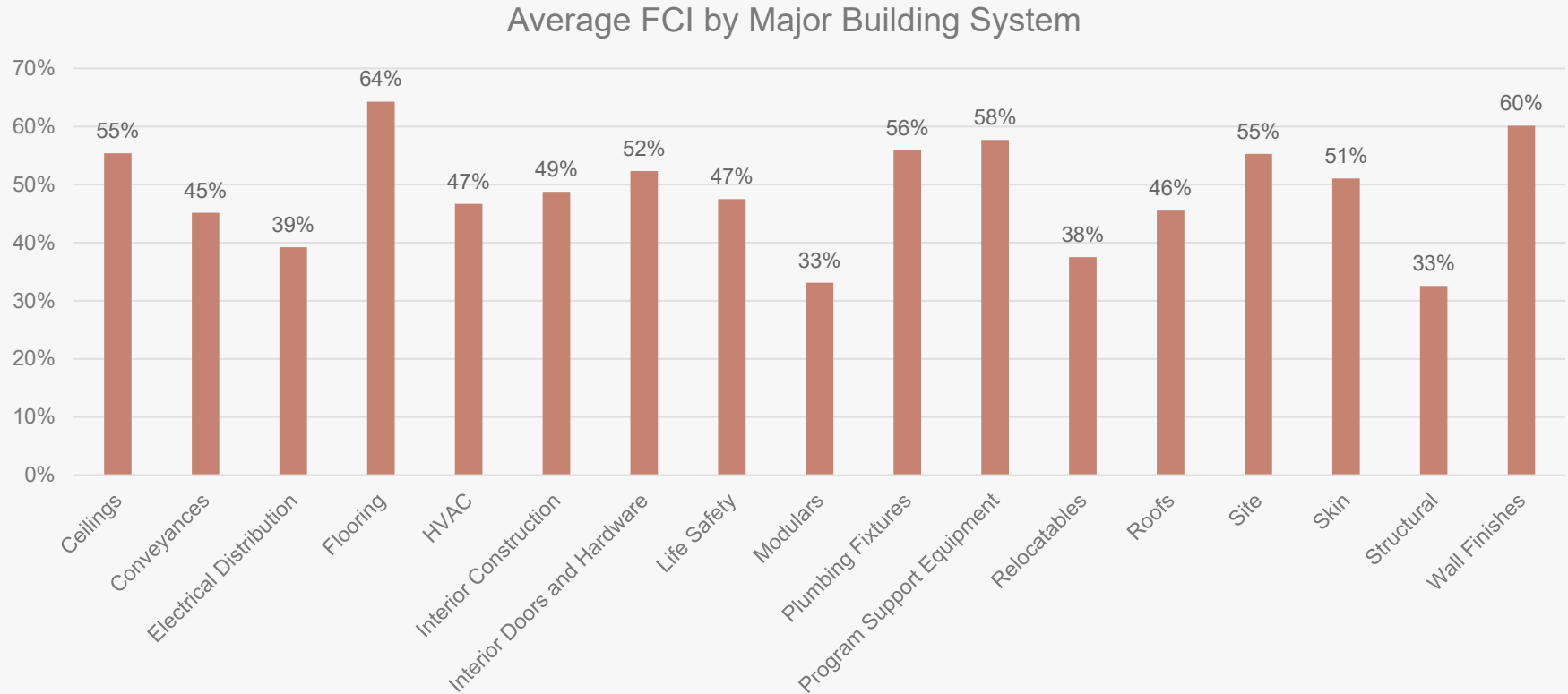
- Facility Population of 165
- Arithmetic Mean of 45.9%
- Std Deviation of 12.9%

Lower is Better

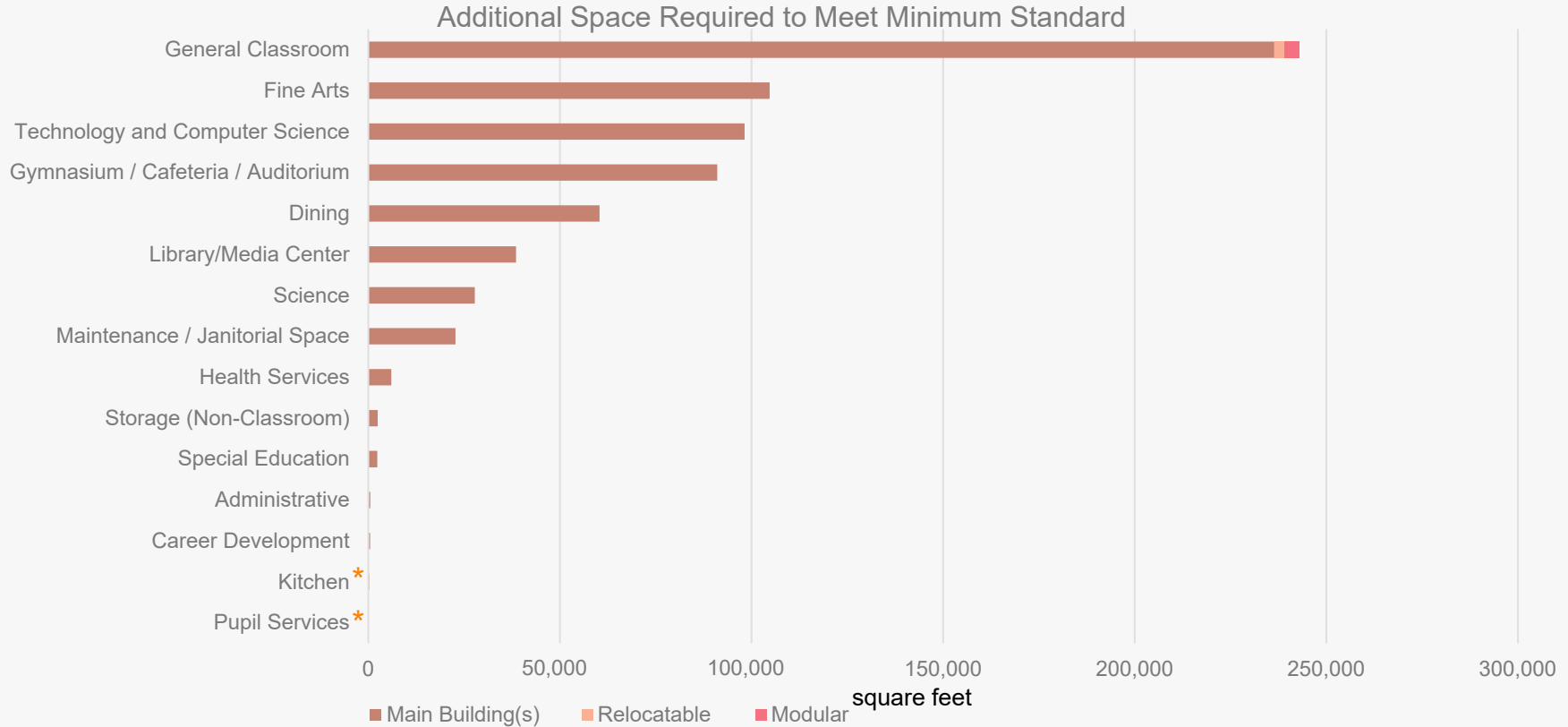
FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	0	0%
Band2 (0.70-0.79)	0	0%
Band3 (0.60-0.69)	7	4%
Band4 (0.50-0.59)	62	38%
Band5 (0.40-0.49)	68	41%
Band6 (0.30-0.39)	13	8%
Band7 (0.20-0.29)	3	2%
Band8 (0.10-0.19)	5	3%
Band9 (0.00-0.09)	7	4%
<b>Total</b>	<b>165</b>	<b>100%</b>



# Baltimore County Average FCI by Major Building System



# Space Deficiencies by Type – Baltimore County



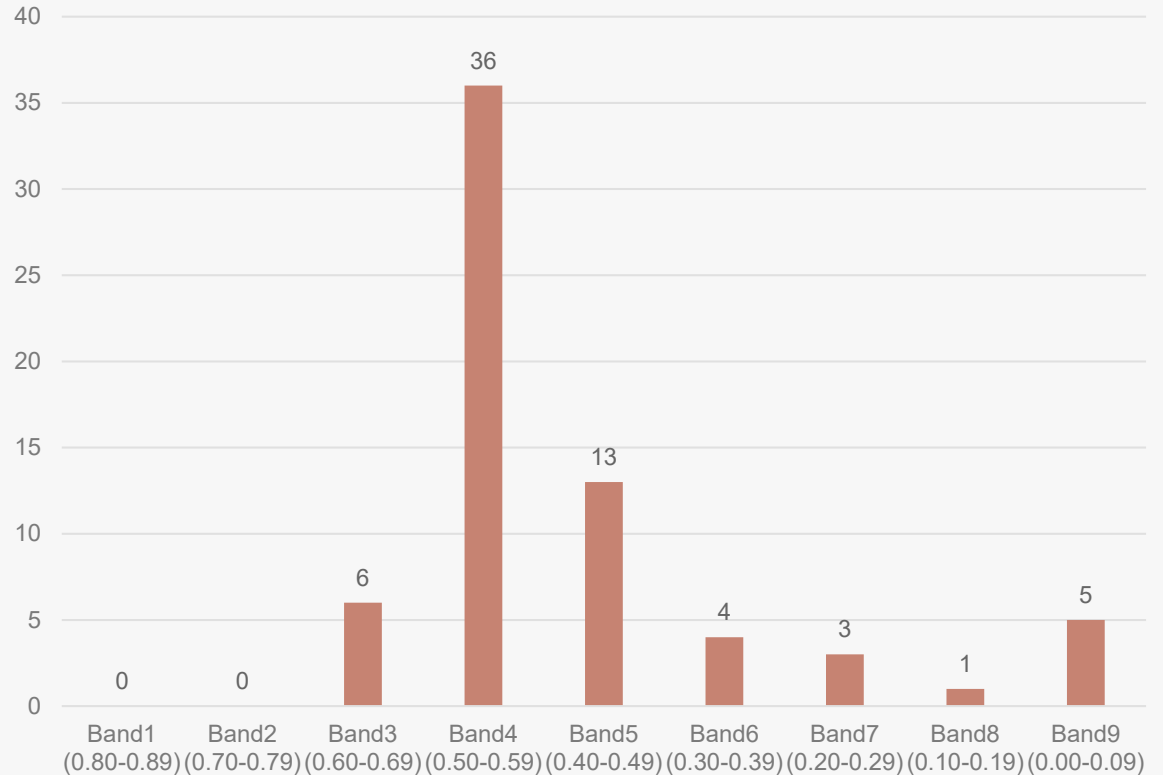
**\*Data for these categories is small enough that it is not visible at current chart scale** 15

# Calvert Facility Condition Distribution by Band

- Facility Population of 68
- Arithmetic Mean of 47.3%
- Std Deviation of 16.0%

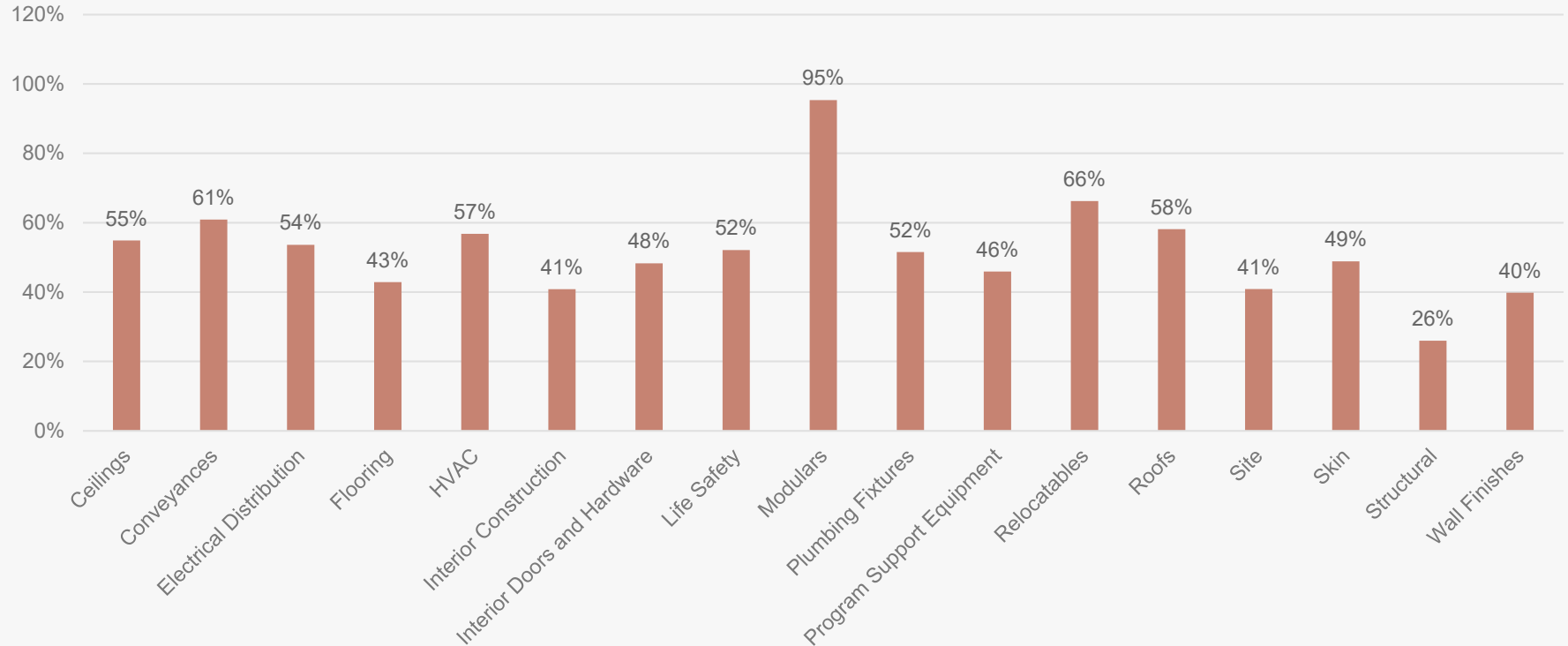
Lower is Better

FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	0	0%
Band2 (0.70-0.79)	0	0%
Band3 (0.60-0.69)	5	9%
Band4 (0.50-0.59)	13	53%
Band5 (0.40-0.49)	3	19%
Band6 (0.30-0.39)	1	6%
Band7 (0.20-0.29)	2	4%
Band8 (0.10-0.19)	0	1%
Band9 (0.00-0.09)	1	7%
Total	25	100%

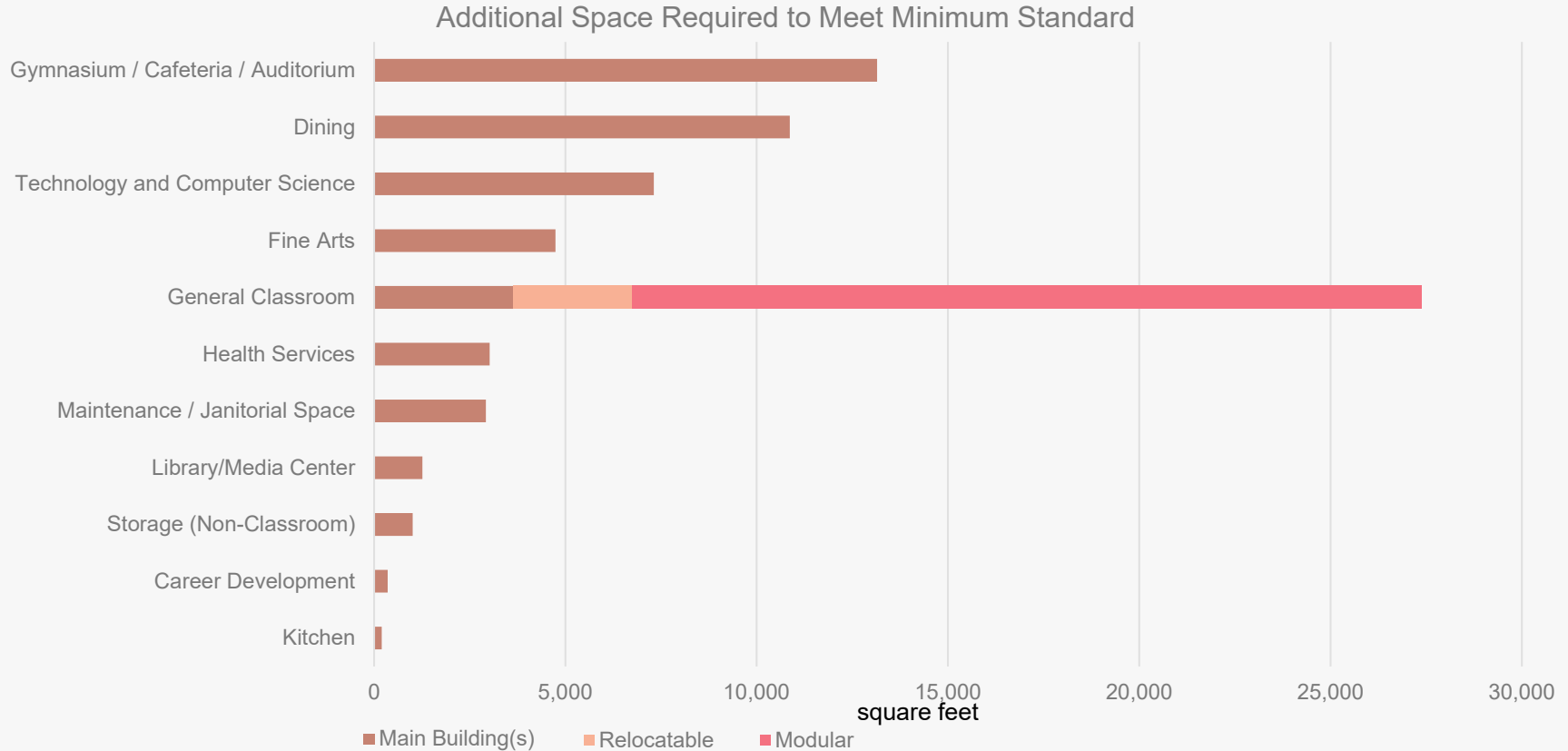


# Calvert Average FCI by Major Building System

Average FCI by Major Building System



# Space Deficiencies by Type – Calvert

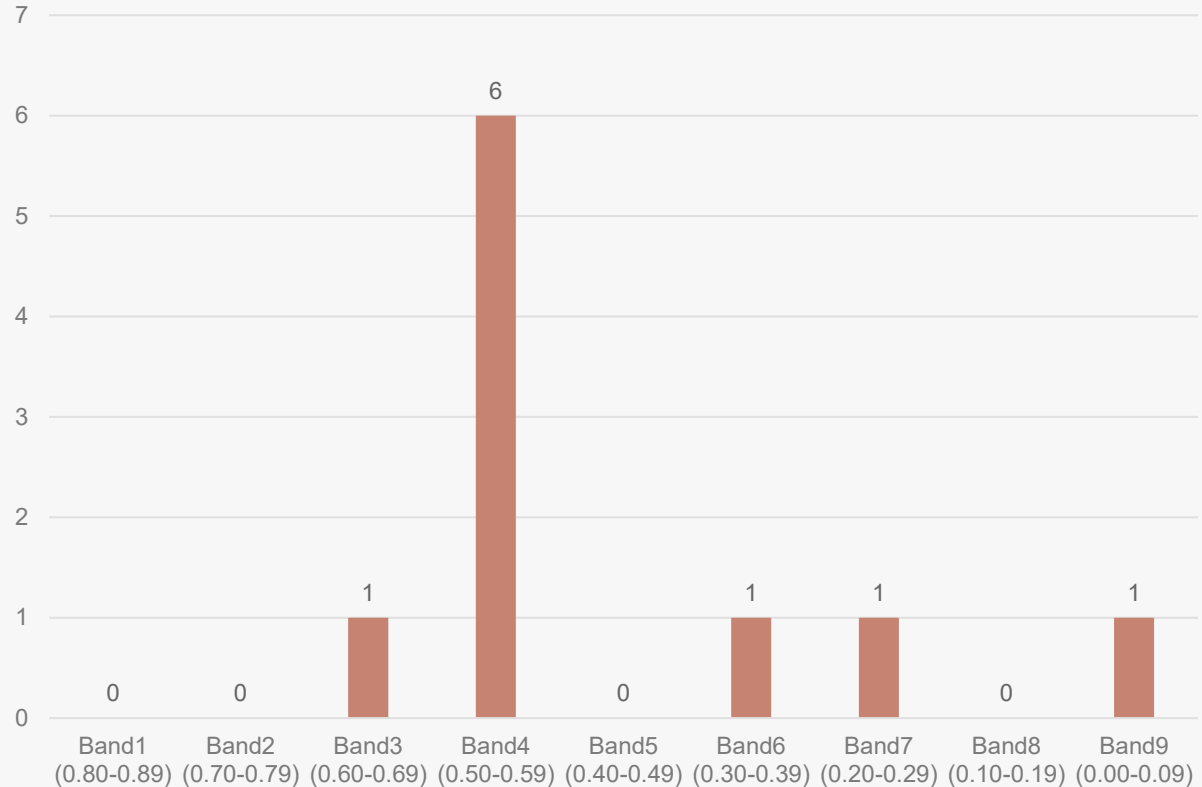


# Caroline Facility Condition Distribution by Band

- Facility Population of 10
- Arithmetic Mean of 45.5%
- Std Deviation of 17.9%

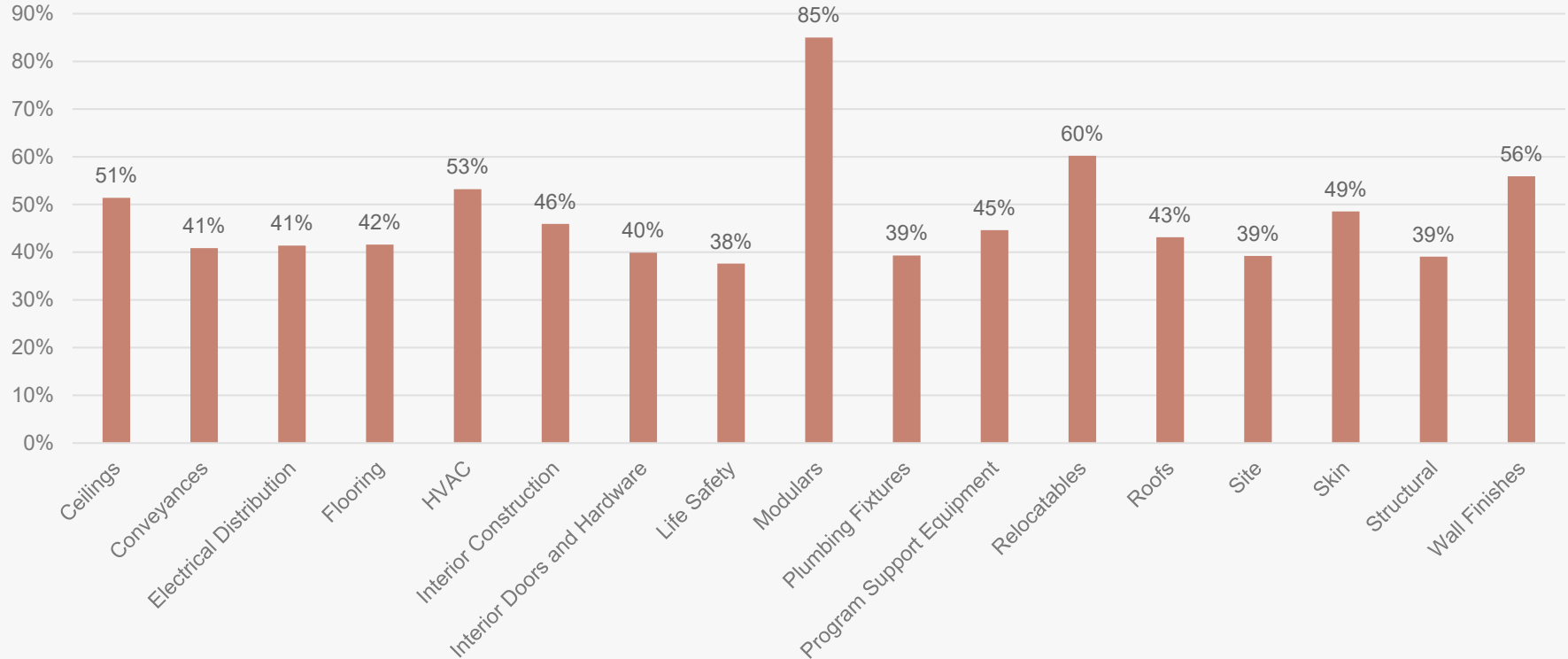
Lower is Better

FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	0	0%
Band2 (0.70-0.79)	0	0%
Band3 (0.60-0.69)	1	10%
Band4 (0.50-0.59)	6	60%
Band5 (0.40-0.49)	0	0%
Band6 (0.30-0.39)	1	10%
Band7 (0.20-0.29)	1	10%
Band8 (0.10-0.19)	0	0%
Band9 (0.00-0.09)	1	10%
<b>Total</b>	<b>10</b>	<b>100%</b>



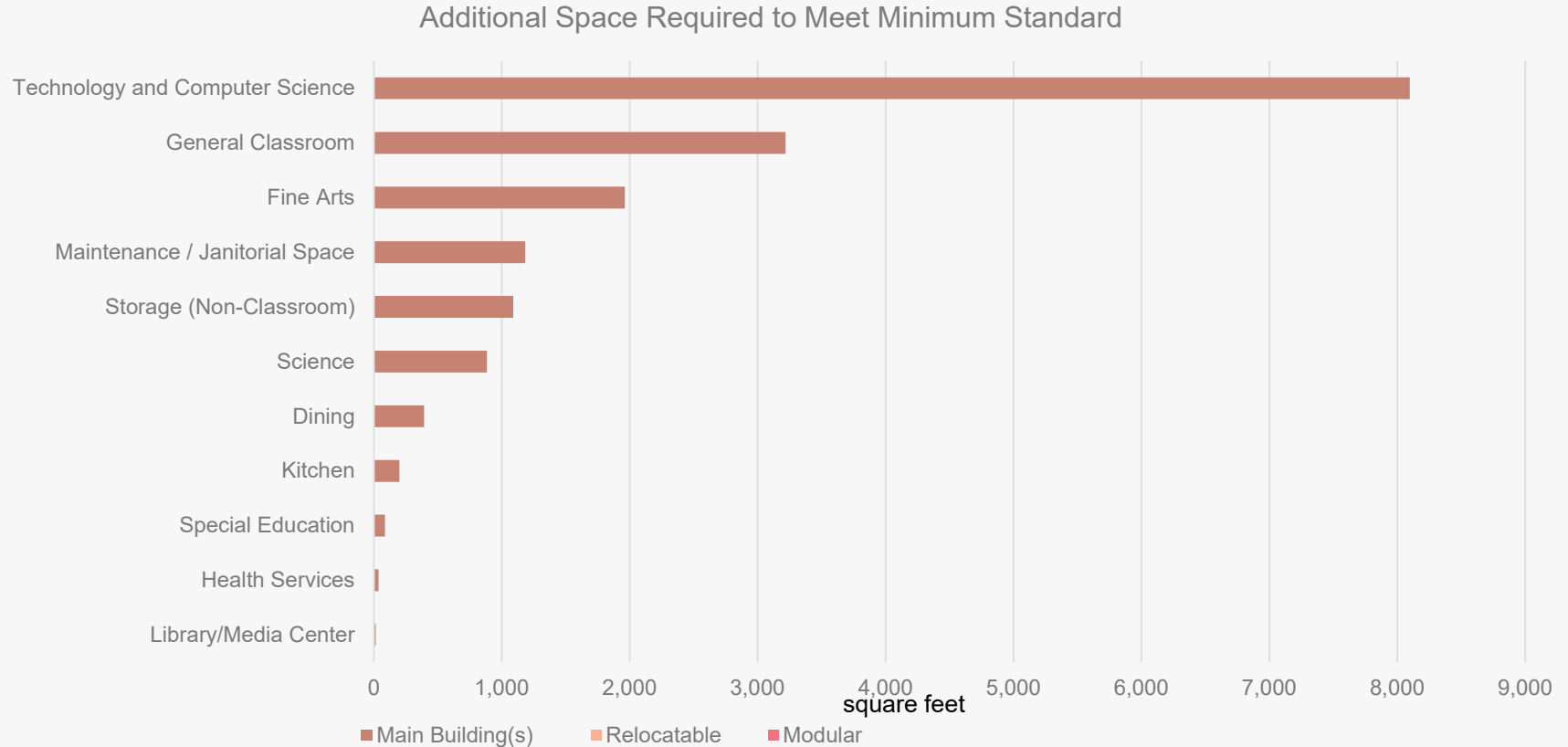
# Caroline Average FCI by Major Building System

Average FCI by Major Building System





# Space Deficiencies by Type – Caroline

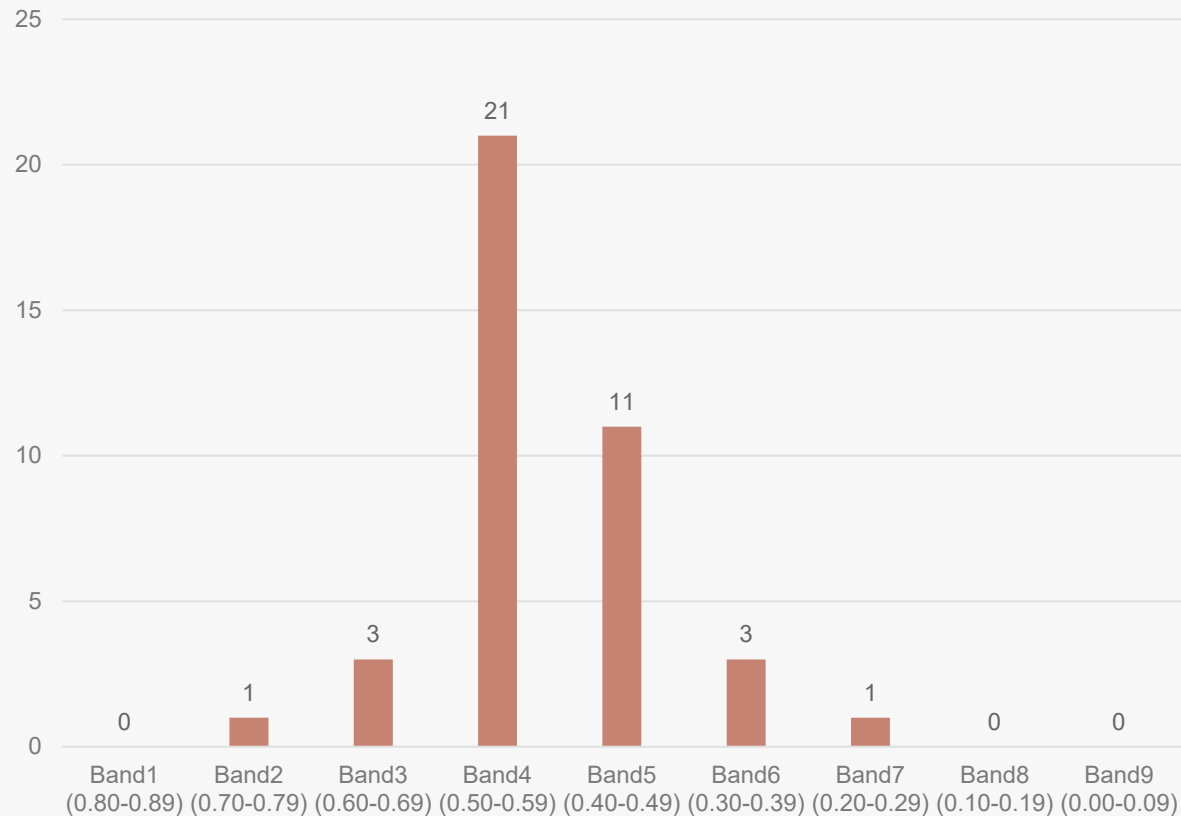


# Carroll Facility Condition Distribution by Band

- Facility Population of 40
- Arithmetic Mean of 51.2%
- Std Deviation of 9.2%

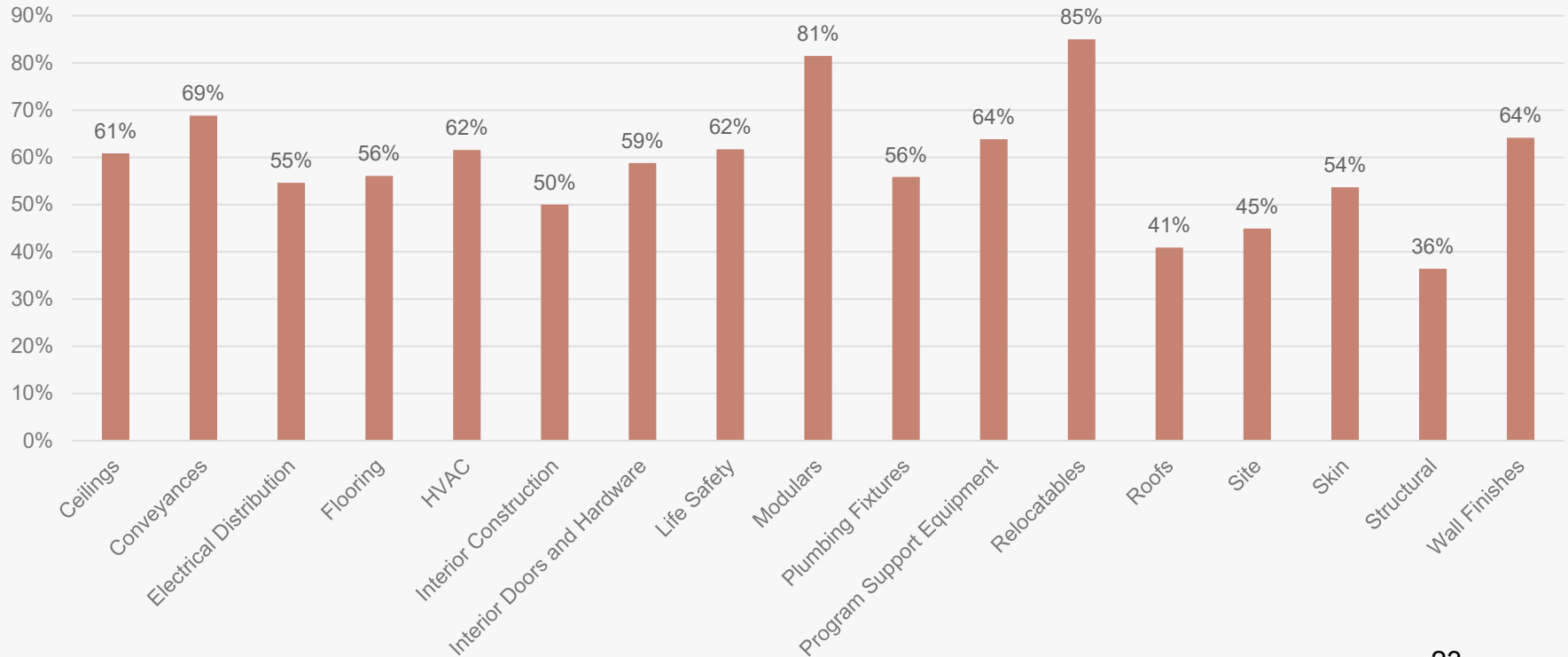
Lower is Better

FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	0	0%
Band2 (0.70-0.79)	1	3%
Band3 (0.60-0.69)	3	8%
Band4 (0.50-0.59)	21	53%
Band5 (0.40-0.49)	11	28%
Band6 (0.30-0.39)	3	8%
Band7 (0.20-0.29)	1	3%
Band8 (0.10-0.19)	0	0%
Band9 (0.00-0.09)	0	0%
<b>Total</b>	<b>40</b>	<b>100%</b>

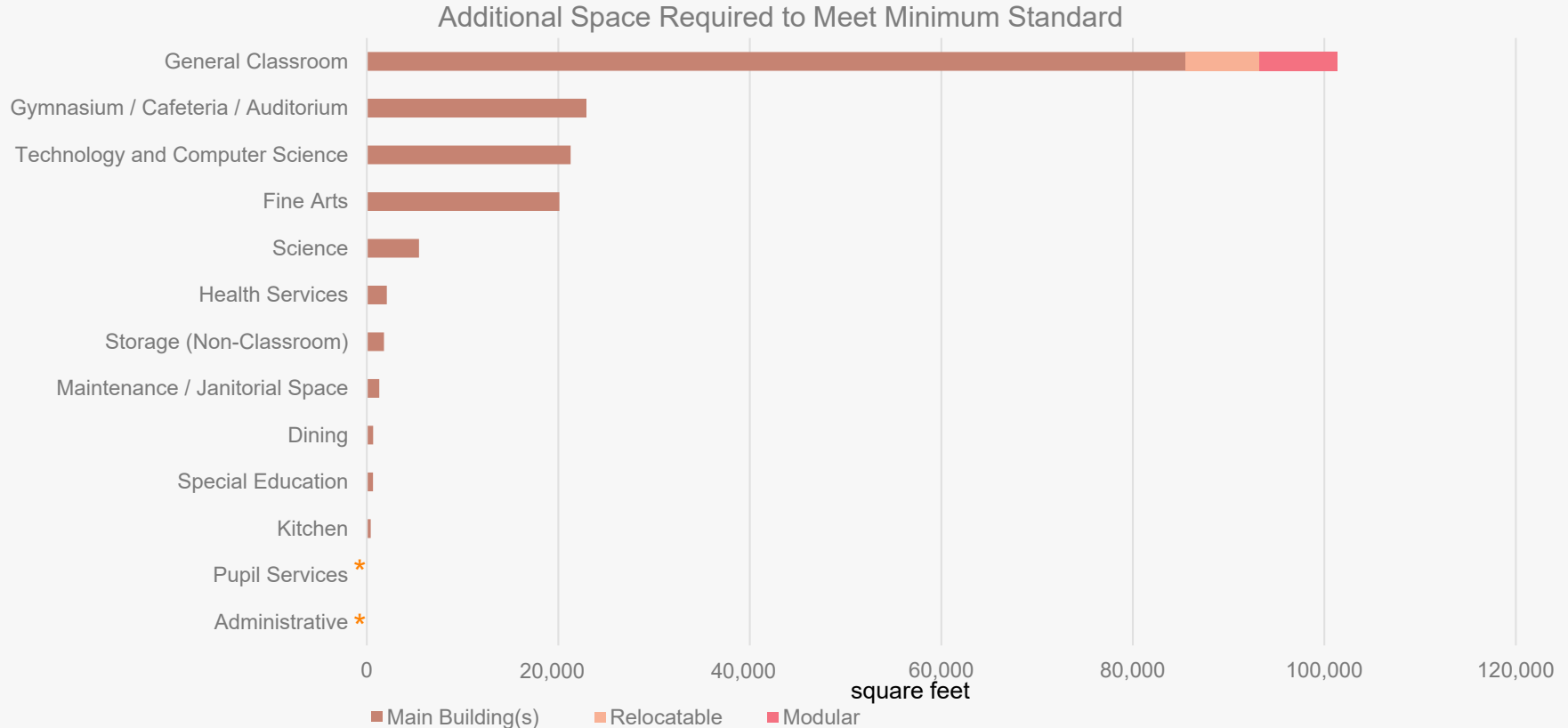


# Carroll Average FCI by Major Building System

Average FCI by Major Building System



# Space Deficiencies by Type – Carroll



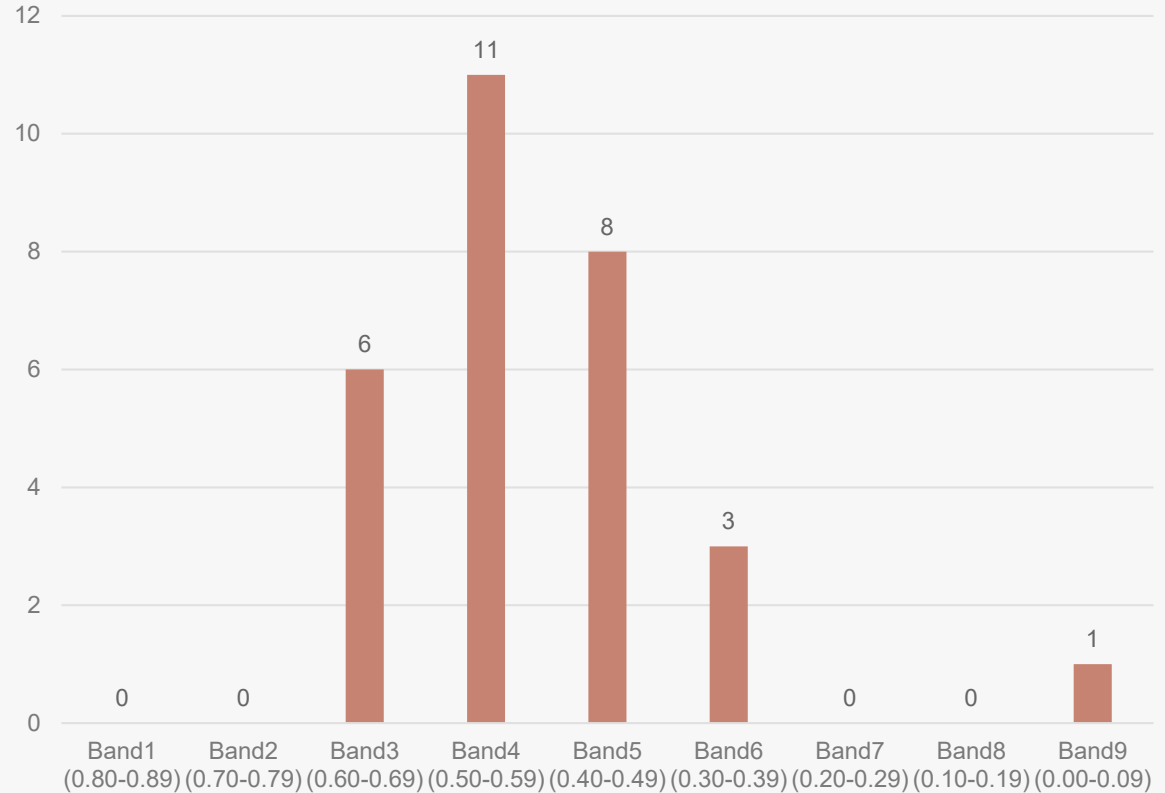
**\*Data for these categories is small enough that it is not visible at current chart scale<sup>24</sup>**

# Cecil Facility Condition Distribution by Band

- Facility Population of 29
- Arithmetic Mean of 50.2%
- Std Deviation of 11.8%

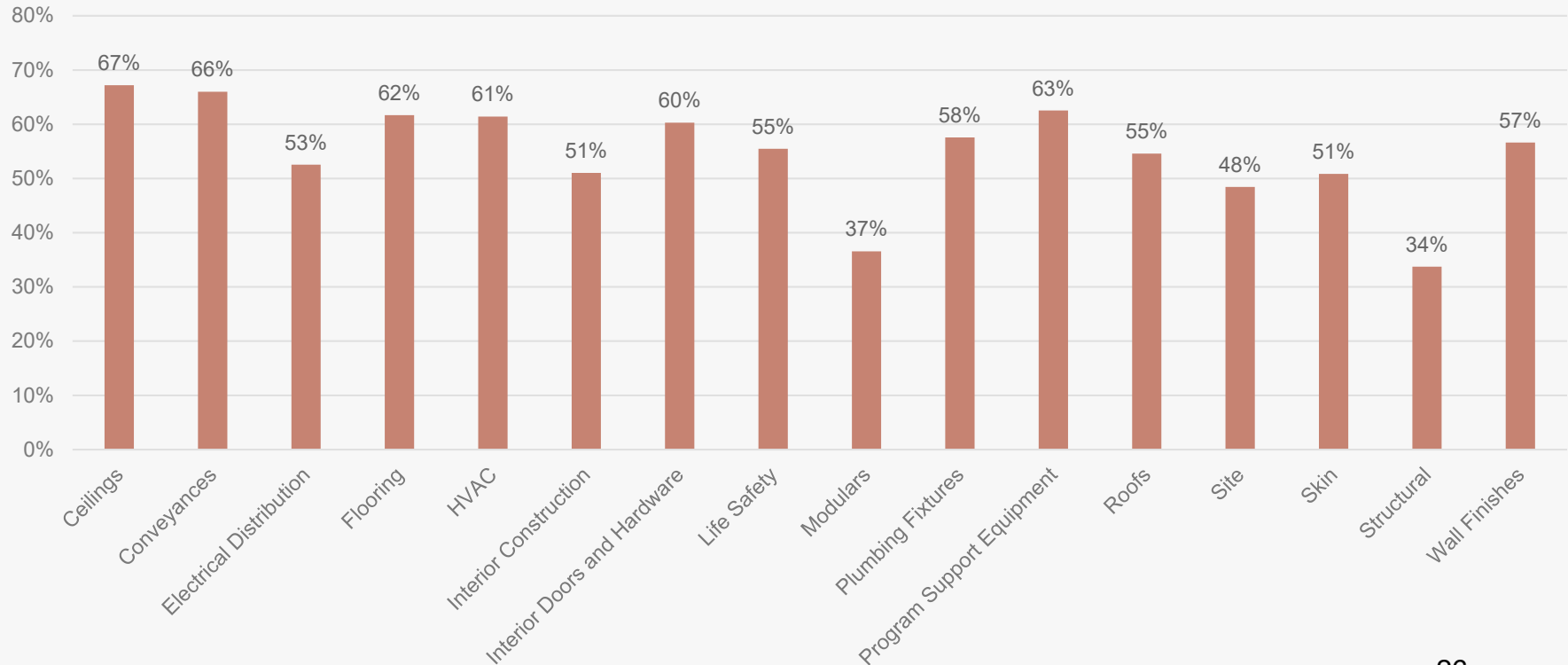
Lower is Better

FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	0	0%
Band2 (0.70-0.79)	0	0%
Band3 (0.60-0.69)	6	21%
Band4 (0.50-0.59)	11	38%
Band5 (0.40-0.49)	8	28%
Band6 (0.30-0.39)	3	10%
Band7 (0.20-0.29)	0	0%
Band8 (0.10-0.19)	0	0%
Band9 (0.00-0.09)	1	3%
<b>Total</b>	<b>29</b>	<b>100%</b>

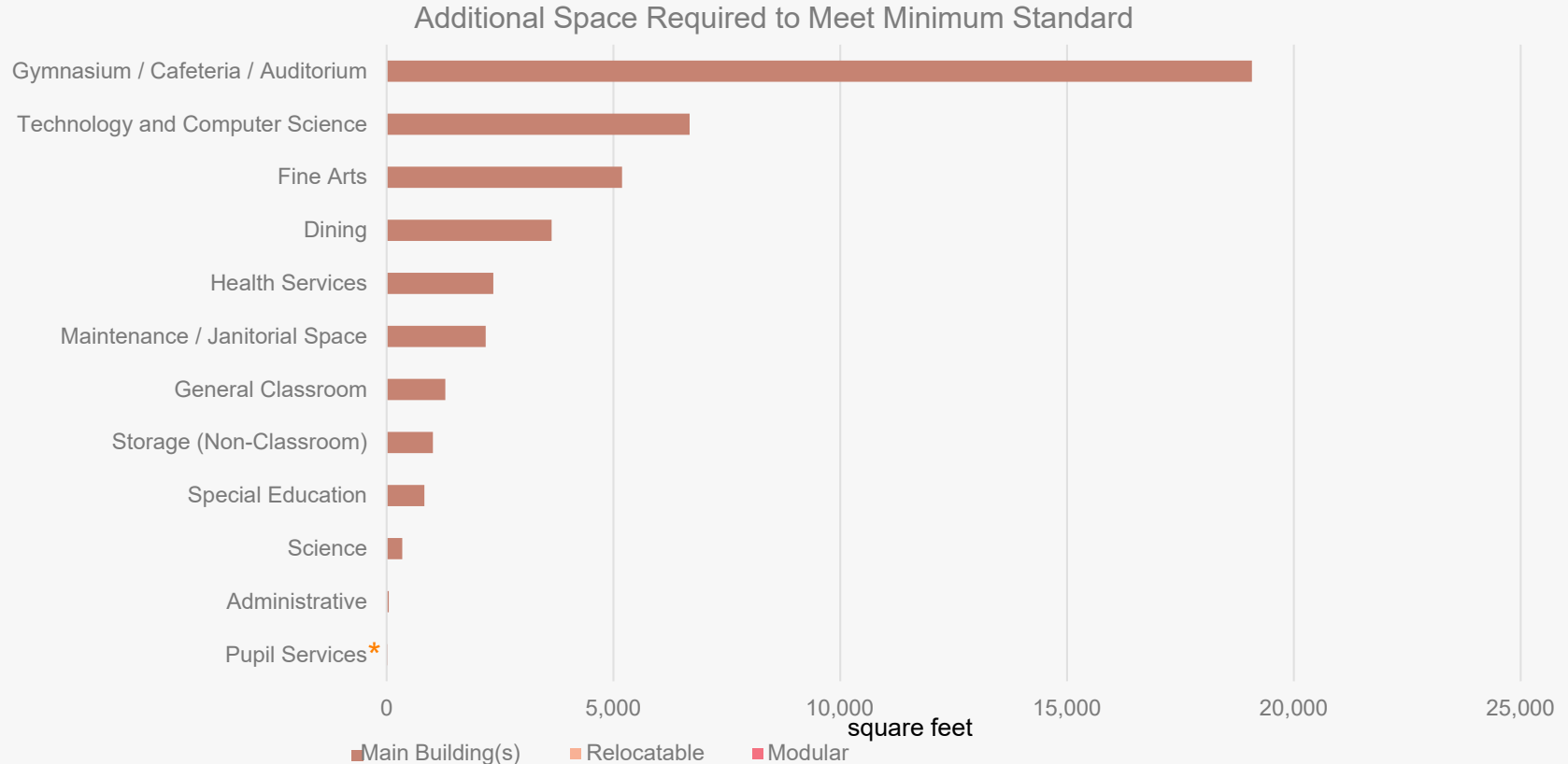


# Cecil Average FCI by Major Building System

Average FCI by Major Building System



# Space Deficiencies by Type – Cecil



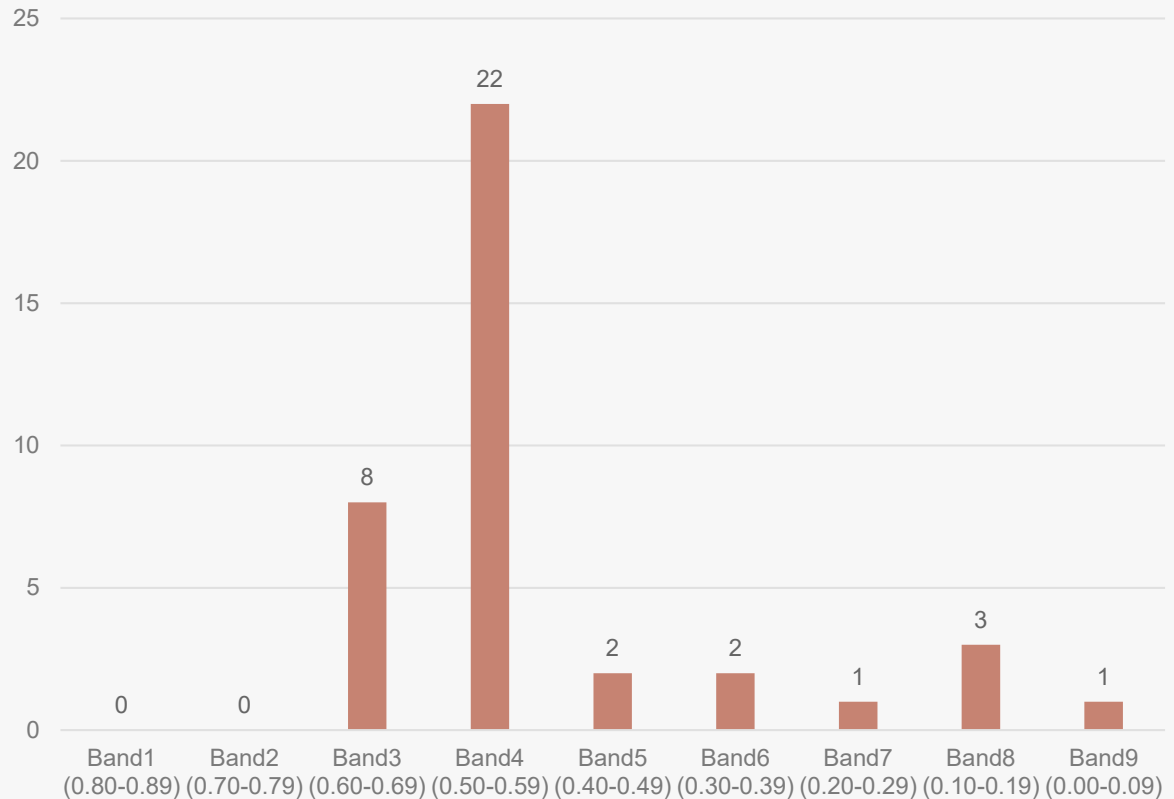
**\*Data for these categories is small enough that it is not visible at current chart scale**27

# Charles Facility Condition Distribution by Band

- Facility Population of 39
- Arithmetic Mean of 49.8%
- Std Deviation of 15.7%

Lower is Better

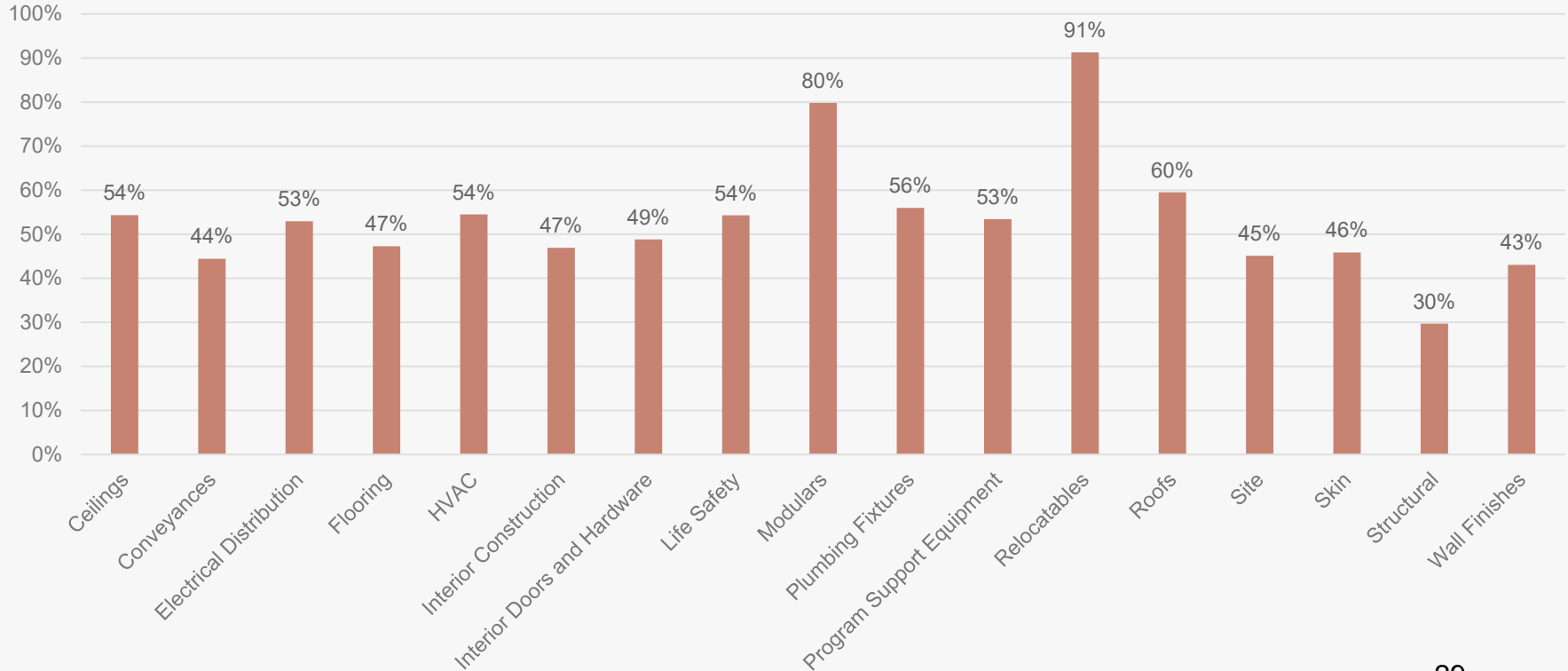
FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	0	0%
Band2 (0.70-0.79)	0	0%
Band3 (0.60-0.69)	8	21%
Band4 (0.50-0.59)	22	56%
Band5 (0.40-0.49)	2	5%
Band6 (0.30-0.39)	2	5%
Band7 (0.20-0.29)	1	3%
Band8 (0.10-0.19)	3	8%
Band9 (0.00-0.09)	1	3%
<b>Total</b>	<b>39</b>	<b>100%</b>



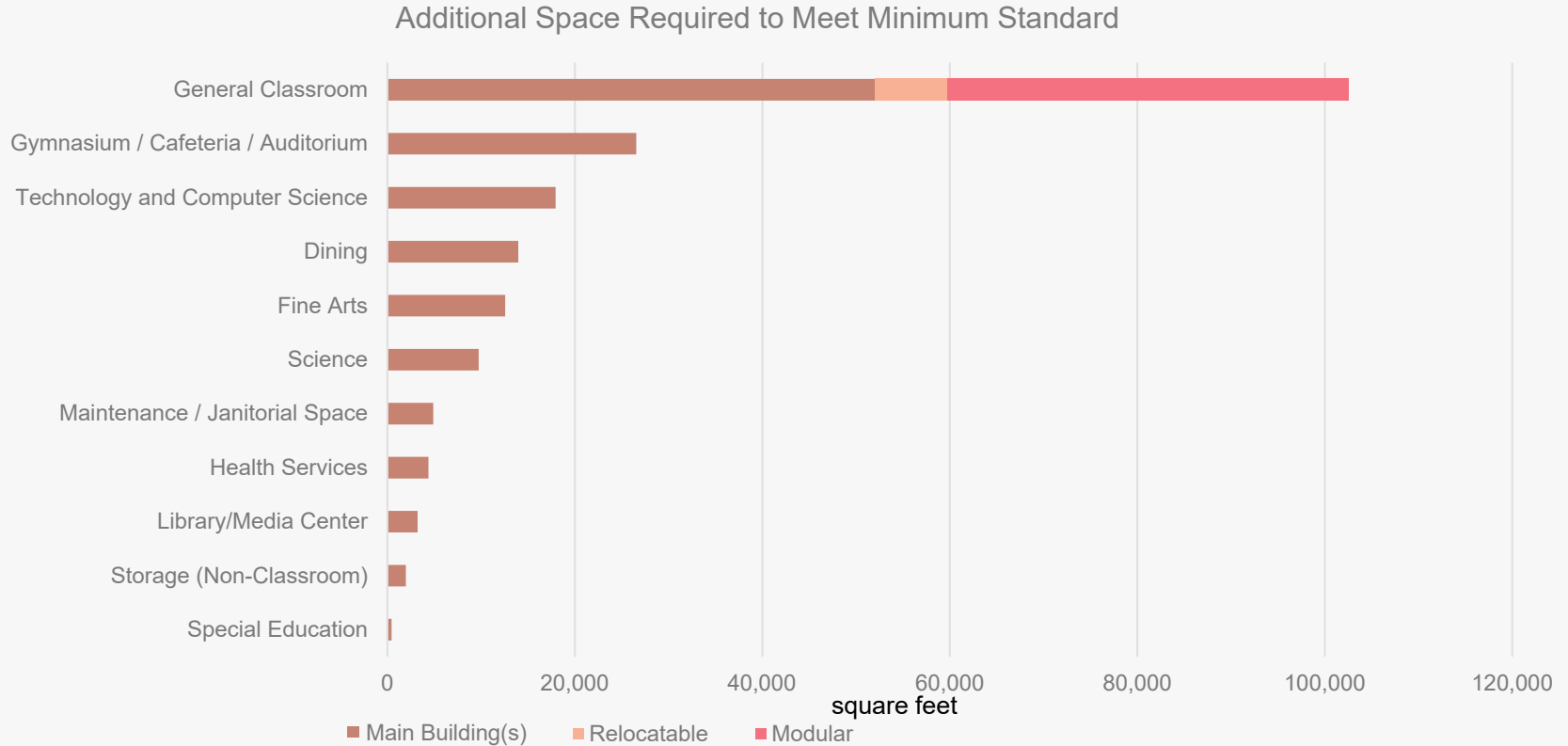


# Charles Average FCI by Major Building System

Average FCI by Major Building System



# Space Deficiencies by Type – Charles

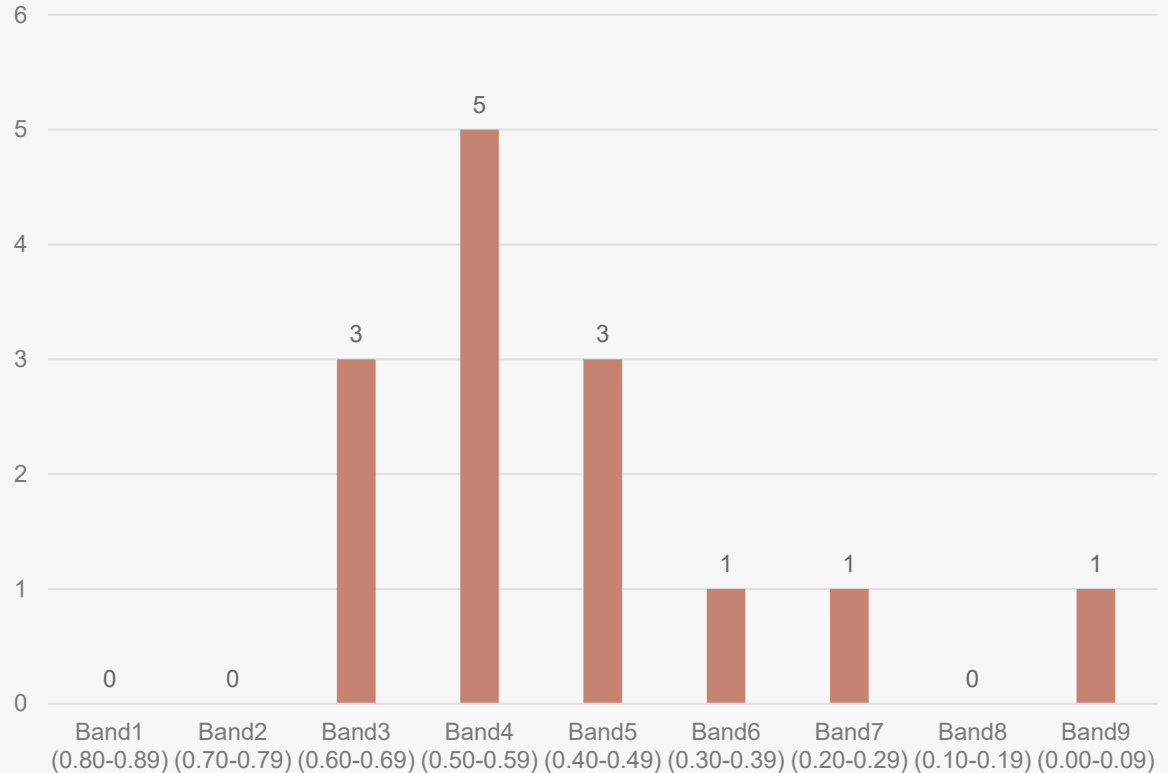


# Dorchester Facility Condition Distribution by Band

- Facility Population of 14
- Arithmetic Mean of 47.2%
- Std Deviation of 15.9%

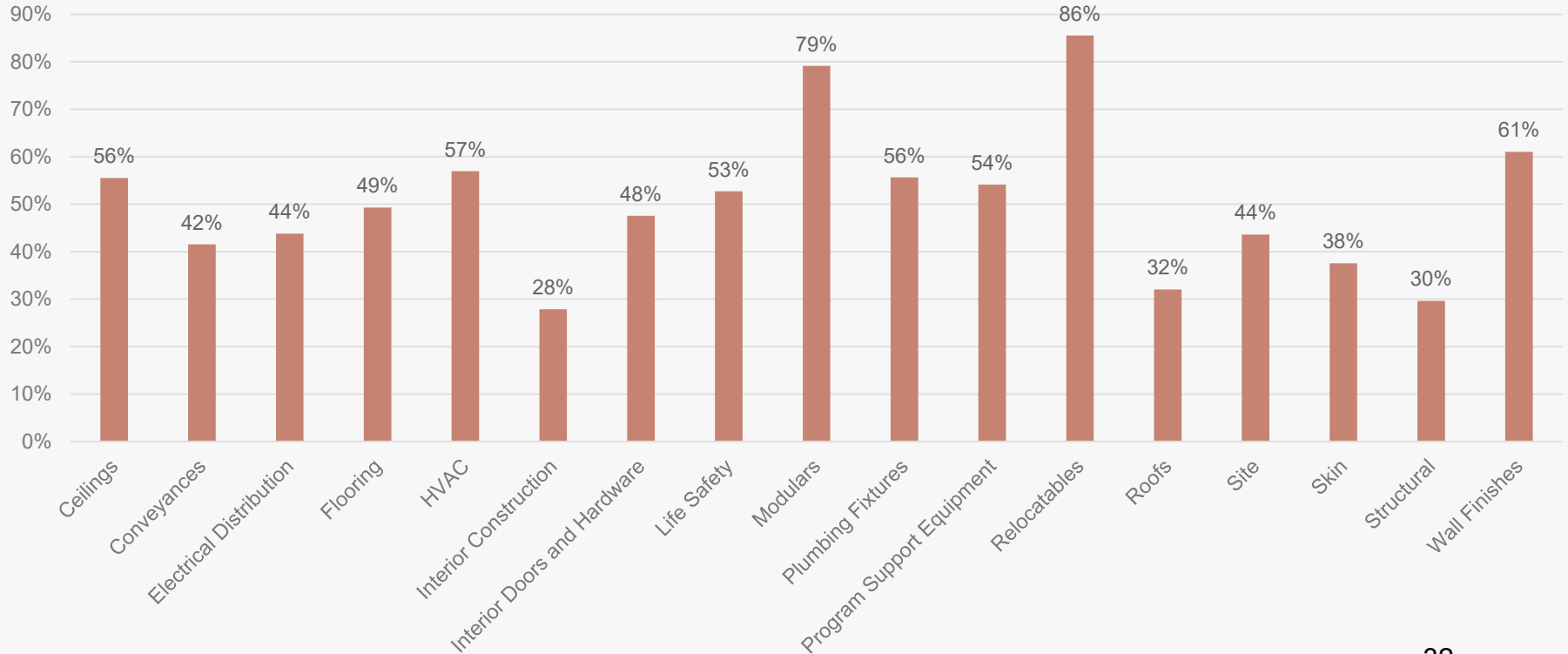
Lower is Better

FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	0	0%
Band2 (0.70-0.79)	0	0%
Band3 (0.60-0.69)	3	21%
Band4 (0.50-0.59)	5	36%
Band5 (0.40-0.49)	3	21%
Band6 (0.30-0.39)	1	7%
Band7 (0.20-0.29)	1	7%
Band8 (0.10-0.19)	0	0%
Band9 (0.00-0.09)	1	7%
<b>Total</b>	<b>14</b>	<b>100%</b>

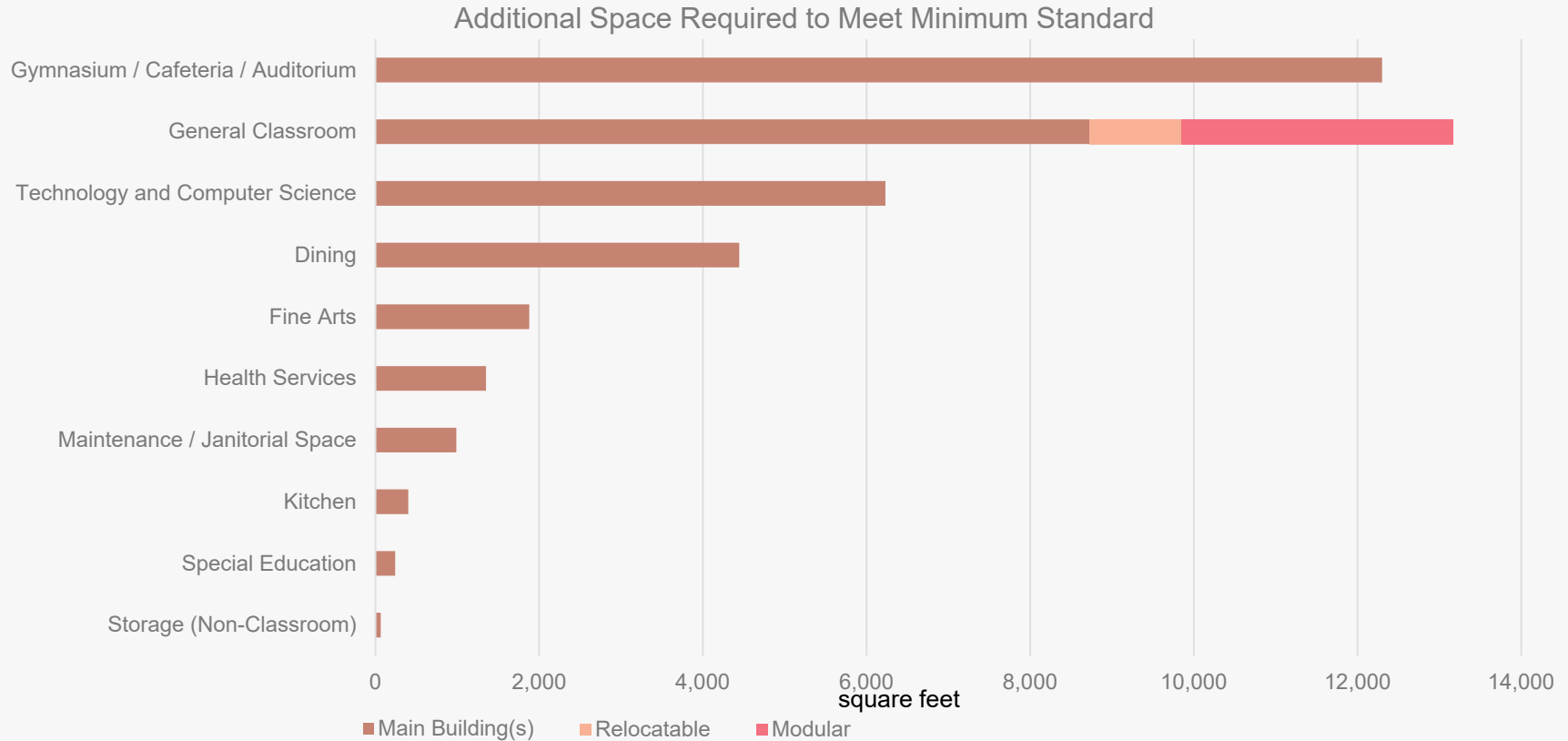


# Dorchester Average FCI by Major Building System

Average FCI by Major Building System



# Space Deficiencies by Type – Dorchester

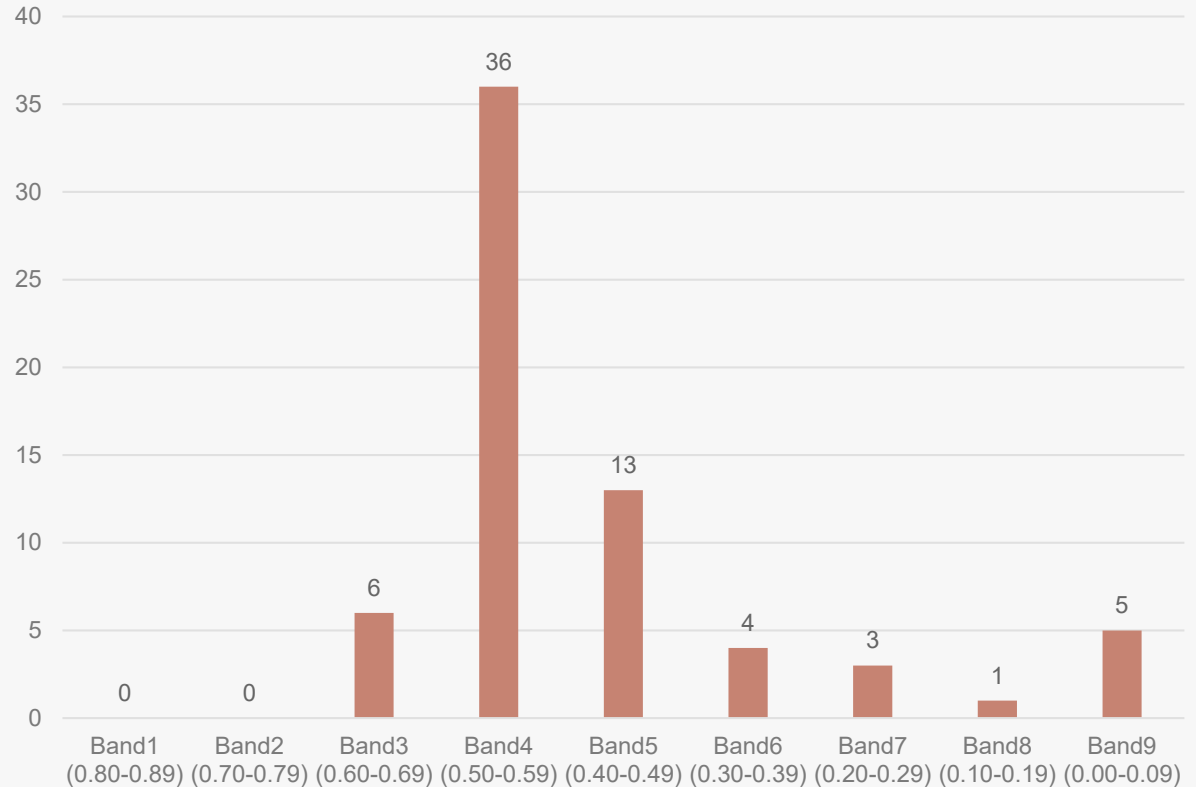


# Frederick Facility Condition Distribution by Band

- Facility Population of 68
- Arithmetic Mean of 47.3%
- Std Deviation of 16.0%

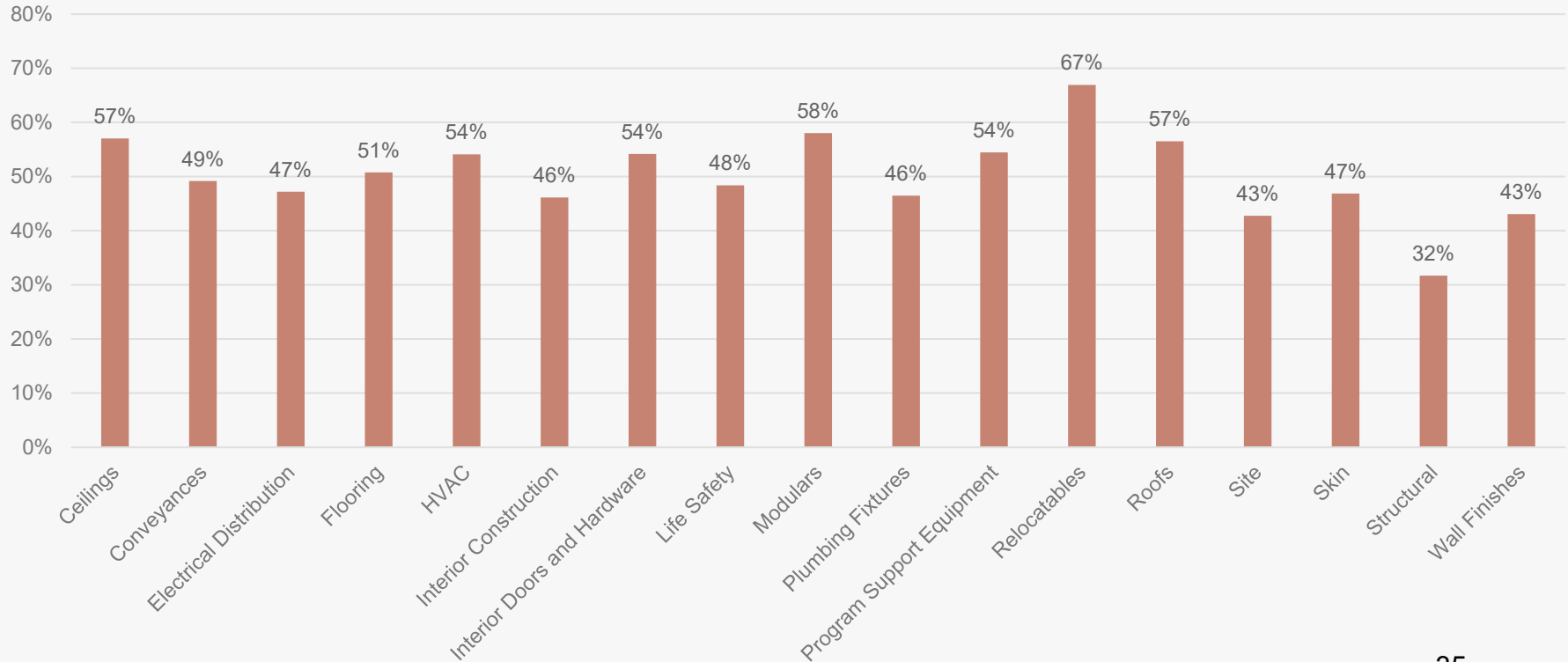
Lower is Better

FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	0	0%
Band2 (0.70-0.79)	0	0%
Band3 (0.60-0.69)	6	9%
Band4 (0.50-0.59)	36	53%
Band5 (0.40-0.49)	13	19%
Band6 (0.30-0.39)	4	6%
Band7 (0.20-0.29)	3	4%
Band8 (0.10-0.19)	1	1%
Band9 (0.00-0.09)	5	7%
<b>Total</b>	<b>68</b>	<b>100%</b>

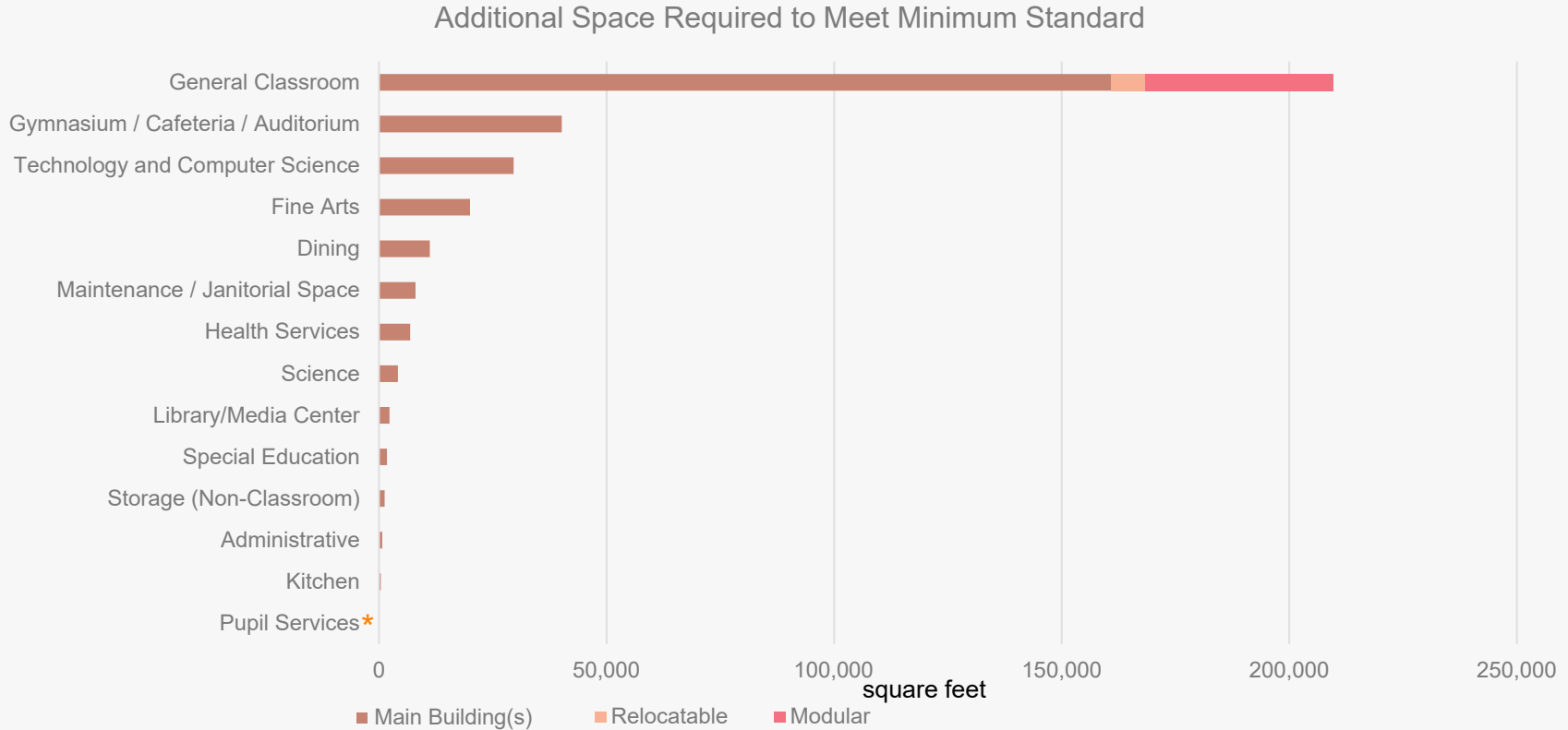


# Frederick Average FCI by Major Building System

Average FCI by Major Building System



# Space Deficiencies by Type – Frederick



**\*Data for these categories is small enough that it is not visible at current chart scale** 36

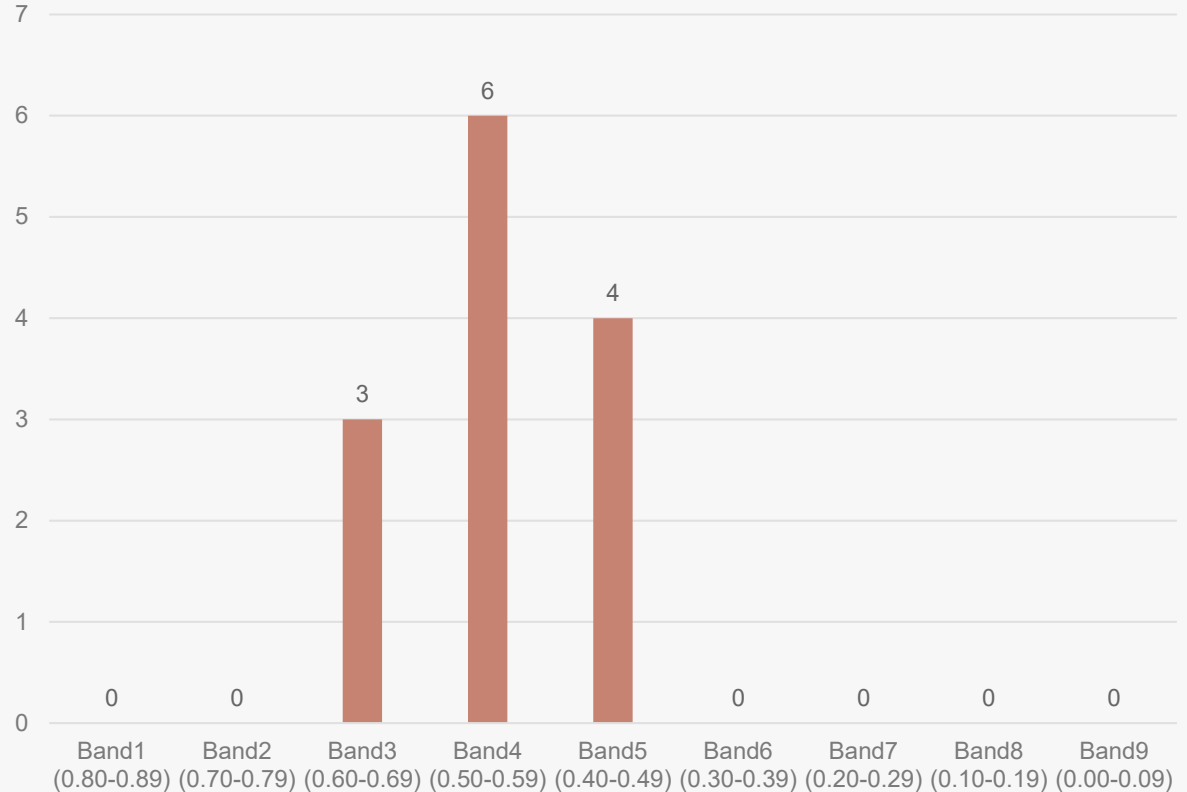


# Garrett Facility Condition Distribution by Band

- Facility Population of 13
- Arithmetic Mean of 54.0
- Std Deviation of 6.7%

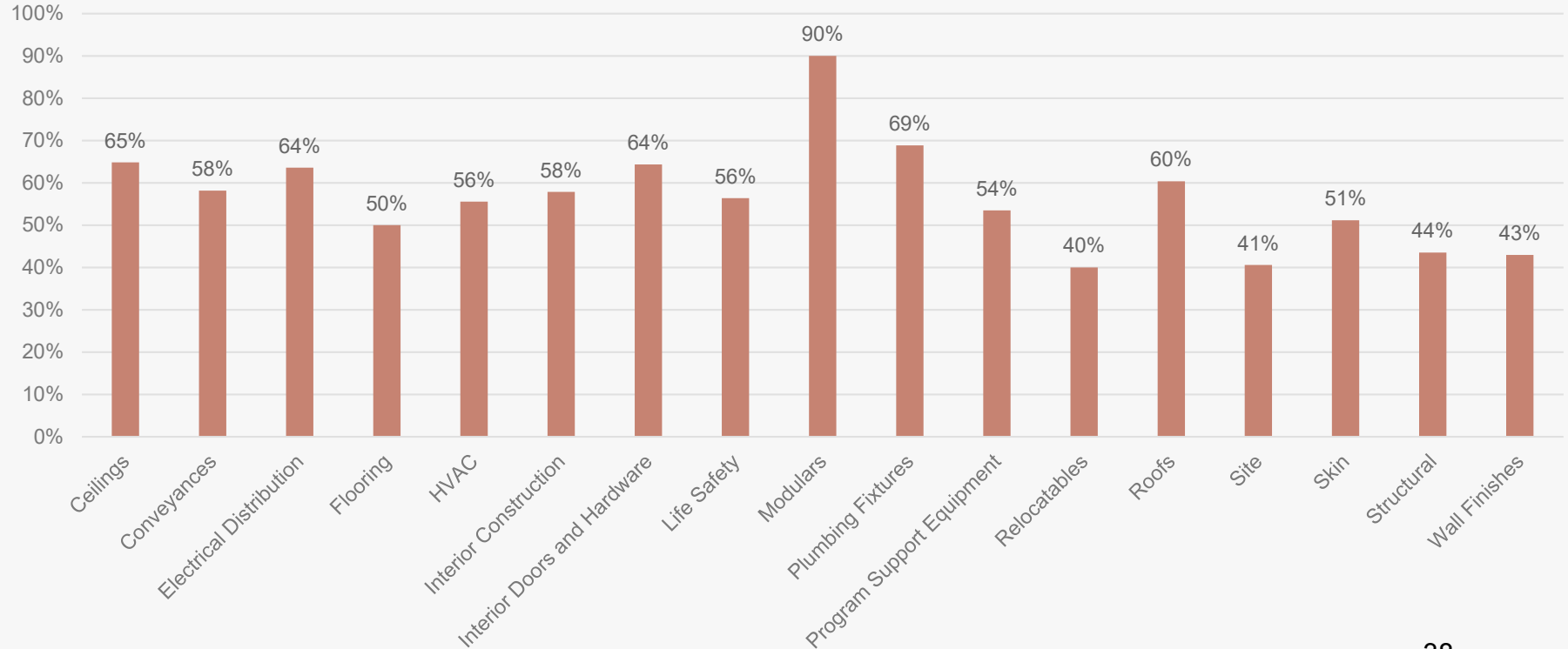
Lower is Better

FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	0	0%
Band2 (0.70-0.79)	0	0%
Band3 (0.60-0.69)	3	23%
Band4 (0.50-0.59)	6	46%
Band5 (0.40-0.49)	4	31%
Band6 (0.30-0.39)	0	0%
Band7 (0.20-0.29)	0	0%
Band8 (0.10-0.19)	0	0%
Band9 (0.00-0.09)	0	0%
<b>Total</b>	<b>13</b>	<b>100%</b>

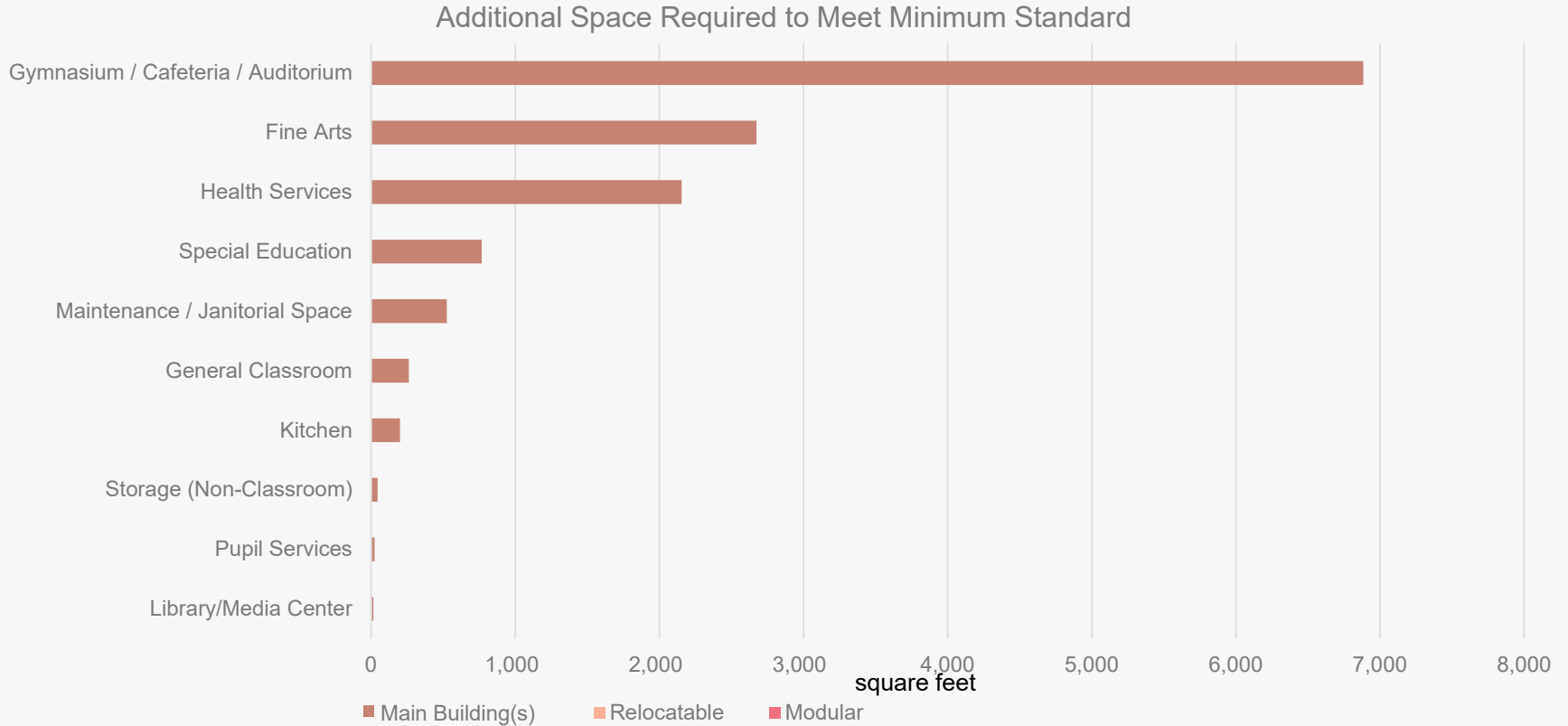


# Garrett Average FCI by Major Building System

Average FCI by Major Building System



# Space Deficiencies by Type – Garrett

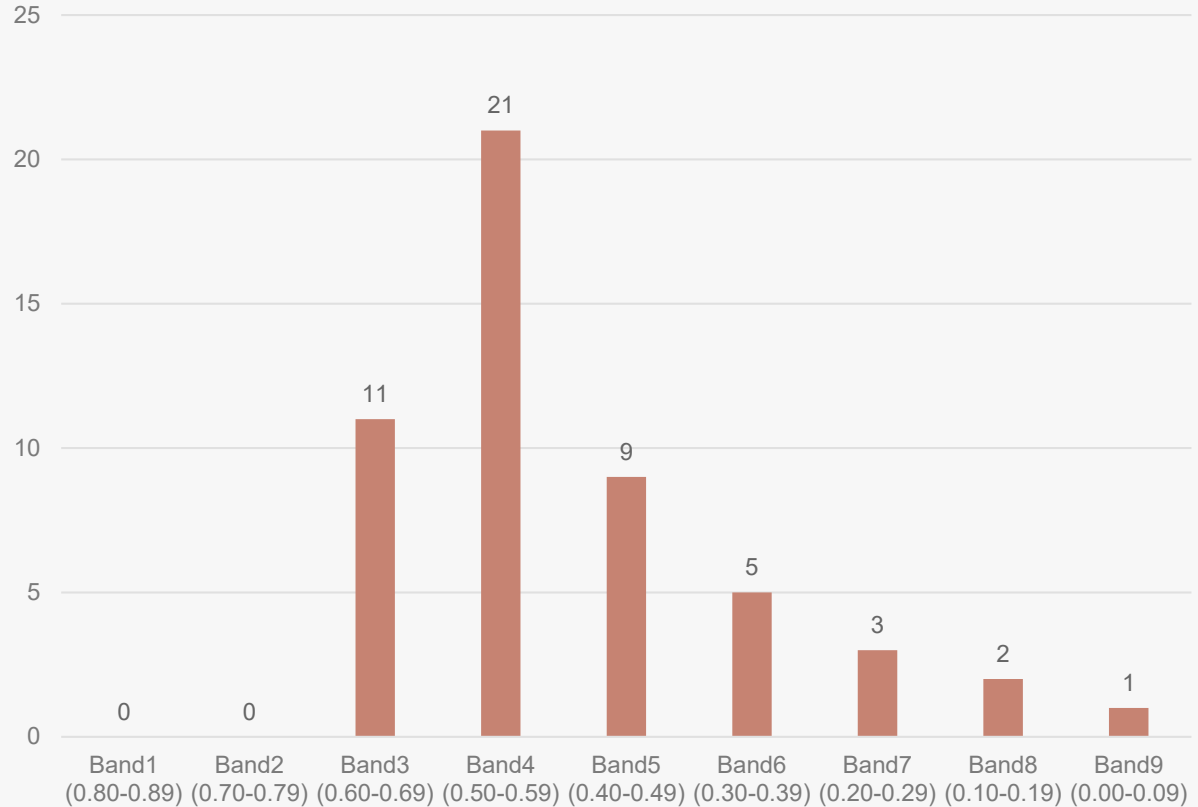


# Harford Facility Condition Distribution by Band

- Facility Population of 52
- Arithmetic Mean of 49.4%
- Std Deviation of 14.4%

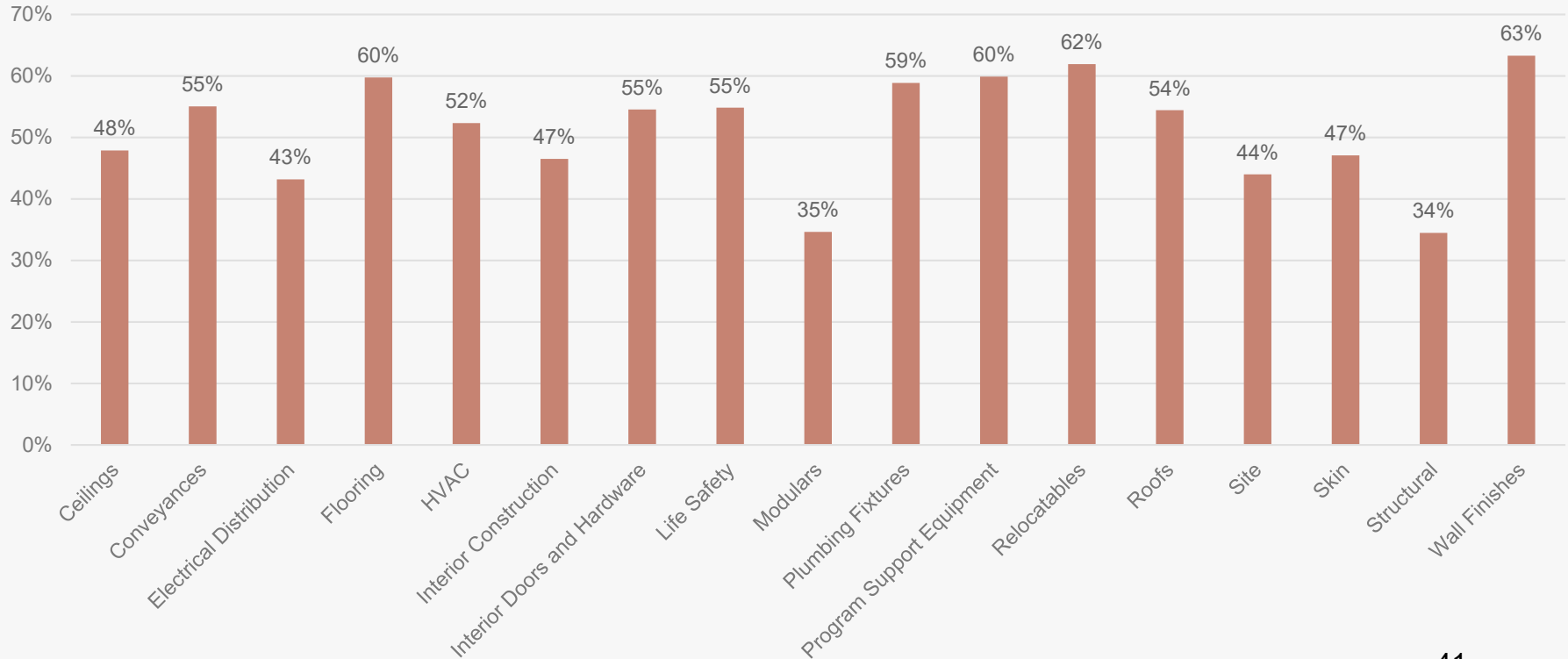
Lower is Better

FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	0	0%
Band2 (0.70-0.79)	0	0%
Band3 (0.60-0.69)	11	21%
Band4 (0.50-0.59)	21	40%
Band5 (0.40-0.49)	9	17%
Band6 (0.30-0.39)	5	10%
Band7 (0.20-0.29)	3	6%
Band8 (0.10-0.19)	2	4%
Band9 (0.00-0.09)	1	2%
<b>Total</b>	<b>52</b>	<b>100%</b>

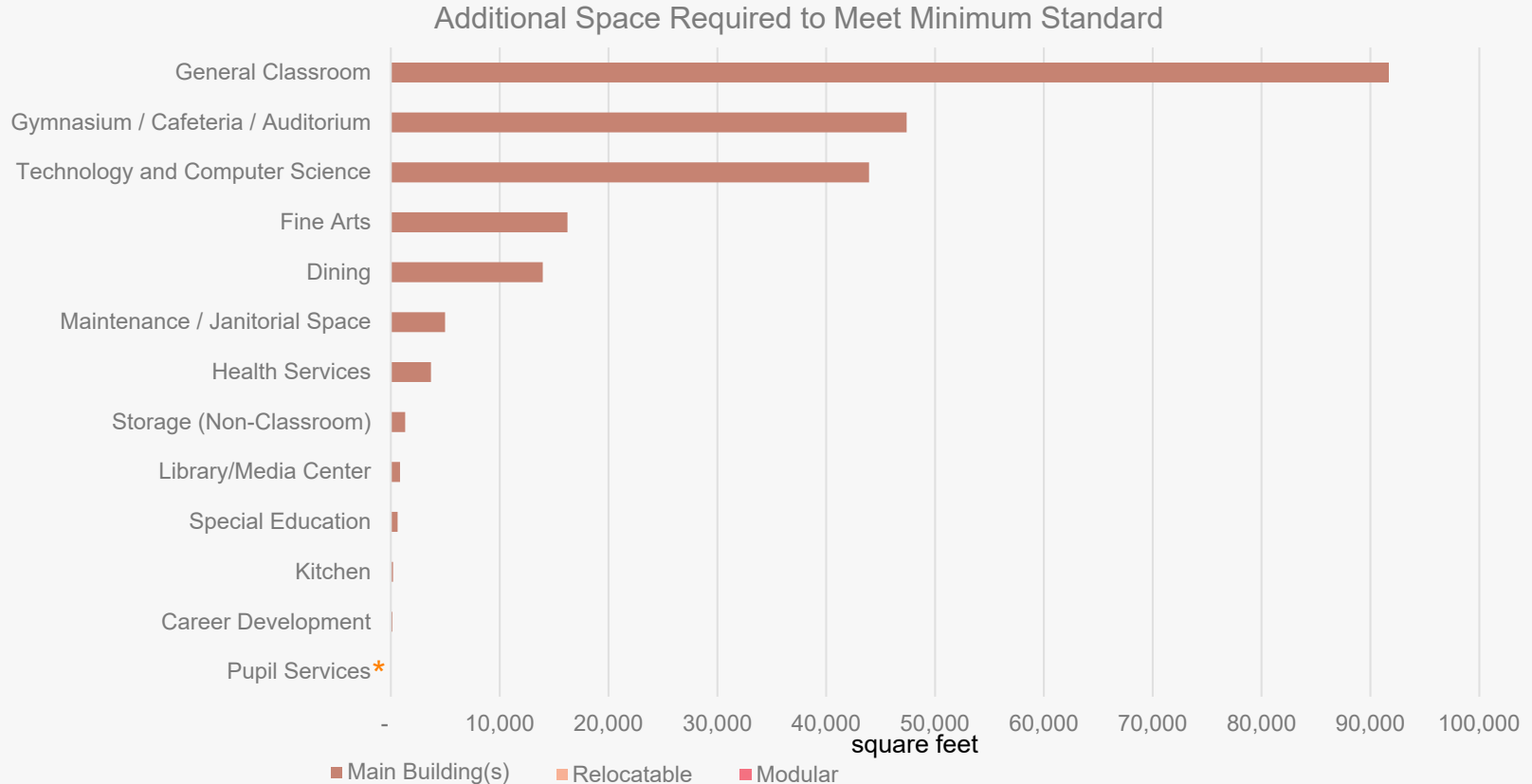


# Harford Average FCI by Major Building System

Average FCI by Major Building System



# Space Deficiencies by Type – Harford



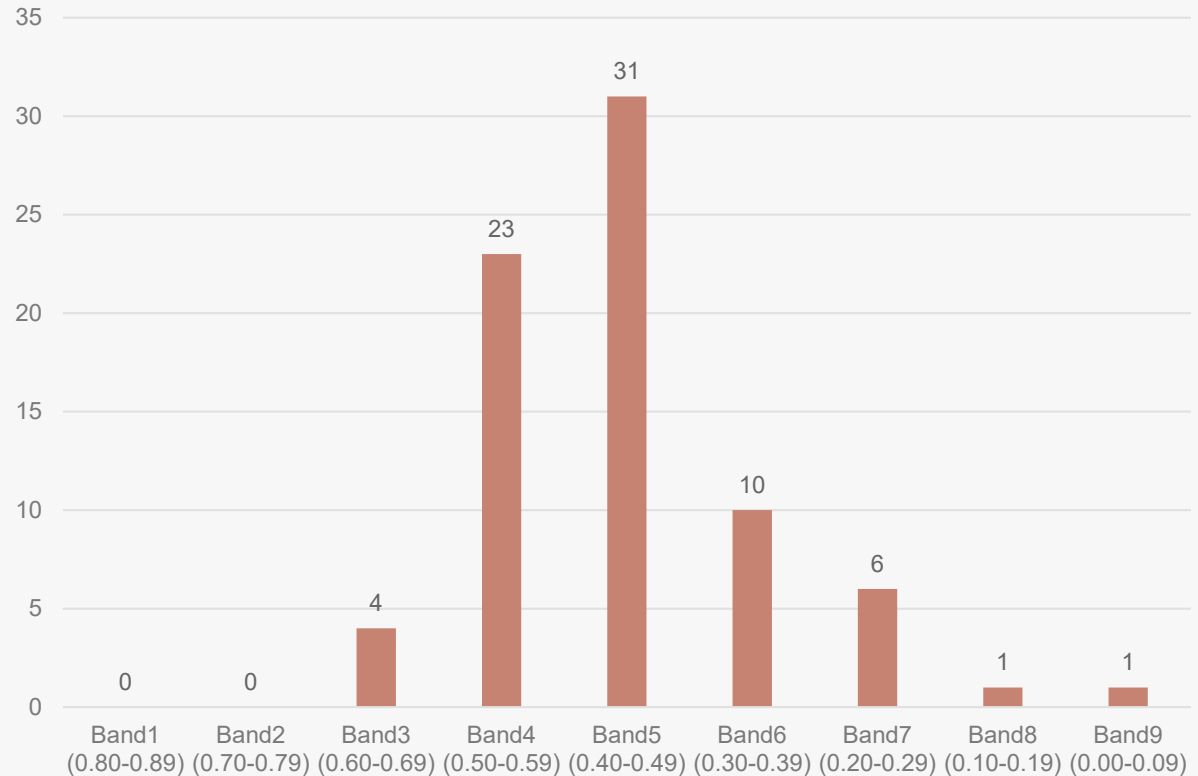
**\*Data for these categories is small enough that it is not visible at current chart scale**42

# Howard Facility Condition Distribution by Band

- Facility Population of 76
- Arithmetic Mean of 44.9%
- Std Deviation of 10.6%

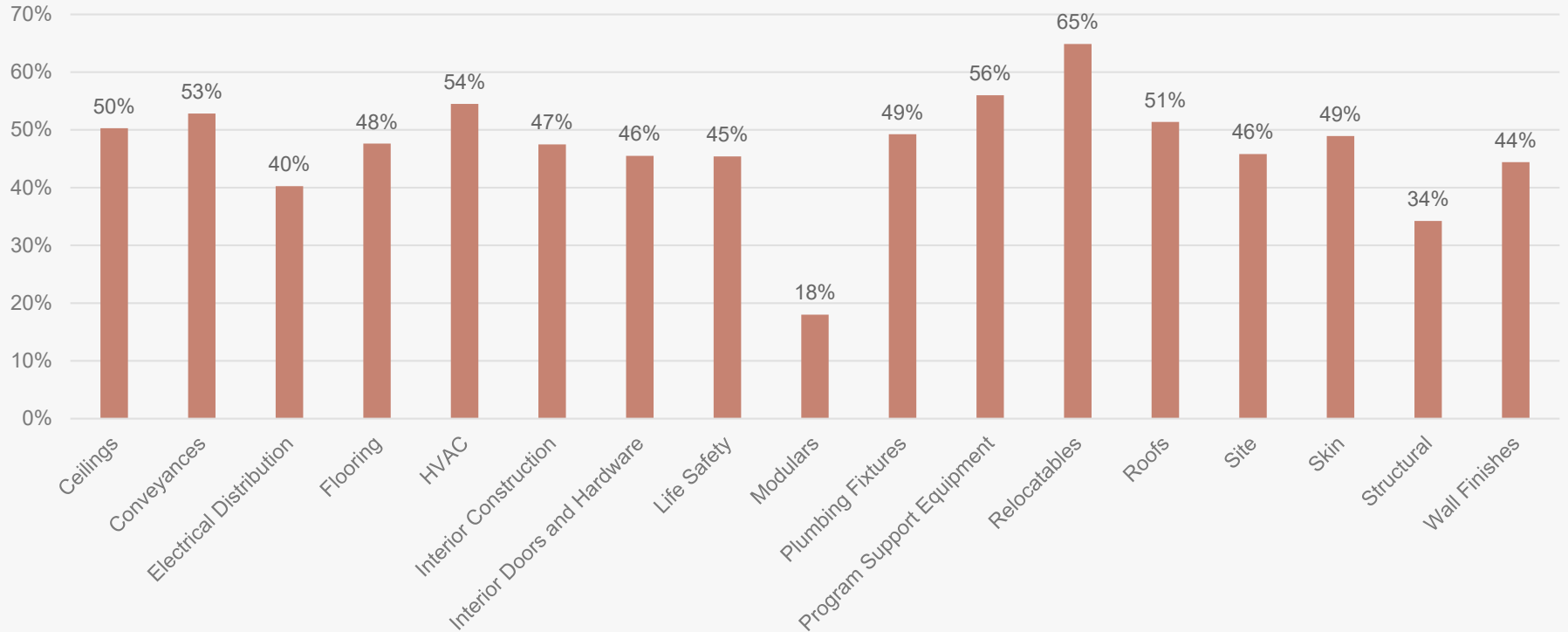
Lower is Better

FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	0	0%
Band2 (0.70-0.79)	0	1%
Band3 (0.60-0.69)	4	5%
Band4 (0.50-0.59)	23	30%
Band5 (0.40-0.49)	31	41%
Band6 (0.30-0.39)	10	13%
Band7 (0.20-0.29)	6	8%
Band8 (0.10-0.19)	1	1%
Band9 (0.00-0.09)	1	1%
<b>Total</b>	<b>76</b>	<b>100%</b>



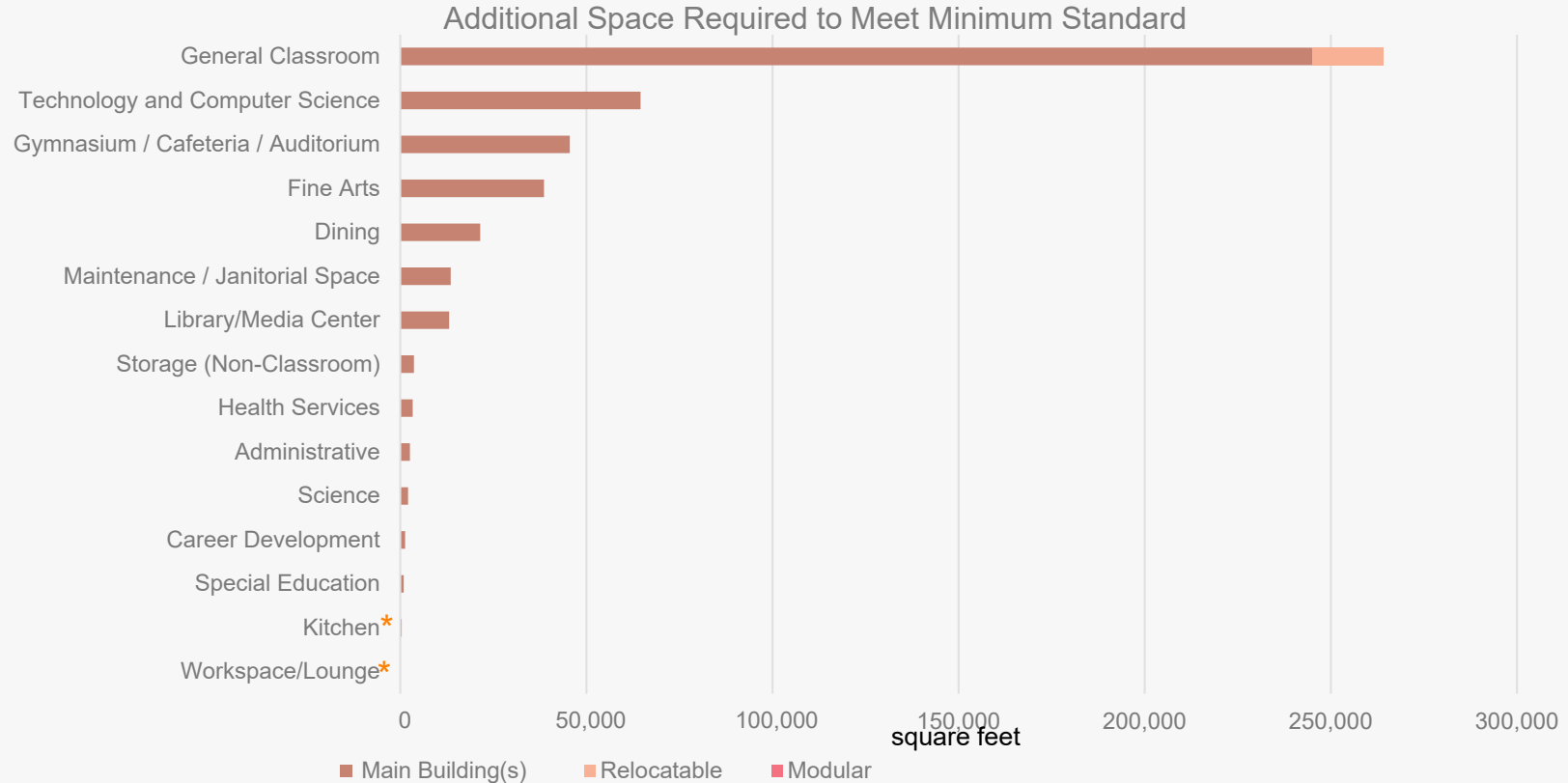
# Howard Average FCI by Major Building System

Average FCI by Major Building System





# Space Deficiencies by Type – Howard



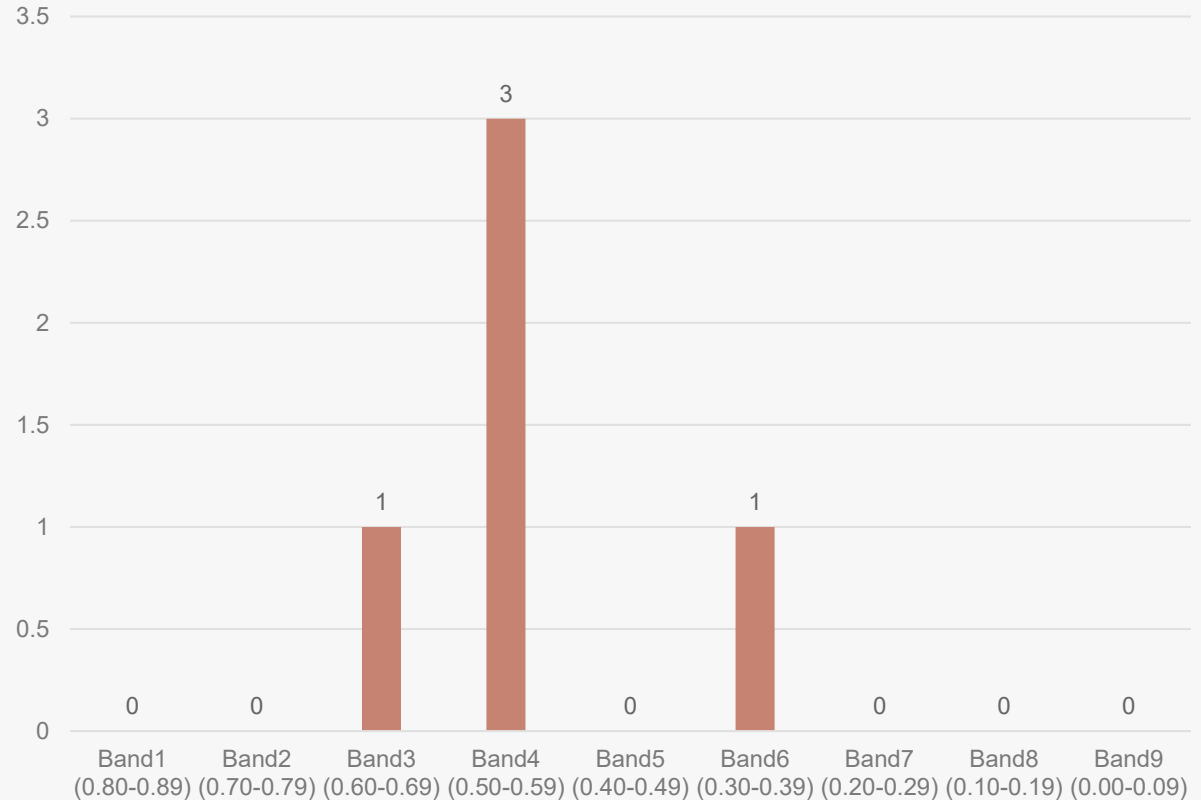
**\*Data for these categories is small enough that it is not visible at current chart scale**45

# Kent Facility Condition Distribution by Band

- Facility Population of 5
- Arithmetic Mean of 53.9%
- Std Deviation of 8.9%

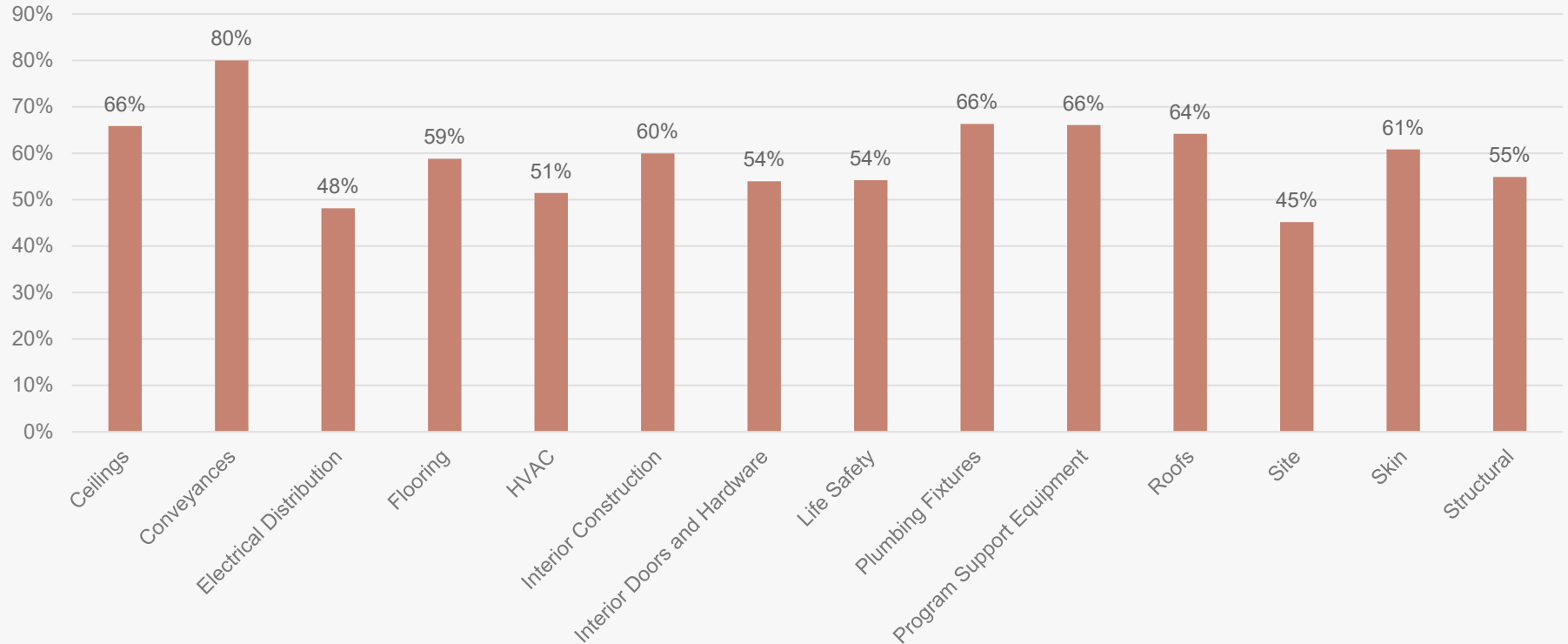
Lower is Better

FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	0	0%
Band2 (0.70-0.79)	0	0%
Band3 (0.60-0.69)	1	20%
Band4 (0.50-0.59)	3	60%
Band5 (0.40-0.49)	0	0%
Band6 (0.30-0.39)	1	20%
Band7 (0.20-0.29)	0	0%
Band8 (0.10-0.19)	0	0%
Band9 (0.00-0.09)	0	0%
<b>Total</b>	<b>5</b>	<b>100%</b>

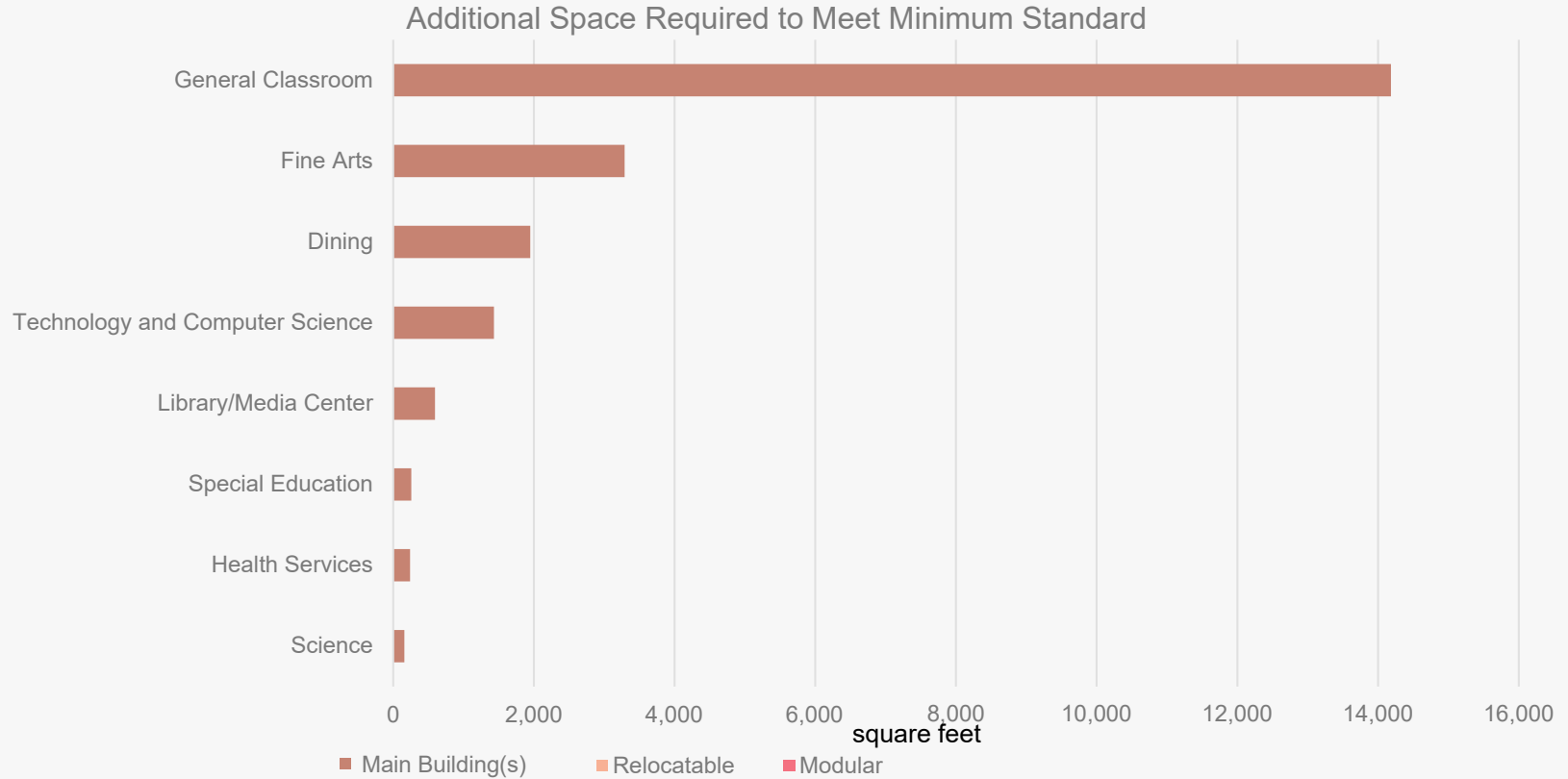


# Kent Average FCI by Major Building System

Average FCI by Major Building System



# Space Deficiencies by Type – Kent

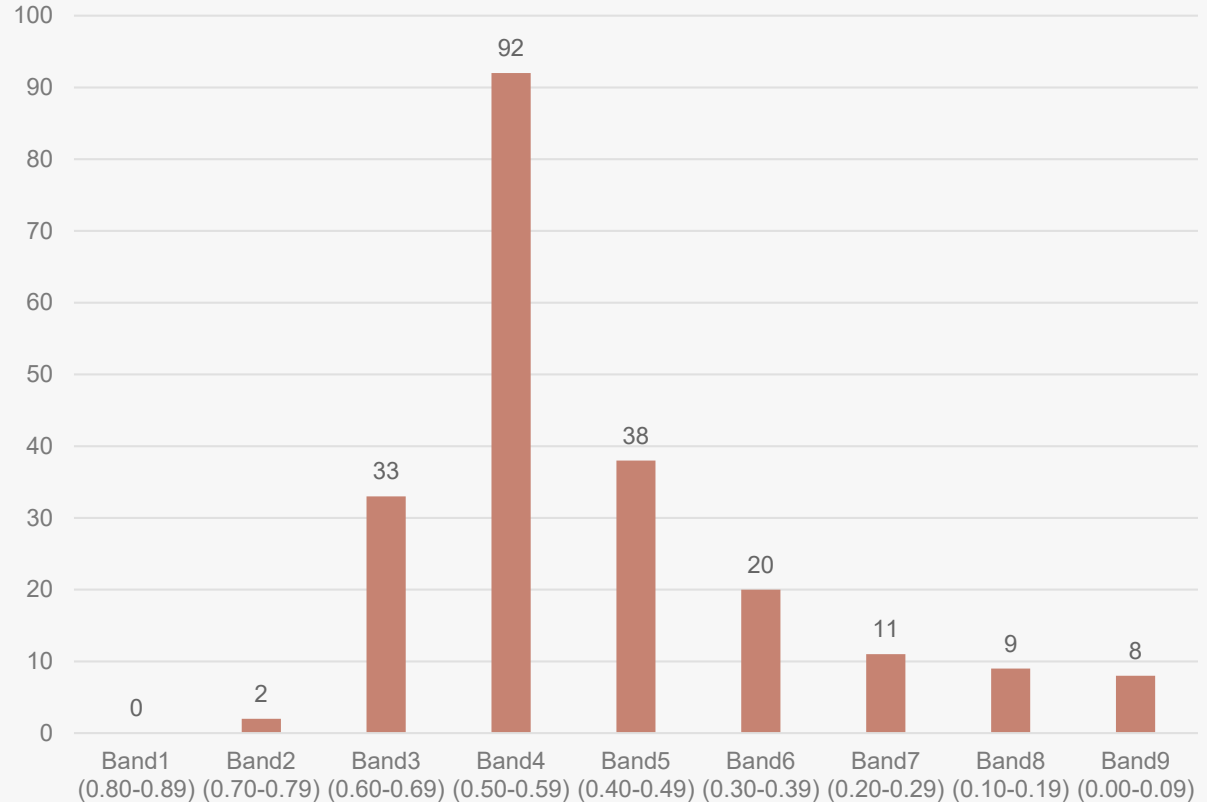


# Montgomery Facility Condition Distribution by Band

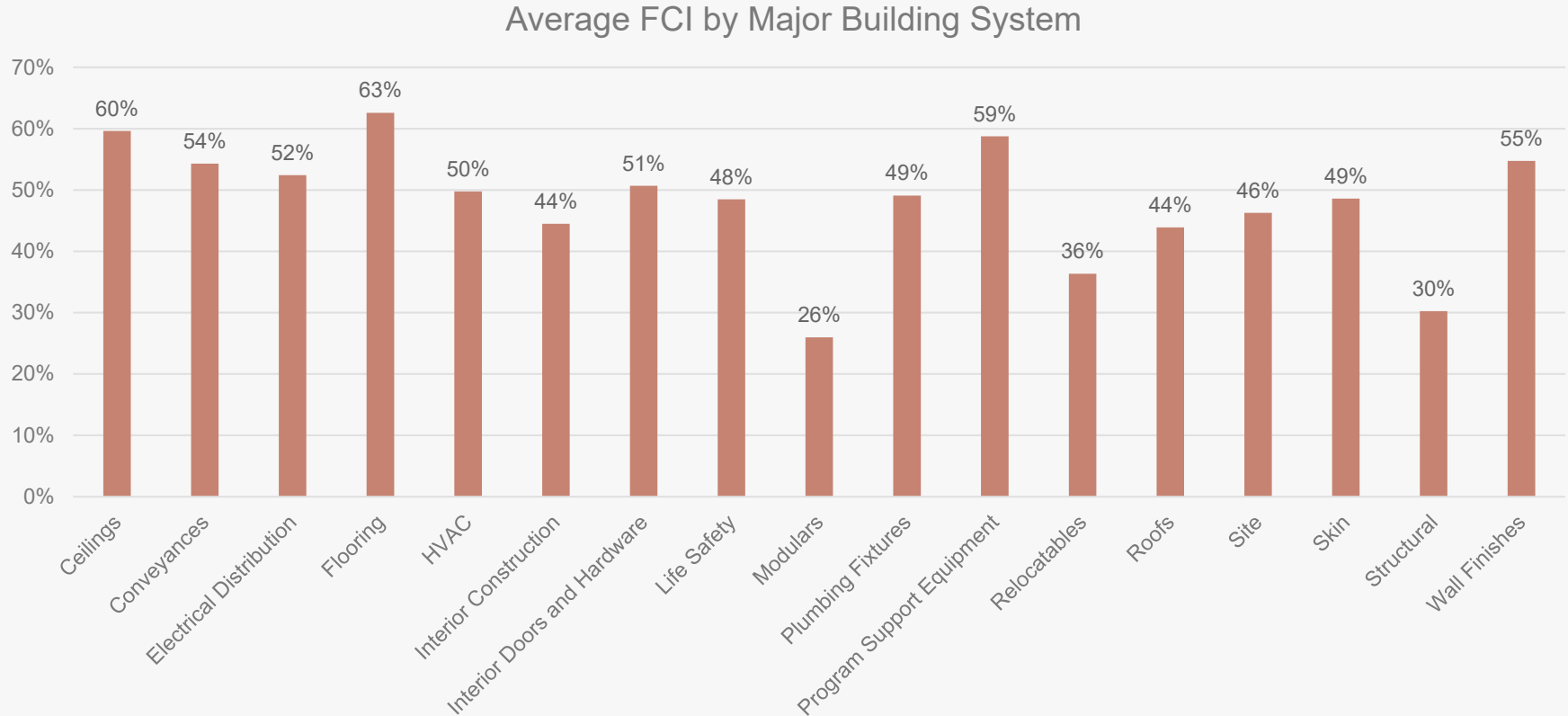
- Facility Population of 213
- Arithmetic Mean of 47.5%
- Std Deviation of 15.1%

Lower is Better

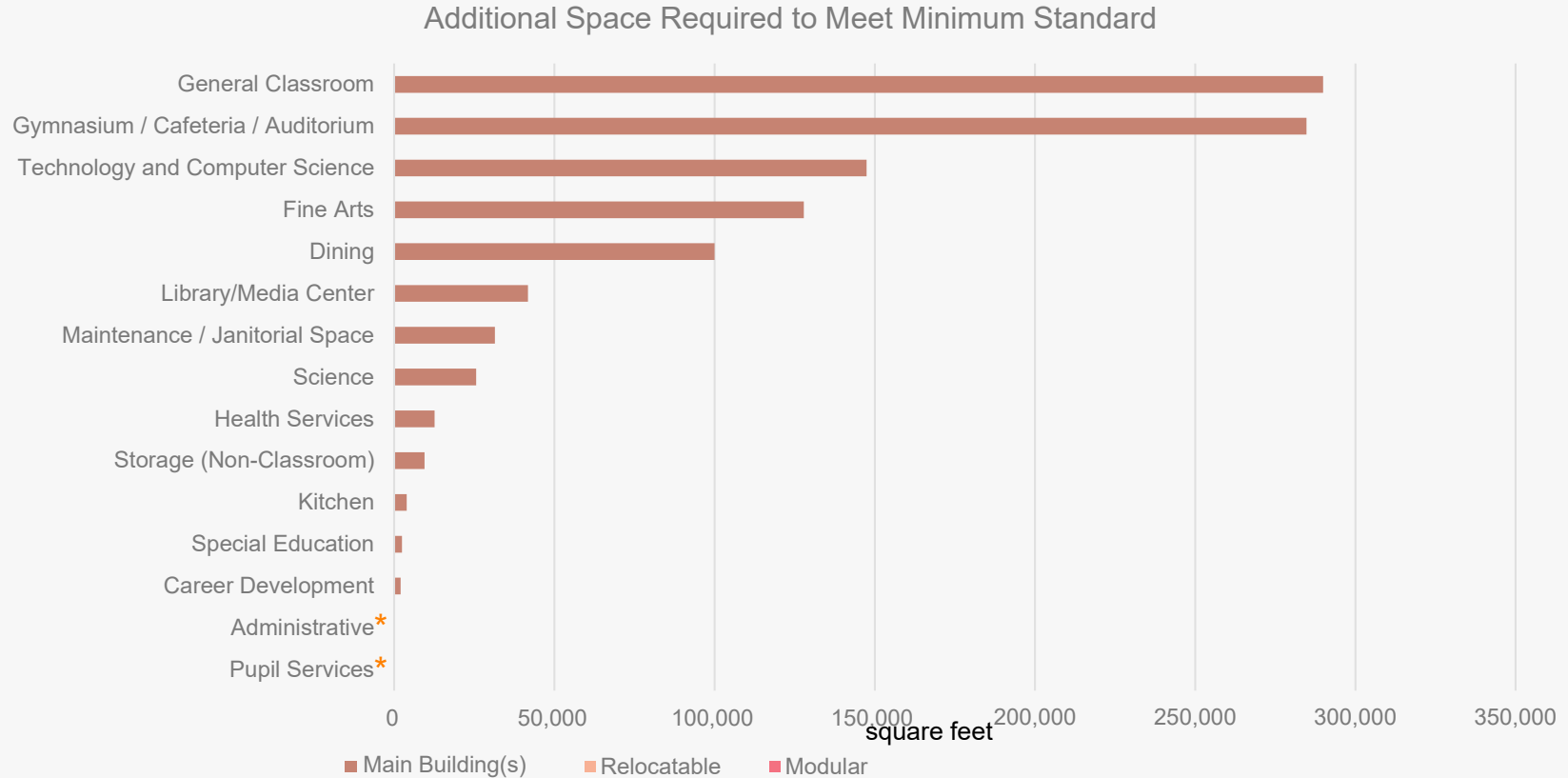
FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	0	0%
Band2 (0.70-0.79)	2	1%
Band3 (0.60-0.69)	33	15%
Band4 (0.50-0.59)	92	43%
Band5 (0.40-0.49)	38	18%
Band6 (0.30-0.39)	20	9%
Band7 (0.20-0.29)	11	45%
Band8 (0.10-0.19)	9	4%
Band9 (0.00-0.09)	8	4%
<b>Total</b>	<b>213</b>	<b>100%</b>



# Montgomery Average FCI by Major Building System



# Space Deficiencies by Type – Montgomery



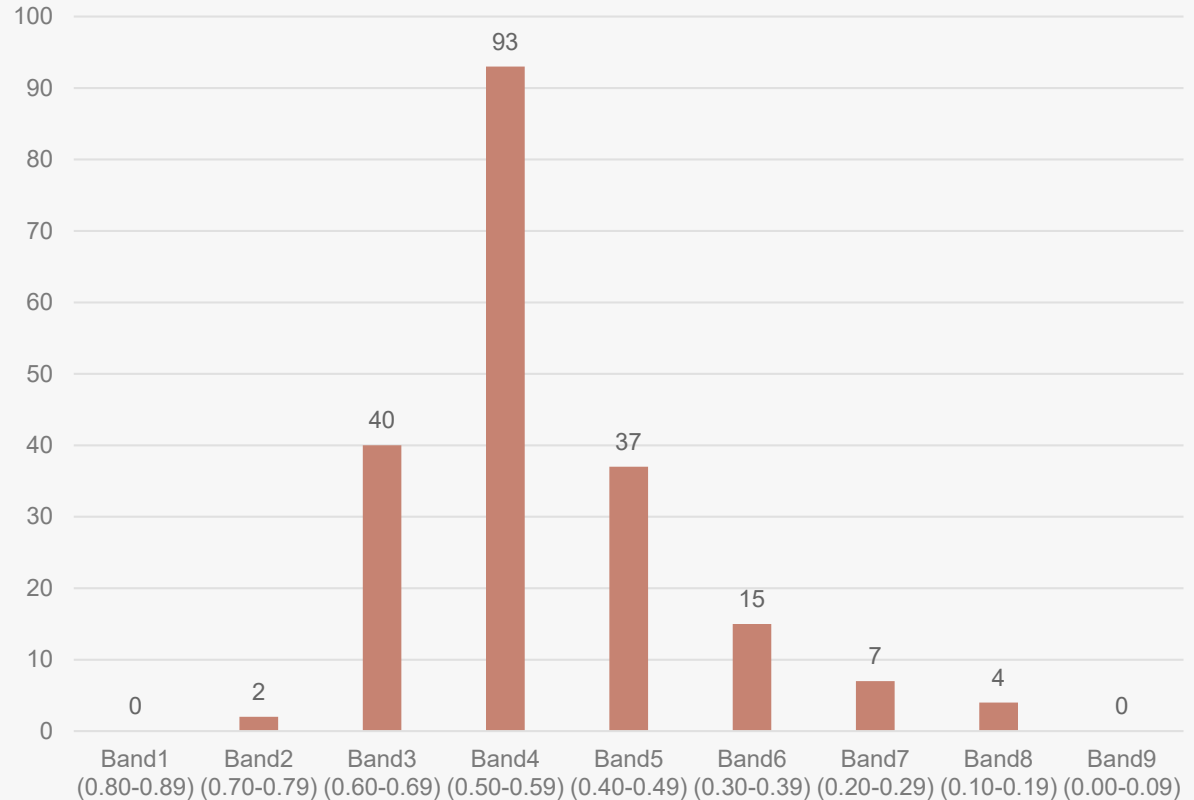
**\*Data for these categories is small enough that it is not visible at current chart scale** 51

# Prince George's Facility Condition Distribution by Band

- Facility Population of 198
- Arithmetic Mean of 52.1%
- Std Deviation of 10.8%

Lower is Better

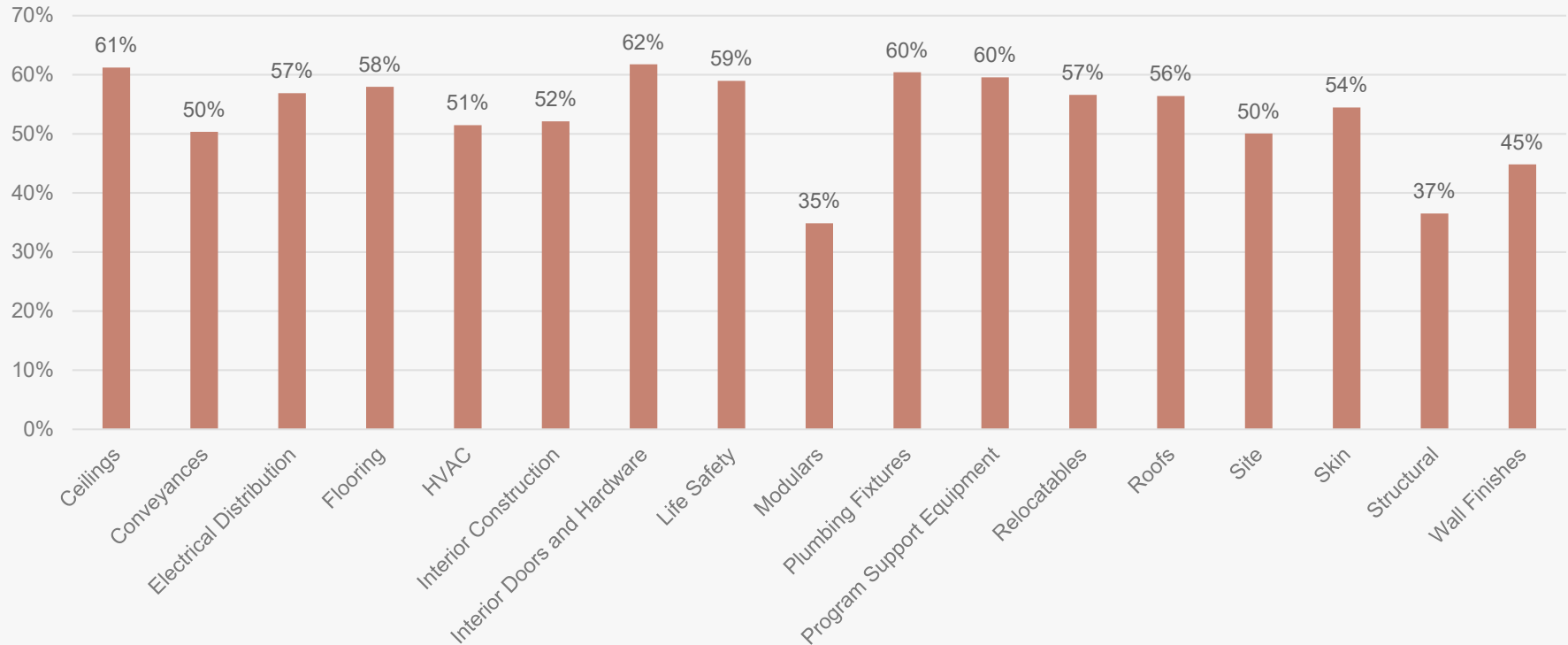
FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	0	0%
Band2 (0.70-0.79)	2	1%
Band3 (0.60-0.69)	40	20%
Band4 (0.50-0.59)	93	47%
Band5 (0.40-0.49)	37	19%
Band6 (0.30-0.39)	15	8%
Band7 (0.20-0.29)	7	4%
Band8 (0.10-0.19)	4	2%
Band9 (0.00-0.09)	0	0%
<b>Total</b>	<b>198</b>	<b>100%</b>



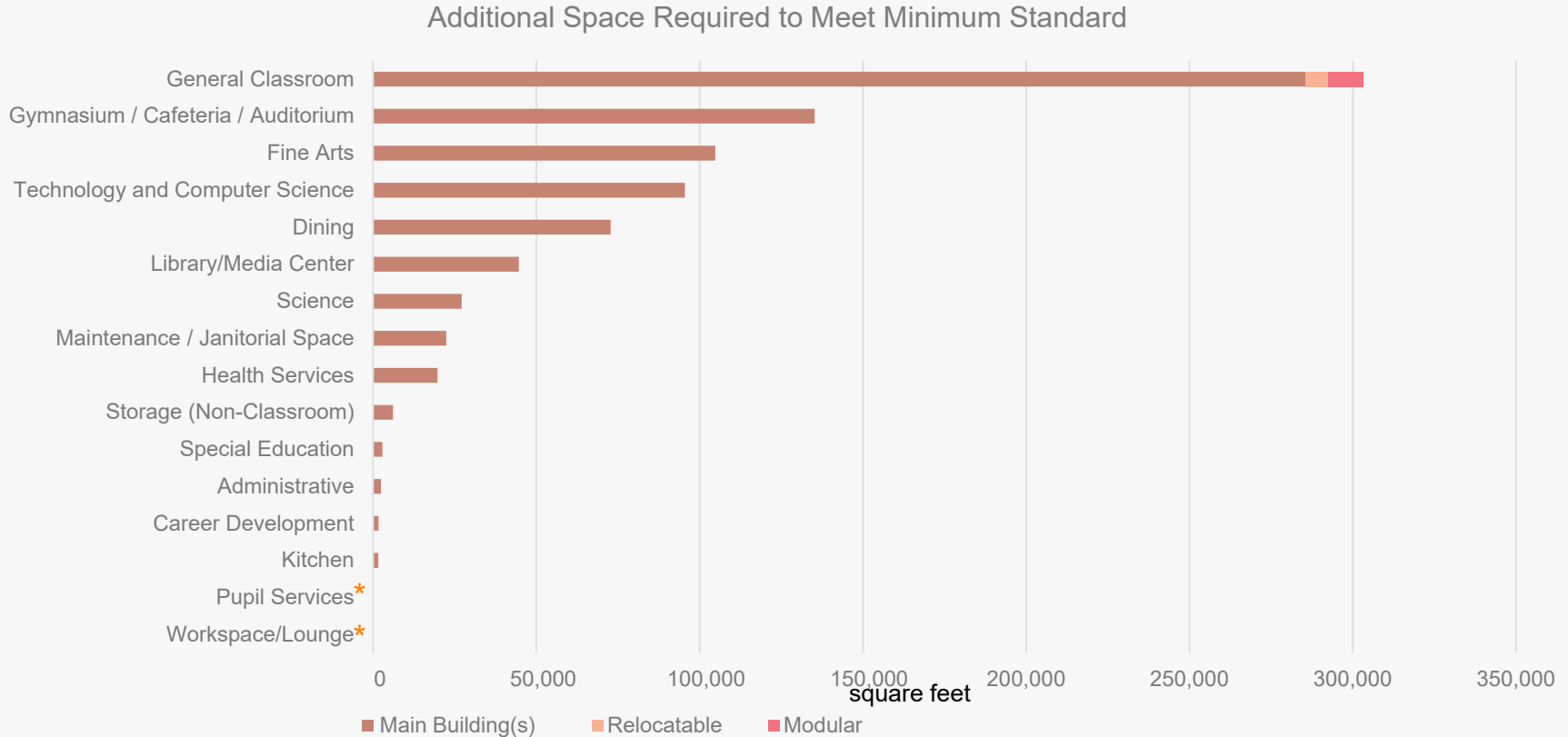


# Prince George's Average FCI by Major Building System

Average FCI by Major Building System



# Space Deficiencies by Type – Prince George's



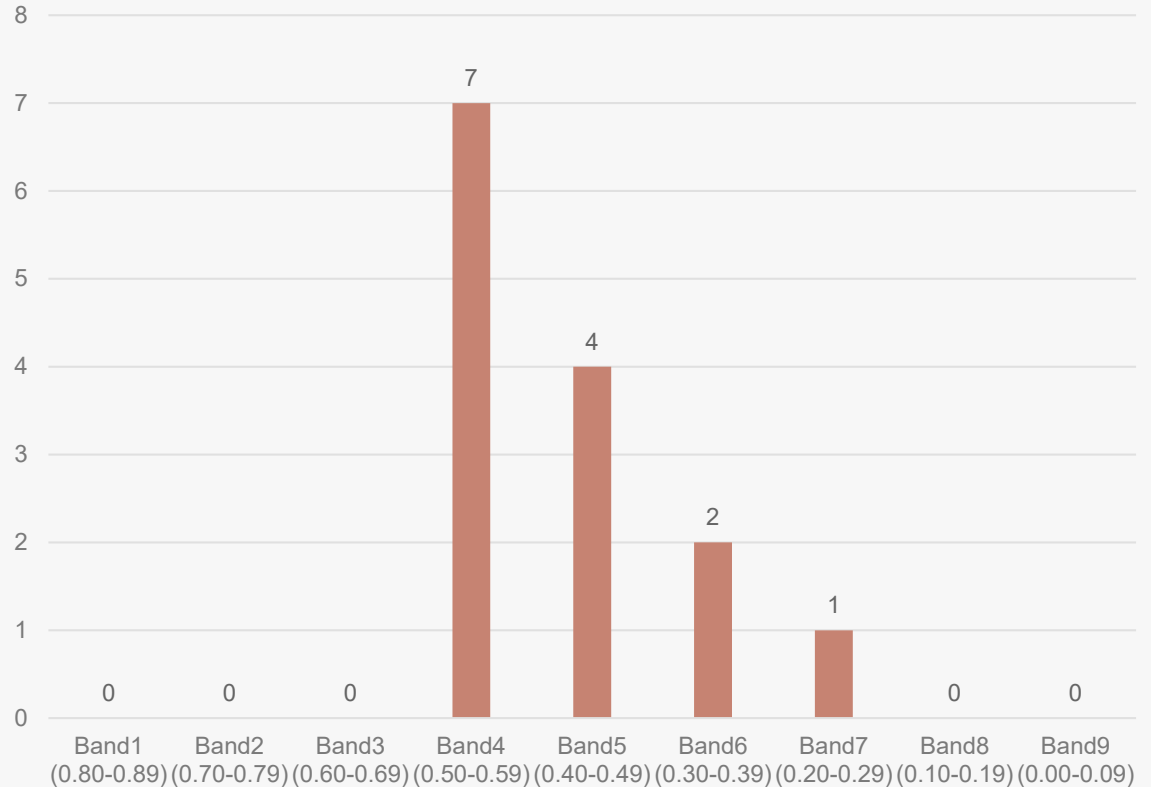
**\*Data for these categories is small enough that it is not visible at current chart scale**54

# Queen Anne's Facility Condition Distribution by Band

- Facility Population of 14
- Arithmetic Mean of 46.8%
- Std Deviation of 9.3%

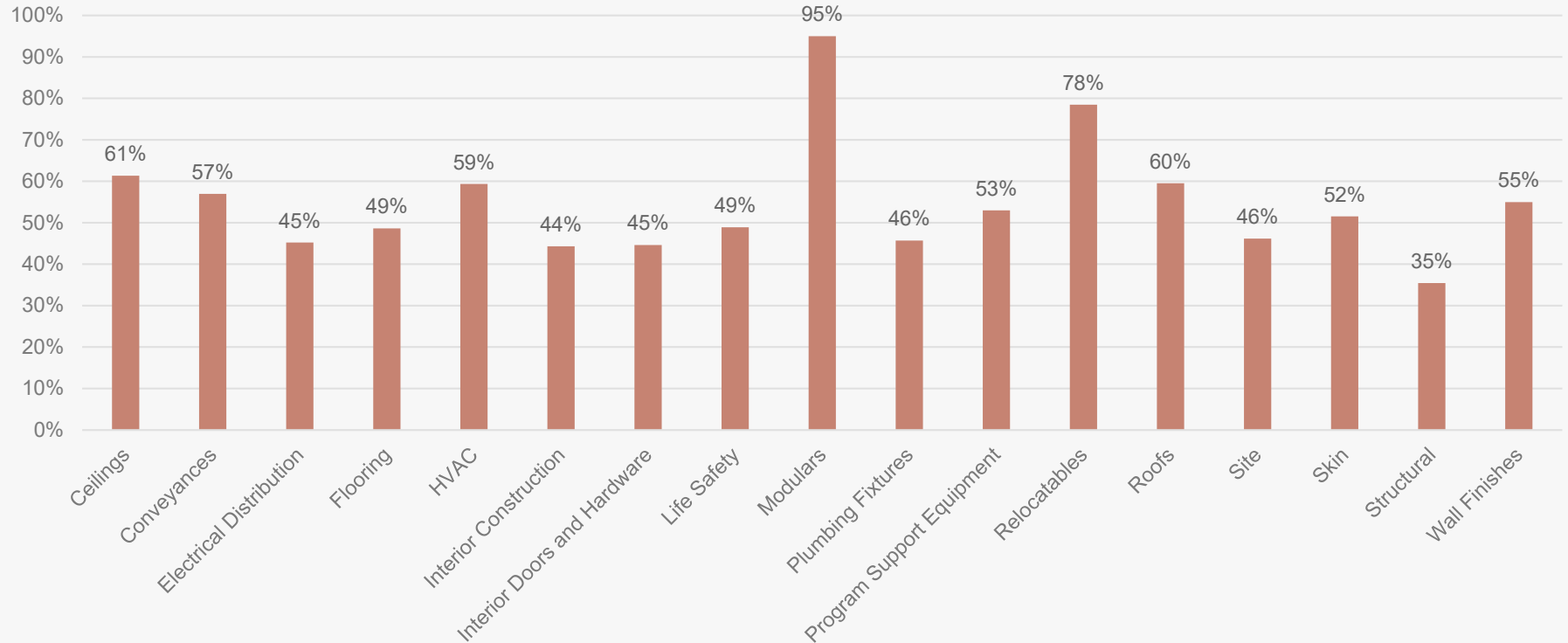
Lower is Better

FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	0	0%
Band2 (0.70-0.79)	0	0%
Band3 (0.60-0.69)	0	0%
Band4 (0.50-0.59)	7	50%
Band5 (0.40-0.49)	4	29%
Band6 (0.30-0.39)	2	14%
Band7 (0.20-0.29)	1	7%
Band8 (0.10-0.19)	0	0%
Band9 (0.00-0.09)	0	0%
<b>Total</b>	<b>14</b>	<b>100%</b>

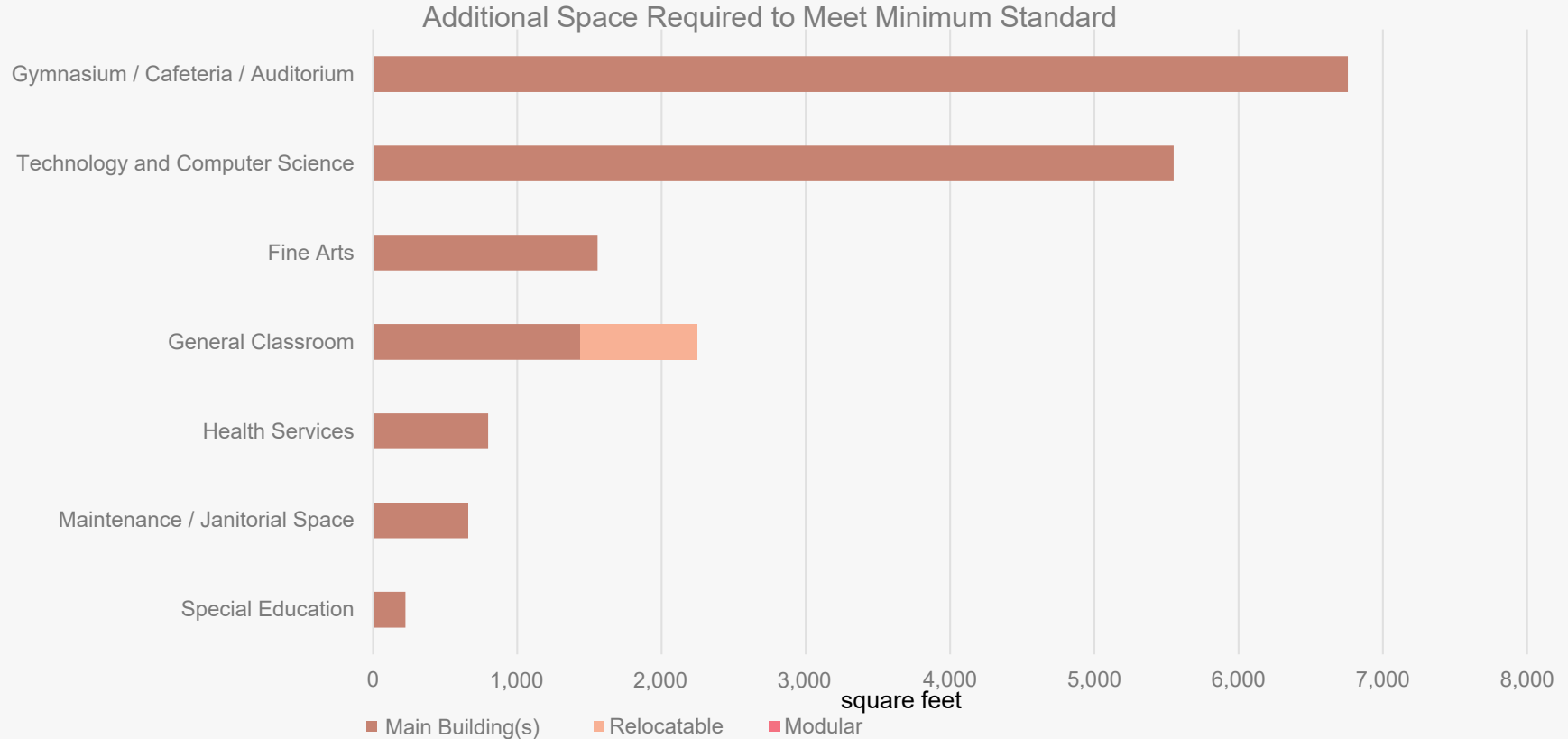


# Queen Anne's Average FCI by Major Building System

Average FCI by Major Building System



# Space Deficiencies by Type – Queen Anne's

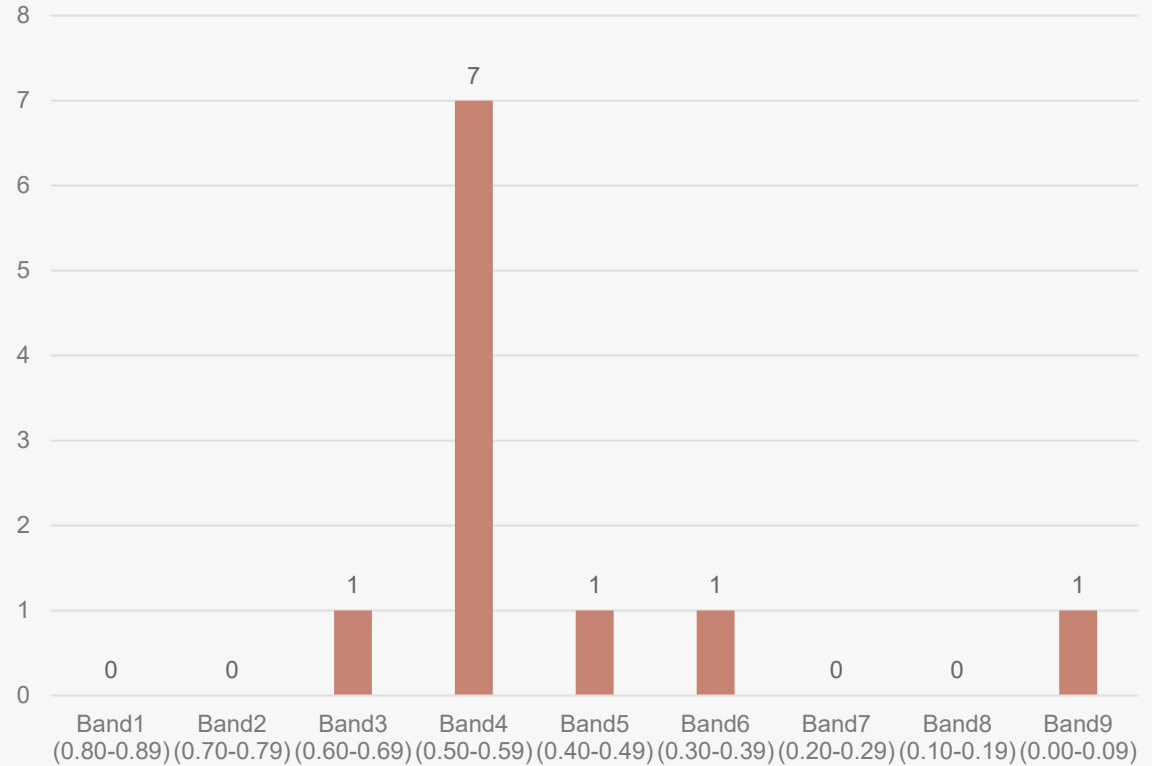


# Somerset Facility Condition Distribution by Band

- Facility Population of 11
- Arithmetic Mean of 49.2%
- Std Deviation of 16.3%

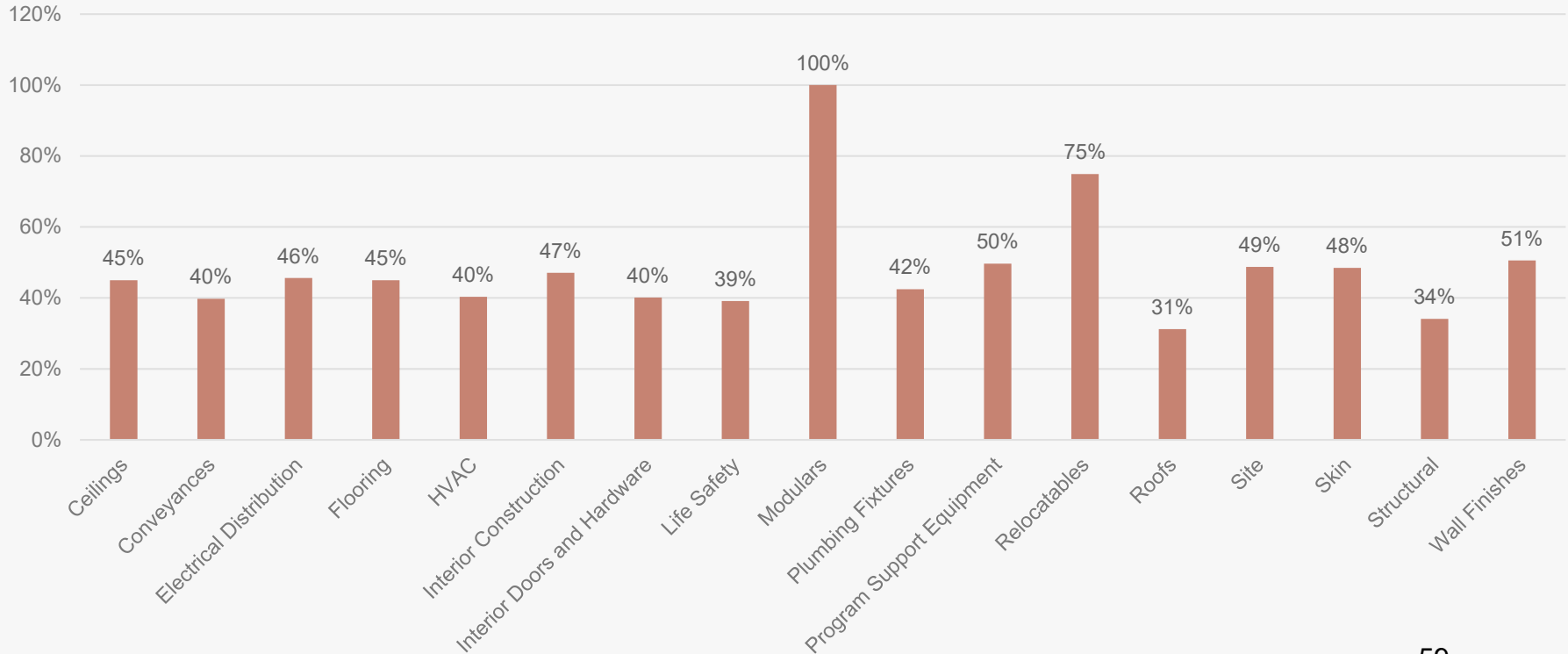
Lower is Better

FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	0	0%
Band2 (0.70-0.79)	0	0%
Band3 (0.60-0.69)	1	9%
Band4 (0.50-0.59)	7	64%
Band5 (0.40-0.49)	1	9%
Band6 (0.30-0.39)	1	9%
Band7 (0.20-0.29)	0	0%
Band8 (0.10-0.19)	0	0%
Band9 (0.00-0.09)	1	9%
<b>Total</b>	<b>11</b>	<b>100%</b>

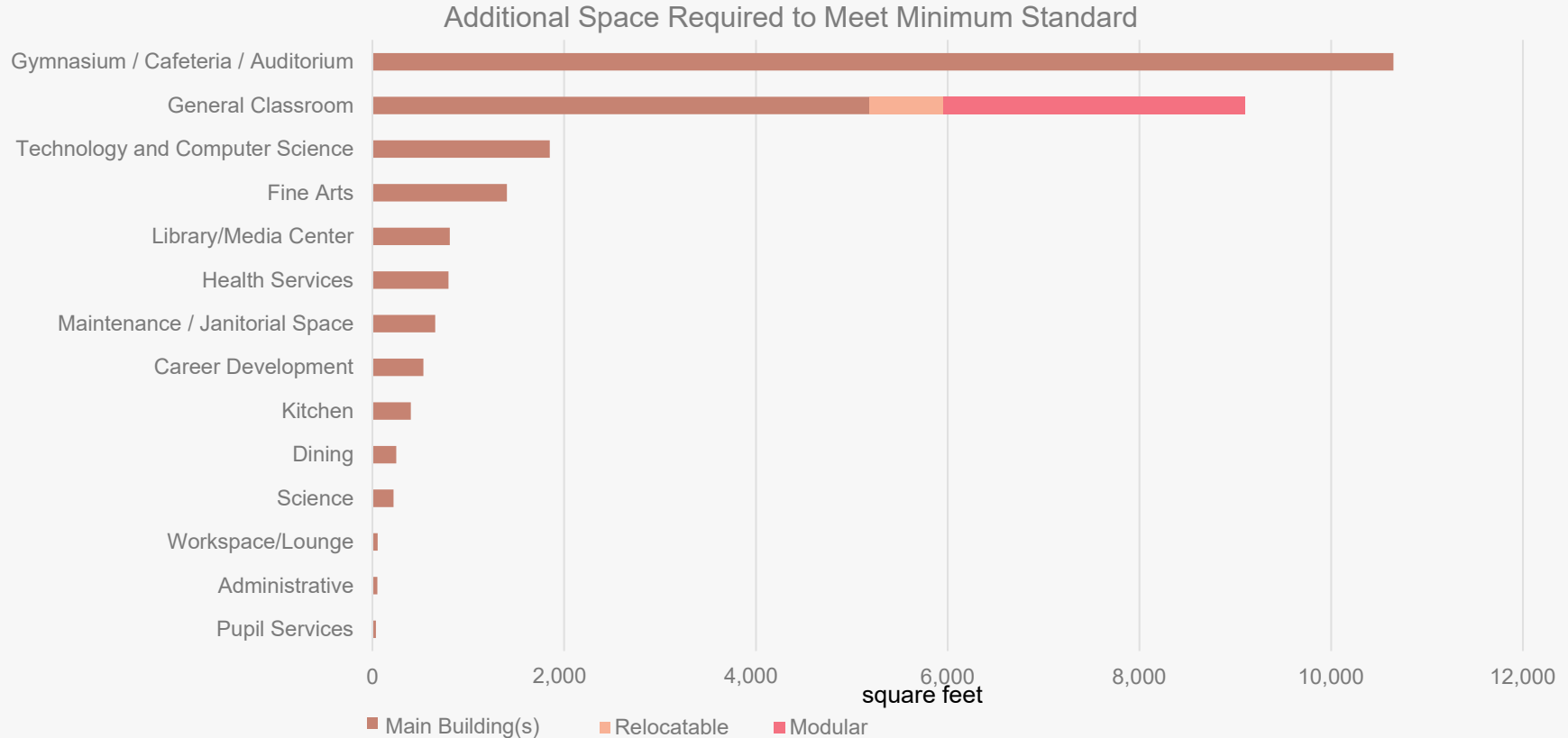


# Somerset Average FCI by Major Building System

Average FCI by Major Building System



# Space Deficiencies by Type – Somerset



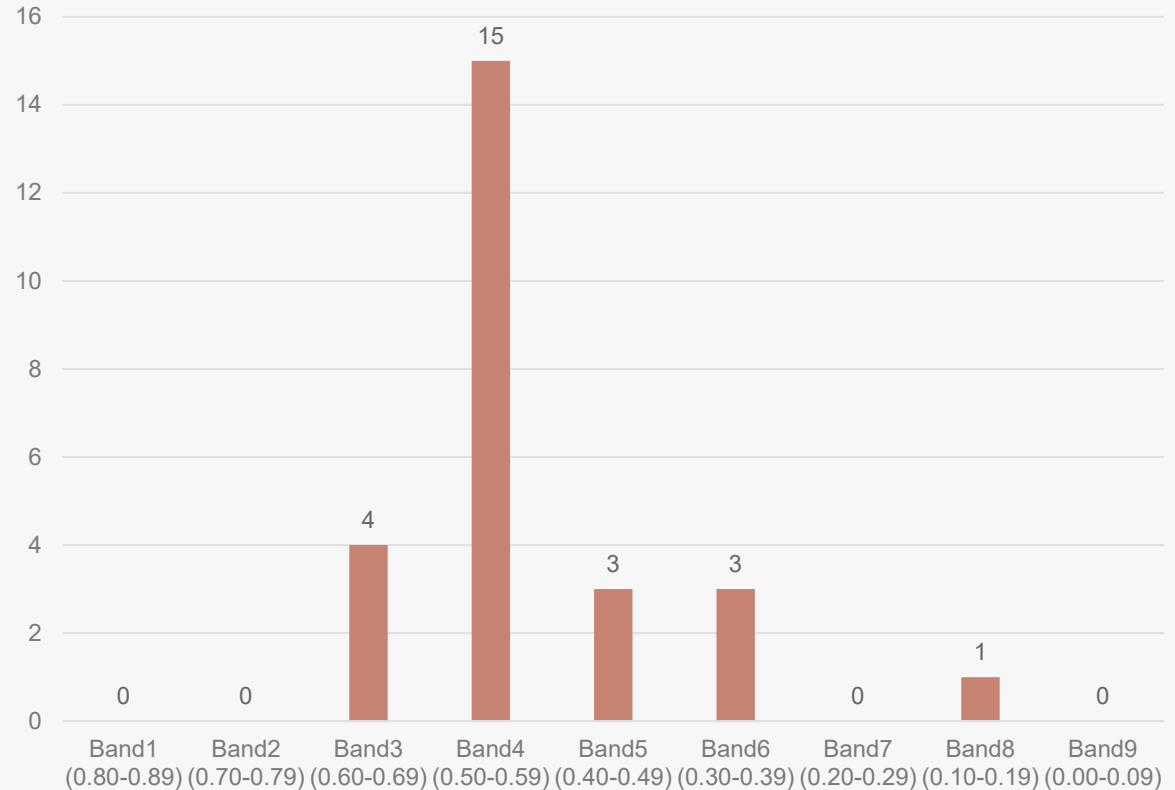


# St. Mary's Facility Condition Distribution by Band

- Facility Population of 26
- Arithmetic Mean of 51.4%
- Std Deviation of 10.8%

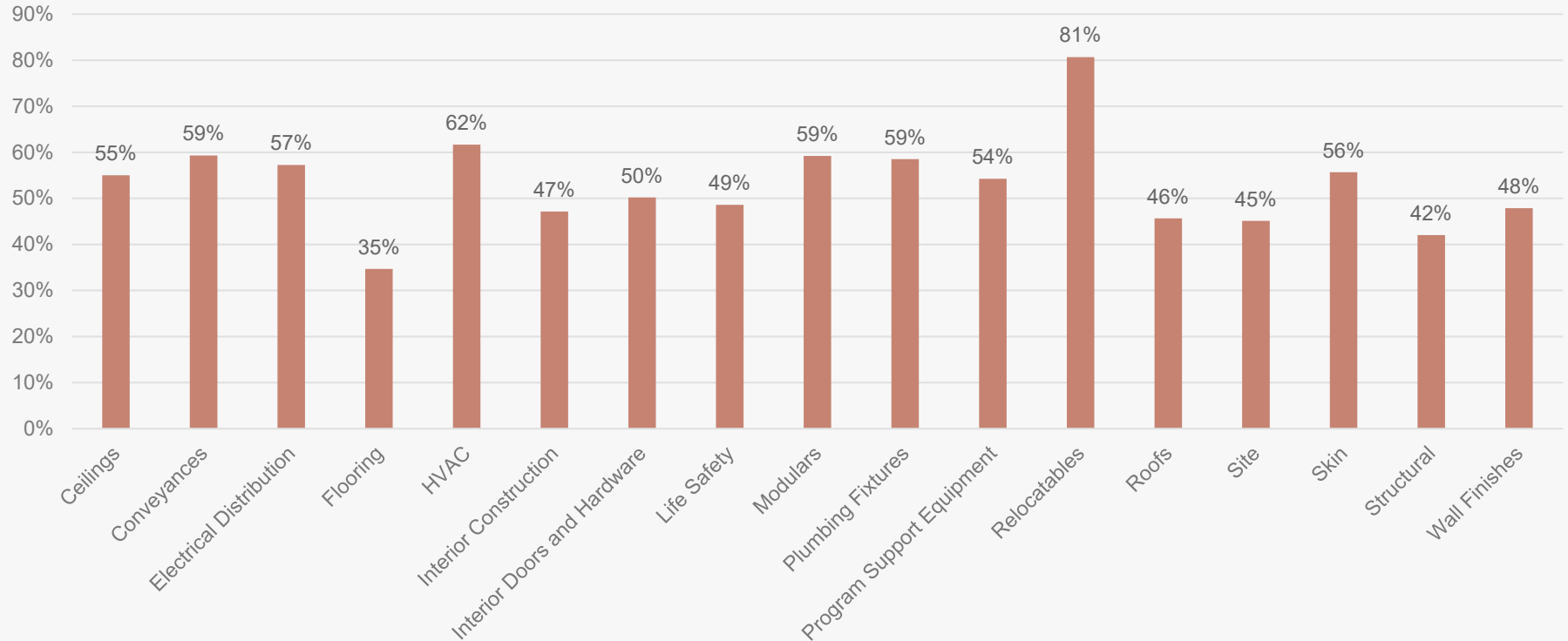
Lower is Better

FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	0	0%
Band2 (0.70-0.79)	0	0%
Band3 (0.60-0.69)	4	15%
Band4 (0.50-0.59)	15	58%
Band5 (0.40-0.49)	3	12%
Band6 (0.30-0.39)	3	12%
Band7 (0.20-0.29)	0	0%
Band8 (0.10-0.19)	1	4%
Band9 (0.00-0.09)	0	0%
<b>Total</b>	<b>26</b>	<b>100%</b>

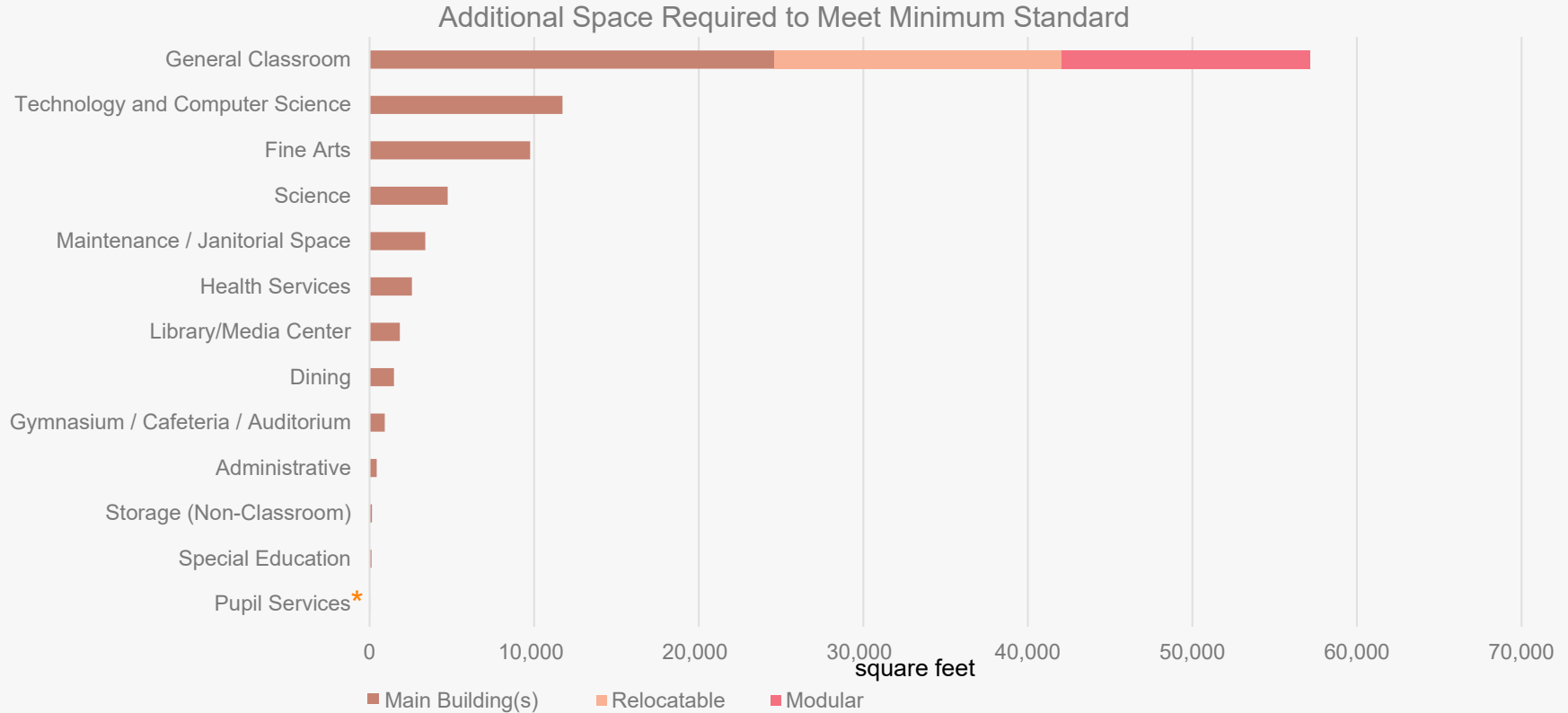


# St. Mary's Average FCI by Major Building System

Average FCI by Major Building System



# Space Deficiencies by Type – St. Mary's



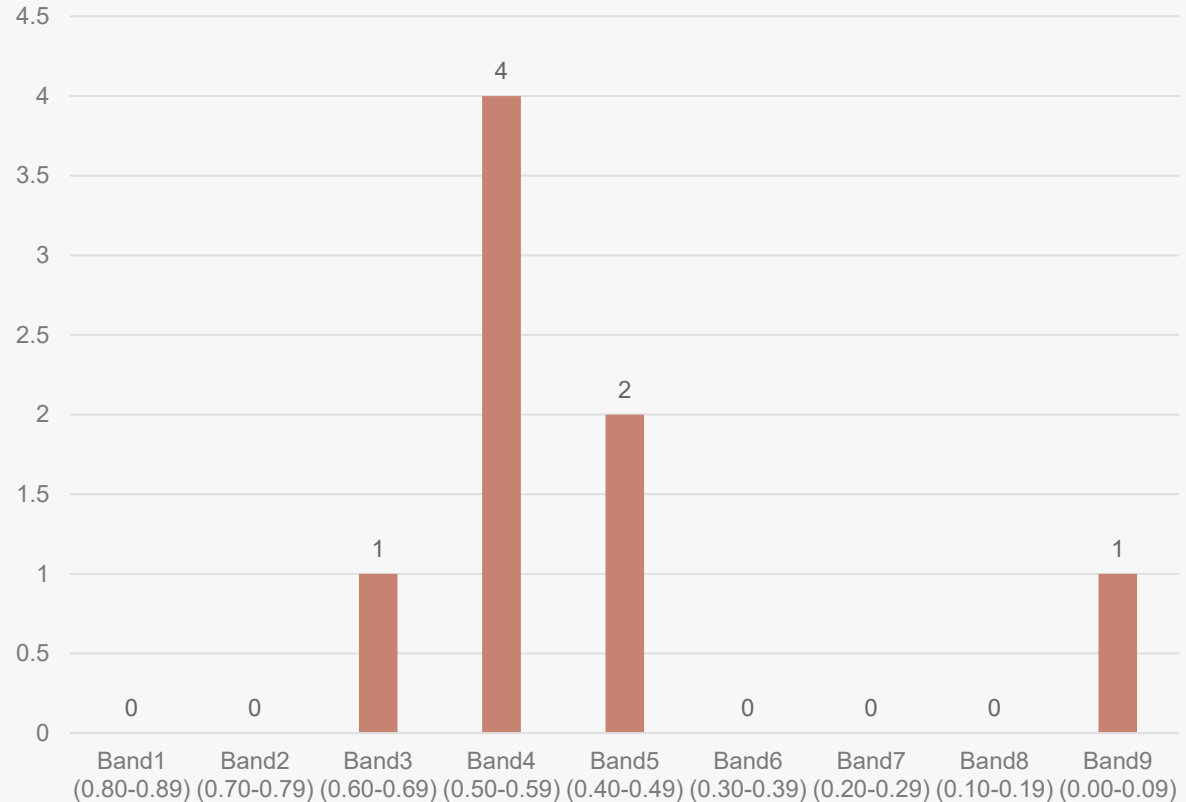
**\*Data for these categories is small enough that it is not visible at current chart scale**

# Talbot Facility Condition Distribution by Band

- Facility Population of 8
- Arithmetic Mean of 46.0%
- Std Deviation of 17.7%

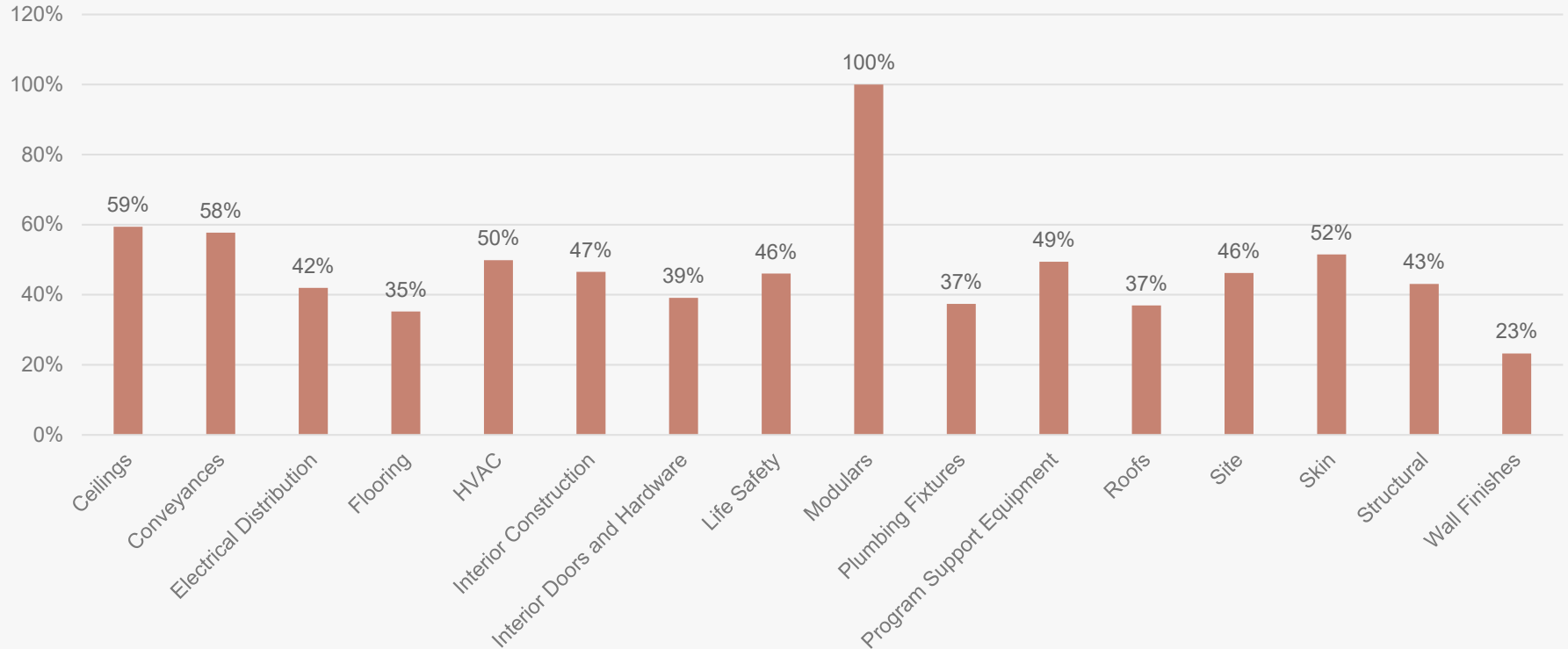
Lower is Better

FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	0	0%
Band2 (0.70-0.79)	0	0%
Band3 (0.60-0.69)	1	13%
Band4 (0.50-0.59)	4	50%
Band5 (0.40-0.49)	2	25%
Band6 (0.30-0.39)	0	0%
Band7 (0.20-0.29)	0	0%
Band8 (0.10-0.19)	0	0%
Band9 (0.00-0.09)	1	13%
<b>Total</b>	<b>8</b>	<b>100%</b>

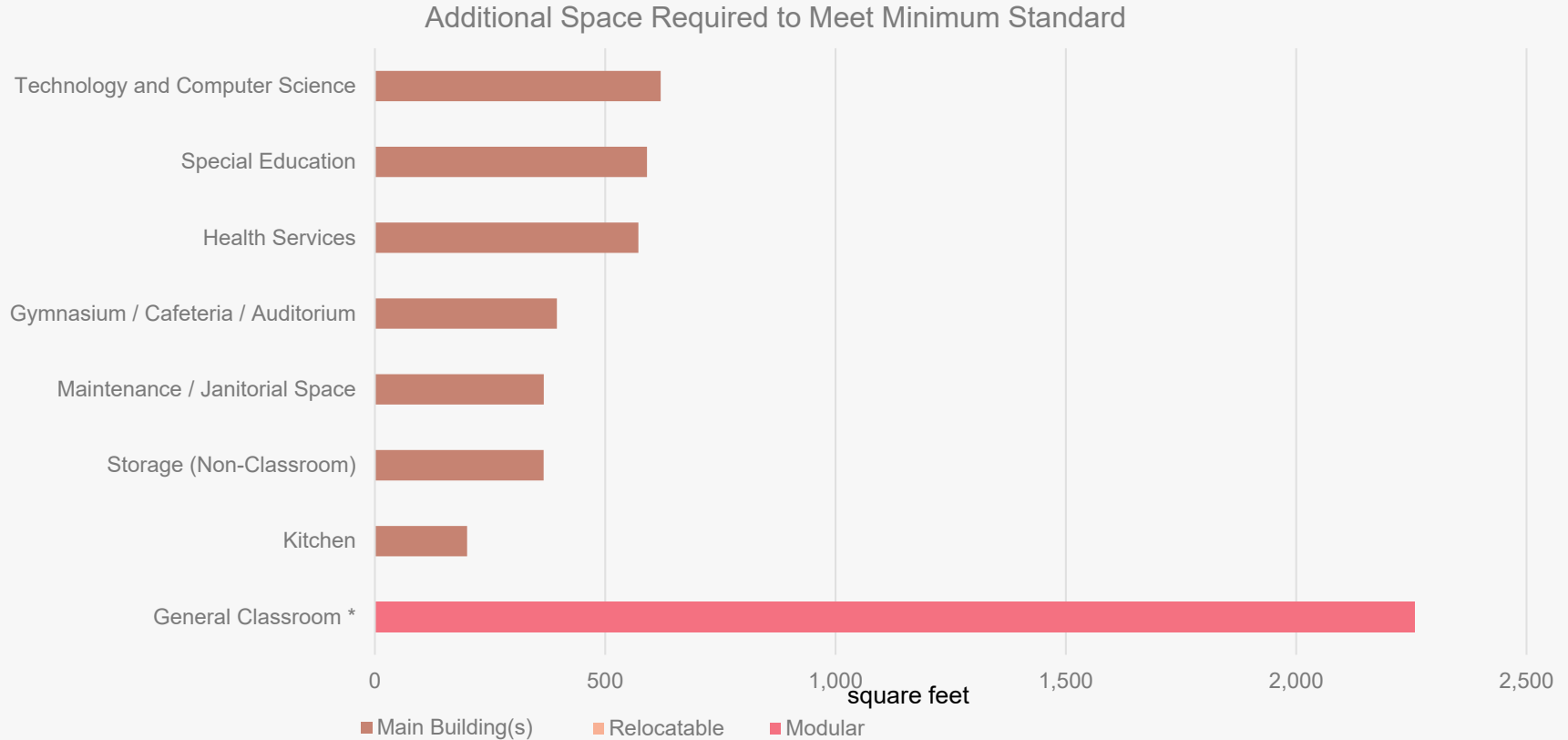


# Talbot Average FCI by Major Building System

Average FCI by Major Building System



# Space Deficiencies by Type – Talbot



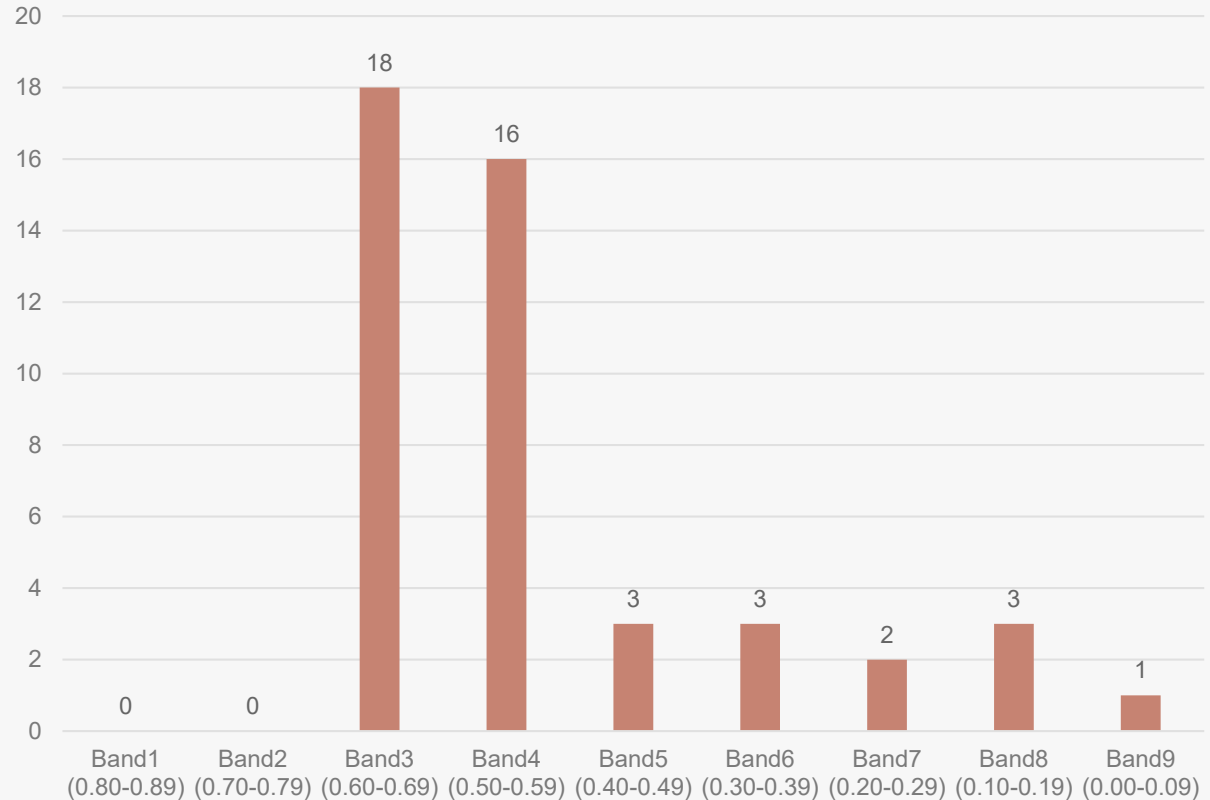
\*Data for main buildings and relocatables is small enough that it is not visible at current chart scale

# Washington Facility Condition Distribution by Band

- Facility Population of 46
- Arithmetic Mean of 52.4%
- Std Deviation of 16.0%

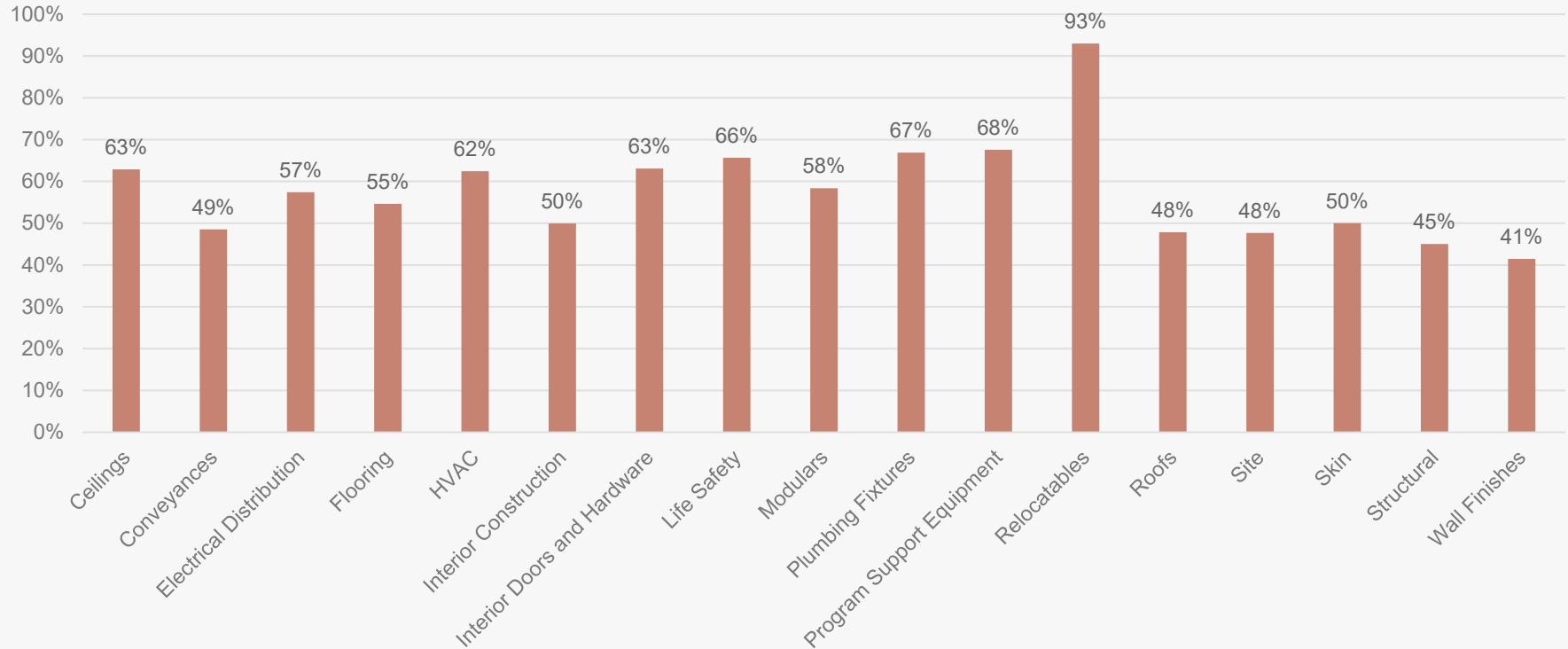
Lower is Better

FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	0	0%
Band2 (0.70-0.79)	0	0%
Band3 (0.60-0.69)	18	39%
Band4 (0.50-0.59)	16	35%
Band5 (0.40-0.49)	3	7%
Band6 (0.30-0.39)	3	7%
Band7 (0.20-0.29)	2	4%
Band8 (0.10-0.19)	3	7%
Band9 (0.00-0.09)	1	2%
<b>Total</b>	<b>45</b>	<b>100%</b>



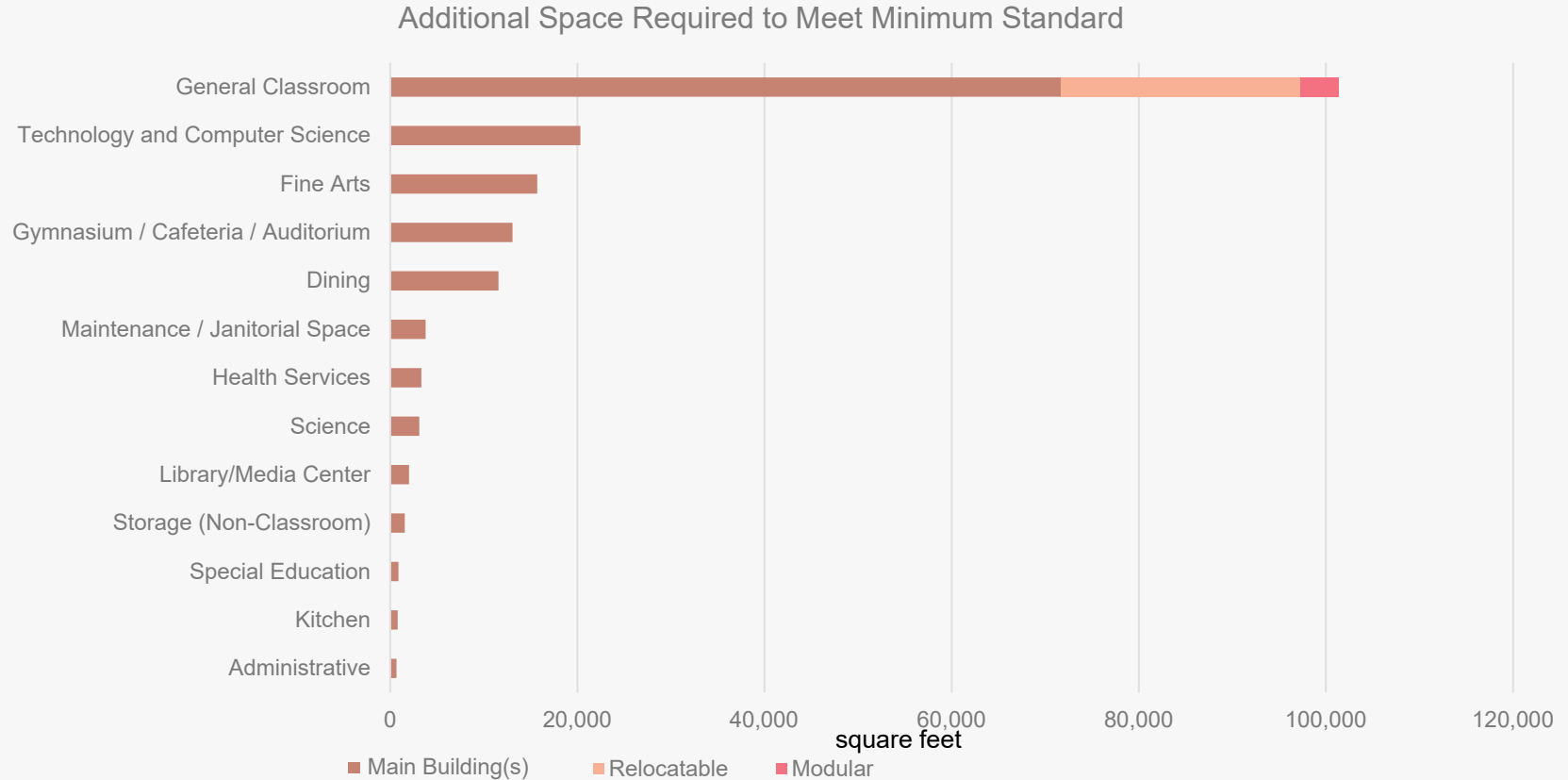
# Washington Average FCI by Major Building System

Average FCI by Major Building System





# Space Deficiencies by Type – Washington

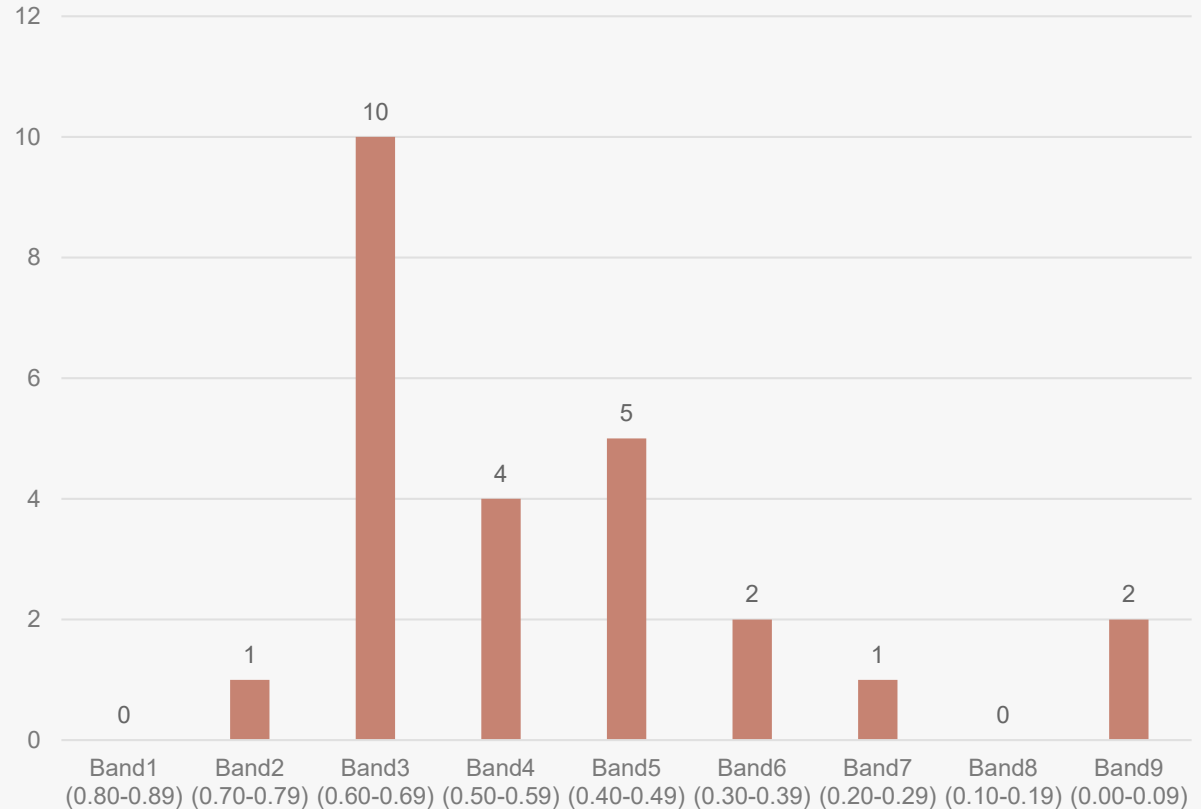


# Wicomico Facility Condition Distribution by Band

- Facility Population of 25
- Arithmetic Mean of 50.3%
- Std Deviation of 18.0%

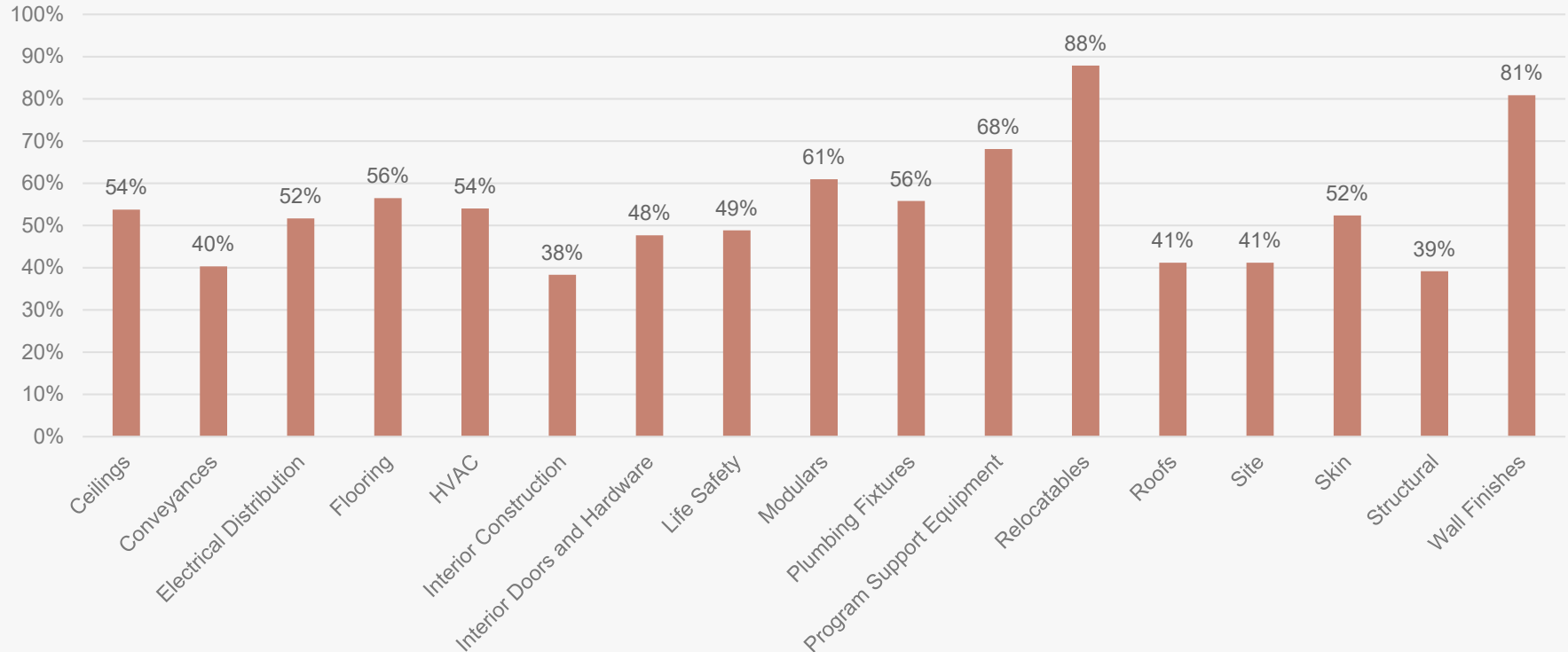
Lower is Better

FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	0	0%
Band2 (0.70-0.79)	1	4%
Band3 (0.60-0.69)	10	40%
Band4 (0.50-0.59)	4	16%
Band5 (0.40-0.49)	5	20%
Band6 (0.30-0.39)	2	8%
Band7 (0.20-0.29)	1	4%
Band8 (0.10-0.19)	0	0%
Band9 (0.00-0.09)	2	8%
<b>Total</b>	<b>24</b>	<b>100%</b>

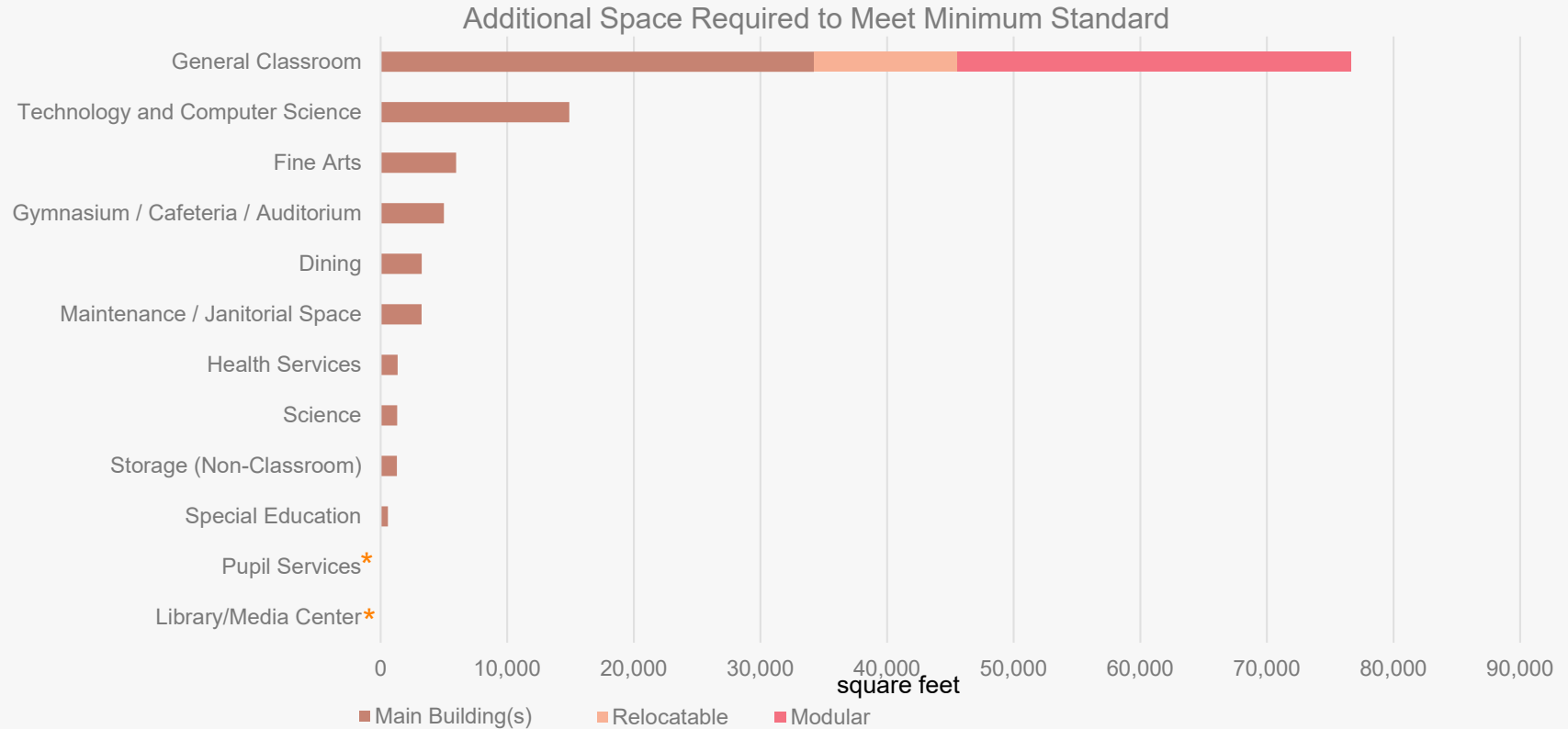


# Wicomico Average FCI by Major Building System

Average FCI by Major Building System



# Space Deficiencies by Type – Wicomico



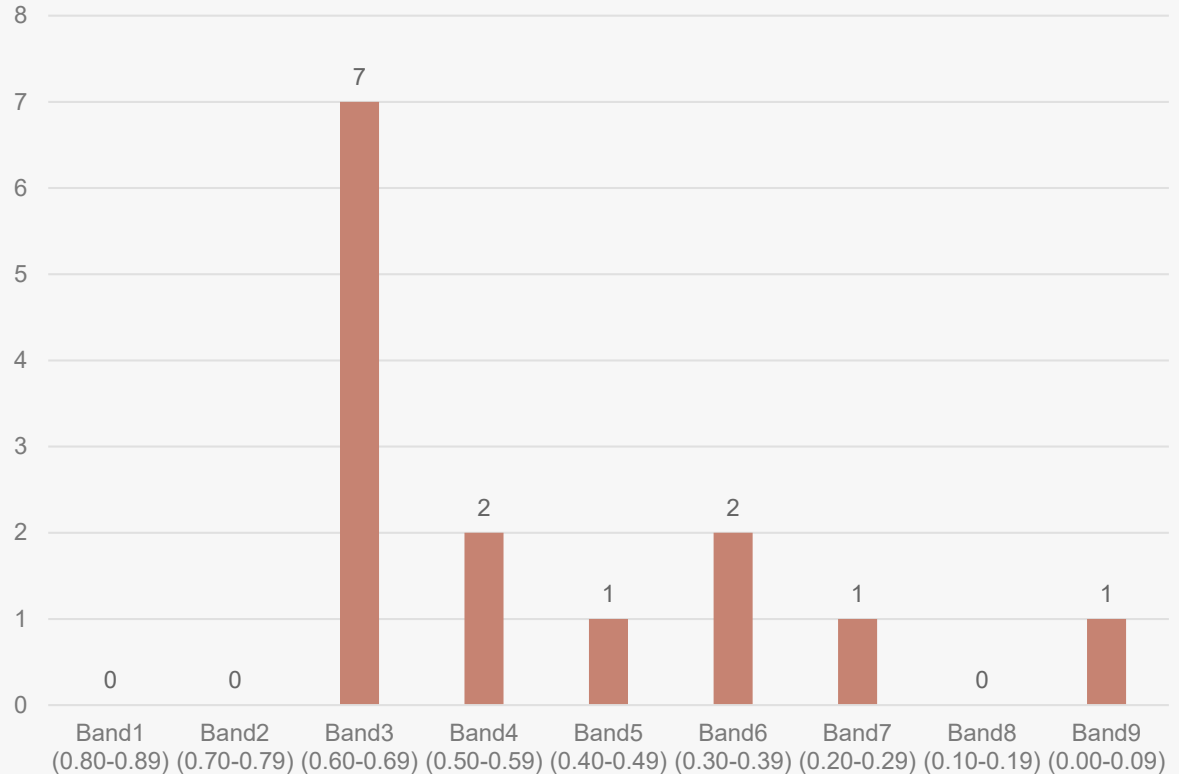
**\*Data for these categories is small enough that it is not visible at current chart scale**72

# Worcester Facility Condition Distribution by Band

- Facility Population of 14
- Arithmetic Mean of 50.1%
- Std Deviation of 18.7%

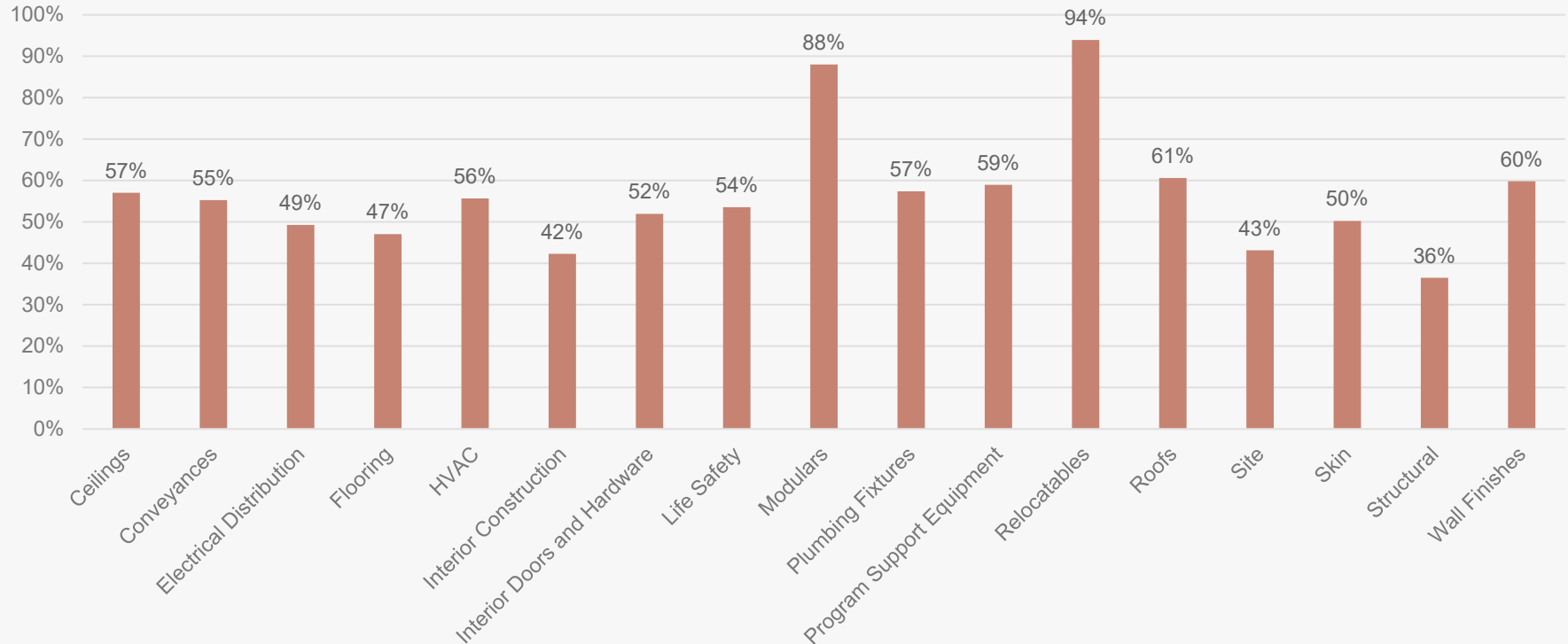
Lower is Better

FCI	# Buildings	Percentage of Buildings
Band1 (0.80-0.89)	0	0%
Band2 (0.70-0.79)	0	0%
Band3 (0.60-0.69)	7	50%
Band4 (0.50-0.59)	2	14%
Band5 (0.40-0.49)	1	7%
Band6 (0.30-0.39)	2	14%
Band7 (0.20-0.29)	1	7%
Band8 (0.10-0.19)	0	0%
Band9 (0.00-0.09)	1	7%
<b>Total</b>	<b>14</b>	<b>100%</b>

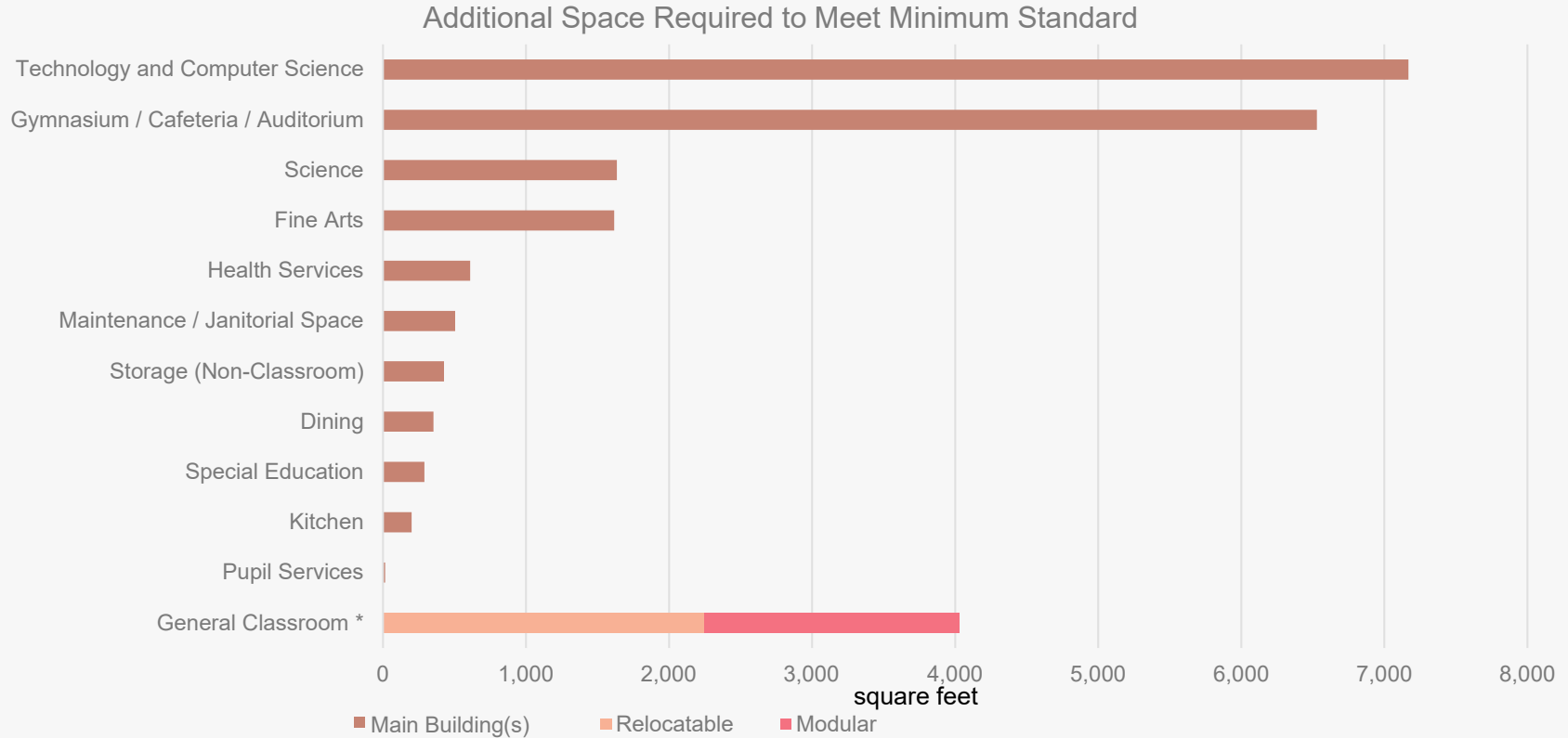


# Worcester Average FCI by Major Building System

Average FCI by Major Building System



# Space Deficiencies by Type – Worcester



\*Data for main buildings is small enough that it is not visible at current chart scale