Detroit Public Schools Community District

Facility Condition Assessment

June 22, 2018

Facilities

- Site Elements
  - Significant asphalt cracking (block, alligator, etc.)
  - Concrete condition wide spectrum (good to poor)
- Roof Coverings
  - Majority or Modified Bitumen (fair to poor condition)
  - Slate, Composite Shingles (fair to good condition)
- Exterior Finishes
  - Good condition (Brick Veneer, Doors)
  - Bad condition (Windows seals)
- Interior Finishes
  - Good condition (Paint, Floors, Casework)
  - Bad condition (Ceilings, fixed seating, toilet rooms)

Facilities (cont.)

- Heating systems
  - Boilers (ROM 50% maintenance issues)
  - Distribution systems generally original (30-50yrs+)
- Electrical
  - Recent Upgrade or Original
  - Capacity is adequate but little room for expansion
- Elevators
  - Out of service or not being used
  - Freight elevators used as passenger elevators
- LAN
  - Good connectivity
- Accessibility
  - Pavements (fair to poor condition)
  - Parking (Striping, signage)
  - Entrances (Doors, pathways, signs)
  - Toilet Rooms (Signage, space, fixtures)

Facility Condition Index

Facility Condition Index (FCI)

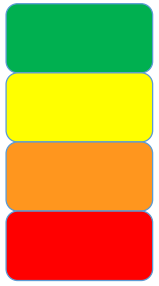
Example

- Total cost of expired systems to be replaced = **$3,000,000**
- Total cost of facility (*Current Replacement Value)* = **$10,000,000**

$$\mathbf{FCI} = \left(\frac{\mathbf{\$3,000,000}}{\mathbf{\$10,000,000}} \; X \; 100 \right) = 30\%$$

Facility Condition Index

Facility Condition Index (FCI)	Qualitative Rating	General Description
0 - 10	Good	Facility new or well maintained (very good condition)
11 - 20	Fair	Facility is satisfactorily maintained (good condition)
21 – 30	Poor	Facility is under maintained (fair condition)
31 – 60	Unsatisfactory	Facility should be considered for significant renovation or possible replacement (poor condition - facility is still safe but more cost effective to Replace than to maintain)

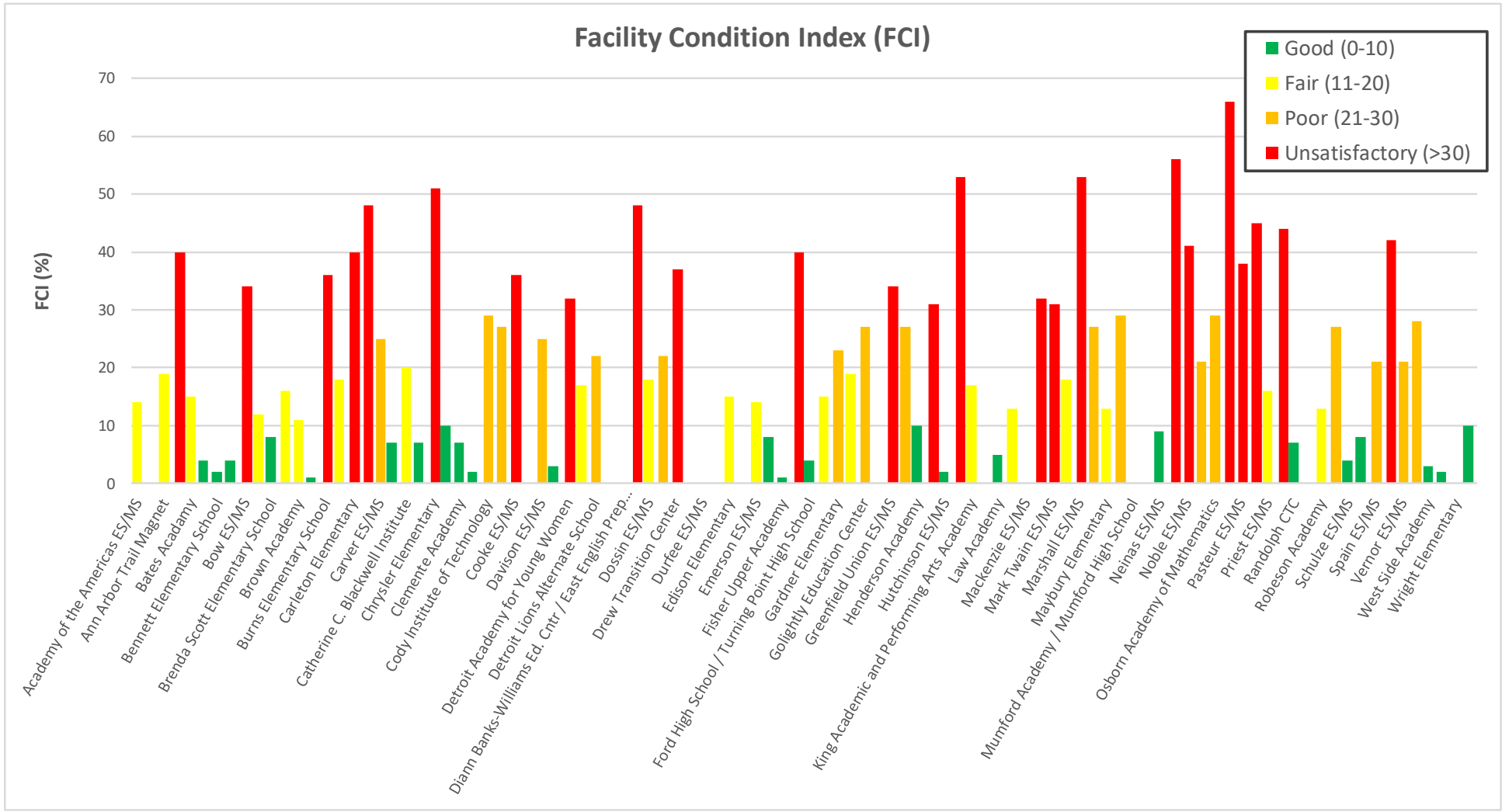


Good (0-10)

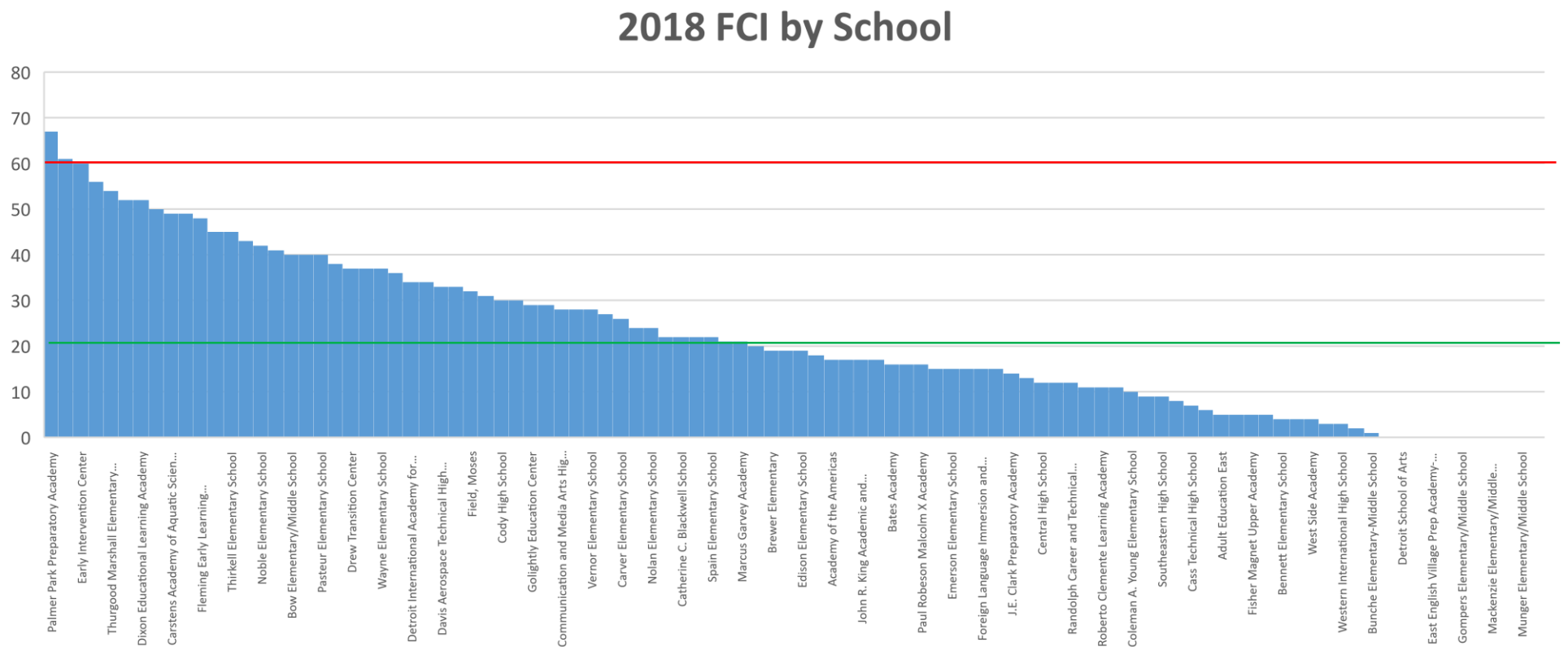
Fair (11-20)

Poor (21-30)

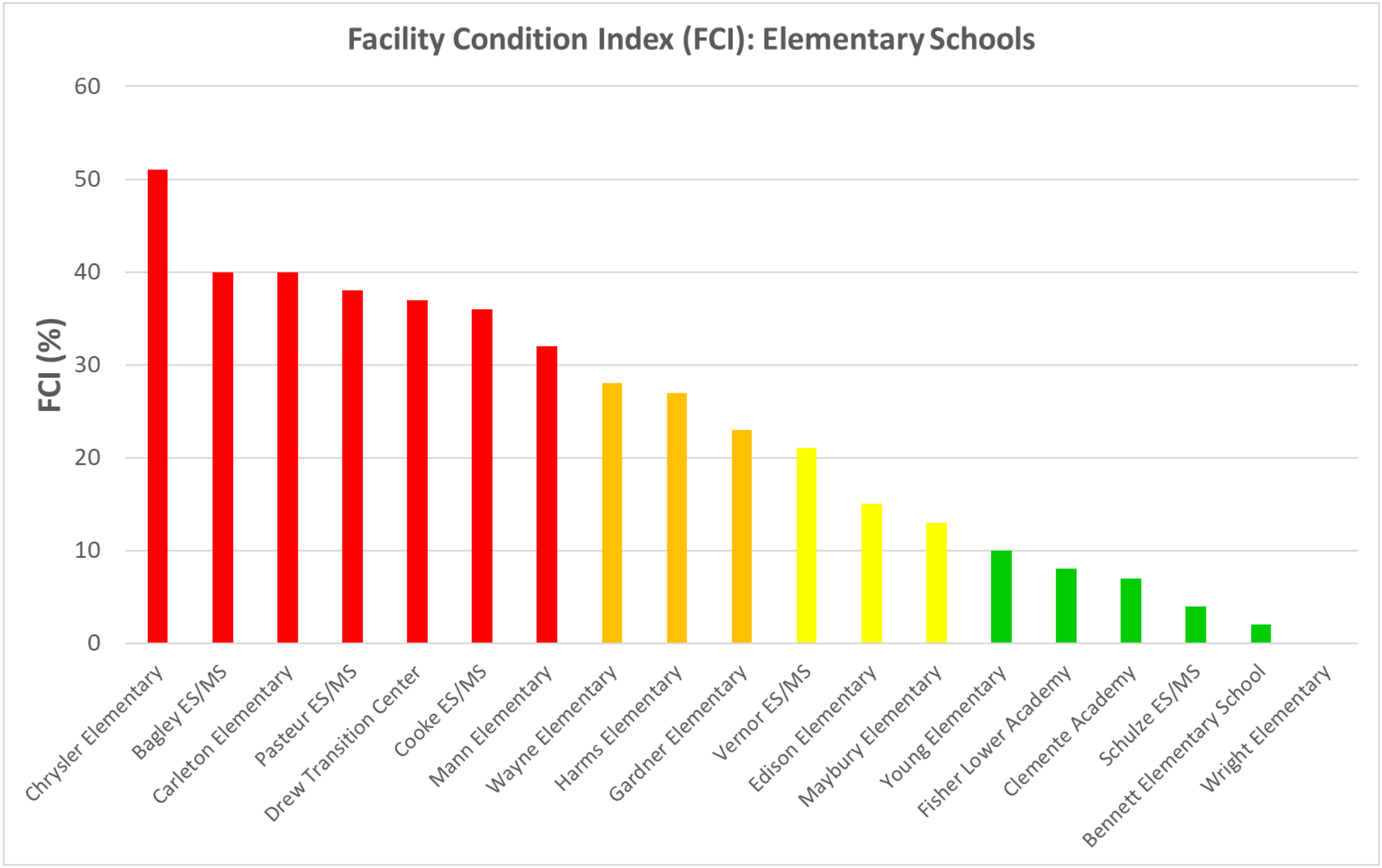
Unsatisfactory (31-60)


Facility Condition Index (FCI)
Good (0-10)
Fair (11-20)
Poor (21-30)
Unsatisfactory (>30)
FCI (%)
70
60
50
40
30
20
10
0
Academy of the Americas ES/MS
Ann Arbor Trail Magnet
Bates Acadamy
Bennett Elementary School
Bow ES/MS
Brenda Scott Elementary School
Brown Academy
Burns Elementary School
Carleton Elementary
Carver ES/MS
Catherine C. Blackwell Institute
Chrysler Elementary
Clemente Academy
Cody Institute of Technology
Cooke ES/MS
Davison ES/MS
Detroit Academy for Young Women
Detroit Lions Alternate School
Diann Banks-Williams Ed. Cntr / East English Prep...
Dossin ES/MS
Drew Transition Center
Durfee ES/MS
Edison Elementary
Emerson ES/MS
Fisher Upper Academy
Ford High School / Turning Point High School
Gardner Elementary
Golightly Education Center
Greenfield Union ES/MS
Henderson Academy
Hutchinson ES/MS
King Academic and Performing Arts Academy
Law Academy
Mackenzie ES/MS
Mark Twain ES/MS
Marshall ES/MS
Maybury Elementary
Mumford Academy / Mumford High School
Neimas ES/MS
Noble ES/MS
Osborn Academy of Mathematics
Pasteur ES/MS
Priest ES/MS
Randolph CTC
Robeson Academy
Schulze ES/MS
Spain ES/MS
Vernor ES/MS
West Side Academy
Wright Elementary

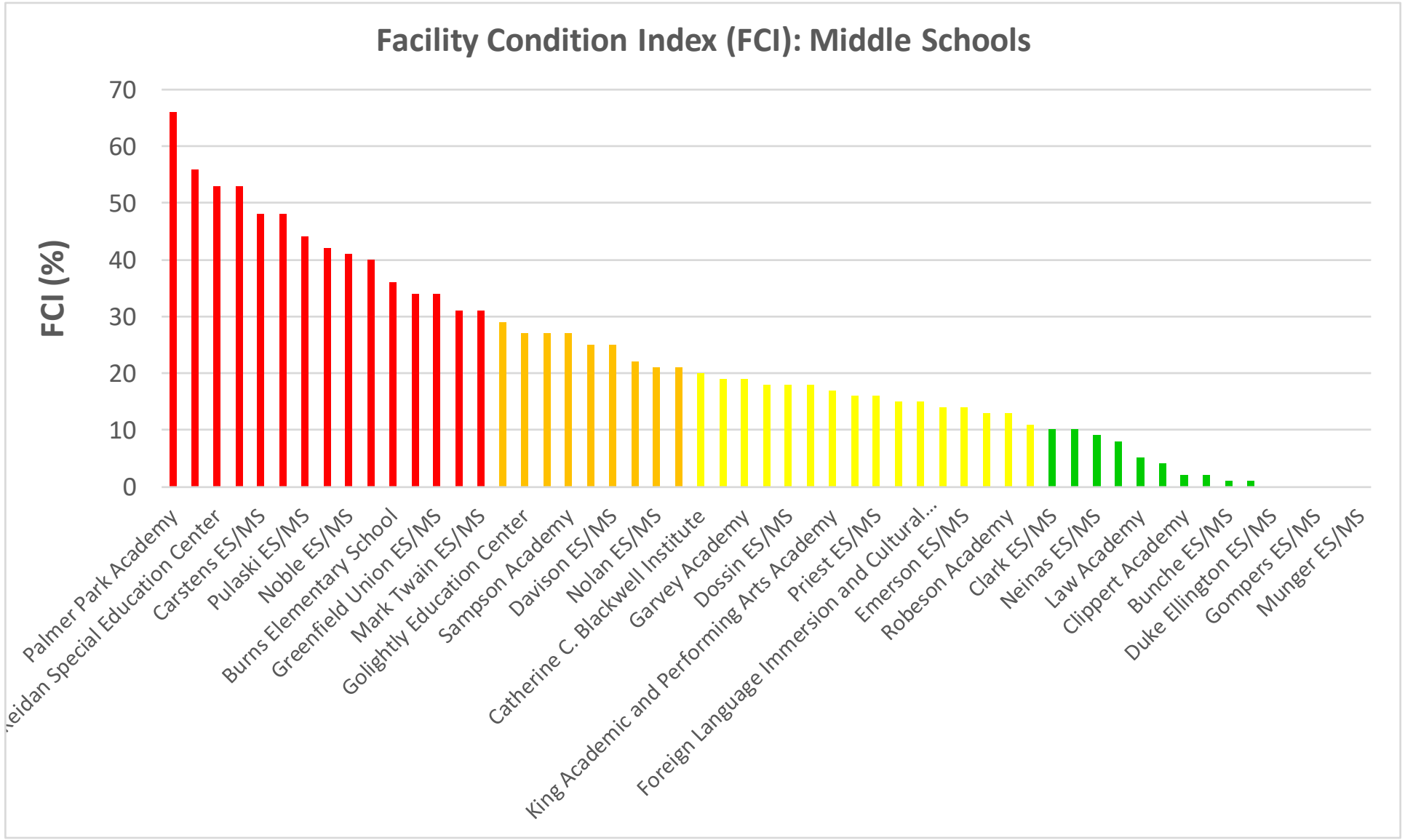
Facility Condition Index Ranking



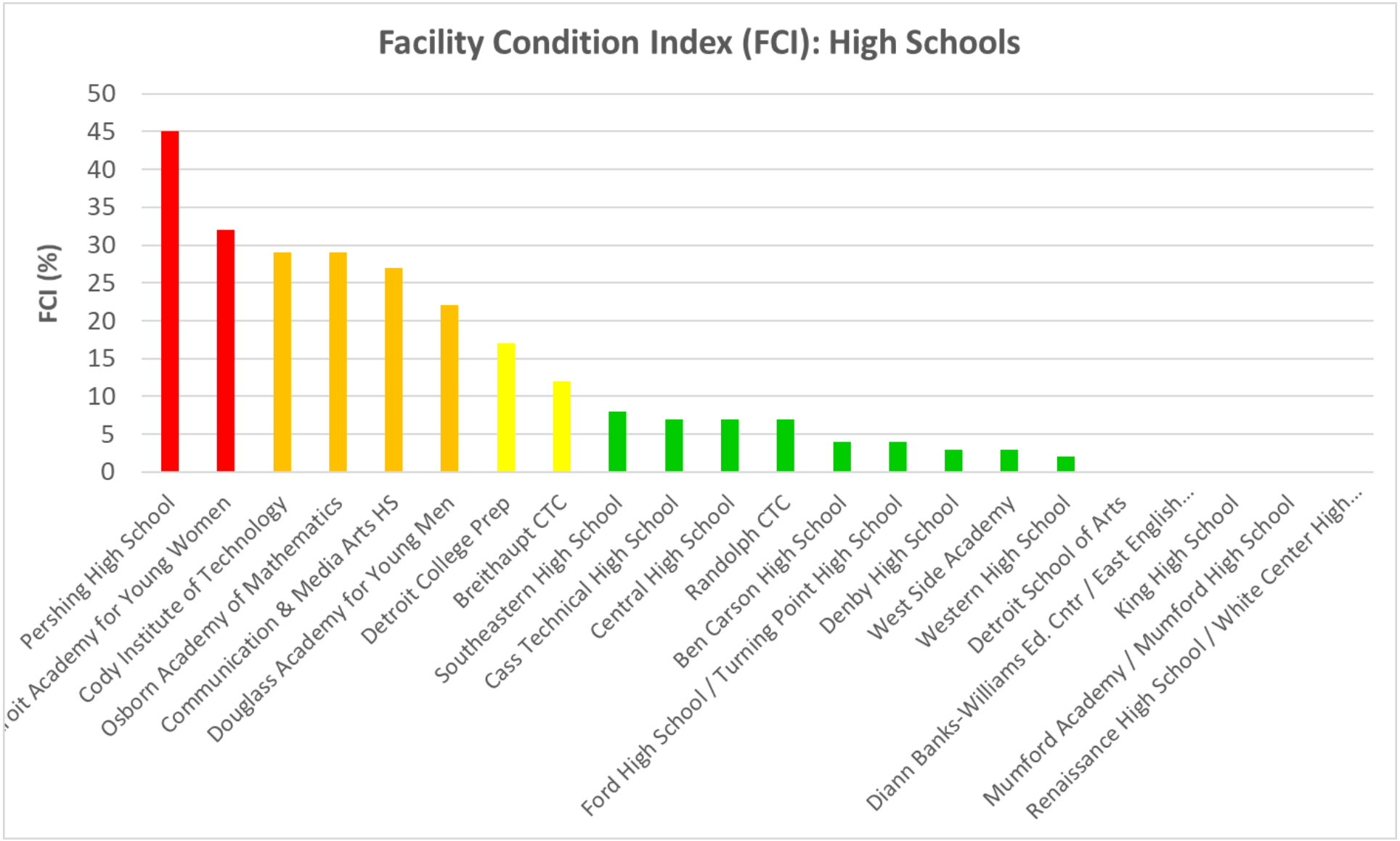
Desired Minimum FCI <20. Consider Renovation for FCI 20-60 & Replacement >60.



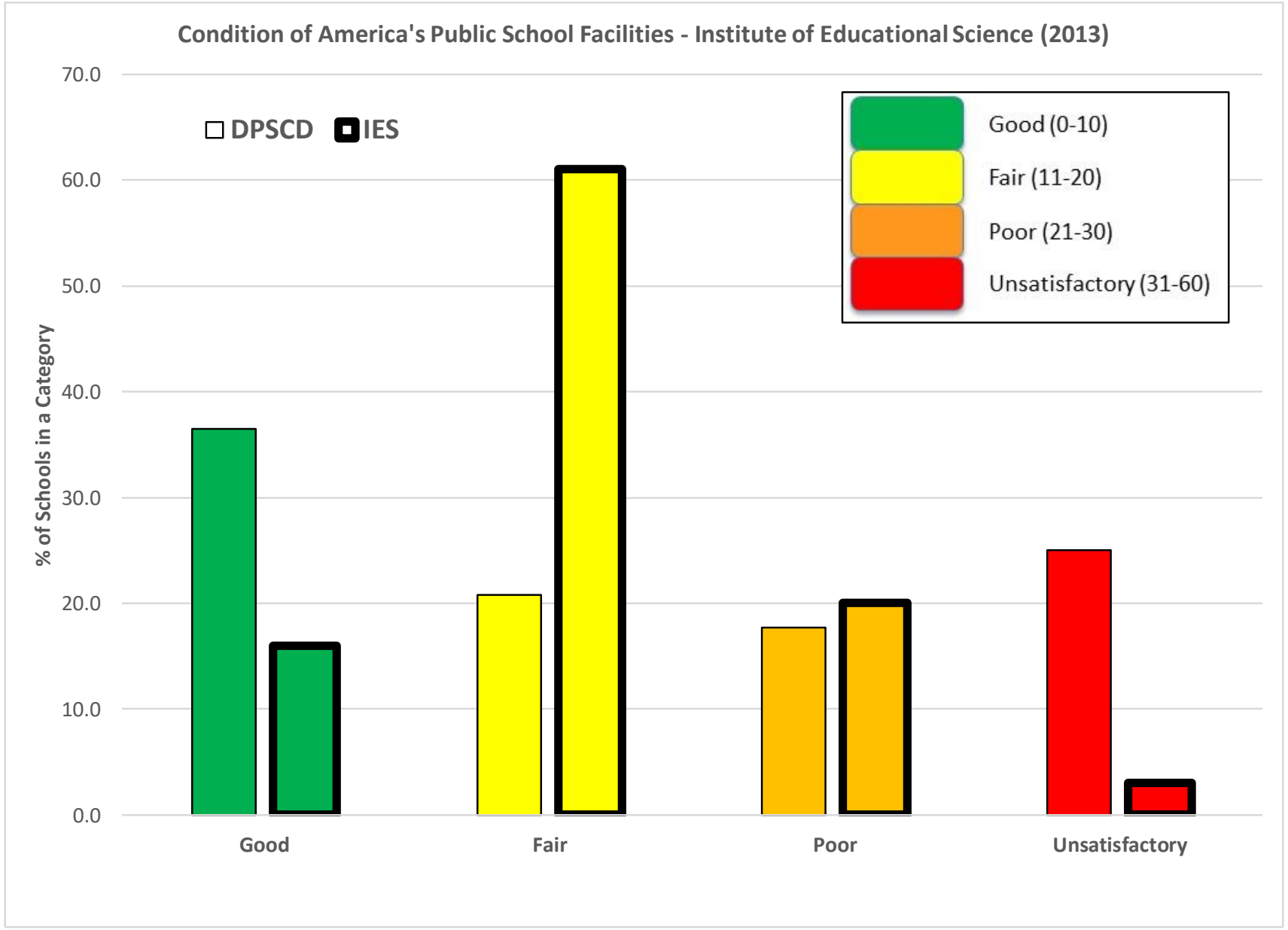
Average FCI (%) ≅ 23

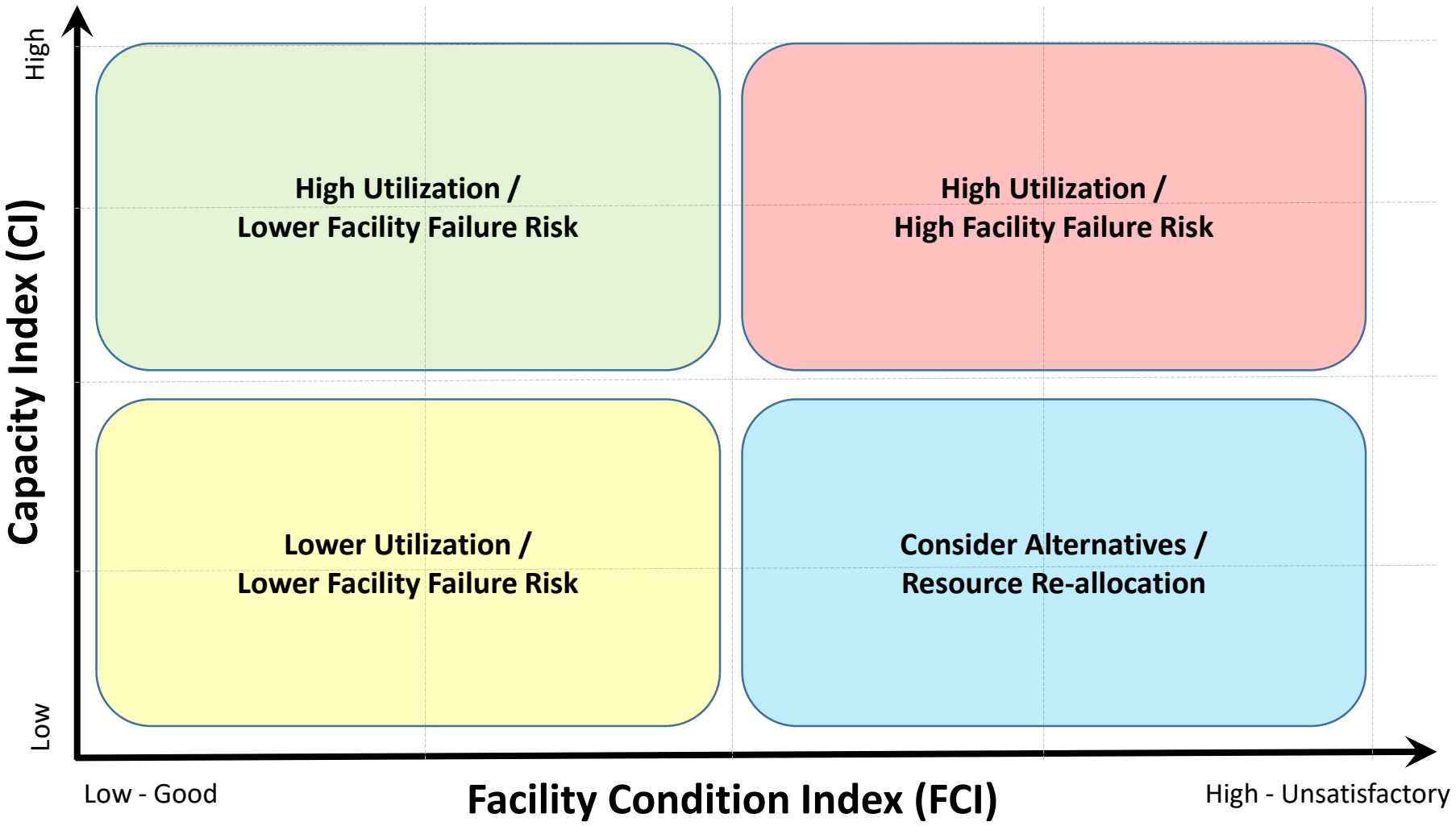


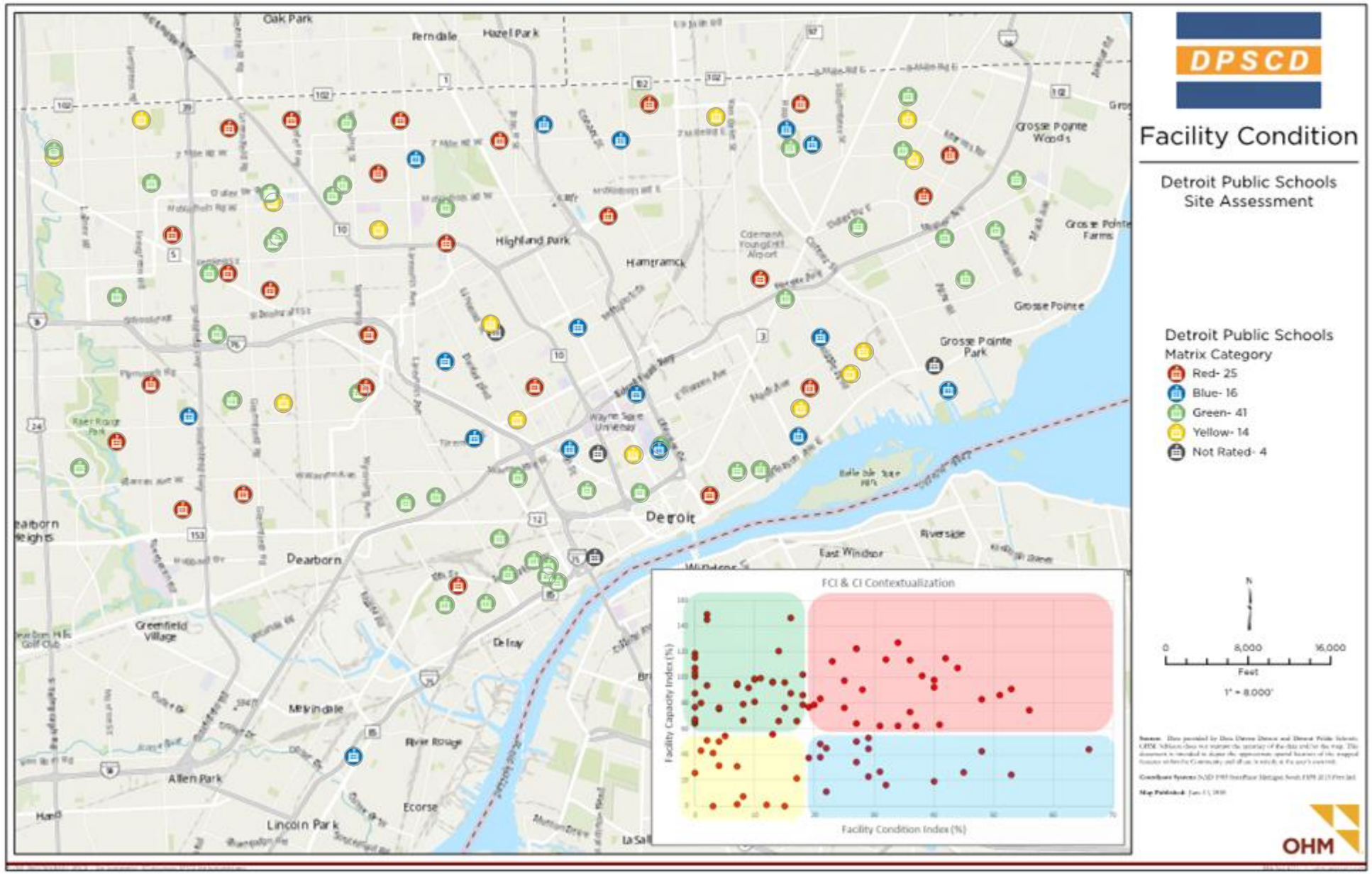
Average FCI (%) ≅ 22

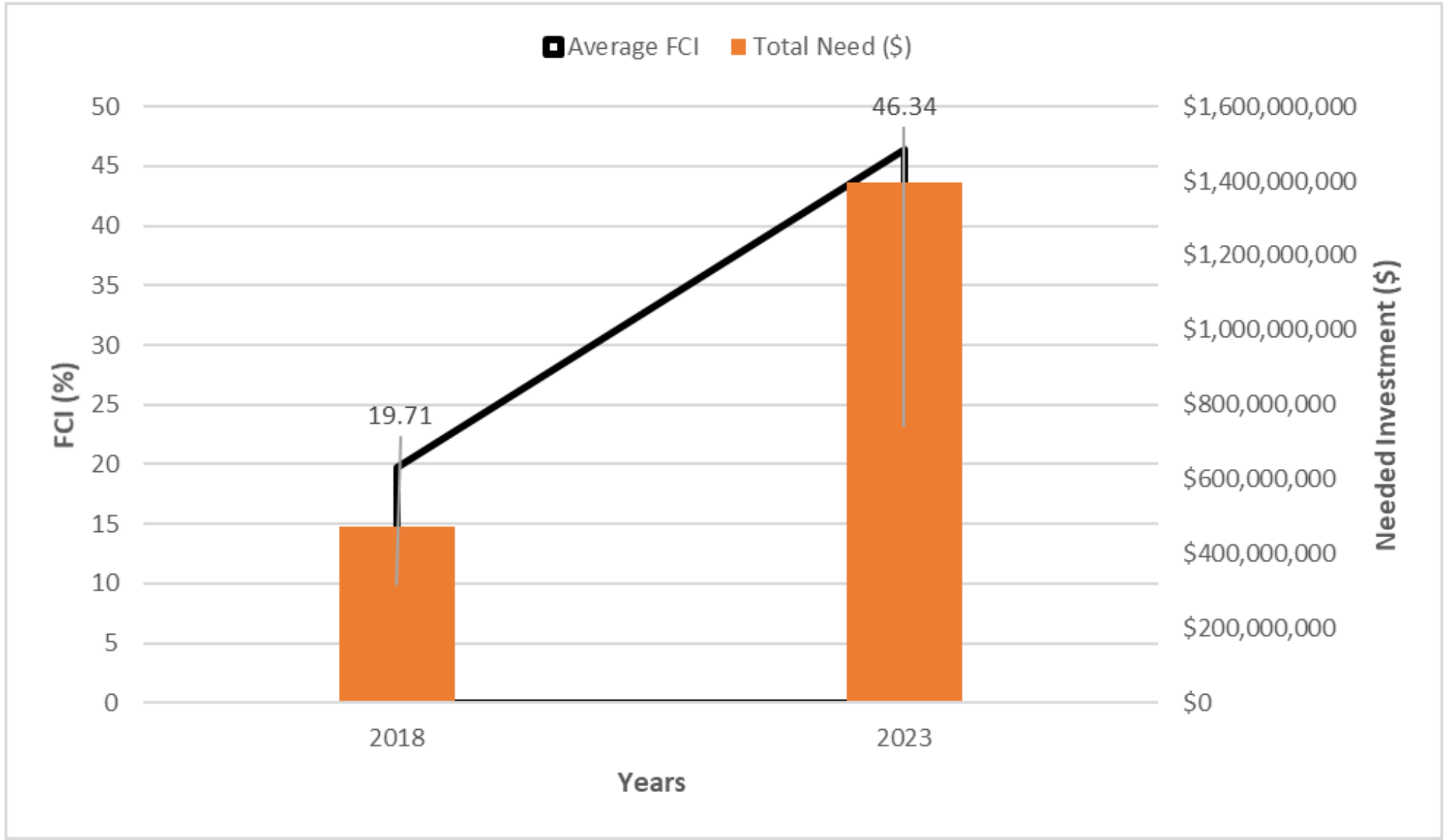


Average FCI (%) ≅ 11

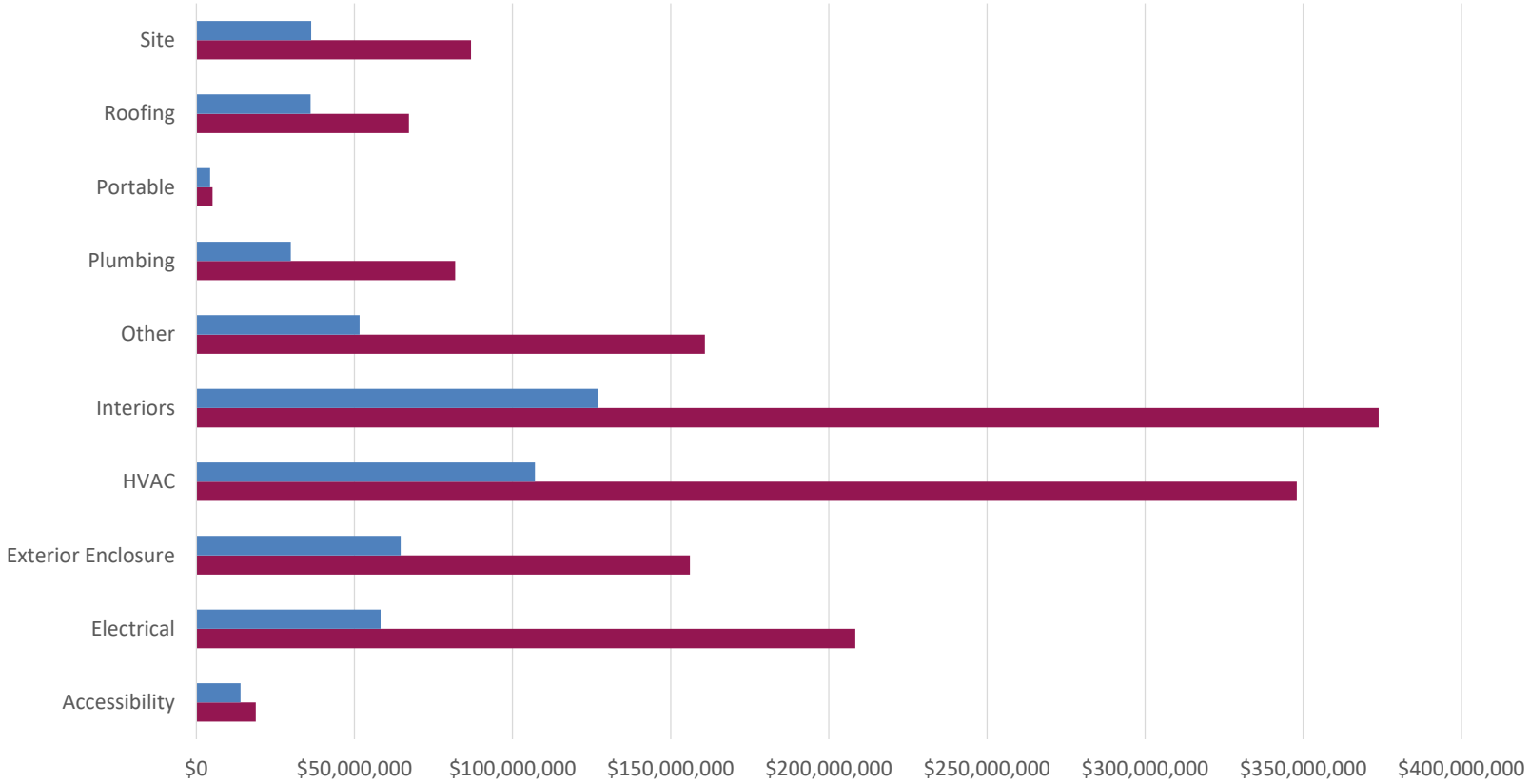

Condition of America's Public School Facilities - Institute of Educational Science (2013)
DPSCD
IES
Good (0-10)
Fair (11-20)
Poor (21-30)
Unsatisfactory (31-60)
% of Schools in a Category
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Good
Fair
Poor
Unsatisfactory


High
Capacity Index (CI)
Low
High Utilization /
Lower Facility Failure Risk
High Utilization /
High Facility Failure Risk
Lower Utilization /
Lower Facility Failure Risk
Consider Alternatives /
Resource Re-allocation
Low - Good
Facility Condition Index (FCI)
High - Unsatisfactory


DPSCD
Facility Condition
Detroit Public Schools
Site Assessment
Detroit Public Schools
Matrix Category
Red- 25
Blue- 16
Green- 41
Yellow- 14
Not Rated- 4
FCI & CI Contextualization
Facility Capacity Index (%)
Facility Condition Index (%)
0
8,000
16,000
Feet
1" = 8,000'
OHM
Oak Park
Ferndale
Hazel Park
Highland Park
Hamtramck
Grosse Pointe Woods
Grosse Pointe Farms
Grosse Pointe
Grosse Pointe Park
Detroit
Dearborn
Dearborn Heights
Greenfield Village
Melvindale
Allen Park
River Rouge
Ecorse
Lincoln Park
Riverside
East Windsor

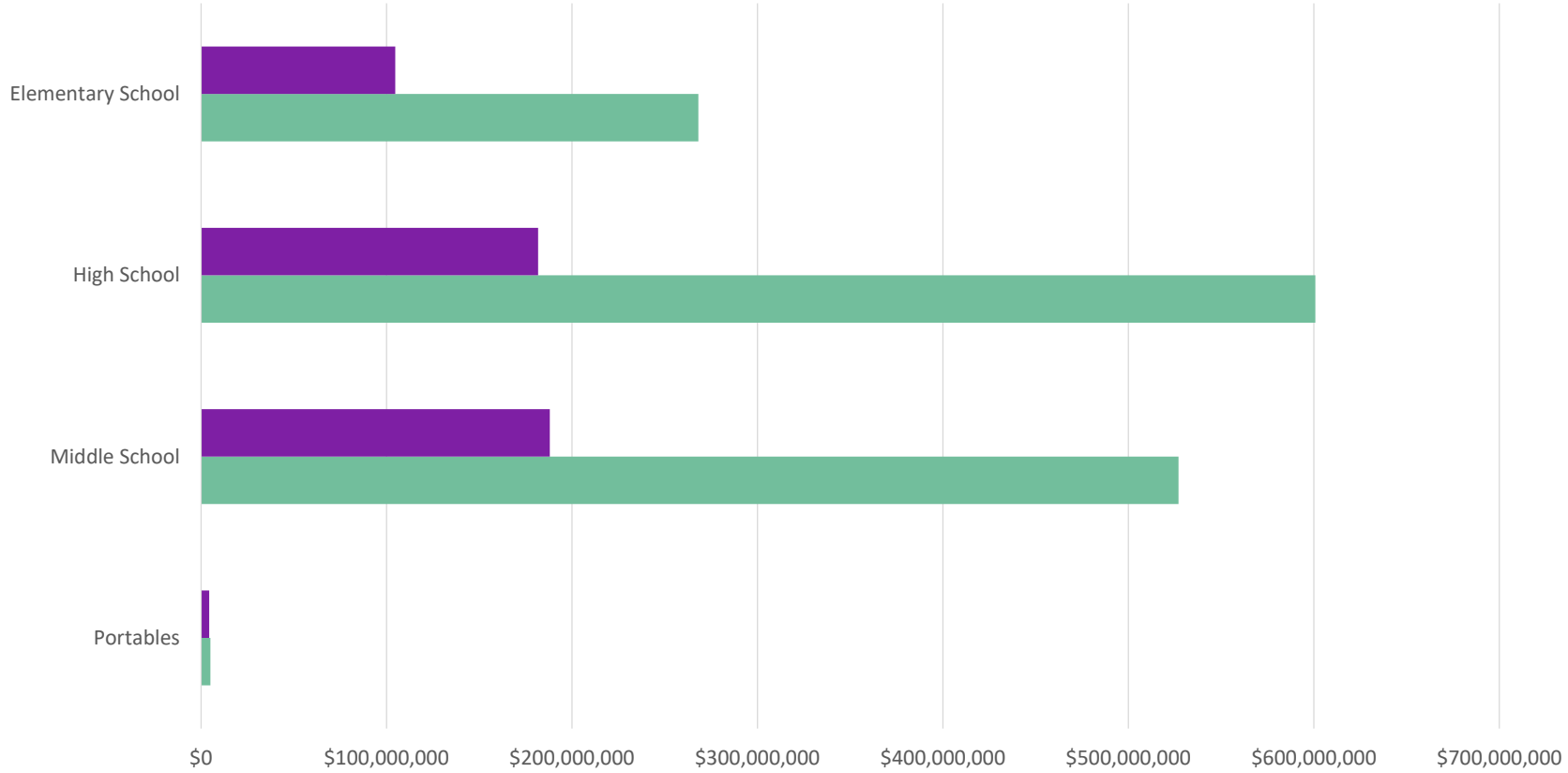

Average FCI
Total Need ($)
50
45
40
35
30
25
20
15
10
5
0
FCI (%)
46.34
19.71
$1,600,000,000
$1,400,000,000
$1,200,000,000
$1,000,000,000
$800,000,000
$600,000,000
$400,000,000
$200,000,000
$0
Needed Investment ($)
2018
2023
Years

Comparison of 2018 Current Needs vs. 2023 Forecasted Needs by System



	Accessibility	Electrical	Exterior Enclosure	HVAC	Interiors	Other	Plumbing	Portable	Roofing	Site
2018	$13,948,671	$58,236,434	$64,617,985	$107,084,731	$127,053,477	$51,607,597	$29,855,501	$4,391,845	$36,084,240	$36,328,279
2023	$18,745,843	$208,370,212	$156,055,183	$347,990,279	$373,862,215	$160,768,470	$81,852,318	$5,091,352	$67,186,429	$86,859,913

Comparison of 2018 Current Needs vs. 2023 Forecasted Needs by School Type

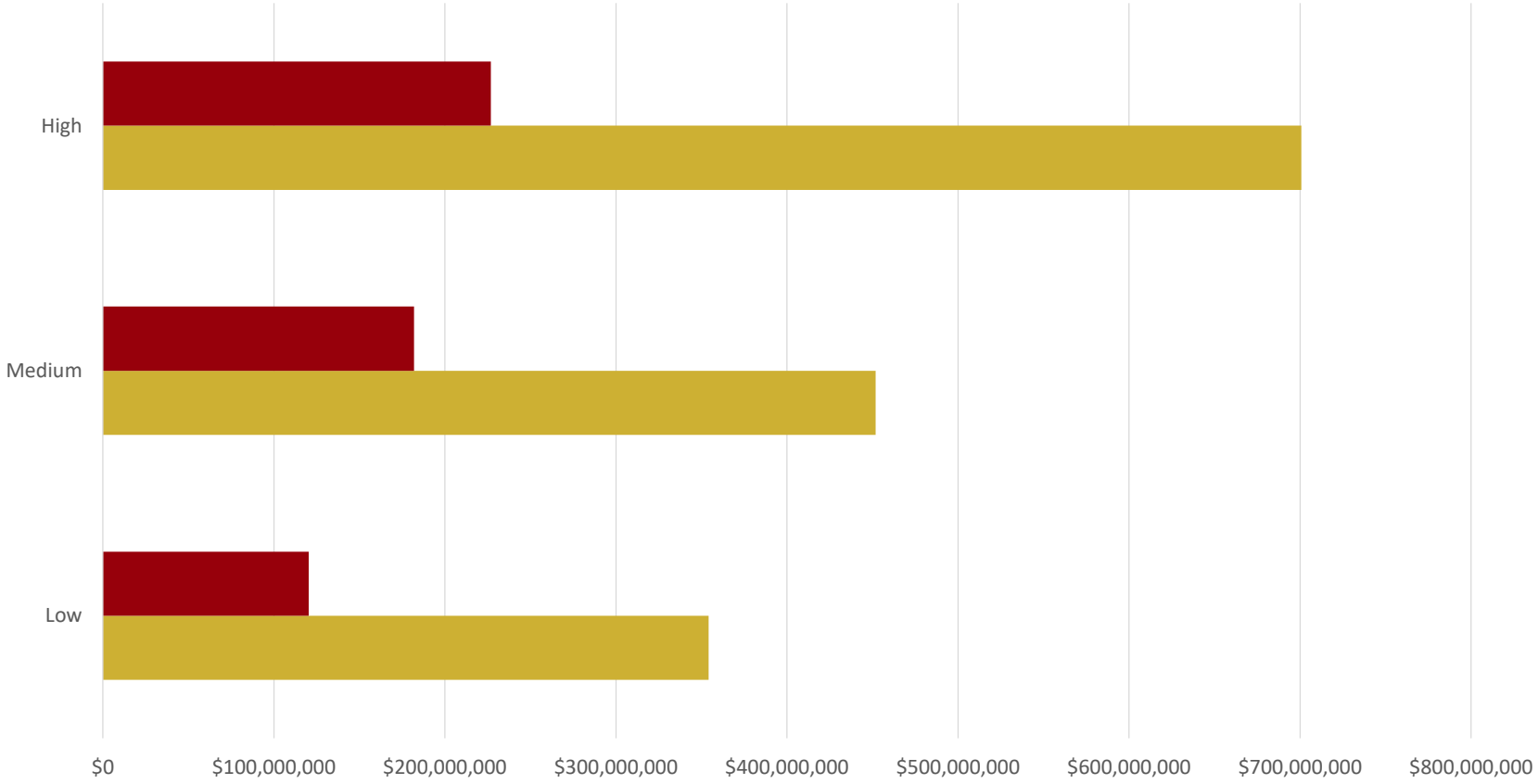


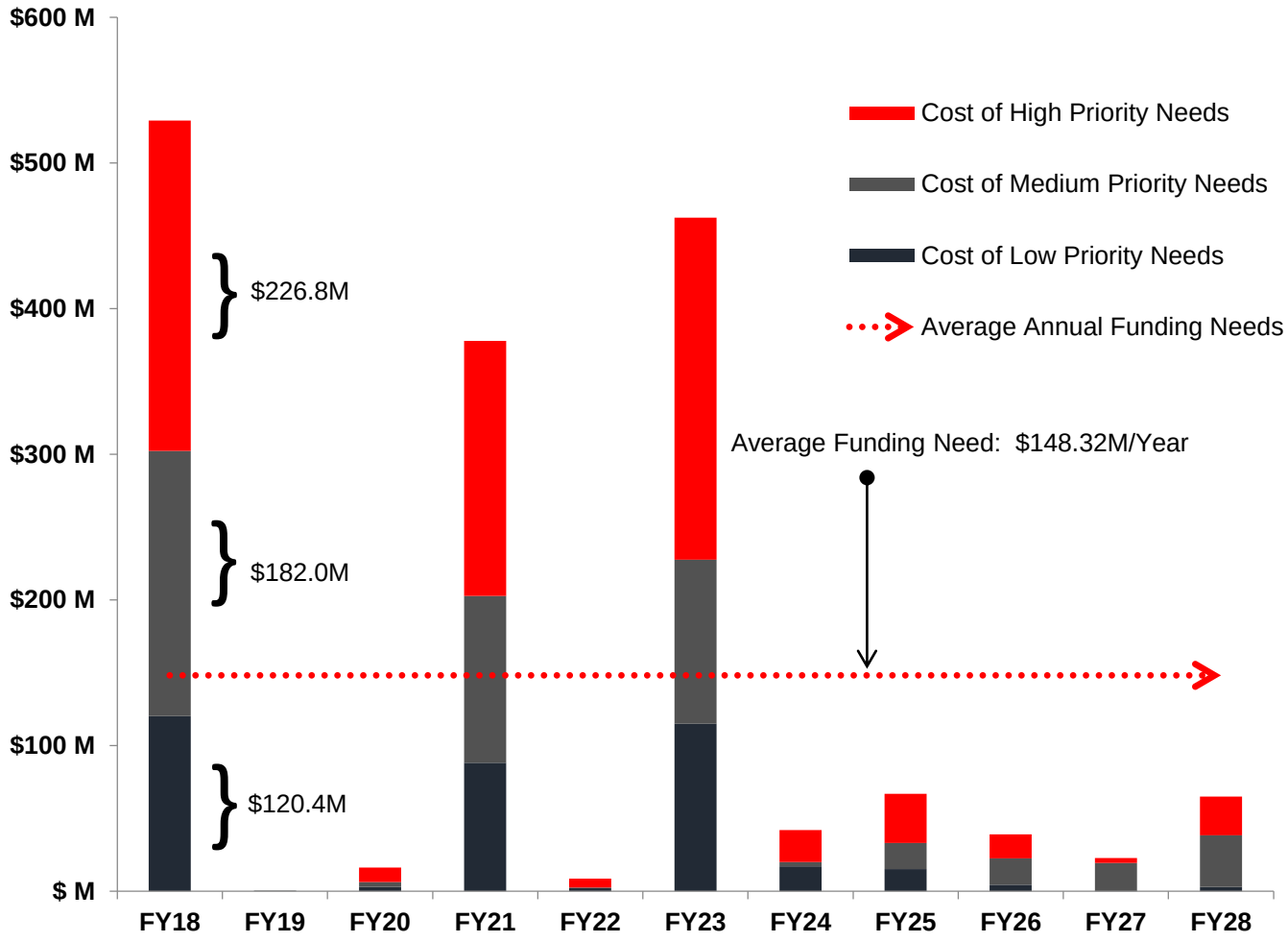
	Portables	Middle School	High School	Elementary School
2018	$4,391,845	$188,100,673	$181,685,006	$104,754,286
2023	$5,091,352	$527,004,114	$600,853,519	$268,227,473

DPSCD System Priorities

High	Medium	Low
• Elevators and Lifts • Energy Supply • Heating generating systems • Cooling generating systems • Sprinklers • Standpipes • Electrical Service/Distribution • Lighting • Branch Wiring • Communications • Security System • Local Area Network (LAN) • Public Address/Intercom • Emergency Lights • Plumbing Fixtures	• Exterior Walls • Exterior Windows • Exterior Doors • Roof Coverings • Roof Openings • Interior Doors • Domestic Water Distribution • Sanitary Waste • Rain Water Drainage • Terminal and Package Units	• Standard Foundation • Slab on Grade • Basement Excavation • Basement Walls • Floor Construction • Roof Construction • Partitions • Casework • Fixed Seating • Interior Wall/Partitions • Lockers • Stair Construction • Wall Finishes • Floor Finishes • Ceiling Finishes

Comparison of 2018 Current Needs vs. Forecasted Needs by Priority



	Low	Medium	High
2018	$120,387,871	$181,971,850	$226,849,039
2023	$354,193,561	$451,883,785	$700,704,868

Projected Costs by Priority