

# Underinvestment in Capital Facilities of Michigan's Urban Schools

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# School Capital Facilities in Michigan

- Funded entirely by local property taxes
- Michigan is one of 8 states that provides no state aid for school facilities
- Inadequate facilities in many districts
- Unequal opportunities for students
- Unequal burdens for taxpayers



# Education Adequacy

- State sets high standard for students
- Must provide adequate support
- Includes access to adequate facilities
- Facilities have been included in school funding adequacy litigation in 37 states

# Unequal Tax Burdens

Local Property Taxes Required to Raise \$89 Million  
in Selected Districts

<b>District</b>	<b>Pupils</b>	<b>Taxable Value Per Pupil</b>	<b>Mills Required</b>	<b>Taxes on \$200,000 Home</b>
Bloomfield Hills	5,963	\$549,333	1.92	\$384
Saline	5,330	236,277	5.00	\$1,000
Hamtramck & Highland Park	7,222	42,759	20.39	\$4,078



# Why School Facilities Matter

Research Shows Links Between Facilities and:

- Student achievement
- Student preparation for high-tech jobs
- Student health
- Attendance
- Teacher turnover



# Why School Facilities Matter

## Community Development:

- Resource for after-school recreation, arts, community groups and education
- Enhances community pride
- Increases demand for local real estate
- Stems urban decline and suburban sprawl



# Research Questions

- What is the value of capital facilities in each Michigan school district and how does this vary by community characteristic?
- How big is the unmet need for capital spending?
- What policy options are available to meet the need?



# Data and Methods

- New GASB requirement for school districts to report information on their capital assets
- We use these data to estimate the value of capital facilities
- Adequacy is defined by construction costs for recommended space per pupil
- $\text{Need} = \text{Capital Stock} - \text{Adequacy}$

$$need = \sum_i \left\{ (136.5 \times pupils_i \times cost_j) - \left[ capital'_i \times \left( \frac{bldg\_index^{2003}}{bldg\_index'} \right) - dep'_i \times \left( \frac{bldg\_index^{2003}}{bldg\_index'} \right) \right] \right\}$$

Where:

$i$  indexes the school district

$$j = \begin{cases} 1 & \text{Wayne, Oakland, Macomb, Washtenaw, Monroe, St. Clare, Livingston} \\ 0 & \text{others} \end{cases}$$

$$t = 2003 - \left[ \left( \frac{50}{0.8} \right) \times \left( \frac{dep'_i}{dep'_i + CA'_i} \right) \right]$$

$pupils_i$  = The number of pupils in district  $i$  in 2003

$$cost_j = \begin{cases} \$143 & j = 1 \\ \$133 & j = 0 \end{cases}$$

$capital'_i$  = The sum of depreciation and capital assets for district  $i$  in year  $t$

$bldg\_index^{2003}$  = The building cost index for 2003

$bldg\_index'$  = The building cost index for year  $t$

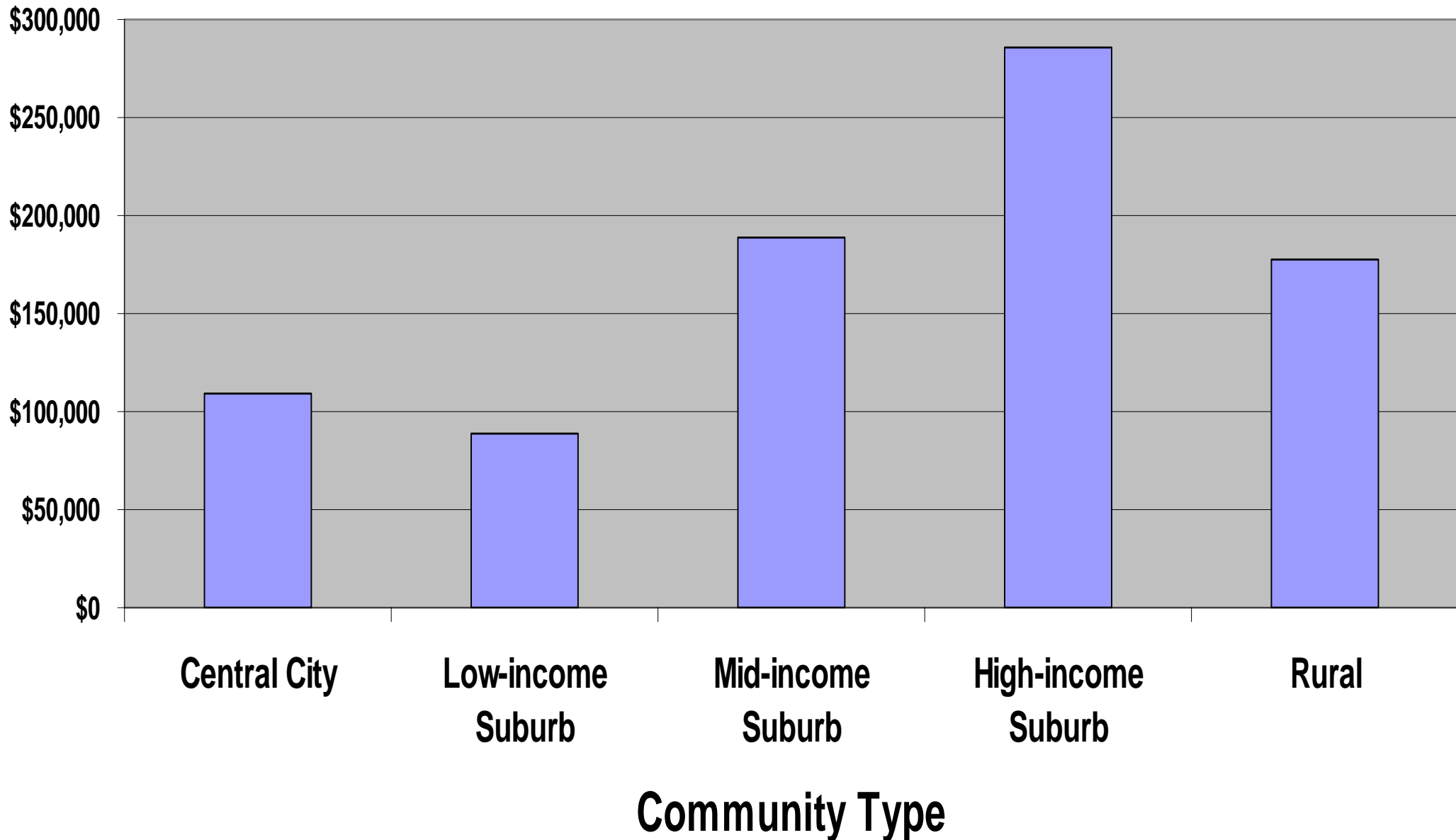
$dep'_i$  = The depreciation for district  $i$  in year  $t$  from the GASB filings

$CA'_i$  = The capital assets for district  $i$  in year  $t$  from the GASB filings

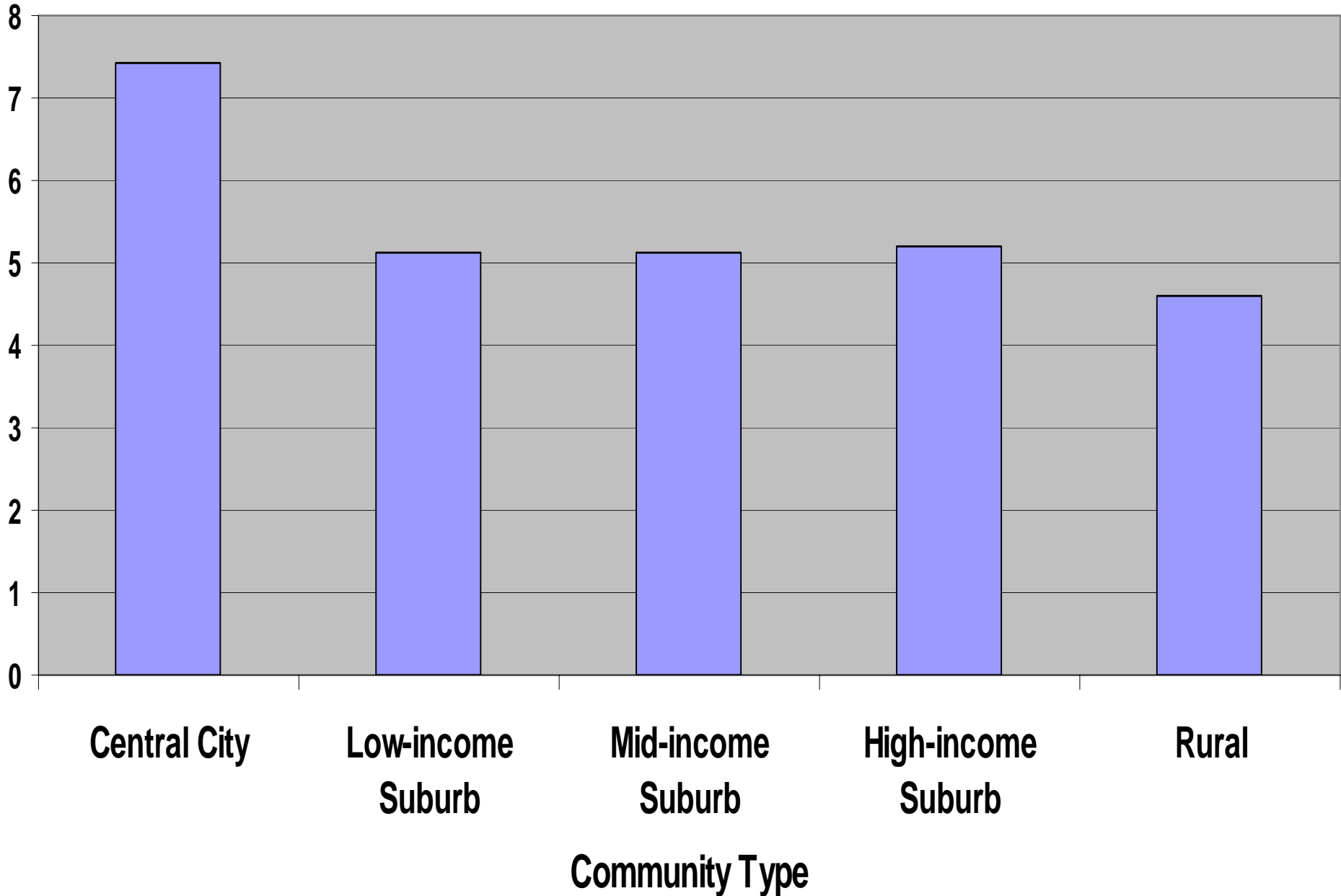
# Capital Stock and Tax Effort

Community Type	Taxable Value Per Pupil	Capital Stock Per Pupil	Average Debt Mills
Central Cities	\$109,530	\$13,200	7.436
Low-income Suburbs	89,074	18,636	5.117
Middle-income Suburbs	189,017	19,351	5.120
High-income Suburbs	285,368	25,916	5.191
Rural	178,017	18,915	4.608

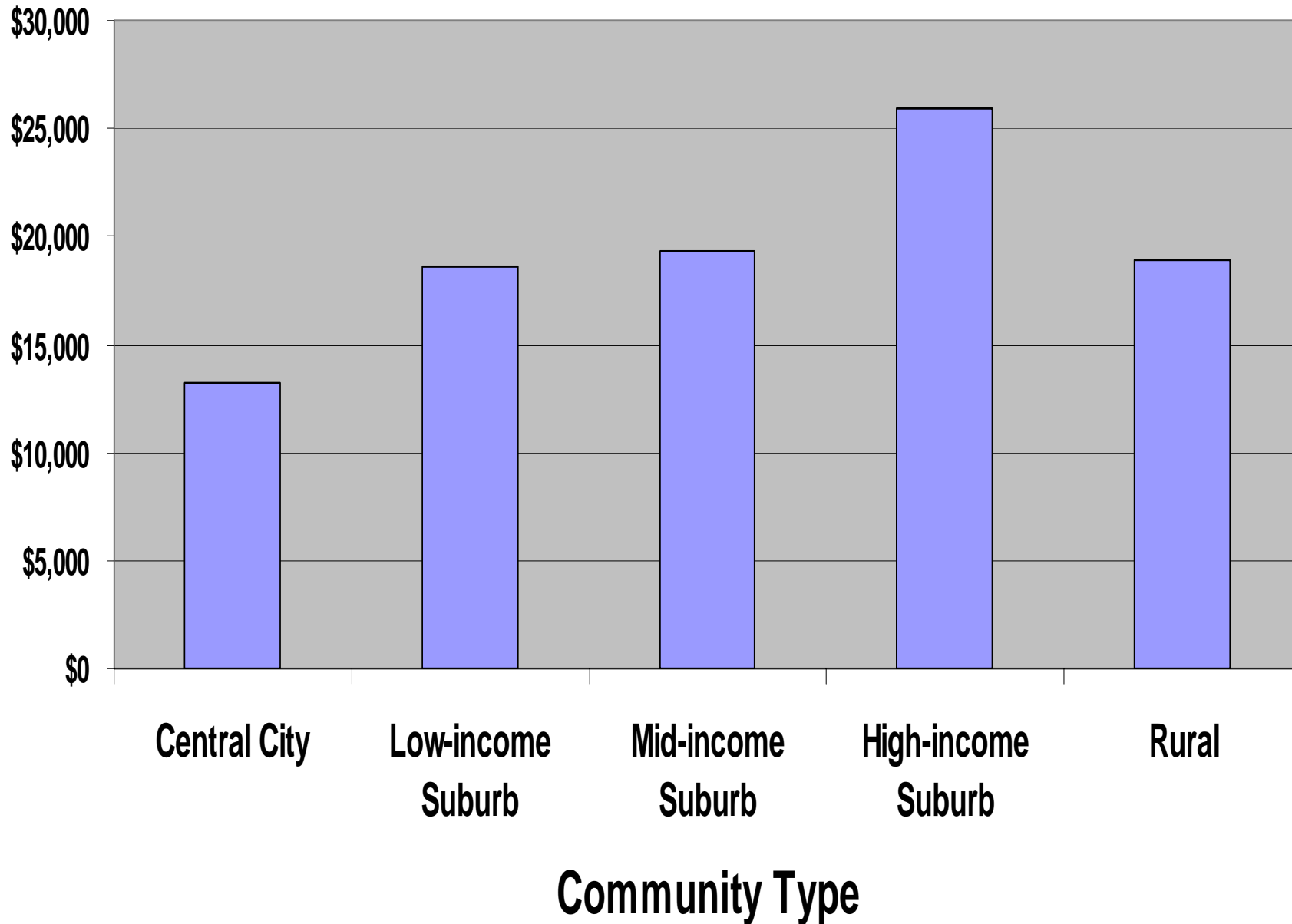
# Ability to Pay: Taxable Value per Pupil



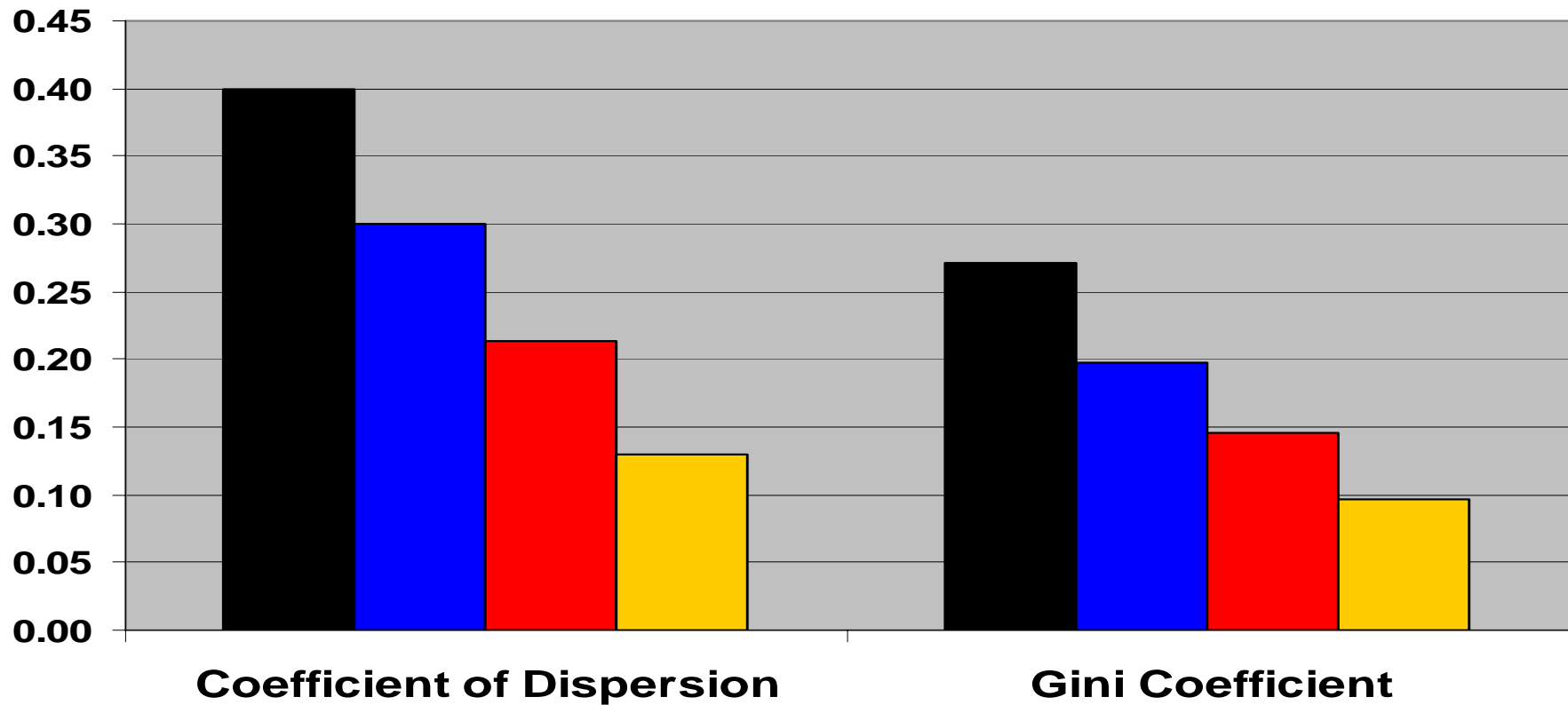
# Current Tax Effort: Debt Mills



# Capital Stock per Pupil



# Equity Statistics for Michigan School Districts



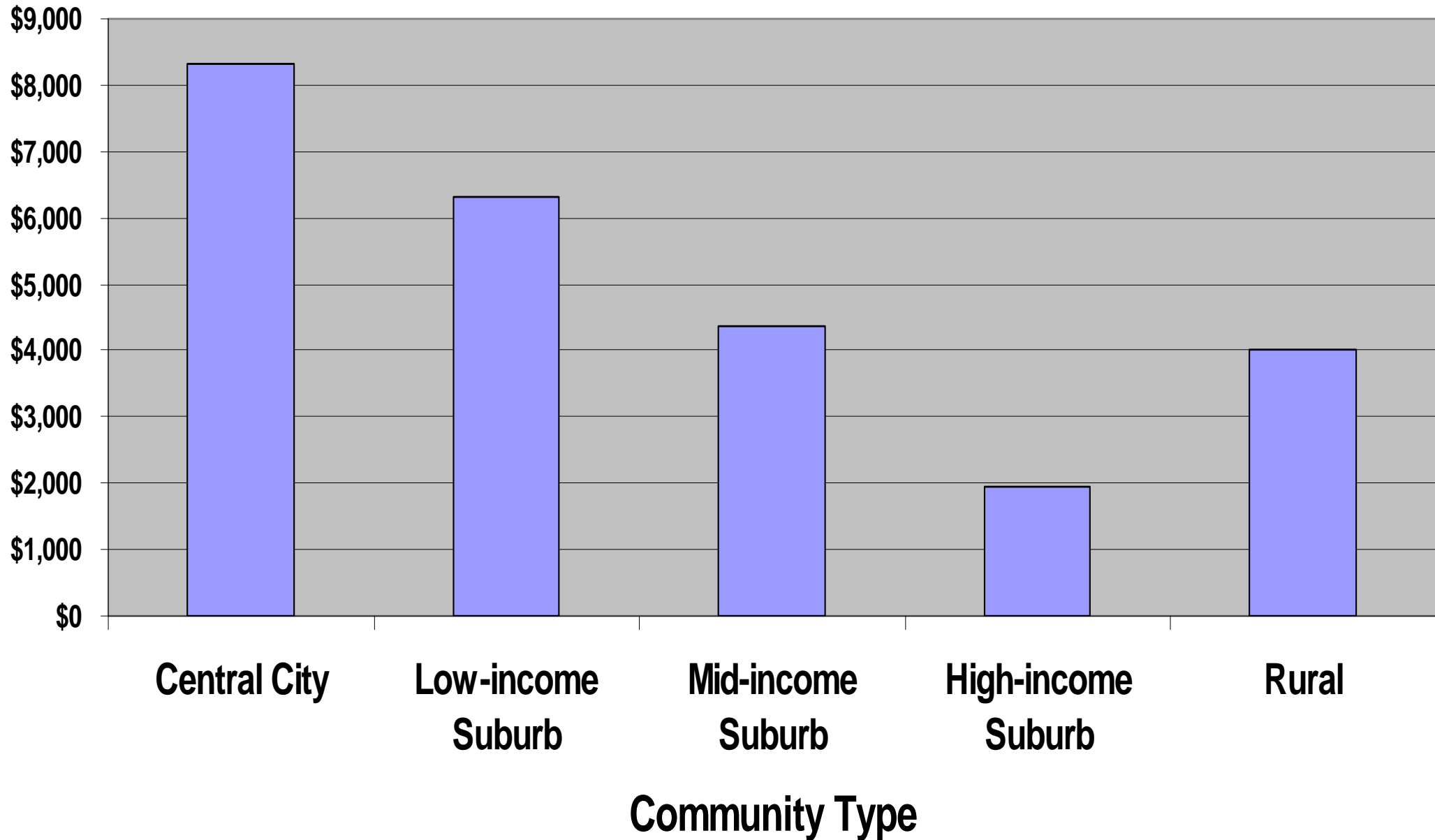
■ Capital/Pupil

■ Median House Value

■ Median Income

■ Current Operating Exp./Pupil

# Needed Capital Spending per Pupil



# Why State Action?

## Millage Rates Required to Attain Adequate Facilities by Community Type

<b>Community Type</b>	<b>Capital Need per Pupil</b>	<b>Current Debt Mills</b>	<b>Additional Mills Required</b>	<b>Total Mills Required</b>
<b>Central City</b>	\$8,315	7.436	6.244	13.680
<b>Low-Income Suburb</b>	6,321	5.117	5.836	10.953
<b>Middle-Income Suburb</b>	4,354	5.120	1.894	7.014
<b>High-Income Suburb</b>	1,945	5.191	0.561	5.752
<b>Rural</b>	4,026	4.608	1.860	6.468



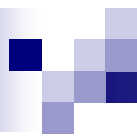
# Criteria for Evaluating Policy Alternatives

- Adequacy-all children should have access to adequate school facilities
- Taxpayer Equity-policy should offset inequities in local tax burdens
- Efficient- overall cost to taxpayers should be minimized
- Local control- community preferences should be reflected in school facilities



# Key Considerations

- Likely to be trade-offs among criteria
- Any action that provides adequate facilities to more children will cost money
- Revenue could be raised based on ability to pay
- The private and social benefits of school capital investment are likely to outweigh the costs
- Michigan's current funding of school facilities is at risk of legal challenge



# Policy Options

- State Loan Programs
- State Financing of Selected Projects
- Matching Facilities Grants
  - equalizing and non-equalizing
- Lump-Sum Facilities Grants
  - equalizing and non-equalizing
- State Assumption of All Facility Financing



## Estimating the Cost of Selected Options

- Consider lump-sum aid designed to attain alternative levels of school capital stock
- District eligibility for funds conditional on local ability-to-pay (taxable value/pupil)
- Amortize total funds required over 20 years at 6% interest
- Calculate statewide property tax mills required to finance

# Mills Required to Attain Alternative Facility Standards, for Different Groups of Districts

Districts Receiving Aid By Taxable Value/Pupil Quintile	\$14k/Pupil Minimum	\$16k/Pupil Minimum	Adequacy
<b>Quintile 1 (lowest wealth districts)</b>	<b>0.1079</b>	<b>0.2237</b>	<b>0.6633</b>
<b>Quintiles 1-2</b>	<b>0.2028</b>	<b>0.3690</b>	<b>0.9797</b>
<b>Quintiles 1-3</b>	<b>0.3235</b>	<b>0.5753</b>	<b>1.4464</b>
<b>Quintiles 1-4</b>	<b>0.3816</b>	<b>0.6754</b>	<b>1.7800</b>
<b>Quintiles 1-5 (All districts)</b>	<b>0.4396</b>	<b>0.7687</b>	<b>2.0602</b>



# Conclusion

- School capital facilities are important for student and community development
- Many Michigan school facilities are inadequate
- Provision of adequate facilities for all Michigan students would be a good investment

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Final reports online Jan 1, 2008:

[www.urbancoremayors.org](http://www.urbancoremayors.org)

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