

# USF for Schools and Libraries FY 2013 and Beyond

Growing to Meet the  
Needs of Students and Library Patrons

# Proposal Overview

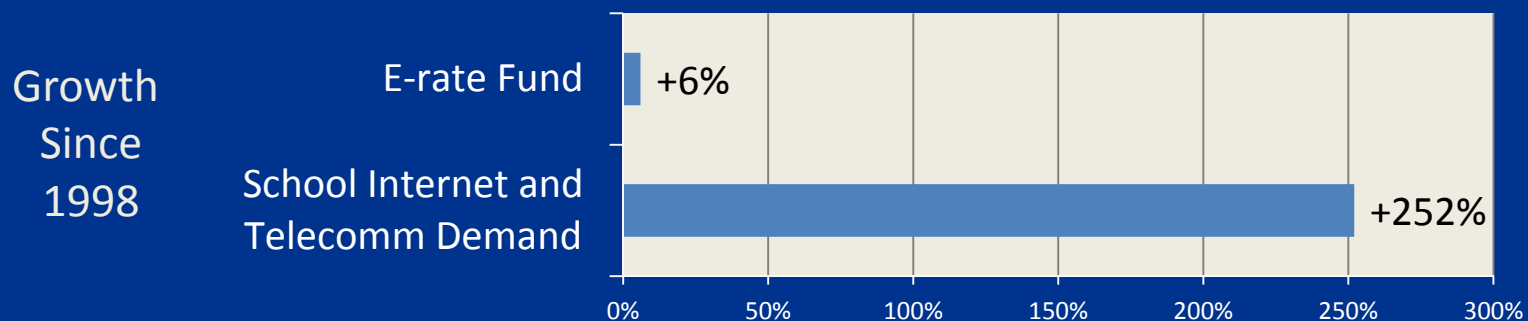


- Increase cap to \$4.5 billion/year
  - › Bring funding closer to true need (>\$5 billion)
  - › Help schools prepare for Common Core tests, etc.
- Implement budget system
  - › Keep discount payment system
  - › Limit grand total of annual discounts per applicant
- Allow applicants to set their priorities
  - › Discounts used for any service category, any site
  - › Provide all applicants access to some support

# E-rate Program Today



- E-rate is succeeding in its mission
  - › 95% of U.S. students listed on E-rate applications
  - › Perfectly positioned for today's EdTech needs
- But, program is straining under:
  - › Increasing demand for E-rate supported services
  - › Shifts in technology, education system, society



# Drifting from Original Intent



- No internal connections for 94% of students (currently)
  - › Est. 6% of students at 90%-discount schools
  - › Most “90% applicants” have 80% disc school sites
- FY2013: no internal connections support (estimated)
  - › National Broadband Plan (rec 11.16)  
*“The FCC should provide E-rate support for internal connections to more schools and libraries.”*
- Priority system falling short
  - › Encourages gamesmanship (P1 vs P2 services)
  - › Creates addt'l complexities (e.g. 2-out-of-5 rule)
  - › Shortfall for telecomm and Internet by 2014

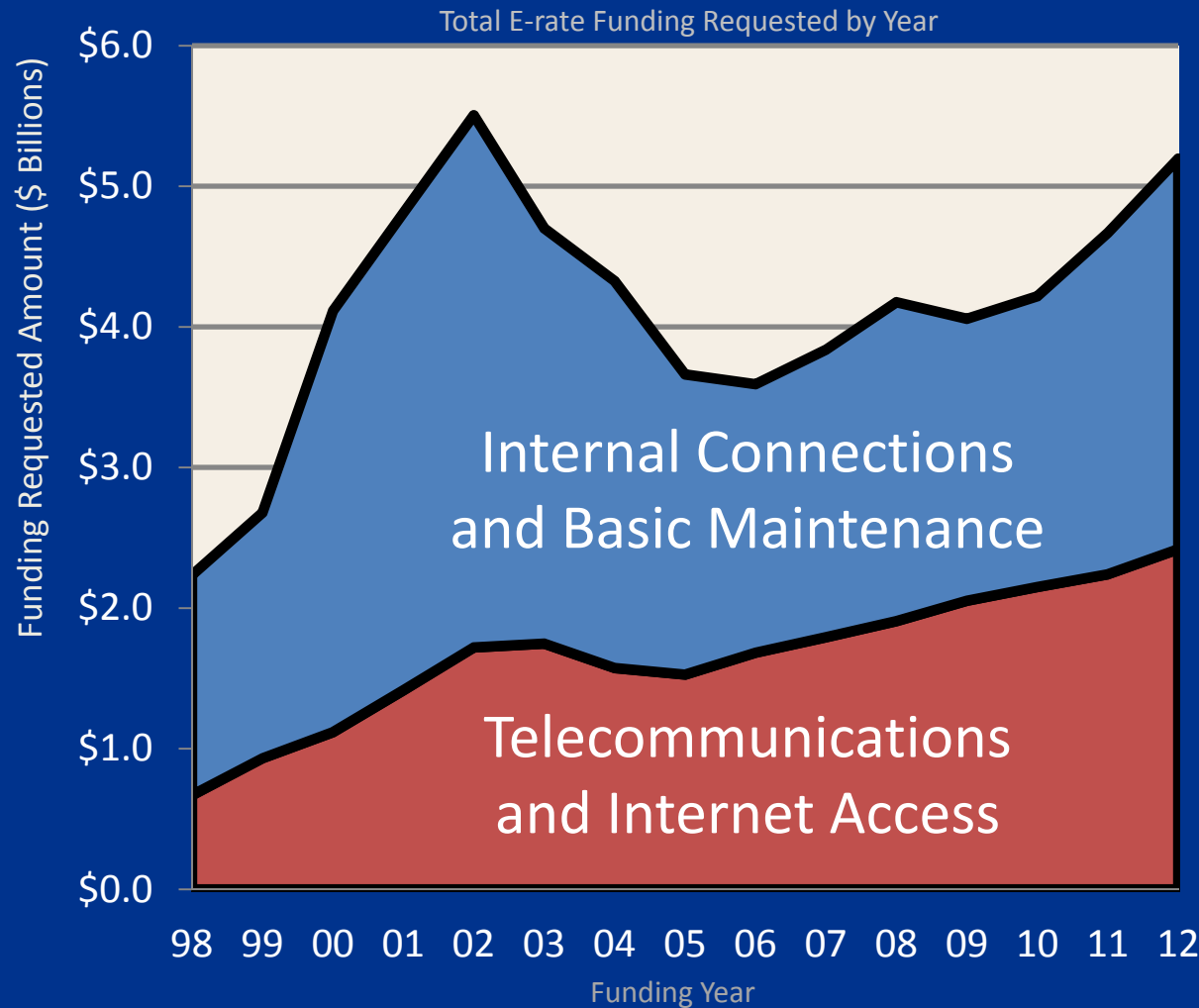
# Connecting Students not Buildings



*It would be wonderful to bring a one-gigabit connection to every school in America, but we need to make sure that this high-speed connection makes it all the way to the student. Otherwise, there will be a tremendous amount of bandwidth and money wasted.*

# Connectivity Demands are Increasing

# 2012 E-rate Demand \$5.2 billion



## Straining E-rate

- FY2012: applicants requested \$5.2 billion
  - › \$2.4B Internet/Telco
  - › \$2.7B Int. conn/maint

## Looking forward

- FY2013
  - › Limited funding for internal connections
- FY2014
  - › Telecomm and Internet funding reductions or discount thresholds

# Telecomm and Internet Requests FY2012 by Discount Rate and Location



FY2012

| Applicant<br>Disc. Rate | CGCS                 | Other Urban            | Rural<br>excl. remote | Remote<br>Rural*     | Total                  |
|-------------------------|----------------------|------------------------|-----------------------|----------------------|------------------------|
| 20% - 39%               |                      | \$5,736,707            | \$554,529             | \$18,302             | \$6,309,538            |
| 40% - 49%               |                      | \$84,083,483           | \$19,301,364          | \$131,692            | \$103,516,539          |
| 50% - 59%               |                      | \$94,815,337           | \$26,689,805          | \$509,601            | \$122,014,743          |
| 60% - 69%               | \$10,383,212         | \$137,127,785          | \$41,280,065          | \$6,212,628          | \$195,003,690          |
| 70% - 79%               | \$43,704,818         | \$224,268,424          | \$87,230,829          | \$21,090,177         | \$376,294,248          |
| 80% - 89%               | \$252,709,976        | \$365,425,691          | \$150,434,834         | \$61,479,288         | \$830,049,789          |
| 90%                     |                      | \$240,928,603          | \$63,401,256          | \$20,283,795         | \$324,613,654          |
| <b>Grand Total</b>      | <b>\$306,798,006</b> | <b>\$1,152,386,030</b> | <b>\$388,892,682</b>  | <b>\$109,725,483</b> | <b>\$1,957,802,201</b> |

\* Remote rural based on Department of Education locale designation "43"



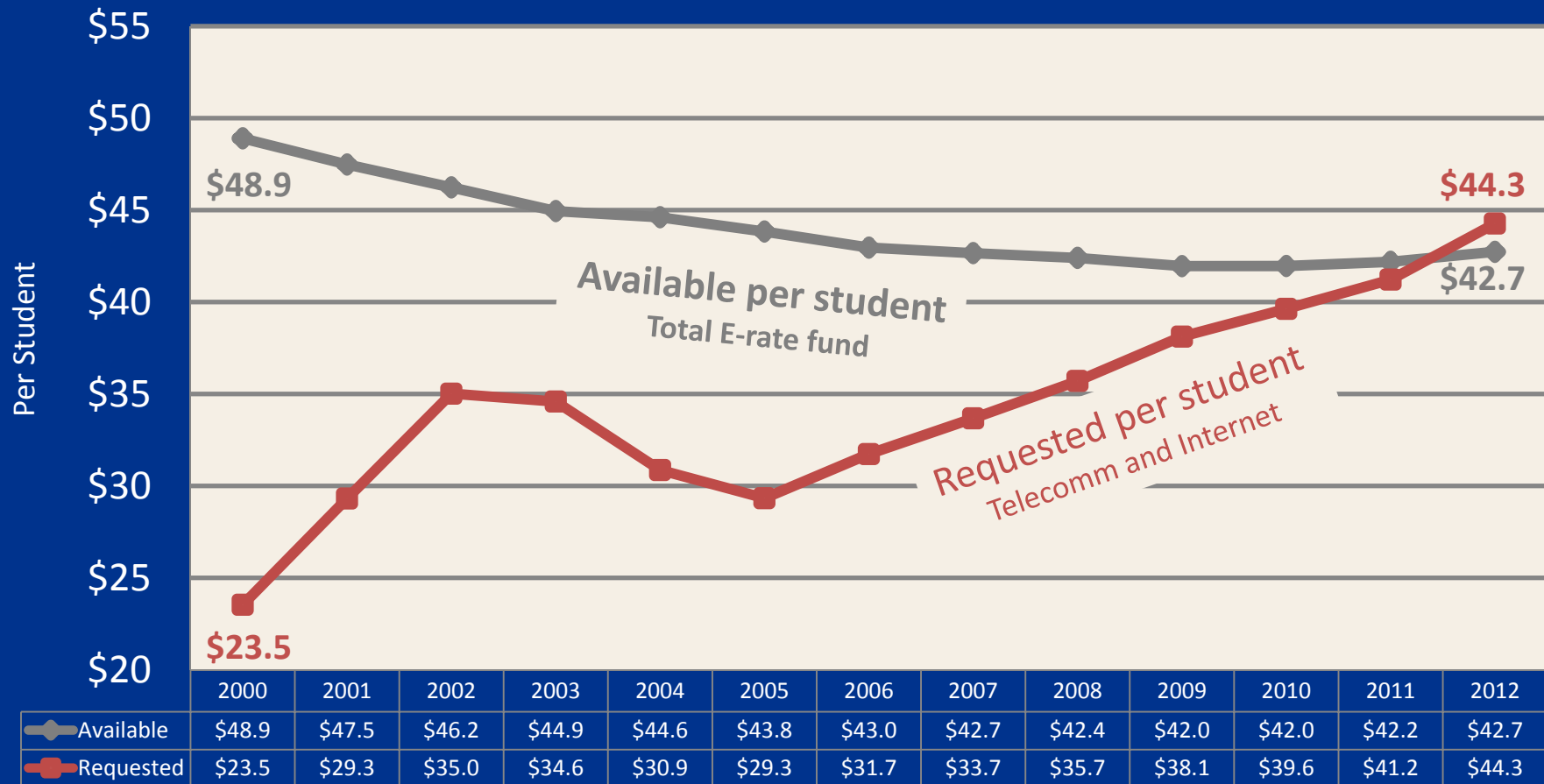
# “Per Student” Analysis

# Per Student E-rate Funding

## Available vs Requested (Telecomm and Internet)



Includes consortia demand; Available amount calculated after subtracting library demand



# Per Student Funding Request FY2012 School Telecomm and Internet



## By Enrollment

| Applicant<br>Disc. Rate | Applicant Enrollment |                 |                   |                    |                   | Overall        |
|-------------------------|----------------------|-----------------|-------------------|--------------------|-------------------|----------------|
|                         | 1 to<br>500          | 501 to<br>2,500 | 2,501 to<br>5,000 | 5,001 to<br>25,000 | 25,001<br>or more |                |
| 20% - 39%               | \$15.28              | \$13.37         | \$12.38           | \$11.66            | \$12.13           | \$12.72        |
| 40% - 49%               | \$18.84              | \$19.68         | \$13.79           | \$12.41            | \$11.96           | \$14.39        |
| 50% - 59%               | \$29.69              | \$22.42         | \$17.63           | \$17.72            | \$14.81           | \$17.80        |
| 60% - 69%               | \$40.87              | \$29.13         | \$27.30           | \$24.14            | \$20.74           | \$24.46        |
| 70% - 79%               | \$69.94              | \$41.80         | \$39.82           | \$35.66            | \$24.07           | \$33.30        |
| 80% - 89%               | \$98.60              | \$64.59         | \$67.44           | \$50.62            | \$49.89           | \$55.58        |
| 90%                     | \$168.70             | \$118.45        | \$85.52           | \$60.51            | \$39.72           | \$93.69        |
| <b>Overall</b>          | <b>\$85.61</b>       | <b>\$47.13</b>  | <b>\$38.56</b>    | <b>\$32.28</b>     | <b>\$31.45</b>    | <b>\$37.50</b> |

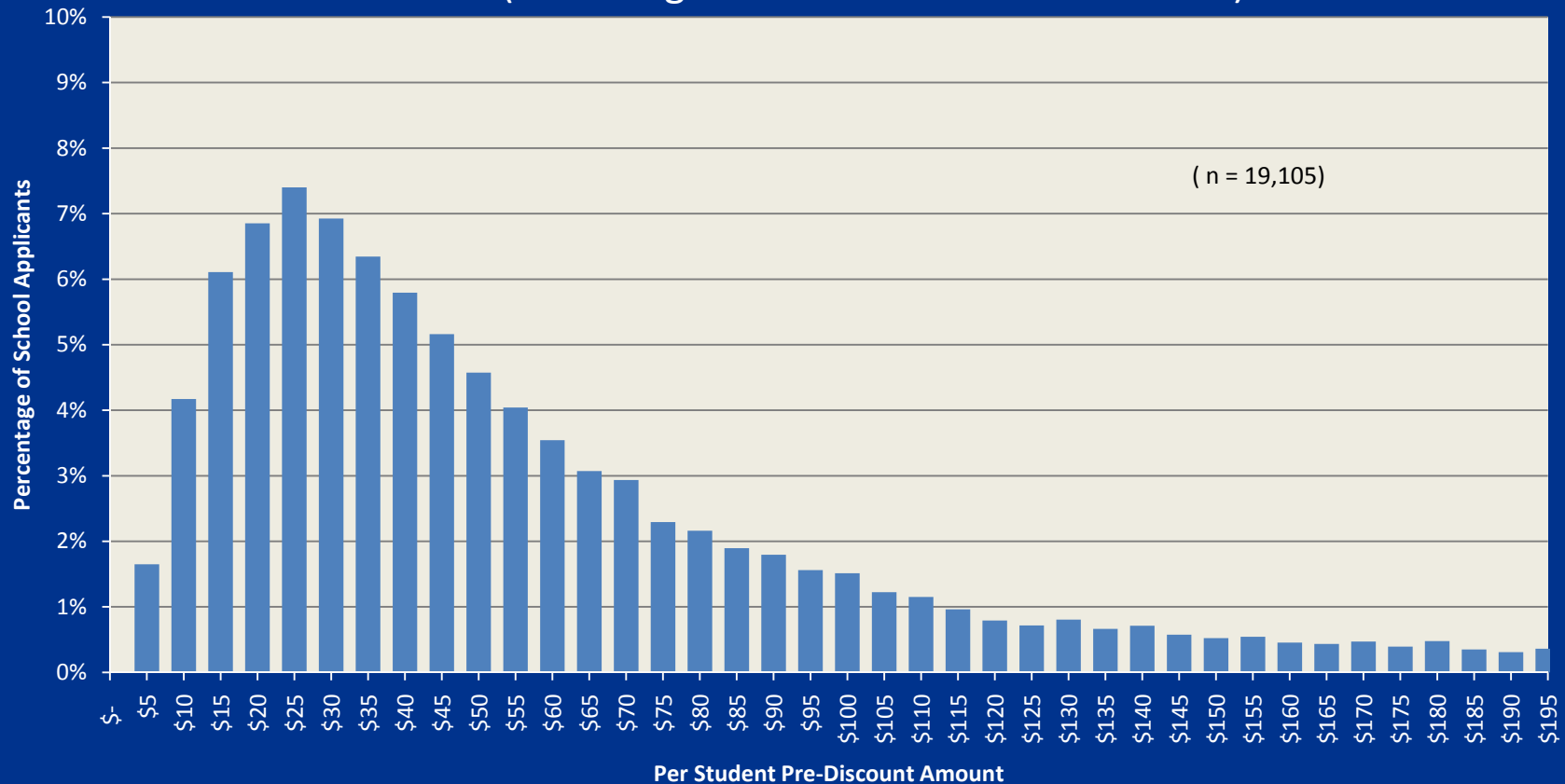
Excludes libraries and most consortia

# Distribution of School Funding Requests

# Distribution of Applicants Based on Per Student Expenditures



Pre-Discount Telecommunications & Internet Expense  
**Percentage of Applicants Based on Per Student Dollar Amount**  
 All Schools (excluding schools with enrollment <100)

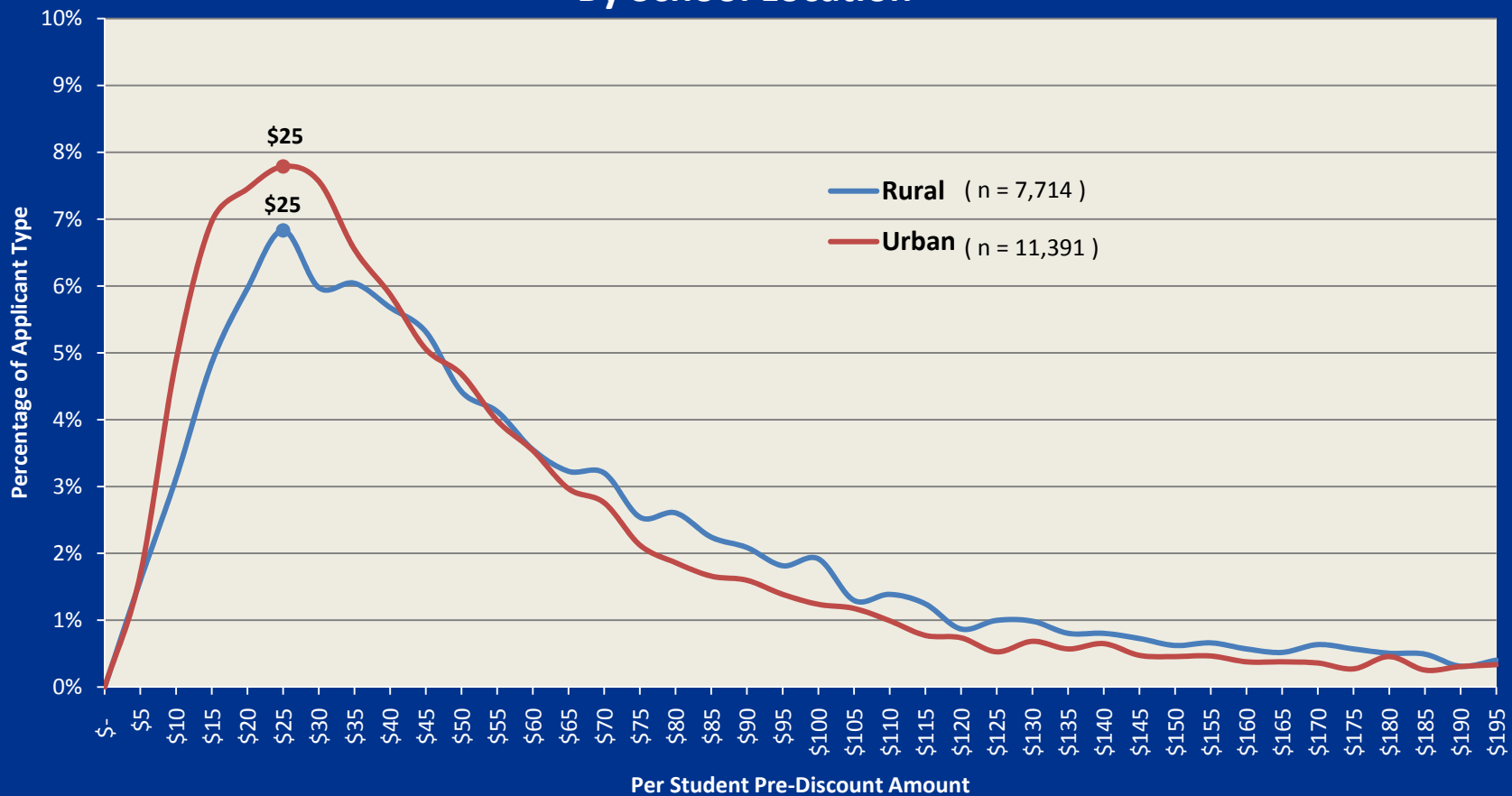


Based on FY2012 E-rate Applications for Schools and School Districts, excluding applicants with fewer than 100 students

# Distribution of Applicants Based on Per Student Expenditures



Pre-Discount Telecommunications & Internet Expense  
**Percentage of Applicants Based on Per Student Dollar Amount  
 By School Location**

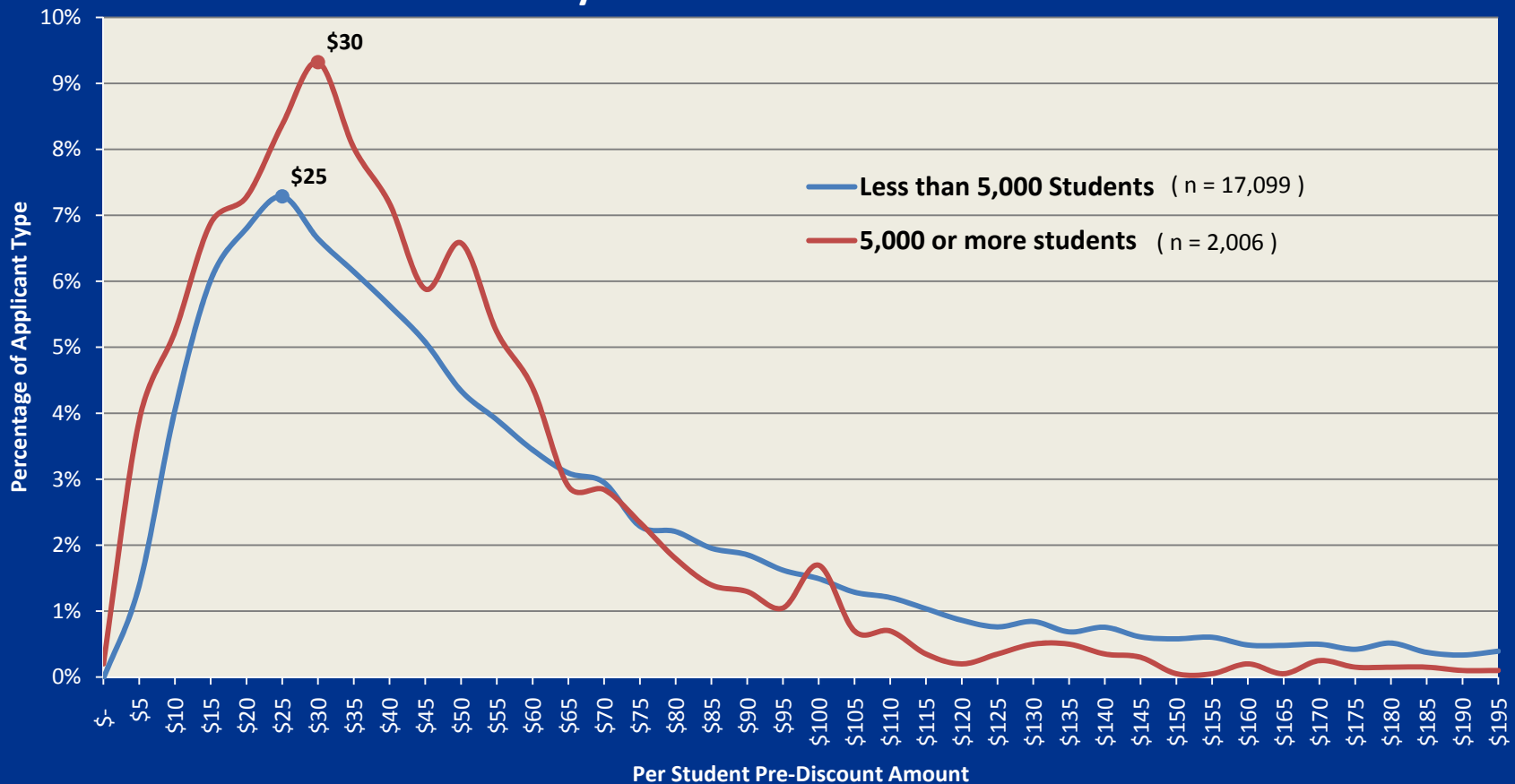


Based on FY2012 E-rate Applications for Schools and School Districts, excluding applicants with fewer than 100 students

# Distribution of Applicants Based on Per Student Expenditures



Pre-Discount Telecommunications & Internet Expense  
**Percentage of Applicants Based on Per Student Dollar Amount  
 By School Enrollment**



Based on FY2012 E-rate Applications for Schools and School Districts, excluding applicants with fewer than 100 students

Sample  
FY2012 Per Student Requests  
Priority 1 and Priority 2



# Funding Requested Per Student

## Top 18 Mega School Districts (FY2012)



| Applicants    | Per Student \$ Requested | Total Requested | Applicants     | Per Student \$ Requested | Total Requested |
|---------------|--------------------------|-----------------|----------------|--------------------------|-----------------|
| New York City | \$340/student            | \$329.9 million | Philadelphia   | \$98/student             | \$14.1 million  |
| Houston       | \$560/student            | \$107.3 million | Prince George  | \$112/student            | \$13.9 million  |
| San Diego     | \$753/student            | \$98.6 million  | Broward County | \$53/student             | \$11.9 million  |
| Los Angeles   | \$143/student            | \$86.0 million  | Hillsborough   | \$48/student             | \$9.2 million   |
| Dallas        | \$397/student            | \$62.6 million  | Memphis        | \$86/student             | \$8.7 million   |
| Miami-Dade    | \$162/student            | \$50.0 million  | Charlotte NC   | \$38/student             | \$5.4 million   |
| Chicago       | \$129/student            | \$46.1 million  | Montgomery     | \$35/student             | \$5.2 million   |
| Orange County | \$96/student             | \$16.4 million  | Clark County   | \$16/student             | \$4.9 million   |
| Palm Beach    | \$88/student             | \$14.7 million  | Duval County   | \$23/student             | \$2.7 million   |

# Funding Requested Per Student

## Top 18 Large School Districts (FY2012)



| Applicants     | Per Student \$ Requested | Total Requested | Applicants     | Per Student \$ Requested | Total Requested |
|----------------|--------------------------|-----------------|----------------|--------------------------|-----------------|
| Santa Ana      | \$466/student            | \$26.0 million  | Saint Paul     | \$444/student            | \$16.1 million  |
| Collier County | \$596/student            | \$25.6 million  | Glendale CA    | \$598/student            | \$15.8 million  |
| El Paso        | \$346/student            | \$22.2 million  | Newark         | \$395/student            | \$14.0 million  |
| Knox County    | \$354/student            | \$20.5 million  | Mobile AL      | \$234/student            | \$14.0 million  |
| Richmond GA    | \$55/student             | \$1.7 million   | Laredo         | \$536/student            | \$13.6 million  |
| Detroit        | \$355/student            | \$20.5 million  | Corpus Christi | \$345/student            | \$13.3 million  |
| Washoe NV      | \$292/student            | \$18.0 million  | St. Louis      | \$492/student            | \$13.0 million  |
| Jefferson KY   | \$172/student            | \$16.3 million  | Bakersfield    | \$441/student            | \$12.6 million  |
| Nashville      | \$210/student            | \$16.1 million  | Berkeley SC    | \$376/student            | \$11.4 million  |

# Funding Requested Per Student

## Top 18 Moderate School Districts (FY2012)



| Applicants    | Per Student \$ Requested | Total Requested | Applicants      | Per Student \$ Requested | Total Requested |
|---------------|--------------------------|-----------------|-----------------|--------------------------|-----------------|
| Hemet CA      | \$1,098/student          | \$23.9 million  | Idea TX         | \$1,042/student          | \$8.8 million   |
| Norwalk CA    | \$1,046/student          | \$23.7 million  | Franklin CA     | \$900/student            | \$8.7 million   |
| Jurupa CA     | \$1,025/student          | \$21.3 million  | Ozark MO        | \$1,528/student          | \$8.2 million   |
| Val Verde CA  | \$839/student            | \$17.1 million  | Bridgeport CT   | \$355/student            | \$7.7 million   |
| Bibb Cnty GA  | \$654/student            | \$16.2 million  | So. San Antonio | \$768/student            | \$7.4 million   |
| Yakima        | \$974/student            | \$14.2 million  | Huntsville AL   | \$315/student            | \$7.2 million   |
| Central CA    | \$816/student            | \$11.9 million  | Decatur IL      | \$731/student            | \$6.3 million   |
| Ceres CA      | \$902/student            | \$10.9 million  | Alvord CA       | \$311/student            | \$6.2 million   |
| Bellflower CA | \$713/student            | \$10.0 million  | Denton TX       | \$238/student            | \$5.9 million   |

# Funding Requested Per Student

## Top 18 Small School Districts (FY2012)

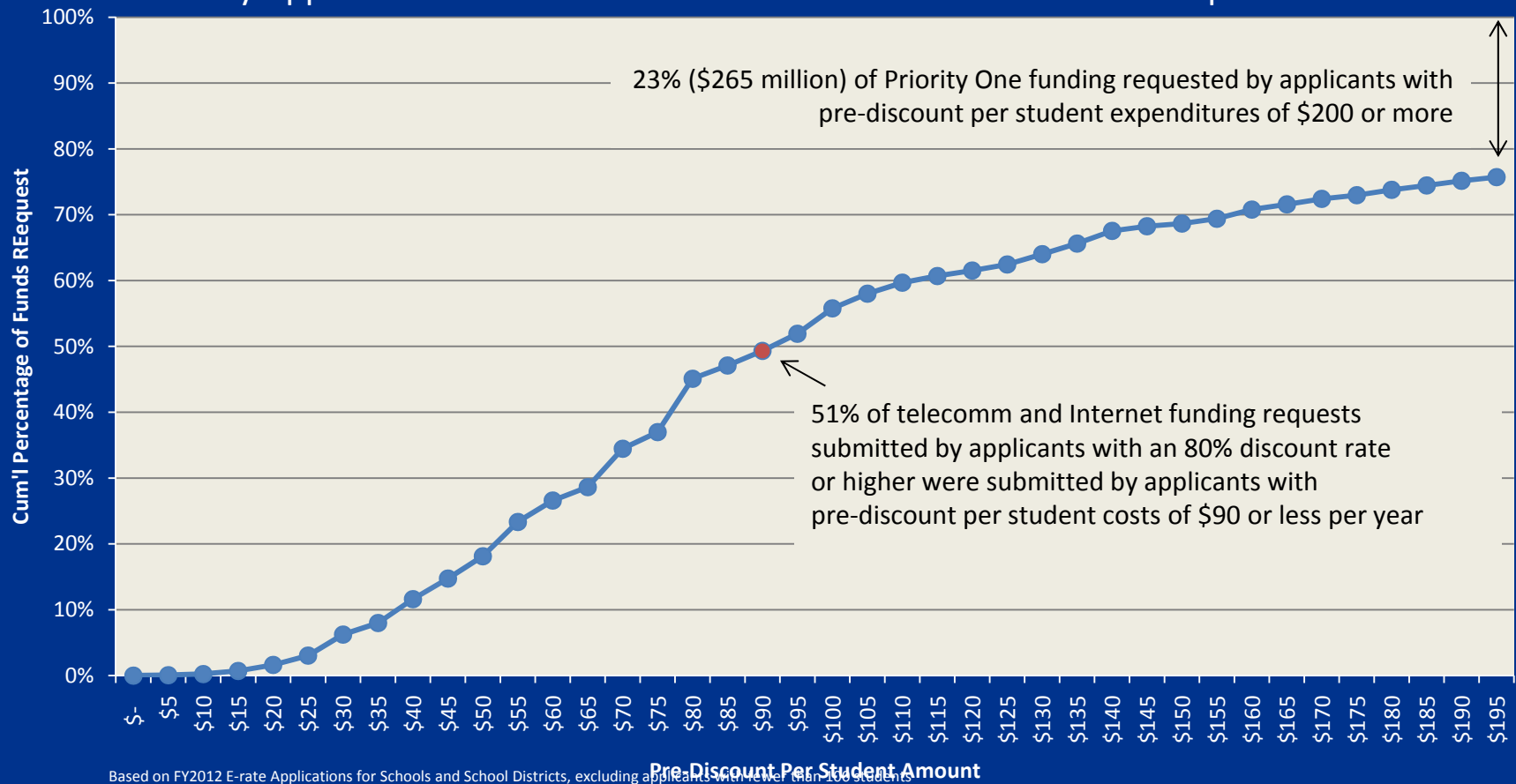


| Applicants              | Per Student \$ Requested | Total Requested | Applicants             | Per Student \$ Requested | Total Requested |
|-------------------------|--------------------------|-----------------|------------------------|--------------------------|-----------------|
| Camino Nuevo Chrtr CA   | \$7,480/student          | \$20.1 million  | Lower Yukon AK         | \$2,284/student          | \$4.5 million   |
| Lower Kuskokwim AK      | \$4,392/student          | \$17.4 million  | Yes Prep SE TX         | \$1,005/student          | \$4.3 million   |
| Duarte CA               | \$1,771/student          | \$7.1 million   | Worth Cnty GA          | \$1,301/student          | \$4.2 million   |
| Greene Cnty GA          | \$3,033/student          | \$6.8 million   | Kingsville TX          | \$1,095/student          | \$4.0 million   |
| Whiteriver AZ           | \$2,367/student          | \$5.2 million   | Penn Hills PA          | \$880/student            | \$3.8 million   |
| Green Cnty KY           | \$2,112/student          | \$4.7 million   | Tolleson AZ            | \$1,299/student          | \$3.8 million   |
| Fitchburg MA            | \$964/student            | \$4.7 million   | Coolidge AZ            | \$988/student            | \$3.7 million   |
| Cassopolis MI           | \$3,939/student          | \$4.6 million   | Responsive Ed Sol'n TX | \$912/student            | \$3.7 million   |
| Perspectives Charter IL | \$1,979/student          | \$4.6 million   | Cahokia IL             | \$903/student            | \$3.6 million   |

# \$1.15 Billion Telecomm and Internet Requested by Applicants 80%+ Discount



FY2012 Telecommunications & Internet Funding Requests  
**Cum'l % of Funds Requested by Applicants (80% Disc or higher)**  
 By Applicant Pre-Discount Per Student Telecomm and Internet Expense



Based on FY2012 E-rate Applications for Schools and School Districts, excluding applications for lower than 80% discounts

# Proposed Solution Framework

# Updating the E-rate Program

Revised structure to help applicants budget their needs



- Maintain discount system
- Restore funding for all service categories
- Allow flexibility for local funding priorities
- Calculate budget ceilings for applicant discounts
- Insure all eligible requests receive *some* support
- Create long-term funding structure
  - › Anticipates changes in USF funding levels (including increase)
  - › Easily adjusts for other changes, such as disc. matrix

# Proposal Objectives



- Build on successful aspects of current E-rate
- Offer systemic improvements
  - › Minimize delays while increasing predictability
  - › Encourage technology planning and prioritizing
- Allow applicants to set their own priorities
- Provide all applicants access to some support
- Encourage accurate funding requests
- Reduce waste and abuse



# Existing E-rate System + Budgets



- Maintain (no change)
  - › Graduated discount rate system
  - › Current ESL/470/471/PIA/payment process
- Eliminate unlimited budgets (current system)
- Establish flexible budget ceiling system for applicants
  - › Per student limits for schools; per patron for libraries
  - › Tied to available USF funding
  - › Per capita rates published before filing window
- Tie applicant budget amount to their discount rate
  - › Highest per capita budgets to highest disc rate applicants
  - › Budget floors set for small schools and libraries

# FCC Sets Target Pre-Disc Amount



- FCC publishes pre-discount amount
- School district calculates discount rate
- Multiply disc. rate by target to get max disc.
- Example: \$160 pre-discount target by FCC
  - › 80% school district
  - › Multiplied by \$160 = \$128 / student max discount

# Per Student Budget Calculation



- FCC sets per student pre-discount amount
- School district calculates discount rate (as before)
- Ceiling calculated by multiplying per student factor by discount rate by enrollment

$$\text{Discount Ceiling} = \text{Pre-Discount Per Student Rate (Set by FCC)} \times \text{Discount Rate} \times \text{Enroll}$$

# Budget Floor for Small Schools



- FCC sets pre-discount budget floor
  - › Min. amount before budget ceiling is activated
  - › Protects small schools
- School district calculates discount rate (as before)
- Floor calculated by multiplying pre-discount budget floor by discount rate of applicant
- Doubled for sites classified as “rural remote”

# Proposal Details



- Eliminates need for 2-in-5 rule
- Eligible services list can stay as-is
- Schools set their local priorities
  - › An applicant's requests can total no more than the calculated budget ceiling
  - › Applicants may allocate some or all of their budget to support consortia applications
- Library budgets based on per patron measure
- Remote rural locations have higher minimum

# Other Benefits of Budget Ceiling



- Allows FCDLs to be issued more quickly
- Reduces excessive and/or frivolous \$ requests
- Reduces or removes incentives to
  - › Replace equipment before end of life
  - › Gold plate networks
  - › Game the P1/P2 system
- Protects against “mega” requests
- Limits waste/fraud/abuse potential per entity

# Works in Conjunction with Other Potential Program Changes



- Accommodates future increase(s) to fund without retooling the program
- Works with other changes being discussed
  - › Augments other changes, but...
  - › Also reduces need for some changes
- Could facilitate:
  - › Individual applicant “rollover” one year to next
  - › Multi-year funding commitments

## 2003 Waste, Fraud & Abuse Task Force



- *“the Commission should consider imposing some ceiling on the amount of funding which applicants can request.”*
- *“...would help ensure that applicants are submitting the most cost-effective funding requests by eliminating what some may perceive as a “blank check.”*



# Frequently Discussed Alternative Solutions

# Limited Potential Discount Matrix Changes



- Most commonly discussed “solution”
- Does not address fundamental issues
  - › Insufficient E-rate funding
  - › Inadequate priority system
  - › No protection against mega funding requests
- -10% in rate impacts poorest students most
  - › 90% => 80% : payment +200%
  - › 20% => 10% : payment +12%
- At best provides a *few* sites w/P2 a *few* years

# Limited Potential Eligible Services Changes



- Other “solution” frequently mentioned
- Requires detailed technical definitions
- Adds complexity to application review
- Requires constant tweaking (chasing technology)
- Offers incentives to game system
- For example, eliminating POTS
  - › Hurts less tech-savvy schools most
  - › Counterproductive to Universal Service
  - › Adds complexity to process

# Sample Results

## Increased E-rate Funding and Budget System

Annual program cap of \$4.5 billion/year  
Applicant budget calculation system

# Sample Budget Calculation #1

## Urban School District



- Pre-Discount Student Rate Ceiling: \$160
- Pre-Discount Per Applicant Floor: \$36,000
- Applicant: Enrollment = 4,000; Discount = 80%

$$\text{Ceiling} = \begin{array}{c} \text{Pre-Discount} \\ \text{Per Student Rate} \end{array} \$160 \times \begin{array}{c} \text{Applicant} \\ \text{Discount Rate} \end{array} 80\% \times \begin{array}{c} \text{Applicant} \\ \text{Enrollment} \end{array} 4,000 = \$512,000$$

$$\text{Floor} = \begin{array}{c} \text{Pre-Discount} \\ \text{Applicant Floor} \end{array} \$36,000 \times \begin{array}{c} \text{Applicant} \\ \text{Discount Rate} \end{array} 80\% \times \begin{array}{c} \text{Rural Remote} \\ \text{Multiplier} \end{array} 1 = \$28,800$$

Max of Ceiling and Floor calculations

$$\text{Discount Budget} = \$512,000$$

# Sample Budget Calculation #2

## Remote Rural School



- Pre-Discount Student Rate Ceiling: \$160
- Pre-Discount Per Applicant Floor: \$36,000
- Applicant: Enrollment = 125; Discount = 90%

$$\text{Ceiling} = \begin{array}{c} \text{Pre-Discount} \\ \text{Per Student Rate} \end{array} \$160 \times \begin{array}{c} \text{Applicant} \\ \text{Discount Rate} \end{array} 90\% \times \begin{array}{c} \text{Applicant} \\ \text{Enrollment} \end{array} 125 = \$18,000$$

$$\text{Floor} = \begin{array}{c} \text{Pre-Discount} \\ \text{Applicant Floor} \end{array} \$36,000 \times \begin{array}{c} \text{Applicant} \\ \text{Discount Rate} \end{array} 90\% \times \begin{array}{c} \text{Rural Remote} \\ \text{Multiplier} \end{array} 2 = \$64,800$$

Max of Ceiling and Floor calculations

$$\text{Discount Budget} = \$64,800$$

# National Results

Based on \$160 per Student Ceiling / \$36,000 per Applicant Floor



| Applicant Disc. Rate | CGCS                 | Other Urban            | Rural excl. remote   | Remote Rural*        | Total                  |
|----------------------|----------------------|------------------------|----------------------|----------------------|------------------------|
| 20% - 39%            |                      | \$7,346,867            | \$325,764            | \$40,970             | \$7,713,601            |
| 40% - 49%            |                      | \$211,232,704          | \$1,370,633          | \$112,774            | \$212,716,111          |
| 50% - 59%            |                      | \$304,407,698          | \$17,783,350         | \$1,069,607          | \$323,260,655          |
| 60% - 69%            | \$30,298,463         | \$401,097,111          | \$98,764,891         | \$11,075,722         | \$541,236,187          |
| 70% - 79%            | \$144,215,900        | \$515,525,343          | \$299,606,606        | \$50,711,399         | \$1,010,059,248        |
| 80% - 89%            | \$513,162,087        | \$737,384,029          | \$383,613,707        | \$65,466,296         | \$1,699,626,118        |
| 90%                  |                      | \$314,143,437          | \$137,023,323        | \$23,052,341         | \$474,219,101          |
| <b>Grand Total</b>   | <b>\$687,676,450</b> | <b>\$2,491,137,188</b> | <b>\$938,488,275</b> | <b>\$151,529,108</b> | <b>\$4,268,831,020</b> |

## NOTES/ASSUMPTIONS

- 1) Based on FY2012 enrollment data and discount rates
- 2) All applicants find sufficient matching funds to maximize their budgets.
- 3) Remote rural schools have a budget floor factor double the standard rate.  $\$36,000 \times 2 = \$72,000$
- 4) Balance of funds used for library applicants, program administ

# Council of Great City Schools Sample Results



| School District     | Enroll  | (\$ millions)    |                    |           | School District       | Enroll  | (\$ millions)    |                    |          |
|---------------------|---------|------------------|--------------------|-----------|-----------------------|---------|------------------|--------------------|----------|
|                     |         | FY2012           | FY2014             | Proposed  |                       |         | FY2012           | FY2014             | Proposed |
|                     |         | Telco & Internet | Telco & Int. (est) | Budget    |                       |         | Telco & Internet | Telco & Int. (est) | Budget   |
| NYC Dpmt of Ed      | 970,052 | \$62.94          | \$67.98            | \$ 104.36 | Orange County         | 171,095 | \$ 3.86          | \$ 4.17            | \$ 15.40 |
| Los Angeles Unified | 600,844 | \$25.54          | \$27.58            | \$ 66.23  | San Diego Unified     | 130,938 | \$ 11.43         | \$ 12.35           | \$ 13.07 |
| Chicago Schools     | 357,184 | \$20.75          | \$22.41            | \$ 42.27  | Palm Beach County     | 167,376 | \$ 3.79          | \$ 4.09            | \$ 12.75 |
| Miami-Dade County   | 308,057 | \$11.29          | \$12.20            | \$ 33.96  | Memphis City Schools  | 101,480 | \$ 8.14          | \$ 8.79            | \$ 12.29 |
| Clark County        | 297,913 | \$ 4.68          | \$ 5.05            | \$ 24.71  | Charlotte-Mecklenburg | 141,714 | \$ 2.17          | \$ 2.34            | \$ 11.43 |
| Houston ISD         | 191,557 | \$ 7.80          | \$ 8.43            | \$ 21.63  | Albuquerque           | 92,746  | \$ 5.25          | \$ 5.67            | \$ 10.72 |
| Dallas ISD          | 158,486 | \$13.41          | \$14.48            | \$ 19.64  | Baltimore City        | 85,896  | \$ 5.68          | \$ 6.14            | \$ 10.64 |
| Broward County      | 225,664 | \$ 5.00          | \$ 5.40            | \$ 18.72  | Fort Worth ISD        | 83,442  | \$ 1.65          | \$ 1.78            | \$ 10.11 |
| Philadelphia        | 144,234 | \$ 3.40          | \$ 3.67            | \$ 16.67  | Duval County          | 118,257 | \$ 3.13          | \$ 3.38            | \$ 9.81  |
| Hillsborough County | 190,768 | \$ 2.25          | \$ 2.43            | \$ 15.82  | Long Beach Unified    | 83,687  | \$ 2.64          | \$ 2.85            | \$ 8.79  |

## NOTES/ASSUMPTIONS

- 1) Based on FY2012 enrollment data and discount rates
- 2) All applicants find sufficient matching funds to maximize their budgets.
- 3) FY2014 telecomm and Internet estimate based on 8% increase over FY2012 requests