The Funds For Learning®

E-rate 2.0 Proposal

June 14, 2013

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E-rate's Unsustainable Path

- No internal connections for any applicants
- Inadequate support for telecomm/Internet
- Funding Year 2014: 70% P1 discount threshold
  › No support for 45% of libraries and 47% of schools
- Funding Year 2015: 80% P1 discount threshold
  › No support for 84% of libraries and 71% of schools
- Going forward, political support wanes as E-rate funding disappears for most applicants

Aggressive Applicants Dominate

- No incentive for accurate funding requests
- Highest discount rate schools take all they want, leaving nothing for other applicants
- "Big spenders" request majority of funding
  - › Inefficient applicants rewarded with big dollars
  - › Incentives to select P1 tariff/MTM service
- New purchases easier than maintenance

President Calls for Reform

"In a country where we expect free Wi-Fi with our coffee, why shouldn't we have it in our schools?"

-- President Barack Obama (June 6, 2013)

- ConnectED: restore U.S. educational leadership

- Modernize and further leverage E-rate program

- Connect 99% of students within 5 years

  › Broadband connections (100 Mbps up to 1 Gbps)

  › High speed wireless access in buildings

Answering the President's Call

- FCC preparing to implement Obama's vision
  - › Additional E-rate funding -- 3 year surge?
  - › New efficiencies within the E-rate program
  - › Other changes?
- New proposal: achieving Obama's goals
  - › Ensure all schools and libraries benefit from E-rate
  - › Allow applicants to set local funding priorities
  - › Restore support for infrastructure (e.g. wireless)
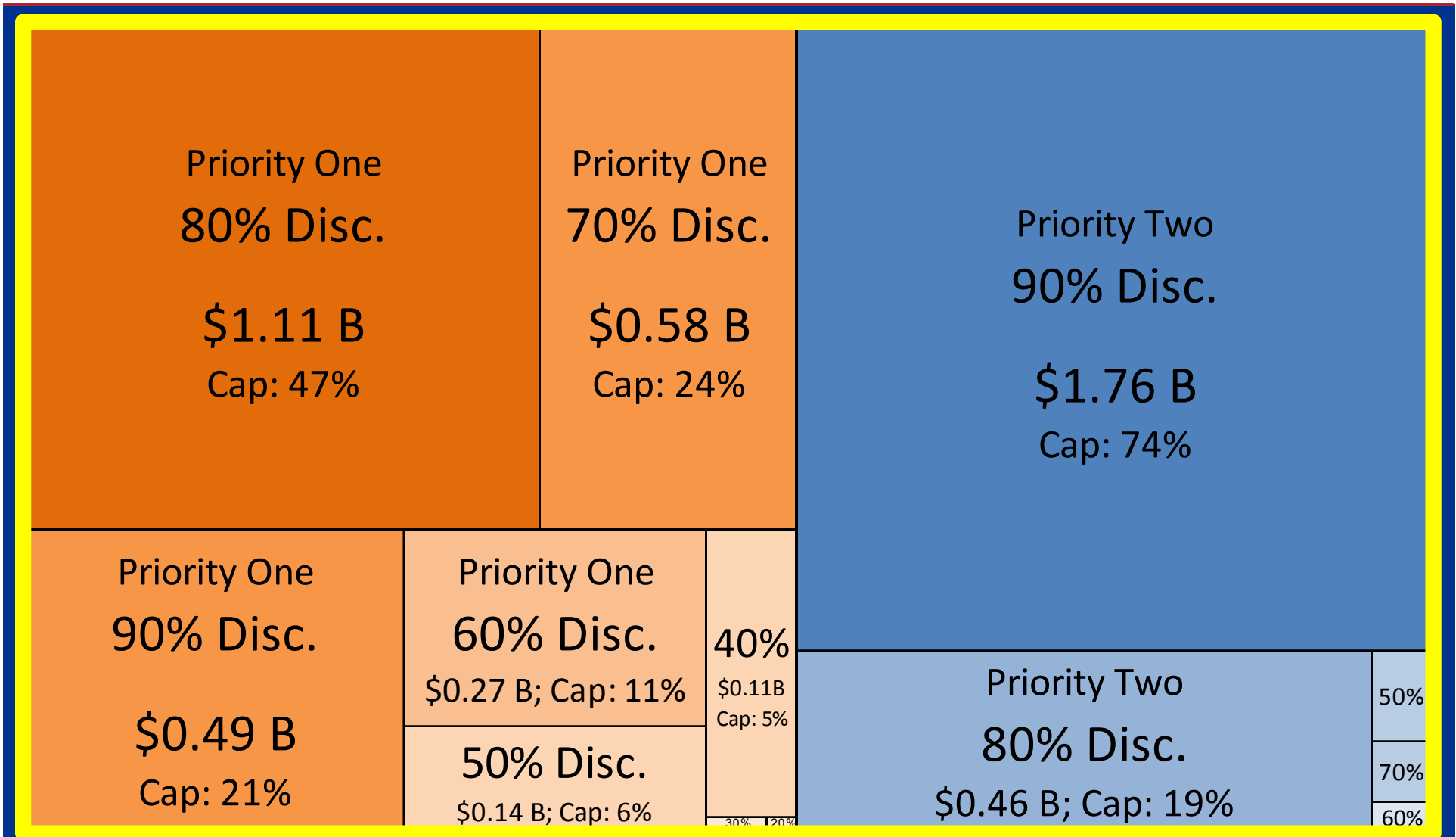 - › Encourage cost-effective technology choices

E-rate Program
At a Crossroads

E-rate Straining Under Demand

FUNDS FOR LEARNING
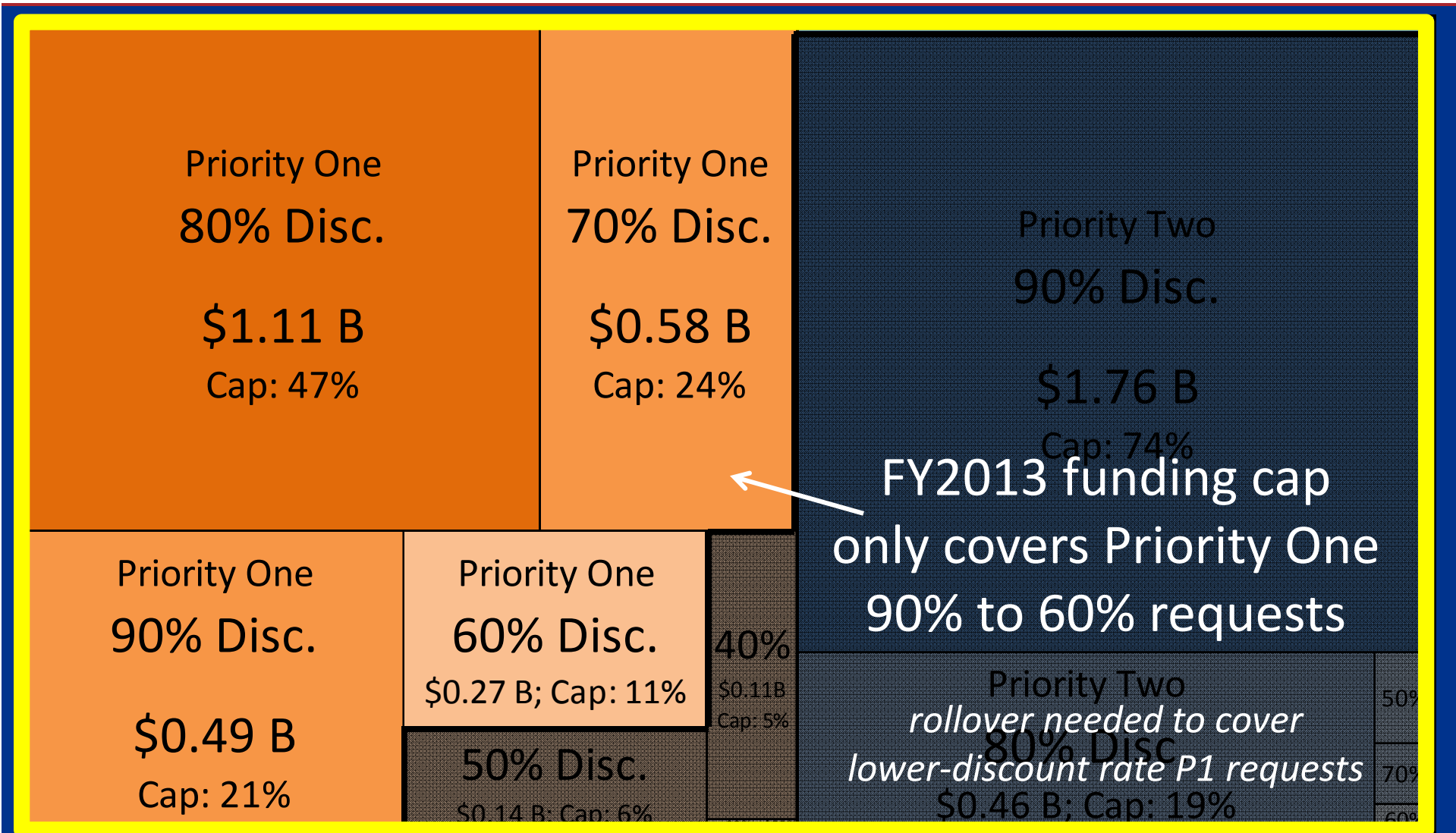**YOUR E-RATE GUIDES**

- No longer a technology neutral program
  - › Priority system broken – no internal connections
    - Eliminates lease vs. purchase cost-benefit analysis
    - Encourages more expensive Priority 1 solutions
  - › Creates environment for gaming the system
  - › Entire cap can be spent with no contract or tech plan
- Discount threshold eliminates discount matrix
  - › No longer a sliding scale funding mechanism
  - › All or nothing funding for a select few

FY2013 E-rate Demand $4.99 Billion
By Priority and Applicant Discount

Priority One
80% Disc.
$1.11 B
Cap: 47%

Priority One
70% Disc.
$0.58 B
Cap: 24%

Priority Two
90% Disc.
$1.76 B
Cap: 74%

Priority One
90% Disc.
$0.49 B
Cap: 21%

Priority One
60% Disc.
$0.27 B; Cap: 11%

50% Disc.
$0.14 B; Cap: 6%

40%
$0.11B
Cap: 5%

30%   20%

Priority Two
80% Disc.
$0.46 B; Cap: 19%

50%

70%

60%

FY2013 E-rate Demand $4.99 Billion
By Priority and Applicant Discount

Priority One
80% Disc.

$1.11 B

Cap: 47%

Priority One
70% Disc.

$0.58 B

Cap: 24%

Priority Two
90% Disc.

$1.76 B

Cap: 74%

FY2013 funding cap only covers Priority One 90% to 60% requests

Priority One
90% Disc.

$0.49 B

Cap: 21%

Priority One
60% Disc.

$0.27 B; Cap: 11%

40%
$0.11B
Cap: 5%

50% Disc.
$0.14 B; Cap: 6%

Priority Two
rollover needed to cover lower-discount rate P1 requests
80% Disc
$0.46 B; Cap: 19%

50%

70%

60%

Per Student E-rate Funding
Available vs Requested (Telecomm and Internet)

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YOUR E-RATE GUIDES

Includes consortia demand; Available amount calculated after subtracting library demand

On average, $50 requested per student → **$50.1**

$48.9

Available per student
Total E-rate fund

Requested per student
Telecomm and Internet

$23.5

$45.5

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Available	$48.9	$47.5	$46.2	$44.9	$44.6	$43.8	$43.0	$42.7	$42.4	$42.0	$42.0	$42.2	$42.7	$45.5
Requested	$23.5	$29.3	$35.0	$34.6	$30.9	$29.3	$31.7	$33.7	$35.7	$38.1	$39.6	$41.2	$44.3	$50.1
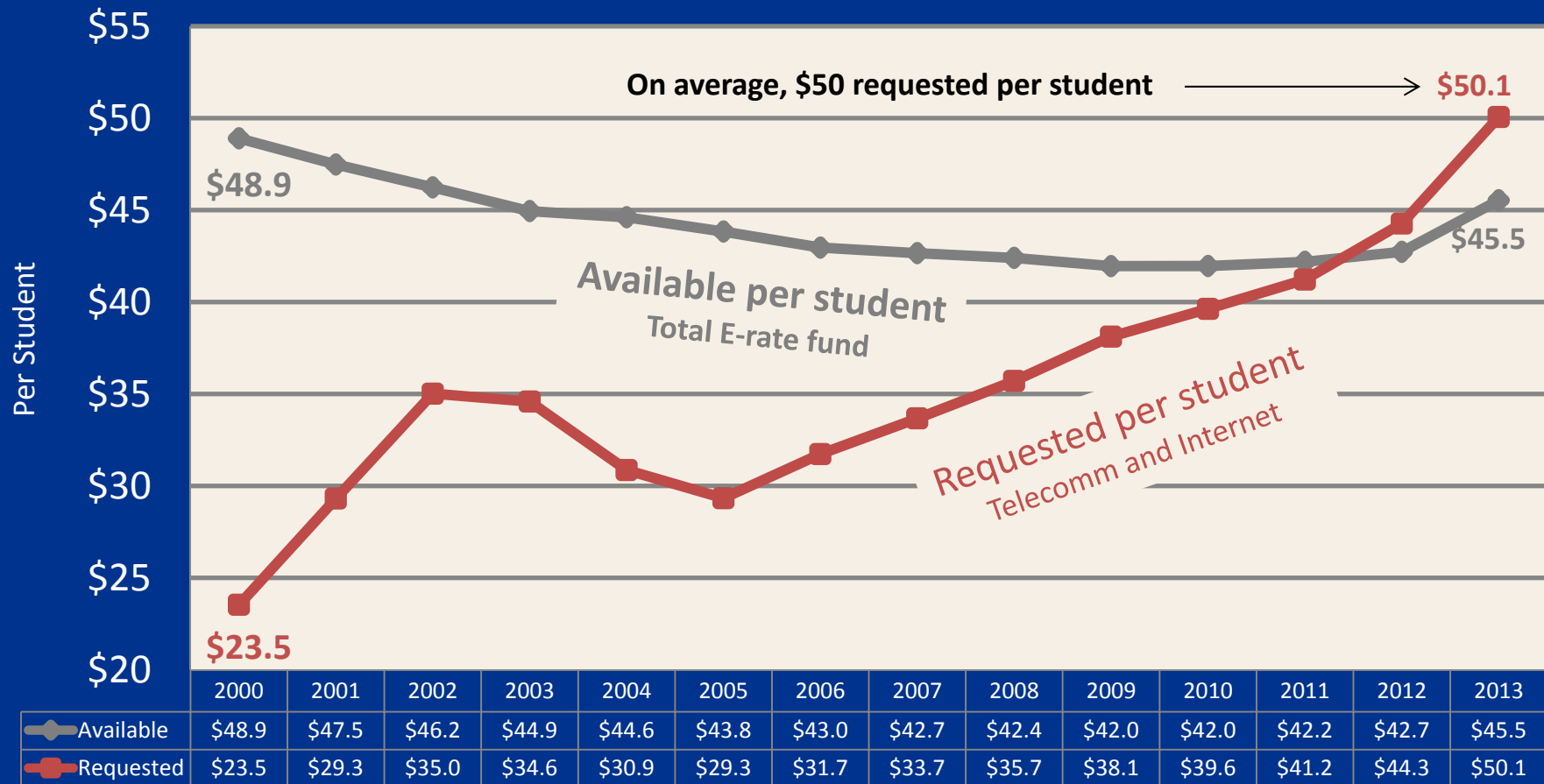
FY2013 Telecomm and Internet demand
$50 per Student Requested
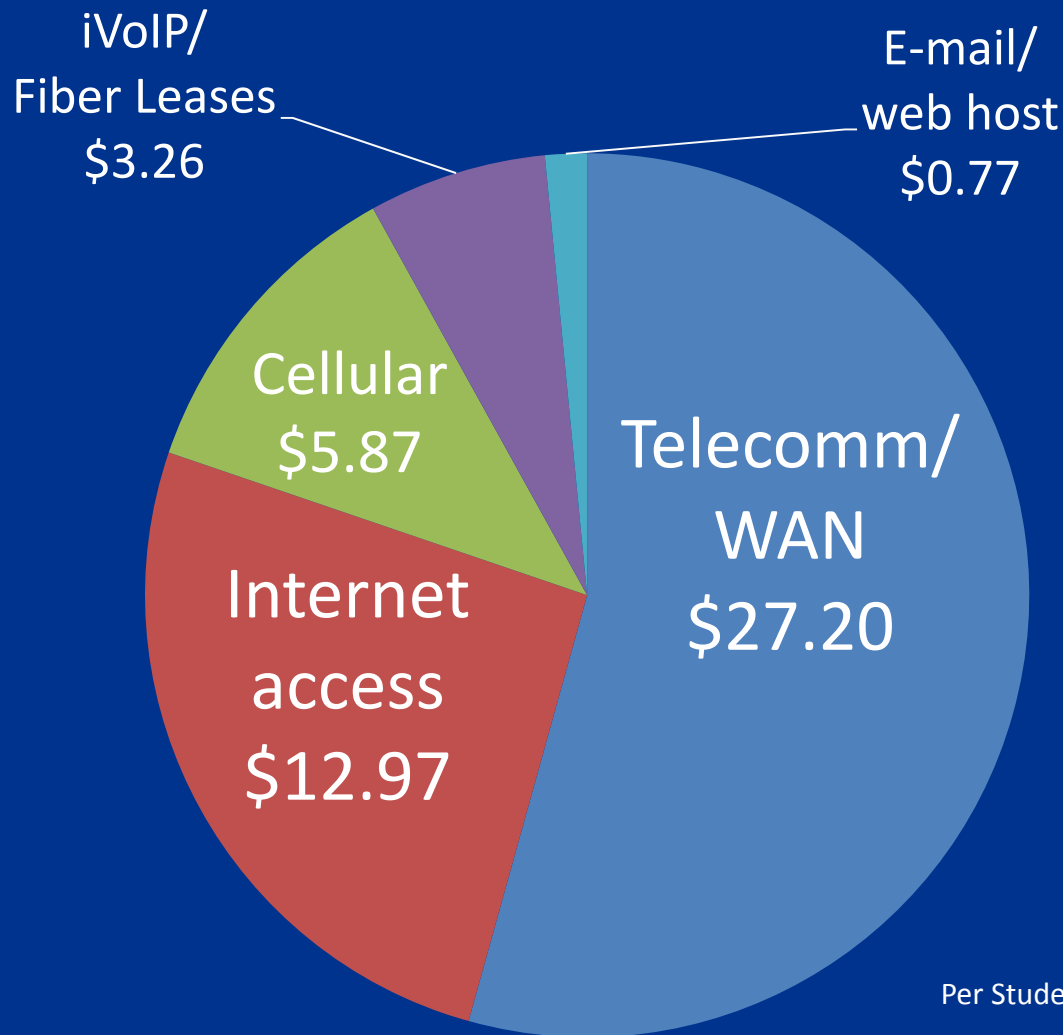
- $50/student demand exceeds $45/student funding cap

- Total demand = $5.57/student per month (pre-discount)

Includes consortia demand;
Per Student amount calculated after subtracting library demand.

Proposed Solution Framework

Proposal Overview

- Keep current discounts and eligible services

- Keep current ESL/470/471/PIA/payment process

- Eliminate "unlimited" funding requests

- Allow applicants to set their own priorities

  › Discounts used for any service category, any site

  › Offer all applicants access to support every year

- Promote equitable distribution of funding

- Increase cap to $4.5 billion/year

- Avoid unnecessary complexity and changes

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

Per Student Budget Calculation

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

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

- Example: $115 pre-discount target by FCC
  › 80% school district
  › Multiplied by $115 = $92 / student max discount

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 high cost

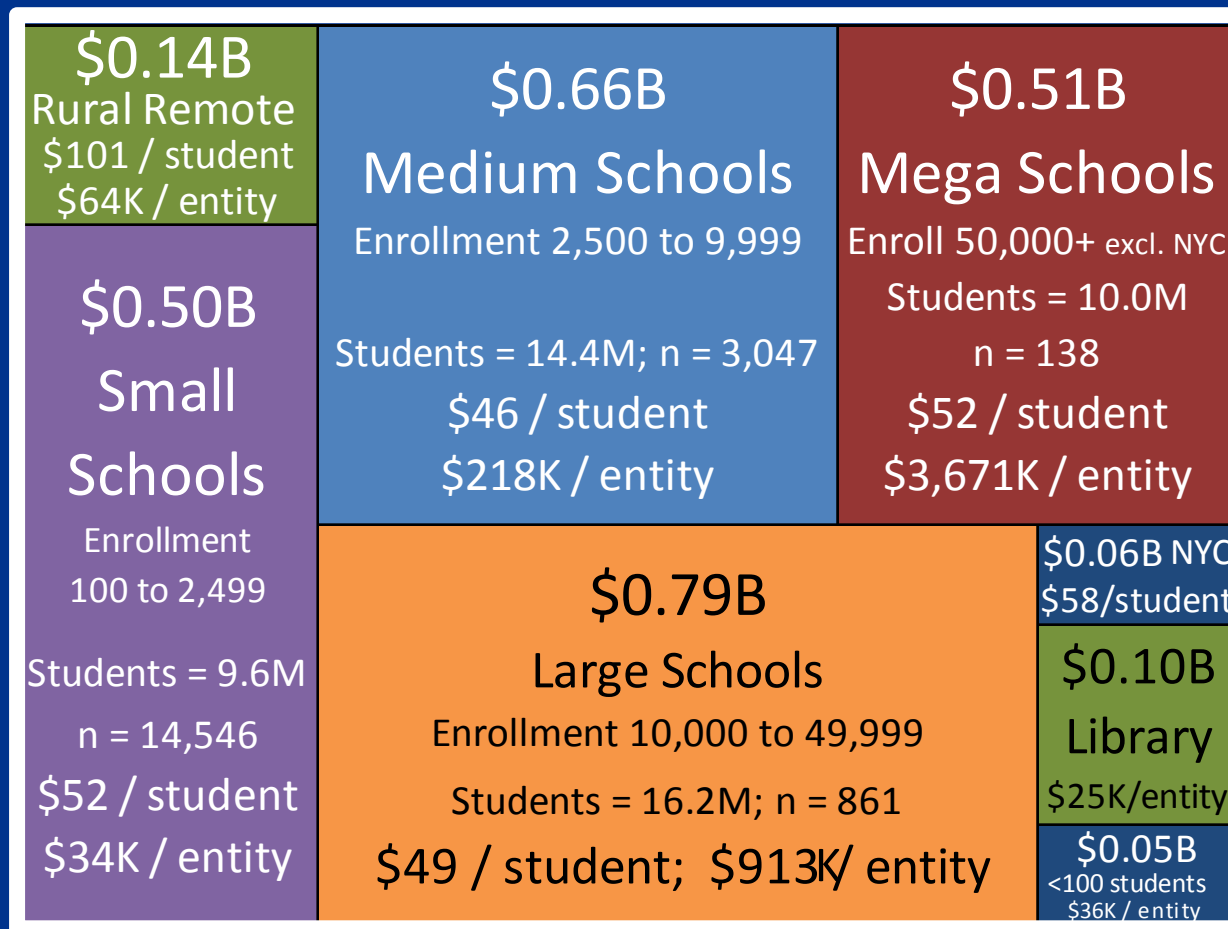| Budget Floor	=	Pre-discount Floor (Set by FCC)	X	Discount Rate	X	High Cost Multiplier

Estimated Result
of Budget System
Based on E-rate 2.0 Proposal

Results of Funds For Learning® Proposal
Option #1: $2.80B Current cap + rollover

Per Student Factor = $70 per student; Funding floor = $34,000 / entity

$0.14B
Rural Remote
$101 / student
$64K / entity

$0.66B
Medium Schools
Enrollment 2,500 to 9,999

Students = 14.4M; n = 3,047
$46 / student
$218K / entity

$0.51B
Mega Schools
Enroll 50,000+ excl. NYC
Students = 10.0M
n = 138
$52 / student
$3,671K / entity

$0.50B
Small Schools

Enrollment
100 to 2,499

Students = 9.6M

n = 14,546
$52 / student
$34K / entity

$0.79B
Large Schools
Enrollment 10,000 to 49,999
Students = 16.2M; n = 861
$49 / student; $913K / entity

$0.06B NYC
$58/student

$0.10B
Library
$25K/entity

$0.05B
<100 students
$36K / entity

$25 million ← The size of this square represents $25 million of funding commitments.

Results of Funds For Learning® Proposal
Option #2: $4.46B

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YOUR E-RATE GUIDES

Per Student Factor = $115 per student; Funding floor = $40,000 / entity

$0.06B <100 students $45K/entity

$0.76B
Small Schools

Enrollment 100 to 2,499

Students = 9.6M

n = 14,546

$80 / student
$52K / entity

$1.09B
Medium Schools

Enrollment 2,500 to 9,999

Students = 14.5M; n = 3,047

$76 / student
$358K / entity

$0.83B
Mega Schools

Enroll 50,000+ excl. NYC

Students = 10.0M; n = 138

$86 / student
$6,032K / entity

$1.29B
Large Schools

Enrollment 10,000 to 49,999

Students = 16.2M; n = 861

$80 / student; $1,500K / entity

$0.09B NYC
$95 / student

$0.18B
Rural Remote
$131 / student
$83K / entity

$0.15B
Library

$37K / entity

Proposal Details

- Eliminates need for 2-in-5 rule

- Eligible services list can stay as-is

- Schools set their local priorities

  › Requests total no more than budget ceiling

  › Applicants may allocate budget to consortia

- Library budgets based on per patron measure

- Remote rural and other high cost locations have higher minimum

Benefits of Budget Ceiling

- Produces more predictable projects and services
- Encourages efficient use of funds
- Allows funding to be released more quickly
- Reduces excessive and/or frivolous $ requests
- Diminishes or removes incentives to
  › Replace equipment before end of life
  › Gold plate networks and game the P1/P2 system
- Protects against "mega" requests
- Limits waste/fraud/abuse potential per entity

Other Potential Details

- State networks could receive 0.5% - 1.0% of discount disbursements

- Applicants authorize portion of their budget to other consortia-type applications

- Special budget waivers could be requested

Budget System Calculation

Step-by-step

Per Student Budget Calculation

- FCC sets per student pre-discount amount

- School district calculates discount rate (as before)

- Budget calculated by multiplying per student factor by discount rate by enrollment

| Discount Budget | = | Pre-Discount Per Student Rate (Set by FCC) | X | Discount Rate | X | Enroll |

Budget Calculation Process

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

$70

Annual limit set by the FCC.
The current funding cap
Would support this figure.

Budget Calculation Process

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| Discount Budget | = | Pre-Discount Per Student Rate (Set by FCC) | X | Discount Rate | X | Enroll |

$70   X   **75%**

Your shared discount rate.
(Calculated in same manner as before.)

Budget Calculation Process

Discount Budget = Pre-Discount Per Student Rate (Set by FCC) X Discount Rate X Enroll

$70 X 75% X 10,000

Your total enrollment

Budget Calculation Process

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YOUR E-RATE GUIDES

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

$$= \$70 \times 75\% \times 10{,}000$$

$$\text{Discount Budget} = \$525{,}000$$

Budgets Vary by Discount Rate

Discount Rate

Discount Budget

$70 X **45%** X 10,000 = $315,000

↑

$70 X **75%** X 10,000 = $525,000

↓

$70 X **90%** X 10,000 = $630,000

Budgets Vary by Enrollment

			Enrollment	Discount Budget
$70	x 75% x		1,000 =	$52,500
$70	x 75% x		10,000 =	$525,000
$70	x 75% x		100,000 =	$5,250,000

Budgets Vary with E-rate Cap

Per Student Limit

Discount Budget

$70 x 75% x 10,000 = $525,000

$95 x 75% x 10,000 = $725,000

Sample Budget Calculation #1
Urban School District

- Pre-Discount Student Rate Ceiling: $115
- Pre-Discount Per Applicant Floor: $40,000
- Applicant: Enrollment = 4,000; Discount = 80%

		Pre-Discount Per Student Rate		Applicant Discount Rate		Applicant Enrollment		
Ceiling	=	$115	X	80%	X	4,000	=	$368,000

		Pre-Discount Applicant Floor		Applicant Discount Rate		Rural Remote Multiplier		
Floor	=	$40,000	X	80%	X	1	=	$32,000

Max of Ceiling and Floor calculations

Discount Budget   = $368,000

Sample Budget Calculation #2
Remote Rural School

- Pre-Discount Student Rate Ceiling: $115
- Pre-Discount Per Applicant Floor: $40,000
- Applicant: Enrollment = 125; Discount = 90%

		Pre-Discount Per Student Rate		Applicant Discount Rate		Applicant Enrollment		
Ceiling	=	$115	X	90%	X	125	=	$12,936

		Pre-Discount Applicant Floor		Applicant Discount Rate		Rural Remote Multiplier		
Floor	=	$40,000	X	90%	X	2	=	$72,000

Max of Ceiling and Floor calculations

Discount Budget   = $72,000

Understanding the FY2013
E-rate Fund Demand

Total Demand: $4.99B

$25 million

← Each square represents

$25 million of funding demand

(Approximately 200 squares = $4.99 billion of demand)

Total Demand: $4.99 Billion

The FY2013 E-rate funding cap is approximately $2.4 Billion

(96 squares = $2.40 billion funding cap)

The area outside the white box represents the difference between the demand and the funding cap.
(Approximately 104 squares = $2.60 billion difference)

By Priority Designation

Priority One
Telecommunications
and Internet

$2.71 B

Portion of Annual Cap: 114%

Priority Two
Internal Connections
and Basic Maint

$2.28 B

Portion of Annual Cap: 74%

FY2013 E-rate Demand $4.99 Billion
By Priority and Applicant Discount

Priority One
80% Disc.

$1.11 B
Cap: 47%

Priority One
70% Disc.

$0.58 B
Cap: 24%

Priority Two
90% Disc.

$1.76 B
Cap: 74%

Priority One
90% Disc.

$0.49 B
Cap: 21%

Priority One
60% Disc.
$0.27 B; Cap: 11%

50% Disc.
$0.14 B; Cap: 6%

40%
$0.11B
Cap: 5%

Priority Two
80% Disc.
$0.46 B; Cap: 19%

50%

70%

60%
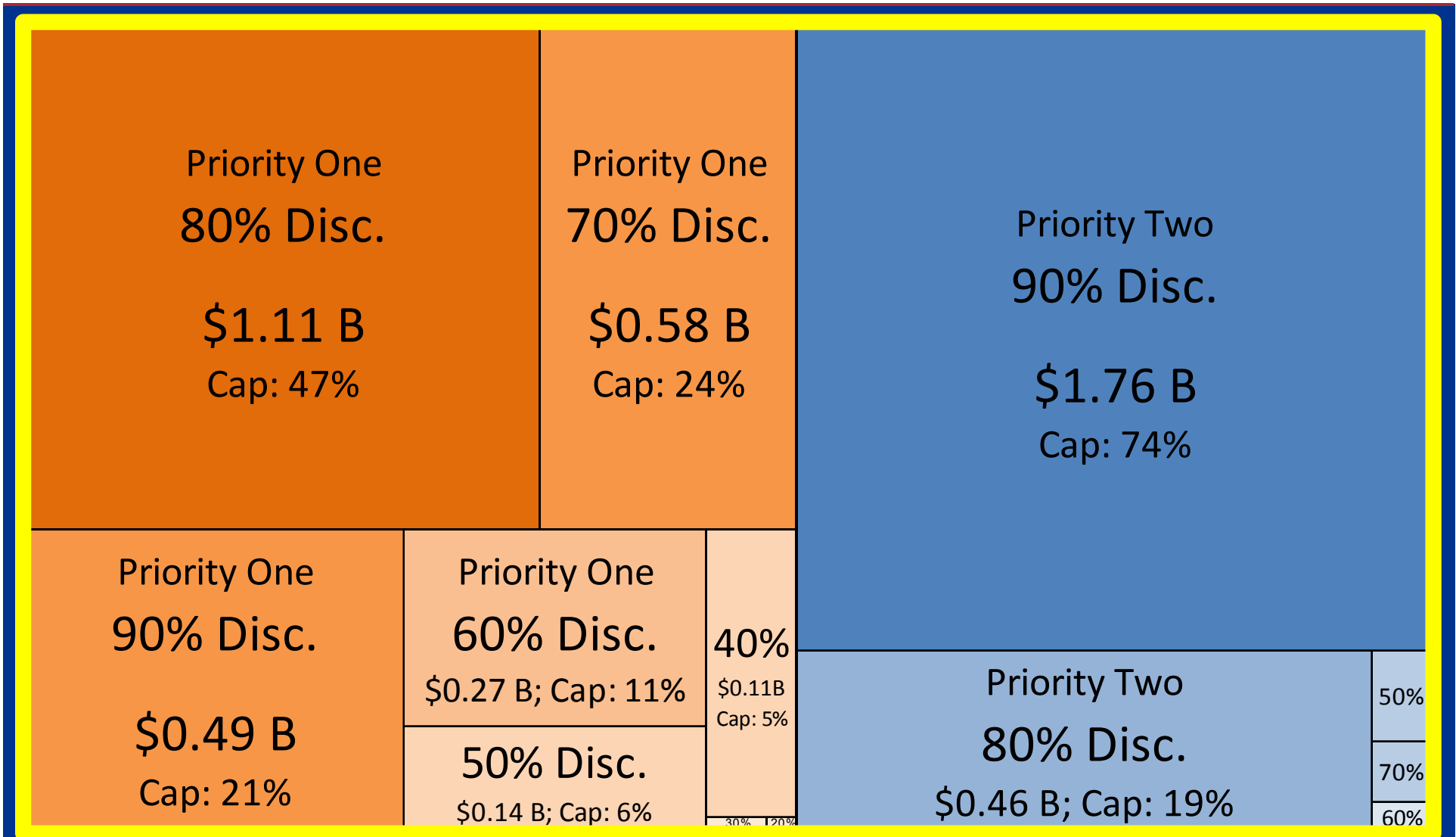
FY2013 E-rate Demand $4.99 Billion
By Service Provider Type

$2.18B

Traditional Telecommunications and Internet Providers

$33.96 / student
$84.8K / entity

n = 24,730
Cap: 91%

$0.31 B Cellular
$7.00 / student
$23.0K / entity
n = 13,312
Cap: 13%

$0.18B Non-trdtl Telco
$14.97 / student
$43.3K / entity
n = 3,903; Cap: 8%

$0.04B E-mail $2.42/student

$0.27 B Basic Maint.
$22.82/student
$68.1K / entity
n = 4,122 Cap: 11%

$2.01 B

Internal Connections Providers

$154.71 / student
$618.3K / entity

n = 3,229
Cap: 84%
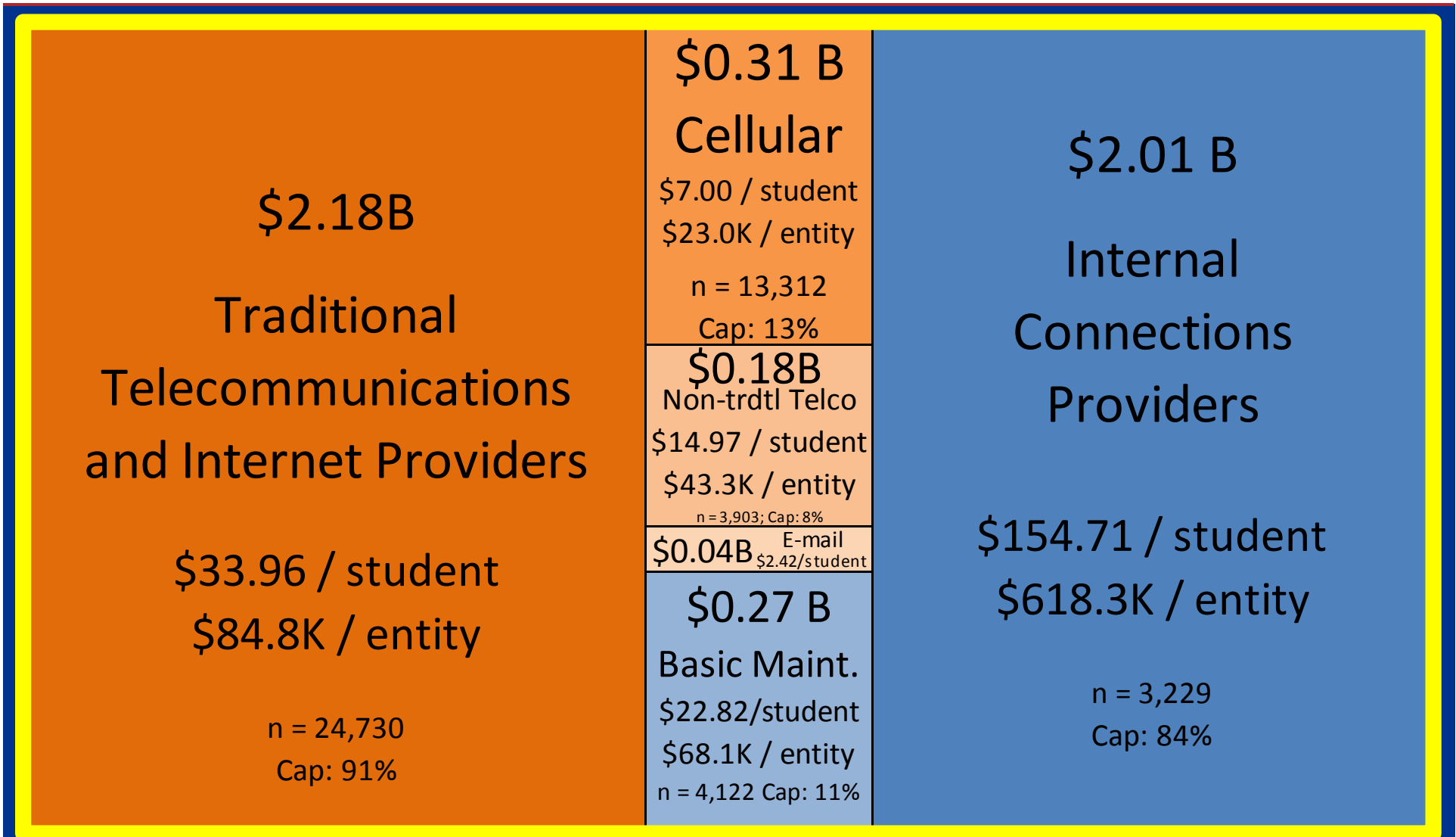
FY2013 E-rate Demand $4.99 Billion
By School District Size

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$0.61B
NYC Board of Ed
Enrollment 967,159

Enroll = 1.0M; n = 1
$626 / student
$605,746K / entity
Cap: 25%

$1.1B
Small Schools
Enrollment 100 to 2,499

Enroll = 9.6M; n = 14,546
$114 / student
$75K / entity
Cap: 46%

$0.60B
Mega Schools
Enroll 50,000+ excl. NYC

Enroll = 9.7M
n = 138
$62 / student
$4,368K / entity
Cap: 25%

$0.25B
State
Consortium

n = 38

$6,594K/
entity

Cap: 11%

$1.14B
Large Schools
Enrollment 10,000 to 49,999

Enroll = 16.2M; n = 861
$70 / student
$1,319K / entity
Cap = 48%

$0.97B
Medium Schools
Enrollment 2,500 to 9,999

Enroll = 14.4M; n = 3,047
$67 / student
$319K / entity
Cap = 41%

$0.06B Enroll <100; $42K/entity

$0.16B
Rural Remote
Enroll = 1.3M
n = 2,132
$118/student
$75K / entity
Cap: 7%

$0.11B
Library
n = 4,023
$27K / entity
Cap: 5%

FY2013 E-rate Demand $4.99 Billion
By Amount Requested Per Student

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$0.61B
NYC
Board of Ed
$626/student
83% Disc. School
n = 1; Cap: 25%
$605,746K / entity

$0.70B
$601 or more
Per Student
81% - 90%
Disc. Schools
n = 737; Cap: 30%
$955K / entity

$0.76B
$200 to $600
Per Student
81% - 90%
Disc. Schools
n = 1,689; Cap: 32%
$448K / entity

$0.37B
$200 or more
Per Student
80% or Lower
Disc. Schools
n = 844
Cap: 16%
$442K / entity

$0.25B
State
Consortium
n = 38
$6,594K/
entity
Cap: 11%

$1.02B
$199 or Less Per Student
80% or Lower Disc. Schools
n = 12,666; Cap: 43%
$80K / entity

$0.96B
$199 or Less Per Student
81% - 90% Disc. Schools
n = 2,656; Cap: 40%
$360K / entity

$0.06B Enroll <100 $42K/entity

$0.16B
Rural
Remote
Enroll = 1.3M
n = 2,132
$118/student
$75K / entity
Cap: 7%

$0.11B
Library
n = 4,023
$27K / entity
Cap: 5%

Alternative Solutions

Most could work in conjunction with
E-rate 2.0 proposed budget system

Eligible Services Changes

- Rationale
  - › Set min and/or max levels of technology support
  - › Stop funding out dated services (e.g. POTS)
  - › Stop "gold plating" (e.g. excess Internet bandwidth)
- Weakness
  - › Detailed definitions require on-going adjustment
  - › New standards add complexity to application review
  - › Opens door to gaming system. For example, if 100 MB connections were allowed, but Gigabit connections were not, an applicant might lease ten 100 MB lines.

Discount Matrix Changes

- Rationale
  - › Reduce the demand by decreasing discount rates.
  - › This will also encourage better bargain shopping.
- Weakness
  - › Discount rates cut in half to meet current demand
  - › Does not address insufficient E-rate funding or inadequate priority system
  - › Offers no protection against mega funding requests
  - › Hardest on poorest communities. For example,
    - 90% disc. => 80% disc.: *applicant payment +200% (double)*
    - 20% disc. => 10% disc.: *applicant payment +12%*
  - › Majority of 90% schools are not "big spenders"

Purchasing Exchanges

- Rationale
  - › Require schools to purchase goods and services via a cooperative buying exchange.
  - › Volume discounts and centralized decision making will yield better pricing and choices.
- Weakness
  - › Most already have access to state master contracts
  - › Consortium applications currently allowed
  - › Increasing demand driven primarily by additional services (i.e. higher bandwidth), not higher pricing
  - › Technology needs vary dramatically among schools