

Broadband in New York State

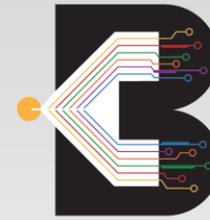


David Salway, Executive Director
NYS Broadband Program Office

NYS Broadband Program Office



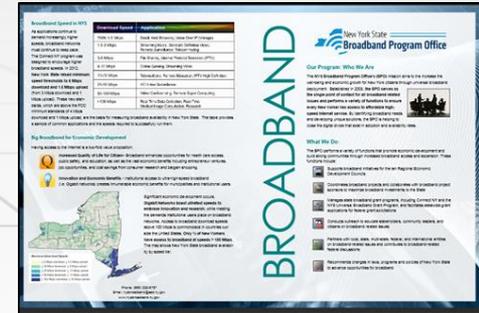
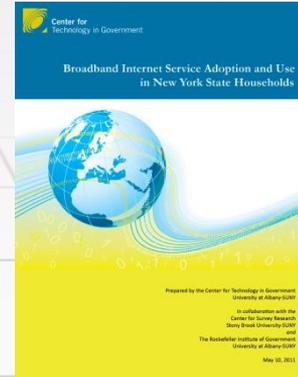
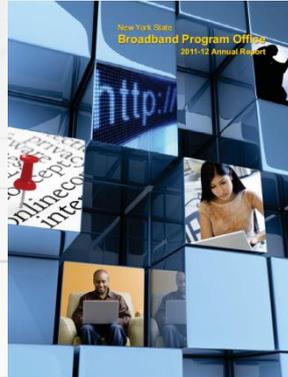
- **Single Point of Contact for NYS Broadband**
- **Regional Broadband Strategies** – Supports Broadband Initiatives for 10 REDC's
- **Policies** – Recommends Broadband Programs and Legislation
- **Funding** – Administers NYS Broadband Grant Programs
- **Partnerships** – Local, State and Federal Agencies
- **Outreach** – Public, Provider, and Other Stakeholders



New York State
BROADBAND
SUMMIT
2013
&
2014



Providing a path for New Yorkers to become digital citizens by increasing broadband adoption.





New York State Broadband Task Force Committees

Broadband Availability Task Force

- Identify challenges to broadband deployment and make recommendations to solve them
- Recommend ways to streamline policies and regulations
- Develop permitting and “make-ready” best practices for faster/less expensive deployments
- Encourage collaboration among stakeholders

Broadband Adoption Task Force

- Identify opportunities to address barriers to broadband adoption
- Develop standards & best practices to achieve increased use
- Encourage collaboration and commitments from broadband partners
- Leverage educational opportunities to increase broadband use

Broadband Partners

Essential to New York's Success

- **Federal Government – FCC / USDA / RUS/ NTIA**
 - Partner to Explore Opportunities for Funding
 - E-Rate Collaboration
- **State Government**
 - Public Services Commission – Streamline Regulations
 - Department of Transportation/Thruway Authority – Dig Once Policies
- **Educations/Libraries**
 - State Education Department (100 Mbps Speed Threshold)
 - School Districts / BOCES
 - Education Superhighway
- **NYS Legislature / Local Community Government**
 - Explore opportunities in Districts/ Municipalities
- **Provider Community**
 - Public/Private Partnerships to Expand Networks



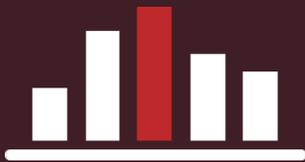
Broadband Funding

- \$68 Million Awarded for Broadband Projects during Governor Cuomo's Administration
- Largest Statewide Broadband Funding Commitment in the Nation
 - **CFA Round 3** – (December 2013) - \$11M Awarded to 3 Project Sponsors and North Country Broadband Fund (4 projects plus adoption program)
 - **Connect NY Broadband Grant Program** (March 2013) - \$25M to 18 project sponsors
 - **CFA Round 2** (December 2012) - \$6M
 - **CFA Round 1** (Dec. 2011) - \$2M





6.4 M or 30%
of New Yorkers
Do Not Use
Broadband



40 Upstate
counties cannot
access broadband
at speeds of 100
Mbps or higher

1M
New Yorkers
Lack Access

Broadband In NYS

Only **10%**
Upstate Counties
Can Access
100 Mbps



38%
of Adults
65 Years
and Older Do Not
Use the Internet



38% of New
Yorkers cannot
Access 50 Mbps
Speeds

147,884
Jobs Created in NYS
with a 7% Broadband
Adoption Increase

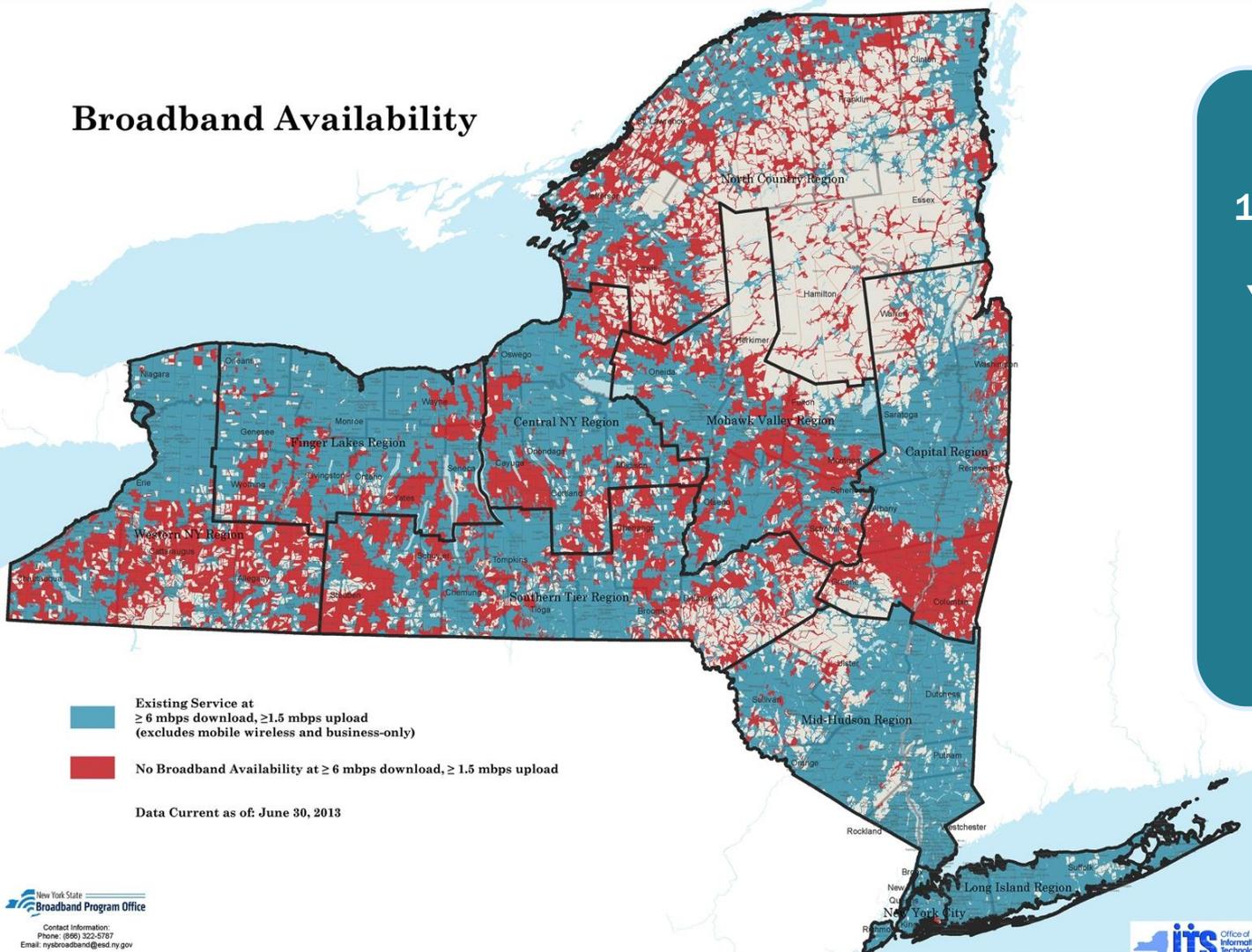
6,000
Miles of New Fiber will
be Deployed through
Connect NY



\$9.9B
Total Economic
Impact in NYS with a
7% Broadband
Adoption Increase



Broadband Availability



**1.01 Million or
5% of New
Yorkers Lack
Access to
Speeds of
6 Mbps
Download/
1.5 Mbps
Upload**

Existing Service at ≥ 6 Mbps download, ≥ 1.5 Mbps upload (excludes mobile wireless and business-only)

No Broadband Availability at ≥ 6 Mbps download, ≥ 1.5 Mbps upload

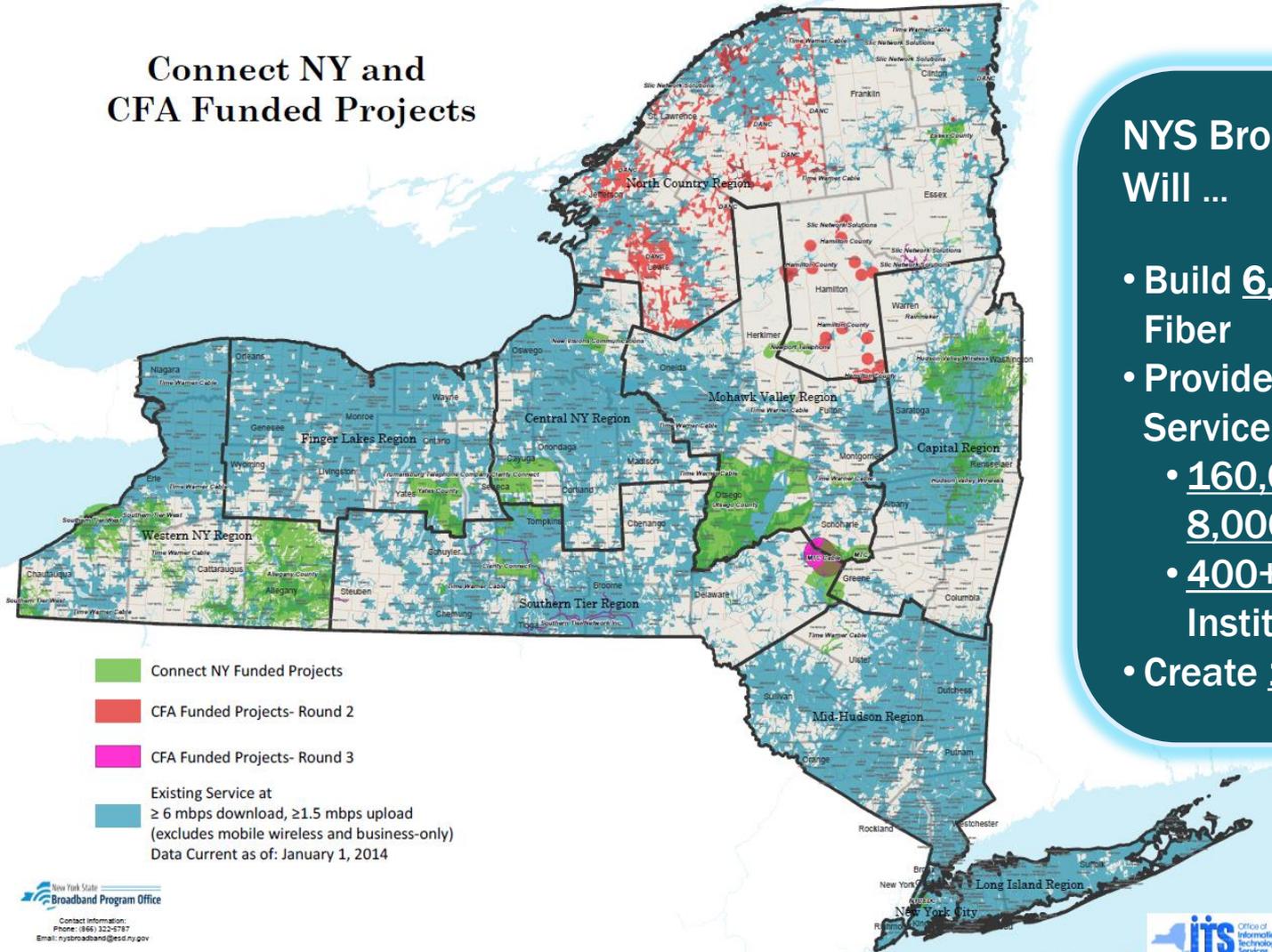
Data Current as of: June 30, 2013

NYS is Working to Close the Digital Divide by Finding a Solution to...

1. Connect Every Community
2. Provide Ultra-Fast Networks for Economic Development
3. Make Broadband Affordable and Provide Digital Literacy Training



Connect NY and CFA Funded Projects



- Connect NY Funded Projects
- CFA Funded Projects- Round 2
- CFA Funded Projects- Round 3
- Existing Service at
≥ 6 mbps download, ≥1.5 mbps upload
(excludes mobile wireless and business-only)
Data Current as of: January 1, 2014

NYS Broadband Funding Will ...

- Build 6,000 Square Miles of Fiber
- Provide High-Speed Internet Service to:
 - 160,000+ Households,
 - 8,000+ Businesses
 - 400+ Community Anchor Institutions
- Create 1,400 New Jobs

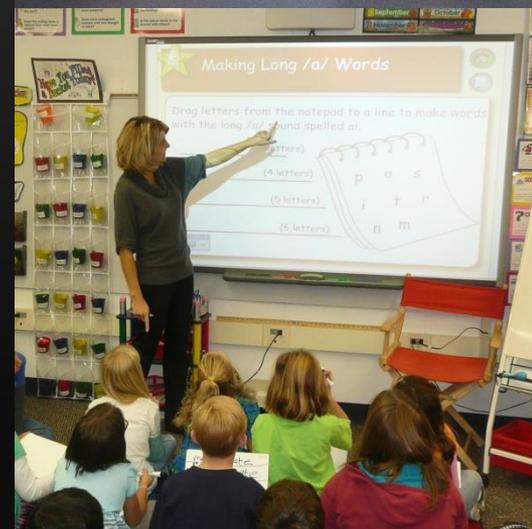
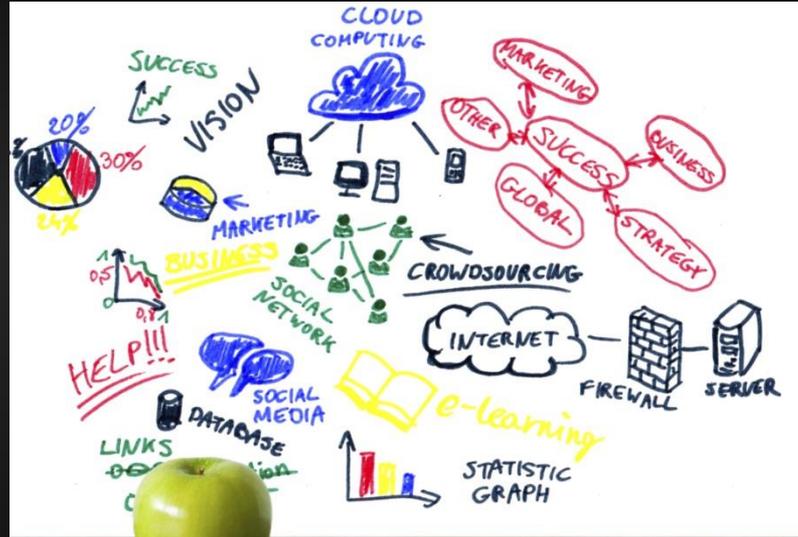
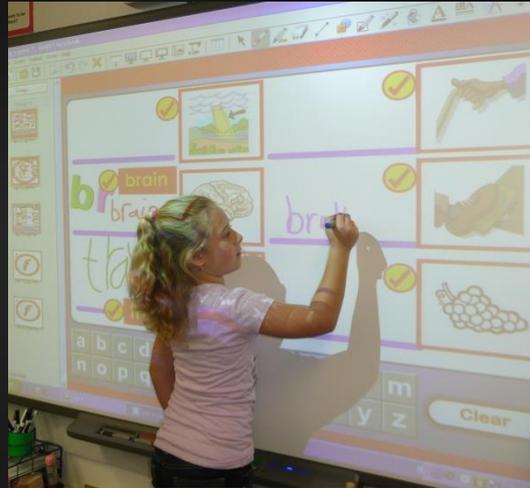
Broadband in NYS Schools





Traditional
Teaching

Today's Digital Learning Environment



Digital Learning

- Expands Educators' Instructional Capabilities
- Boosts Students' Research And Interactive Opportunities
- Facilitates Communication Between Educators And Parents
- Promotes Engaged And Individualized Decision-making Based On Student Needs And Abilities.
- Use Correlates to Higher Degrees of Education.



Education Transformation



- Educational Requirements and Standards are Rising
- Schools Cannot Keep Pace without Sufficient Broadband
- Demand growing 30%-50% per year
- Teachers Need High-Speed Broadband to Embrace Digital Learning



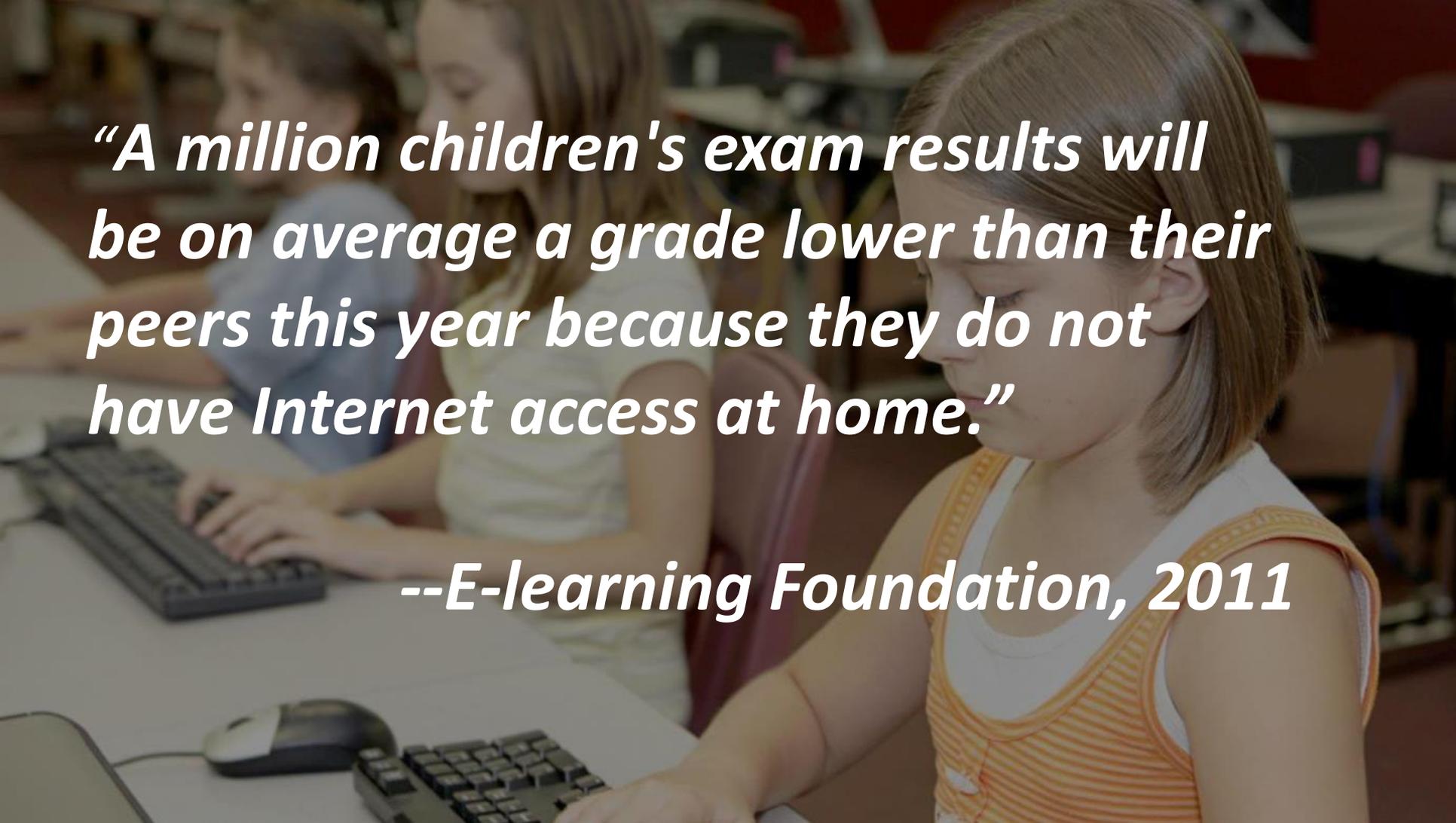


Education Extends Outside Of The School Building

- Broadband Access At Home
- Mobile Access On School Buses
- Access To Text Books, Parent Portals, Global Content And Information, And Experts

“In order to effectively integrate technology into the classroom, there needs to be sufficient access to the Internet in both schools and communities.”

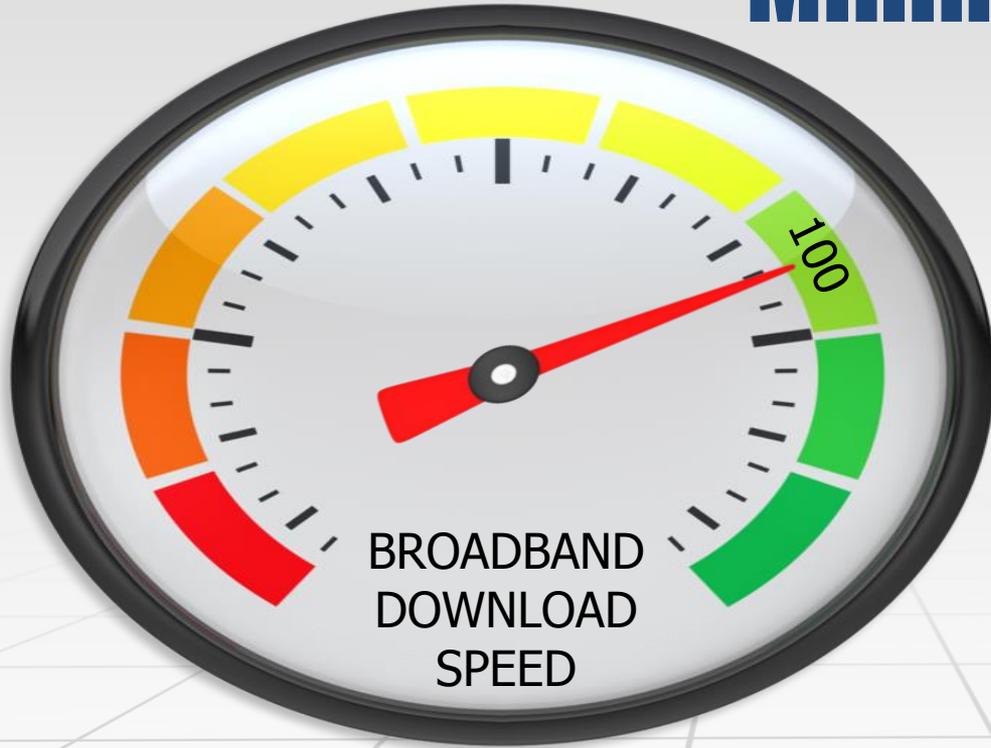
-- Governor Andrew M. Cuomo

A photograph of several children sitting at desks in a computer lab, focused on their work. The image is slightly blurred and has a semi-transparent dark overlay. The text is overlaid on the image in a white, bold, italicized font.

“A million children's exam results will be on average a grade lower than their peers this year because they do not have Internet access at home.”

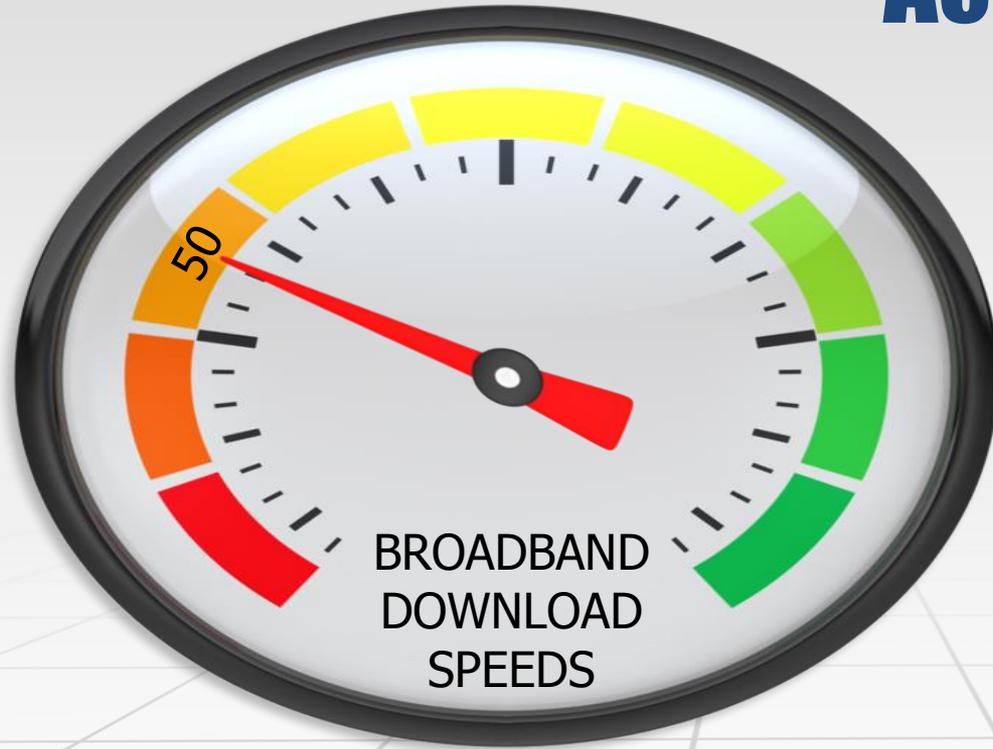
--E-learning Foundation, 2011

Minimum Broadband Speeds



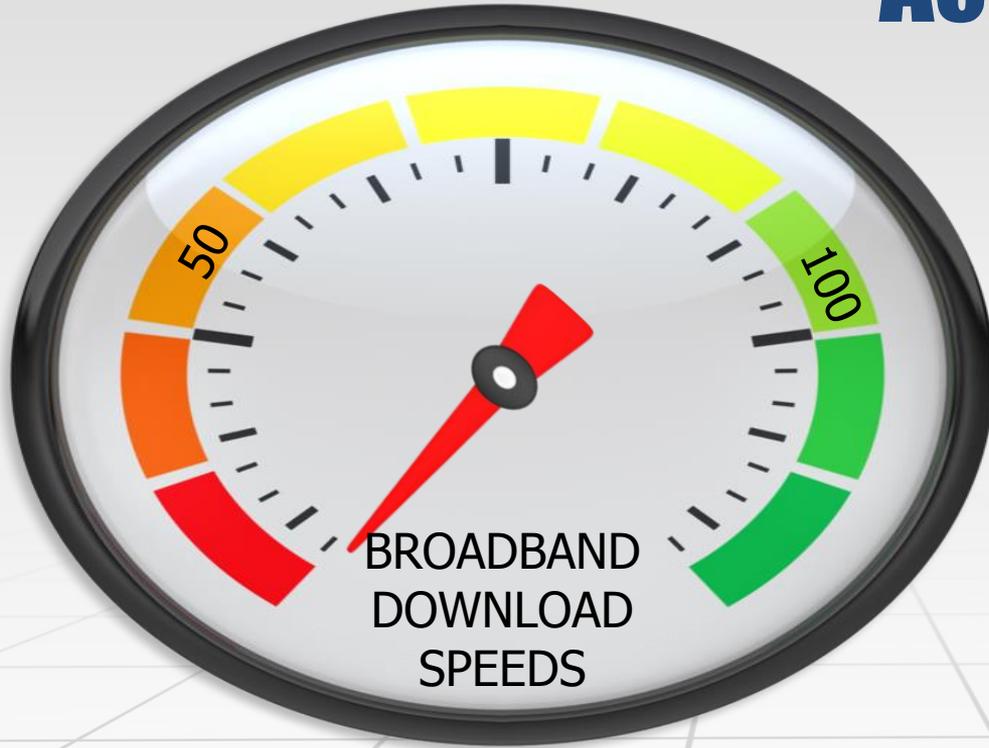
Schools Need
Speeds of at
Least 100
Mbps

Actual Broadband Speeds



More than Half
of NYS Schools
Report Speeds
of <50 Mbps

Actual Broadband Speeds



516 NYS
Schools
Report no
Broadband
Service

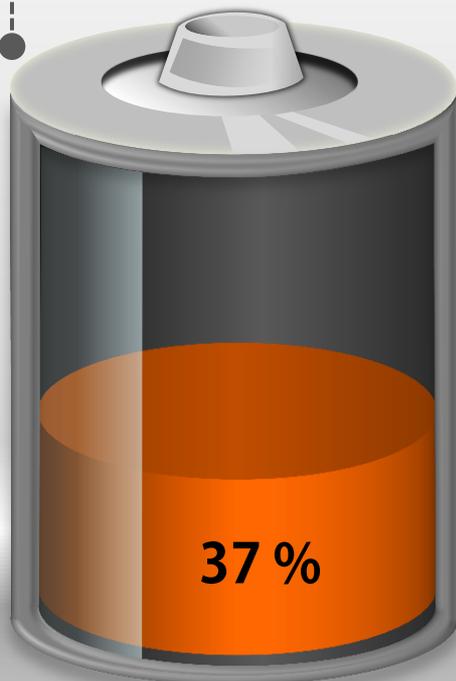
Broadband in NYS Schools

No Broadband



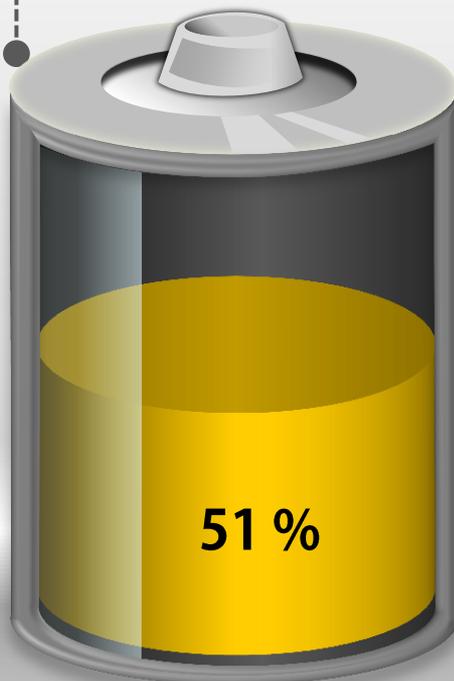
516 Schools

Under 25Mbps



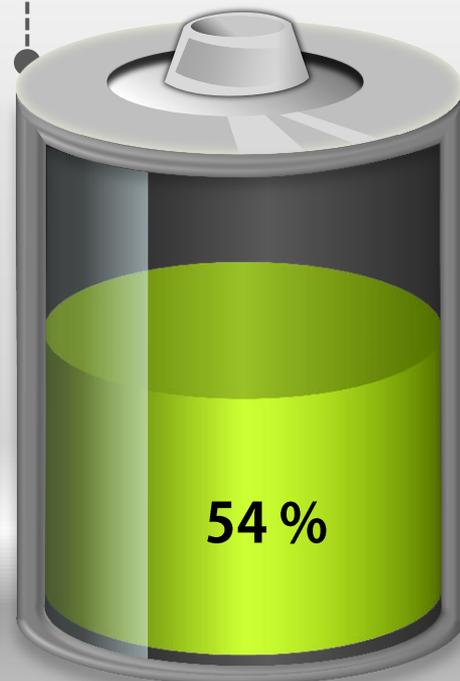
1657 Schools

Under 50Mbps



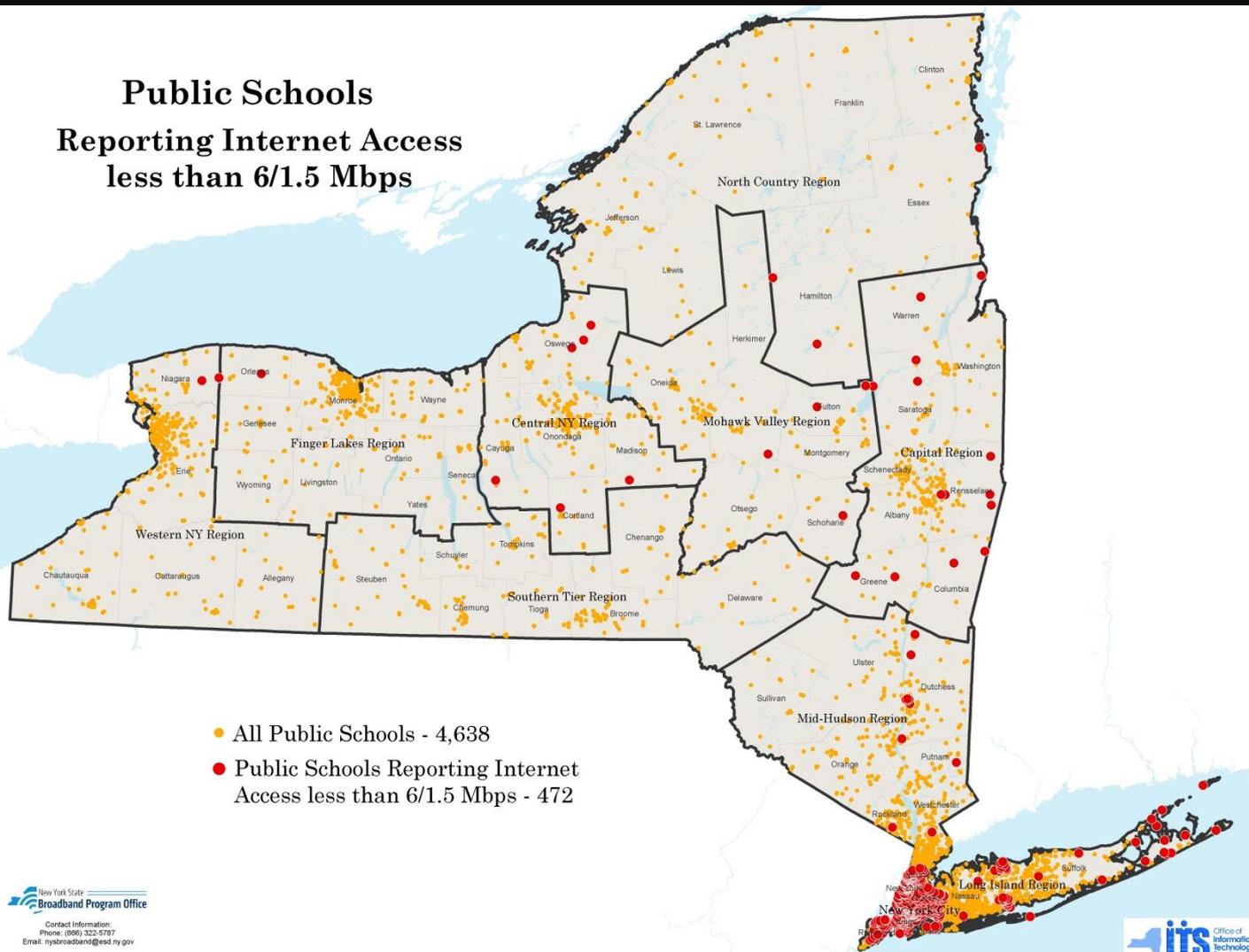
2248 Schools

Under 100Mbps

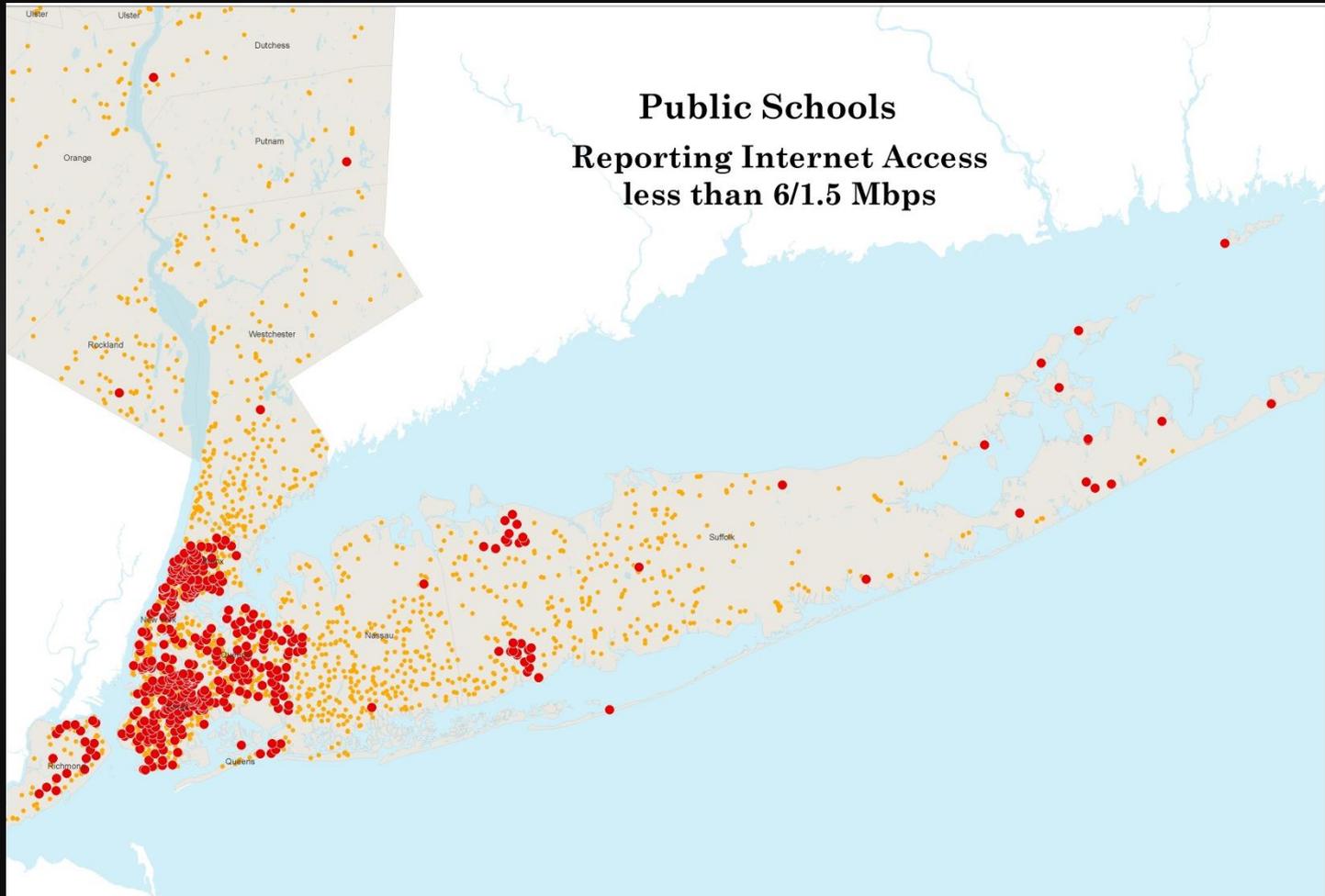


2390 Schools

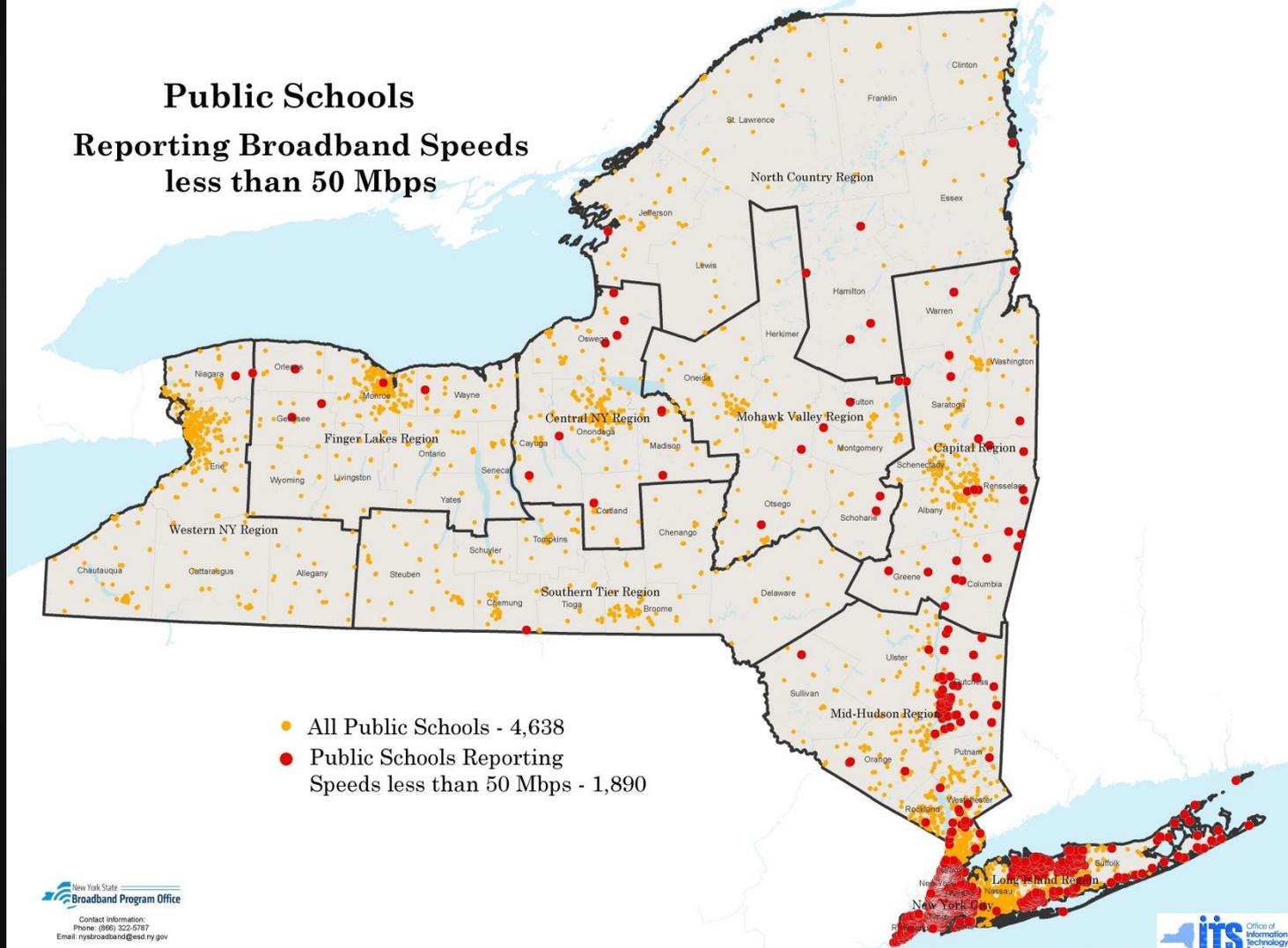
Public Schools Reporting Internet Access less than 6/1.5 Mbps



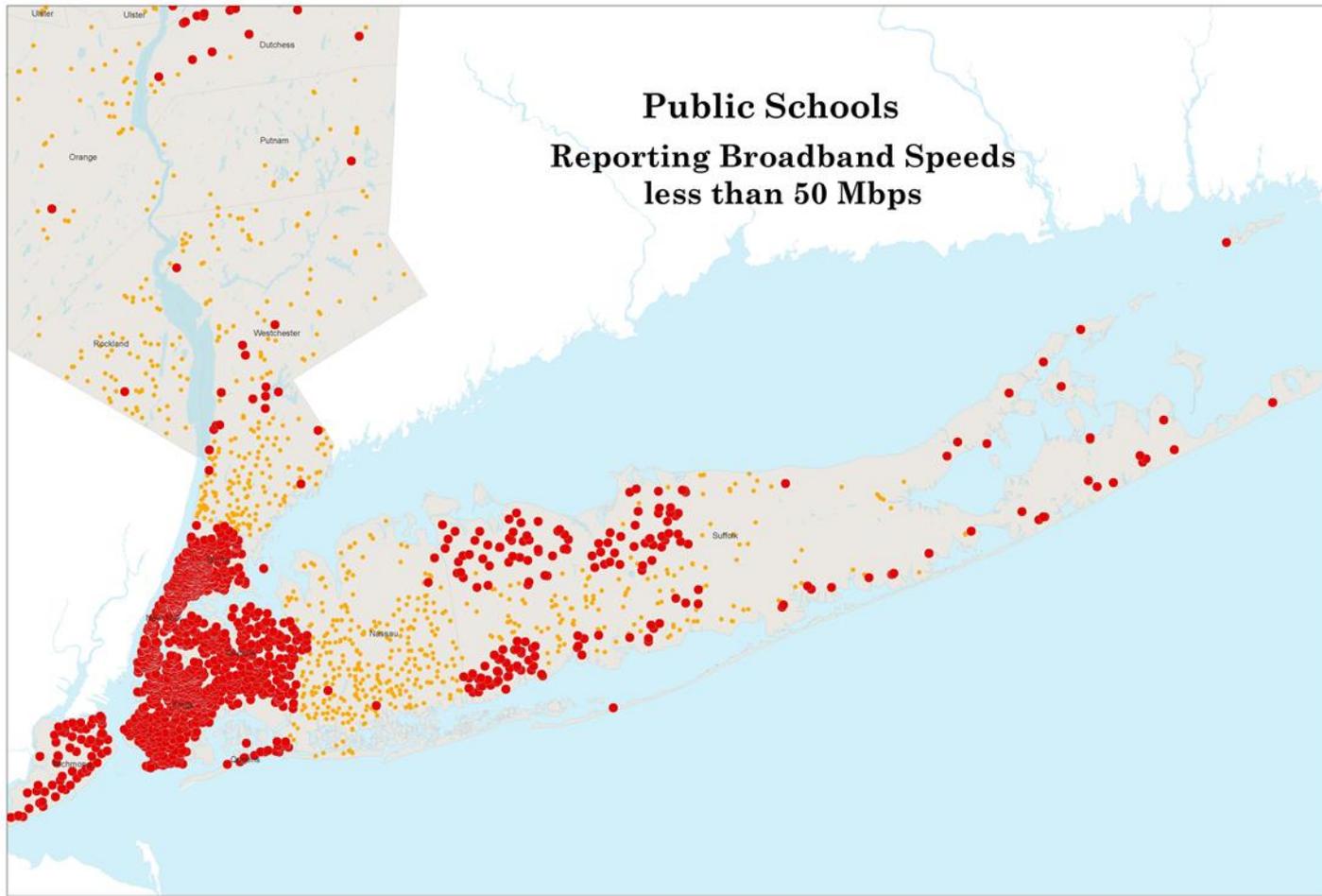
Public Schools Reporting Internet Access less than 6/1.5 Mbps



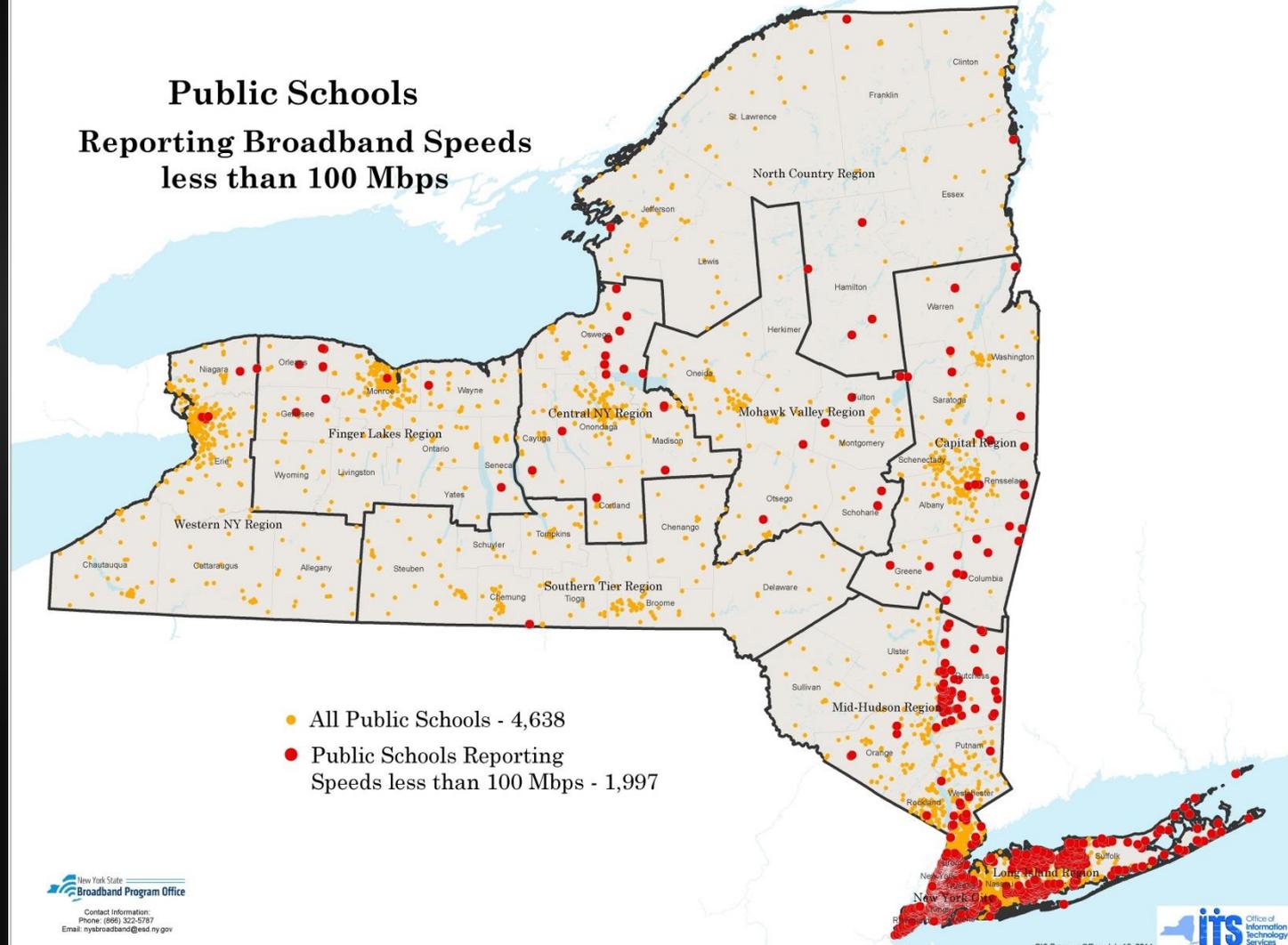
Public Schools Reporting Broadband Speeds less than 50 Mbps



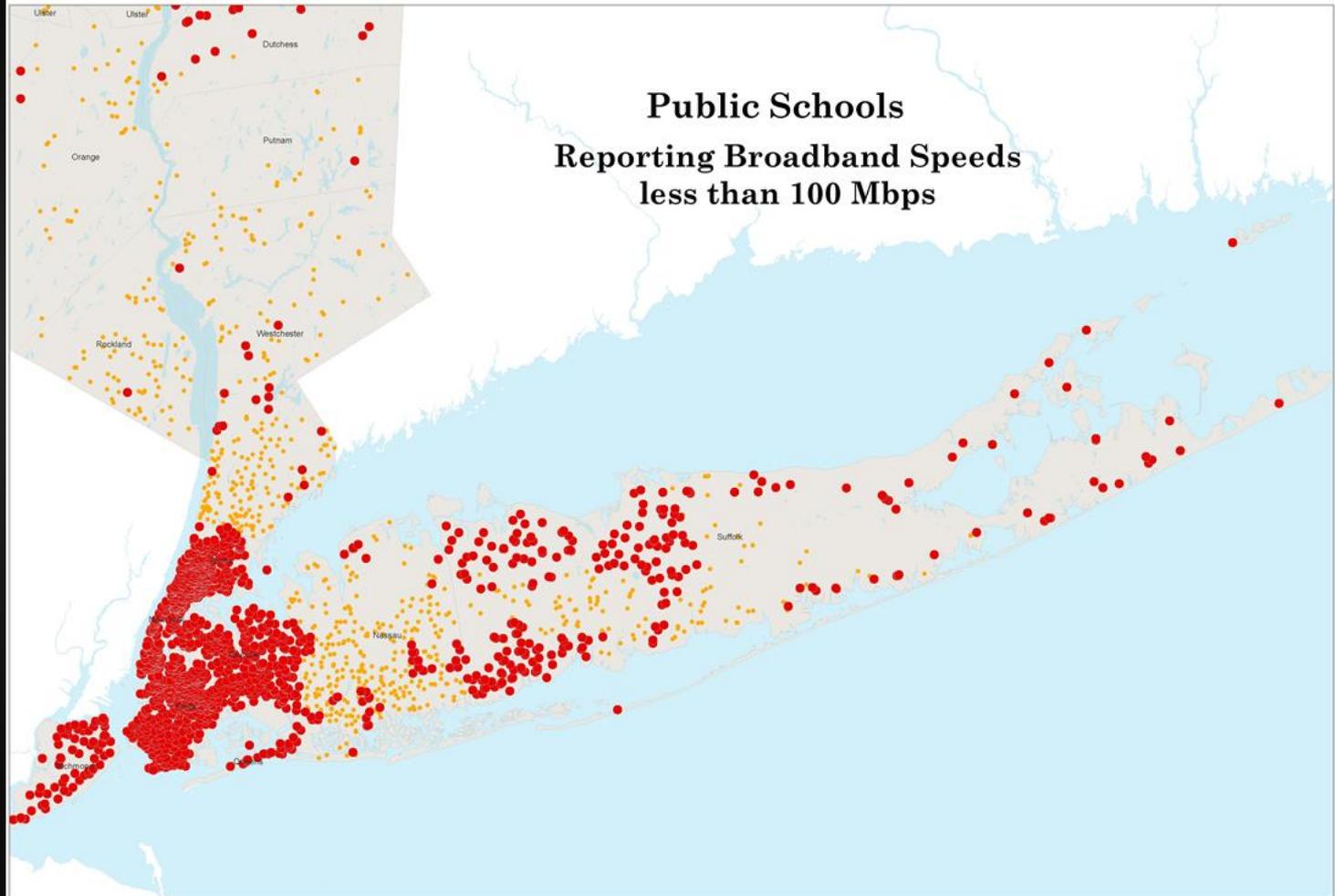
Public Schools Reporting Broadband Speeds less than 50 Mbps



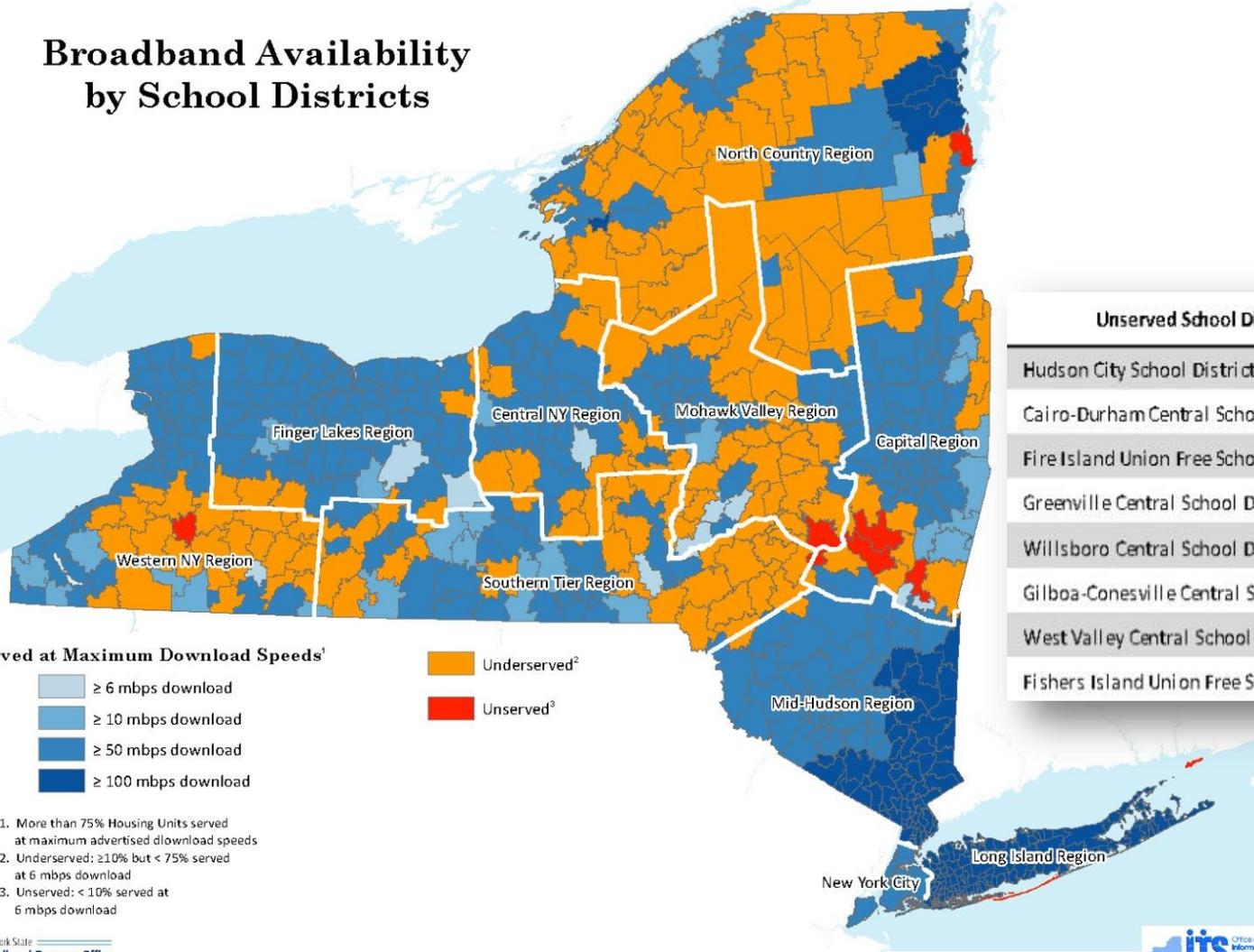
Public Schools Reporting Broadband Speeds less than 100 Mbps



Public Schools Reporting Broadband Speeds less than 100 Mbps



Broadband Availability by School Districts



Served at Maximum Download Speeds¹

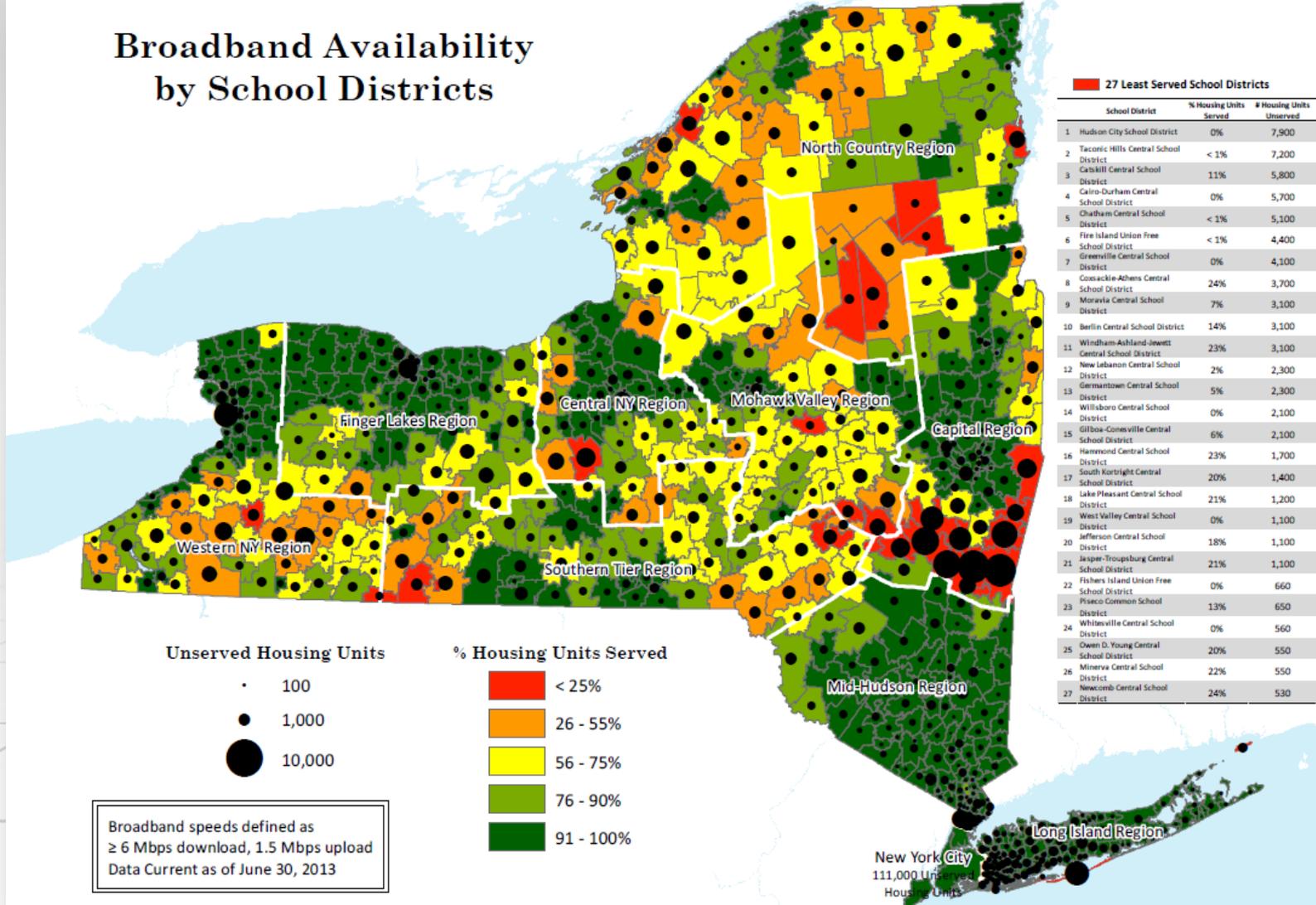
- ≥ 6 mbps download
- ≥ 10 mbps download
- ≥ 50 mbps download
- ≥ 100 mbps download

- Underserved²
- Unserved³

1. More than 75% Housing Units served at maximum advertised download speeds
2. Underserved: ≥10% but < 75% served at 6 mbps download
3. Unserved: < 10% served at 6 mbps download

Unserved School Districts	% Housing Units	
	Served	Unserved
Hudson City School District	6%	7,400
Cairo-Durham Central School District	0%	5,700
Fire Island Union Free School District	< 1%	4,400
Greenville Central School District	0%	4,100
Willsboro Central School District	< 1%	2,100
Gilboa-Conesville Central School District	6%	2,100
West Valley Central School District	< 1%	1,100
Fishers Island Union Free School District	0%	660

Broadband Availability by School Districts



**FREE &
REDUCED
LUNCH
STUDENTS**

67%



**NYS Schools reporting
broadband
at 100 Mbps+**



**NYS Schools with no
broadband or
service below NYS
definition**

OFFLINE

**FREE &
REDUCED
LUNCH
STUDENTS**

36%



Broadband in NYS Schools

Where we are

Over 56% of New York Schools Have Insufficient Broadband Capacity

- 31 Schools Report No Broadband Service
- 485 Schools Report Speeds Below Minimum Consumer Broadband Speeds
- 2390 Schools Have Inadequate Broadband Service (<100 Mbps)

Where we should be

NYS Board of Regents – Minimum 100 Mbps per school

ConnectEd – 2014-15: 100 kbps per student; 5 years: 1 Mbps per student

Education Superhighway – 100Mbps today; 1 Gbps by 2017

SETDA – at least 100 Mbps per 1000 students by 2014-15; at least 1 Gbps per 1000 students by 2017-18

Why Schools Can't Connect....

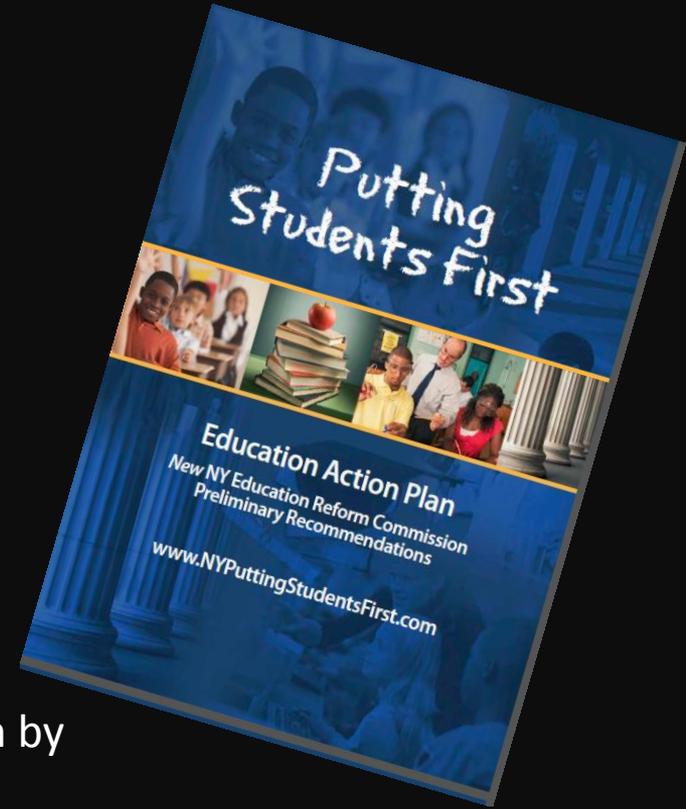
- Lack of Broadband Access - Fiber
 - To the School
 - Inside the School Building
- Affordability of Broadband
- Lack of Technical Resources



Governor Cuomo's Education Reform Commission – Action Plan

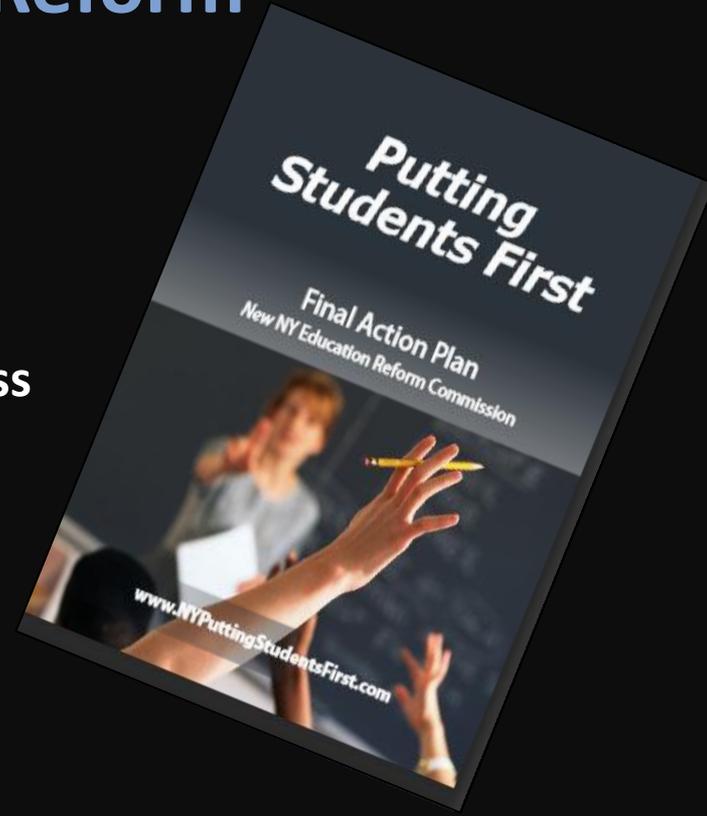
Recommendation 4: Improve The Educational Pipeline Through The Smart And Innovative Use Of Technology.

“New York’s public education system should lead the nation by finding the best ways to take advantage of technology to increase student achievement.”



Governor Cuomo's Education Reform Commission – Final Report

“The Commission Therefore Recommends That The Governor And The Legislature Invest In Access To Technology—from Computers To High-speed Broadband Deployment—as A Way To Complement Teaching And Academic Programs.”

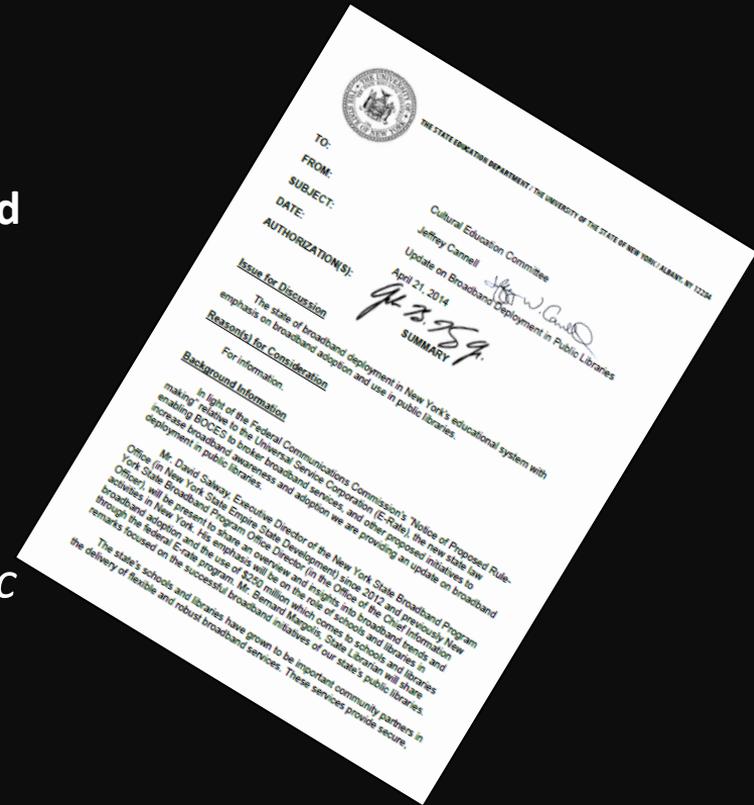


NYS State Education Department



NYS Board of Regents: Set **100 Mbps** as the speed threshold for broadband – (Statewide Learning Technology Plan in 2/2010 and reaffirmed in 12/2012 for the state's public libraries.

National Broadband Plan Comments: *“All public libraries, elementary and secondary schools, community colleges, and other public computer centers should be served today by sustainable broadband networks capable of **100 Mbps** to meet current needs.”*



The logo features a white silhouette of the state of New York on the left. To its right are three white curved lines of increasing size, resembling a Wi-Fi signal. Further right, the text "New York State" is written in a white sans-serif font, followed by two horizontal white lines. Below these lines, the words "Broadband Program Office" are written in a larger, bold, white sans-serif font.

New York State
Broadband Program Office

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