

Broadband:

*Where it is, where it ain't,
and where it oughta be*

Presentation for the
**National Association of
State Utility Consumer Advocates**

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Affordable, ubiquitous broadband – Getting from here to there

Topics:

- Progress on access
- Progress on price/speed
- Broadband market structure – implications for policy
- Measuring progress – broadband benchmarks
- Future progress – what should consumer advocates do?

The “vowels” of broadband policy –

AFFORDABLE • Income-dependent

EVOLVING SPEED • Rippling digital divide

INCLUSION • Accessible by elderly and disabled

OPEN INFORMATION • State and local agencies need data and maps

UBIQUITOUS AND URGENT • Delays mean missed opportunities

YET AN IMPERFECT MARKET • Duopoly, imperfect information –
government as catalyst, oversight

Broadband Attributes

Network externalities:

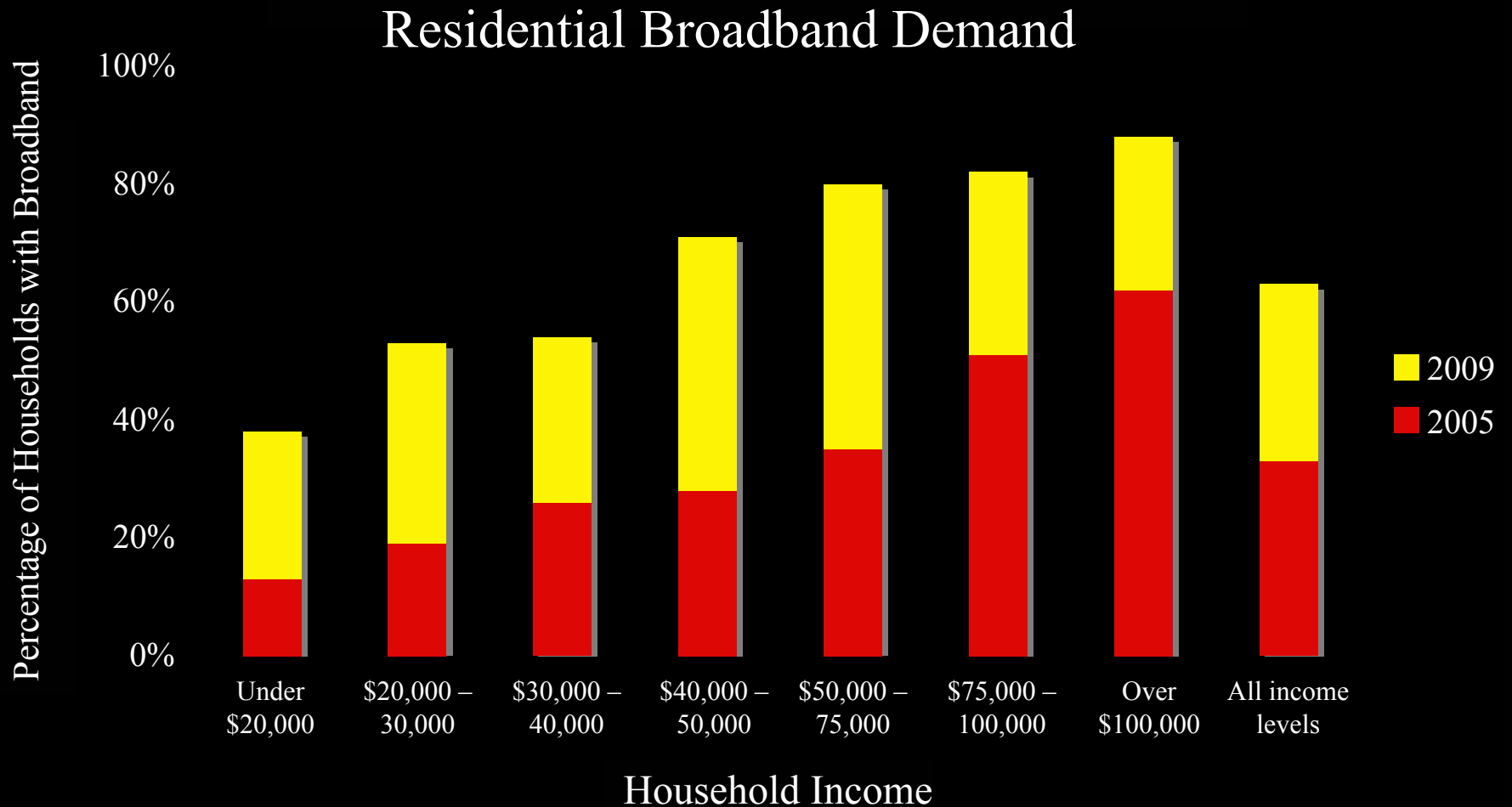
- As demand increases, value to all increases
- As a new consumer connects with broadband, the value is not only to that consumer, but to all others who are connected
- Therefore, public subsidy is appropriate
- Therefore, government role as catalyst is essential

Broadband Attributes

Broadband market:

- Easy headway is behind us
- Early/mid adopters already subscribe (those with sufficient disposable income, communities with infrastructure, customers with knowledge of how to benefit from the Internet)
- Now we're on to the more difficult territory – both for supply and demand

How are we doing as a society?



[Sources: Pew Internet & American Life Project Home Broadband Adoption 2008; Pew Internet & American Life Project Home Broadband Adoption 2009]

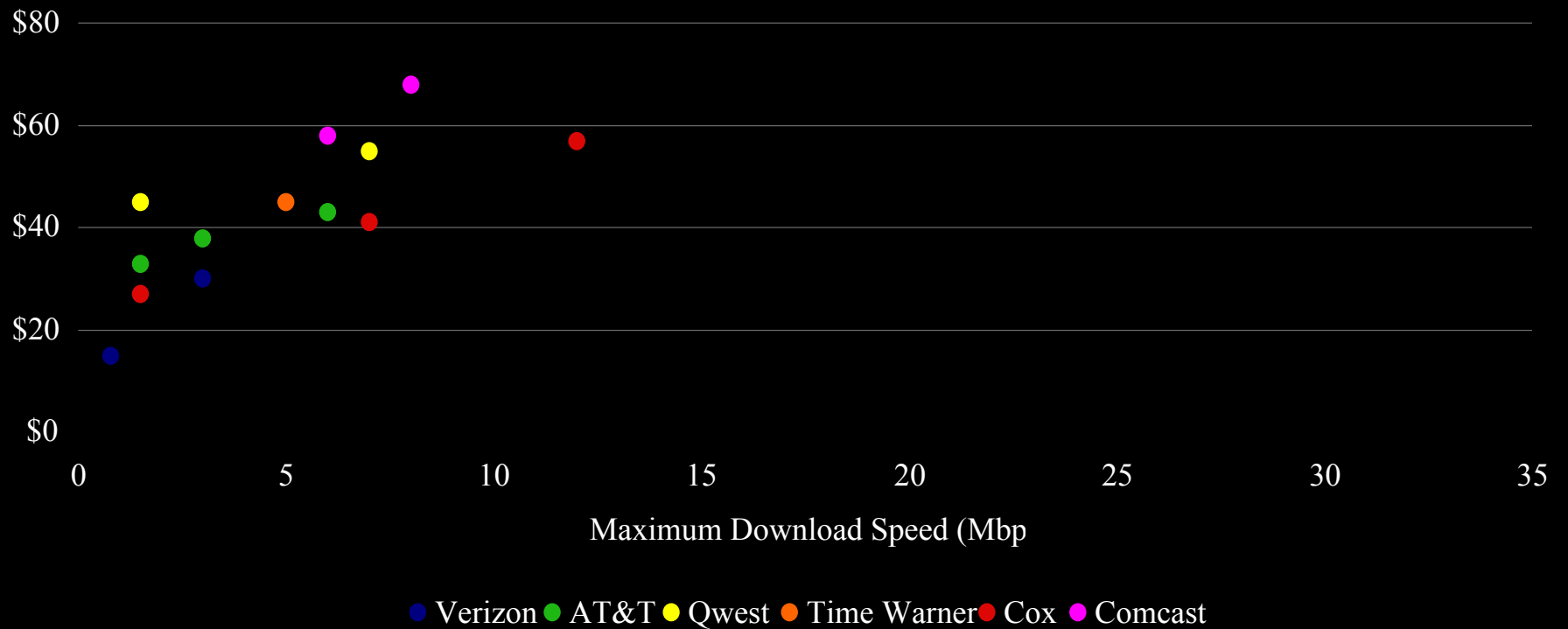
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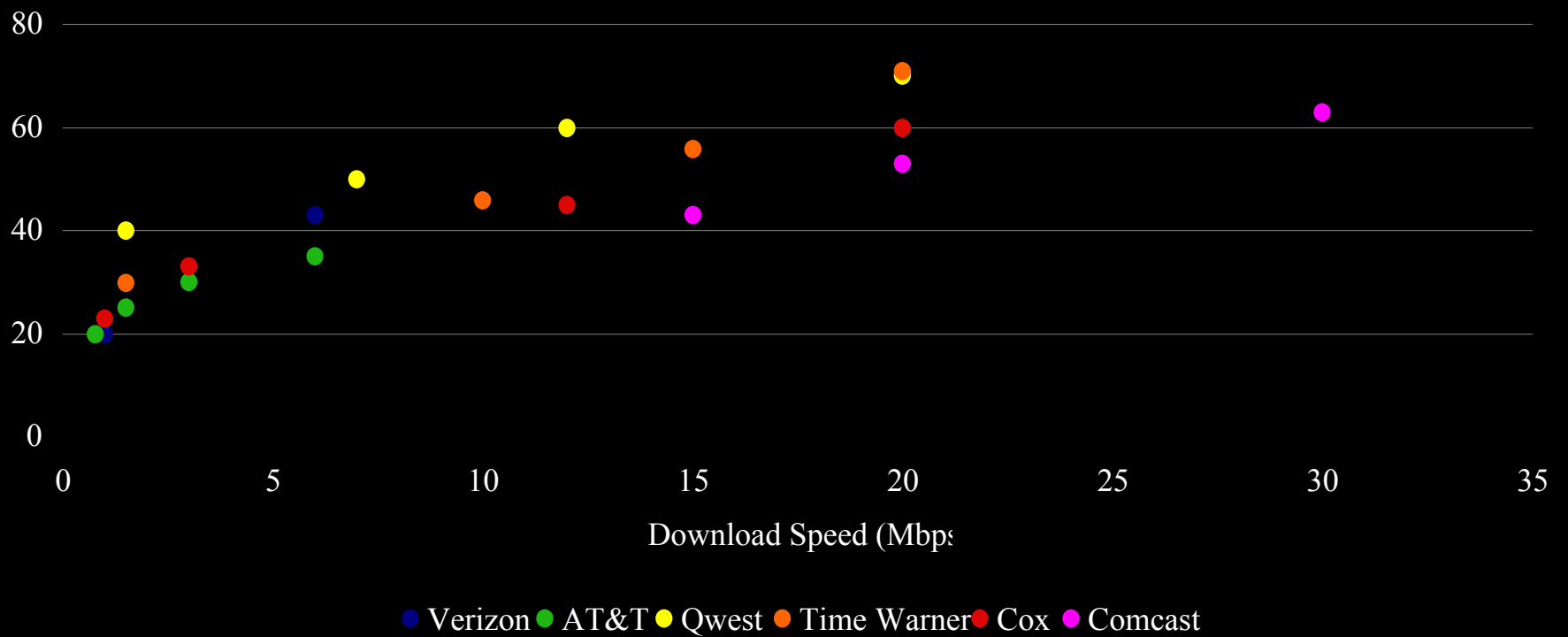
Reaching affordable prices at reasonable speeds

Download Speeds and Prices, 2007



Reaching affordable prices at reasonable speeds

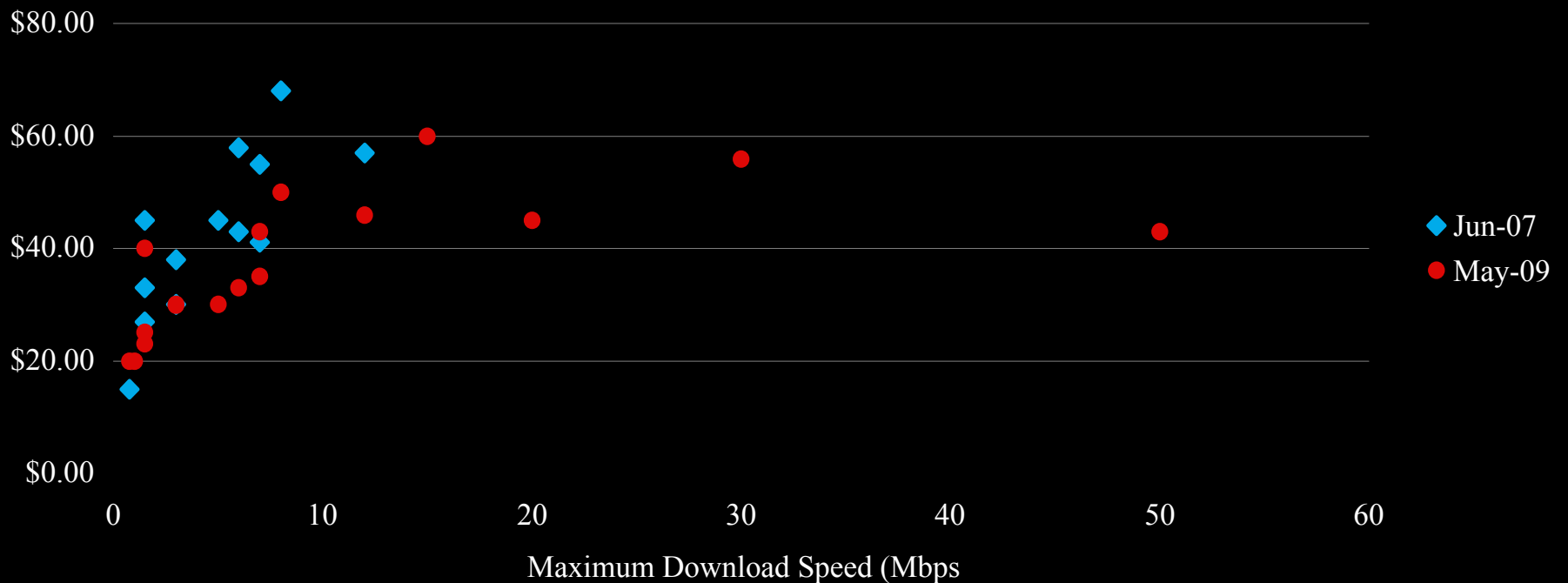
Download Speeds and Prices, 2009



[Figure excludes Comcast's 50 mbps service offered for \$139.95 monthly in 2009.]

Reaching affordable prices at reasonable speeds

Price Change Over Two Years, 2007–2009



[Figure excludes Comcast's 50 mbps service offered for \$139.95 monthly in 2009.]

How do we measure progress?

- First, define the goal: ubiquitous, accessible, affordable broadband at reasonable and increasing speeds
- Next, define major broadband benchmarks
- Then, use benchmarks and maps to measure progress on a disaggregated basis – with data layers for geography, speed, price and socioeconomic factors

Measuring Broadband Speed and Availability

When is broadband not broadband?

- When it is too slow

Yet, a slow broadband is better than no broadband:

- Deploying broadband to an unserved community is better than upgrading slow-speed communities

When can broadband NOT be considered available?

- If it's not *affordable*, it's not available
- If it's not *accessible*, it's not available

Measuring Broadband Speed and Availability – “Form 477 Order”

Old Reporting	New Reporting
Broadband service providers reported subscribership aggregated at the state level	Wireline, Terrestrial Fixed Wireless, and Satellite broadband service providers report subscribership by Census Tract (Mobile Wireless Broadband providers continue to report statewide totals)
Download speeds only	Download and upload speeds
<p><i>Broadband speed tiers:</i></p> <p>200 kbps - 2.5 mbps</p> <p>2.5 mbps - 10 mbps</p> <p>10 mbps - 25 mbps</p> <p>25 mbps - 100 mbps</p> <p>100+ mbps</p>	<p><i>Broadband speed tiers:</i></p> <p>200 kbps - 768 kbps</p> <p>768 kbps - 1.5 mbps</p> <p>1.5 mbps - 3 mbps</p> <p>3 mbps - 6 mbps</p> <p>6 mbps - 10 mbps</p> <p>10 mbps - 25 mbps</p> <p>25 mbps - 100 mbps</p> <p>100+ mbps</p>

How do we measure progress?

Benchmarks:

- Supply: price, carriers, and upload/download speeds
- Demand: socioeconomic factors and geography

Broadband Market Structure: Getting from Here to There

Market Attribute	Policy
Imperfect information about broadband capabilities and use (consumers)	Education, training (stimulus monies – ARRA)
Imperfect information about the existing broadband infrastructure and prices (suppliers/government)	Detailed mapping, data gathering, and data analysis (e.g., WC Docket 07-38, <i>Form 477 Order</i> , Broadband Data Improvement Act)

Broadband Market Structure: Getting from Here to There

Market Attribute	Policy
Demand barriers	Provide specialized equipment and training to ensure inclusive communications Subsidize prices of broadband and ancillary features (antivirus, PC, training)
Underserved or unserved areas	Use USF funds for broadband rather than for POTS (FCC's USF proceeding) Regulatory commitments (FairPoint, CenturyTel, Frontier)

Broadband Market Structure: Getting from Here to There

Market Attribute	Policy
Duopoly	Monitor prices, quality, and network management practices; reclassify broadband as telecommunications services; require open access (FCC, states)
Network Externalities As the number of broadband connections increase, the value of connectivity for any individual consumer increases	Subsidize access; make access affordable; ensure ubiquitous availability

Broadband Market Structure: Getting from Here to There

Market Attribute	Policy
Exorbitant special access rates	Resolve pending investigation of exorbitant rates of return; lower rates (WC Docket No. 05-25)
Consumer protection	Privacy, etc. (WC Docket No. 05-271)
Fragmented policy making	National Broadband Plan GN Docket No. 09-51

What should consumer advocates do?

Speak up early and often for:

- Affordable prices
- Enforceable broadband commitments
- Training, equipment, subsidies for low income, elderly, disabled
- Comprehensive data collection, analysis and mapping by public agencies
- Public data
- Unambiguous legal authority by states to obtain data from industry
- Net neutrality and open networks



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