Telecom Trends & Issues

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August, 2003
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Discussion Outline

- Trends in Telecommunications
- Major Issues for Rural Carriers
  - Universal Service
  - Broadband Development
  - Intercarrier Compensation
- Rural Advocacy Issues
- Conclusion

Revenue Trends

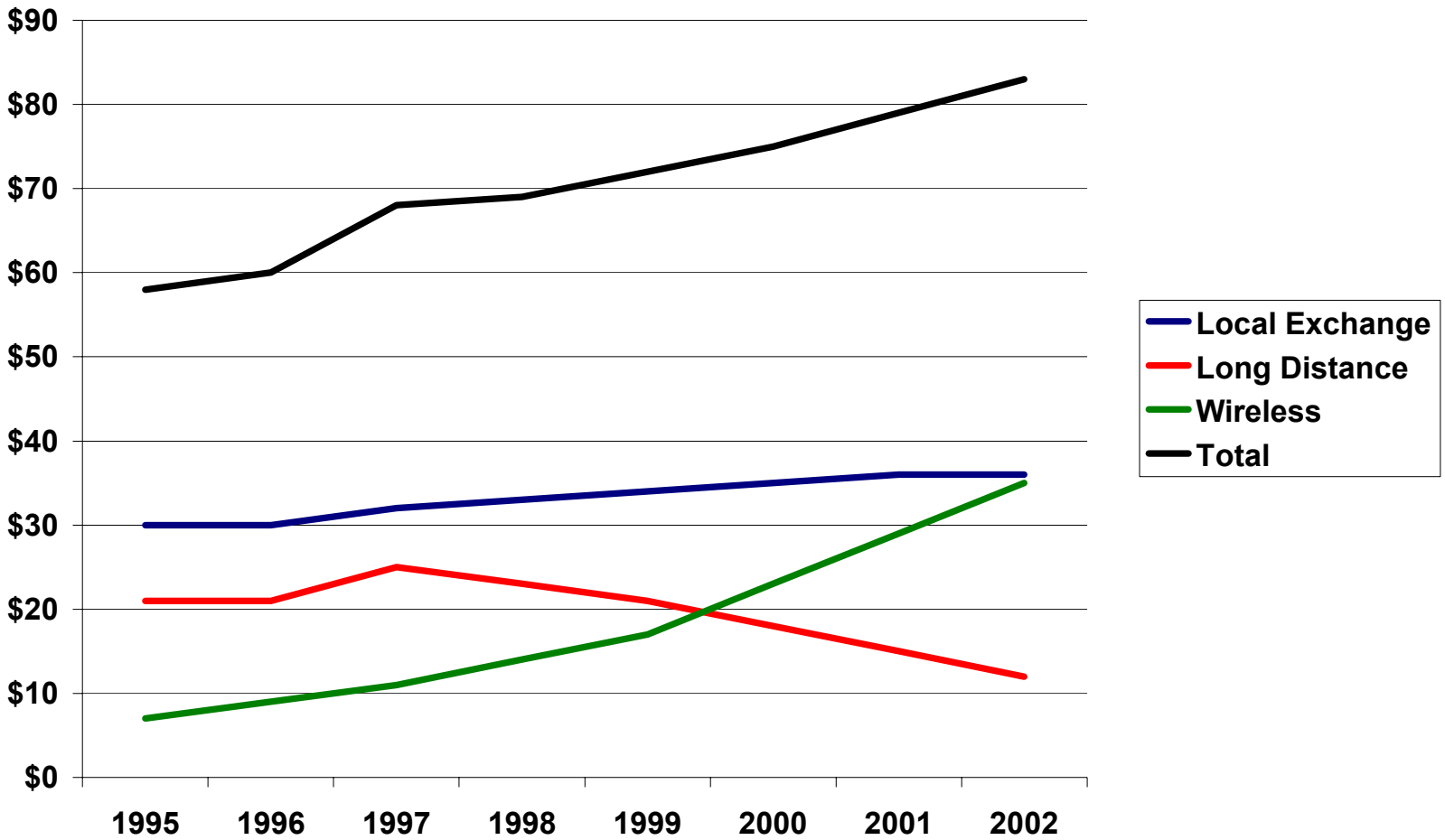
	(Dollars in Billions)				
	ILECs	**CLECs**	**Payphone**	**Wireless**	**IXCs**
1995	$102.8	$0.6	$0.3	$18.6	$76.4
1996	107.9	1.0	0.4	25.9	86.9
1997	105.1	1.9	0.9	33.0	89.6
1998	108.2	3.3	1.1	37.0	96.0
1999	112.2	5.7	1.2	50.2	98.4
2000	116.2	9.8	1.0	63.3	101.4
2001	117.9	13.0	0.8	74.6	93.7
2002	109.5	16.6	0.2	83.9	82.2

Line Trends

	Lines in Millions	
	Wireline	**Wireless**
1995	158	34
1996	165	44
1997	174	55
1998	181	69
1999	187	86
2000	188	109
2001	180	128
2002	170	141

Customer Bill Trends

Average Monthly Household Expenditure By Type of Carrier



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Technology Substitution

From	To
Local Toll Pay Phone	Wireless
800 Service FAX	Internet
2nd Lines	Wireless Broadband

Percentage of CLEC Lines

	Lines		Percent
	ILEC	CLEC	CLEC
Dec-99	181M	8.2M	4.30%
Dec-00	178M	14.9M	7.70%
Dec-01	172M	19.7M	10.30%
Dec-02	163M	24.8M	13.20%

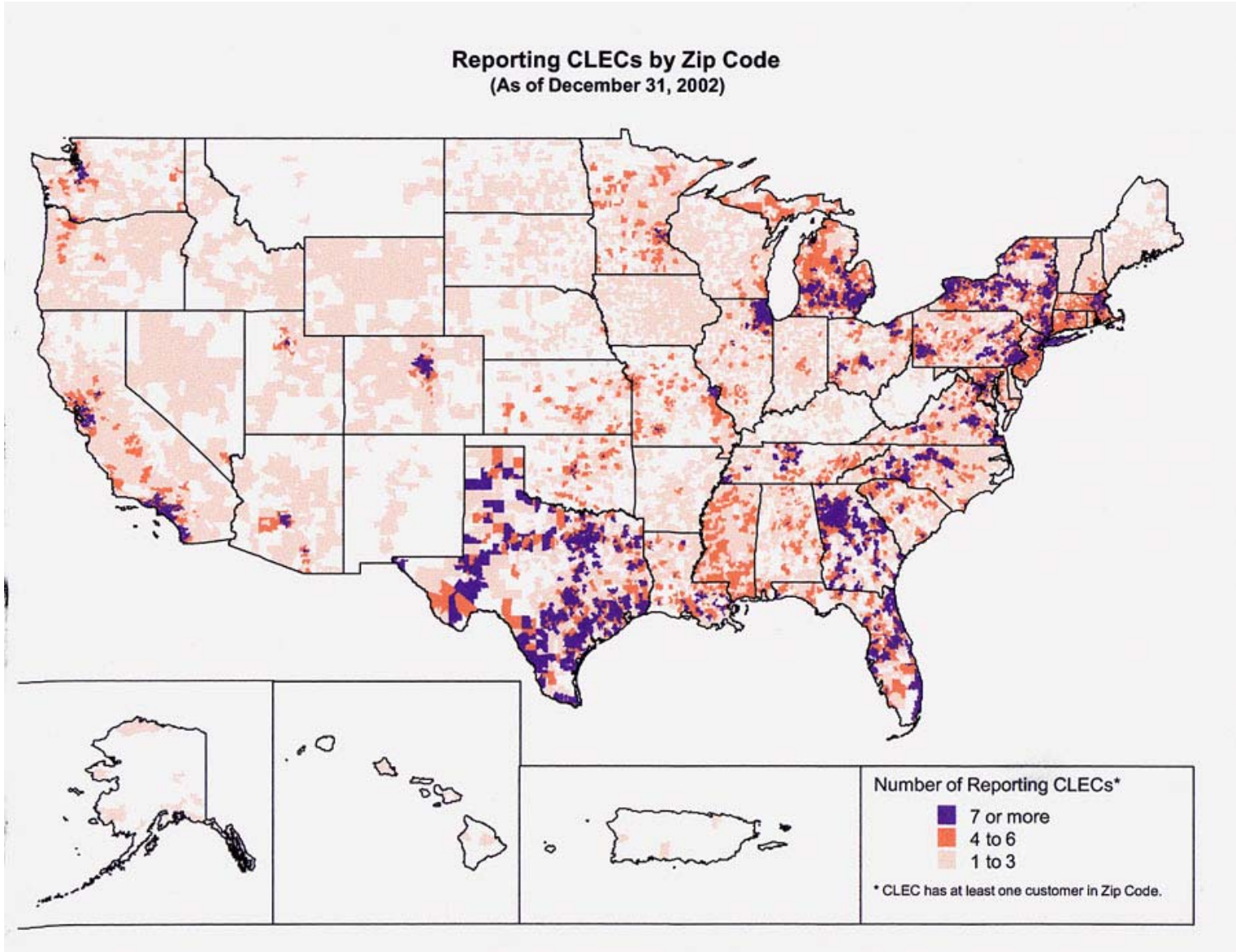
Method of Serving

	Lines in Thousands	Percentage
Facilities	6,396	25.8%
UNE-P	13,709	55.4%
Resale	4,662	18.8%

Number of CLECs

Number of CLECs	% of Zip Codes		% of Households	
	Dec-01	Dec-02	Dec-01	Dec-02
0	38.0%	31.3%	8.8%	5.8%
1 to 3	34.5%	36.5%	29.0%	23.5%
4 to 6	14.4%	15.9%	26.5%	25.1%
7+	13.1%	16.3%	35.6%	45.5%

Number of CLECs



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High Speed Lines

Type of Technology	Number of Lines (Thousands)			
	Dec-99	Dec-00	Dec-01	Dec-02
ADSL	370	1,977	3,948	6,472
Other Wireline	610	1,021	1,079	1,216
Cable	1,411	3,583	7,060	11,369
Fiber	312	376	494	548
Satellite/MMDS	50	112	213	276
Total	2,753	7,069	12,794	19,881

Number of High-Speed Providers

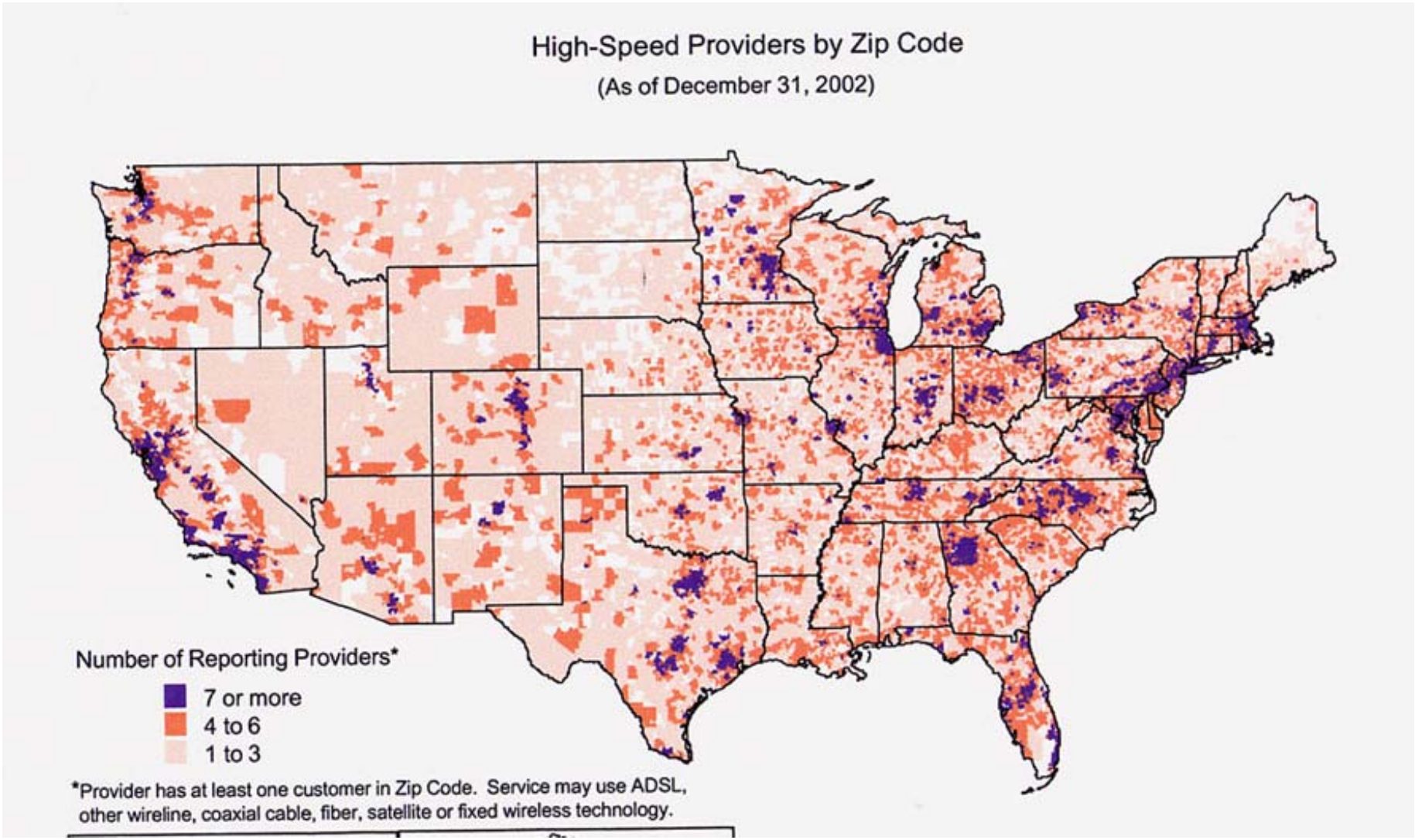
Number of Providers	% of Zip Codes			
	Dec-99	Dec-00	Dec-01	Dec-02
0	40.0%	26.8%	20.6%	12.0%
1 to 3	50.0%	52.0%	48.1%	48.0%
4 to 6	8.7%	13.0%	19.4%	22.0%
7+	1.3%	8.2%	11.9%	17.0%

High Speed Providers

Type of Technology	Number of Lines (Thousands)				Percent of Lines		
	RBOC	Other ILEC	Non-ILEC	Total	RBOC	Other ILEC	Non-ILEC
ADSL	5,585	572	315	6,472	86.3%	8.8%	4.9%
Other Wireline	756	144	316	1,216	62.2%	11.8%	26.0%
Coaxial Cable	*	*	11,349	11,369	*	*	99.8%
Other	*	*	761	825	*	*	92.3%
Total	6,341	716	12,741	19,882	32.2%	3.7%	64.1%

* Proprietary data

Number of High-Speed Providers



Major Industry Trends

- Explosive Growth in Wireless
- Declines in Other Areas
  - Long Distance
  - Pay Phones
  - 2nd Lines
- Increasing Burdens From Universal Service
- Emergence of Local Competition
- The Importance of the Internet
- Intercarrier Compensation Issues
- The "Digitalization" of Everything
  - It is truly becoming a world of "0s and 1s"

Industry Dynamics

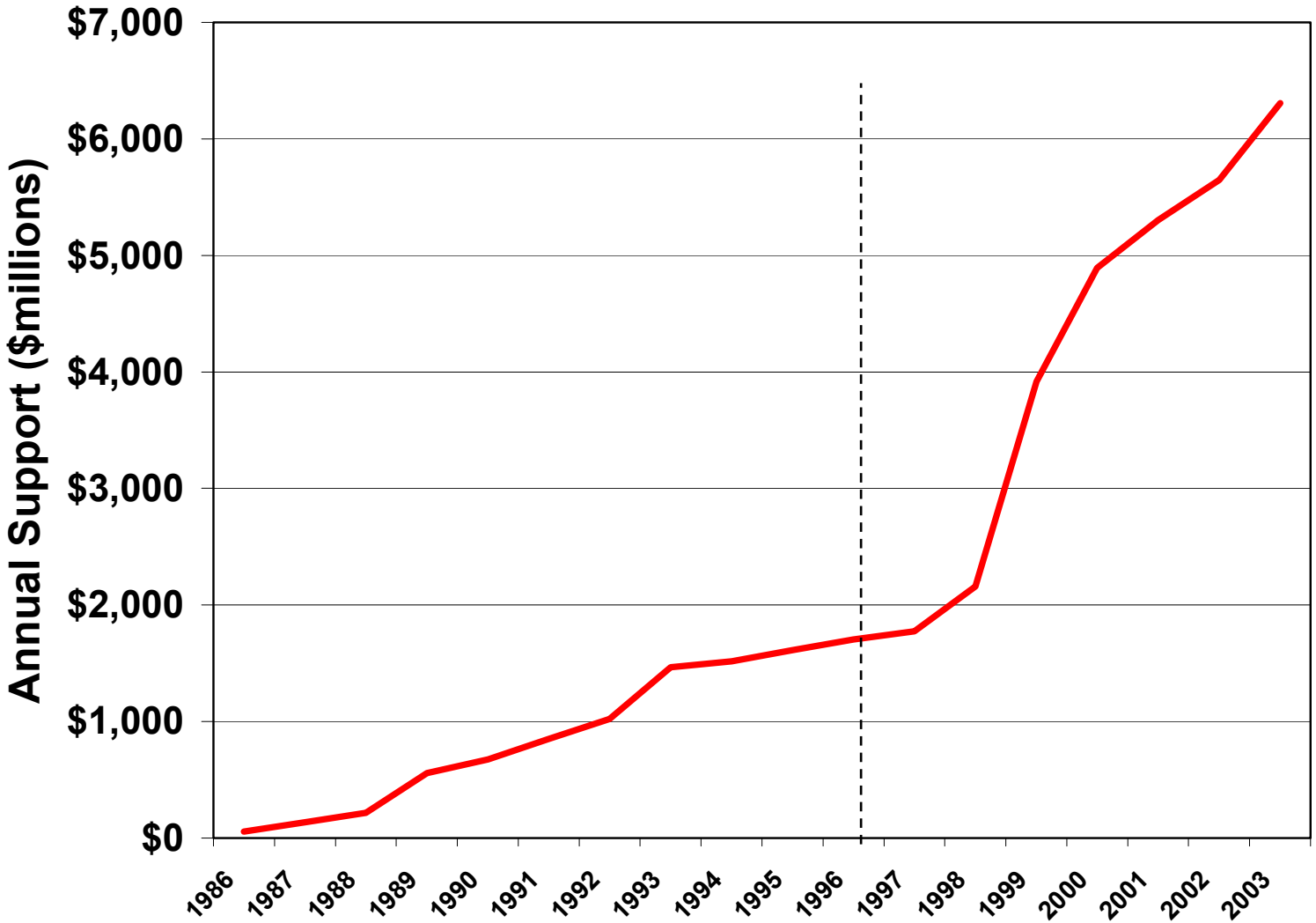
- Evolving Technology and Markets
- The “Mania” of the Late 1990s
- Huge Debt Loads
- Cut-Throat Competition
- Plunging Margins
- Bankruptcies
- Fraud

- The “Comoditization” of Telecommunications

USF Issues

- Definition
- Contribution
- Portability
- Intercarrier Compensation
- Rural Broadband

Impact of 1996 Act on Federal USF



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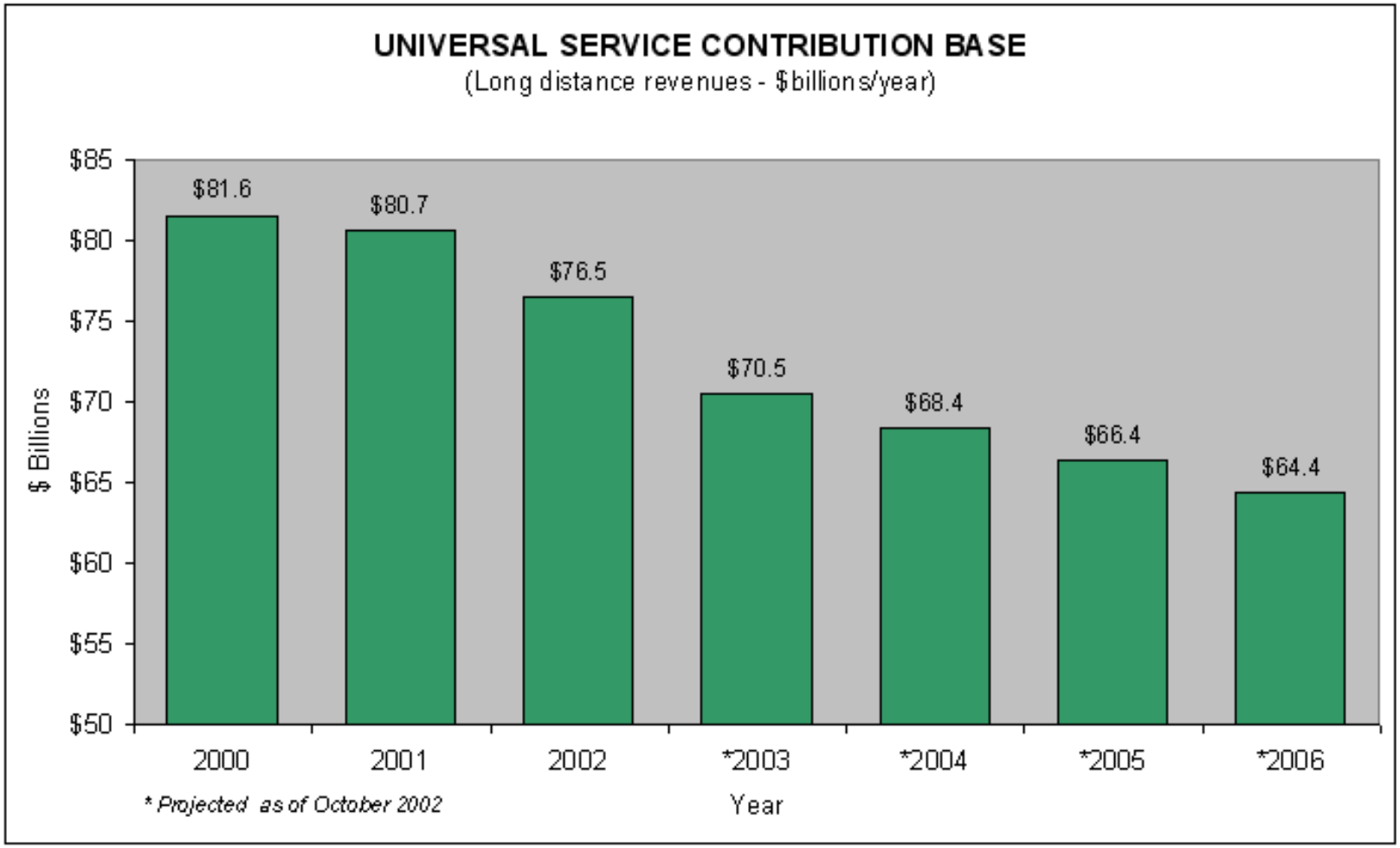
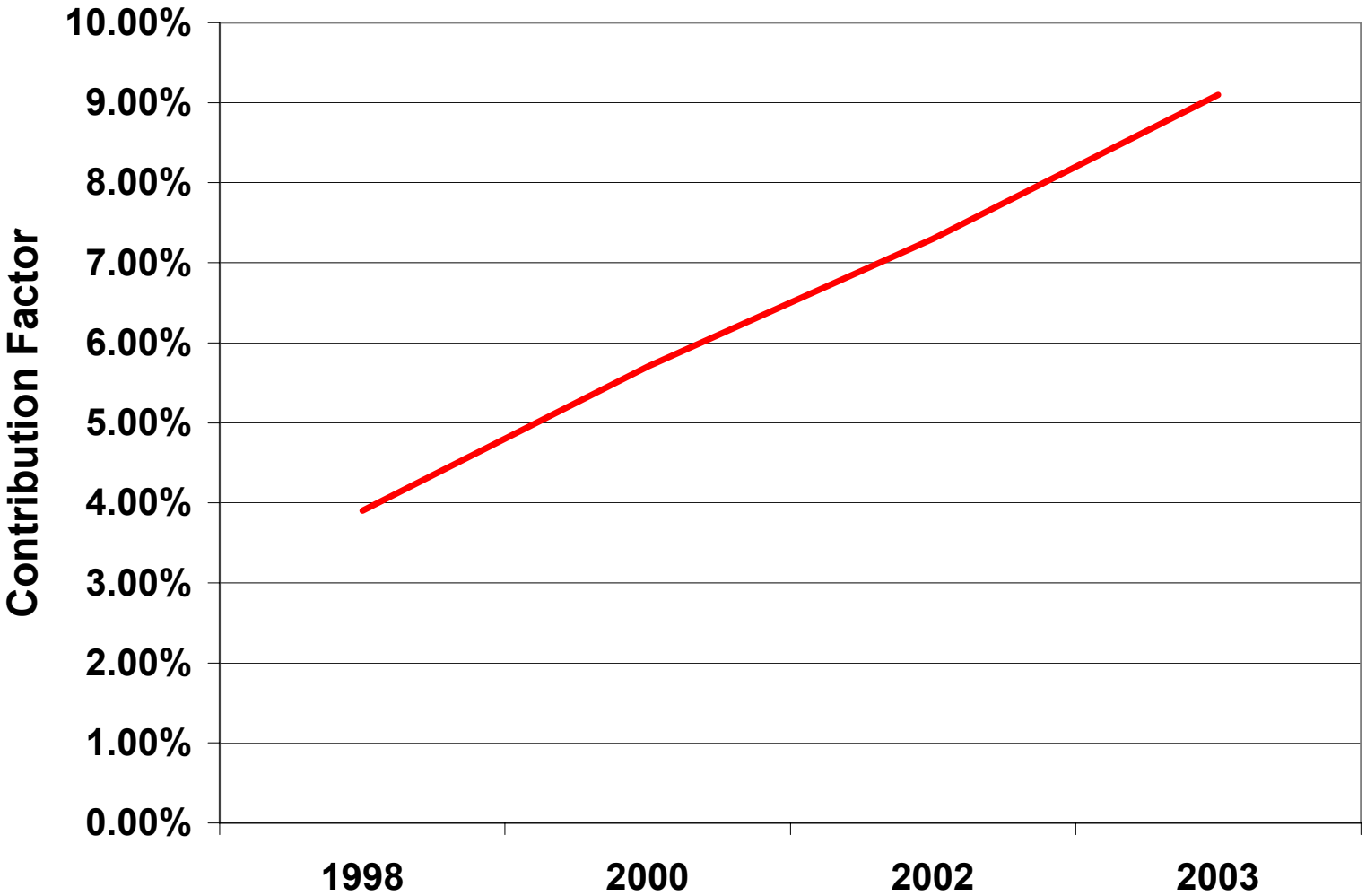
USF 2003 - 2007

Fund	2003
High Cost Loop Support	$1,120M
Long Term Support	501M
Local Switching Support	427M
Interstate Access Support	650M
Interstate Common Line Support	372M
High Cost Model Support	234M
Total High Cost Support	3,304M
Rural Health Care	15M
Low Income Support	740M
Schools and Libraries	2,250M
Total - Other Funds	3,005M
Total Federal Universal Service	$6,309M
2007 Projection	**$7.4 to $8.9B**



NECA *Trends in Telecommunications Cost Recovery* (October 2002)

Contribution Factor Spiking



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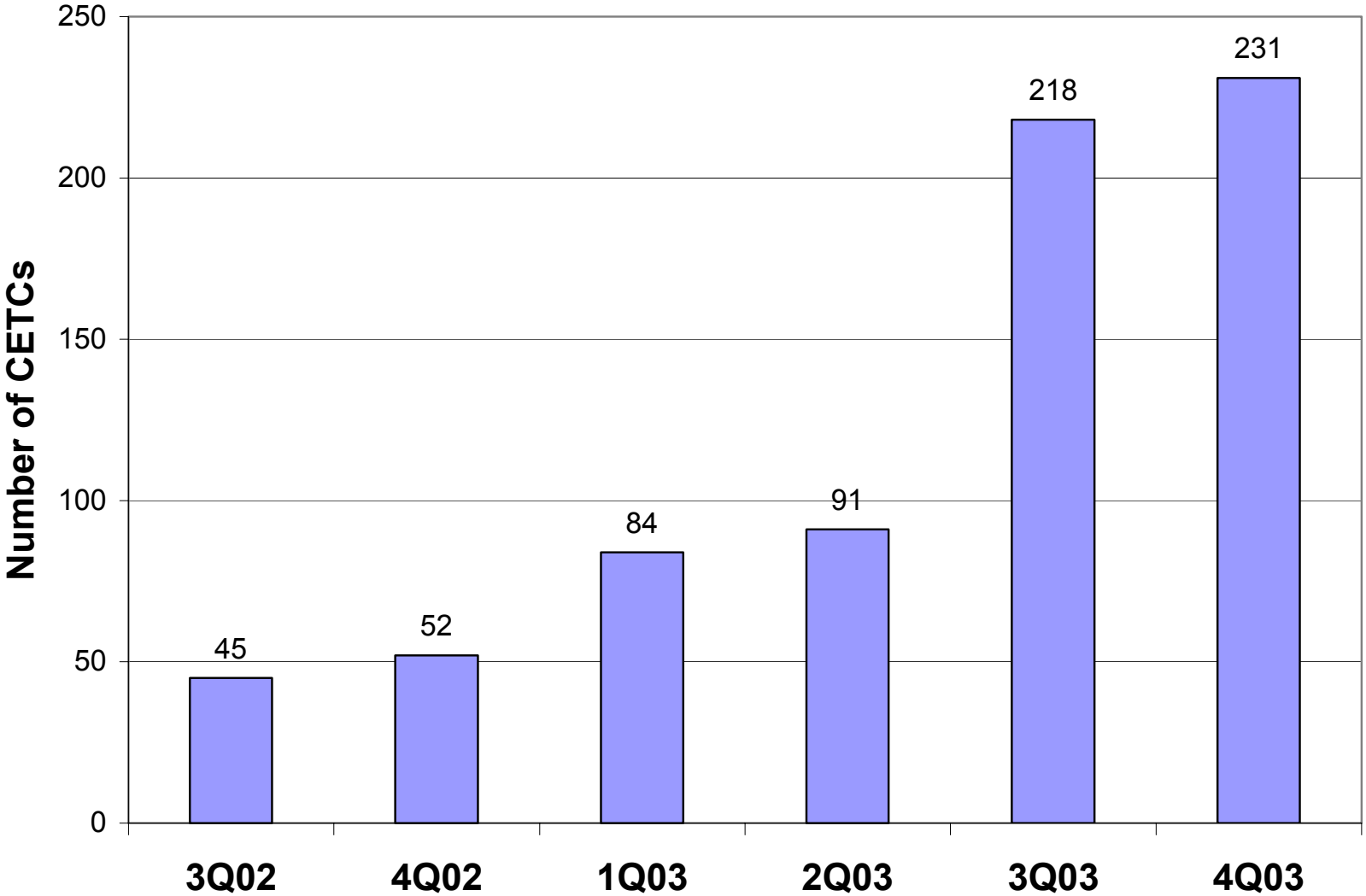
USF Contribution Mechanism

- USF currently collected from surcharges on Interstate End-User Revenue:
  - Demands on the fund are growing
  - Interstate revenues are declining
  - Surcharges are escalating
    - 9.5% Third Quarter 2003 (9.1% 2Q03)
- Alternatives under consideration:
  - Broaden contributor base
    - Assess state and interstate
    - Add broadband and VoIP to collection base
  - Move to a “Connections” Based Method

USF Portability

- In a rural study area support is portable only when the Commission finds it to be in the Public Interest
- Most ETC decisions to date:
  - Competition = Public Interest
- We are beginning to make some progress
  - Public Benefits > Public Costs
  - Funding must accomplish some defined public policy goal
- Regulators are beginning to realize there is a problem
  - $2B+ potential impact if all wireless get ETC
  - Alltel and Nextel are starting to apply
  - Carriers are taking USF to the bottom line (Smith Barney)
  - What should be portable?

Number of CETCs



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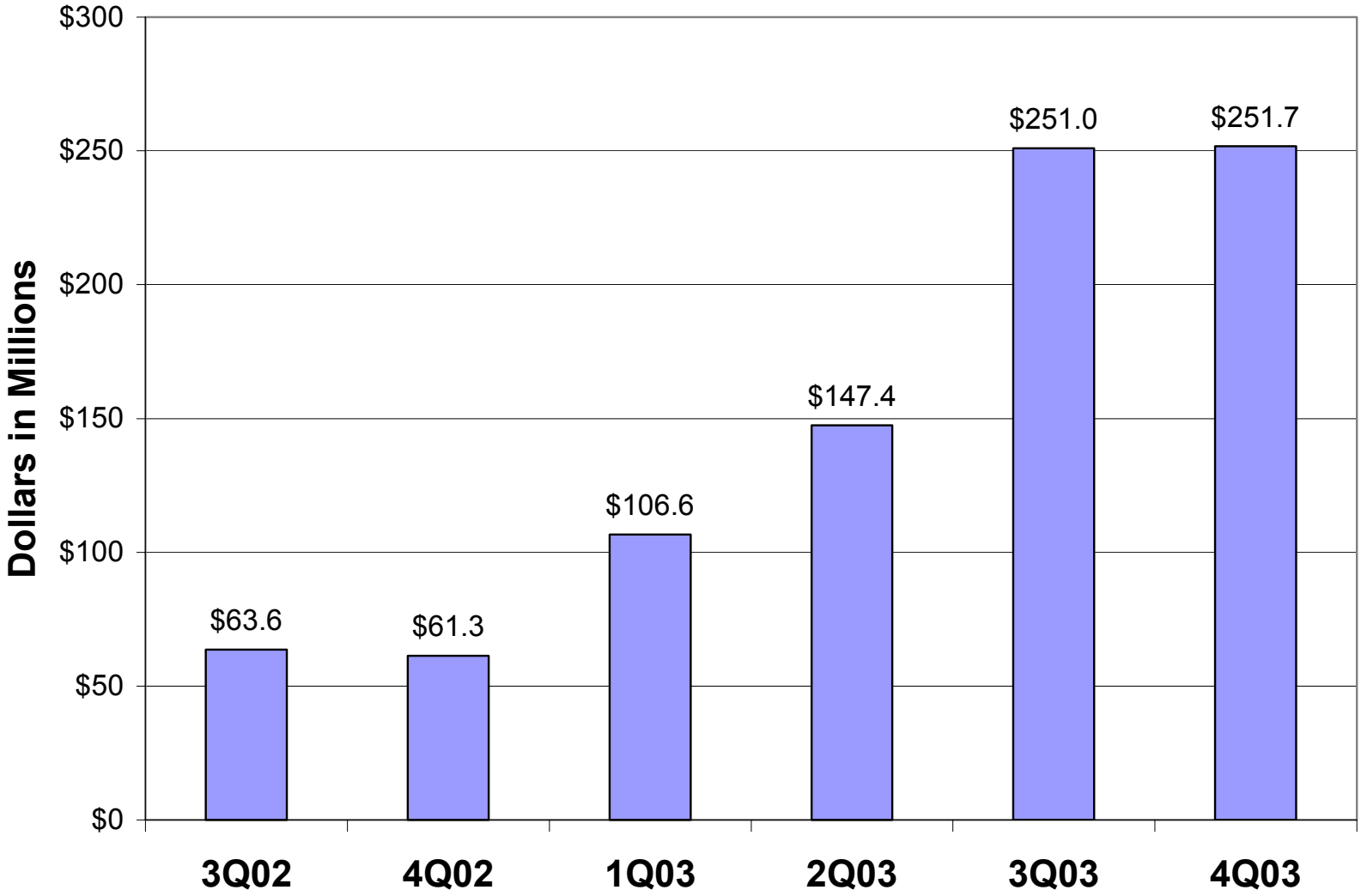
CETC Support



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This is the Tip of the Iceberg

- Most markets have multiple wireless carriers
- If one gets ETC status – others will apply and receive
- If money is available “for the asking” carriers will have no option but to apply
- If all wireless carriers nationwide are ETCs - $2B impact
- The $2B assumes wireless carriers don’t “game the system”

Game the System?

- Most support is concentrated in a relatively few lines:

% of High-Cost support	% of Lines
25%	0.7%
50%	2.3%
75%	6.7%
100%	100%

- If half of the customers in the top quartile (600,000 households) could be convinced to take one additional phone on their account - $400M/year
- If they took 4 phones (1 per family member) - $1.2B/year

Joint Board Proceeding

- Wireless Carriers
  - Current process is working just fine
  - Support should be based on ILEC costs
  - Support should not be limited to one “primary” line
  - The amount of support going to CETCs is very small
  - If there is a problem, it is because the ILECs are inefficient
  - States should expedite CETC approval process
  - If there are to be major changes there should be an RTF II
- ILECs
  - There must be a better public interest test (cost/benefit)
  - Support should be based on the CETC’s cost
  - Support should not be limited to one “primary” line
  - There should be guidelines to the states

Joint Board Proceeding

- State Consumer Advocates (NASUCA)
  - Wireless is small now but will increase dramatically
  - There should be more stringent requirements for ETC status
  - Any ETC should be subject to state regulation
  - Support for CETCs should be based on their costs
  - Support should be provided to only one “primary” line
- Other Interesting Ideas
  - Calculate wireless CETC costs based on a statewide “study area”
  - Little evidence that wireless is displacing wireline lines, but lots of evidence they are replacing long distance minutes
  - Separate fund and funding rules for wireless carriers
  - Lots of support for the OPASTCO principles

Expiration of the RTF Plan

- The RTF recommended rural companies receive USF based upon embedded cost for 5 years
- The FCC strongly hinted that after this time period they would move to a rural proxy model
- Five years is up in 2006
- In “FCC Time” 2006 is almost here!!
- What are we doing to get ready?

Broadband

- **Regulation of Broadband**
  - Is it “Telecommunications” or “Information Service”
  - Should different provider types be regulated differently?
    - ILECs
    - Cable
  - If broadband is universally classified as an “Information Service”
    - The pool of contributors will shrink
    - Rural ILECs must exclude broadband costs from funding base
- **Rural Broadband**
  - How will rural broadband be funded?

Intercarrier Compensation

- Today rural carriers get their support from 3 sources:
  - End-Users
  - Intercarrier Compensation
  - Universal Service Fund
- Powerful forces are pushing towards “Bill & Keep”
  - RBOCs
  - CMRS
  - IXCs
- Significant impact to rural companies
  - Access charges and other compensation mechanisms go away
  - Costs recovered only from end users and USF
  - Other “unintended consequences”

Intercarrier Comp Issues

- Anomalies in the current rate structure
  - Different access rates state and interstate
  - “Infant Industry” treatment for certain carriers
    - ISPs
    - Wireless carriers
  - Cost-based interstate access charges shifted to USF (i.e., ICLS)
- Traffic identification issues
  - Unlabeled traffic on common trunk groups from tandem
  - Falsified traffic (i.e. MCI problem)
- Technology issues
  - Packet switching technology
  - “Internet Protocol” (IP) networks
- RBOC Issues
  - They view rural carriers as a “cost center”
  - They have significant “reciprocal compensation” issues with CLECs

Bill and Keep Issues

- **Bill and Keep is a misnomer**
  - Nothing is “billed” – let alone “kept”
  - ILEC has obligation to originate and terminate traffic for others
  - In reality - “Carry Without Compensation”
- **“Transiting Charges”**
  - RBOC proposes to bill rural company for “transit” to tandem
- **Bill and Keep will have unintended consequences**
  - With switched access “free” demand will increase
  - Special access networks will come out
  - No compensation as traffic grows on rural networks
    - Demand stimulation
    - Broadband services

Average Impact of Bill & Keep

- Approximate <u>average</u> B&K impact by line size (state & interstate)
  - <500* $40/line/mo
  - 501-1,000 $30
  - 1,001 – 5,000 $22
  - 5,001 – 10,000 $16
  - 10,001+ $12

  * Access lines in study area
- Actual company impacts vary widely, particularly at the low end
- In many states the greater problem is at the state level
- Significant impact on two over-taxed sources
  - Universal Service Fund
  - End User Prices

Intercarrier Compensation Principles

- **Whenever a carrier uses the rural ILEC network to create value for their customers, the rural ILEC should get fair compensation**
- **Fix past anomalies with the intercarrier compensation system**
  - ICLS
  - ISPs
  - CMRS
- **Bring state and interstate rates closer together**
- **Explore innovative ways to charge for usage**
  - Capacity-based charges
  - “Minute-is-a-Minute”

Rural Advocacy

- Multiple voices
- Mixed messages
- We bring problems – not solutions
- Who else supports our positions?
- Not good at saying what we want
- We need to do a better job of telling our story
- Everything is so complicated!
- What are our 3 to 5 “fight and die” principles?

Rural Public Policy Needs

- Realistic Portability Rules
  - Benefits > Cost
  - Funding accomplishes defined policy goals
  - What should be portable?
- Broaden Base of USF Contributors
  - Congress should authorize assessing state and interstate revenue
  - Broadband and VoIP must contribute
- Realistic Intercarrier Compensation
  - Carriers must receive appropriate compensation for use of their networks by others
  - Mandated Bill & Keep will harm rural ILECs ability to serve
- Rural Broadband
  - Fix USF portability and funding issues
  - Allow rural ILECs to receive fair compensation for use of their networks
  - Keep rural broadband subject to regulation

Conclusion

- The future holds both risks and rewards
- The key factor will be how well the rural industry plays the public policy game
- To win this game the rural industry must:
  - Learn to strategize and advocate as an industry
  - Develop pro-active solutions
  - Educate and involve key rural stakeholders
  - Deliver a clear and consistent message
  - Continue to serve its customers well