

Telecom Trends & Regulatory Challenges – 2004

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Discussion Outline

- Trends in Telecommunications
- Evolution of Telecom Policy
- Three Key Issues Driving Telecom Policy
- Rural ILEC Advocacy
- Major Rural ILEC Policy Issues
 - Universal Service Portability
 - Universal Service Contribution
 - Intercarrier Compensation
 - VoIP
- Conclusion

Revenue Trends

(Dollars in Billions)

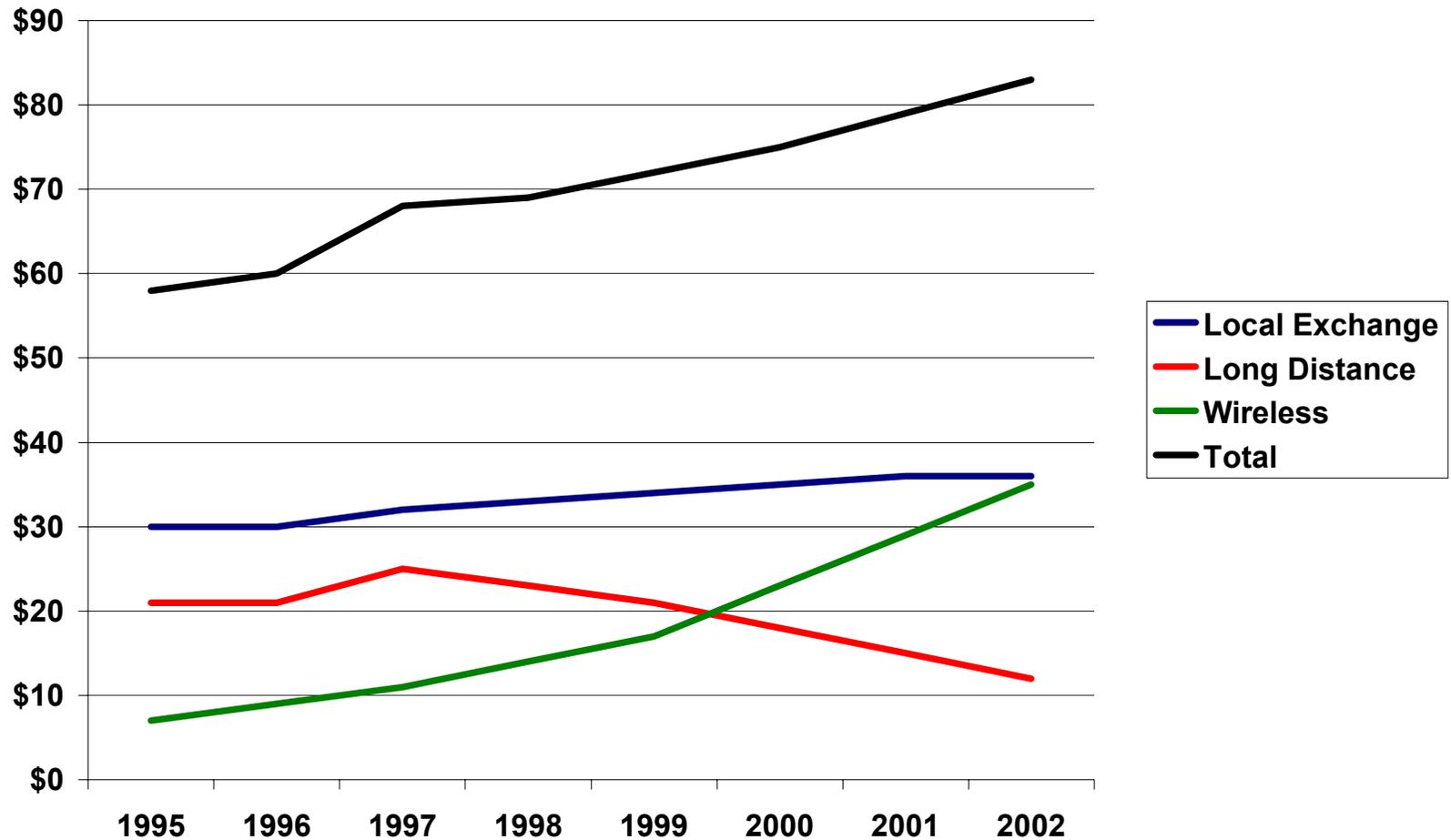
	ILECs	CLECs	Payphone	Wireless	IXCs
1995	\$102.8	\$0.6	\$0.3	\$18.6	\$76.4
1996	107.9	1.0	0.4	25.9	86.9
1997	105.1	1.9	0.9	33.0	89.6
1998	108.2	3.3	1.1	37.0	96.0
1999	112.2	5.7	1.2	50.2	98.4
2000	116.2	9.8	1.0	63.3	101.4
2001	117.9	13.0	0.8	74.6	93.7
2002	109.5	16.6	0.2	83.9	82.2

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



Technology Substitution

<u>From</u>	<u>To</u>
Local Toll Pay Phone	Wireless
800 Service FAX	Internet
2 nd Lines	Wireless Broadband

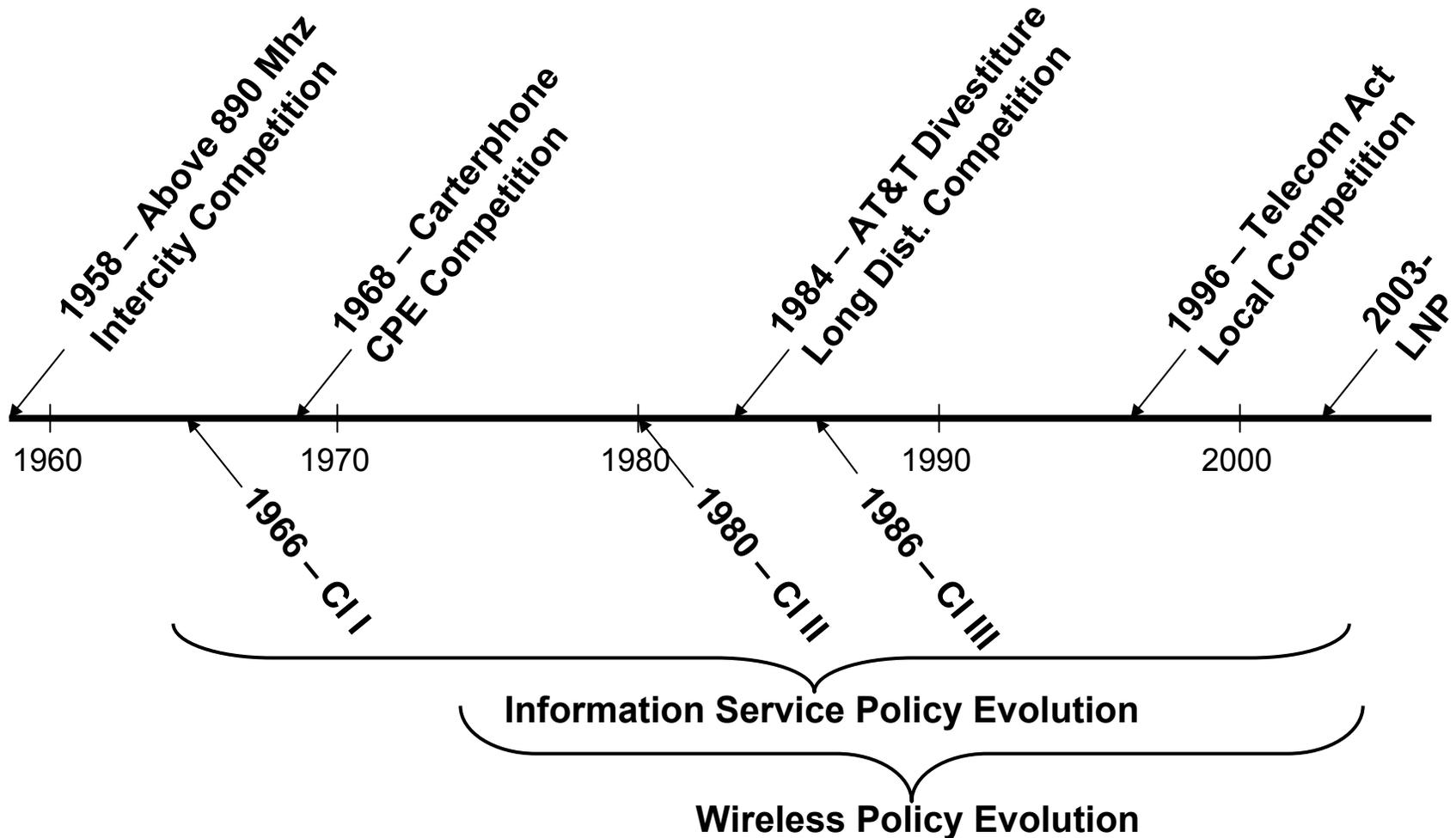
Major Trends

- Explosive growth in wireless continues
- We are losing the USF portability battle (so far)
- VoIP coming on strong
- Declines in other areas
 - Long Distance
 - Pay Phones
 - ILEC Lines
- What to do about Universal Service?
- Local competition is a reality
- The rural ILEC industry faces defining moments in 2004

Current Regulatory Situation

- Multiple proceedings are under way before the FCC and state commissions with significant implication for rural consumers
 - Universal Service Portability
 - Universal Service Contribution
 - Post-RTF Universal Service Mechanism
 - Telecommunications Service vs. Information Service
 - Intercarrier Compensation
 - Inter-modal number portability
- Most of these proceedings are moving independently without consideration for their combined impact on rural consumers
- To understand the issues and dynamics, it is helpful to understand the evolution of federal telecom policy

Federal Policy Evolution



Monopoly Era (1913 - 1968)

- Telecom is a natural monopoly
- Heavy earnings and price regulation
- Basic residential rate as low as possible
 - Flat rate model
 - Relatively small local calling area
- Consciously overprice:
 - Long Distance service
 - Business Services
 - Customer Premises Equipment (CPE)
- Big Issues:
 - Rate of Return (RoR)
 - Rate Base
 - Disallowances

CPE Competition (1968)

- CPE is not a natural monopoly
- There should be multiple CPE providers
- Big issues:
 - Is competition in the public interest?
 - Protective coupling devices
 - “Primary Instrument” doctrine
 - Cost of service rules
 - Fully Distributed Cost (FDC)

Long Distance Competition (\approx 1984)

- Long Distance is not a natural monopoly
- Competitive intercity carriers (e.g., MCI)
- Long distance-like services
- AT&T divestiture
- Big Issues:
 - Dialing parity (1+ access)
 - How to deal with residential subsidy?
 - Interconnection pricing
 - Access charges
 - Initially set high (5¢/min to over 20¢/min)
 - Interstate reduced over time (now \approx 0.5¢/min – 2.3¢/min)
 - AT&T goal of zero

Local Competition (1996)

- Local service is not a natural monopoly
- Telecom Act of 1996
 - Negotiation/arbitration of interconnection terms
 - Unbundled Network Elements (UNEs)
 - Universal Service
 - Specific, predictable and sufficient support
 - Portable (if State Commission finds to be in the “public interest”)
- Big Issues:
 - Difficulty in entering residential market (low 1FR rate)
 - UNE pricing/costing
 - TELRIC
 - Universal service portability
 - What defines “public interest”
 - Local number portability

Enhanced Services Development (1966 – Present)

- “Basic” service is a monopoly, but “enhanced” service is not
- AT&T vs. IBM
- Enhanced services “nascent” industry
 - Webster’s – NASCENT *adj*: coming or having recently come into existence: beginning to develop
- Enhanced services should not pay access
- Big Issues:
 - What is an enhanced service?
 - Computer Inquiries I, II, III ...
 - Information Service Providers (ISPs)
 - VoIP and Vonage
 - Evolution of the Internet
 - Nerds → Mass market
 - “Don’t tax the Internet!”

Wireless Service Development (1974 – Present)

- Wireless is a “nascent” technology
- No price or earnings regulation
 - Measured pricing model
 - Large local calling areas
 - Loose interconnection and access charge rules
 - Packaging and bundling
 - “Free” long distance
- Market evolution
 - Premium → Mass Market
- Big Issues:
 - Spectrum auctions
 - Interconnection rules (or lack thereof)
 - Access to rural “subsidies”
 - Inter-modal number portability

Rural Service Issues

- Bell took the “low hanging fruit”
- Independents evolved in higher-cost areas
 - Co-ops
 - REA Financing
- Low residential price model with explicit support
- Universal Service Fund (USF)
 - Social contract – build it and you will be paid
 - How to reconcile universal service and competition?
 - Should other technologies have access to USF?
 - How much, and under what terms and conditions?
 - What service obligations?
 - What if demand outstrips funding resources?
- Are some rural areas indeed a natural monopoly?

Three Key Issues

- Who rides for free?
- Who gets access to “subsidies”?
- Who pays for universal service?

Who Rides for Free?

- “Telecommunications Service” vs. “Information Service”
 - DSL vs. Cable Modem
 - Internet Protocol (IP) networks
 - Vonage
- Voice Over Internet Protocol (VoIP)/Vonage
 - Should VoIP pay access charges?
 - Should VoIP contribute to the universal service fund?
 - Should Vonage be regulated as a telecom service?
- RLEC obligation to carry traffic
 - Virtual NXX
 - Number portability over wireless calling area
- Unified Intercarrier Compensation Proceeding
 - Current disparate pricing mechanisms are unworkable
 - Interstate Access, State Access, Reciprocal Comp, Wireless, etc.
 - Should the industry adopt “Bill and Keep”?
 - Bill & Keep really means no intercarrier compensation
 - How to cover higher costs in remote rural areas?

Who Gets Access to “Subsidies”?

- Telecom Act of 1996
 - Multiple ETCs when state commission finds “public interest”
- Experience to date in implementing the Act
 - Early FCC precedents
 - “Competition” defines the public interest
 - CETC gets same per-line support as ILECs
 - CETC not required to serve entire study area or provide same services
 - States routinely granting ETC applications
 - Demands on the USF are growing
 - FCC has asked the Joint Board to re-examine USF
 - How much support should a CETC receive?
 - Should support be given only to one “Primary Line”?
 - How should the public interest be determined?

Who Pays for Universal Service?

- Currently assessments on interstate end-user revenues
 - Increasing difficulty in distinguishing inter/intra
 - Popularity of service “bundles”
- Should “Information Services” be assessed for USF?
 - Information services benefit from the ubiquitous network
 - What happens as broadband becomes the norm?
- Should an alternative collection mechanism be developed?
 - Assessment per “network connection”
 - Assessment per telephone number

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?

Generic Thoughts

- Lessons From the Rural Task Force
- Lessons From the MAG Plan
- Regulation Issues
- Divergence of Business Plans
- Transitions
- The Rural Consumer
- The Luxury of Not Much Time

Lessons From the RTF

- Bring unintended consequences up front
- Get un-refutable FACTS AND DATA on the table
- Power of the group process
- Critical role of the leader/moderator
- Effective use of transitions

Lessons From the MAG Plan

- Package deals don't always hold up
- Key misconceptions can doom the plan
- Regulators don't give gifts
- Make sure the coalition is broad enough
- Make sure your base is behind you

Regulation Issues

- The Dilemma of State/Federal Regulation
- Deregulation

State/Federal Regulation

- Dual regulation is a killer
 - When one is quick to take – the other is not so quick to give
 - Shift any blame to the other guy
 - No one is in charge or bears the consequences
- If we had to pick one – which would it be?
 - Federal?
 - PRO – Do it once
 - PRO - May be able to get Congress to preempt on some items
 - CON – Do they know (or care) about rural and independent territory?
 - State?
 - PRO – They do know the territory, and are closer to the consumer
 - PRO – If given overall responsibility they may be more realistic
 - CON – Generally fewer resources and a legacy of ILEC-bashing

Deregulation Thoughts

- There is a history and legacy of regulating ILECs as a monopoly
- The 1996 Act expresses a preference for less regulation
- There must be a parity of obligation and opportunity for competing telecom providers
 - This is particularly true for ETCs
 - “Good” parity is much better than “Bad” parity
- Can any carrier reasonably expect to receive public support for their operations without some form of public oversight?
- What regulation exists must recognize new market realities
- RLECs must seek to move as much of their revenue stream outside of regulation as possible without disrupting necessary explicit support

Divergence of Business Plans

- Who/what are the RBOCs?
 - ILECs
 - IXC
 - CMRS (national)
 - Payers into the fund
 - Generally, not focused on rural markets
- Who/what are the rural carriers?
 - ILECs
 - IXCs (some, generally regional)
 - CMRS (some, regional)
 - Drawers from the fund
 - Principally focused on rural markets
- Who are RLEC's natural allies for advocacy?

Transitions

- Regulatory history has allowed changes in cost allocation and revenue recovery to be phased in over time:
 - Frozen SPF to 25% over 8 years
 - RTF embedded cost USF plan for 5 years
 - CLEC access and Line Sharing phased over 3 years
- Major regulatory changes have be implemented on a “revenue neutral” basis, at least at the outset
- Effective transition plans for rural LECs will be critical
- To what extent will similar transitions be possible in the future?

The Rural Consumer

- The 1996 Act promises services and prices comparable to urban areas
- Rural LECs meet this requirement through a combination of cost-based prices and USF
- Current regulatory events could make this promise difficult or impossible to maintain:
 - Inability of collection mechanisms to keep up with fund growth could result in capping and rationing of funds
 - “Primary Line” policies coupled with study area capping will further dilute finite resources
 - Intercarrier Compensation and market definition proceedings could result in further revenue and USF contribution losses

**OUR SUCCESS WILL DEPEND ON DEFINING THE STAKE OF
THE RURAL CONSUMER IN THE ONGOING POLICY DEBATES**

The Luxury of Not Too Much Time

- We can't afford our usual intramural BS
- The threats to rural LECs' ability to serve their consumers are serious and real
- Can the rural LEC industry find a common voice?
- Can we put a face on the rural consumer?

Sea Changes and Big Issues

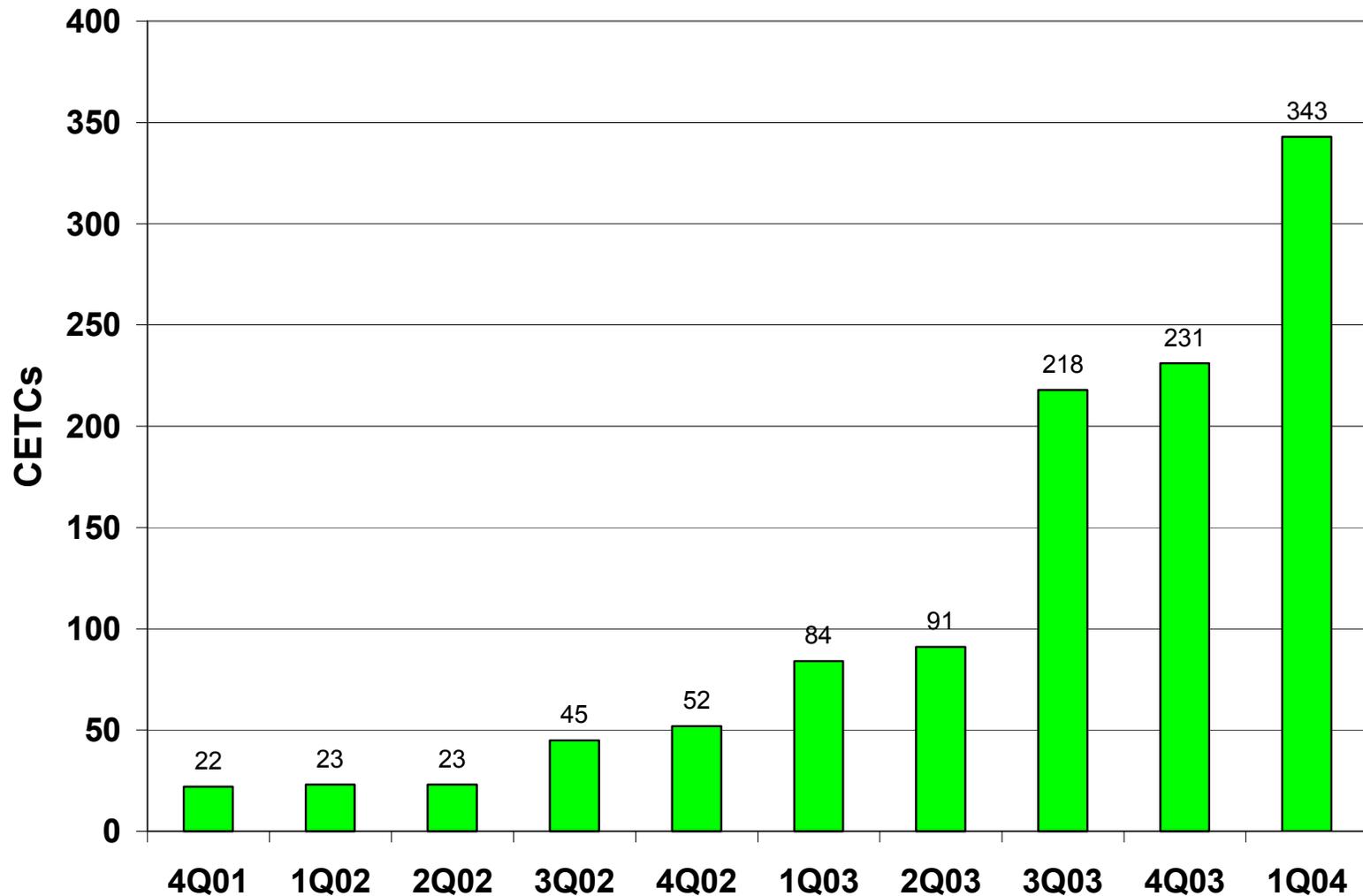
- Who is Regulated
 - Why?
 - For what services?
 - For what purpose?
- Who Pays for Infrastructure
 - Do private entities have the right to use private property of others without compensation?
 - Are we serious about all rural consumers having comparable access at comparable prices?
 - If everything is “free” who will build the underlying infrastructure?
- Technological Change is Inevitable and Good
 - Should new technologies benefit from regulatory constraints and anomalies of a prior era?
 - At what point do “infant industry” advantages no longer serve the public interest?

USF Portability

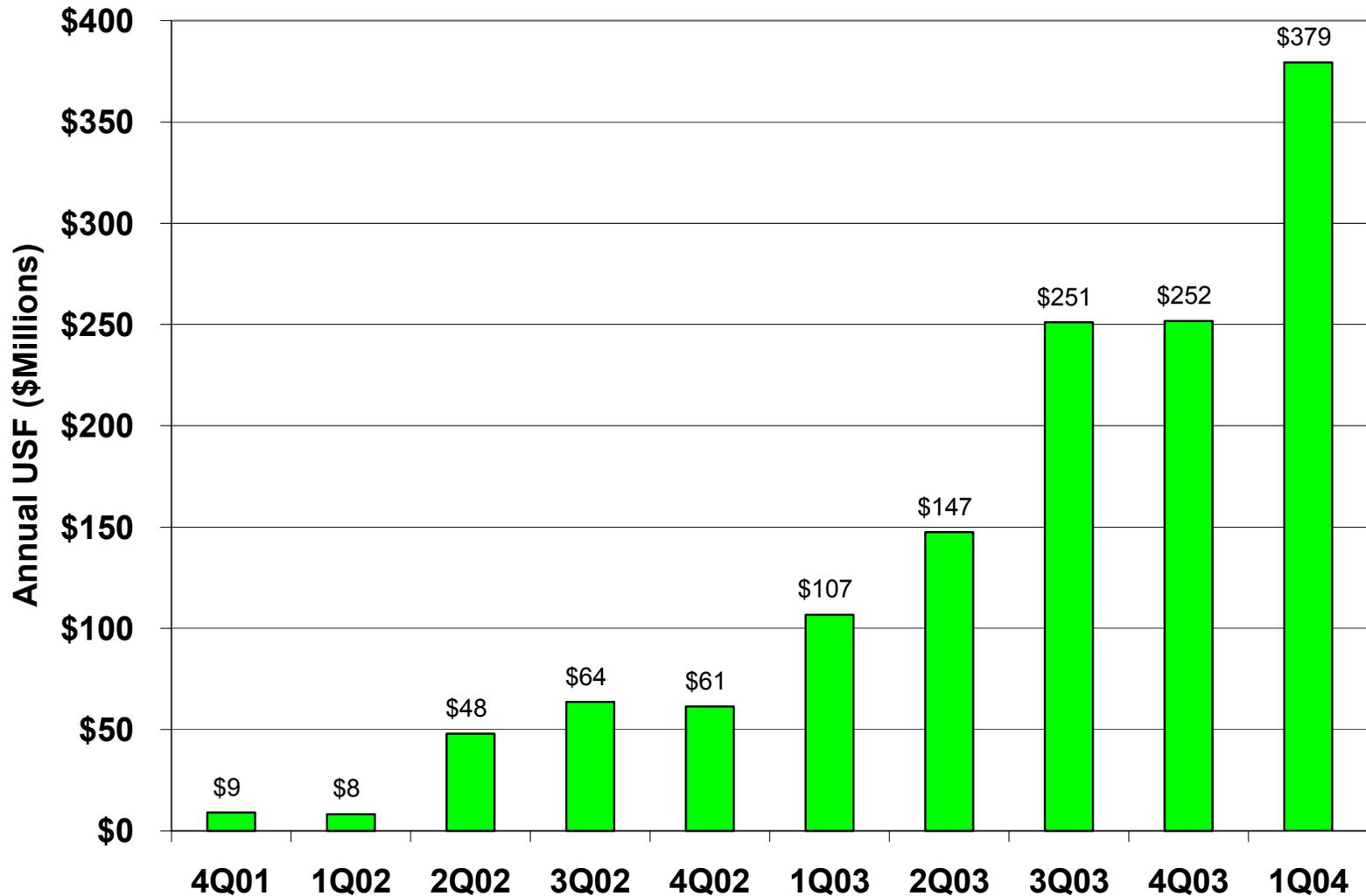
USF Portability Thoughts

- 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
 - Larger nationals are starting to apply (Nextel, Sprint, etc.)
 - Carriers are taking USF to the bottom line (Smith Barney)
 - What should be portable?

Number of CETCs



CETC Support



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”

Three Joint Board Issues

1. What Amount of Support Should ETCs Receive?
 - Most (except CETCs) favor support at ETCs own cost
 - FCC signaled different support with Equal Access “decision”
2. Should Support go to one “Primary Line”?
 - All network providers oppose (wireline and wireless)
 - Supported by NASUCA, IXC and some RBOCs
 - Simple answer to crisis of growing fund size
3. What Should be Requirements for CETC status
 - Most parties (except CETCs) support some form of federal guidelines
 - ILECs and NASUCA support regulation similar to ILECs

Major Areas of Vulnerability

- Primary Line Issue
 - Will disproportionately harm rural ILECs and their customers
 - Could have immediate cash flow impact
 - Could result in de-facto deregulation of “second” lines
 - Will present serious administrative problems, and slamming issues
 - Serious dis-incentives to rural investment
- ETC Support Levels
 - Consensus seems to be for support at CETC’s cost
 - Probability of freezing per-line support upon CETC entry
 - Possibility of consolidation of support for multiple study areas in same state
 - May accelerate activity on rural proxy model

Additional Portability Thoughts

- Billy Jack Gregg proposal – Define some areas where there is a rebuttable presumption that additional ETCs are not in the public interest
 - > \$30/month = No CETCs
 - \$20 - \$30/month = 1 CETC
 - < \$20/month = As many CETCs as can be justified
- Much of the regulatory support for funding multiple ETCs comes from rhetoric regarding the benefits that will flow to consumers
 - Can we develop case studies of what has happened to coverage following ETC designation?

Virginia Cellular Decision

(January 22, 2004)

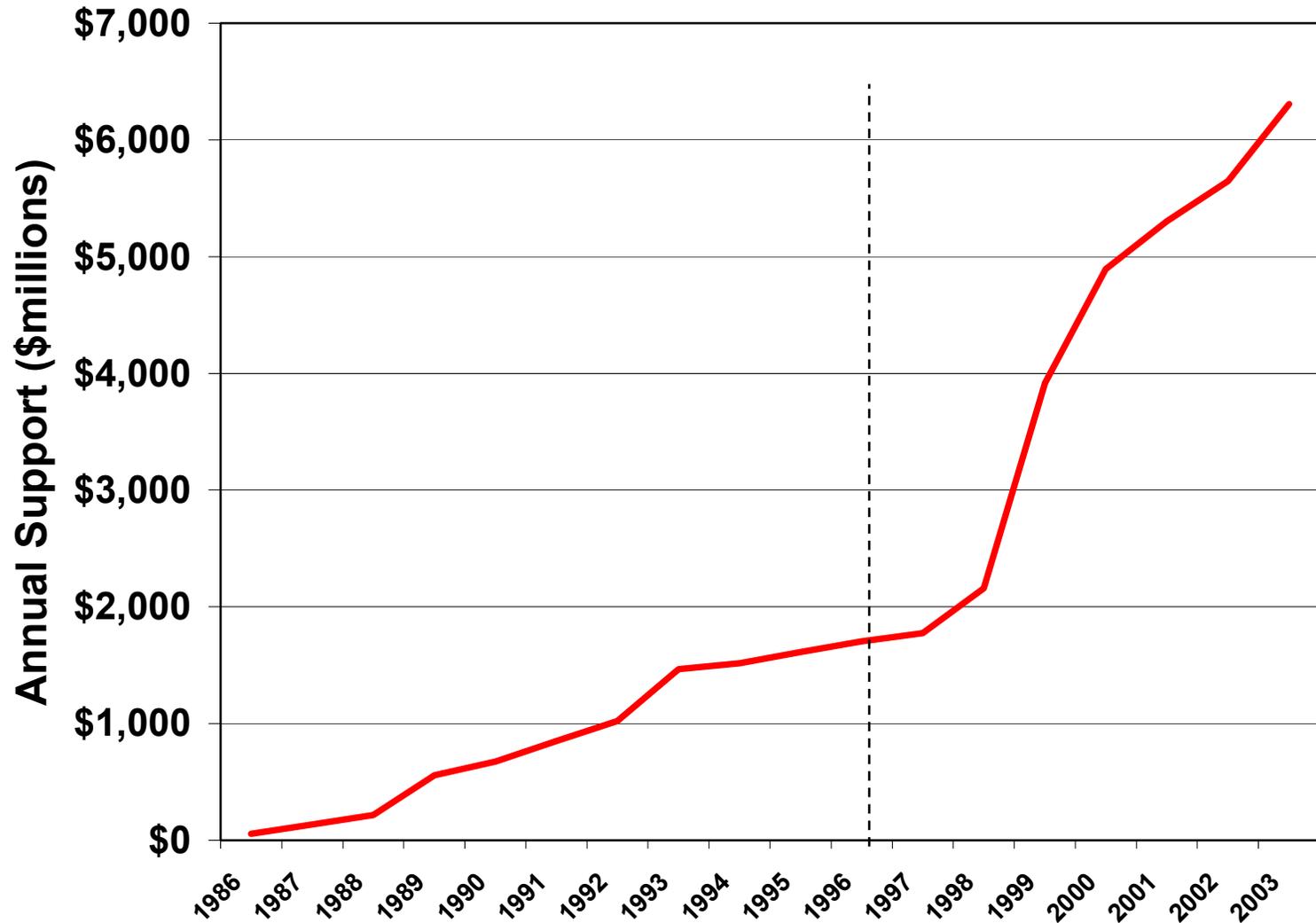
- “Competition”, by itself, is not sufficient for public interest test
- Factors that need to be considered include:
 - Impact on the USF
 - Whether benefits outweigh costs
 - Service quality
 - Serving the entire ETC service area within a reasonable time.
- “Creamskimming” is a factor if the wireless carrier’s licensed serving area is less than the ILEC study area, and density (i.e., cost) is significantly less than the remaining parts of the study area
- CETCs must report annually on
 - Network build-out
 - Service quality
- Multiple ETCs in non-rural study areas are not *per se* in the public interest

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?

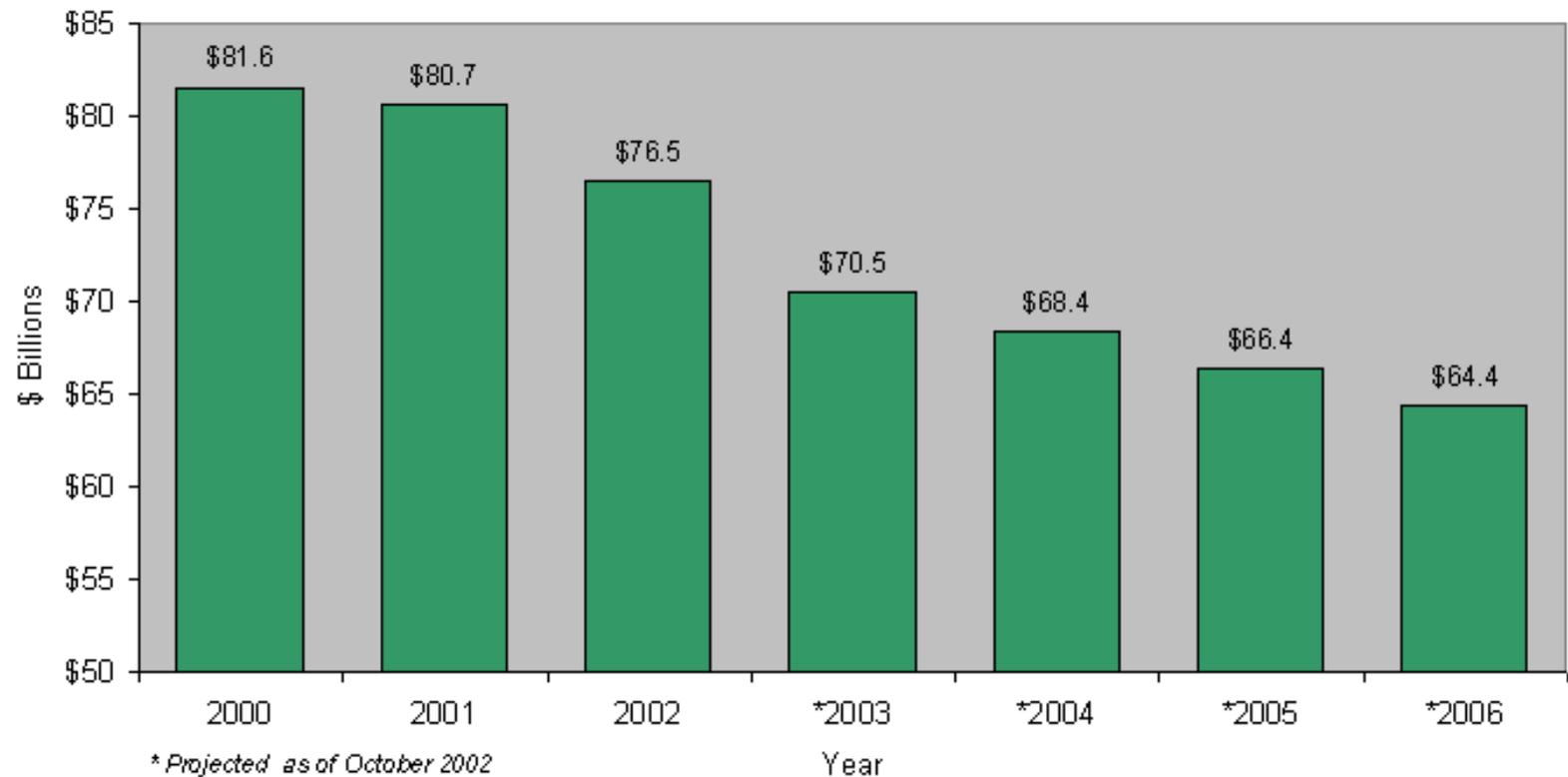
USF Contribution

Impact of 1996 Act on Federal USF



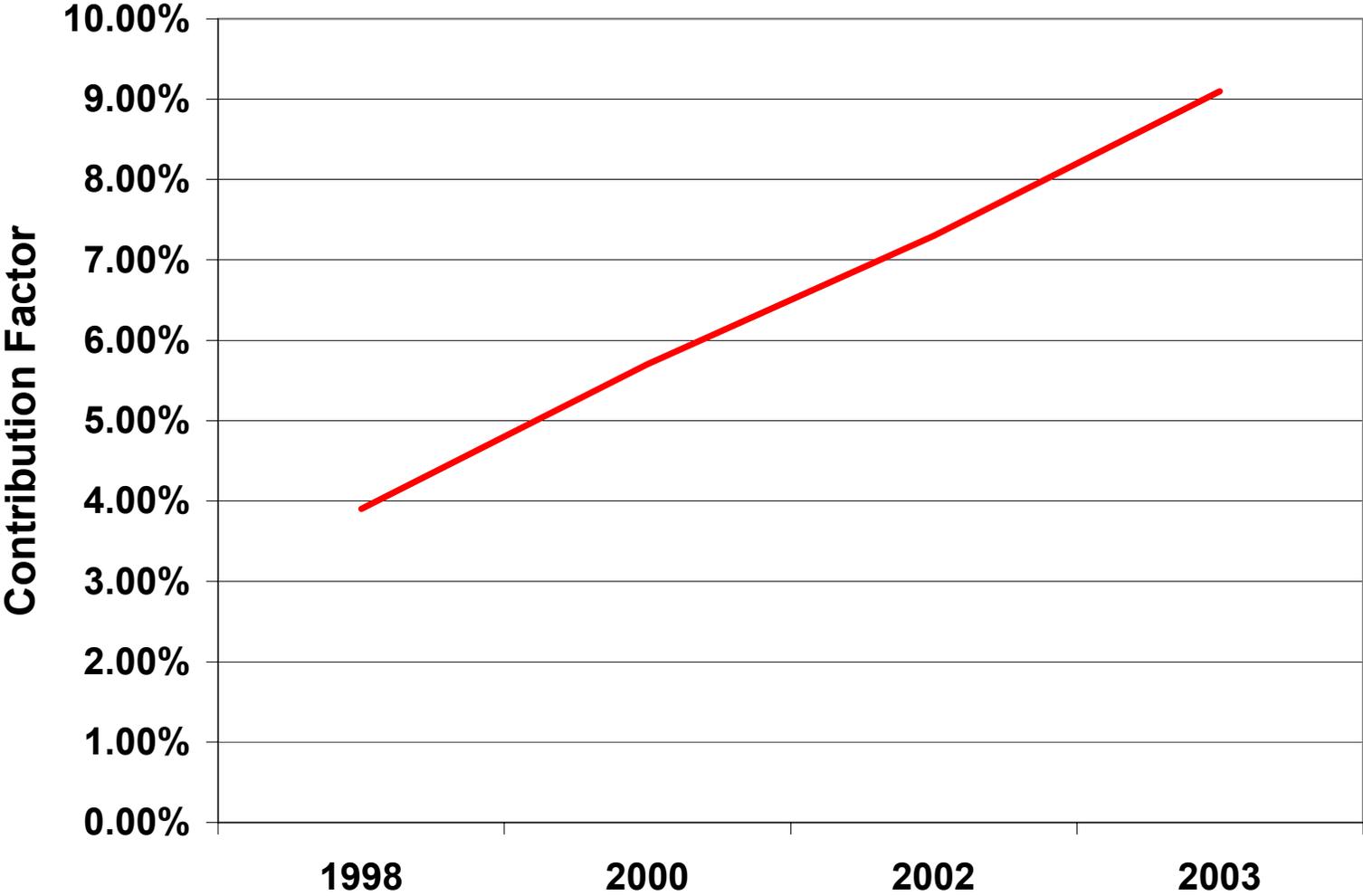
UNIVERSAL SERVICE CONTRIBUTION BASE

(Long distance revenues - \$billions/year)



NECA Trends in Telecommunications Cost Recovery (October 2002)

Contribution Factor Spiking



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
- Alternatives under consideration:
 - Broaden contributor base
 - Assess state and interstate
 - Add broadband and VoIP to collection base
 - Move to a “Connections” Based Method
 - Several proposals pending before the FCC
 - Martin is actively supporting numbers based assessments

Contribution Action Items

- Sen. Burns has drafted legislative language to broaden the funding base to include intrastate revenues
 - How can we best support this legislation?
 - What are the chances of passage?
- What is our “Plan B”?
 - Is some form of connections-based assessment preferable to the status quo?
 - Which one?
- How can we assure that broadband and VoIP are added to the base?

Inter-Carrier Compensation

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
 - IXC
- 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
 - “Nascent” 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
 - VoIP - “Internet Protocol” (IP) networks
 - VoIP - Internet-based “telephony” (i.e., Vonage)
- RBOC Issues
 - They view rural and independent carriers as a “cost center”
 - They have significant “reciprocal compensation” issues with CLECs

Bill and Keep Thoughts

- 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

Impact of Bill & Keep

- Approximate average B&K impact by line size (state & interstate)
 - <500* \$40/line/mo * Access lines in study area
 - 501-1,000 \$30
 - 1,001 – 5,000 \$22
 - 5,001 – 10,000 \$16
 - 10,001+ \$12
- 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 Thoughts

- **Whenever a carrier uses the rural ILEC network to create value for their customers, the rural ILEC should get fair compensation**
- **Some players have created an aura of inevitability for B&K**
- **Fix past anomalies with the intercarrier compensation system**
 - Truth in Labeling
 - ICLS
 - ISPs
 - CMRS
- **Bring state and interstate rates closer together**
- **FCC appears to be backing off of urgency for intercarrier comp proceeding**
 - Not sure that B&K is necessarily the right solution
 - Needs more information on impacts on rural carriers and consumers
 - Powell feels VoIP “changes everything”

Intercarrier Compensation Thoughts

(cont.)

- **Explore innovative ways to charge for usage**
 - Capacity-based charges
 - “Minute-is-a-Minute”
- **Understand the impact of various scenarios before moving too much farther down the road**

ICC Status

- Multiple Industry Study Efforts
 - Inter-Carrier Compensation Forum (ICF)
 - USTA
 - Group of 8
 - Enhanced Portland Group (EPG)
- Federal Proceedings
 - Intercarrier Compensation Proceeding (2001)
 - 2 Bill & Keep alternatives (COBAK and BASICS)
 - New NPRM coming “this spring”
 - AT&T Petition
 - IP Protocol services should not pay access charges
 - Level 3 Petition
 - FCC should “forbear” from applying access charges to VoIP and IP Protocol services

ICC Action Items

- Develop a better understanding of the impact of the various plans on RLECs and rural consumers
- Seek to influence the FCC NPRM to focus on the impact of various intercarrier compensation alternatives on rural consumers
- Develop consensus RLEC strategy on intercarrier compensation and advocacy strategy
- Initiate dialogue with other industry segments and stakeholder groups to seek consensus solutions that preserve RLEC revenues

Market Definition

Market Definition

- Telecommunications Services
 - Subject to regulation by FCC (Title II) and States
 - Interconnection and unbundling obligations
 - Required to pay into USF
- Information Services
 - Subject only to Title I FCC regulation
 - No interconnection or unbundling obligations
 - May be exempt from USF contribution
 - Cannot draw USF
- Recent Activity
 - 9th Circuit declares Cable Modem to be “telecommunications”
 - MN Dist. Court declares Vonage to be “information”

Market Definition Thoughts

- Chaos abounds
- Issues ultimately will go to the Supreme Court
- Ramifications for rural consumers
 - If digitized transmission defines “information service” then USF is severely threatened
 - Vonage service is worthless unless it can terminate to the PSTN
 - Congress’ universal service goals were co-equal to competition and relaxed regulation of the Internet
 - In many remote rural areas we are the consumer’s connection to the Internet
 - If affordable rural connections cannot be preserved, then many rural consumers become information have-nots

What Must the Rural ILEC Industry Do?

- Focus on impact on the rural consumer
 - Cumulative impact of multiple inter-related proceedings
 - Affordable basic connectivity
- Develop sound advocacy fundamentals
 - Proactive plans to allow us to serve customers
 - Support with compelling facts and data
- Advocate as a united rural industry
 - Overcome our culture of independence and “turf”
 - Learn to “hunt like a pack”
- Demand technology-neutral Federal telecom policy
- Educate other rural stakeholders
 - Rural consumer and economic development organizations
 - Investment community
 - Our own employees

Sound Policy Fundamentals

- Universal Service
 - Additional ETCs only when public benefits exceed public costs
 - ETCs must have equal obligations
 - A “primary line” regime would harm rural consumers
 - In some areas multiple ETCs are not in the public interest
- Intercarrier Compensation
 - Fair compensation for use of network by others
 - Bill & Keep only when costs and traffic are reasonably balanced
 - Rural transport costs are higher and present unique challenges
- Local Number Portability
 - Inter-modal portability must be reciprocal and fair
 - RLECs should not have to cover cost of transporting ported traffic to wireless carriers

Conclusions

The rural ILEC industry must:

- Come together around common advocacy goals
- Become better at telling our story
- Support our story with compelling facts and data
- Figure out our 3 -5 fight-and-die issues
- Clearly demonstrate the impact of policy choices on rural and independent consumers
- Get other stakeholders to understand, believe in, and support our issues

One Final Thought

“If not us, then who? If not now, then when?”

- Unknown