

EX PARTE OR LATE FILED

RECEIVED

FEB 17 1995



Building The  
Wireless Future™

FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20541

**CTIA**

Cellular  
Telecommunications  
Industry Association  
1250 Connecticut  
Avenue, N.W.  
Suite 200  
Washington, D.C. 20036  
202-785-0881 Telephone  
202-785-0721 Fax  
202-736-3256 Direct Dial

**Randall S. Coleman**  
Vice President for  
Regulatory Policy and Law

February 17, 1994

Mr. William F. Caton  
Acting Secretary  
Federal Communications Commission  
1919 M Street, N.W. - Room 222  
Washington, D.C. 20554

DOCKET FILE COPY ORIGINAL

RE: Ex Parte Contact - PR Docket Nos. 94-104,  
94-106, 94-107, 94-108, 94-109, 94-110  
Preemption of State Regulation of CMRS

Dear Mr. Caton:

On Thursday, February 16, 1994, Mr. Brian Fontes, Senior Vice President for Policy and Administration, and the undersigned, Randall S. Coleman, Vice President for Regulatory Policy and Law, both representing the Cellular Telecommunications Industry Association (CTIA), met with Ms. Jill Luckett of Commissioner Chong's office. The discussions concerned the proceedings regarding state regulation of CMRS, and expressed CTIA's positions as previously filed in the above-referenced docket, and in the attached documents.

Pursuant to Section 1.1206 of the Commission's Rules, an original and one copy of this letter and the attachments are being filed with your office.

If there are any questions in this regard, please contact the undersigned.

Sincerely,

Randall S. Coleman

Attachment

No. of Copies rec'd  
List A B C D E

04/

CTIA



**Building The Wireless Future™**

RECEIVED

FEB 17 1995

FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20541

**Preemption Briefing Book**

**Cellular Telecommunications  
Industry Association  
Ex Parte Presentation -  
Docket Nos. 94-103, et al.  
February 16, 1995**



### **The Key to Preemption: The Legal Standard**

Last year, Congress amended the Communications Act to create a uniform, nationwide, streamlined regulatory regime for mobile telecommunications services and to ensure that substantially similar services are subject to similar regulation. To “foster the growth and development of mobile services that, by their nature, operate without regard to state lines as an integral part of the national telecommunications infrastructure,” Congress granted the Commission discretion to forbear from imposing certain Title II requirements upon Commercial Mobile Radio Service (CMRS) providers, and preempted state regulation of entry and rates for all reclassified CMRS providers.

#### **STATUTORY STANDARD**

States are permitted to continue rate regulation if they can demonstrate to the FCC that:

- market conditions with respect to such services fail to protect subscribers adequately from unjust and unreasonable prices or rates that are unjustly or unreasonably discriminatory; or
- such market conditions exists, and such service is a replacement for landline telephone exchange service for a substantial portion of telephone landline exchange service within such state.

47 U.S.C. Section 332(c)(3)(A)(i) and (ii) (1993).



## The Key to Preemption: The Legal Standard

### STATUTORY STANDARD

#### **Eligibility Requirements**

- State must have in effect on June 1, 1993, any regulation concerning the rates for an CMRS service offered in the State on such date; and
- Petition the Commission before August 10, 1994, to extend its pre-existing regulations.

#### **Statutory Criteria for Commission Review of State Petitions**

- The Commission must “ensure that continued regulation is consistent with the overall intent of [Section 332(c)]... so that similar services are accorded similar treatment.”
- The Commission must “be mindful of the desire to give the policies embodied in Section 332(c) an adequate opportunity to yield the benefits of increased competition and subscriber choice.”

On August 10, 1994, eight states (Arizona, California, Connecticut, Hawaii, Louisiana, Ohio, New York, and Wyoming) filed petitions with the Commission requesting authority to “continue” regulating CMRS rates and entry.



## The Key to Preemption: The Legal Standard

### **REGULATORY STANDARD**

In the *Second CMRS Report and Order*, the Commission adopted a federal regulatory standard which states must meet to retain their authority over intrastate CMRS rates.

#### **Eligibility Requirements**

- States must meet the statutory eligibility requirements as set forth in Section 332(c).

#### **Burden of Proof**

- The Commission places the burden of proof squarely upon the states to demonstrate that “market conditions in which competitive forces are not adequately protecting the interests of CMRS subscribers.”

#### **Demonstration of Market Failure**

The State’s petition must include **demonstrative evidence** that:

- Market conditions in the State for CMRS do not adequately protect subscribers to such services from unjust and unreasonable rates or rates that are unjustly or unreasonable discriminatory; or
- Such market conditions exist, and that a substantial portion of CMRS subscribers in the State or a specified geographic area have no alternative means of obtaining basic telephone services.

**The Key to Preemption: The Legal Standard****The Type of Demonstrative Evidence the Commission Will Consider To Determine Market Conditions and Consumer Protection Indicates that Generalized Claims, Policy Arguments, and Legal Theories Are Insufficient To Meet the Statutory and Regulatory Burden of Proof.**

- Information about the CMRS providers in the state, and the services they provide;
- Customer trends, annual revenues, and rates of return for each in-state company;
- Rate information for each in-state company;
- The substitutability of services that the state seeks to regulate;
- Barriers to entry for new entrants to the market for such services;
- Specific allegations of fact regarding anti-competitive or discriminatory practices by in-state providers;
- Particularized evidence that shows systematically unjust and unreasonable rates, or unduly discriminatory rates charged by in-state providers; and
- Statistics regarding customer satisfaction and complaints to the state regulatory commission regarding service offered by in-state CMRS providers.

The Commission must act upon the state petition (including any reconsideration) by August 10, 1995.

**The Key to Preemption: The Legal Standard****The States Have Failed To Provide “Demonstrative” Evidence**

Instead, the states:

- provide general assertions and speculations that rates “may” or “appear” to be unjust or unreasonable. (*E.g.*, Arizona, Hawaii, New York, Louisiana, Ohio.)
- admit they have “insufficient evidence” or “inconclusive evidence” regarding the marketplace. (*E.g.*, Arizona, Connecticut, Hawaii, Louisiana.)
- substitute assertions that their regulations are necessary to protect the consumer interests in reasonable rates in place of the required “evidence of a pattern of such rates that demonstrate the inability of the marketplace in the state to provide reasonable rates through competitive forces.” 47 C.F.R. Section 20.13.

**These allegations fail to reflect the reality that such regulations themselves harm the consumer interest and distort rates and service offerings -- and that competition produces innovative and affordable services.**


**The Key to Preemption:**
**Regulation vs. Deregulation - A Measured Impact**

Compare the change in rates between a state which deregulated pursuant to the Omnibus Budget Act, and one which is seeking exemption to preserve its regulations:

**Decline in Rates in Unregulated State v. Regulated State**

	<b>January 1994</b>	<b>November 1994</b>	<b>Percent Change</b>
<b>Boston</b>	<b>Regulated \$79.91</b>	<b>Unregulated \$69.99</b>	<b>-12.41%</b>
<b>Hartford</b>	<b>Regulated \$93.31</b>	<b>Regulated \$90.75</b>	<b>-2.74%</b>

Which state's consumers have benefited more?

the consumers of deregulated Massachusetts.

the consumers of regulating Connecticut.

- Although rates may decline in states which do regulate, **rates decline further and faster in states which do not regulate.**

**The Key to Preemption:****How Competition Benefits Consumers**

Wireless companies compete for consumers by innovating, applying new technologies, offering new applications, and reducing the effective cost of service by offering:

- Competitive prices
- Extended calling areas
- Discount calling plans
- Packaged offerings -- combining service and equipment together to reduce prices, reducing entry barriers and promoting the use of cellular service
  - 1989 - top-of-the-line celphone cost @ \$3,200
  - 1995 - a similar phone cost @ \$300
  - 1995 - average walk-away price @ \$100
  - *1995 - some plans lower the price to a dollar or less*

**The Key to Preemption:****How Connecticut Fails to Meet the Burden of Proof****Wholesale Focus:**

- Connecticut DPUC policy focuses on wholesale market, with the object of creating and maintaining viable retail resellers -- but does not draw a connection between such regulation and consumer benefits.
- DPUC maintains minimum wholesale prices below which cellular cannot be sold, forming a price umbrella for the benefit of resellers.
- Wholesale rates have been reduced, and are below the maximum allowed by the DPUC.
- Wholesale, volume, and other discount plans -- all approved by the DPUC -- are available to all on same terms and conditions in accord with cellular carrier obligations.

**Consumer Information:**

- DPUC conceded evidence re basic rates was "inconclusive."
- In fact, both resellers and carriers offer identical rates to end users.
- Over the past ten years there has been double digit growth in subscriber numbers -- growth shared in by resellers -- and 100 percent growth in the past 26 months.
- There have been no consumer complaints to DPUC to carriers' knowledge.

**The Key to Preemption:****How Connecticut Fails to Meet the Burden of Proof****Procedural and Analytic Flaws**

- DPUC tries to shift the burden of proof to carriers, after having offered unsubstantiated allegations of price discrimination, lacking economic analysis demonstrating either the truth of the allegations or whether any alleged discrimination might be unjust.
- The DPUC engages in rear-view mirror analysis instead of proper forward-looking analysis of market with HHIs, disregarding substitutes and new entrants (*e.g.*, ESMR and PCS licensees).
- DPUC uses the wrong standard by substituting a subjective “truly competitive” standard for the statutory one of a determination of the “adequacy of market conditions to protect against unjust, unreasonable and discriminatory rates.”

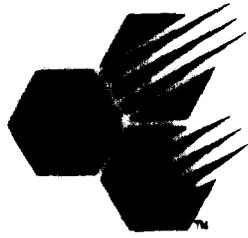


## **The Key to Preemption**

### **How State Regulators Failed to Meet Their Burden**

The FCC does not need to preempt state regulations -- *Congress has already preempted state regulations* -- the FCC simply needs to find that:

- No state has met its burden under the proper standard of the Omnibus Budget Act of 1993.
- No state has demonstrated a market failure for CMRS or that regulation provides consumers with benefits superior to those of competition.



**Building The  
Wireless Future™**

**CTIA**

**REINVENTING  
COMPETITION:  
The Wireless  
Paradigm  
& The  
Information  
Age**

## Table of Contents

	Page
Wireless is <i>The Model</i> for the Information Age.....	3
1. <i>Success of the Wireless Paradigm:</i>	
Competition Produces Declining Prices.....	3
2. <i>Success of the Wireless Paradigm:</i>	
Competition Produces Innovation.....	4
3. <i>Success of the Wireless Paradigm:</i>	
Competition Begets Competition.....	6
4. <i>Success of the Wireless Paradigm:</i>	
Competition Builds New Platforms for Universal Service.....	8
Yet the Wireless Model is Under Attack (Even for Wireless).....	10
1. <i>Attacking the Wireless Paradigm:</i>	
State Rate Regulation Raises Prices.....	11
2. <i>Attacking the Wireless Paradigm:</i>	
Local Regulation Limits Competition.....	13
3. <i>Attacking the Wireless Paradigm:</i>	
Local Regulation's Hidden Taxes.....	15
4. <i>Attacking the Wireless Paradigm:</i>	
"Unbundled Interconnection" Threatens Investment and Jobs.....	16
5. <i>Attacking the Wireless Paradigm:</i>	
Competitors Seek to Use Government to Limit Competition.....	19
A. What is "Equal" Access?.....	19
B. How Does "Equal" Access Apply to Wireless Today?.....	19
C. "Equal" Access is Anticompetitive	
in the "Local Service Market".....	20
D. "Equal" Access is Anticompetitive	
in the "Long Distance Market".....	21
E. "Equal" Access Raises Consumers' Bills.....	23
F. "Equal" Access Relates to Yesterday's Technology.....	25
G. "Equal" Access is Anti-New Technology and Services.....	26
H. "Equal" Access Means Huge Regulatory	
and Administrative Burdens.....	27
6. <i>Attacking the Wireless Paradigm:</i>	
Current Universal Service Funding is Anti-Competitive.....	30
7. <i>Attacking the Wireless Paradigm:</i>	
Investment Rules Discourage International Growth.....	30
8. <i>Attacking the Wireless Paradigm:</i>	
Numbers Are a Critical Resource Demanding Fair Administration.....	31
Moving Forward Under the Wireless Paradigm.....	32



## **Reinventing Competition: The Wireless Paradigm and the Information Age**

The "information highway" has been more of a debater's promise than a deliverable. Yet, while policymakers have been debating how to structure cyberspace, the wireless telecommunications industry has delivered a telecommunications revolution which, in the process, has road-tested the policy model for the information age.

Wireless telecommunications is an American success story because wireless has existed and grown in an environment of *competition in lieu of government intervention*.

As FCC Commissioner (and former Interim Chairman) James H. Quello recently indicated in a letter to Senator Larry Pressler:

It is important . . . to distinguish between the wired and wireless segments of the telecommunications industry. Given the rapid growth of cellular, paging and other wireless networks and services, more attention than ever is needed to distinguish the competitive wireless industry as severable from the regulation overseeing the monopoly local wired telephone industry. Over the past decade, Congress and the Federal Communications Commission have worked diligently to create a robust, competitive wireless marketplace.

It is important to guard against the instinctive application of traditional monopoly-based regulatory-based tools to the wireless marketplace -- a marketplace which has been competitive from its inception and which will grow even more competitive with the introduction of numerous PCS channels in each market.<sup>1</sup>

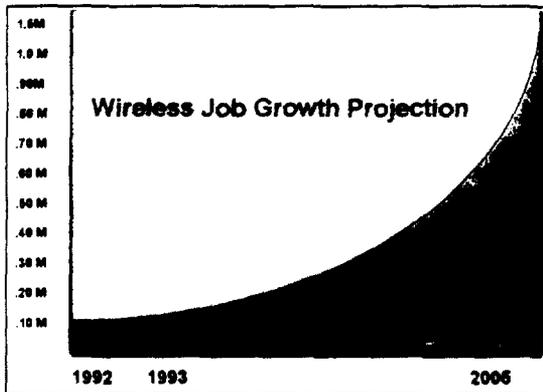
As Commissioner Quello stressed: "In my 20+ year tenure at the FCC, my colleagues and I have voted to create a competitive wireless telecommunications industry. The goal of competition is to allow the marketplace, rather than government regulation, to determine how best to serve the public. As you begin the historic review of telecommunications, I encourage you to allow the wireless telecommunications industry to remain unshackled by intrusive regulation and free to respond to the marketplace."<sup>2</sup>

---

<sup>1</sup> Letter from Honorable James H. Quello, Commissioner, FCC, to the Honorable Larry Pressler, Chairman, Committee on Commerce, Science and Transportation, January 20, 1995.

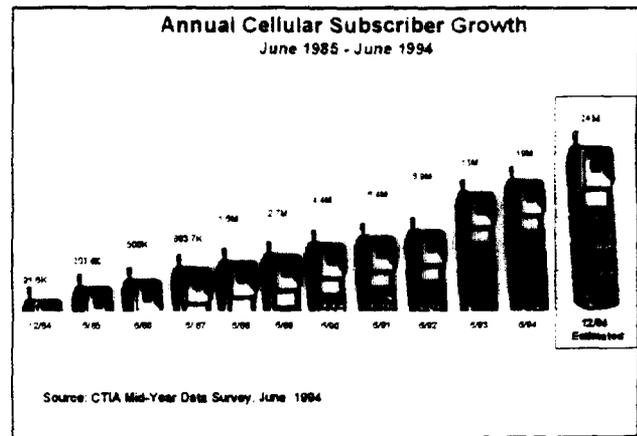
<sup>2</sup> *Id.*

Indeed, this new wireless paradigm has produced record growth and investment.



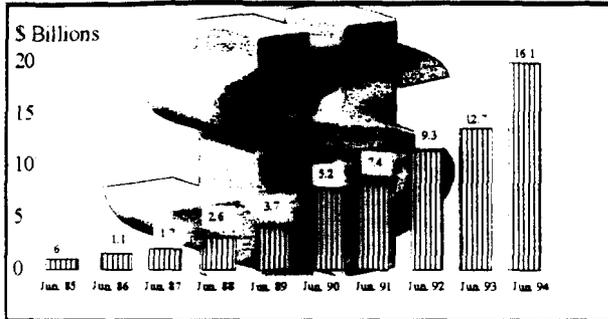
The wireless paradigm of competition in lieu of regulation has resulted in 200,000 new jobs over the past ten years -- **projected to climb to a million new jobs over the next ten years.**<sup>3</sup>

The wireless paradigm of competition in lieu of regulation has resulted in one of the fastest growing consumer electronics products in history -- **climbing to 25 million subscribers in just eleven years.**



<sup>3</sup>FCC Chairman Reed E. Hundt, November 1, 1994, announcing broadband personal communications service applicants.

**Cumulative Capital Investment**  
June 1985 - June 1994



Source: CTIA Mid-Year Data Survey, June 1994

The wireless paradigm of competition in lieu of regulation **has resulted in over \$16 billion in private capital investment -- projected to rise to over \$50 billion in the next ten years.**<sup>4</sup>

## Wireless is *The Model* for the Information Age

The telecommunications policy model for the future must be able to generate the kind of growth, investment and expanding services which are typified by the wireless experience. In examples of successful policy illustrated by the preceding charts, the wireless regulatory experience has demonstrated that:

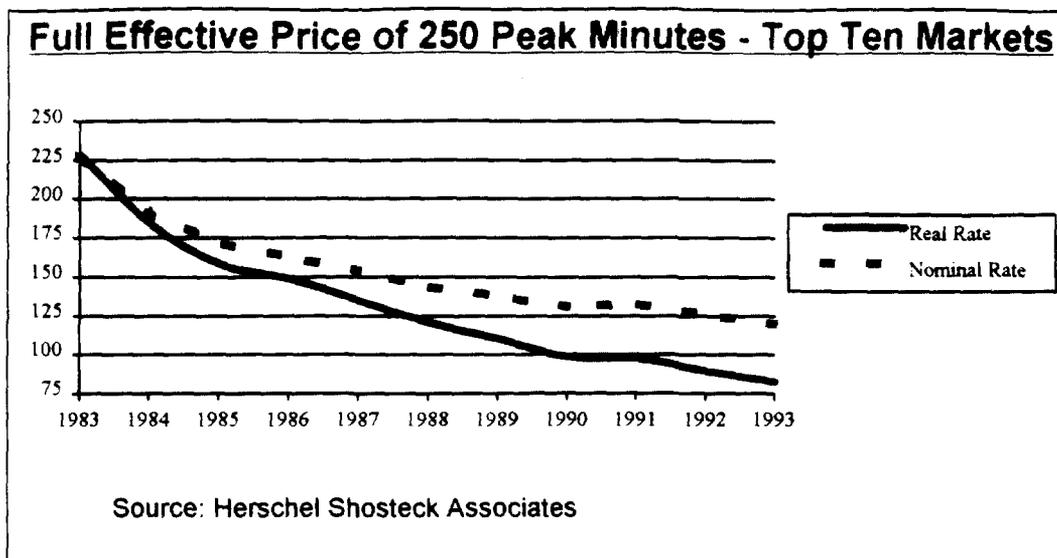
### 1. *Success of the Wireless Paradigm:* **Competition Produces Declining Prices**

FCC Chairman Reed Hundt recently observed that monthly cellular rates declined 12 percent in the last year.<sup>5</sup> This continues the trend of declining rates which has marked cellular service throughout its twelve year history.

As the following chart illustrates, in its first 10 years, cellular rates declined 63.8 percent in real terms.

<sup>4</sup> *Id.*

<sup>5</sup> Chairman Reed E. Hundt, Speech Before the Personal Communications Industry Association Conference, December 14, 1994, at 2.



## 2. *Success of the Wireless Paradigm:* Competition Produces Innovation

Competition creates clear benefits by fostering innovation in wireless services and technologies, creating a dynamic in which manufacturers and service providers work together to meet evolving consumer demands.

As Robert E. Litan, Deputy Assistant Attorney General for Antitrust observed in a speech on October 6, 1994, “**competition must remain as the central governing principle of the information age. Competition will best promote continued innovation. Competition will guarantee consumers the lowest prices for telecommunications and information services. And by securing low prices, competition is an essential means for promoting the availability of these services.**”<sup>6</sup>

The superiority of competitive market forces, combined with a light governmental hand, quickly becomes evident if you compare the record of innovation in wireless services with innovations in other services.

<sup>6</sup>Robert E. Litan. “Antitrust Enforcement and the Telecommunications Revolution: Friends, Not Enemies,” Speech Before the National Academy of Engineering, October 6, 1994, at 11 (emphasis supplied).

<b>Wireless Innovation</b>	<b>Government Decision-Making</b>
<b>Car → Pocket</b>	<b>HDTV</b>
<b>Mobile → Fixed</b>	<b>VDT</b>
<b>Analog → Digital</b>	<b>AM Stereo</b>
<b>Voice → Voice + Data</b>	<b>Computer III</b>

Over the past twelve years, wireless competition has fostered innovations which have been submitted to consumers for their judgment.

- Evolution from car phones to bag phones to lightweight portable phones.
- Evolution from mobile to fixed services, such as monitoring and control of agricultural activities, as well as basic fixed voice service in areas without wired telephone service.
- Evolution from analog to (multiple) digital technologies, fostering more efficient use of spectrum.
- Evolution from primarily a voice service to a wide variety of other services such as wireless data transmission.

**By comparison, government involvement in other technologies has produced delay.**

- In 1987, the FCC initiated its High Definition Television (HDTV) docket. Though the FCC has issued many orders and notices on HDTV, no product has yet reached American consumers.<sup>7</sup>
- Since 1987, the ability of telephone companies to deliver video over telephone lines has been the subject of several protracted FCC proceedings. The FCC adopted a decision in 1992 permitting telephone companies to provide "Video Dial Tone" -- transport and gateway functions -- under certain conditions. **However, the "mother may I" nature of the regulatory process has provided competitors with both the**

---

<sup>7</sup> See *Notice of Inquiry*, Docket No. 87-268, *Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service*, 2 FCC Rcd. 5125 (1987); *Tentative Decision and Further Notice of Inquiry*, 3 FCC Rcd. 6520 (1988); *First Report and Order*, 5 FCC Rcd. 5627 (1990); *Second Report and Order*, 7 FCC Rcd. 3340 (1992). See also Advisory Committee on Advanced Television Services, *Interim Report* (June 1988), *Second Interim Report* (April 1989), *Third Interim Report* (March 1990), and *Fourth Interim Report* (March 1991).

**means and opportunity of delaying the introduction of new technologies and services.** thwarting the development of competition and forcing would-be competitors to divert resources to litigation -- resources which could be better put to the consumers' benefit.<sup>8</sup>

- The FCC's back-and-forth decisions regarding a standard for AM stereo also created a great deal of uncertainty on the part of investors, manufacturers, and service providers, hampering investment, innovation, and ultimately, service to consumers.<sup>9</sup>
- Initiated in 1985, the FCC's *Computer III* docket proposed a new, detailed regulatory structure for "enhanced" services, and it is still outstanding ten years later -- it has neither fostered innovation in such services, nor otherwise contributed to consumer welfare.<sup>10</sup>

### 3. ***Success of the Wireless Paradigm: Competition Begets Competition***

***The dramatic growth of the wireless business, the accompanying price decreases and technological innovation are the result of a competitive wireless marketplace.*** In 1981, the FCC took the revolutionary step of creating a competitive market structure for the new service called "cellular." But pro-competitive policy didn't stop in 1981. The FCC changed its rules for other mobile services throughout the 1980s and into the 1990s to encourage additional competition. Legislation passed in 1982 directed the FCC to give providers of Specialized Mobile Radio (SMR) dispatch services

---

<sup>8</sup> See e.g., *Notice of Inquiry*, CC Docket No. 87-266, *Telephone Company-Cable Television Cross-Ownership Rules*, 2 FCC Rcd. 5092 (1987); *Further Notice of Inquiry and Notice of Proposed Rulemaking*, 3 FCC Rcd. 5849 (1988); *Further Notice of Proposed Rulemaking, First Report and Order and Second Further Notice of Inquiry*, 7 FCC Rcd. 300 (1991); *Second Report and Order, Recommendation to Congress, and Second Further Notice of Proposed Rulemaking*, 7 FCC Rcd. 5781 (1992). Both GTE and Bell Atlantic litigated the prohibition on telephone company provision of video programming directly to subscribers in their telephone service areas, which the courts have ruled violate their First Amendment rights. The FCC has therefore recently adopted a *Fourth Further Notice of Proposed Rulemaking* to re-examine the issue. See FCC News Release, Report No. DC 95-14, released January 12, 1995.

<sup>9</sup> See e.g., *Report and Order*, Docket No. 21313, 47 Fed. Reg. 13152 (1982) and *Memorandum Opinion and Order*, 3 FCC Rcd. 403 (1988) (declining to adopt an AM standard); *Report and Order*, MM Docket No. 87-267, 6 FCC Rcd. 6273 (1991), *Memorandum Opinion and Order*, MM Docket No. 87-267, 8 FCC Rcd. 3250 (1993) (declining to adopt AM receiver standard); and *Amendment of the Commission's Rules to Establish a Single AM Radio Stereophonic Transmitting Equipment Standard*, ET Docket No. 92-298, 3 FCC Rcd. 688 (*Notice of Proposed Rulemaking*), *Report and Order*, 8 FCC Rcd. 8216 (1993) (adopting an AM standard).

<sup>10</sup> See e.g., *Amendment of Section 64.702 of the Commission's Rules and Regulations, Phase I, Report and Order*, 104 FCC 2d 958 (1986), *recon.* 2 FCC Rcd. 3035 (1987), *further recon.*, 3 FCC Rcd. 1135 (1988), *second further recon.*, 4 FCC Rcd. 5927 (1989), *Phase I Order and Phase I Recon. Order vacated*, *California v. F.C.C.*, 905 F.2d 1217 (9th Cir. 1990).

an opportunity to interconnect with the public switched telephone network.<sup>11</sup> As a result, dispatch services began evolving to look a lot like cellular service. Since then, even more remarkable changes have occurred in the SMR industry: the FCC allocated more spectrum, encouraged technological innovation, and permitted wide-area SMR operations that transform SMR into "Enhanced SMR" (ESMR), a competitive cellular-like provider.<sup>12</sup>

**Additional wireless competition begins this year:**

- The FCC has allocated 120 megahertz of spectrum -- 240% of the spectrum available for "cellular" -- to broadband "personal communications services" (PCS). The auction, now underway, will produce up to six new wireless competitors per market.
- The FCC has allocated spectrum to Mobile Satellite Services (MSS), and in the Spring of 1995, American Mobile Satellite Corporation is scheduled to launch its geostationary MSS service -- using satellites to provide service to mobile communications subscribers.
- The FCC has allocated spectrum for "narrowband PCS" services, to provide two-way messaging, advanced paging, and data services.
- On the horizon are Low Earth-Orbiting (LEO) satellite systems, providing more wireless telecommunications competition.

In 1993, Congress further enhanced wireless competition by directing that like wireless services would be regulated alike. This removed the regulatory differences between services, forcing companies to compete in the marketplace rather than before regulators. "Regulatory parity" encouraged further competition by classifying practically all wireless services as "Commercial Mobile Services" and mandating that the federal government and most states forbear from substituting regulatory judgment for the competitive market.<sup>13</sup>

*In 1982 and in 1993, Congress got it right. Throughout the 1980s, the FCC got it right. In both instances, policymakers recognized that **competitive forces and minimal regulations create an environment for the growth of tremendous consumer benefits.** In*

---

<sup>11</sup> *Second Report and Order*, Docket No. 20846, 89 F.C.C.2d 741, 752-53 (1982), *recon.* 93 F.C.C.2d 1111 (1983).

<sup>12</sup> *See e.g., Report and Order*, GN Docket No. 84-1233, 2 FCC Rcd. 1825 (1986) (allocation); *see also Fleet Call, Inc.*, 6 FCC Rcd. 1533, *recon. dismissed*, 6 FCC Rcd. 6989 (1991).

<sup>13</sup> *See Omnibus Budget Reconciliation Act of 1993*, Pub. L. No. 103-66, Sec. 6002(b)(2)(A), 107 Stat. 312, 393 (1993). The FCC re-named these services "Commercial Mobile Radio Services" (CMRS) in implementing Congress' directives.

doing so, policymakers developed and tested the new paradigm for telecommunications in the information age.

#### 4. **Success of the Wireless Paradigm: Competition Builds New Platforms for Universal Services**

Competition fosters new platforms for the delivery of universal and ubiquitous services. Competitive wireless services offer multiple paths for connecting with other people -- in rural and urban locations.

For instance, as the Council on Competitiveness observed in its recent report, *Breaking the Barriers to the National Information Infrastructure*, most schools lack telephone lines in classrooms to facilitate educational services drawing upon remote video, audio, image and text information.<sup>14</sup> Wireless technologies are able to bring these resources to such classrooms.

The CTIA Foundation for Wireless Telecommunications and CTIA's members are helping math teachers better educate their students and health care providers better treat their patients. With its MATHLINE project, the CTIA Foundation is providing laptop computers with cellular modems and free air time to bring state-of-the-art mathematics education to schools nationwide.<sup>15</sup> This specific application provides the last critical link between schools and the information superhighway -- a link which would be long in coming if we required a hard-wired on- and off-ramp to that highway.

Providers like Southwestern Bell Mobile Systems are using wireless technology to improve education overall, putting wireless communications to work in a Dallas school district by equipping teachers, administrators and custodians with microcell-based pocket phones on a junior high school campus.

The Dallas experience has been judged a success, as it fills a major void by solving basic communications problems for teachers and administrators alike. Using

**The objectives of the SWB Mobile Systems Dallas school project are:**

- **to improve the effectiveness of teachers;**
- **to improve the content of the curriculum;**
- **to accelerate the learning of students by creating a telecommunications-rich environment that opens new doors to opportunities and resources and establishes a foundation for life-long learning.**

<sup>14</sup> "Breaking the Barriers to the National Information Infrastructure: A Conference Report by the Council on Competitiveness." December 1994, at 41-42 (reviewing education project demonstrations).

<sup>15</sup> See e.g., "NYNEX Teams Up With Thirteen/WNET to Provide On-Line 'Anytime, Anywhere' Math Education," *Business Wire*, January 10, 1995.

their phones, teachers can summon help to an unruly incident or reward a student with an immediate call home to report a good grade. In one incident, a student having a seizure received quick medical help in the classroom despite the fact the nearest landline telephone was in the school office, a half-mile away.

Similar applications exist in rural, suburban and urban environments. Indeed, there are as many applications as there are opportunities and needs for mobility -- or for efficient and economical telecommunications. In rural areas, wireless telecommunications promises to support educational, agricultural, and medical applications -- including support for rural mobile emergency units and constant effective communications for rural community hospitals, clinics, and their professional and volunteer staff.

Another demonstration project funded by the CTIA Foundation for Wireless Telecommunications is at New York's Columbia-Presbyterian Medical Center where wireless is providing a system of coordinated care to tuberculosis patients. This project, done in conjunction with the New York City Department of Health and the Visiting Nurse Services of New York City, enables visiting nurses equipped with laptop computers and wireless modems to treat patients in their homes.<sup>16</sup>

**The Columbia-Presbyterian health care project uses wireless communications and networked databases to:**

- **coordinate the many health care providers treating TB patients;**
- **respond better to patient needs;**
- **ensure appropriate TB protocols are followed, thus reducing treatment failures and drug-resistant strains of TB;**
- **provide an infrastructure that will be used for the treatment of other diseases;**
- **ensure confidentiality of medical records on an electronic network; and**
- **evaluate and disseminate the results of the demonstrations.**

Wireless telecommunications is an important expansion of universal telecommunications coverage. The competitive wireless market not only encourages new services, but the lack of regulation stimulates innovative applications.

<sup>16</sup> In the United States, approximately 10 million people have latent TB infections and 2,000 die of TB each year. After a long decline in TB deaths, the mortality rate has begun to climb in recent years. AIDS, poverty, the rise in antibiotic resistant strains of TB, along with a host of health factors and social conditions have caused this emerging public health crisis. Tuberculosis is on the rise nationwide, especially in New York City, Los Angeles, Miami, and Washington, DC. Home care follow-up is key to ensuring that the full course of treatment is completed.

## **Yet the Wireless Model is Under Attack (Even for Wireless)**

This exciting wireless success story is so unlike other telecommunications policy experience that legislators and regulators often overlook the wireless paradigm when developing policy.

Telecommunications legislation in the 103rd Congress, for instance, put the wireless success story at risk by imposing on it regulatory policies intended for monopolies. The policy approach of the Administration and the Senate threatened to impose on all telecommunications carriers a "one-size-fits-all" regulatory construct. That approach proposed to burden competitive carriers with anti-competitive rules; forcing them to submit to and then wrestle to get out from under these burdens before being allowed to return to competition. Such a policy approach threatens to harm consumers and destroy jobs by discouraging investment and curtailing new competitive services.

The House Commerce Committee, on the other hand, embraced the wireless model and exempted these competitive services from the monopoly-based regulations applicable to other less competitive carriers. As Representative Jack Fields said at the January 27, 1994, Hearing of the House Subcommittee on Telecommunications and Finance: "Last year we began the process of building a national telecommunications infrastructure when we adopted a regulatory framework for wireless telecommunications services built upon the same concepts contained in H.R. 3636. Today we will take the next step in the process of crafting a national telecommunications policy as we turn our attention to the other sectors of the telecommunications industry."

On January 9, 1995, Representative Fields appeared before the Senate Commerce Committee Hearing on Telecommunications, and stressed that **the goal of telecommunications legislation "should be to provide guidance without micromanagement,"** and that **"our theme will be to regulate only where absolutely necessary and to let market forces govern."** As Representative Fields declared, "by removing statutory and regulatory barriers to entry, we will provide new opportunities and new competition that will build the infrastructure of the next century."

Finally, although 42 states now recognize that competition benefits consumers more than regulation, state regulators in eight states -- Arizona, California, Connecticut, Hawaii, Louisiana, New York, Ohio and Wyoming -- are fighting at the FCC to resist a Congressional mandate to open their markets fully to competition, through the continued application of rate and entry regulation to the wireless industry. State and local regulators are also using zoning and other permit requirements to prevent companies from building wireless telecommunications systems.

**1. *Attacking the Wireless Paradigm:*  
State Rate Regulation Raises Prices**

In 1993, Congress preempted state rate and entry regulation because it delays price reductions, prevents companies from offering innovative service packages, and replaces competition in the marketplace with competition in hearing rooms. The FCC is now hearing petitions by eight states which claim they should be exempt from this preemption and be allowed to regulate wireless service.

A recent study by Dr. Jerry Hausman, MacDonald Professor of Economics at MIT, demonstrates that *rates in deregulated states are 15 percent lower than rates in states which regulate*, and that subscribership is higher in deregulated states.<sup>17</sup> Even when rates decline in states which do regulate, **rates decline further and faster in states which do not regulate.**

**Decline in Rates in Unregulated State v. Regulated State**

	<b>January 1994</b>	<b>November 1994</b>	<b>Percent Change</b>
<b>Boston</b>	<b>Regulated \$79.91</b>	<b>Unregulated \$69.99</b>	<b>-12.41%</b>
<b>Hartford</b>	<b>Regulated \$93.31</b>	<b>Regulated \$90.75</b>	<b>-2.74%</b>

In Boston, for instance, the price of 160 minutes of cellular service fell from \$79.91 in January 1994 -- when cellular service was still regulated by the state -- to \$69.99 in November 1994, after cellular service had been deregulated. **The price of deregulated cellular service decreased by 12.41 percent in just ten months** -- far outstripping the price decline in neighboring Hartford, Connecticut, over that same period, where **the price of regulated cellular service fell only 2.74 percent** from \$93.31 to \$90.75.

Regulation leads to higher prices because it alerts competitors in advance and creates a forum -- the state Public Utilities Commission -- where the rate decrease can be fought by procedural means. In California, for instance, resellers have repeatedly used the PUC to stop discount and promotional plans, and a new wireless entrant used the PUC to stop LA Cellular's proposed price reductions.

---

<sup>17</sup> See Affidavit of Professor Jerry A. Hausman, September 14, 1994, filed as an attachment to CTIA Opposition to Petition of the State Public Utility Commission, PR Docket Nos. 94-101, *et al.*, at 4-6.