

# Mobile Wireless Competition in the U.S.

Presentation to

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CTIA – The Wireless Association®

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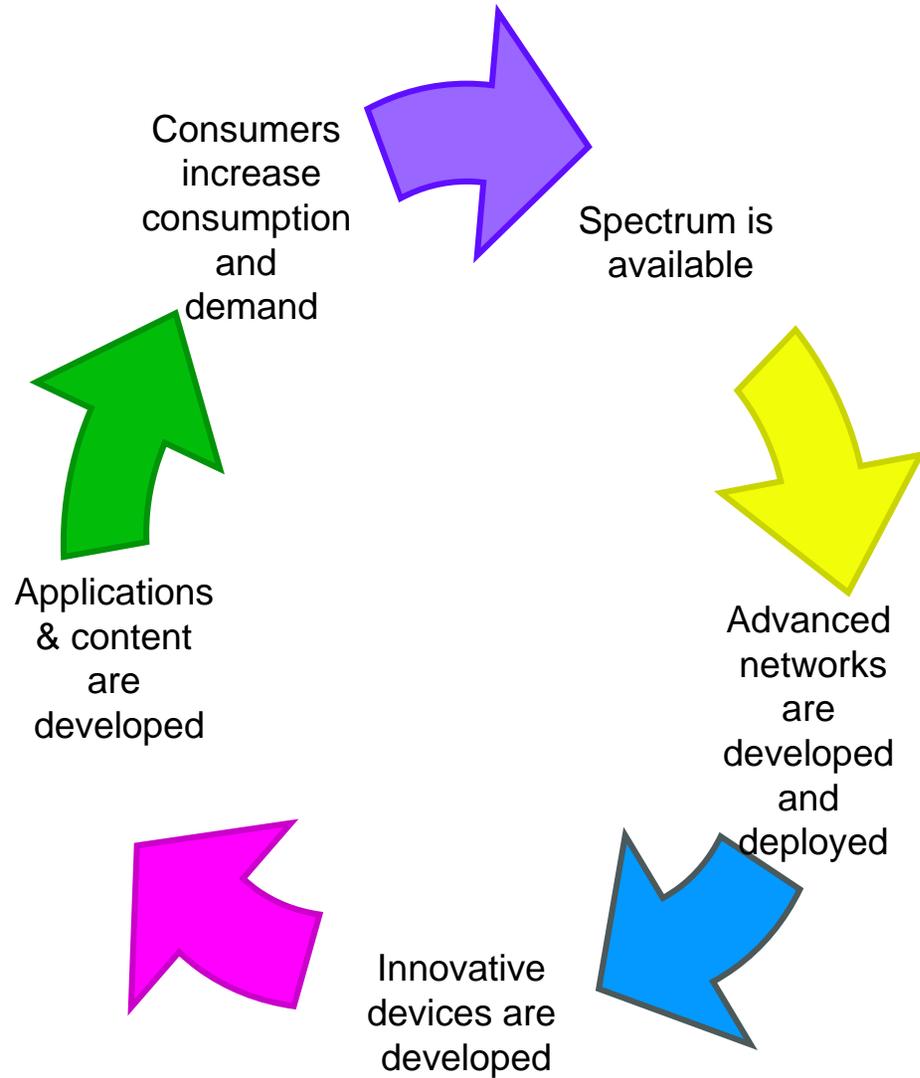
# Summary – U.S. Wireless Leadership, Innovation, and Job Creation Are Driven by Competition

- Wireless is a Key Economic Driver and is Essential to Global Competitiveness
  - U.S. providers make billions of dollars in capital investments each year, drive productivity across the economy, and are a major source of jobs.
- Competition in the U.S. is Robust at Each Level of the Wireless Ecosystem
- The U.S. Wireless Market is the Most Competitive in the World
- U.S. Wireless Providers Continue to Invest Heavily, Leading the World in Mobile Broadband Deployment and Adoption
- U.S. Wireless Ecosystem is Delivering Cutting-Edge Applications and Devices
- U.S. Consumers Enjoy World-Leading Value in Wireless Services

# The Evolving U.S. Wireless Ecosystem

- **Carriers**
  - Four nationwide providers.
  - Multiple regional providers and new entrants.
  - Over 140 licensees providing service in total.
- **Infrastructure Suppliers**
  - Leading world in deployment of 3<sup>rd</sup> & 4<sup>th</sup> Generation mobile broadband networks through companies such as Alcatel-Lucent, Avaya, Cisco, Ericsson, Motorola, Nokia Siemens, Qualcomm.
- **Device Manufacturers**
  - 630 different handsets/devices manufactured by 32 companies for U.S. market.
  - Some of most advanced handsets launched in U.S. – Apple iPhone 3G and 3GS; Google Nexus One; HTC MyTouch; LG Voyager; Blackberry Storm, Pearl, and Curve 8900; Samsung Instinct; Motorola Droid Incredible; Palm Pre and Pixi.
- **Operating System Providers**
  - 10 different wireless operating systems developed by companies such as Microsoft, Google, Apple, Nokia, RIM, Sun Microsystems, and Palm.
- **Applications Developers and Online Stores**
  - In past 20 months, wireless ecosystem has launched more than 150,000 applications for consumers, creating new jobs and opportunities for developers.

# “Virtuous Cycle”



# United States Wireless Market is Most Competitive in Developed World

- Wireless in the U.S. is More Competitive Than Any Country in the OECD.
  - U.S. Has Lowest Market Concentration (HHI) of OECD countries.
- The level of concentration in the next closest country (Germany) is approximately 500 points above that in the U.S.
- The combined market share of the top two U.S. carriers is less than that of the top two providers in any of the 26 OECD countries monitored.

Wireless Mobile Competition in OECD Countries, 4Q09								
HHI Values								
Number of Operators	1	2	3	4	5	6	Others	HHI Sum
Australia	1,689.21	1,069.29	686.44	0.00	0.00	0.00	0.00	3,444.94
Austria	1,823.29	924.16	349.69	67.24	0.00	0.00	0.00	3,164.38
Belgium	1,849.00	846.81	635.04	7.29	0.00	0.00	0.00	3,338.14
Canada	1,361.61	912.04	806.56	4.41	4.00	0.16	0.00	3,088.78
Czech Republic	1,656.49	1,361.61	501.76	0.00	0.00	0.00	0.00	3,519.86
Denmark	2,079.36	761.76	388.09	50.41	0.00	0.00	0.00	3,279.62
Finland	1,489.96	1,398.76	576.00	0.00	0.00	0.00	0.00	3,464.72
France	2,246.76	1,253.16	292.41	0.00	0.00	0.00	0.00	3,792.33
Germany	1,310.44	1,024.00	306.25	204.49	0.00	0.00	0.00	2,845.18
Greece	1,971.36	998.56	576.00	0.00	0.00	0.00	0.00	3,545.92
Hungary	2,043.04	1,017.61	529.00	0.00	0.00	0.00	0.00	3,589.65
Italy	1,225.00	1,142.44	432.64	106.09	0.00	0.00	0.00	2,906.17
Japan	2,410.81	772.84	368.64	14.44	0.00	0.00	0.00	3,566.73
Korea	2,560.36	979.69	327.61	0.00	0.00	0.00	0.00	3,867.66
Mexico	5,069.44	436.81	18.49	12.96	0.00	0.00	0.00	5,537.70
Netherlands	2,693.61	605.16	552.25	0.00	0.00	0.00	0.00	3,851.02
New Zealand	2,480.04	2,125.21	16.81	0.00	0.00	0.00	0.00	4,622.06
Norway	3,014.01	918.09	62.41	47.61	0.00	0.00	0.00	4,042.12
Poland	985.96	942.49	912.04	59.29	0.00	0.00	0.00	2,899.78
Portugal	1,909.69	1,267.36	428.49	0.00	0.00	0.00	0.00	3,605.54
Spain	1,883.56	973.44	479.61	7.84	0.00	0.00	0.00	3,344.45
Sweden	2,143.69	846.81	259.21	72.25	0.00	0.00	0.00	3,321.96
Switzerland	3,856.41	424.36	299.29	0.00	0.00	0.00	0.00	4,580.06
Turkey	3,169.69	620.01	353.44	0.00	0.00	0.00	0.00	4,143.14
United Kingdom	1,764.00	712.89	571.21	54.76	0.00	0.00	0.00	3,102.86
United States	1,017.61	858.49	285.61	139.24	5.29	2.89	37.21	2,346.34

Source: Bank of America Merrill Lynch, "Global Wireless Matrix 1Q10"

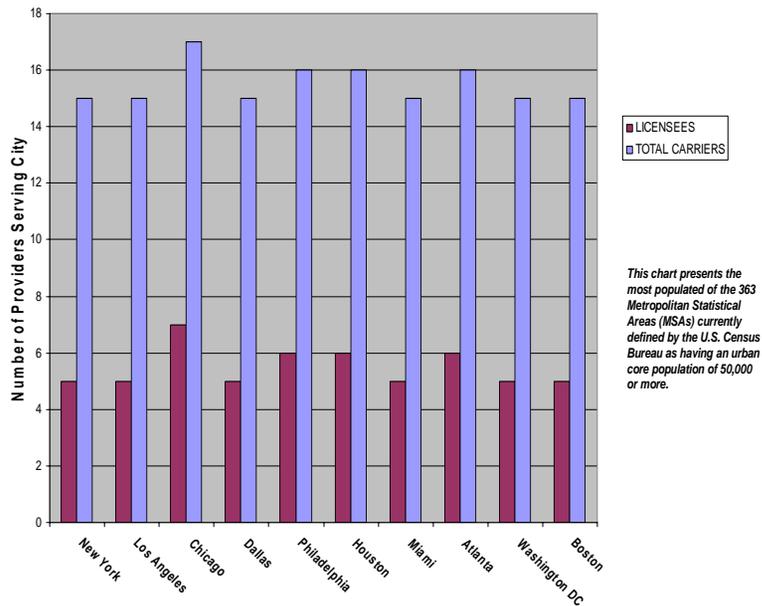
# United States Wireless Market is Most Competitive in Developed World

Countries with Three Providers	Countries with Four Providers	Countries with Five or More Providers
Australia Czech Republic Finland France Greece Hungary Korea Netherlands New Zealand Portugal Switzerland Turkey	Austria Belgium Denmark Germany Italy Japan Mexico Norway Poland Spain Sweden UK	Canada USA

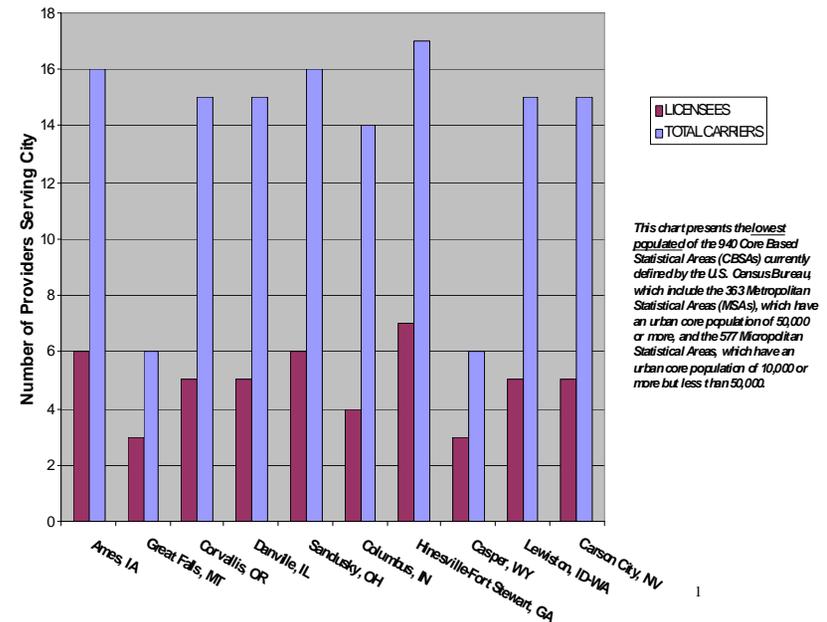
- Of the 26 OECD countries tracked, 12 have three or fewer competitors, 12 have four, and only the U.S. and Canada have more than five.
- There are eight facilities-based carriers that have approximately one million or more subscribers in the U.S., with more than 140 separate wireless carriers, and 43 non-facilities based Mobile Virtual Network Operators (“MVNOs”) also providing service.

# Competition is Robust in Markets Large and Small

Wireless carrier competition exists in U.S. urban areas that are large...



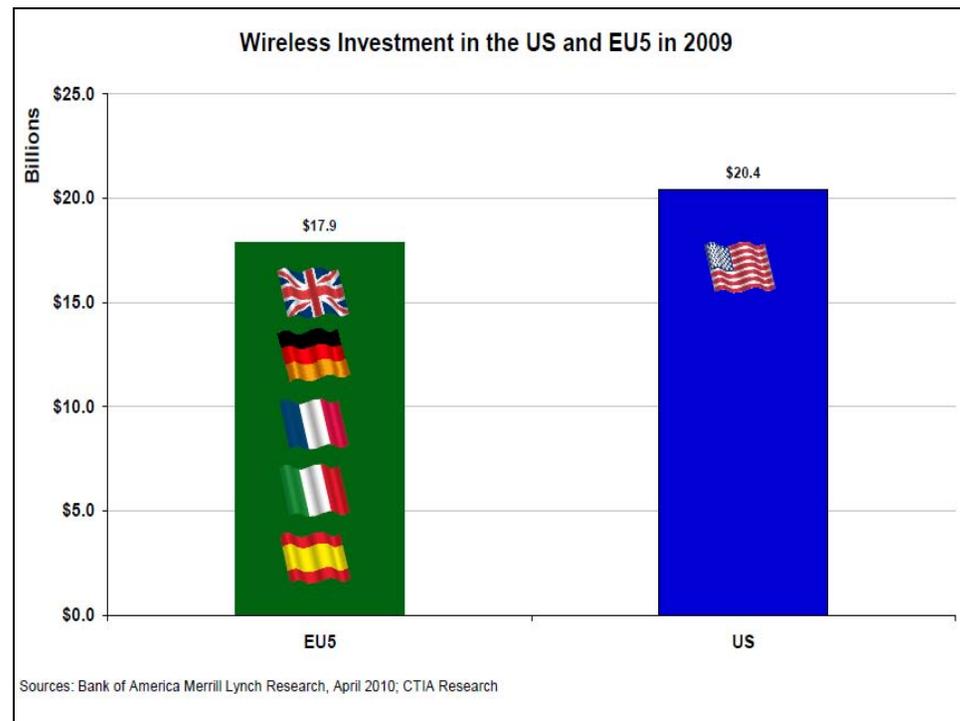
...and U.S. cities that are small!



- More than 95% of the U.S. population can choose from at least 3 competing carriers.
- Roughly 65% of Americans have a choice of five or more facilities-based providers, without even counting MVNO competition.

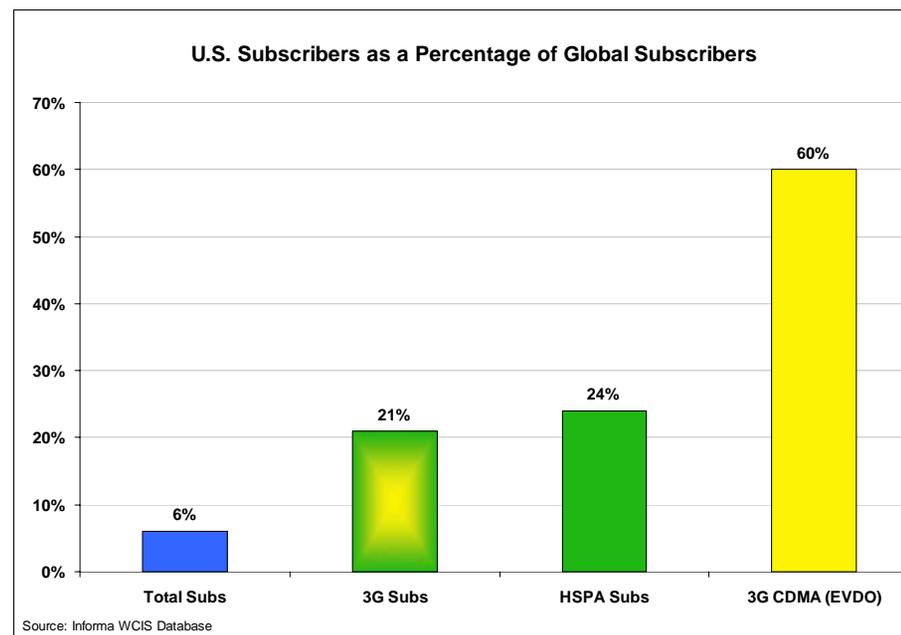
# U.S. Wireless Providers Continue to Invest Heavily

- U.S. wireless service providers have continued to demonstrate their commitment to consumers through capital investment in their networks.
- In 2009, U.S. wireless providers invested \$20.4 billion in their currently operational networks alone, compared to \$17.9 billion invested by wireless providers in the five largest European countries combined.



# As a Result, U.S. Market Leads in Mobile Broadband Deployment and Adoption

- While the U.S. accounts for only 6% of the total world's total wireless subscribers, the U.S. has more than 21% of the world's 3G subscribers.
- The U.S. has more 3G consumers than are found in the five largest European countries combined: France, Germany, Italy, Spain and the United Kingdom ("the EU5").



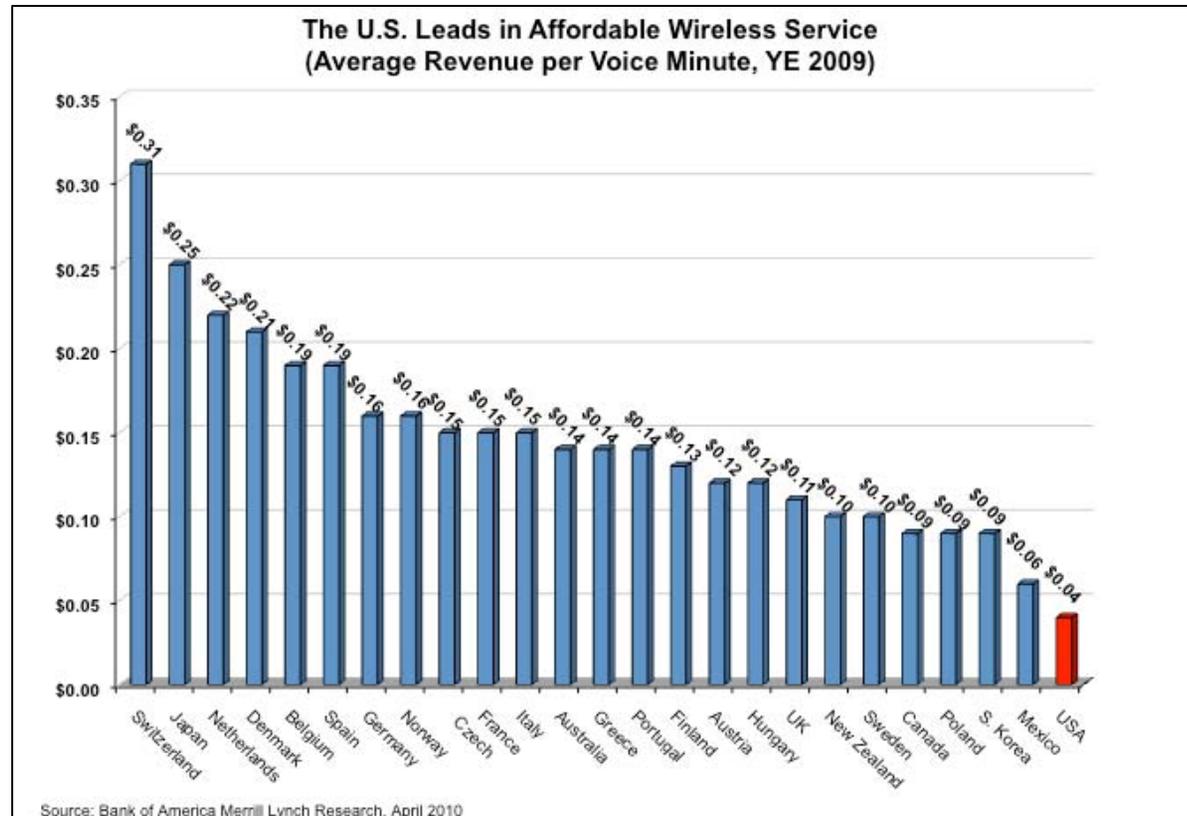
# U.S. Wireless Ecosystem is Delivering Cutting-Edge Applications and Devices

- More than 240,000 applications available -- more than double the number (100,000) that were available when CTIA filed its Competition Comments just six months ago.
- Mobile application downloads expected to rise 145% this year to 5.9 billion.
- Most cutting edge devices, including Apple iPhone 3GS and iPad; Google Nexus One; HTC MyTouch; Blackberry Storm, Bold, Pearl, Tour and Curve 8900; Samsung Instinct; Motorola Droid Incredible; Palm Pre and Pixi; Amazon Kindle; Barnes & Noble Nook, and more; launched in the U.S. first.

Application Store	Date Launched	Number of Apps Available <sup>[1]</sup>
iTunes App Store	July 2008	185,000 apps
Android Market	October 2008	38,000 apps
Palm Software Store	January 2009	5,000 apps and games
BlackBerry App World	April 2009	5,392 apps
Nokia Ovi Store	May 2009	6,843 apps
Palm App Catalog	June 2009	1,970 apps
Windows Mobile Marketplace	Oct 2009	1,014 apps

# U.S. Consumers Enjoy World-Leading Value in Wireless Services

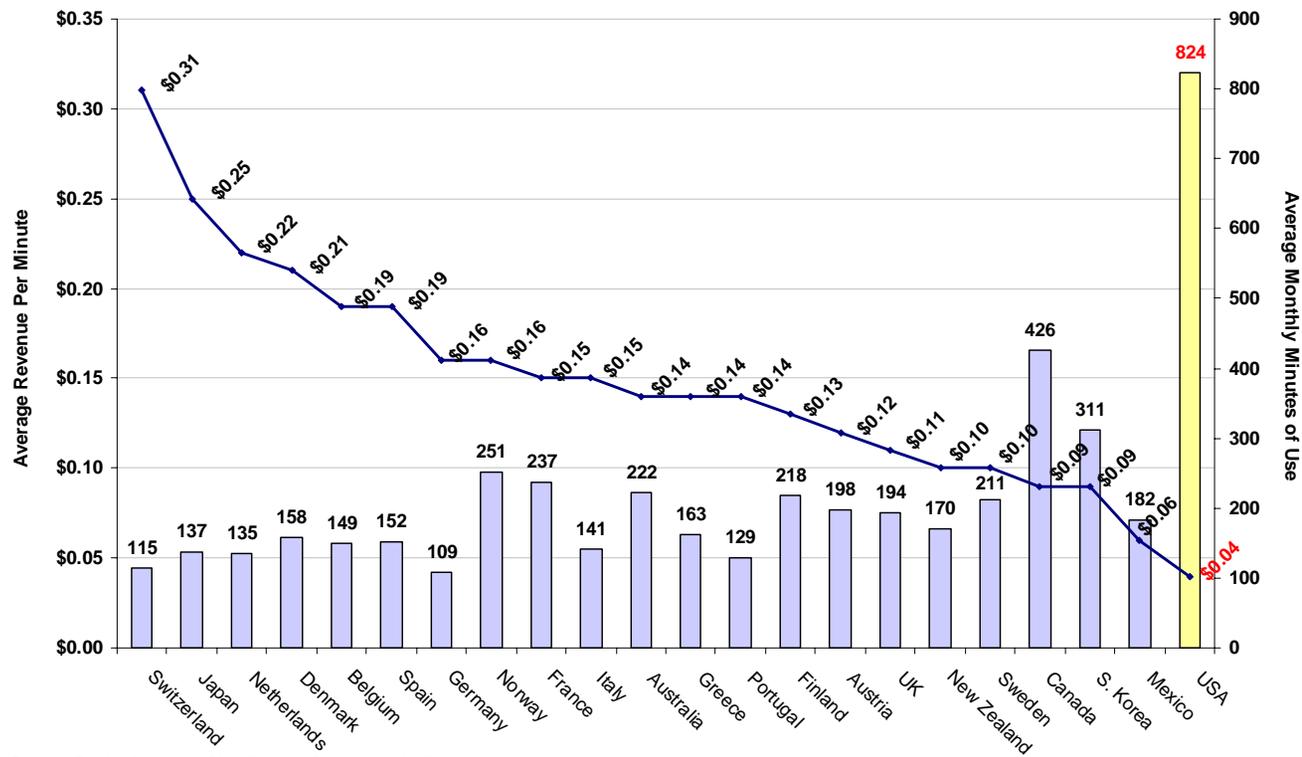
- According to independent third party analysis as recently as April 2010, U.S. consumers benefit from the lowest effective cost per minute among the 26 OECD countries monitored.



# U.S. Consumers Enjoy World Leading Value in Wireless Services

- Wireless consumers in other countries use far fewer minutes and pay much higher per-minute rates.

**The U.S. Offers You the Most for Your Money  
(Average Revenue per Voice Minute v. Average Monthly Minutes)**



Source: Bank of America Merrill Lynch Research, April 2010

# U.S. Wireless Providers Compete for Every Customer

- Education: [AccessWireless.org](http://AccessWireless.org)

**AccessWireless.Org** is the portal to the wireless world for individuals with disabilities including persons who are deaf, blind, hearing impaired or have mobility or cognitive disabilities. CTIA and its member companies believe that all consumers should have equal access to wireless communications.

- Results:
  - Over 80% of individuals with disabilities have a wireless device.
  - The majority of people with hearing limitations are using wireless to text, e-mail and access the Internet.
  - Wireless carriers offer unlimited data plans for consumers with disabilities including texting, e-mail and web access.
  - Satisfaction with Wireless Industry and HAC Growing. FCC data show that wireless-focused HAC complaints is non-existent or miniscule.

# Conclusion – United States Wireless Ecosystem Leads The World

- U.S. Wireless Industry is #1 for:
  - U.S. Consumers Pay Less for their Wireless Service
    - Lowest revenue per minute of OECD countries. Average revenue per minute is nearly 65% lower than the average European country.
  - U.S. Consumers Rely Heavily on Wireless Service
    - ~3x MOUs of the highest ranked European country (France).
    - ~3x MOUs of the highest ranked Asian country (Korea).
  - U.S. Consumers Are Embracing Innovative Mobile Internet Services
    - More mobile Internet users than any other country.
    - Largest number of diverse handsets.
  - U.S. Has Lowest Market Concentration (HHI) of OECD countries
- By Any Definition, U.S. Wireless Market is Effectively Competitive and is Delivering for Consumers.