

# Fiber-to-the-Home Council

## North America

TAP INTO THE MOST VALUABLE BROADBAND RESOURCE AVAILABLE



## North American FTTH/FTTP Deployment Status

*Presented by:*  
*Michael C. Render*

**RVA LLC**  
Market Research & Consulting



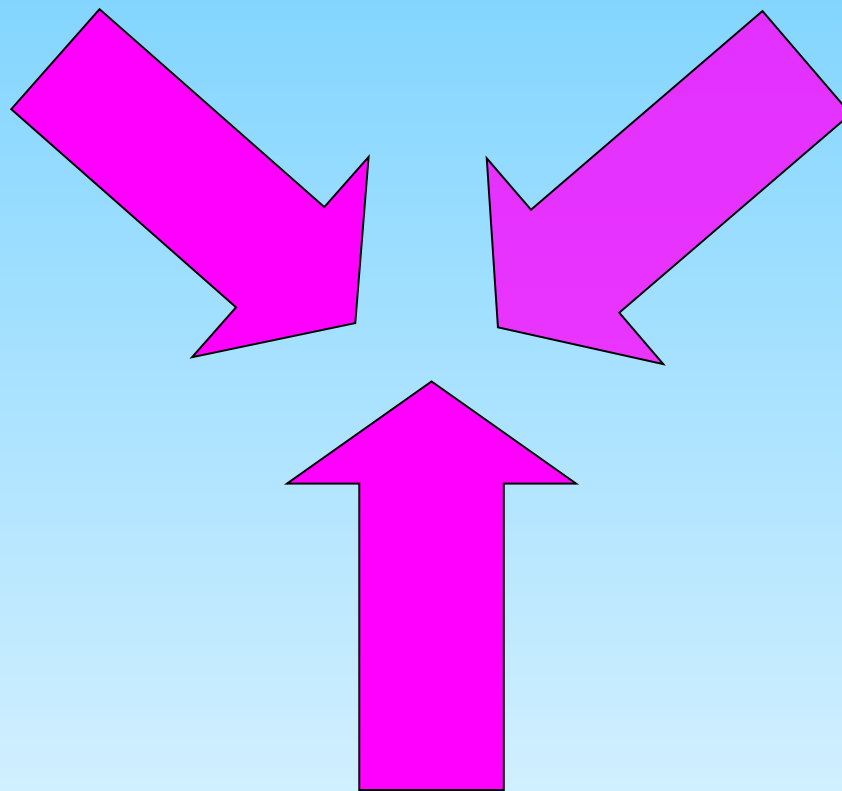
# **Market research objective: High accuracy**

# **Methodology:**

## **Deep research and cross checks**

Vendor information  
and interviews (nearly all)

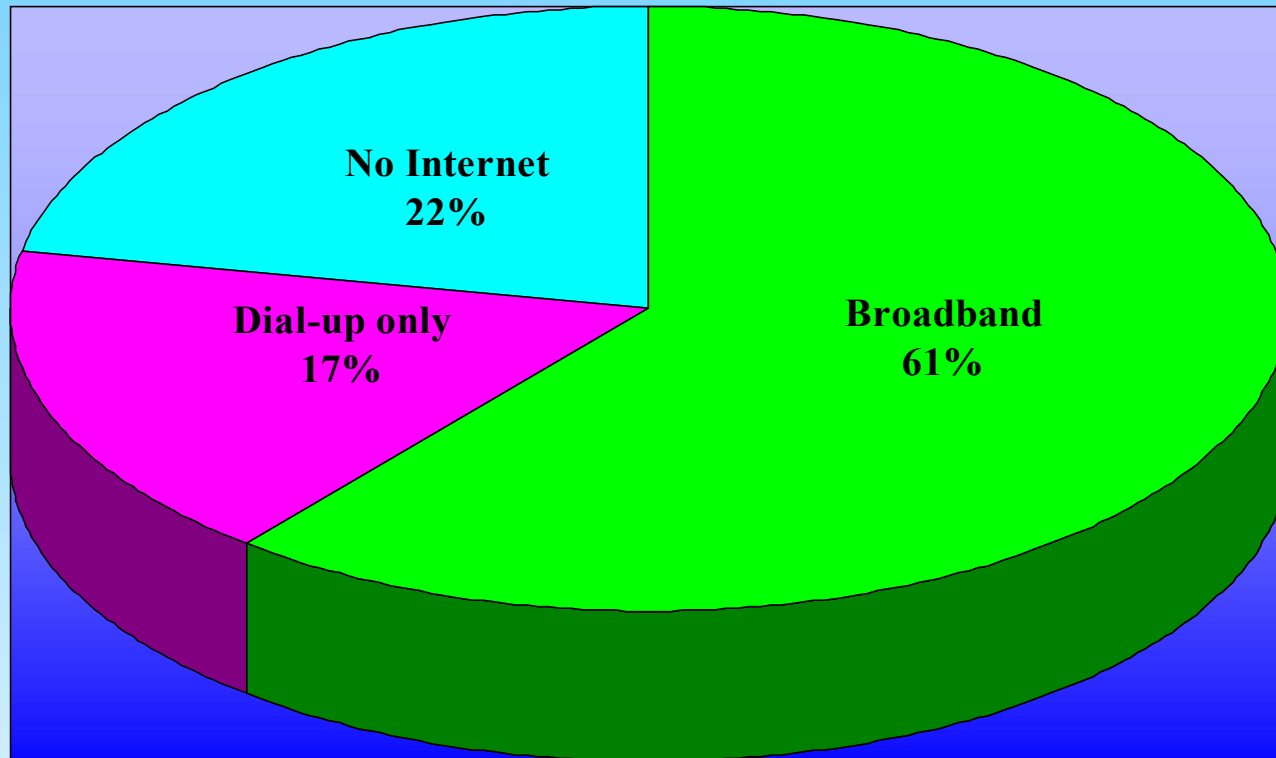
Provider information and  
detailed interviews (over 1/3)



Consumer input  
(initial 100K panel)

# Broadband is growing.

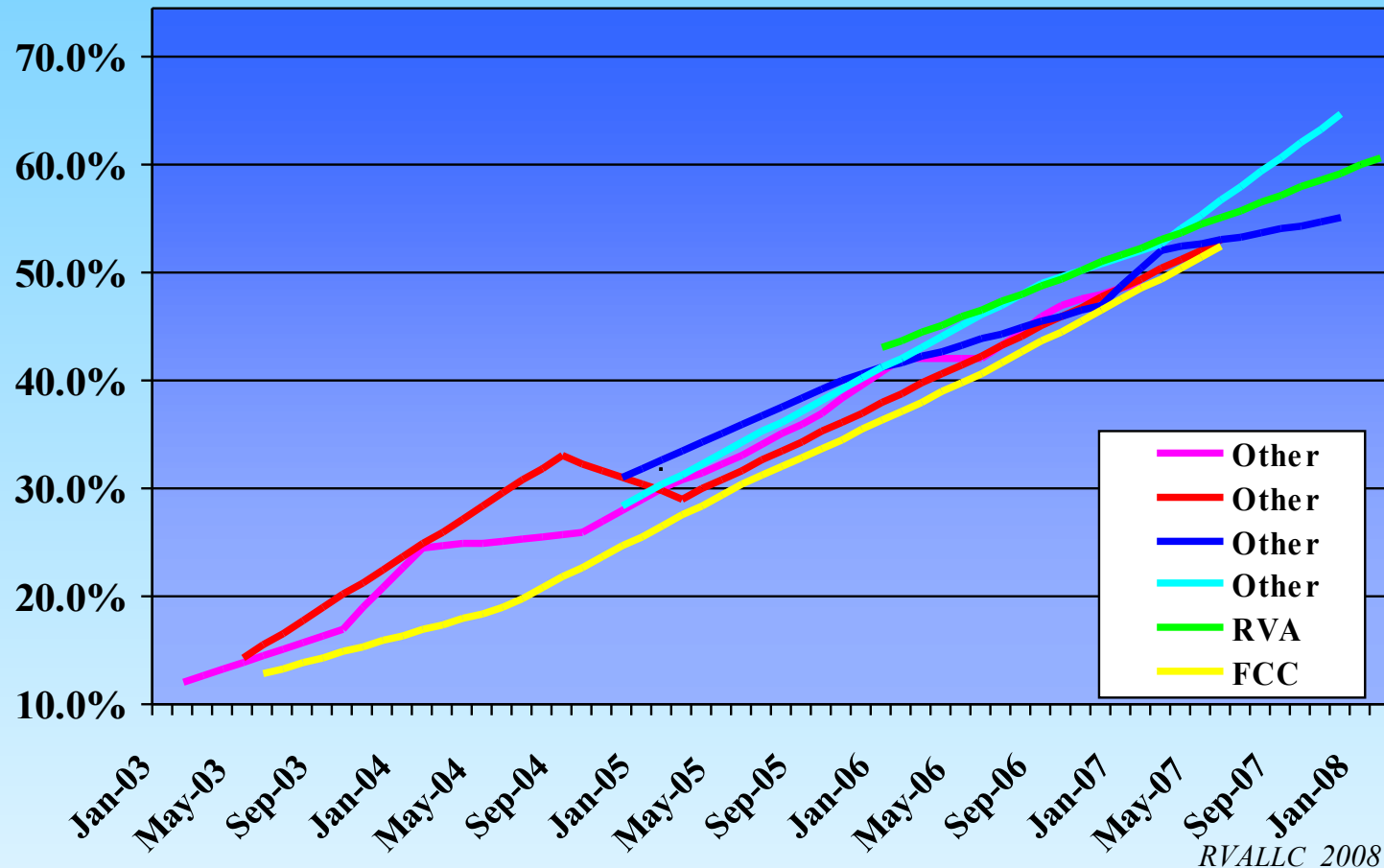
# Current Status Of U.S. Internet Use



Note: 60.6% broadband users - February 2008

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# U.S. Broadband Penetration Estimates From Various Market Research Sources



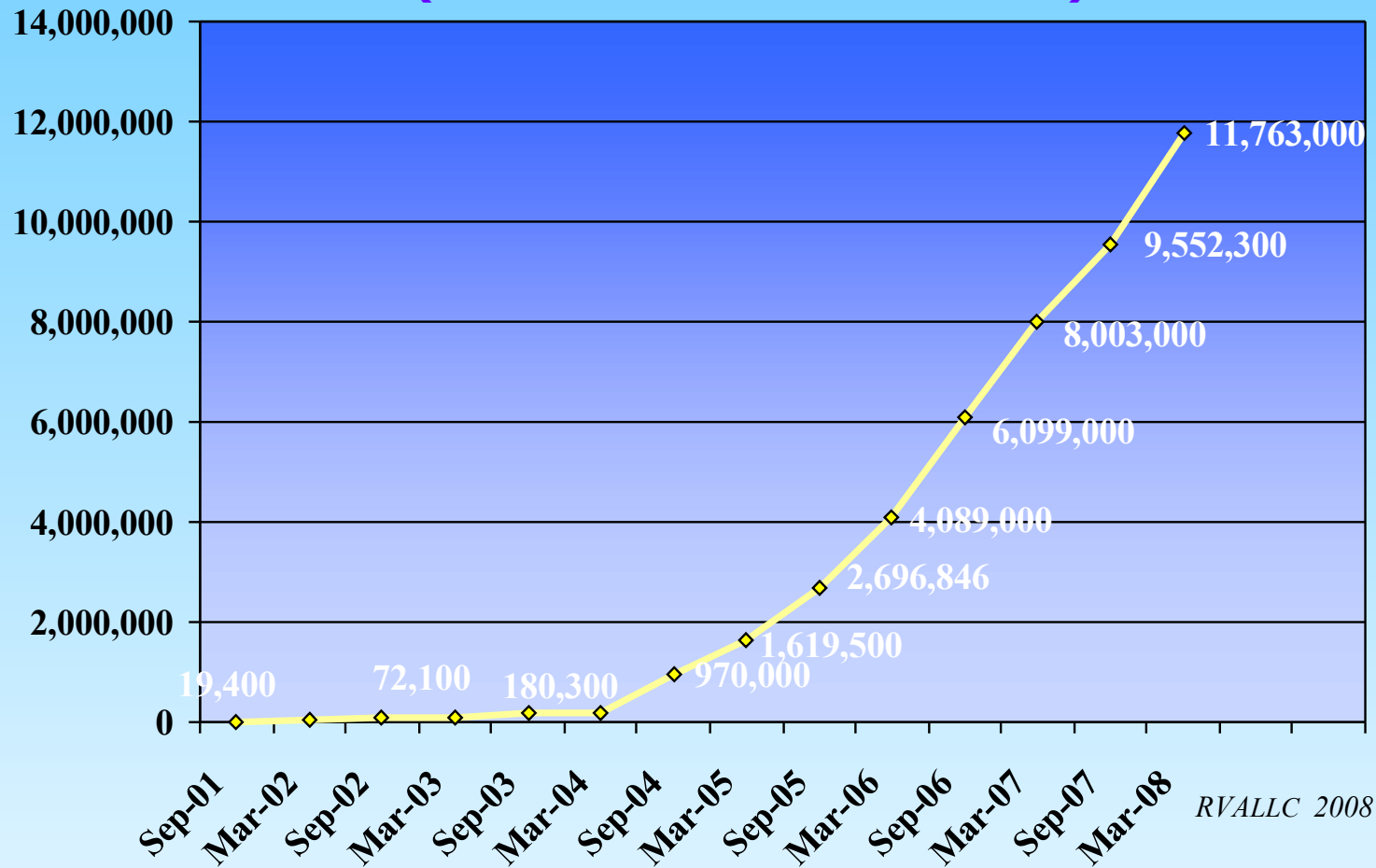
Notes: Other market research sources from public releases. FCC data before 2005 includes small business. Linear trends filled between data points.

# FTTH is growing.



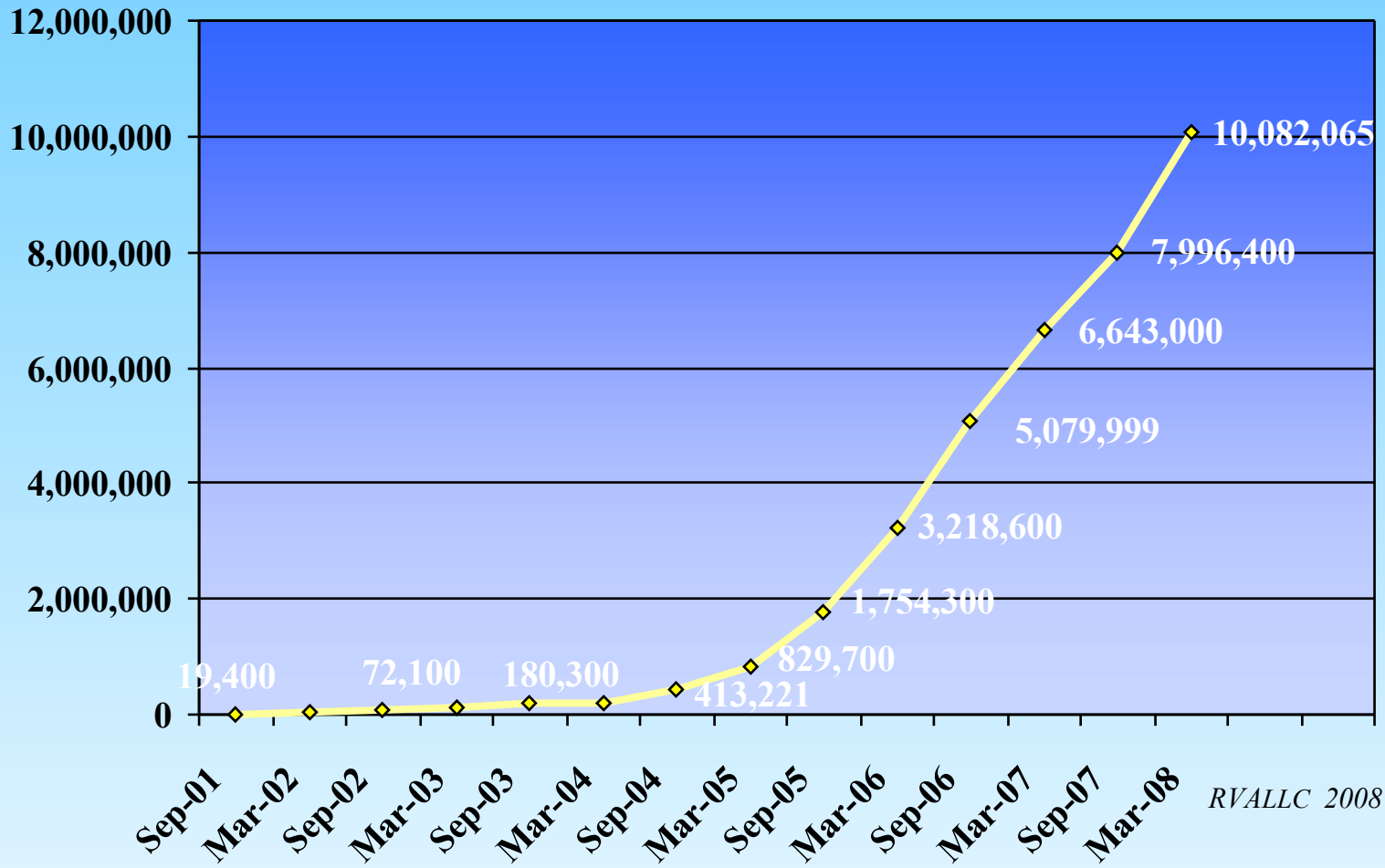
**(Fiber all the way to the living unit used for services such as television, Internet, telephone, security, and meter reading)**

# FTTH Homes Passed (Cumulative – North America)



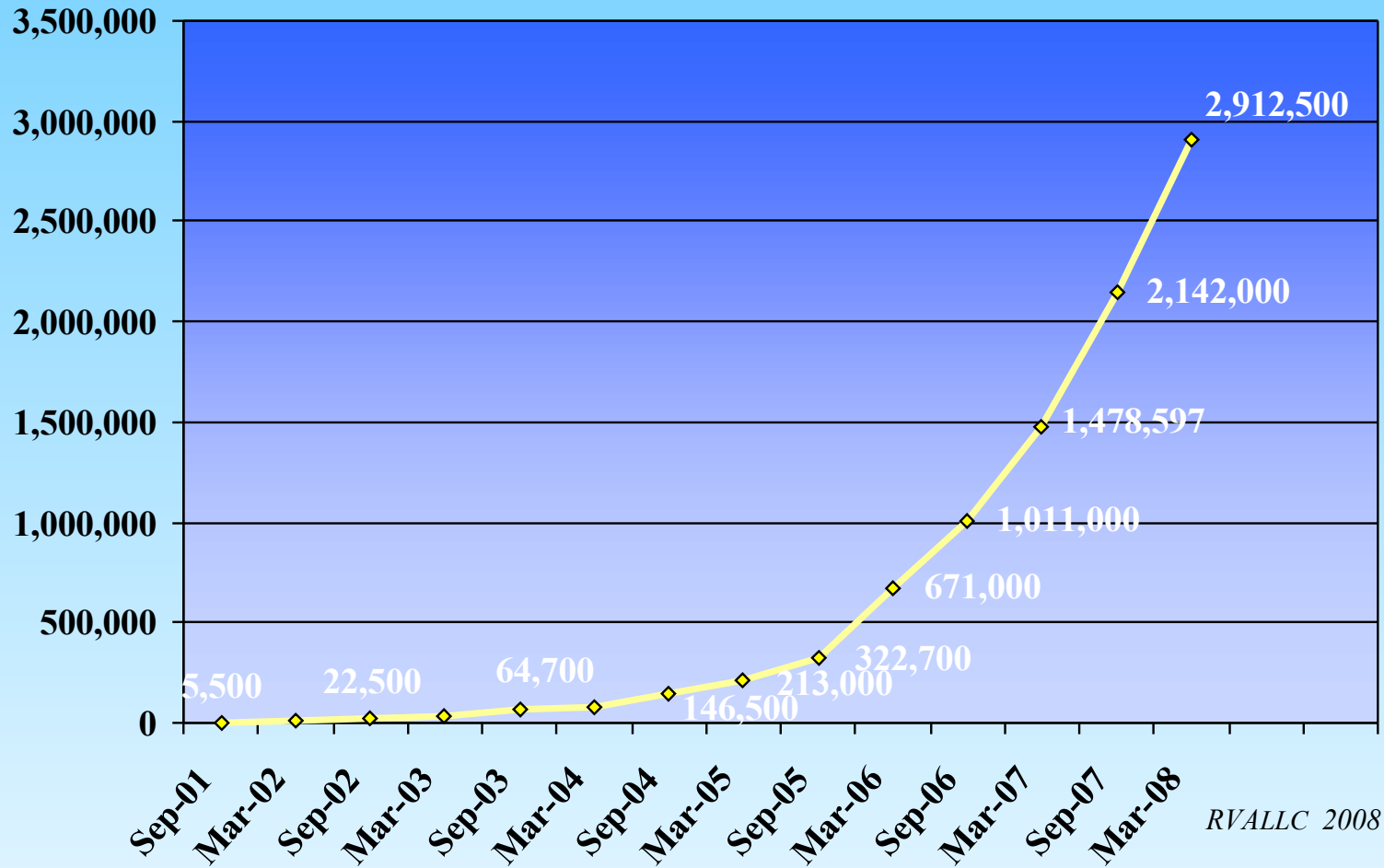
Note: Over 98% in US

# FTTH Homes Marketed (Cumulative – North America)



Note: Over 98% in US

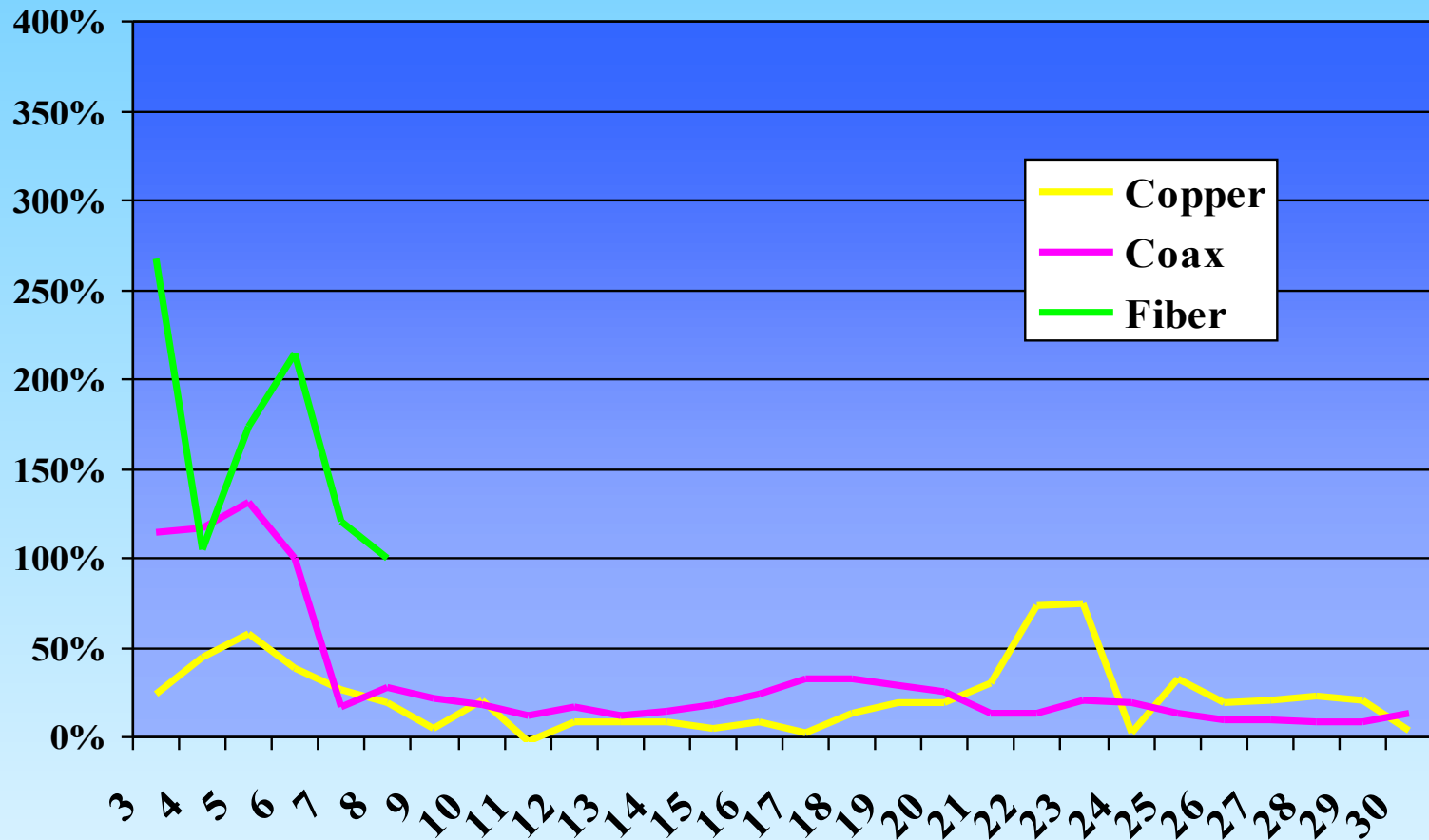
# FTTH Homes Connected (Cumulative – North America)



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Note: Over 98% in US

# Year-to-Year Growth in Homes Connected (12 month averages)



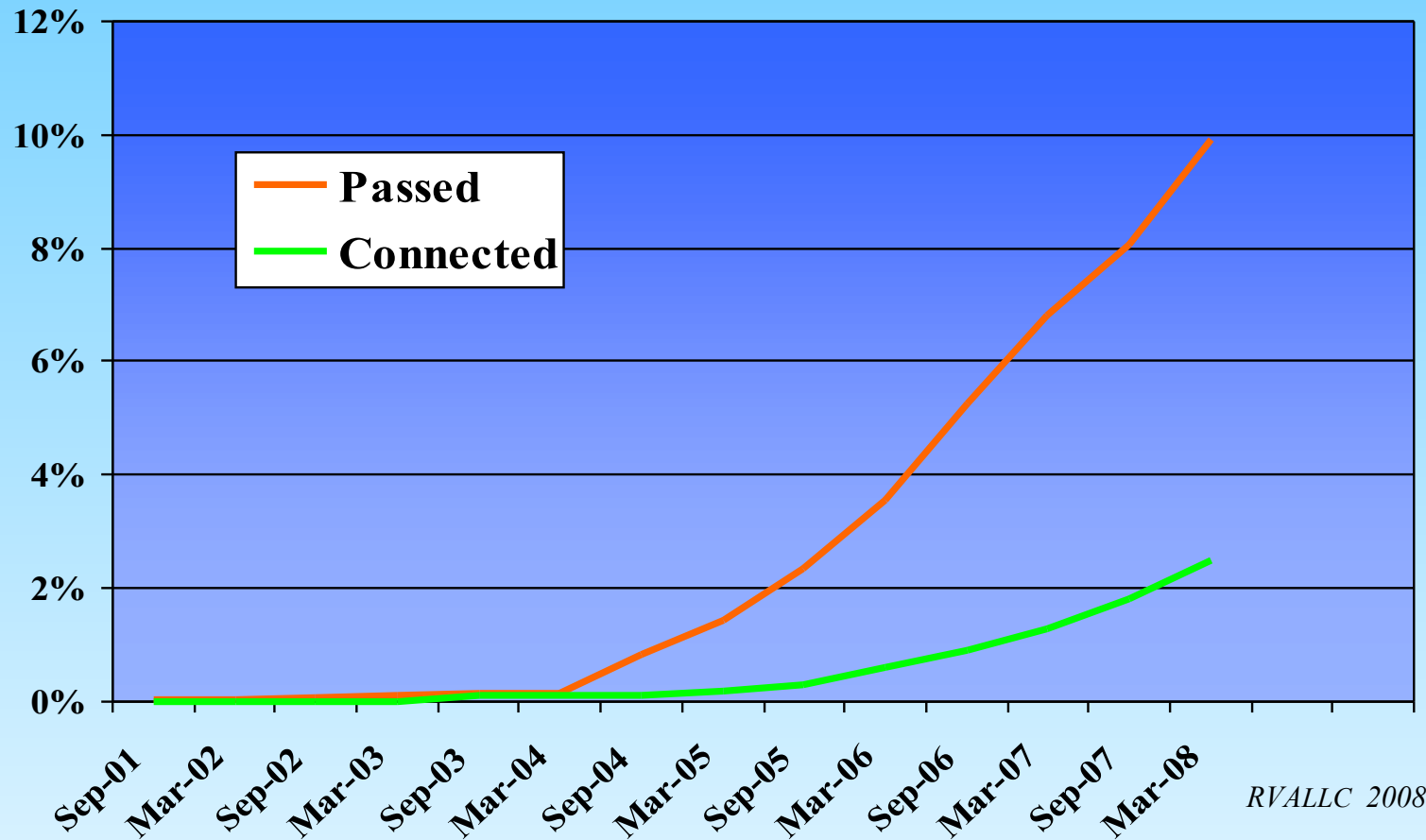
Note: Years since start of installations

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**North American FTTH  
penetration is increasing.**

# FTTH Penetration

(Cumulative – North America)



**North American FTTH  
penetration is not evenly  
distributed.**





In U.S. areas covered by Verizon or Tier 3 ILECs (About 1/3 of households), **5.8%** of homes are already directly connected with fiber. (Most by telcos, but some MSO and other competition has begun.)



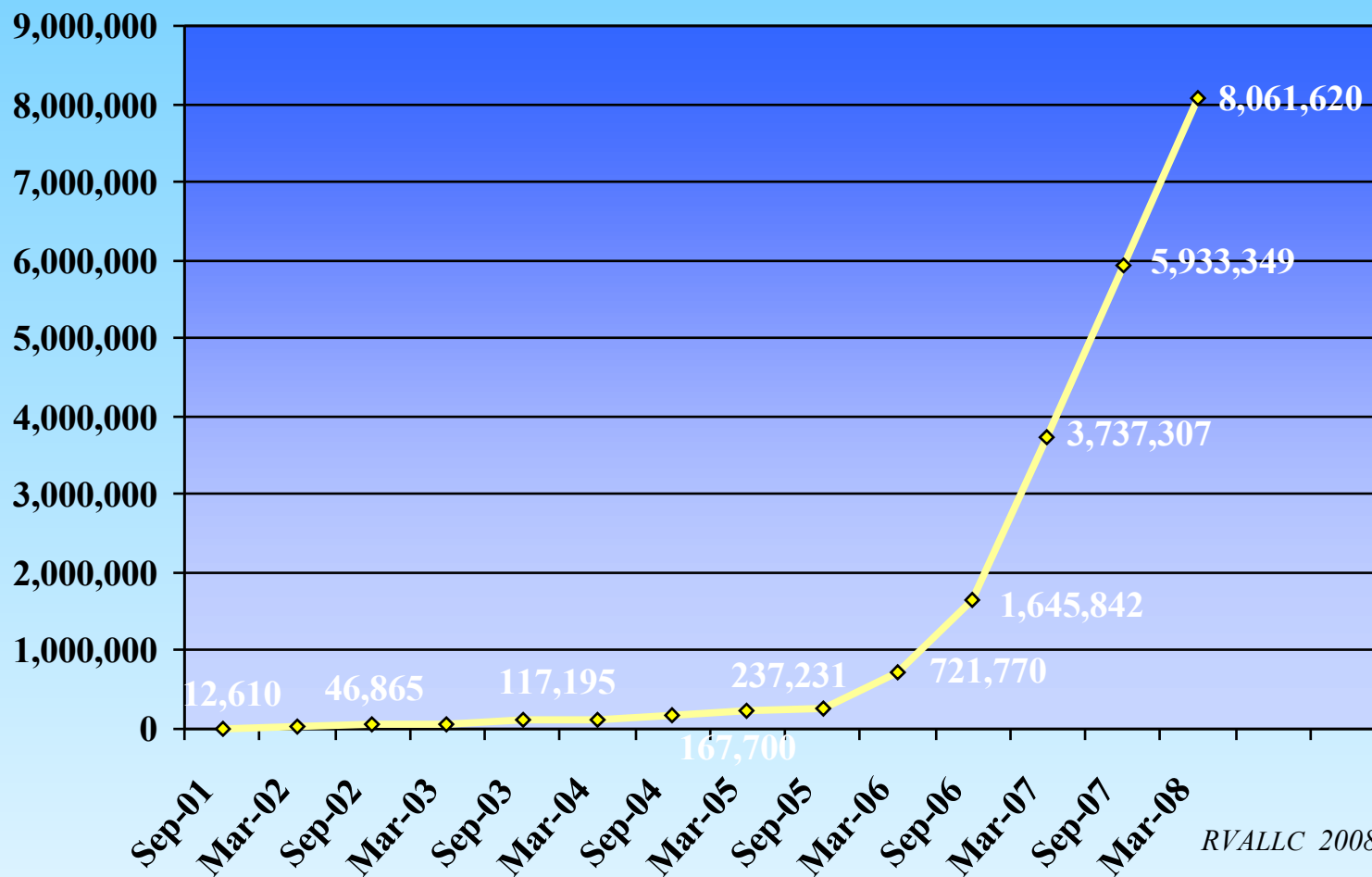
In U.S. areas covered by AT&T, Qwest, or Tier 2 ILECs (About 2/3 of households), only **0.6%** of homes are directly connected with fiber. (Most from competitive providers, such as facilities-based CLECs and Munis, though telcos are connecting some new homes.)



In North America outside of the U.S., only **0.1%** of homes are connected with fiber.

**Advanced FTTH services  
are growing.**

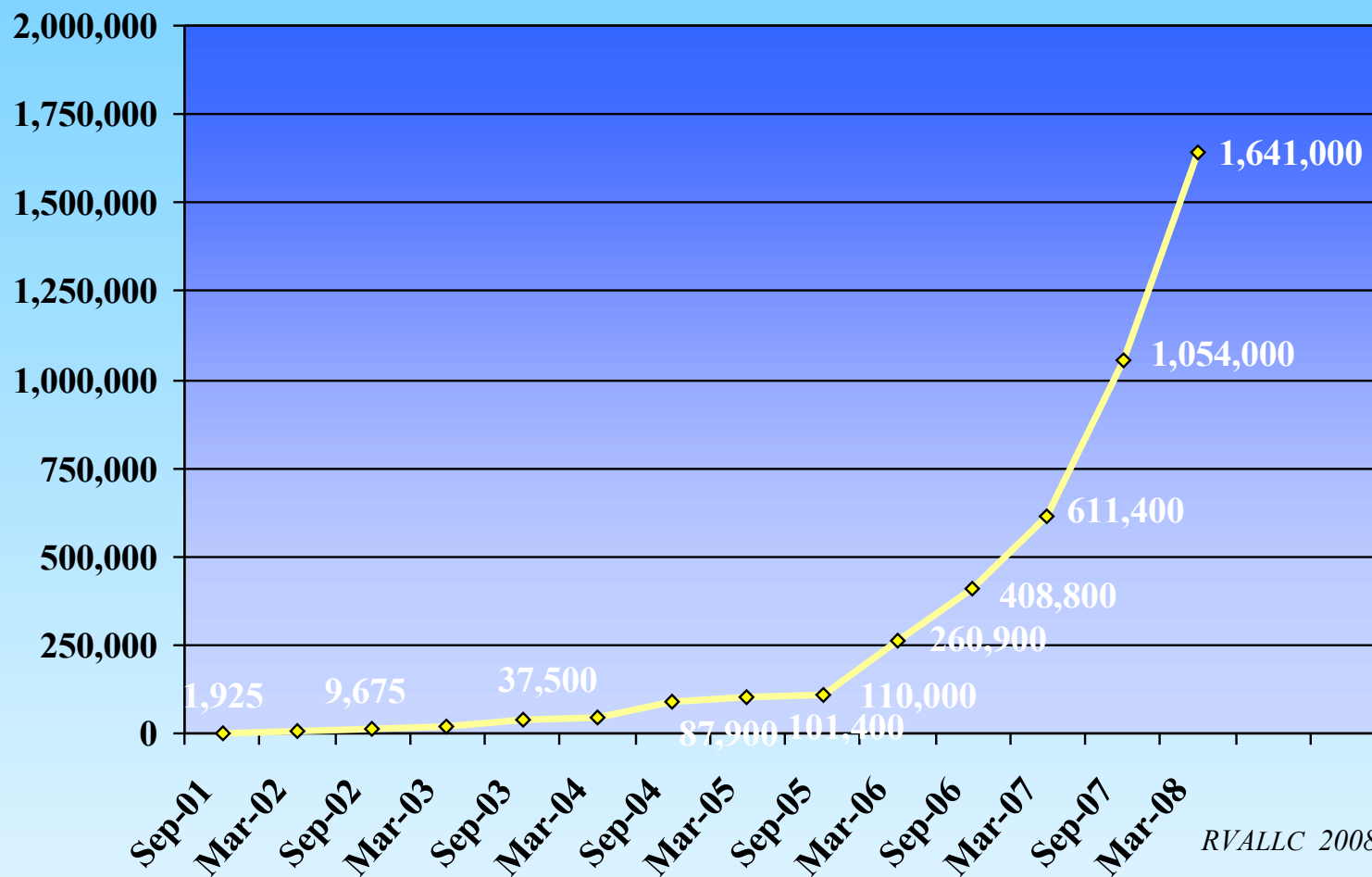
# Homes Offered Television over Fiber (Cumulative – North America)



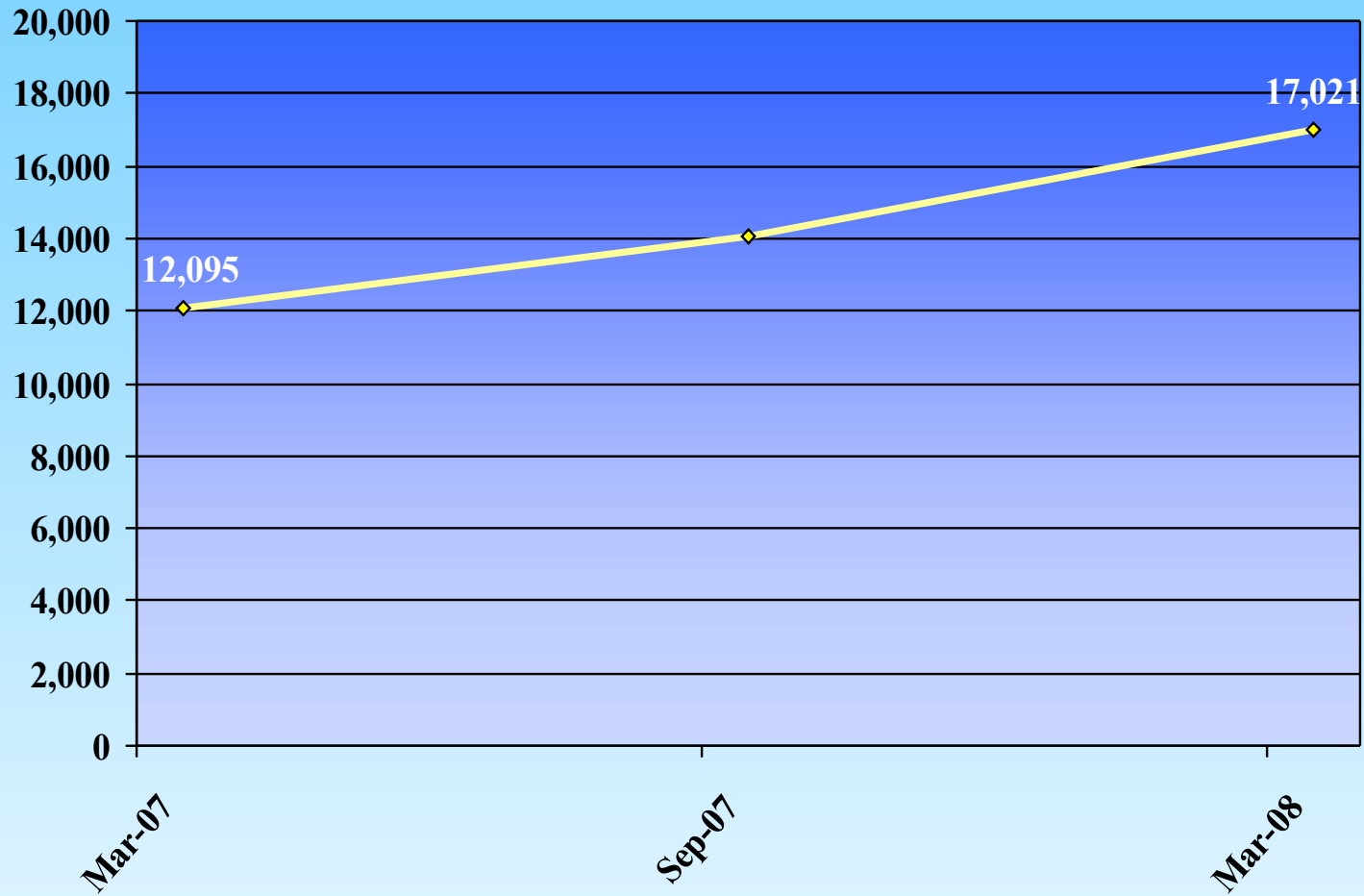
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# FTTH Video Homes Connected

(Cumulative – North America)



# Homes Offered 100Mbps Internet

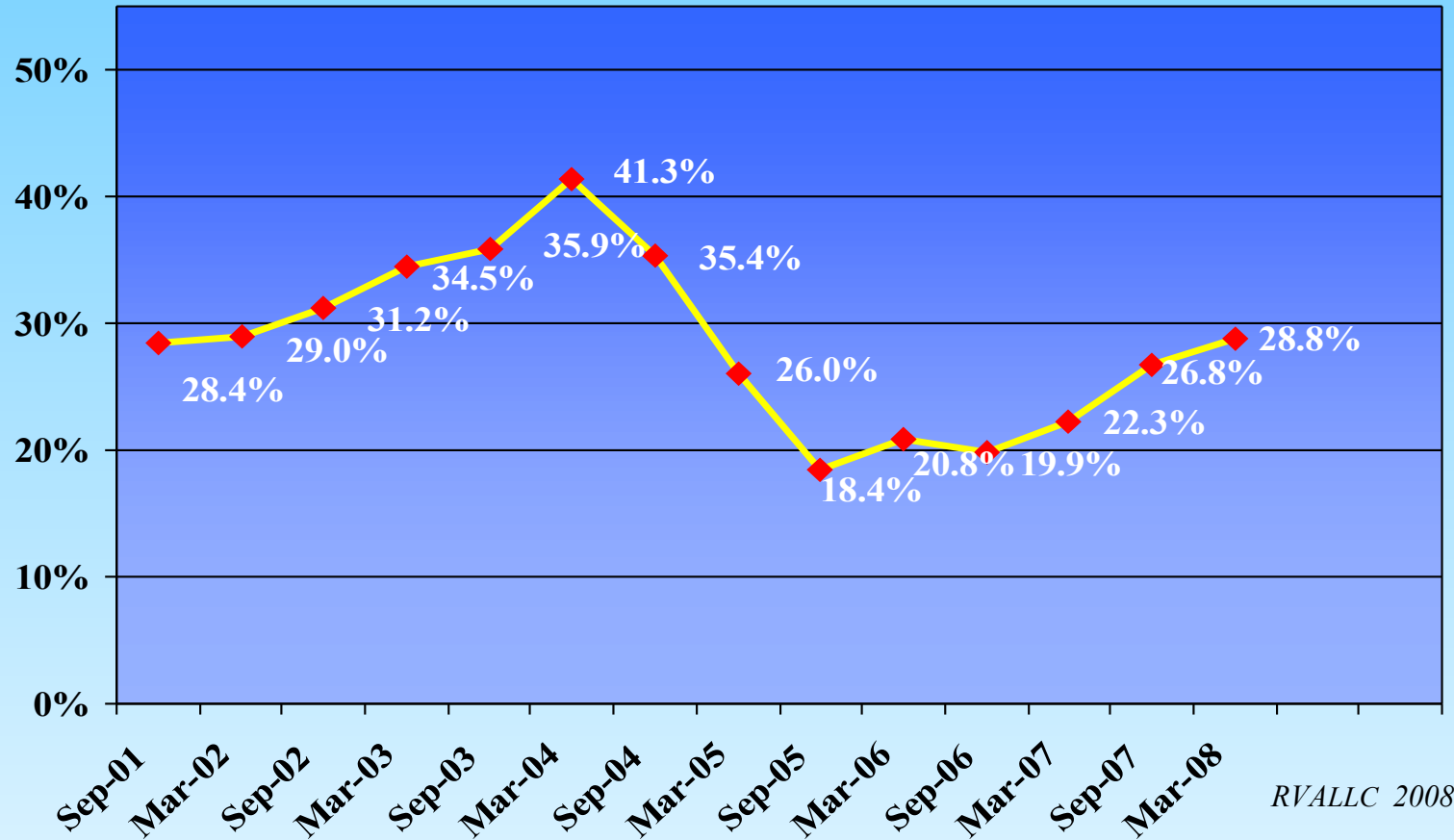


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# **FTTH take-rates are growing.**

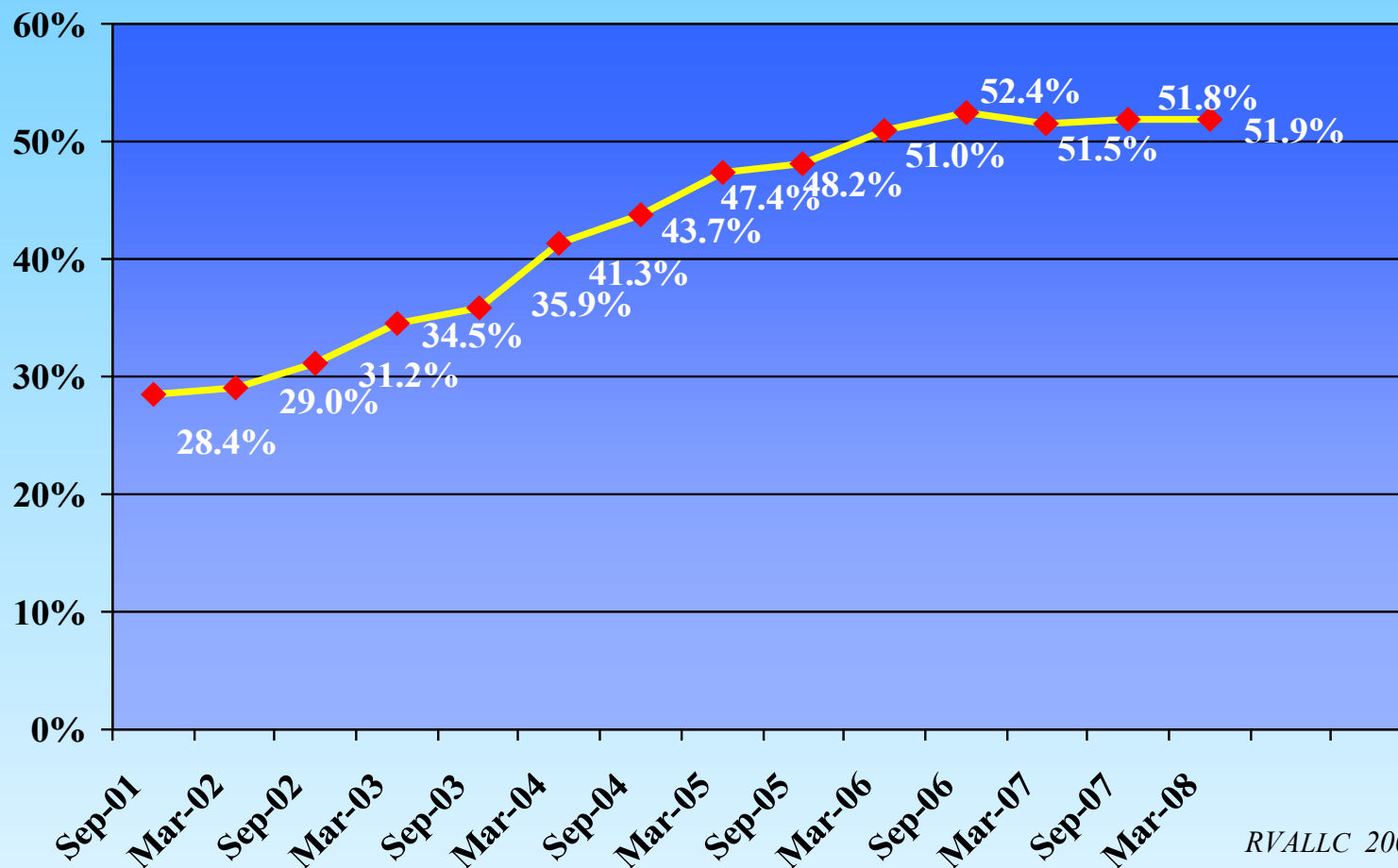
# Overall Take-Rate for FTTH

## (Cumulative – North America)



Notes: Percent of all home- marketed taking something over fiber. Take-rates dropped for a time as Verizon built infrastructure much faster than homes were connected.

# Overall Take-Rate for FTTH Non-RBOC (Cumulative – North America by year)

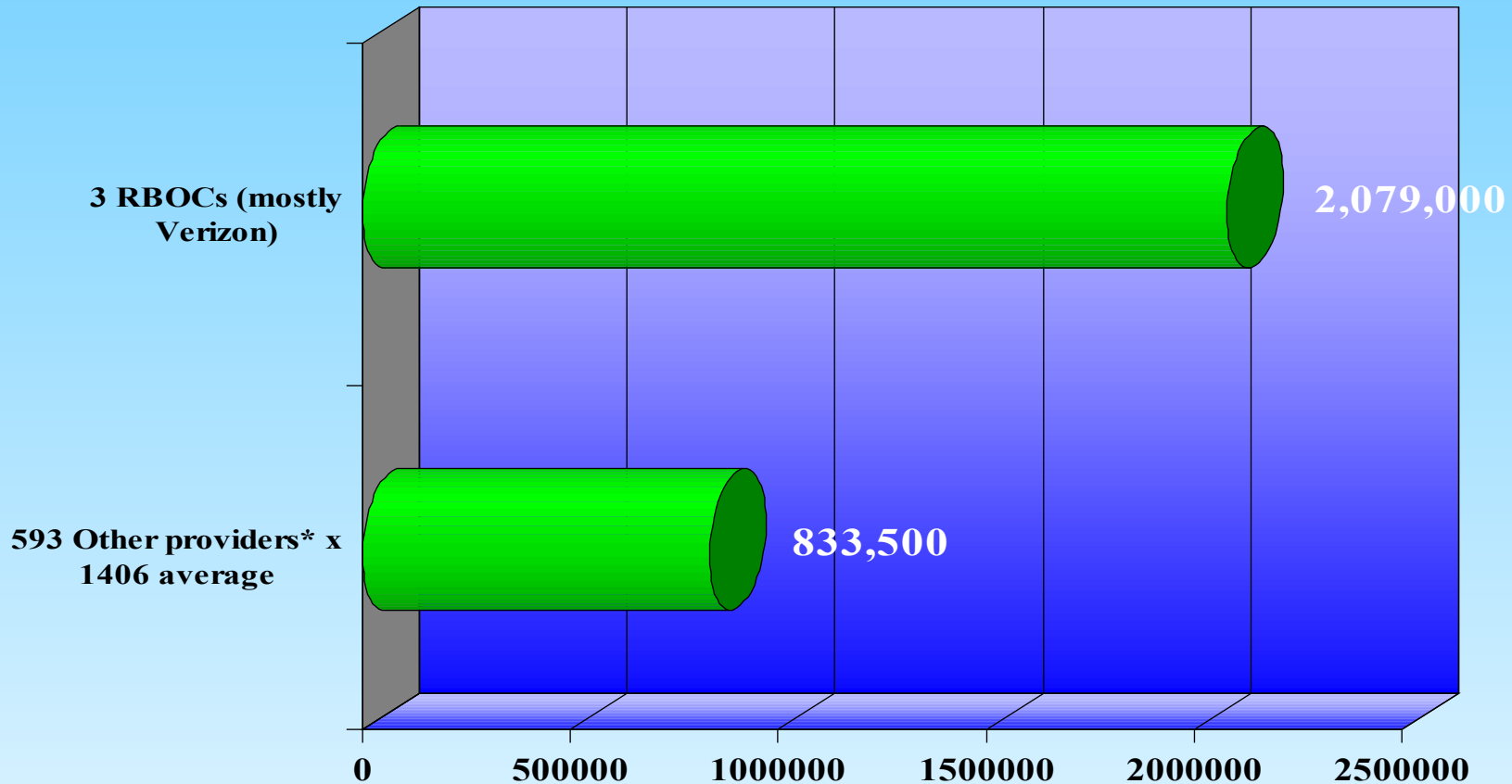


Notes: Percent taking something over fiber. Includes some systems with automatic 100% take-rates.  
Competitive systems generally have 30-85% take-rates.



# Providers are diverse.

# The Real North American FTTH Picture

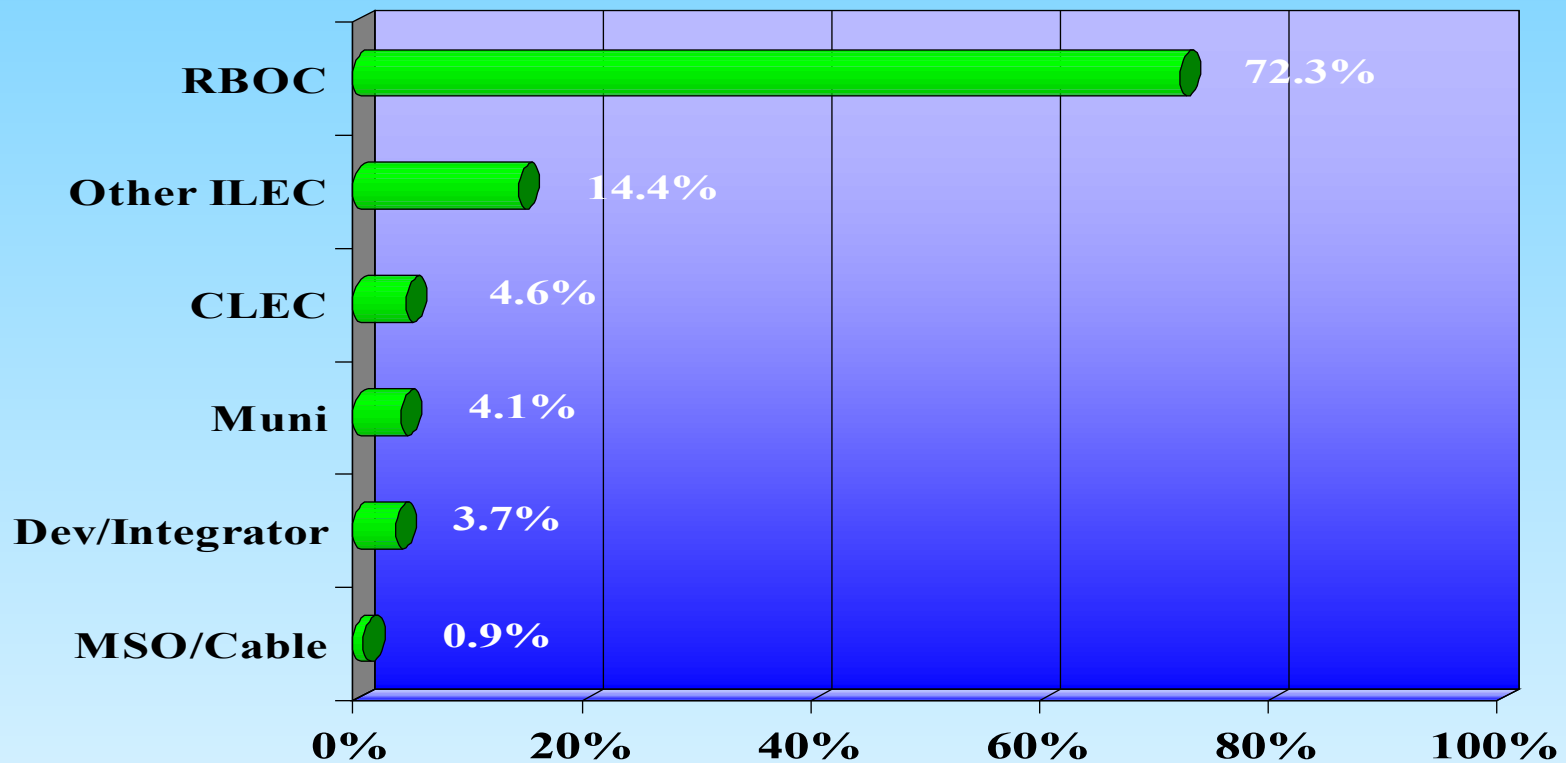


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Note: Includes CLECs that are divisions of ILECs

# US FTTH Subscribers

## By Type Of Provider



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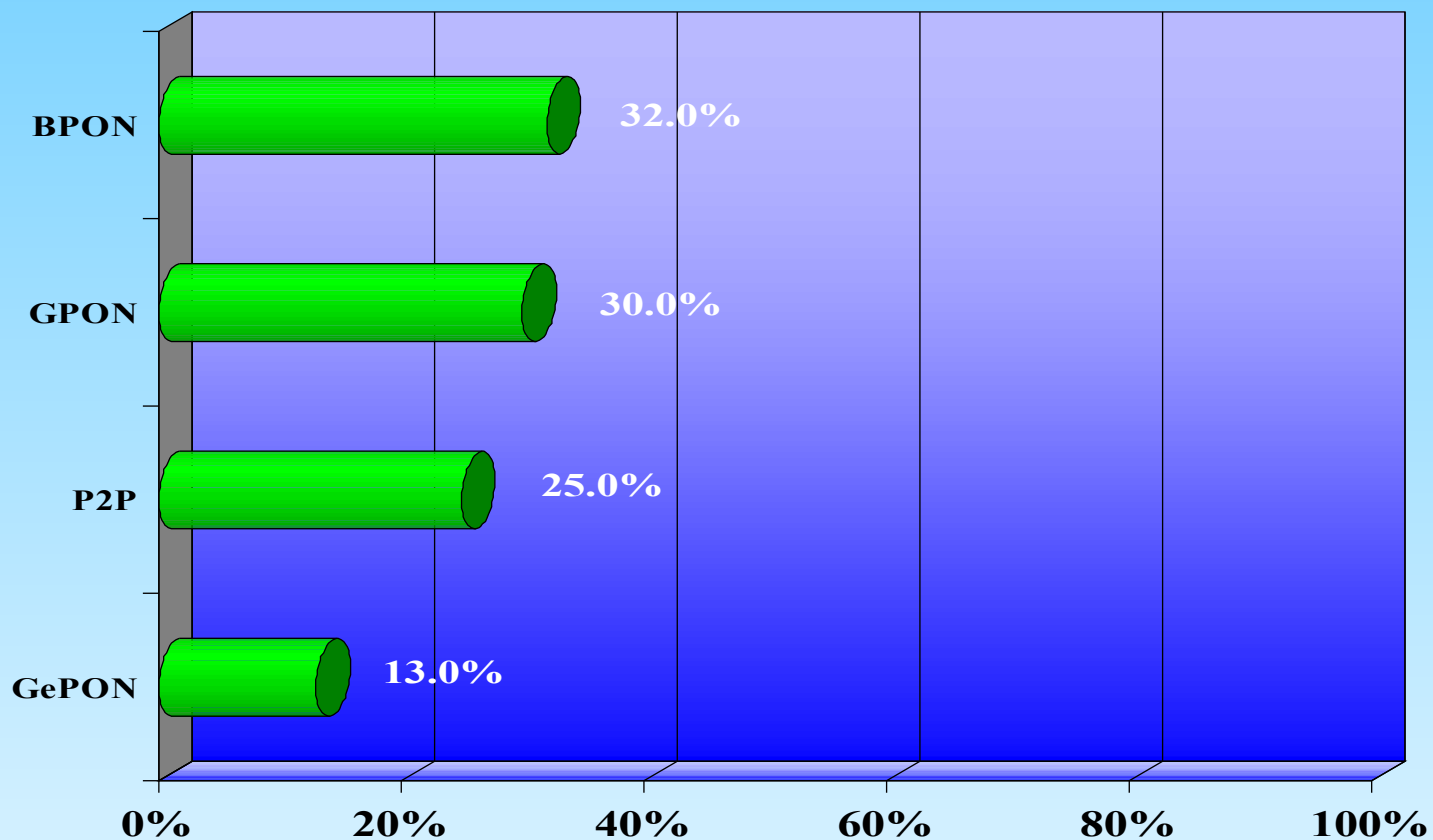
**Both greenfield and overbuild  
deployments are growing.**

# Architectures are diverse.

# FTTH Architectures Vary by Provider Type

- RBOCs are all using PON (now GPON)
- Other ILECs are using mostly PON (including GePON), but P2P use is increasing
- Munis are using more P2P, but some PON
- CLECs use a mix of P2P and PON
- MSOs using RFOG (pre-standards) and PON

# Percent of Homes-Connected By Non RBOC Providers



Note: Non RBOC P2P has increased in the past year

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