Attachment 3

FTTP Feasibility Study

for

The City of Beverly Hills

Final Report

November 2014

Uptown Services, LLC

Dave Stockton & Neil Shaw, Principals

Market Assessment

Current Broadband Services Usage

DESIGN FRAMEWORK

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- Area of Interest: Universe of ≈ 15,000 households (HHs)
  - Total sample size of 250 respondents
  - 95% Confidence Interval with ± 6.15 sample error)
- Results weighted to reflect Beverly Hills actual age distribution from 2010 Census data.
- Respondents screened to ensure
  - Decision-maker for telecommunications and entertainment services in the home
  - Respondents with immediate family members employed by any of the following were excluded:
    - The City of Beverly Hills
    - AT&T
    - Time Warner Cable

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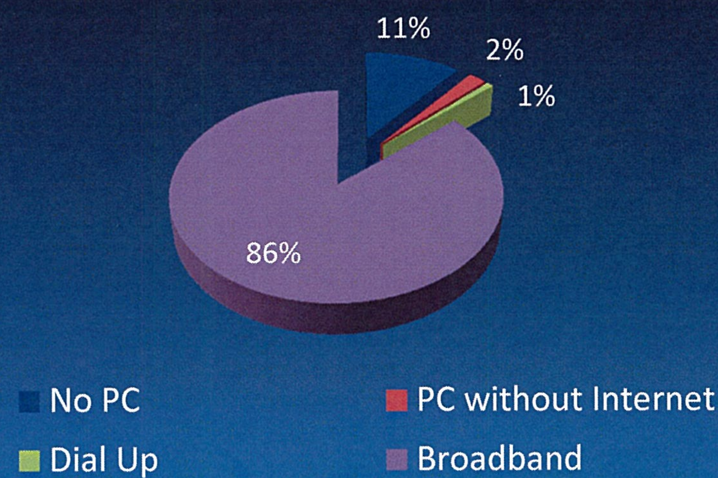
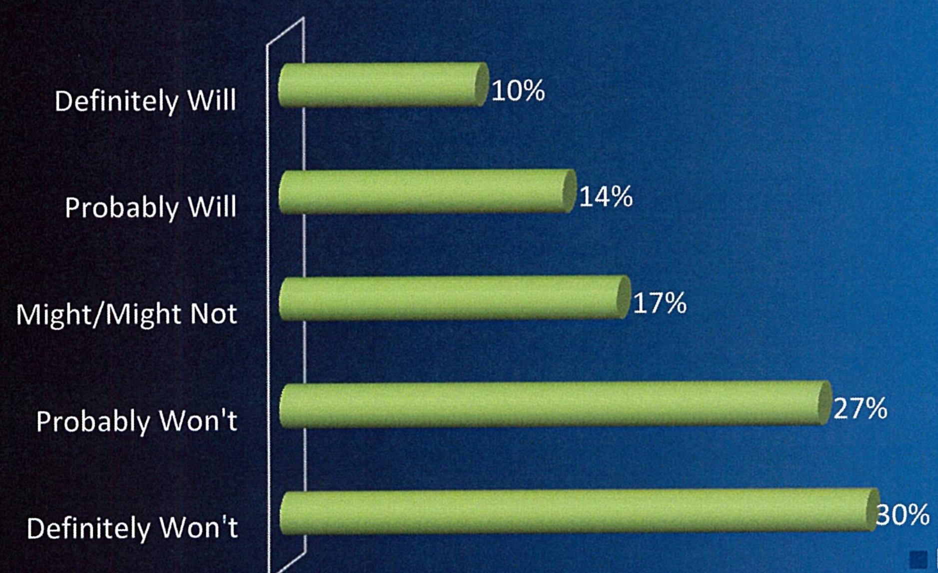
INTERNET SERVICE PURCHASING BEHAVIOR

- 86% of Beverly Hills households use the Internet at home
- Cable Modem and DSL have the vast majority of market share at 94%

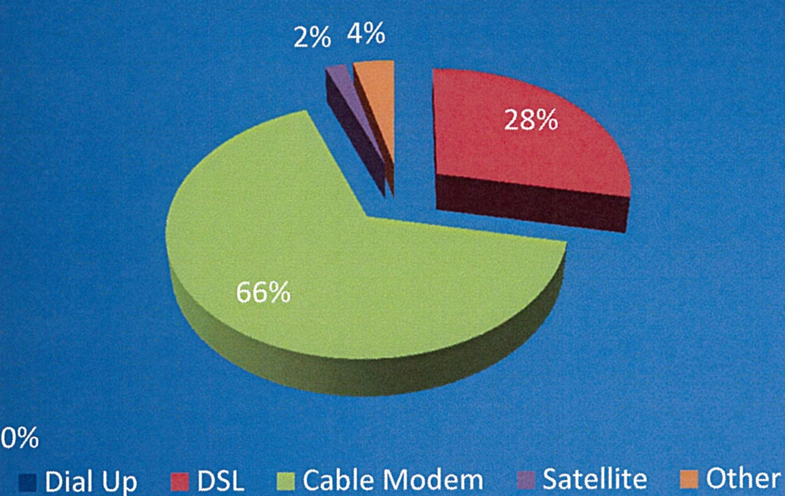
Incidence of Internet Households



Q19: *"How likely are you to upgrade your Internet service speed..."*



Internet Market Share
(Households)



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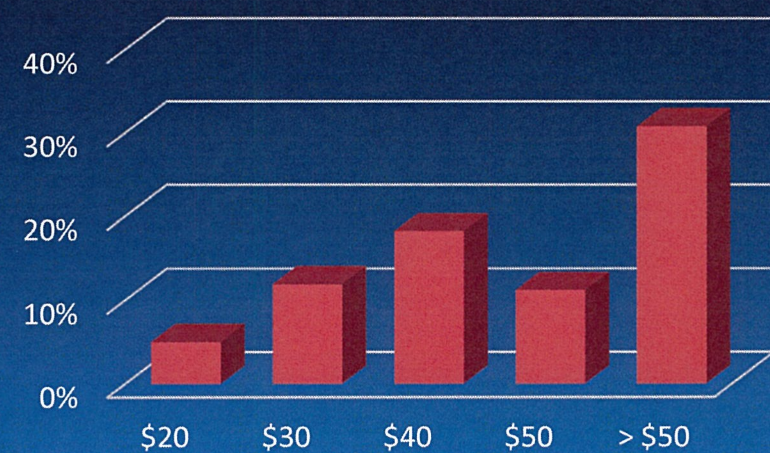
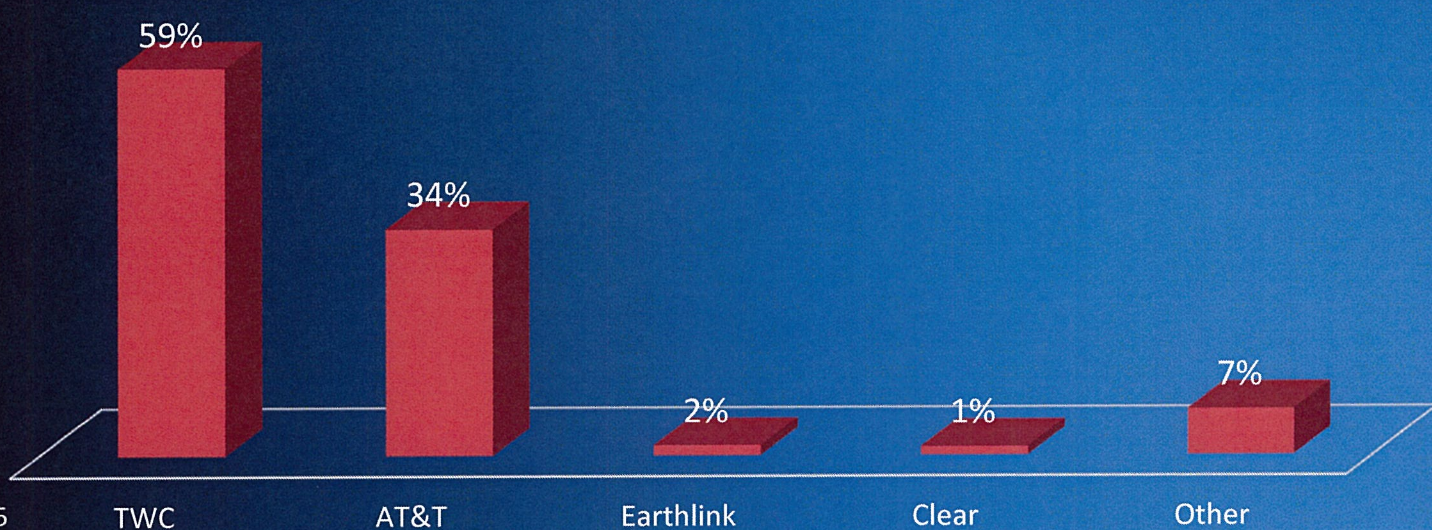
INTERNET SERVICE PURCHASING BEHAVIOR

- TWC and AT&T are the only two ISPs with material market share in Beverly Hills
- *Stated* average monthly Internet spend is $39 per household

Monthly Internet Spend



Internet Access Provider



INTERNET USAGE BY HOUSEHOLD DEMOGRAPHIC

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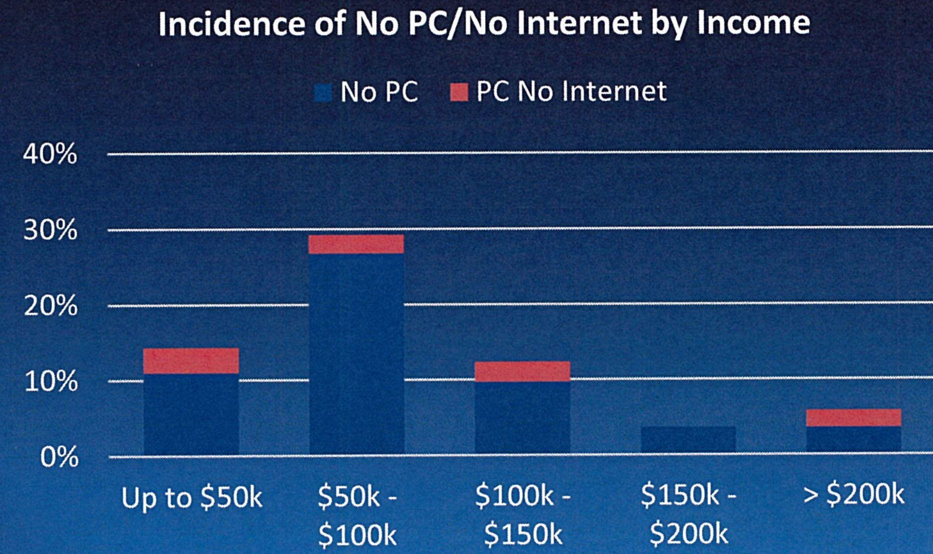
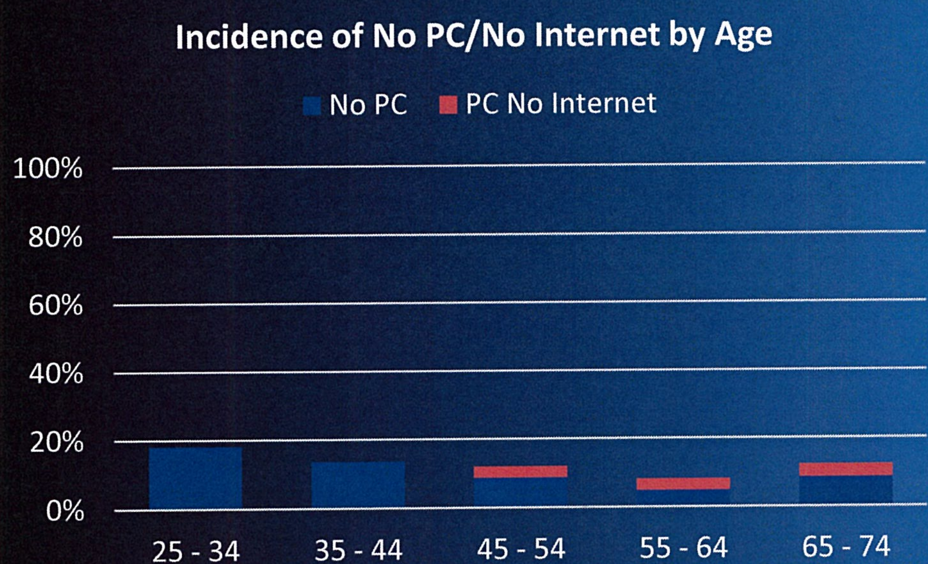
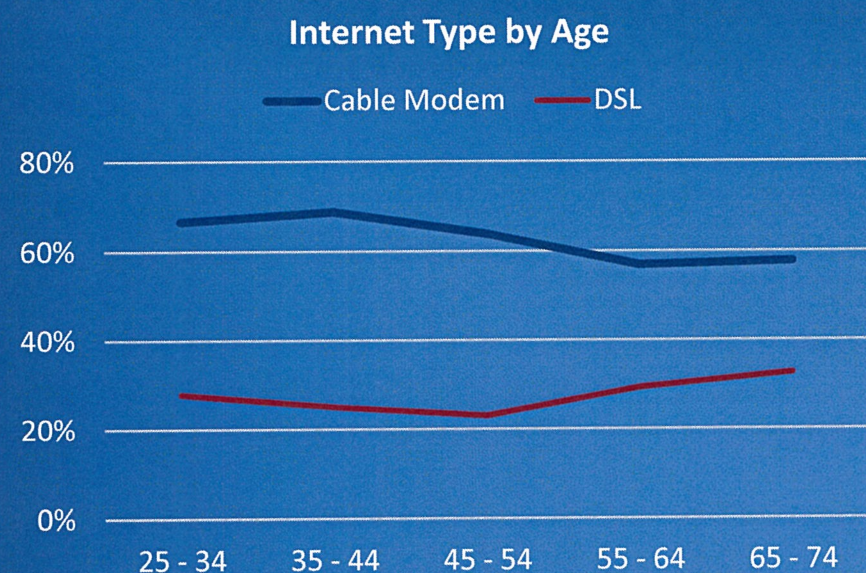
- The presence of a PC and use of Internet in the home drops off at lower income levels (non-pays)
- Internet usage is prevalent across all age groups



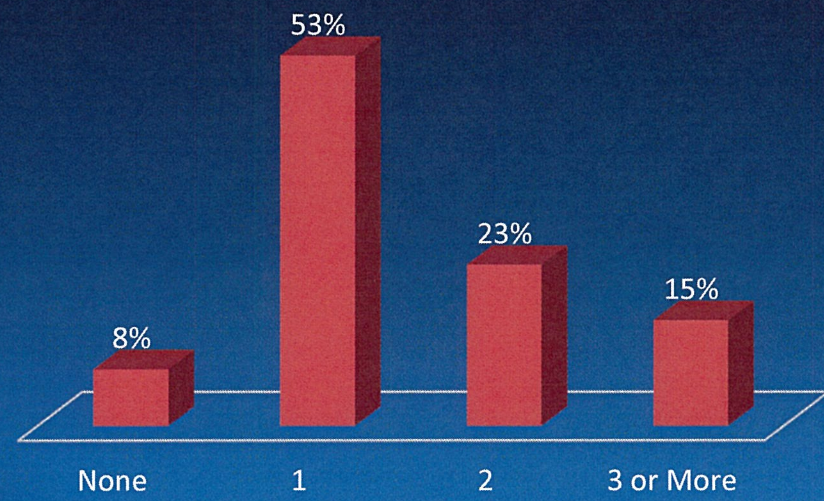




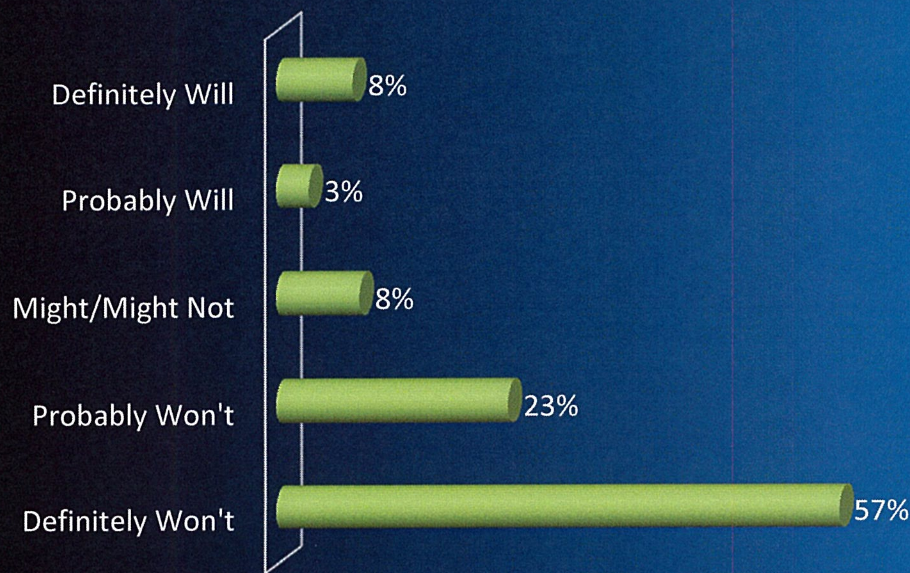
WIRELINE PHONE MARKET SHARE

- The average number of lines is:
  - All Households: 1.5
  - Wireline Households: 1.6
- Wireless substitution is much lower than the national average
- A further 7% of wireline phone users will drop for wireless in the next 12 months

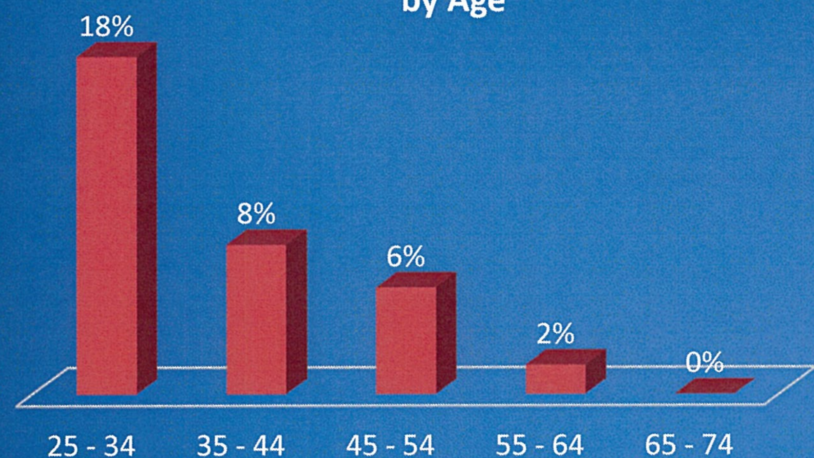
Number of Phone Lines in the Home



Q13: "How likely are you to disconnect the wired phone line and only use your cell..."



Households Without Wireline Phone Service by Age



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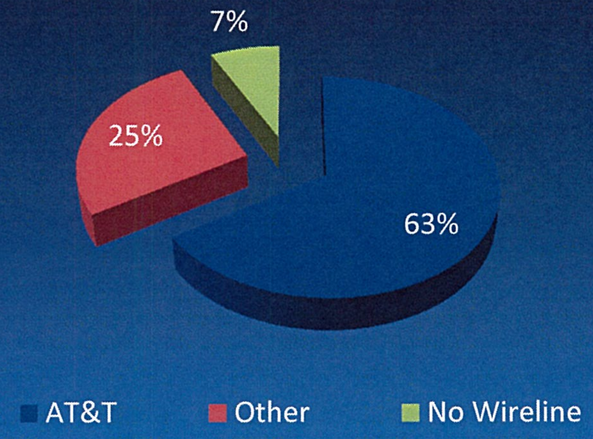
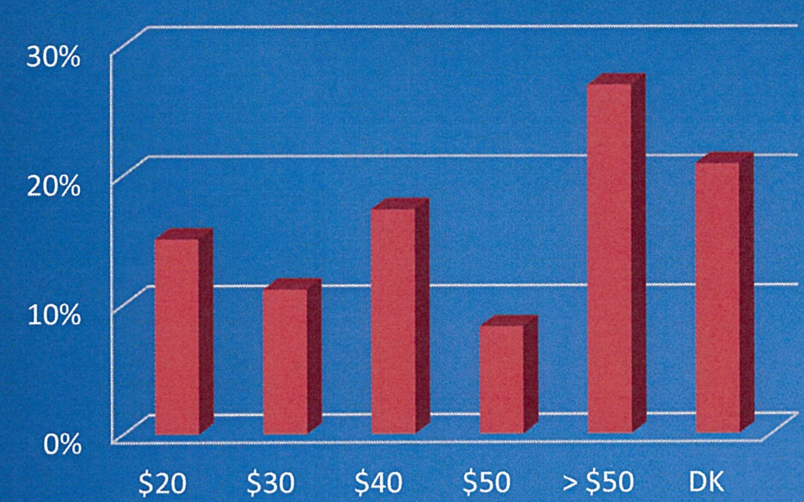
VOICE SERVICES USAGE

- AT&T still retains market share leadership of the residential voice market
- *Stated* residential spending on local phone service averages about $35 monthly per HH

Q9: *"Who is your local phone service provider?"*



Monthly Local Phone Spending



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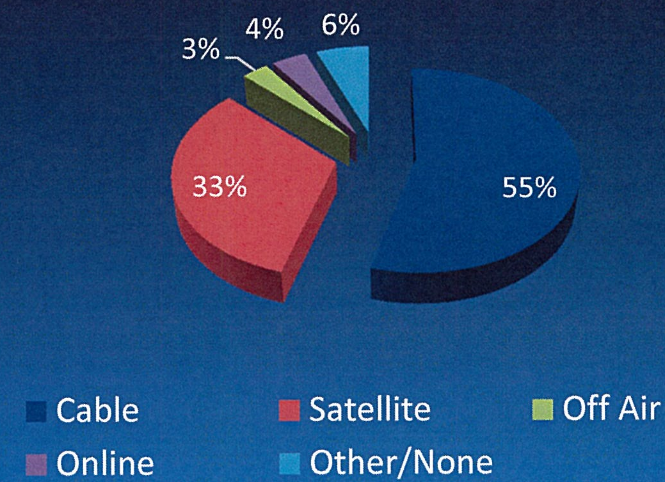
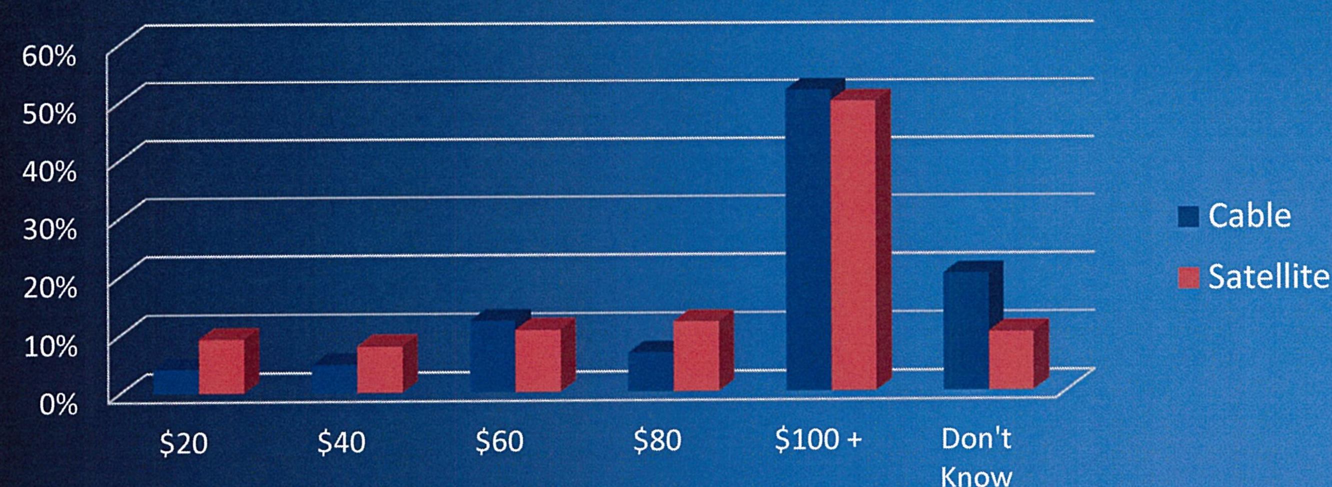
VIDEO SERVICES PURCHASING BEHAVIOR

- 88% of households use traditional pay TV (cable or satellite dish)
- In Beverly Hills today, 4% of households are using online video
- Another 3% are using Off Air reception without supplemental Pay TV service
- *Stated* average monthly spend:
  - Cable: $67
  - Satellite: $71

Q2: *"For TV service, do you have…"*



Monthly Pay TV Spend



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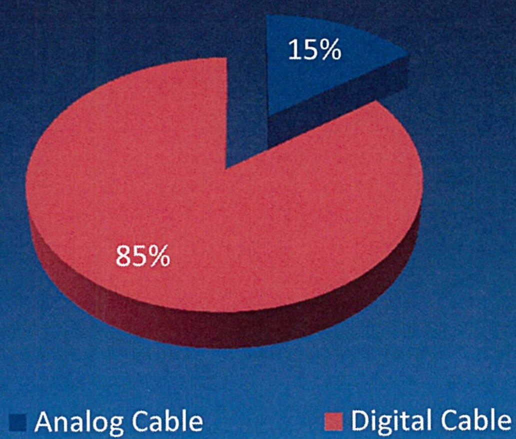
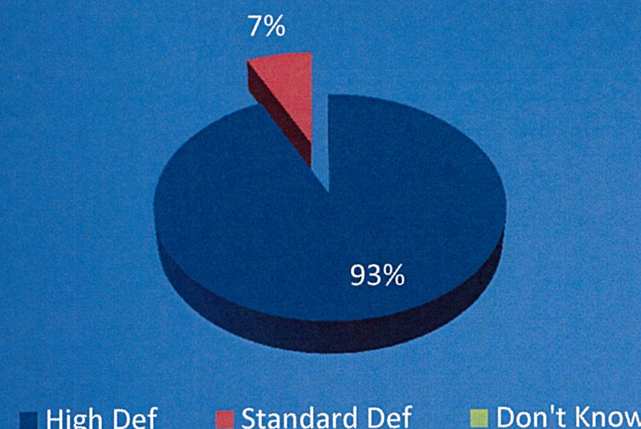
TRADITIONAL VIDEO SERVICES

- Beverly Hills digital video penetration:
  - 86% among all Pay TV users
  - 68% among Cable TV users
- High definition service is 63% of pay TV users
- Uptown estimates a further 7% of pay TV users will upgrade to HD in the next 12 months (Q5):
  - Definitely Will: 2%
  - Probably Will: 13%
  - Might/Might Not: 17%

Q3: *"For cable, do you have…"*



Incidence of High Definition TV
(among all pay TV users)



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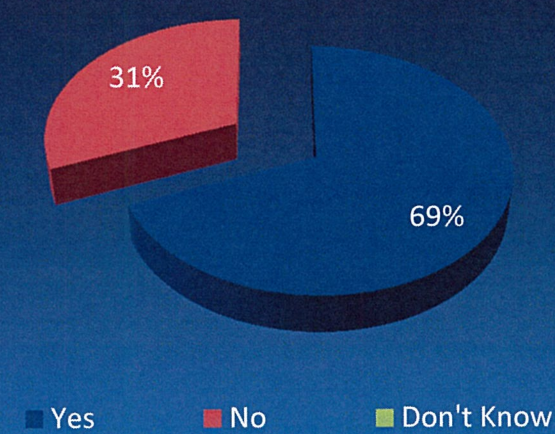
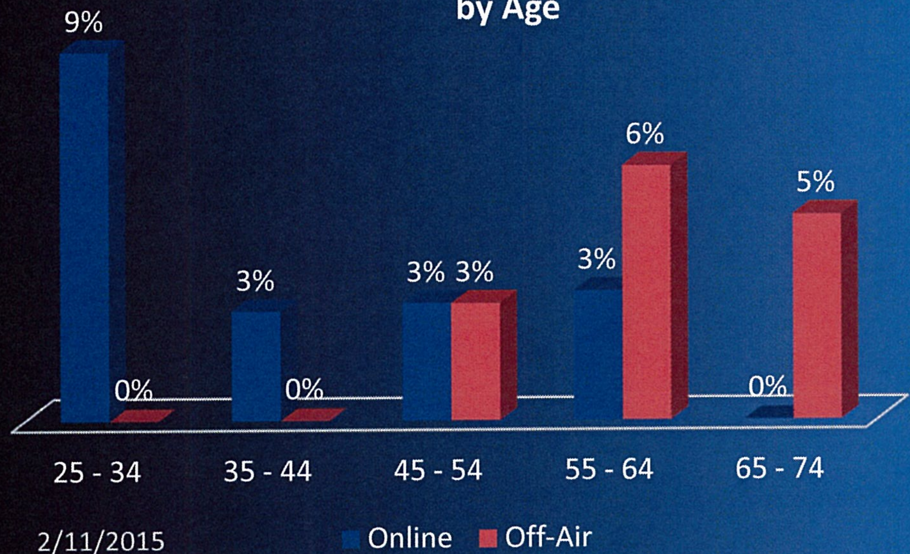
EMERGING VIDEO SERVICES

- Over-the-Top (OTT) or online TV viewing has recently become a material substitute service for traditional cable TV with a majority of households using OTT
- Among younger households, up to 9% are using OTT as a substitute service
- Uptown estimates a further 7% of pay TV users in Beverly Hills will 'cut the cord' in the next 12 months

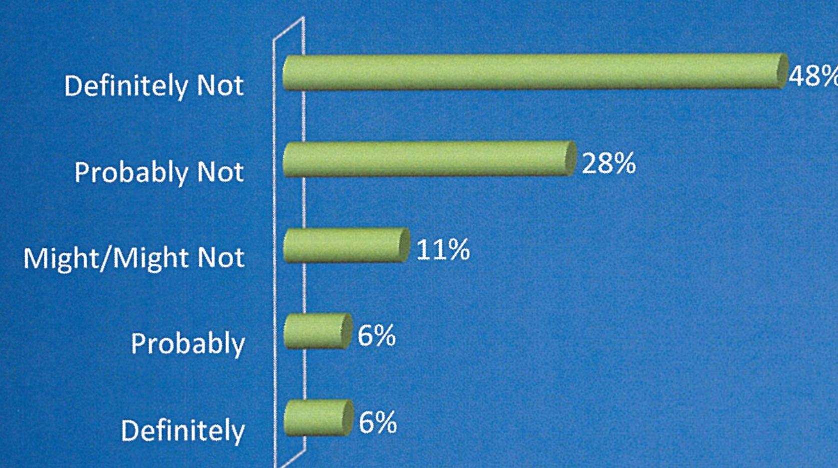
Q7: *"Do you sometimes watch TV online?"*



Households Watching TV Online In Place of Pay TV by Age



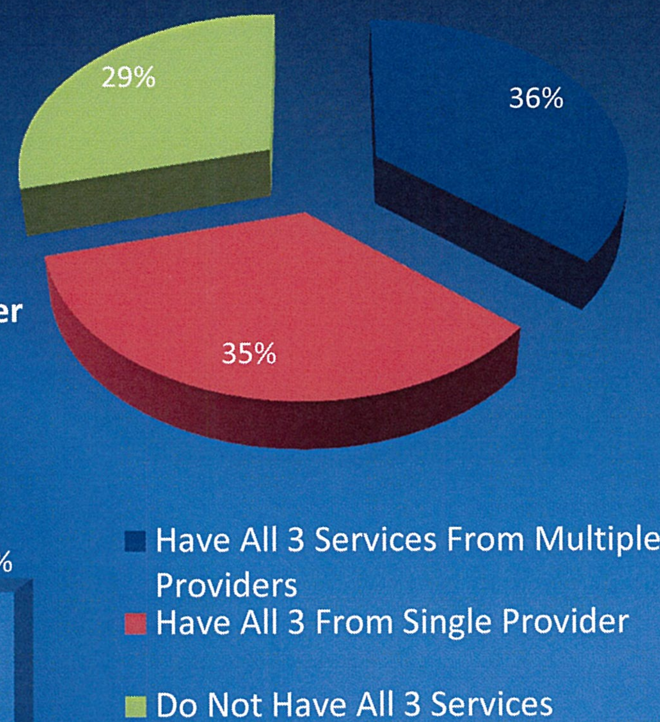
Likelihood of Cancelling Pay TV for OTT *(among all pay TV users)*



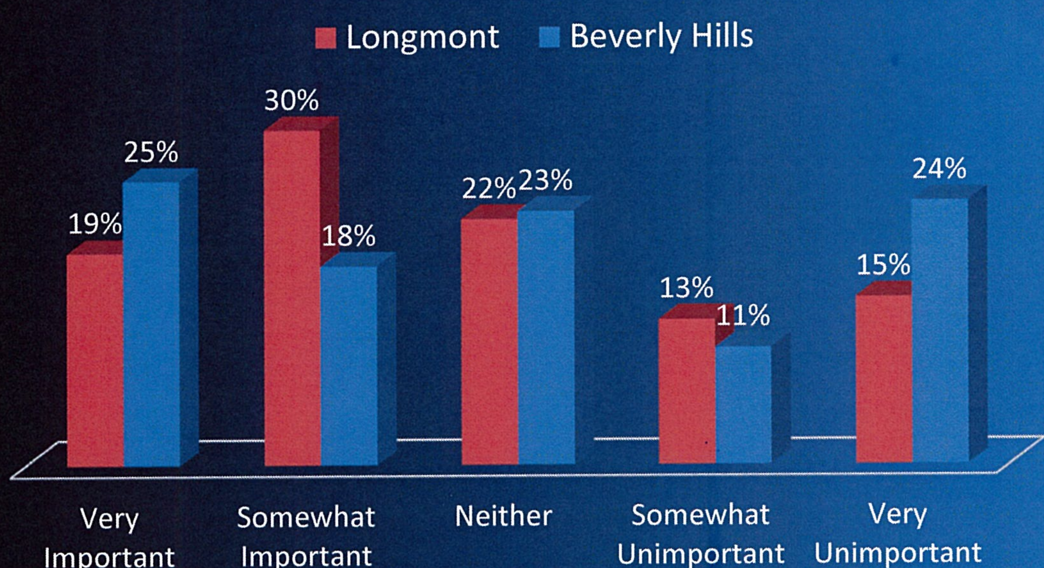
BUNDLING

- Across all households in Beverly Hills, 35% have all 3 services from a single provider
- Bundling is very important for 1 in 4 households

Incidence of Triple Play Bundle



Importance of Having All 3 Services from a Single Provider
(Among All Respondents)



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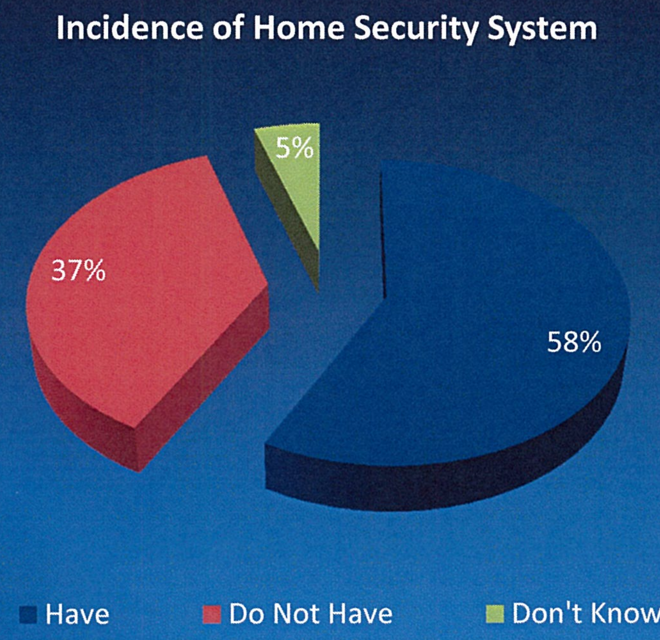
HOME SECURITY

- There is a 58% incidence of Home Security/Monitoring in Beverly Hills



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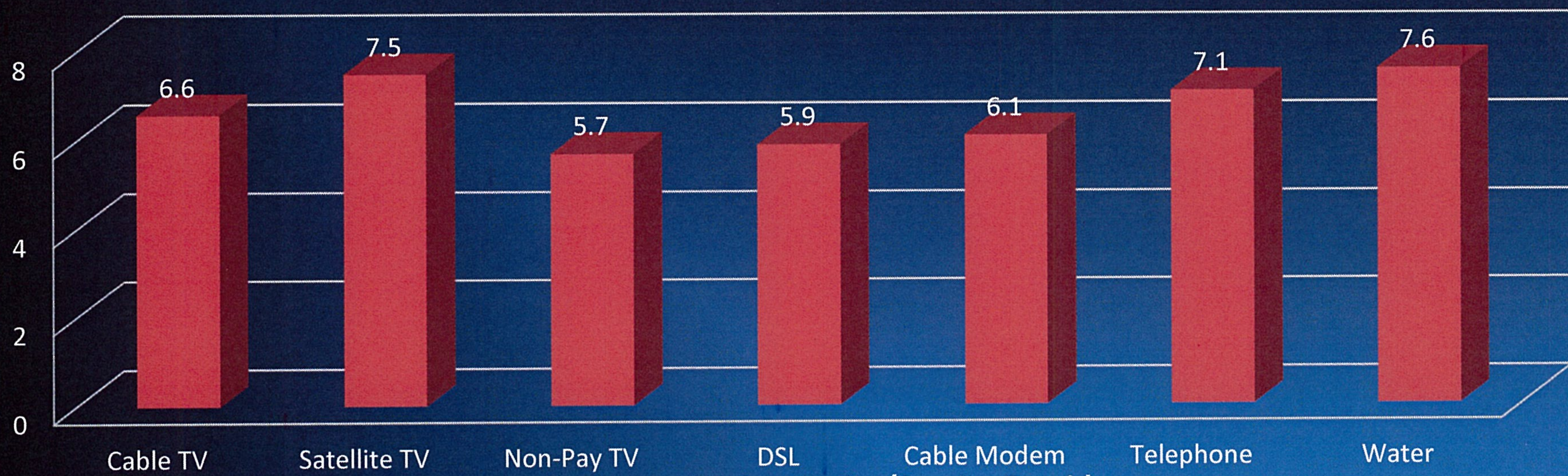
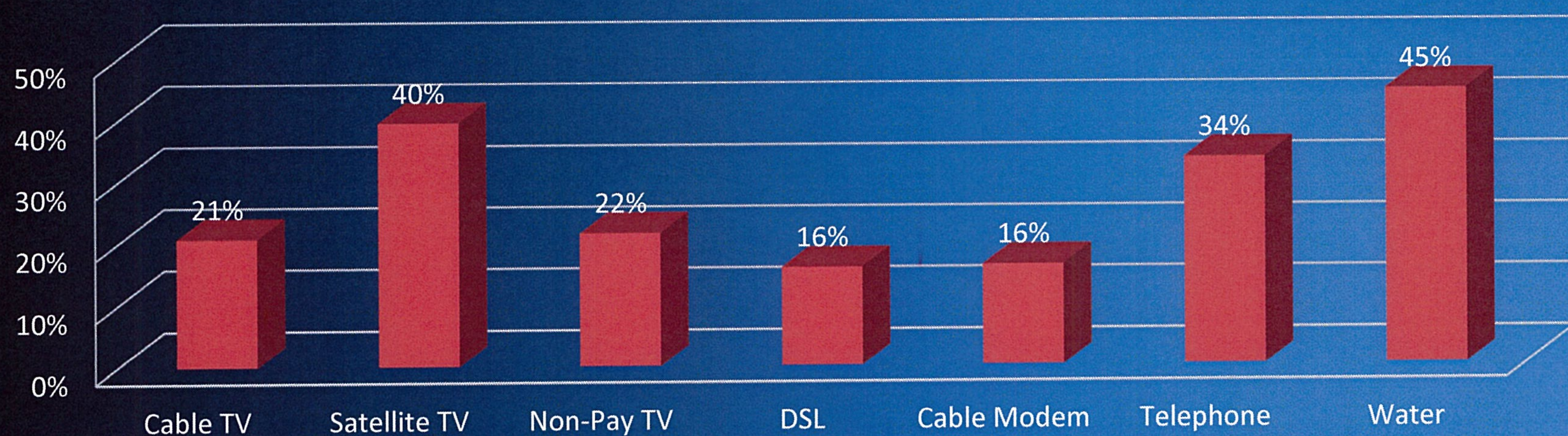
SATISFACTION RATINGS

Satisfaction Rating by Service/Service Provider
(Mean Rating on a 1-10 Scale)



Satisfaction Rating by Service/Service Provider
(Percent Rating a '9' or '10')

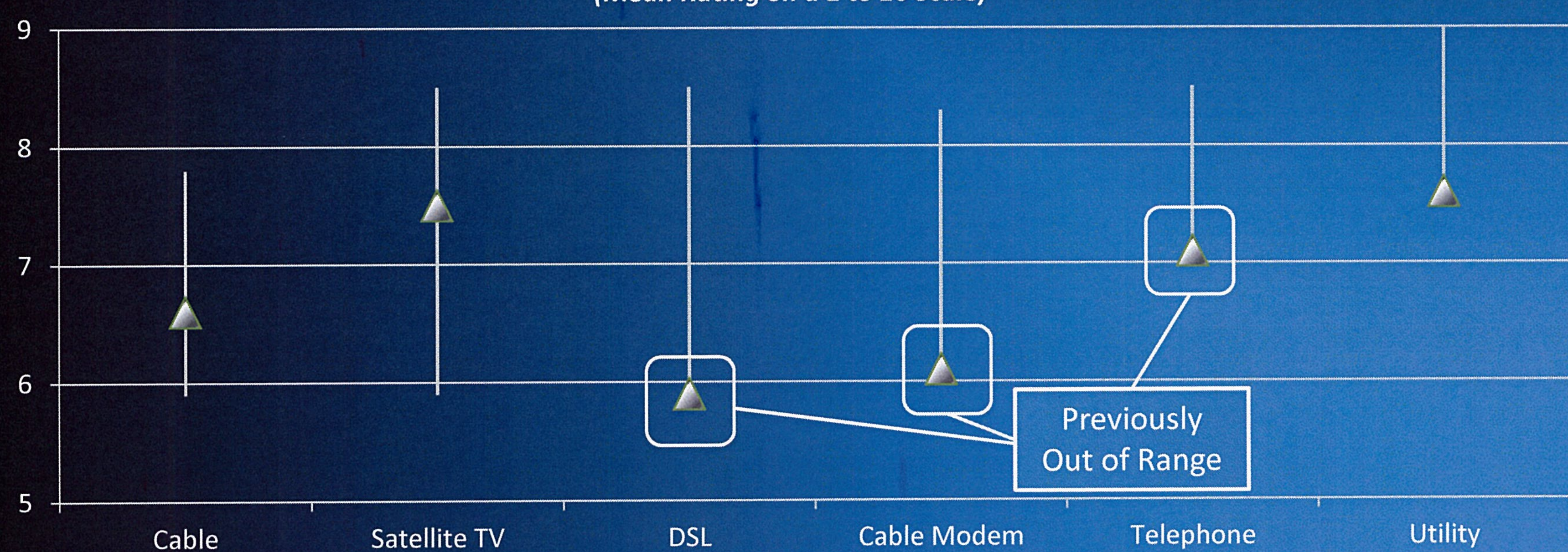


SATISFACTION RATING BENCHMARKS

- The chart below compares the results of this study with 22 other markets where Uptown has completed similar quantitative research:

Northern Ohio (2)	*Washington (state)*	*North Carolina*	*Oregon*
Southern Ohio	*Wisconsin*	*Kansas (2)*	*Alabama*
Georgia	*Oklahoma (2)*	*New York*	*Arkansas*
Tennessee (3)	*Michigan*	*Kentucky*	*Colorado (2)*

Satisfaction Rating by Service/Service Provider
(Mean Rating on a 1 to 10 Scale)



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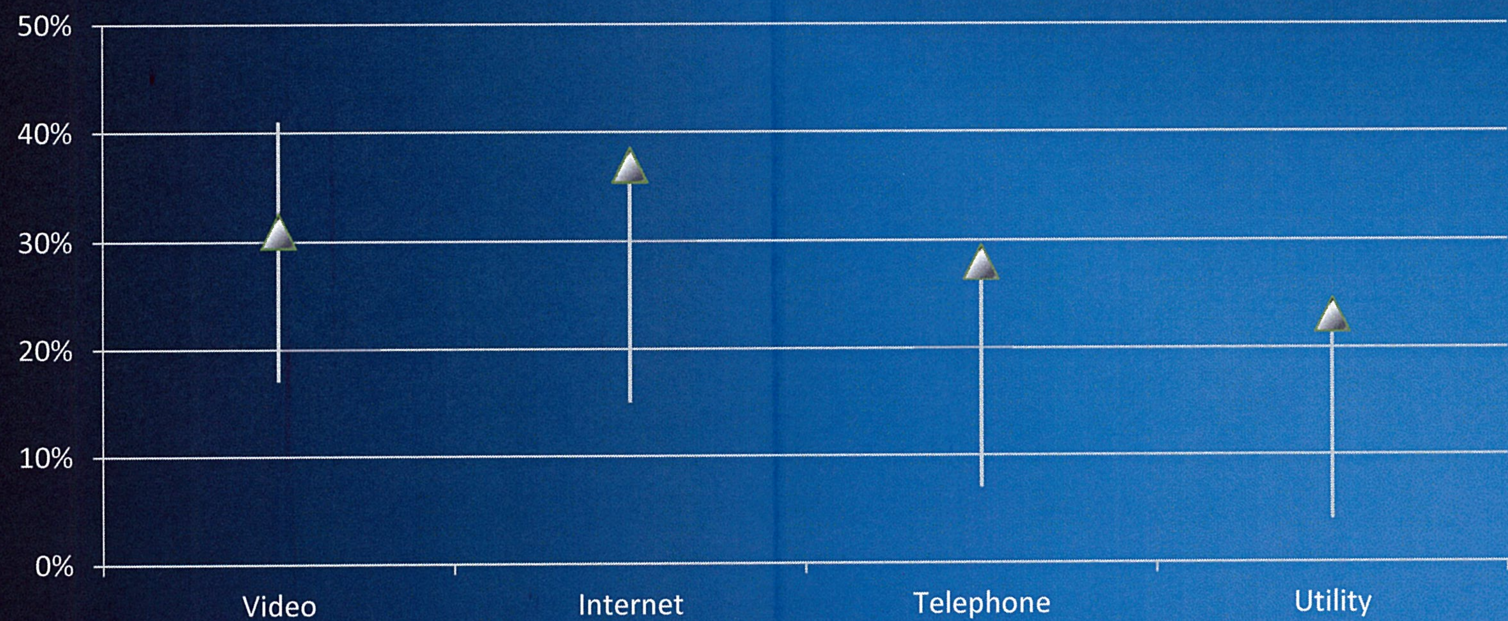
INCIDENCE OF DISSATISFIED USERS

- The incidence of dissatisfied consumers (those who rated their satisfaction from 1 to 5 on a scale up to 10)
  - All TV: 31%
  - All Internet: 37% (new high)
  - Telephone: 28% (new high)
  - Utility: 23% (new high)

Incidence of Dissatisfied Users by Service
(Percent Rating Between a '1' and '5' on a 1-10 Scale)



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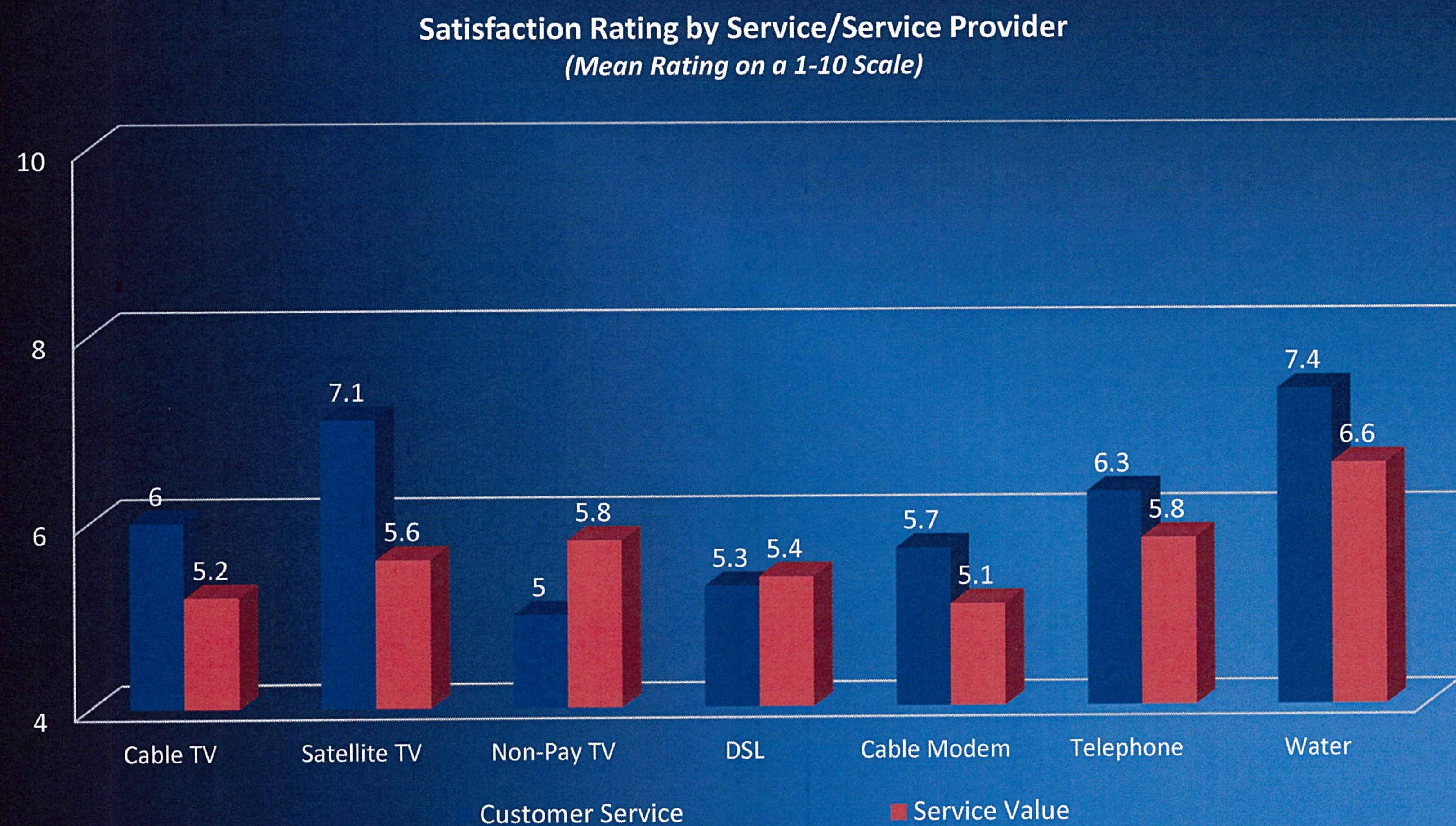
INFLUENCERS OF SATISFACTION

- Across providers, price is the greatest source of service dissatisfaction, but most notably with Pay TV...



ATTRIBUTE IMPORTANCE

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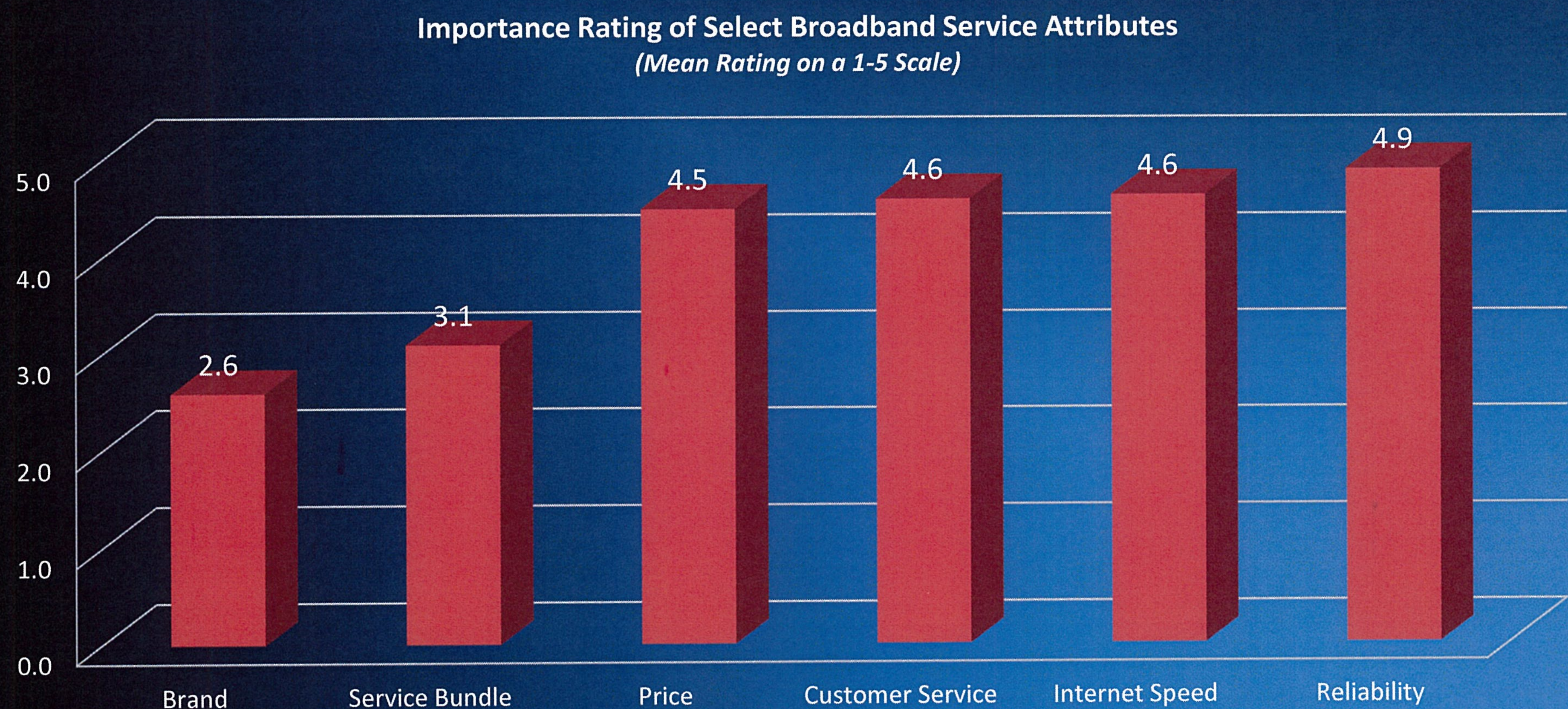
- While reliability and price are always important, Internet speed has dramatically increased in importance over the last several years. Bundling and Brand are secondary in importance to other attributes…



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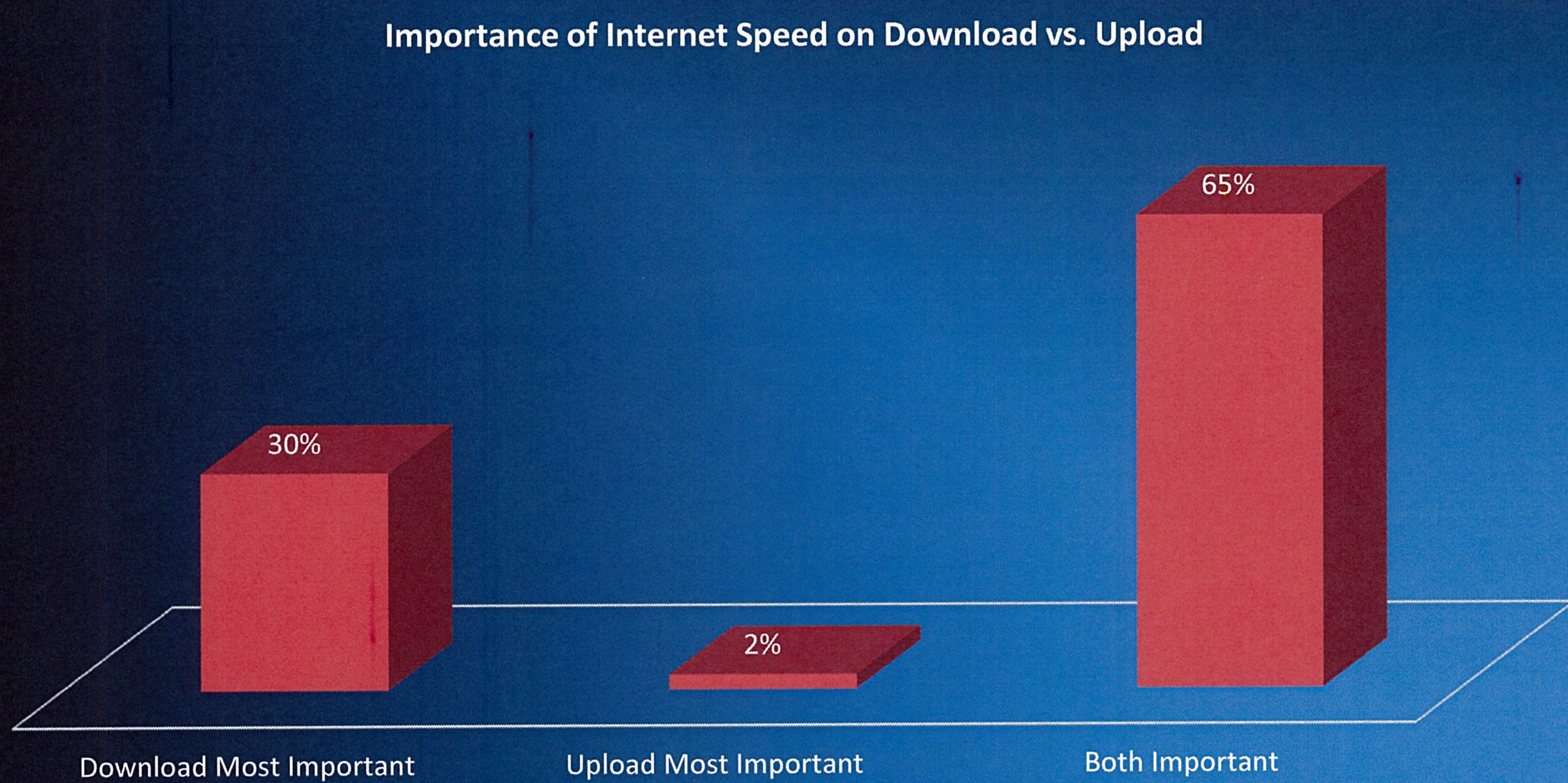
IMPORTANCE OF DOWNLOAD VS. UPLOAD

- Question 40: “What aspect of Internet speed is most important?”



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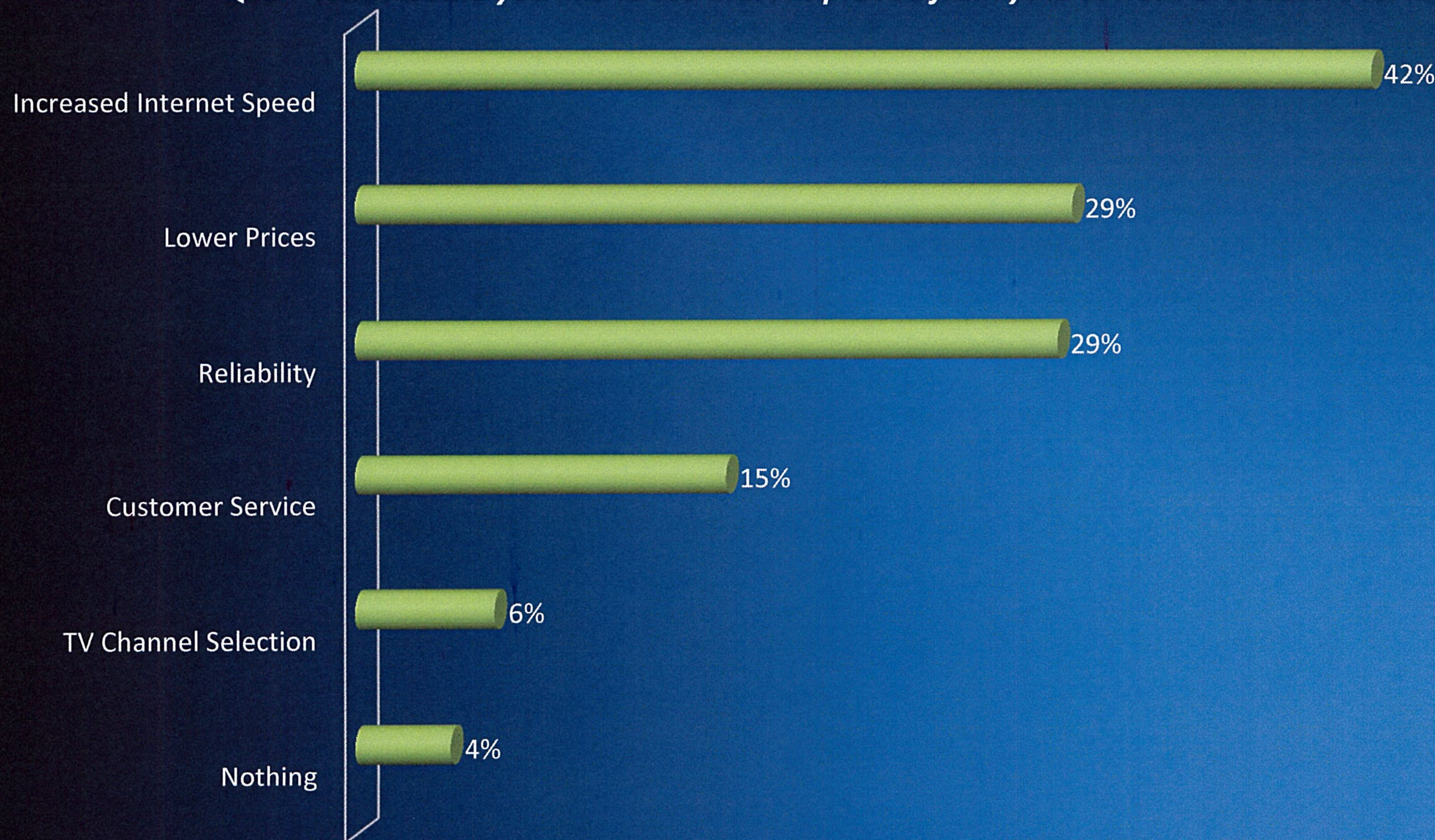
CUSTOMER NEEDS

- Increased Internet speed dominates the wish list for services improvement as Internet speed has gained importance…

Q39: *"What would you like to see most improved from your current broadband services?"*



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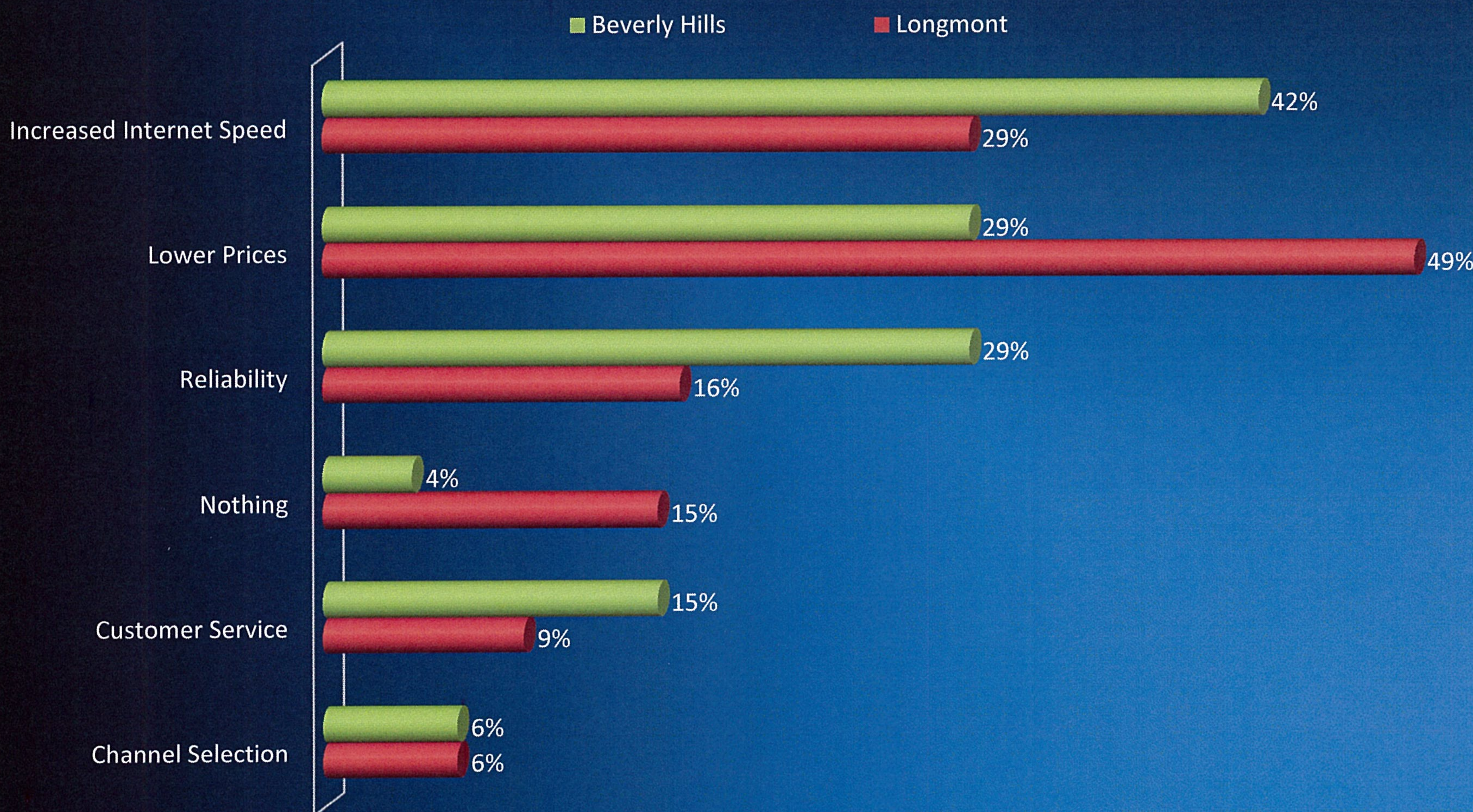
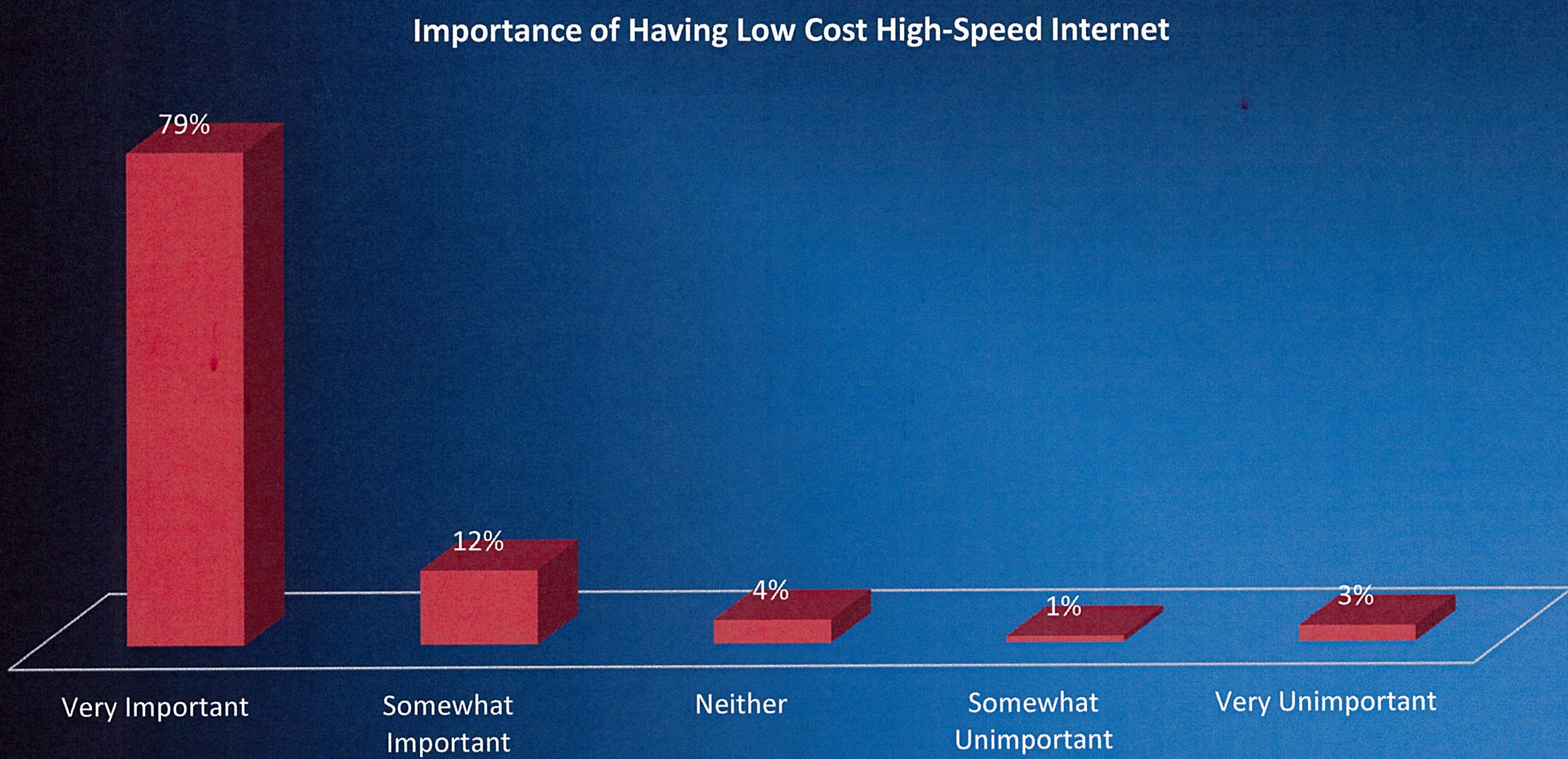
BENCHMARKED CUSTOMER NEEDS

Q39: *"What would you like to see most improved from your current broadband services?"*



IMPORTANCE OF LOW COST HIGH-SPEED INTERNET

- Question 37: "In your opinion, is the availability of low-cost, high-speed Internet important to the future local economy?"



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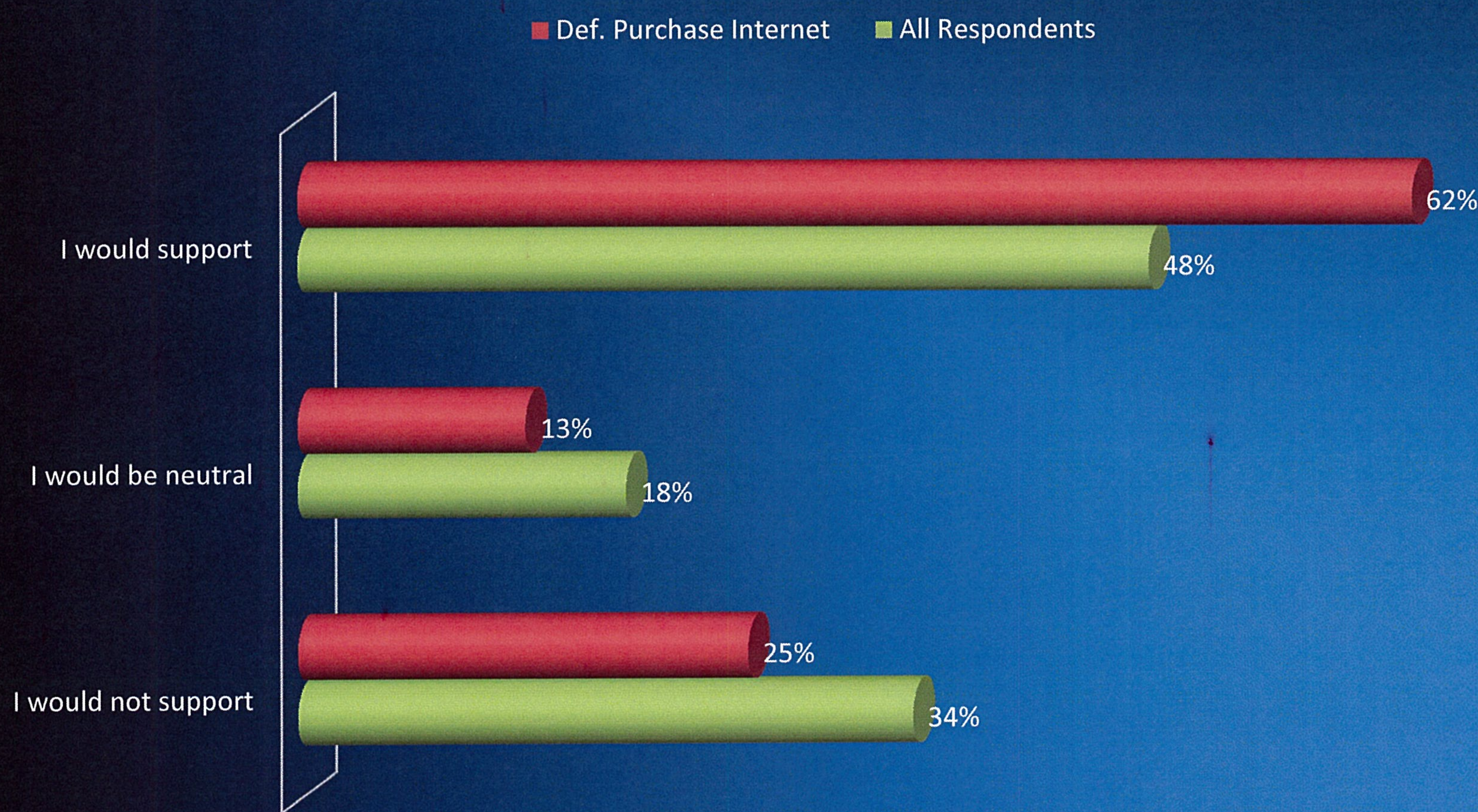
WATER BILL SURCHARGE

- About two-thirds of respondents support or are neutral to paying a monthly $5 surcharge to help fund the new fiber network…

Q41: *"Would you support adding a $5 monthly fee to your water bill to partially fund the construction and operation of this network for the first 3 years of operation?"*



Market Assessment

FTTP Market Potential

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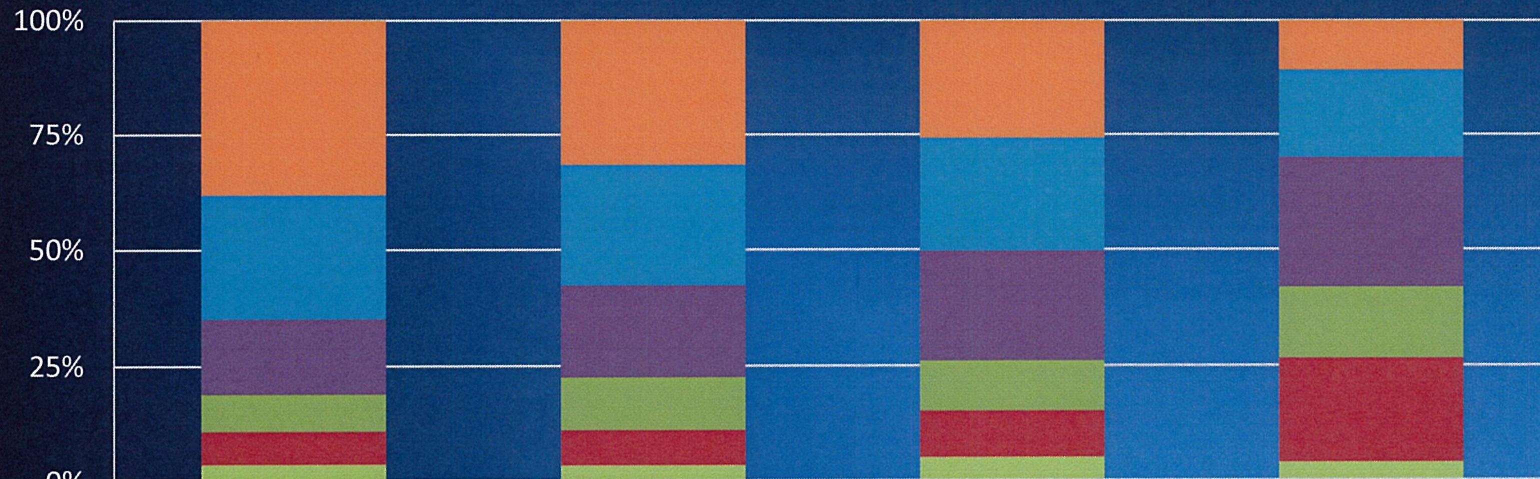
PURCHASE INTENT

- 65% of respondents indicated they would definitely or probably switch to the FTTP system for Internet service…

Q32-35: *"How likely would you be to subscribe to* [insert service] *if it were 10% less than* [insert incumbent provider] *charges?*



	Internet	Phone	Video	Home Security
Definitely	38%	32%	26%	11%
Probably	27%	26%	25%	19%
Might/Might Not	16%	20%	24%	28%
Probably Not	8%	11%	11%	15%
Definitely Not	7%	8%	10%	23%
Don't Know	4%	3%	5%	4%

PENETRATION CALCULATIONS

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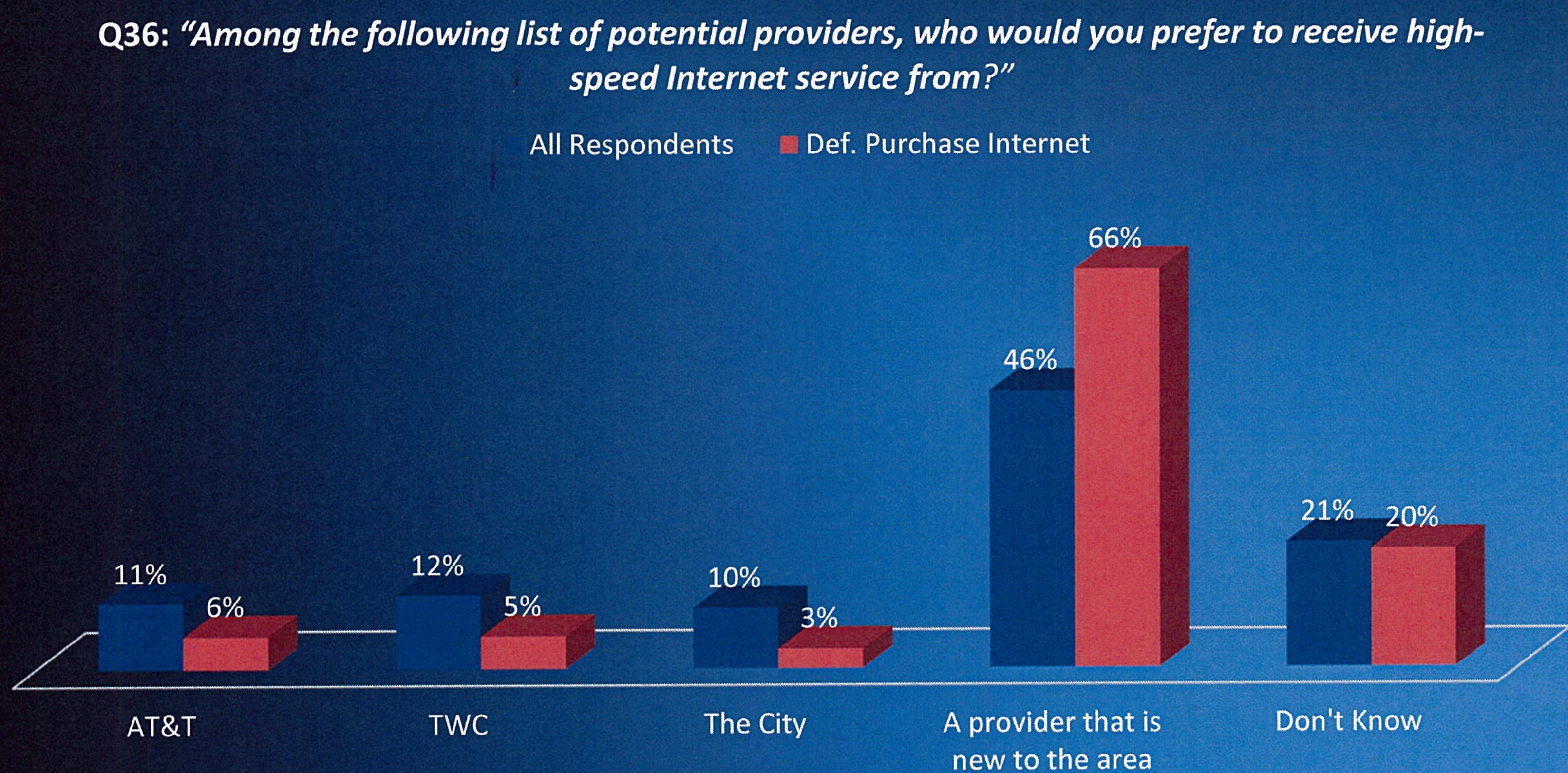
- Uptown uses a 'Likert Scale' with Overstatement Adjustment
  - Conservative research techniques from the Packaged Goods sector
  - Clearly specify purchase intent vs. "interest" and removes overstatement bias
- Example: "How likely would you be to subscribe?"
  - Definitely Would 21.5% x 70% = 15.0%
  - Probably Would 35.6% x 30% = 10.7%
  - Might/Might Not 20.0% x 10% = 2.0%
  - Probably Would Not 10.4% 27.7% = Penetration Estimate
  - Definitely Would Not 4.4%
  - Don't Know 8.1%

	Residential	Small Business
Video	27.7%	0%
Internet	36.3%	30%
Telephone	31.9%	25%
Home Security	0 (16.1%)	0%

PROVIDER PREFERENCE

- The majority of respondents, when given the choice, would prefer to receive high speed Internet from a new service provider…



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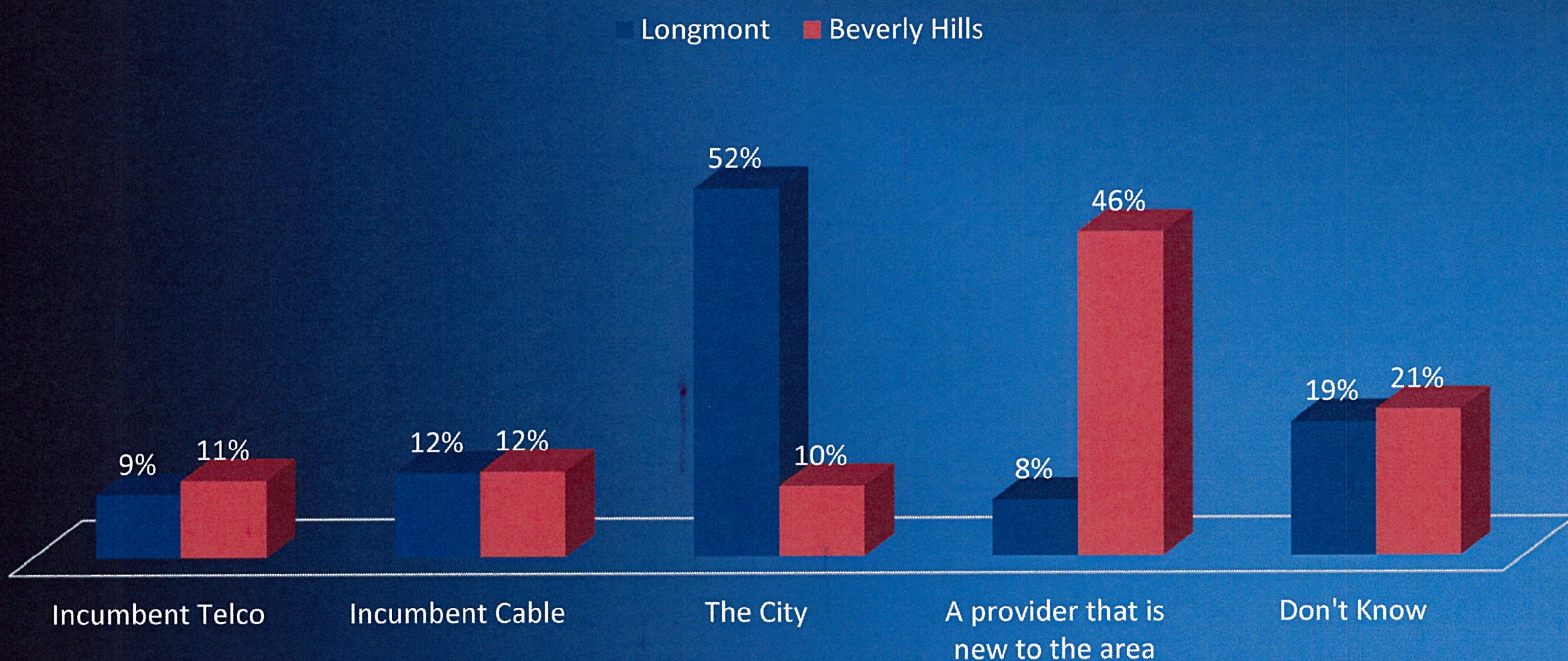
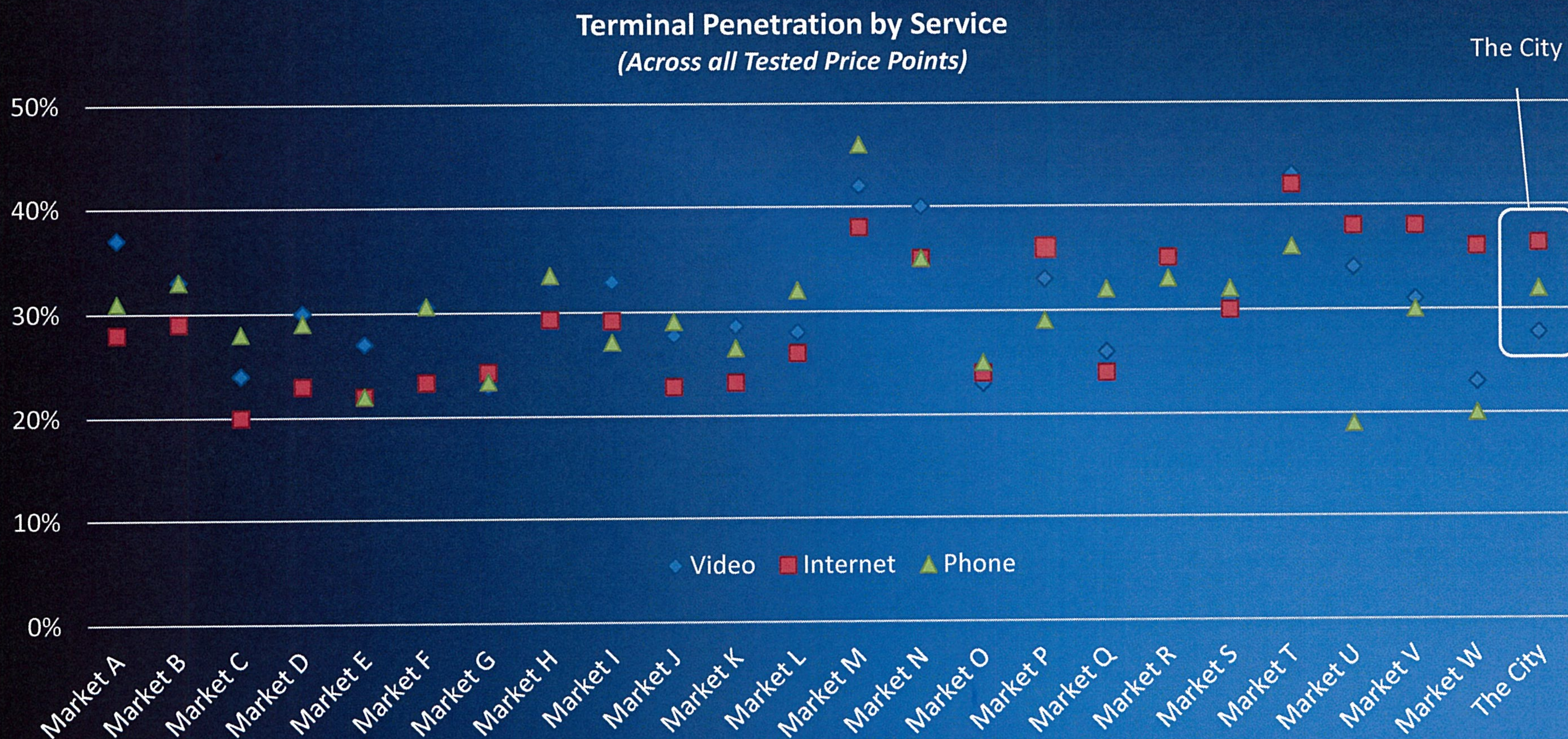
PROVIDER PREFERENCE BENCHMARKED

Q36: *"Among the following list of potential providers, who would you prefer to receive high-speed Internet service from?"*

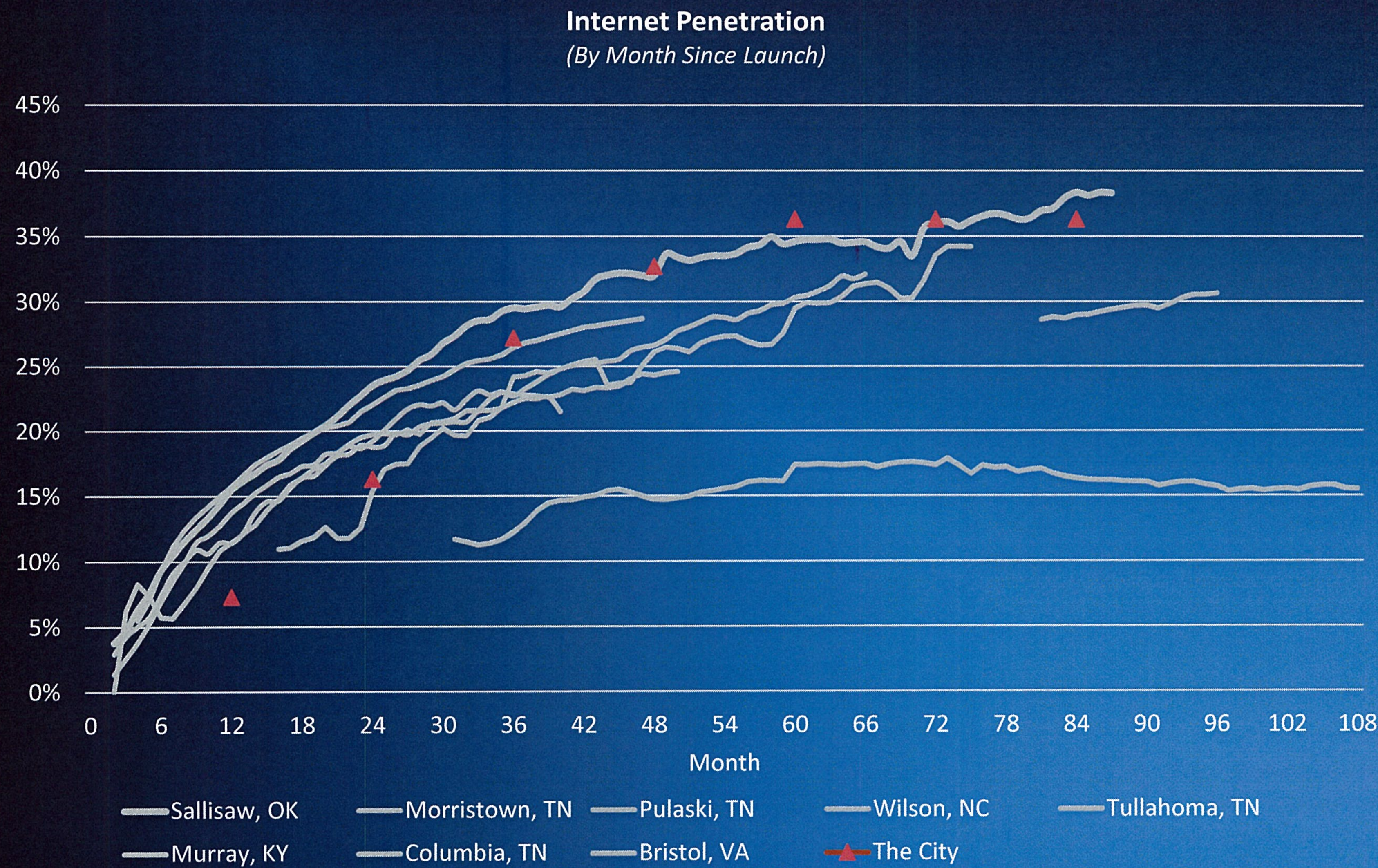


PURCHASE INTENT BENCHMARKING

- Penetration estimates are strong for all 3 services compared to the other markets for which Uptown has completed quantitative forecasting…



INTERNET PENETRATION OF MUNI OVERBUILDERS



VOICE PENETRATION OF MUNI OVERBUILDERS