HD TV: The Picture is Getting Clearer

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Not since the introduction of color television more than half-a-century ago has another innovation done as much to enrich the visual quality of television as High Definition (HD) TV. Though still considered an "emerging technology," HD has increasingly aroused the interest of programmers and advertisers, and has sparked a race among cable and satellite service providers eager to gain an edge by providing the most HD content.

Currently, one-third of U.S. television homes have an HD set. That figure has continued to grow – despite the ailing economy – as consumers replace older or broken Standard Definition (SD) TVs with more advanced systems, or purchase HD TVs in the misguided belief that the Digital Television Transition requires it.[1]

HD Penetration

According to Nielsen's National People Meter panel, as of February 2009, one-third (33.3%) of U.S. TV homes had at least one HD set (i.e., were HD Capable). That was a marked increase from November's pre-holiday figure (29.2%) and a substantial increase over February 2008 (19.3%). As shown in Figure 1, HD penetration was greatest among Asian homes (41.8%) – which also experienced the largest increase from their November HD penetration level of 34.9% – followed by White (34.3%), Hispanic (32.0%) and African American homes (25.9%).

Total U.S. Households High Definition Penetration

	Total U.S.	Hispanic	African American	Asian	White	Other
HD Capable	33.3%	32.0%	25.9%	41.8%	34.3%	23.7%
HD Capable and Receivable	28.8%	25.4%	22.6%	36.0%	29.9%	19.7%

Source: Nielsen National People Meter Sample – Feb. 2009

Figure 1

[1] *The November 2008 HDTV Telephone survey found that, when asked why they decided to purchase an HD TV set, 10.5% of homes responded "Analog TV will be gone as of 2/17/09."*

U.S. Television Homes

Source: Nielsen National People Meter (NPM) Sample - February 2009

Figure 2

While a third of U.S. TV homes had an HD set, somewhat fewer homes (28.8%) in February 2009 actually received HD programming (i.e., were HD Capable and Receivable). [Figure 2]

There are a number of reasons that may explain this difference. One reason is that consumers may often confuse content they view on an HD set as HD programming. Not recognizing the need to upgrade their cable or satellite subscription to receive HD content, many consumers buy HD sets and connect them to their current (non-HD) set top boxes, believing that what they are watching is in HD when, in fact, it is not.

Additionally, while consumers may be willing to incur a large, one-time expense to buy an HD set, they may be less inclined to immediately add the monthly cost of receiving HD programming from their cable/satellite service provider. This is especially true of homes with multiple sets, as each requires a separate set top box.

Indeed, while 49% of the respondent homes in Nielsen's November 2008 HD TV telephone survey said they had at least two HD sets, only 39% said they had HD programming on more than one. Moreover, while the February 2009 percentage difference between HD Capable and HD Capable and Receivable homes was 4.5 percentage points, it was greatest among Hispanic homes (6.6 percentage points) and least among African American homes (3.3 percentage points).

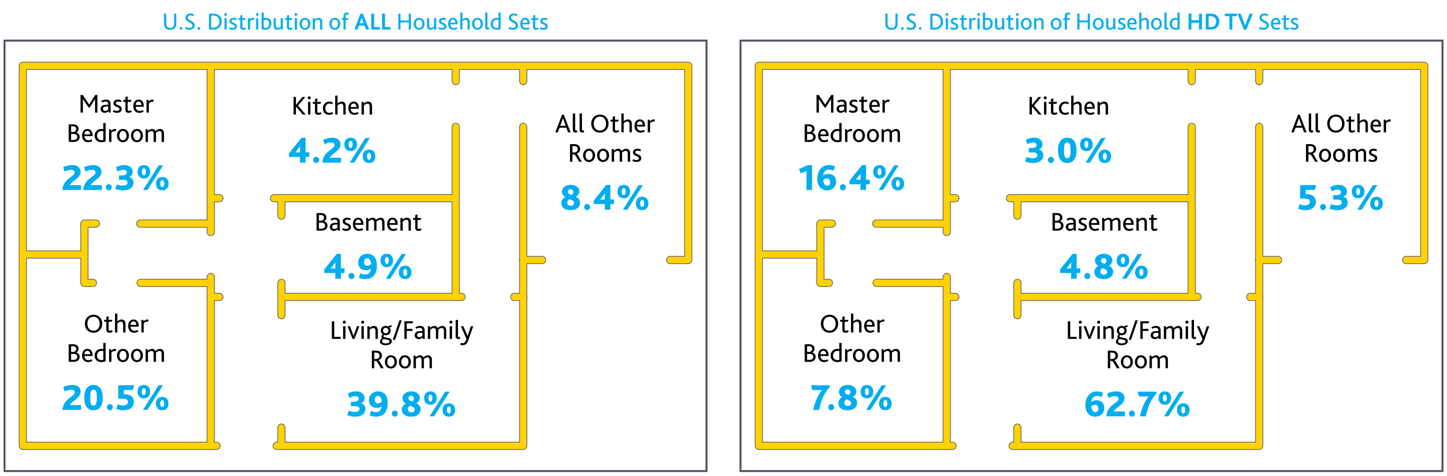
HD Adoption

Much like the early adoption of color television, or the purchase of more contemporary home media devices, HD TVs are initially bought for common areas of the house (i.e., living room or family room) where frequent use will justify the cost of the set and the expense associated with HD programming. As of February 2009, nearly two-thirds (62.7%) of all HD sets in the U.S. were located in common areas [Figure 3], and over 75% of all household tuning on HD sets was done there as well. [Figure 8]

It is interesting to note that Hispanic and African American homes tend to have more HD sets in bedrooms (34.1% and 35.9% respectively) than other race or ethnic groups.

After the initial purchase, subsequent HD purchases are either for other areas of the home or to replace an original HD set, which is then moved to somewhere else within the home. According to Nielsen's HD TV telephone survey, the most recently purchased HD sets were most likely to go in the family room or living room (66.6%) – down from 74.2% the year before. This suggests that consumers are buying more sets for non-common household areas; nearly half of the survey respondents already had more than one HD set and nearly 30% of those older sets have ended up in the master bedroom – more than any other household location.

Household Distribution of HD TV Sets vs. All Household Sets



Source: Nielsen NPM Sample - February 2009

Figure 3

Peripheral Devices

As of February 2009, 54% of television peripherals, including VCRs, DVRs, DVD players and video game consoles, were attached to sets in the common areas of the household. That being the case, it is not entirely surprising that HD sets – which were most likely to be in common areas – had more peripheral attachments, on average, than SD sets (1.7 to 1.2 respectively). For example, whereas only 10.6% of SD sets were connected to a DVR, 36.0% of all HD sets were connected to DVRs [Figure 4]. Similarly, DVR penetration – though greatest among all sets in common areas (26.4%) – was far greater among HD sets (44.6%) than SD sets (17.1%) in common areas. [Figure 5]

Furthermore, a higher percentage of HD sets (30.6%) were attached to video game consoles than were SD sets (19.9%). As shown in Figure 5, video game console penetration was highest for HD sets in basements (55.1%), other bedrooms (39.2%), and common areas (35.2%).

Peripheral Penetration by Television Set Type

Set Type	DVR	VCR	DVD Player	Game Console
SD Sets	10.6%	35.8%	51.0%	19.9%
HD Sets	36.0%	30.2%	70.7%	30.6%

Source: Nielsen NPM Sample – Feb. 2009

Figure 4

Peripheral Device Penetration by Household Location

Set Location	DVR			VCR			DVD Player			Game Console		
	HD	SD	Total	HD	SD	Total	HD	SD	Total	HD	SD	Total
Master Bedroom	24.1%	10.7%	12.8%	23.1%	31.2%	29.9%	61.1%	44.2%	46.8%	8.6%	6.3%	6.6%
Other Bedroom	13.8%	4.7%	5.4%	14.6%	27.8%	26.8%	52.1%	43.9%	44.6%	39.2%	31.1%	31.7%
Common Areas	44.6%	17.1%	26.4%	35.6%	48.7%	44.3%	79.0%	72.5%	74.7%	35.2%	23.2%	27.2%
Kitchen	8.9%	3.5%	4.3%	7.4%	12.4%	11.7%	26.7%	13.2%	15.3%	1.5%	2.0%	1.9%
Basement	37.0%	8.5%	14.5%	33.3%	41.0%	39.4%	72.2%	47.2%	52.4%	55.1%	34.6%	38.9%
Other	17.2%	6.3%	7.7%	21.0%	29.4%	28.3%	52.9%	29.4%	32.6%	26.1%	15.0%	16.5%
Total	**36.0%**	**10.6%**	**16.0%**	**30.2%**	**35.8%**	**34.6%**	**70.7%**	**51.0%**	**55.2%**	**30.6%**	**19.9%**	**22.2%**

Source: Nielsen NPM Sample – Feb. 2009
Note: e.g. 44.6% of Common Area HD sets have a DVR attached.

Figure 5

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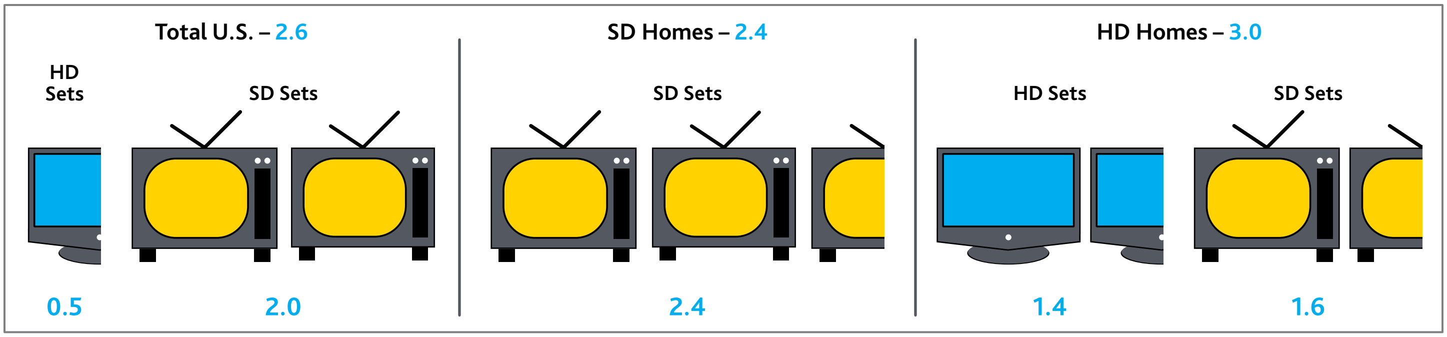
Average TV Sets Per Household



Source: Nielsen NPM Sample - February 2009

Figure 6

Phasing Out Standard Definition Sets

At first glance, SD sets may appear to be at the end of their life cycle and facing obsolescence; however, they may actually continue to serve a function in HD homes. From February 2008 to February 2009, according to the National People Meter panel, increases in HD sets outpaced decreases in SD sets. In other words, HD sets were not always replacing SD sets, but often nudging them into other parts of the home that previously had no TV set, and thus increasing the number of household sets overall.

It is not surprising then that HD homes generally have, on average, more television sets than non-HD households [Figure 6]. But while retaining their SD sets, HD TV owners are not necessarily using them to watch over-the-air or cable/satellite television, particularly because the cost of a separate set top box for a less-utilized set makes it cost-prohibitive. Instead, SD sets may be dedicated to other purposes such as video gaming.

Distribution of Tuning

Although HD sets accounted for fewer than half of sets in HD households, on average, in February 2009, roughly two-thirds of tuning in HD households was done on HD sets [Figure 7].

Also, over 75% of Total Day tuning on HD sets was done in common areas of the home, whereas only about 53% of Total Day tuning on SD sets was in common areas [Figure 8]. Household common areas have always been the hotspot for television viewing, particularly during Primetime. In past years, as the number of SD sets in other areas of the home has increased, SD viewing in common areas has decreased. However, as homes acquire HD sets, the appeal of these sets and the content they display bring more tuning back to the common areas where HD sets are most often found.

Distribution of Tuning by Set Type

Daypart	Set Type	Total Homes	HD Capable Homes	HD Capable and Receivable Homes
Total Day	SD Sets	75.1%	35.9%	37.4%
	HD Sets	24.9%	64.1%	62.6%
Prime Time	SD Sets	72.9%	32.4%	34.0%
	HD Sets	27.1%	67.6%	66.0%

Source: Nielsen NPM Sample – Feb. 2009
Note: Tuning to HD sets does not necessarily denote tuning to HD content.

Figure 7

Distribution of Total U.S. Household Tuning Minutes by Daypart and Set Location					
		Total Day M-Su, 6a-6a	Prime Time M-Su, 7-11p	Late Night M-Su, 11p-2a	Day Time M-Su 10a-4p
All Tuning	Master Bedroom	19.6%	17.5%	30.2%	14.6%
	Other Bedroom	14.3%	12.5%	19.8%	11.5%
	Common Areas	58.6%	62.6%	44.3%	65.6%
	Kitchen	2.5%	2.1%	1.0%	3.3%
	Basement	1.9%	2.1%	2.1%	1.8%
	Other	3.0%	3.1%	2.7%	3.3%
		100.0%	100.0%	100.0%	100.0%
	% "All Tuning" to SD Sets	75.1%	72.9%	78.5%	73.8%
Tuning to SD Sets	Master Bedroom	21.8%	19.9%	32.2%	16.5%
	Other Bedroom	17.2%	15.4%	22.8%	14.0%
	Common Areas	53.1%	57.1%	39.3%	60.5%
	Kitchen	2.7%	2.4%	1.0%	3.6%
	Basement	1.8%	1.9%	1.9%	1.7%
	Other	3.3%	3.4%	2.8%	3.7%
		100.0%	100.0%	100.0%	100.0%
	% "All Tuning" to HD Sets	24.9%	27.1%	21.5%	26.2%
Tuning to HD Sets	Master Bedroom	12.8%	11.3%	23.0%	9.2%
	Other Bedroom	5.5%	4.8%	8.9%	4.3%
	Common Areas	75.4%	77.5%	62.5%	80.0%
	Kitchen	2.0%	1.5%	1.0%	2.3%
	Basement	2.2%	2.6%	2.6%	1.9%
	Other	2.2%	2.3%	2.1%	2.3%
		100.0%	100.0%	100.0%	100.0%
Source: Nielsen NPM Sample – Feb. 2009					

Figure 8

The Future of HD TV

Despite the current economic climate, HD is on course to becoming the benchmark in television viewing. As prices of HD TVs continue to fall (a trend that might actually be accelerated by the economy) and circumstances such as the Digital Television Transition create opportunities to further promote HD sets and services, HD TV will gain a greater foothold in U.S. television homes. As HD TV penetration increases, the amount of HD programming available to consumers will grow along with it.