

3. THE HOUSEHOLD MEDIA ENVIRONMENT

The household media environment plays a significant role in young people's media behavior. Which media are available in the home, the extent to which youngsters have their own (personal) media, and the general household orientation toward media and their messages all influence the amount and nature of young people's media use. And since there is ample evidence that the amount and nature of media exposure plays an important role in what children and adolescents know, believe, and value, thus on how they behave, the household media environment arguably contributes in important ways to the socialization of U.S. youth (for reviews, see Christenson & Roberts, 1998; Comstock, 1991; Paik & Comstock, 1994; Roberts, 1993; Roberts, Henriksen & Foehr, 2004; Strasburger & Wilson, 2002).

The kinds of media to which kids have access make a difference. For example, lack of easy access to a particular medium by any particular social group may have important consequences. Such a point seems obvious in the context of something like the possible effects of a "digital divide." In light of studies indicating that homes from the lower socioeconomic strata are least likely to contain personal computers (Roberts, et al., 1999), disquiet over inequities in personal computer access and the associated disadvantages often assumed to follow seem quite reasonable. Kids who do not have computers are presumed to suffer. They have limited opportunity to develop computer literacy, to go online, to search the World Wide Web – in short, to become fully functioning members of the "information age." Another important, albeit less discussed, media divide may exist between households that do and do not subscribe to a daily newspaper – a divide, we might add, that is not so clearly defined by socioeconomic variables (Roberts & Maccoby, 1985; Robinson, 1980; Roper Organization 1977).

Access is not the only thing that makes a difference. Often overlooked but possibly as important as availability or nonavailability of a particular medium, is whether or not a particular

medium has reached saturation levels within a household – that is, whether a home has *multiple* TV sets, video game consoles, radios, or a large library of books, etc. For example, viewing patterns in households with two, three, or more televisions are likely to differ greatly from patterns in a home with one, centrally located TV. In multiple media households (e.g., those with TV sets, computers, VCRs) the second or third instance of a given medium often migrates to kids' bedrooms when the family upgrades them (e.g., when a family upgrades to a computer with more memory or a TV with a larger screen). This practice may serve individual tastes and preferences, but it also likely reduces the amount of shared media experiences, hence the amount of parent-child interaction around media messages.

Finally, households may differ dramatically in terms of "media norms" – that is, their orientation toward media in general and/or toward specific individual media – and this, too, makes a difference to media behavior. Some families have strongly enforced rules about TV viewing, or about surfing the Web, or about the kinds of music to which children and adolescents are allowed to listen. Other families pay little or no attention to the amount or nature of kids' use of any media. In some homes parents are avid TV, or video game, or newspaper fans; in others, any or all of these media are almost completely ignored. Thus, a household's normative orientation toward media – whether manifested in explicit media policies (e.g., no TV until homework is completed; no TV14-rated shows for younger kids; no unsupervised surfing the Web), unspoken behavioral norms (e.g., parents who never miss a favorite soap opera; parents who dine with head buried in a newspaper), or simply the practice of allowing children to have their own media – also affects how young people use media.

We begin our examination of U.S. youths' media behavior by characterizing the household media environment of today's youth on three dimensions. First, we present information about the number and kinds of media available in 8- to 18-year-olds' households. Second, we look at young people's personal media, defined

in terms of both specific media available within kids' bedrooms and other personal, and often portable, media (such as miniaturized tape players, radios, handheld video games, and laptop computers). Third, we examine "household media orientation," based on several variables that we believe characterize the degree to which media play a central role in each youngster's home.

Household media

Five years ago, our examination of young people's media environments led us to characterize children's households as "media rich" (Roberts, Foehr, Rideout & Brodie, 1999). The findings from 2004 point to a need for an even stronger term, that is, "media saturated." With few exceptions, the remarkably high number of each of the various media present in kids' households found in our earlier study have increased, sometimes modestly, sometimes moderately, but apparently inexorably. For the most part, noteworthy comparisons between the findings from 2004 and those from 1999 are presented in sidebars accompanying our central discussion of today's media environment.

Table 3-A presents the proportion of youngsters from households with at least one and with three or more of each of the various media in both 1999 and 2004.⁶ Clearly, in 2004, TVs, VCRs, radios, and audio CD/tape players have reached ceilings, with penetration of each medium approaching 100% of young people's households. The number of young people's homes with video game consoles, computers, and cable or satellite TV subscriptions has passed 80%, and with the exception of the new

types of digital video recorders (DVRs), no medium or "media add-on" (i.e., subscription to cable, satellite, or premium channels, instant messaging capabilities, etc.) occurs in fewer than 50% of U.S. kids' households.

The term "media rich" does not fully capture this environment. Most children's homes have more than one of each of the media in our list. Almost three-quarters of U.S. kids live in homes that contain three or more TV sets (14% contain five or more), and roughly two-thirds report more than three radios and three CD/tape players. U.S. 8- to 18-year-olds also report an average of more than two video game consoles and 1.5 personal computers in their homes. The only medium (or media add-on) in our list with an average of less than one per youth's household is the DVR, a technology currently in its infancy in terms of market penetration. In short, a typical U.S. child between 8- and 18-years-old is

likely to live in a home equipped with three televisions, three VCRs, three radios, three CD/tape players, two video game consoles, and a personal computer. The computer probably has an Internet connection and an instant messaging program; the TV probably receives a cable or satellite signal, and there is a 50/50 chance that the TV also receives a premium channel. Media saturation indeed.

Household media availability varies depending on such things as youth's age, race and ethnicity, parent education, and income. Of course, no variation can exist when a medium has reached full penetration; rather, differences in access located by such demographic variables are best examined in relation either to those

Almost three-quarters of U.S. kids live in homes that contain three or more TV sets.

TABLE 3-A

In-Home Media Availability in 2004 and 1999

Percentage of children living in homes with 1 or more and 3 or more of each medium

	1+		3+		Mean	
	2004	1999	2004	1999	2004	1999
TV	99%	99%	73%	70%	3.5 [‡]	3.1
VCR	97	98	53 [‡]	26	2.9 [‡]	2.0
DVR	34		6		0.6	
Radio	97	98	63 [‡]	73	3.3	3.4
CD/tape ¹	98	95	66		3.6	
Video game	83	81	31 [‡]	24	2.1 [‡]	1.7
Computer	86 [‡]	73	15 [‡]	8.0	1.5 [‡]	1.1
Cable/satellite TV	82 [‡]	74				
Premium channel	55 [‡]	45				
Internet	74 [‡]	47				
Instant messaging program	60					

¹ Differences in question format preclude comparisons of means and proportion with 3+ CD/tape players.

[‡] For this and all following tables, a double dagger (‡) indicates that the difference in proportions for 1999 and 2004 is statistically reliable at $p < .05$. For example, a significantly higher proportion of youths reported a household computer in 2004 than in 1999, and a significantly lower proportion reported 3+ radios.

Box 3.1 Five-Year Changes in Household Media

Table 3-A reveals changes in household media during the five years since our first study (Roberts, et al., 1999). The changes are most apparent for digital media. Not surprisingly, given the increasingly important role computers have come to play in our lives (hand in hand with substantial decreases in computer prices), from 1999 to 2004 the proportion of kids reporting a personal computer in their home increased by 13 percentage points (from 73% to 86%). Even more dramatically, households with an Internet connection increased from fewer than half (47%) to almost three-quarters (74%). Finally, instant messaging capabilities, which were not even surveyed five years ago, are now found in 60% of 8- to 18-year-olds' homes.

The same five-year period also saw the proportion of children and adolescents living in homes with cable or satellite and premium channels increase substantially (8 and 10 percentage point increases, respectively), while the proportion with three or more VCRs doubled (from 26% to 53%), a result, we suspect, of VCR upgrades and increasing penetration of DVRs. Homes with three or more video game consoles also increased by 7 percentage points. Only radio breaks the pattern of steady increases in household media availability. Although the percentage of households with at least one radio remains about constant, there is a 10 percentage point *decrease* in the proportion with three or more radios. We suspect this decline may be at least partly a consequence of young people's greater reliance on CD players, computers, and MP3 players as sources of music.

media that have not reached full penetration or to patterns of multiple media ownership.

Age and gender. Table 3-B presents household media availability in relation to age. Differences among households with at least one of each medium emerge only for media that have achieved less than 80% penetration. Thus, more 11- to 14-year-olds than either 8- to 10-year-olds or 15- to 18-year-olds live with a digital TV recorder, and fewer 8- to 10-year-olds than older kids live in homes that receive cable or satellite TV, have an Internet connection, or have instant messaging capabilities on the household computer.

Age differences in media availability also emerge when homes with three or more of each medium are examined. Eight- to ten-year-olds are less likely than either of the older two age-groups to live in homes with three or more VCRs and radios, and less likely than 15- to 18-year-olds to live with three or more computers.

As was the case in 1999, the video game console is the only medium for which there is a gender difference in household availability (see Appendix 3.1). Now, as then, boys remain more likely than girls to live in a home with a video game console. Although not quite as large as it was five years ago (cf. Roberts, et al., 1999; from 1999 to 2004, the proportion of kids with video game consoles increased at a slightly higher rate for girls than for boys), the gender difference remains significant.

Race and ethnicity. Race and ethnicity are not associated with differences in the likelihood of living in a household with at least one TV set, VCR, radio, CD/tape player, or video game console, or of subscribing to a premium TV channel. Race does, however, locate differences in young people's access to DVRs, and particularly in the likelihood of availability of a personal computer and its associated capabilities. Table 3-C indicates that African American and Hispanic youths are somewhat more likely than White kids to live in a home with a DVR (the difference between Whites and Hispanics is statistically significant, and it approaches significance for White and African American kids). Conversely, White youths are more likely than either African American or Hispanic youths to live in a home with a personal computer and to be connected to the Internet. They are also more likely than African American kids to report instant messaging capabilities (with the likelihood for Hispanic kids falling between the two).

TABLE 3-B

In-Home Media Availability by Age

Percentage of children living in homes with 1 or more and 3 or more of each medium, by age

	1+			3+		
	8- to 10-year-olds	11- to 14-year-olds	15- to 18-year-olds	8- to 10-year-olds	11- to 14-year-olds	15- to 18-year-olds
TV	98%	100%	99%	67%	76%	74%
VCR	94	99	98	42 ^a	57 ^b	58 ^b
DVR	29 ^a	40 ^b	29 ^a	6	6	5
Radio	94	98	99	46 ^a	68 ^b	71 ^b
CD/tape ¹	95	99	100	54	69	73
Video game	84	84	81	30	35	28
Computer	83	89	86	10 ^a	14 ^{ab}	20 ^b
Cable/satellite TV	76 ^a	86 ^b	82 ^{ab}			
Premium channel	51	59	53			
Internet	63 ^a	78 ^b	80 ^b			
Instant messaging program	42 ^a	63 ^b	70 ^b			

¹ Differences in questions in 1999 and 2004 preclude comparisons for 3+ CD/tape players.

Note: Within each row, only those proportions that do not share a common superscript differ from one another with statistical reliability. Those proportions without a superscript, or those that share a common superscript, do not differ by a large enough margin to ensure statistical reliability.

Box 3.2 Five-Year Changes in Media Availability by Race

In 2004, patterns of media availability as a function of race/ethnicity replicate most of those found in 1999. There are, however, a few noteworthy changes. First, where the earlier study found that African American kids were more likely than Whites to live in homes subscribing to premium channels, with three or more TV sets, and with three or more video game consoles, those differences have disappeared by 2004 (i.e., White households gained each of those media at a slightly higher rate than African American households). Second, although overall in-home access to personal computers and associated capabilities increased significantly during the five-year period, the differences among White, Black and Hispanic households remained much the same. That is, now as in 1999, kids from White households have more access to in-home computer-related media.

In general, then, while household media saturation is a fact for White, African American, and Hispanic kids, there remains a consistent pattern of White youngsters having greater access to personal computers and Internet connections. Finally, the tendency noted in 1999 for African American households to be somewhat more immersed in TV and related media (i.e., a higher proportion of Black households subscribed to premium channels, owned three or more TV sets and three or more video game consoles) seems to have been greatly reduced. Black households are still more likely to subscribe to premium channels and to have three or more TV sets, but the differences are no longer statistically significant.

Parent education and household income. As noted earlier, error inherent in our measures of parent education and household income urge caution when interpreting results in relation to socioeconomic status (SES). Fortunately, the two different measures have different sources of error. By comparing results from each, we can begin to derive a reasonable picture of the relationship between media availability and SES. Both of these SES indicators reveal similar patterns of in-home media access – that is, complete penetration of older, non-computer-related media regardless of education or income, but variations in access to personal computers (and computer “add-ons”) and in the likelihood of having three or more of a given medium in the home.

As shown in Table 3-D, with one exception, parent education indicates few differences in access to at least one of any media

other than those associated with personal computers (i.e., the personal computer itself, an Internet connection, and instant messaging capabilities). A higher proportion of young people whose parents completed college than of those whose parents completed no more than high school report in-home personal computer access. Kids from households where parents completed some college fall in between, but are more similar to kids from households where parents completed no more than high school than to kids from households where parents completed college. Children and adolescents with college-educated parents are also more likely than those with high school-educated parents to live in a home with an Internet connection, with instant messaging capabilities, and with three or more computers. Again, those whose parents completed some college fall in between, but look more like the group with high school-educated parents. The single, non-computer-related medium with a connection to parent education is the DVR. Children whose parents have some college education are less likely than those whose parents completed college to live in a home with a DVR (the proportion of children whose parents completed no more than high school falls between). In short, children from households with the highest level of parent education are more likely to have computers; those whose parents complete college are more likely to own DVRs.

Much the same story emerges in relation to income. Income-related differences in in-home access appear for computers, Internet connections, instant messaging programs, and DVRs (see Appendix 3.1). In all cases but one, a higher proportion of young people classified as from high-income households (i.e., attending a school located in a zip code with a median income over \$50,000) than of those from low- (under \$35,000) or middle- (\$35,000 – \$50,000) income households report having each of the computer-

TABLE 3-C

In-Home Media Availability by Race and Ethnicity

Percentage of children living in homes with 1 or more and 3 or more of each medium, by race

	1+			3+		
	White	Black	Hispanic	White	Black	Hispanic
TV	99%	98%	99%	73%	81%	72%
VCR	99	95	95	57 ^a	50 ^{ab}	44 ^b
DVR	30 ^a	39 ^{ab}	40 ^b	4	10	7
Radio	99	96	97	70 ^a	51 ^b	58 ^b
CD/tape	100	96	97	71 ^a	60 ^b	61 ^b
Video game	82	87	82	31	34	32
Computer	90 ^a	78 ^b	80 ^b	15	9	11
Cable/satellite TV	83	83	78			
Premium channel	56	65	55			
Internet	80 ^a	61 ^b	67 ^b			
Instant messaging program	63 ^a	47 ^b	55 ^{ab}			

Note: Within each row, only those proportions that do not share a common superscript differ from one another with statistical reliability. Those proportions without a superscript, or those that share a common superscript, do not differ by a large enough margin to ensure statistical reliability.

related media. The one exception to this pattern is that the difference in the proportion of kids from low-income and high-income households reporting DVRs is not statistically significant. Kids from the highest income group are also more likely than kids classified as from lower income homes to report access to three or more radios, CD/tape players, and computers. The most straightforward explanation for these results is that as income increases, so

too does the ability to purchase these media. In short, although there are minor variations, both parent education and income locate the same general pattern of media accessibility, most notably greater in-home access to digital media as socioeconomic status increases.

Summing up in-home media availability. In general, media saturation seems an apt phrase to describe the typical U.S. 8- to

TABLE 3-D

In-Home Media Availability by Parent Education

Percentage of children living in homes with 1 or more and 3 or more of each medium, by parent education

	1+			3+		
	High school	Some college	College or more	High school	Some college	College or more
TV	99%	99%	99%	74%	68%	75%
VCR	97	98	98	50	55	56
DVR	33 ^{ab}	26 ^a	38 ^b	5	4	6
Radio	98	98	97	59	67	66
CD/tape	99	99	98	63	65	72
Video game	85	79	83	31	29	32
Computer	82 ^a	84 ^{ab}	91 ^b	8 ^a	9 ^a	22 ^b
Cable/satellite TV	80	84	83			
Premium channel	55	58	57			
Internet	68 ^a	74 ^{ab}	82 ^b			
Instant messaging program	56 ^a	59 ^{ab}	67 ^b			

TABLE 3-E

Personal Media Ownership: Total Sample and by Age

Medium	8- to 18- year-olds		8- to 10- year-olds	11- to 14- year-olds	15- to 18- year-olds
	2004	1999			
A. Percentage of children whose bedrooms contain					
TV	68%	65%	69%	68%	68%
VCR/DVD	54 [‡]	36	47	56	56
DVR	10		8	13	9
Radio	84	86	74 ^a	85 ^b	91 ^b
CDs/tapes	86	88	75 ^a	89 ^b	92 ^b
Video game	49	45	52 ^a	52 ^a	41 ^b
Computer	31 [‡]	21	23 ^a	31 ^{ab}	37 ^b
Cable/satellite TV	37 [‡]	29	32	38	40
Premium channel	20 [‡]	15	16	21	20
Internet	20 [‡]	10	10 ^a	21 ^b	27 ^c
Instant messaging program	18		9 ^a	17 ^b	27 ^c
Telephone	40		31 ^a	39 ^a	50 ^b
B. Percentage of children with their own					
Cell phone	39%		21 ^a	36 ^b	56 ^c
Portable CD/tape player	61		35 ^a	65 ^b	77 ^c
MP3 player	18		12 ^a	20 ^b	20 ^b
Laptop	12		13	11	15
Handheld video game	55		66 ^a	60 ^a	41 ^b
Personal digital assistant	11		9 ^a	14 ^b	8 ^a
Handheld internet device	13		7 ^a	15 ^b	17 ^b

‡ Indicates that the difference in proportions between years is significant.

Note: Within each row, only those proportions that do not share a common superscript differ from one another with statistical reliability. Those proportions without a superscript, or those that share a common superscript, do not differ by a large enough margin to ensure statistical reliability.

18-year-old's household. Almost every young person lives in a home with at least one TV set, VCR, radio, and CD or tape player; over 80% have video game consoles and personal computers, and subscribe to cable or satellite TV; and with the exception of recently introduced digital TV recorders, more than half of all children live in homes with the other media about which we asked (premium TV channels, Internet connections, and instant messaging capabilities). Moreover, high proportions of these children live in households with three or more of most media. In general, media availability is positively associated with youngsters' age and indicators of socioeconomic status, and White youth are more likely than Black or Hispanic youth to have access to computers and the Internet.

Personal media

In light of the proportion of children and adolescents living in homes with multiple instances of most media, it is not surprising that substantial numbers of young people possess their own, personal media. These range from a TV, video game console, or personal desktop computer located in young peoples' bedrooms to ownership of various portable devices that seem common among today's youth such as audio tape/CD/MP3 players, laptop computers, and handheld video games.

Table 3-E summarizes the proportion of 8- to 18-year-olds who report having each of the various personal media either in their bedroom or in the form of a portable device belonging to them. (It also includes the proportion of 8- to 18-year-olds in 1999 reporting personal media where comparisons are possible). "Music media"⁷ comprise the most common personal media; 84% of kids' bedrooms contain radios and 86% contain a CD or tape player (92% of 8- to 18-year-olds have one, the other, or both). In addition, 61% of young people own *portable* CD or tape players, and 18% have newer, digital music players. When both bedroom and portable audio devices are combined, 95% of kids age 8-18 claim a personal source of music.

TV also occupies a major place in many young people's bedrooms. More than two-thirds of 8- to 18-year-olds have a TV in their room, more than half have their own VCR, and 49% report having a video game console that connects to a TV. Over a third receive a cable or satellite signal on their bedroom TV, 20% receive a premium channel, and 10% say that they have a DVR. Increasing numbers of young people also report personal computers. Thirty-one percent (31%) have a desktop computer in the bedroom and 12% have their own laptop computer (35% have one, the other, or both); 20% report an Internet connection and 18% have instant messaging. Over 10% report owning personal

Box 3.3 Five-Year Changes in Personal Media

Table 3-E indicates that the percentage of young people reporting having their own TV, radio, tape/CD player, or video game console did not change from 1999 to 2004. However, there were significant increases in the proportion of kids with a VCR/DVD player in their bedroom (from 36% to 54%), and in the proportion receiving premium channel TV signals in their bedroom (from 15% to 20%). We suspect the increase in bedroom VCRs/DVDs partly reflects household upgrades. That is, as families purchased new DVD players or DVRs, the VCR was moved to the child or adolescent's bedroom, likely accounting for much of the 18 percentage point increase in bedroom video players.¹

Perhaps most important, the percentage of kids having personal computers and associated services also increased significantly (from 21% to 31% for computers and from 10% to 20% for Internet connections). We speculate that this increase is evidence of growing recognition that computers and the Internet are playing increasingly important roles in the lives of American youth, in combination with steady decreases in the cost of computer equipment.

¹ Data from the Consumer Electronics Association indicate that about 5.5 million DVD players had been sold in the U.S. by the end of 1999. Between 2000 and July, 2004, the number climbed to just over 75.5 million (www.thedigitalbits.com/articles/cemadvdsales.html; accessed on 8/17/04).

digital assistants and 13% have some type of handheld device that connects to the Internet (e.g., a cell phone, Blackberry, etc.). Finally, 40% of 8- to 18-year-olds have a landline telephone in their bedroom, and 39% have their own cell phone (55% have either a landline phone, a cell phone, or both).

Age. Table 3-E also shows that the likelihood of a young person having a bedroom TV or VCR/DVD is not related to age. However, substantially higher proportions of both 11- to 14-year-olds and 15- to 18-year-olds than of 8- to 10-year-olds possess each of the various music media (radios, desktop and portable tape/CD players, and MP3 players), as well as personal computers, Internet connections, and instant messaging programs. Video game consoles are the only medium for which this age pattern changes; 15- to 18-year-olds are less likely than the two younger age-groups to have a video game console in the bedroom or to own a handheld video game device.

Gender. In a change from 1999, boys are substantially more likely than girls to own several different personal media. Table 3-F shows that the largest gender difference was obtained for video games; boys are almost twice as likely as girls to report a video game console in their room (63% vs. 33%). A similar difference also holds for handheld video games; 63% of boys and 48% of girls claim to own one. Perhaps more interesting, however, are several other gender differences that emerge. In a departure from the 1999 study in which video game consoles accounted for the single gender difference in personal media, the current data indicate that a reliably higher proportion of boys than girls also have their own TV, VCR/DVD player, computer, and Internet connection.

Box 3.4 Five-Year Changes in Personal Media, by Gender

It appears that between 1999 and 2004, boys acquired VCR/DVDs, cable/satellite and premium TV channel connections, computers, and Internet connections at a higher rate than girls. As the following table shows, for most personal media that reveal a gender difference in 2004, there was a statistically significant increase in the proportions owning them from 1999 to 2004. However, for VCRs/DVDs and computers, the increase was greater for boys, and for Internet connections, only boys showed a significant increase. TV is the exception to this pattern. From 1999 to 2004, a small increase (2 percentage points) in the percentage of boys with a TV in the bedroom combined with a slightly larger decrease (6 percentage points) in the percentage of girls, resulting in boys now being significantly more likely than girls to have a TV in the bedroom.

Gender and Changes in Ownership of Selected Personal Media: 1999 to 2004

Medium	Year	Boys	Girls
TV	2004	72% ^a	64% ^b
	1999	70	70
VCR/DVD	2004 [‡]	59 ^a	49 ^b
	1999	26	26
Video game console	2004 [‡]	63 ^a	33 ^b
	1999	30 ^a	17 ^b
Computer	2004 [‡]	35 ^a	26 ^b
	1999	22	27
Internet connection	2004 [‡]	24 ^a	17 ^b
	1999	14	16

[‡] Although we do not present overall percentages, a double dagger (‡) indicates the difference between 1999 and 2004 is statistically significant at p.<.05; a & b indicate statistically significant gender differences within years at p.<.05.

Race/ethnicity. African American kids are more likely than White kids to report bedroom televisions, DVRs, cable/satellite TV connections, subscriptions to premium TV channels, and video game consoles (see Appendix 3.2). In general, this pattern is consistent with results from earlier studies that indicate African Americans are particularly attracted to TV (cf. Roberts, et al., 1999; Roberts & Foehr, 2004; Tangney & Feshbach, 1988; also see Albarran & Umphrey, 1993; Blosser, 1988; Huston, Donnerstein, Fairchild, Feshback, Katz, Murray, et al., 1992). For the most part, Hispanic kids fall in between Black kids and White kids, differing significantly from neither of the other two groups in the proportion owning these media. There are no other differences in personal media as a function of race or ethnicity.

Socioeconomic status. The likelihood of a youngster having a VCR/DVD player or a video game console in the bedroom is negatively related to the level of parent education (see Appendix 3.2). That is, children whose parents have no more than a high school education are significantly more likely than those whose parents completed college to have a VCR or DVD in their bedroom and they are more likely than both those whose parents had some college and those whose parents completed college to have

TABLE 3-F

Personal Media Ownership by Gender

Medium	Boys	Girls
A. Percentage of children whose bedrooms contain		
TV	72% ^a	64% ^b
VCR/DVD	59 ^a	49 ^b
DVR	11	9
Radio	82	86
CDs/tapes	84	88
Video game	63 ^a	33 ^b
Computer	35 ^a	26 ^b
Cable/satellite TV	40	34
Premium channel	20	19
Internet	24 ^a	17 ^b
Instant messaging program	20	15
Telephone	39	42
B. Percentage of children with their own		
Cell phone	35%	42%
Portable CD/tape	61	61
MP3 player	21 ^a	14 ^b
Laptop	14	11
Handheld video game	63 ^a	48 ^b
Personal digital assistant	11	11
Handheld internet device	13	14

Note: Within each row, only those proportions that do not share a common superscript differ from one another with statistical reliability. Those proportions without a superscript, or those that share a common superscript, do not differ by a large enough margin to ensure statistical reliability.

a video game console in their bedroom. The percentage of children with either of these kinds of media increased significantly from 1999 to 2004, but at a greater rate for those from the lowest parent education category.

The only difference in bedroom media related to income emerges for TV. Young people from the lowest income group are significantly more likely than those from the middle or highest income groups to have their own TV, replicating findings from 1999 (Roberts, et al., 1999). It is also worth noting from that 1999 to 2004, young people from the higher income groups added VCRs and video game consoles to their bedrooms at a faster rate than did kids from the lowest income group, thus eliminating the earlier significant differences for those media among kids from the three income groups.

Finally, both parent education and income are related to differences in the likelihood of kids reporting that they own various portable media. The general pattern is for a higher percentage of kids from the highest parent education classification and from the highest income classification to report that they have such things as a portable CD, tape, or MP3 player, handheld video game, laptop computer, or personal data assistant. We suspect this pattern is largely a result of the availability of disposable income (which also tends to be related to parent education).

Summing up personal media. Almost all kids age 8–18 own some type of music medium, more than two-thirds have their own TV set, half have their own VCR, and half their own video game console. African American kids are somewhat more likely than Whites to have their own TV-related media; kids from higher SES are more likely than their counterparts from lower SES to have computer-related media. Boys are more likely than girls to have both TV-related and computer-related media. In general, then, most U.S. kids inhabit rooms that seem to be as much media arcade as bedroom.

Household media orientation

Media rules and parental involvement. Parental attempts to regulate children's media behavior comprise an important dimension of what we call "household media orientation." Logically, rules about which media children and adolescents can use, how much they can use them, and what kinds of content they can access should affect media behavior (see, for example, Dorr & Rabin, 1995; Vandewater, Park, Huang & Wartella, in press). Moreover,

even if explicit rules are not articulated, children may be aware of parents' comments about or behavior in relation to various aspects of media, hence may be influenced by "implicit" parental preferences. Because questions regarding explicit rules varied depending on the medium (TV, music, video games, and computers), because many questions were asked only of 7th- to 12th-graders, and because it makes sense to limit examination of results for video games and computers to only those youngsters with a video game console or a computer in their home, we summarize results for rules related to each of the media separately.

TV rules. When asked whether there are "any" family rules about TV viewing, 46% of 8- to 18-year-olds responded in the affirmative. As the age comparisons in Table 3-G show, the two younger age-groups are substantially more likely to report TV rules than are 15- to 18-year-olds. The negative relationship between rules and age is also clear in the responses of 7th- to 12th-graders to questions about specific types of rules. Not only do significantly fewer 15- to 18-year-olds than 11- to 14-year-olds report each kind of rule governing TV behavior, but the total

TABLE 3-G

TV Rules

Percentage of children with TV-related rules

	Rules of any kind	Rules about homework/chores ¹	Rules about amount of time ¹	Rules about type of content ¹
Total sample	46%	36%	14%	13%
Age				
8- to 10-year-olds	55 ^a	NA	NA	NA
11- to 14-year-olds	51 ^a	46 ^a	18 ^a	18 ^a
15- to 18-year-olds	31 ^b	28 ^b	10 ^b	8 ^b
Gender				
Boys	45	39	15	14
Girls	46	34	12	12
Race/ethnicity				
White	44	35	13	13
African American	43	34	8	7
Hispanic	52	42	19	15
Parent education				
High school	40	33	9	10
Some college	45	39	15	12
College or more	48	37	16	14
Household income				
Under \$35,000	47	38	11	14
\$35,000 – \$50,000	47	40	17	13
Over \$50,000	42	31	12	12

¹ Among 7th- to 12th-graders only.

Note: Within each cluster, only those items in each column that do not share a common superscript differ from one another with statistical reliability. Those items without a superscript, or those that share a common superscript, do not differ by a large enough margin to ensure statistical reliability.

percentage of older kids reporting specific rules is remarkably low. Fewer than 15% of 7th- to 12th-graders report controls on either amount of viewing or on what programs can be watched, while just over a third say that they are not allowed to watch TV until they have finished their homework and/or chores. We suspect this kind of “TV rule” is less about TV viewing than about fulfilling other, “more important” responsibilities.

There is, of course, the possibility that absence of TV rules among older kids does not necessarily mean there is no parental oversight. For example, 40% of students in 7th–12th grade indicate that their parents usually know what TV show they are watching (this is more likely to be reported by 11- to 14-year-olds (45%) than 15- to 18-year-olds (36%), but the difference is not reliable). The media use diaries kept by nearly 700 of the survey respondents indicate that about a third (32%) of young people’s television viewing is done with their parents; while this is clearly only a minority of their viewing time, it represents a significant increase from 1999, when diary results indicated that parents watched with their 8-18 year-olds just five percent of the time. So perhaps, even in the absence of explicit rules, children’s presumption of parental awareness may influence their viewing behavior. On the other hand, one other measure of parental involvement in children’s TV behavior indicates that oversight is more the exception than the rule: according to the older kids, only 6% of parents of 7th- to 12th-graders use technology-based parental control devices to control their children’s TV viewing.

One of the more interesting results concerning explicit rules about TV viewing is the total lack of relationship between rules and any of the other demographic variables we have been considering. There were no significant differences in the proportion of kids saying they have explicit TV rules as a function of gender, race/ethnicity, parent education, or income. Of course, this may be an artifact of the age of our sample. Other studies that have found relationships either include or focus on much younger children (e.g., Roberts, et al., 1999; Vandewater, et al., in press). And finally, studies that report higher overall proportions of homes in which there are rules about TV viewing tend to be based on surveys of parents, not children (e.g., Stanger, 1997; Vandewater, et al., in press). We suspect that the actual percentage of homes in which rules are articulated may lie somewhere between estimates provided by parents and those provided by their offspring.⁸

Music rules. Very few parents exercise controls on the kinds of music to which their children may listen – at least once the child has reached junior high school age. Only 16% of the 7th- to 12th-graders to whom this question was posed indicate their parents impose such rules. Age emerged as a major predictor, with 22% of 11- to 14-year-olds and 11% of 15- to 18-year-olds admitting to such controls; no other demographic characteristic was related to explicit rules about music. Twenty percent (20%) of 7th- to 12th-graders say they have listened to music they know their parents would disapprove of – four percentage points more than say their family has music-related rules. Finally, 14% indicate that their parents look at the parental warning labels on music. Parental use of music warning labels is negatively related to age and positively related to parent education (see Appendix 3.4).

Video game rules. Eighty-three percent (83%) of the kids in our sample report that their family owns a video game console. Of these, 24% report rules in their home governing how long they

Fewer 8- to 18-year-olds live in homes where an attempt is made to regulate media behavior than live in homes where no such attempt is made.

can spend playing video games, and 21% say that there are rules governing which video games they can play. As with rules about TV and music, the likelihood of video game rules is negatively related to age. Rules regulating time are reported by 34% of 8- to 10-year-olds, 27% of 11- to 14-year-olds, and 11% of 15- to 18-year-olds (the latter differs significantly from the other two). Rules regulating which games can be played are reported by 32% of the youngest children, 25% of the middle group, and 5% of the oldest kids (again, the oldest group differs significantly from the two younger groups). Twelve percent (12%) of kids say they have played a game of which their parents would disapprove, and 17% (primarily 8- to 14-year-olds) say their parents check the ratings on their video games. The question concerning warning labels is the only item related to a characteristic other than age; as level of parental education increases, so too does the likelihood of checking video game ratings/warning labels (see Appendix 3.4).

Computer rules. Eighty-six percent (86%) of respondents in our sample have a computer in their home. Of these, 28% report rules about how much time they can spend on the computer, 32% say there are explicit rules about what they can do on the computer, and 30% say that their parents usually know what Web sites they access. Responses to each of these questions are negatively related to age. Significantly fewer 15- to 18-year-olds than either 8- to 10-year-olds or 11- to 14-year-olds report either rules or parental awareness (the two younger groups do not differ).

Parent education predicts two rules about computers. Parents who have completed college are more likely than parents who have completed no more than high school to control how long kids can use the computer and they are more likely to know what Web sites their kids are visiting; parents with some college fall between (see Appendix 3.4).

Summing up media rules. Fewer 8- to 18-year-olds live in homes where an attempt is made to regulate media behavior than live in homes where no such attempt is made. Less than half of the total sample reports TV rules of any kind. Among 7th- to 12th-graders, only 22% report rules about TV content or time (see Appendix 3.6). Of the kids with a video game console in their home, 24% report rules about video game content or time. Of those kids with a computer in their home, 35% report rules about computer content or time. Finally, just 16% of 7th- to 12th-graders report rules governing music content.⁹ Of course, these percentages would likely be higher had we gathered information from younger children, because the incidence of parents attempting to regulate their children's media behavior decreases as children grow older. Nevertheless, even those questions that were posed to 8- to 10-year-olds produced little acknowledgement of media rules. Regardless of age, parental attempts to regulate media use once their children reach the middle grade school years are decidedly not the norm — at least according to the kids. On the other hand, substantial percentages

of young people report that their parents usually know what kind of media content they are consuming (e.g., 40% for TV, 30% for Web sites), indicating that there may well be some kind of “implicit regulation” at work.

In spite of public concern about young people's exposure to “objectionable” media content (e.g., portrayals of sex and violence on TV, in video games, and on computer Web sites; see Kaiser Family Foundation, 2004), the percentage of parents with rules about content differs little from the percentage with rules about the amount of time their children spend with media. For example, 14% of 7th- to 12th-graders report rules governing how much TV they can watch, and 13% report rules governing what shows they can watch. Similarly, 23% of 7th- to 12th-graders with computers report controls on how much time they can spend on the computer and 23% report controls on what they can do on the computer.¹⁰ And as we have noted, more than twice as many kids report rules governing homework or chores as report rules govern-

ing TV content. It is also interesting that a higher proportion of parents attempt to regulate computer content (32%) than either TV content (13%) or video game content (21%).¹¹

Finally, the likelihood of having rules about media content is related to parent education — the only demographic characteristic other than age that predicts media rules. As level of parent education increases, so does the proportion of kids reporting family rules about which TV shows can be watched and about what kinds of things kids can do on the computer. Similarly, parent education is positively related to the likelihood that parents pay attention to ratings or warning labels associated with each of the media. In short, although attempts to regulate media behavior are not commonplace, it appears that parents with higher levels of education are somewhat more likely than those with less education to institute such policies.

Household TV orientation. Household TV orientation refers to the degree to which TV plays a central role in the home. Three items assess TV orientation. The first, taken from Medrich's work on “constant TV households” (Medrich, Roizen, Rubin, & Buckley, 1982), asks how often the TV is “on,” even when no one is watching (response options include most of the time, some of the time, a little bit of the time, never). The second asks whether or not the TV is usually on during meals (Yes/No). The third item was the question covered in the preceding section asking whether there are “any” family rules about

watching TV (Yes/No). Responses to these three items are presented separately, then combined to identify respondents who can be classed as coming from “high TV-orientation” homes.

Table 3-H summarizes findings for the three individual items and for the group identified as from high TV-orientation homes. TV is “usually on” in about half of kids' homes, and is on during meals in just over 60%. As noted earlier, slightly over half of 8- to 18-year-olds come from homes with no rules governing TV. None of our demographic variables is related to constant TV. However, the likelihood of a TV playing during meals is related to race/ethnicity, to parent education, and to household income. A higher percentage of African American than White kids report mealtime TV (Hispanic kids fall in between), a lower proportion of kids whose parents finished college than kids from either of the other two parent education groups report mealtime TV, and mealtime TV is less common among kids attending school in high income areas than among those in lower income areas.

Substantial percentages of young people report that their parents usually know what kind of media content they are consuming (e.g., 40% for TV, 30% for Web sites), indicating that there may well be some kind of “implicit regulation” at work.

TABLE 3-H

Household TV Orientation

Proportion of children with household TV habits at each level

	Constant TV	TV during meals	No TV rules	High TV orientation
Total sample	51%	63%	53%	25%
Age				
8- to 10-year-olds	52	62	42 ^a	18 ^a
11- to 14-year-olds	51	62	48 ^a	23 ^a
15- to 18-year-olds	49	66	69 ^b	33 ^b
Gender				
Boys	48	63	53	24
Girls	53	64	53	25
Race/ethnicity				
White	50	59 ^a	55	24
African American	59	74 ^b	55	29
Hispanic	47	65 ^{ab}	47	22
Parent education				
High school	56	70 ^a	59	31 ^a
Some college	46	67 ^a	55	26 ^{ab}
College or more	49	56 ^b	51	20 ^b
Household income				
Under \$35,000	55	71 ^a	52	28
\$35,000 – \$50,000	49	65 ^a	51	23
Over \$50,000	50	56 ^b	57	25

Note: See page 18 for a definition of the categories used in this table. Within each cluster, only those items in each column that do not share a common superscript differ from one another with statistical reliability. Those items without a superscript, or those that share a common superscript, do not differ by a large enough margin to ensure statistical reliability.

We combined responses to the three TV-orientation questions to identify a group of kids from high TV-orientation homes, defined as those who answered “yes” to the constant TV question, “yes” to the mealtime TV question, and “no” to the question about TV rules. As the final column in Table 3-H shows, 25% of the sample falls into this classification. Two of our demographic variables predict the likelihood of a youth being classified as coming from a high TV-orientation home. First, 15- to 18-year-olds are significantly more likely than kids from either of the two younger groups to live in high TV-orientation homes. We attribute this result largely to the substantial drop in the percentage of older kids who report rules regarding their TV viewing. In other words, because older kids are less likely to report TV rules, they are more likely to be classified as from a high TV-orientation home. Second, kids whose parents completed no more than high school are significantly more likely than those whose parents completed college to live in a high TV-oriented household (those whose parents completed some college fall in between). In other words, the higher the

level of parent education, the less likely the child is from a high TV-orientation home (see Appendix 3.3).

Media orientation and personal media. Later chapters examine the relationship between household media orientation and various media behaviors, such as the amount of time children spend watching or listening. Here we look at the relationship between household media orientation and young people’s ownership of personal media. Table 3-I summarizes the proportion of young people with various personal media in relation to whether or not their family establishes either content-related or time-related rules about TV viewing, video game playing, or computer activities. We also examine kids’ personal media ownership in relation to whether or not they live in high TV-orientation homes. Because both question wording and the number of response options for rules associated with each medium varied, direct comparisons among media are precluded. (For example, the proportion of kids with TV rules is not based on the same questions as the proportion of kids with computer or video game rules; therefore, the two should not be directly compared). Nevertheless, the highly similar patterns of personal media ownership that emerge when kids are divided into groups with and without rules are informative.

With one exception, a substantially higher proportion of young people claiming no rules than those with rules report that they have each of the personal media. The exception is handheld video game players. It is not surprising that a significantly lower proportion of kids from homes with TV rules have a TV in their bedroom, or that a significantly lower proportion of kids with computer rules have their own computer. (Similarly, fewer kids with video game rules than without have a video game console in their bedroom, but this difference is not statistically reliable). We would expect parental imposition of such rules to go hand-in-hand with regulation of unsupervised access (i.e., access in the privacy of child’s room) to these media. More interesting, however, is that the presence or absence of rules concerning *any medium* tends to be related to the likelihood of personal possession of *other media*. Thus, kids from families with no rules about TV are not only more likely to have a TV in their bedroom, but they are also more likely to have VCR/DVD players, video game consoles, and telephones, and to have their own cell phones. The differences are not always statistically significant, but they are consistent. It appears that the tendency for parents to impose media rules of any kind locates a general tendency to be concerned about and involved in their children’s overall media behavior, hence to be more resistant to letting their children possess their own personal media of any kind.

TABLE 3-I

Media Rules and TV Orientation by Bedroom/Personal Media

	TV	Video games	Computer ¹	VCR/DVD	Handheld video games	Telephone	Cell phone
A. Percentage of 7th- to 12th-graders reporting bedroom and personal media, by media rules							
TV							
No rules ²	73% ^a	49%	38%	61% ^a	48%	49%	54% ^a
Rules	42% ^b	34	33	38% ^b	45	37	34% ^b
Video games³							
No rules	79% ^a	58	40	70% ^a	51	53	59% ^a
Rules	56% ^b	49	35	45% ^b	61	42	38% ^b
Computer⁴							
No rules	74% ^a	50	47% ^a	63% ^a	49	57% ^a	61% ^a
Rules	57% ^b	42	35% ^b	51% ^b	52	37% ^b	37% ^b
B. Percentage reporting bedroom and personal media, by household TV orientation							
High TV orientation	85% ^a	59% ^a	36%	69% ^a	57%	50% ^a	46% ^a
All others	63% ^b	45% ^b	34	49% ^b	55	37% ^b	36% ^b

¹ Includes personal desktop computers and laptop computers.

² E.g., 73% of those with no TV rules have a TV in their bedroom; 42% of those with rules about TV have a TV in their room.

³ Among those with a video game console in the home.

⁴ Among those with a computer in the home.

Note: Because questions about rules associated with each of the different media contained different wording and/or different numbers of response options, the proportions of kids with and without rules for different media are not comparable. Within each cluster, only those items in each column that do not share a common superscript differ from one another with statistical reliability. Those items without a superscript, or those that share a common superscript, do not differ by a large enough margin to ensure statistical reliability.

The relationship between media rules and possession of the two types of telephone is interesting. Although the overall pattern is for kids with no rules to be more likely to have a telephone of either kind, the differences are large and significant for the cell phone, but not for the landline telephone. Only families with computer rules control both types of phone; families with TV rules and video game rules control cell phones, but not landline phones. We can only speculate about the reason for this. One possibility is that the existence of rules about any medium is an indicator of a more general type of parental caution or unease concerning the independence that media (or perhaps technology in general) are providing kids. The high-tech newness of cell phones, the fact that they seem to promise young people even more independence from parental oversight than TV or computers, and recent claims that cell phones will soon do most of what a computer now does, may have all combined to make them seem more threatening and more in need of regulation than the more familiar landline telephone with which most parents grew up.

Finally, when the proportion of kids with various personal media is related to TV orientation, a pattern emerges that dovetails with the findings for media rules. As seen in the next-to-last row of Table 3-I, 85% of kids age 8-18 from high TV-orientation

homes have a TV in their bedroom, compared to 63% of kids from all other homes. Similarly, in 69% of high TV-orientation households versus 49% of all other homes, children have a VCR/DVD in their bedroom. Although not included in Table 3-I, 84% of kids from high TV-orientation households and 70% of all others report three or more TVs in the household.¹² In addition, a higher proportion of youngsters from high TV-orientation homes than from other homes have a video game player in their bedroom (59% vs. 45%), and kids from high TV-orientation homes are significantly more likely to own both landline telephones (50% vs. 37%) and cell phones (46% vs. 36%). In short, high TV-orientation relates to kids' access to personal media in much the same way that lack of media rules does.

Summing up the household media environment. Young people in the U.S inhabit an environment that is not just media rich — it is media saturated. Most homes contain most media, and the typical home contains multiple instances of most media. A substantial majority of kids have personal media, both in their bedrooms and in highly portable forms that travel with them. Consistent with this abundance of personal media, a higher percentage of families do not attempt to regulate children's media behavior than try to implement any kinds of controls. And finally,

in at least half of U.S. homes, TV plays a central role in that it is usually on even when no one is watching, and in that it typically operates during mealtimes. Indeed, in 25% of U.S. kids' homes, the TV is usu-

ally on, is typically on during meals, and there are no parental attempts to control children's TV viewing. In light of such findings, it is difficult to conceive of when (or how) today's young people might avoid media and media messages, even if they wanted to limit their media exposure.

Media access and the household media environment vary depending on several demographic characteristics. Personal availability of most media generally increases as children get older; the exception is for video games, where availability decreases with age. More boys than girls report having their own video game console, computer, Internet connection, and TV. African American youths are somewhat more likely than White youths to have their own TVs and associated media (VCR/DVDs/DVRs, subscriptions to cable, satellite or premium channels), with Hispanic youths falling between. Degree of TV orientation tends to decline with level

Young people in the U.S. inhabit an environment that is not just media rich — it is media saturated.

of parent education, while availability of computers and associated media tends to increase. Finally, the likelihood of having rules governing any kind of media behavior also increases with parent education and

household income. The existence of rules pertaining to any particular medium may indicate a more general pattern of parental concern about unsupervised media use (or perhaps unsupervised child behavior of any kind).

Although household and personal media availability, media rules, and household TV orientation all vary substantially with socio-demographic characteristics, it is important to note that those characteristics locate relative differences. Even those socio-demographic groups that emerge in a particular analysis as having the *lowest* percentage of televisions, or radios, or video game consoles, or the highest proportion of rules about computer use typically provide children a lot of access and very little supervision. Simply their sheer availability makes media a ubiquitous part of all of our young people's lives.