

3. INTERACTIONS WITH FRIENDS

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The social activities of youth outside of the classroom are crucial to their development. For many years, theory and research (e.g., Bronfenbrenner, 1979) have supported the important role of social interactions with peers, friends, parents, siblings, relatives, and others in the dynamic process of social adaptation and change. Friendships take on particular importance during adolescence, when teens detach themselves in some ways from their families (Raffaelli & Duckett, 1989) and use peers for some types of support that previously were provided by family members (Zetlin & Murtaugh, 1988). The degree of success in forming positive peer relationships can have important implications for youth's broader social adjustment (Asher & Coie, 1990; Bukowski, Newcomb, & Hartup, 1996; Parker & Asher, 1987).

Several dimensions come into play in understanding the role of friendships in the lives of youth, including the number of friends, their age and gender, and the quality and stability of the relationships. Friendships can be fluid and short-lived in early adolescence (Neckerman, 1992). As children enter their teen years, their feelings, beliefs, expectations, and attitudes can change, and friendships can grow and change accordingly. Throughout this process, youth appear to benefit from the opportunity to experience a variety of relationships, and having multiple contexts for social interaction is a central feature of positive social development.

Although having friends may be crucial to healthy development, some kinds of disabilities can be challenges to making and interacting with friends. For example, a hearing impairment can limit interactions with those who cannot use or understand manual communication. A visual impairment could limit the kinds of activities youth can engage in with friends. Autism and some kinds of behavioral disabilities can restrict or in other ways challenge social interaction with peers.

To understand the friendships of youth with disabilities¹, parents were asked to report how often youth interact with friends by getting together outside of school,² receiving telephone calls from them,³ and being invited to other youth's social activities.⁴ Parents also were asked whether youth use the Internet to communicate with others through chat rooms or e-mail.⁵ Although parents' responses indicate whether particular interactions with friends occur and, in

¹ Analyses similar to those reported in this chapter also have been conducted for elementary and middle school students with disabilities as part of the Special Education Elementary Longitudinal Study (SEELS) and are reported in Cadwallader & Wagner (2002a).

² Parents were asked, "During the past 12 months, about how many days a week did (youth) usually get together with friends, outside of school and organized activities or groups?"

³ Parents were asked, "During the past 12 months, how often have his/her friends called on the phone? Would you say never; less than once a month; a few times a month, but not every week; about once a week; or several days a week?"

⁴ Parents were asked, "During the past 12 months, has he/she been invited by other students to social activities, like over to their home or to a party?"

⁵ Parents who reported they have a computer at home were asked, "How frequently does (youth) interact with others by using e-mail or taking part in chat rooms? Would you say several times a day, about once a day, several times a week, once a week, or less often?"

many cases, how frequently, they indicate nothing about the quality of the friendships involved. It also is important to note that some parents may not have an accurate picture of the frequency with which their adolescent children interact with their friends.

Types of Interaction with Friends

Most youth with disabilities have regular contact with friends⁶ in a variety of ways (Exhibit 3-1). Approximately two-thirds of youth visit with friends outside of school at least once a week, and almost as many have received invitations from other youth to social activities during the past year. About three-quarters receive calls from friends occasionally (once a month or more, but not every week) or frequently (several times a week). The worldwide growth in computer use is reflected in the households of youth with disabilities, 70% of whom are reported to have a computer at home. More than two-thirds of youth (71%) who have a home computer use e-mail or visit World Wide Web chat rooms at least occasionally, according to their parents.

	Percentage	Standard Error
Visit with friends:		
Never	9.4	0.9
Occasionally (less than once a week)	24.8	1.4
Regularly (one to three times a week)	35.2	1.5
Frequently (four or more times a week)	30.5	1.5
Receive telephone calls from friends:		
Rarely (less than once a month) or never	24.6	1.4
Occasionally (one or more times a month, but not every week)	10.2	1.0
Frequently (several times a week)	65.1	1.5
Have been invited to other youth's social activities during the past year	85.2	1.1
Use e-mail or chat rooms:		
Once a day or more often	15.8	1.3
At least once a week	24.0	1.5
Less than once a week	31.5	1.6
Never	28.7	1.6
Participate in none of these interactions with friends	2.5	.5

Source: NLTS2 Wave 1 parent interviews.

The number of times per week that youth with disabilities get together with friends is comparable to the number for adolescents in the general population. According to the National Longitudinal Study of Adolescent Health (Udry, 1998), about 93% of adolescents report that they “hang out” with friends at least once a week.

Despite high levels of interaction on average, some youth with disabilities are on the margins of their peer networks. Almost 10% of youth never visit with friends outside of school, and 15% have not been invited to others’ social activities during the past year. About one-quarter of youth rarely or never receive telephone calls from friends. Nearly 3% of youth are reported not to have any of these forms of interaction with individual friends—they never visit with friends outside of school, never receive phone calls from friends, are not invited by friends to social activities, and do not use e-mail or chat rooms to communicate. However, it is important

to note that, although these are common forms of interaction with individual friends, they are not an exhaustive set of potential friendship interactions, and youth who do not participate in these activities may have other opportunities for interaction with peers in class or in extracurricular activities (see Chapter 4).

⁶ Friends may include youth both with and without disabilities.

It is reasonable to assume that youth with active individual friendships interact in multiple ways: they both talk on the phone and get together outside of class, for example. Analyses provide support for this assumption. The Pearson correlation coefficients between the forms of interaction examined here all are positive, indicating that they vary together. Visiting with friends is highly correlated with both receiving calls from friends and being invited to social activities ($r=.49$ and $.44$, $p<.001$), as are receiving calls from friends and being invited to social activities ($r=.48$, $p<.001$). The correlations for these measures with use of e-mail and chat room are statistically significant but moderate in size, ranging from $.20$ to $.29$ ($p<.001$ for all relationships).

Disability Differences in Interactions with Friends

Differences in the kinds and levels of interaction with friends are apparent for youth who differ in their primary disability category (Exhibit 3-2). For example, the proportion of youth who see friends outside of class frequently ranges from 6% to 34% ($p<.001$). Receiving telephone calls frequently varies from 10% to 71% of youth with different kinds of disabilities ($p<.001$). The proportion of youth who engage in none of the friendship interactions investigated ranges from fewer than 1% to more than one-fourth of youth in different disability categories ($p<.001$).

Overall, youth with learning disabilities or speech/language impairments are the most active socially in the ways discussed here. They are among the categories with the highest rates of frequent participation, and few youth in these categories are said to participate in none of these friendship activities. Relatively large proportions of youth with emotional disturbances and other health impairments also have active friendships. Youth with hearing and other health impairments are particularly likely to be invited to others' social activities and to interact with others by computer, and most participate in one or more of the interactions examined here.

In contrast, youth with autism and multiple disabilities, including deaf-blindness, have the least active friendships. Almost one-third of youth with multiple disabilities, 44% of those with autism, and one-fourth of youth with deaf-blindness reportedly never interact with friends outside of class. More than 80% of youth with autism rarely or never receive telephone calls, as is the case with more than 60% of youth with multiple disabilities or deaf-blindness. Youth with mental retardation or orthopedic impairments also have less active friendships than many other categories of youth. Nonetheless, most youth in each of these categories still have interactions with friends. For example, almost half of youth with autism had been invited by other youth to social events during the past year, as have 56% of those with multiple disabilities and almost two-thirds of youth with deaf-blindness. Twenty-eight percent of youth with autism, 15% of youth with deaf-blindness, and 18% of youth with multiple disabilities participate in none of the forms of friendship interaction addressed here.

Exhibit 3-2
INTERACTIONS WITH FRIENDS, BY DISABILITY CATEGORY

	Learning Disability	Speech/Language Impairment	Mental Retardation	Emotional Disturbance	Hearing Impairment	Visual Impairment	Orthopedic Impairment	Other Health Impairment	Autism	Traumatic Brain Injury	Multiple Disabilities	Deaf-Blindness
Percentage who:												
Visit with friends ^a												
Never	6.9 (1.3)	8.8 (1.4)	16.4 (1.9)	10.7 (1.6)	8.4 (1.6)	14.6 (2.5)	20.0 (2.2)	5.8 (1.1)	44.3 (2.7)	7.8 (2.4)	30.0 (2.5)	26.7 (4.7)
Frequently	33.2 (2.2)	26.8 (2.2)	22.4 (2.1)	34.1 (2.4)	22.0 (2.4)	18.1 (2.8)	14.3 (2.1)	28.5 (2.1)	5.8 (1.5)	24.1 (4.4)	14.1 (2.0)	11.9 (3.5)
Receive telephone calls from friends: ^b												
Rarely or never	18.8 (1.9)	22.0 (2.1)	41.5 (2.5)	25.5 (2.3)	41.3 (2.9)	33.0 (3.3)	46.6 (2.8)	23.3 (2.0)	83.5 (2.0)	34.0 (4.3)	62.7 (2.7)	64.4 (5.1)
Frequently	71.4 (2.2)	65.8 (2.4)	47.1 (2.6)	64.3 (2.5)	49.2 (2.9)	56.6 (3.5)	42.8 (2.8)	65.6 (2.3)	9.8 (1.6)	50.6 (4.5)	26.7 (2.4)	29.3 (4.8)
Have been invited to other youth's social activities during the past year	88.7 (1.5)	89.1 (1.5)	75.2 (2.2)	82.9 (1.9)	88.1 (1.9)	78.1 (2.8)	70.3 (2.5)	88.2 (1.5)	49.4 (2.7)	80.4 (3.7)	56.5 (2.7)	65.4 (4.8)
Use e-mail or chat rooms at least weekly	42.7 (2.6)	46.7 (2.6)	21.1 (2.3)	39.4 (2.7)	56.3 (3.1)	38.1 (3.6)	41.1 (2.9)	46.6 (2.5)	15.1 (2.0)	46.0 (4.8)	21.3 (2.3)	33.6 (5.1)
Participate in none of these interactions with friends	.8 (.4)	2.0 (.7)	6.7 (1.3)	3.3 (.9)	2.1 (.8)	4.2 (1.4)	6.6 (1.4)	.9 (.4)	28.5 (2.4)	2.9 (1.5)	18.1 (2.2)	14.7 (3.6)

Source: NLTS2 Wave 1 parent interviews.

^a The category "occasionally" (fewer than four times a week) is omitted from the table.

^b The category "occasionally" (one or more times a month but not every week) is omitted from the table.

Standard errors are in parentheses.

Demographic Differences in Interactions with Friends

Disabilities are not the only factors that differentiate the kinds and levels of friendships experienced by youth.

Age. Older and younger teens differ in their friendship interactions on only some dimensions (Exhibit 3-3). There are no significant differences between age groups in the frequency with which they are reported to spend time with friends outside of class. Similarly, no significant differences by age group are noted in the rates with which youth with disabilities do not participate in any of these social interactions. This similarity in the frequency of these activities is true not only among 13- through 17-year-olds, but also between teens and younger students with disabilities (Cadwallader & Wagner, 2002a). However, computer use for communication is more common among older youth (47% of 17-year-olds vs. 32% of 13- and 14-year-olds, $p < .01$). This variation in computer use by age is consistent with data for younger students with disabilities (Cadwallader & Wagner, 2002a), which show that 28% of 13-year-olds use e-mail and chat rooms, compared with 15% of 6- to 9-year-olds. Further, although there are no differences in the frequency of telephone interactions among teenagers, they do use the telephone to talk with friends significantly more often than preteen students with disabilities, 35% of whom reportedly receive phone calls from friends frequently ($p < .001$, Cadwallader &

Exhibit 3-3
INTERACTIONS WITH FRIENDS, BY AGE AND GENDER

	Age				Gender	
	13 and 14	15	16	17	Male	Female
Percentage who:						
Visit with friends: ^a						
Never	10.6 (1.7)	10.9 (2.1)	9.0 (1.8)	6.1 (1.9)	9.2 (1.2)	9.9 (1.6)
Frequently	29.3 (2.4)	31.2 (3.0)	29.3 (2.7)	33.6 (3.6)	34.5 (1.8)	22.7 (2.2)
Receive telephone calls from friends: ^b						
Rarely or never	25.5 (2.4)	27.7 (3.1)	22.4 (2.6)	22.5 (3.2)	26.6 (1.8)	20.8 (2.2)
Frequently	62.2 (2.7)	63.0 (3.3)	67.7 (2.9)	69.0 (3.6)	64.3 (1.9)	66.8 (2.6)
Have invited to other youth's social activities during the past year	86.0 (1.9)	85.8 (2.3)	84.3 (2.2)	84.2 (2.8)	83.7 (1.4)	88.1 (1.8)
Use e-mail or chat rooms at least weekly	32.0 (2.8)	43.7 (3.6)	40.4 (3.3)	46.9 (4.2)	38.6 (2.2)	42.0 (2.9)
Participate in none of these interactions with friends	2.5 (.9)	2.7 (1.1)	2.4 (.9)	2.5 (1.2)	2.7 (.6)	2.1 (.8)

Source: NLTS2 Wave 1 parent interviews.

^a The category "occasionally" (fewer than four times a week) is omitted from the table.

^b The category "occasionally" (one or more times a month but not every week) is omitted from the table.

Standard errors are in parentheses.

Wagner, 2002a). A pattern of expanded friendship interaction among older youth also is consistent with findings for the general student population (Brown, 1990; Csikszentmihalyi & Larson, 1984).

Gender. Parents report few differences between boys and girls in the forms of friendship interactions (Exhibit 3-3). Although boys are more likely than girls to visit with friends frequently (34% vs. 23%, $p < .001$), they are more likely than girls never or rarely to receive telephone calls from friends. There is little difference in the likelihood with which girls and boys have been invited by other youth to social activities during the past year, communicate by computer, or participate in none of the social interactions described here.

Household Income. Although some of the forms of social interaction examined in NLTS2, such as seeing friends outside of school, might not be expected to be sensitive to income differences most of the interactions are more common among higher-income youth (Exhibit 3-4). For example, the proportion of youth who never visit with friends is less for the highest-income group (5% vs. 14% for the lowest-income group, $p < .001$). Invitations to social activities also are significantly more common among higher-income youth (89% vs. 80%, $p < .001$), as is regular access to a home computer for e-mail or chat room conversations by youth who have one (49% vs. 30%, $p < .001$). These findings suggest that financial well-being may provide access to more contexts for social interaction.

Exhibit 3-4
INTERACTIONS WITH FRIENDS, BY HOUSEHOLD INCOME AND RACE/ETHNICITY

	Household Income			Race/Ethnicity		
	\$25,000 or Less	\$25,001 to \$50,000	More than \$50,000	White	African American	Hispanic
Percentage who:						
Visit with friends: ^a						
Never	13.7 (1.8)	8.3 (1.7)	5.4 (1.4)	7.0 (1.1)	8.4 (1.9)	21.9 (3.7)
Frequently	25.5 (2.3)	35.2 (2.8)	31.9 (2.7)	33.6 (1.9)	29.6 (3.2)	20.6 (3.5)
Receive telephone calls from friends: ^b						
Rarely or never	27.5 (2.4)	22.7 (2.5)	24.5 (2.6)	23.1 (1.7)	24.0 (3.0)	31.5 (4.2)
Frequently	61.0 (2.6)	66.8 (2.9)	67.1 (2.8)	67.3 (1.9)	65.5 (3.3)	56.4 (4.5)
Have been invited to other youth's social activities during the past year	79.7 (2.1)	87.5 (2.0)	89.3 (1.9)	87.4 (1.4)	82.7 (2.6)	79.5 (3.6)
Use e-mail or chat rooms at least weekly	30.2 (2.7)	38.5 (3.2)	48.7 (3.1)	43.7 (2.1)	31.0 (3.7)	32.9 (4.7)
Participate in none of these interactions with friends	3.2 (.9)	2.5 (.9)	1.6 (.8)	2.2 (.6)	2.5 (1.1)	3.9 (1.7)

Source: NLTS2 Wave 1 parent interviews.

^a The category "occasionally" (fewer than four times a week) is omitted from the table.

^b The category "occasionally" (one or more times a month but not every week) is omitted from the table.

Standard errors are in parentheses.

Race/Ethnicity. Some racial/ethnic differences in friendship interactions are evident among youth with disabilities (Exhibit 3-4). For example, although white and African American youth are quite similar in several forms of interaction, white youth are more likely to interact via e-mail or chat rooms (44% vs. 31% for African American youth, $p < .01$). Hispanic youth generally are less social than other groups. They are the most likely "never" to get together with friends outside of class (22% vs. 7% for white youth, $p < .001$), and they are less likely than other groups to receive frequent calls from friends (56% vs. 67% for white youth, $p < .05$) or to be invited to social activities (80% vs. 87%, $p < .05$). No significant differences are noted in the percentages of youth in different racial/ethnic groups who participate in none of these activities.

Summary

NLTS2 findings demonstrate that a large majority of youth with disabilities interact in a variety of ways with individual friends outside of class or organized group activities. Parents report that most youth meet with friends, receive telephone calls from friends, are invited to friends' social activities, and/or communicate with peers electronically. About 70% of youth meet with friends away from school at least "regularly," and 85% have received an invitation to a friend's social activity during the past year. Three-quarters of youth "occasionally" or "frequently" receive telephone calls from friends, and more than 70% of those who have a home computer use it to communicate via e-mail or chat rooms. Only 3% of youth reportedly participate in none of these forms of interaction with friends.

However, there are dramatic differences in social activities associated with primary disability categories, which demonstrate how functional limitations can have significant effects on social interactions. Youth with learning disabilities or speech/language, hearing, or other health impairments tend to be the most active socially. Youth with autism, multiple disabilities, and deaf-blindness have much less frequent contacts with friends, including a sizable percentage of each group who have none of the forms of social interaction described in this chapter. Nevertheless, most are not wholly out of touch with their peers; the majority do visit with friends at least “occasionally,” and most have been invited to other youths’ social activities at some time during the past year.

There is a pattern of greater social interaction among older youth, consistent with research on the general population of students. Gender differences also are noted; boys favor frequent in-person visits with friends, whereas girls are more likely to use the telephone for that purpose. The social activities of youth with disabilities also vary with race/ethnicity and income; higher-income youth with disabilities tend to be more active and Hispanic youth less active in their friendships in several ways.

The kinds of interaction with individual friends described here are not the only forms of social engagement in which youth can participate. Beyond interactions that occur naturally among students in the classroom, many youth also participate in organized group activities in which a wide range of interactions can occur. This form of social interaction is described in the next chapter, along with findings related to informal uses of time by youth with disabilities.