

Prepared for the CDS-II Early Results Workshop

PARENT-CHILD ACTIVITIES AND THE TRANSITION INTO ADOLESCENCE

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Word Count: 116 (abstract), 6,859 (text)

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ABSTRACT

Drawing on time use data from the Child Development Supplement of the Panel Study of Income Dynamics, this study identified five different profiles of shared time between parents and children during the elementary school years. While all profiles had high rates of shared television viewing, some were oriented towards in-home activities and others to activities outside the home (e.g., cultural events). These latter profiles tended to be higher in socioeconomic advantage, and the children in them tended to demonstrate greater gains in math, but not reading, achievement across the transition into adolescence. In adolescence, shared activity profiles favored low amounts of shared time between parents and adolescents across activities and disfavored shared time in public domains.

Parent-Child Activities and the Transition into Adolescence

Practically axiomatic in both scientific and popular circles is the notion that the family is a primary context of youth development. How young people grow, what they learn, the kinds of adults they become—all of these things are deeply rooted in what happens at home. Not surprisingly, therefore, the family has been the dominant focal point of social and behavioral research on children and adolescents for decades. This rich tradition has shed incredible light on the core elements of family life, such as emotional attachments among family members, active parenting behaviors, and family material resources, as well as on the risks and benefits of these elements for the developmental outcomes of young people (Steinberg, 2001; Cox & Paley, 1997). Although traditionally less often the focus of research and theory, the simple, mundane routines of everyday family life—how and with whom family members spend their time—are also crucial to understanding the paths that young people follow through the early life course, including how effectively they adapt to extra-familial contexts and institutions and how well they make important developmental transitions.

This study delves into the quotidian side of family life by exploring the ways in which patterns of shared activity between children and their parents shape how these children make the transition into adolescence. Historically, this transition has been characterized by a gradual loosening of intergenerational bonds and a slow disengagement from academic pursuits (Furstenberg, 2000; Eccles et al., 1993; Dornbusch, 1989). While normative, these trends are certainly not monolithic, and the variability that does exist, we argue, is tied to the inner workings of family life, including shared face-to-face time with parents. Thus, we draw on time-use data from the Child Development Supplement (CDS) of the Panel Study of Income

Dynamics (PSID) (Hofferth, 1998) to identify multiple, unique configurations of parent-child activities and then gauge the extent to which these intergenerational configurations in *childhood* shape both rates of learning and intergenerational relations in *adolescence*.

The significance of this line of research lies in three areas. Conceptually, studying the connection between aspects of family life not explicitly education-focused and the actual learning of children deepens our understanding of the home-school partnership, how family ties can serve as conduits of social capital, and how life course transitions are embedded in family contexts (Crosnoe & Elder, 2004). Methodologically, leveraging time use data in a nationally representative sample offers a valuable window into the day-to-day routines of family life that both undergird and manifest the core elements of parent-child relationships in the American population (Sayer, Bianchi, & Robinson, 2004). Finally, in practical terms, the study of family activity patterns related to positive intergenerational and academic experiences across the transition from childhood to adolescence identifies specific tools by which families and schools can combat the problems associated with this often disruptive transition (Coleman, 1990).

Family Activities in Childhood

Parents and children spend their time together in many ways (Sayer et al., 2004; Hofferth, 1998). Sometimes time is spent in structured activities, sometimes doing nothing much at all besides being together. Sometimes it involves sustained interaction between parents and children, sometimes parallel activity. Sometimes it is shared inside the home, sometimes in the community. Sometimes it is positive in nature, sometimes not so rewarding.

Regardless of the actual form, parent-child activities are fundamental to understanding the parent-child relationship and, given the well-documented developmental significance of parent-child relationships, to understanding child development (Call & Mortimer, 2001; Cox &

Paley, 1997). The potential developmental significance of parent-child activities is rooted in two distinct, yet related mechanisms, the first more commonly studied in developmental psychology, the second more commonly studied in sociology. First, these activities shape developmental outcomes by strengthening the emotional bonds between children and their parents, which, according to attachment and related theories, serve as secure foundations for youth development. With this foundation, young people have more confidence to navigate the external world, to meet challenges that come with rapid changes in their lives and environments, and to successfully complete the multiple developmental tasks of the early life course, including identity formation and the learning of responsibility (Amato & Gilbreth, 1999; Grotevant, 1998; Demo & Acock, 1996; Bowlby, 1988). Second, parent-child activities are an important conduit of social capital. Parents who spend more time with their children are in a better position to pass down their values and expectations, and, especially when these activities occur outside the home, they are better able to link their children into social networks that will provide future opportunities (Furstenberg et al., 1999; Furstenberg & Hughes, 1993; Coleman, 1988).

Given this multi-dimensional significance of parent-child activities in the lives of young people, this study measures the amount of time that parents and children spend together inside and outside the home in four activities linked by prior research to child development: watching television, playing sports, attending cultural events, and participating in educational activities (Chin & Phillips, 2004; Zick, Bryant, & Osterbacka, 2001; Furstenberg et al., 1999; Pianta & Walsh, 1996). Our aim is not simply to recreate what is already known about each of these activities. Instead, we move past the question of whether any of these activities is developmentally significant in their own right to the broader of question of how these activities come together within specific families. In other words, we strive for a *holistic* approach to

parent-child activities that recognizes that the general climate of parent-child activity is probably more important than any one activity by itself (Magnusson & Cairns, 1996).

The first objective of this study, therefore, is to answer the question: on the average day in the life of a family, what types of things do children and their parents do together? Our expectation is, in some families, children simply do not spend much time with their parents at all but that, in others, parents and children spend a good deal of time together doing multiple things. Moreover, we expect that somewhere in the middle of these two extremes will be families in which parent-child activity is concentrated inside the home and those in which it is concentrated outside the home. In these families, time is shared, but only in certain domains.

Early Activities and Later Learning

As already discussed, one reason parent-child activities are important foci of social and behavioral research is because, through their connections to emotional bonding and social capital, they play a significant role in child development. To assess this developmental significance, this study explores how children in families with different activity profiles fare in a key arena—education—as they cross from childhood into adolescence.

The transition into adolescence does have important academic implications, with interests and motivations declining and inequalities deepening (Eccles et al. 1993). This academic disruption is problematic for multiple reasons, not the least of which is that secondary schooling is the very foundation of long-term educational trajectories and, ultimately, socioeconomic attainment (Schneider & Stevenson, 1999; Kerckhoff, 1993). Thus, determining when and how some young people maintain high rates of learning across this transition goes a long way towards predicting the future. A key argument of this study is that such “maintenance” may be related to the types of shared activities that occur in the years leading up to this transition.

The second objective of this study, therefore, is to determine the extent to which different configurations of parent-child activities during *childhood* predict achievement gains in core curricula during *adolescence*. Our expectations are two-fold. First, children who are uninvolved with their parents will demonstrate the lowest gains across this transition because their relationships with parents afford them less emotional bonding and access to social capital, and children who are involved with their parents across multiple domains of activity will demonstrate the highest gains because their relationships with parents will provide maximum opportunity for the forging and maintenance of bonding and social capital. Second, the achievement patterns of children whose activities with parents are concentrated in either the private or public domain will fall somewhere in the middle, but the children with more publicly-oriented relationships with their parents will out-achieve those with more privately-oriented relationships because the former will have equal opportunity to bond but greater access to social capital.

Drawing on holistic activity patterns in the tracking of gains in learning across a life course transition in which such gains are often jeopardized provides a unique perspective on the linkages between the two key institutions of the early life course. This approach allows us to consider the actual types of activities, and the connections among types, that may make a difference in schooling careers and, in the process, to determine whether the value or risk of any one activity is tempered by the other activities with which it occurs. For example, excessive television watching may be problematic for academic pursuits, but will the same be true if this activity is just one piece in a broad tapestry of activities shared between parents and children?

Continuity and Change in Shared Activities Across the Transition to Adolescence

Of course, as children grow and develop, their relationships with parents also evolve. In particular, the transition into adolescence marks a tidal shift in the nature of intergenerational

relations within families (Steinberg, 2001). Given this, activity patterns that characterize childhood are unlikely to carry over into adolescence, even though some stability in how time is shared may exist. To assess such continuity and change in shared activities across the transition into adolescence, this study examines whether and how parent-child activity patterns in childhood forecast parent-child activity patterns in adolescence.

During the transition into adolescence, young people spend less and less time with their parents for a variety of reasons—they become more peer-oriented and more mobile, they desire more independence and autonomy, they have busier schedules (Steinberg, 2001; Call & Mortimer, 2001; Furstenberg, 2000; Dornbusch, 1989). Much like the academic trends related to the transition into adolescence, however, this corresponding family trend is the general rule but not a universal. The kinds of relationships that children and their parents build *early* on is likely to shape the kinds of relationships that they manage and negotiate at *later* points.

The third objective of this study, therefore, is to identify the activity profiles—again encompassing television, sports, cultural events, and education—that characterize adolescents' relationships with their parents and then to examine how these adolescent-specific profiles map onto the child-specific profiles that preceded them. Our expectation is that all families will demonstrate a trend towards less shared activity, but that this trend will be more distinct among families with profiles characterized by the highest level of public activities because activities that occur outside the home will be the most difficult to maintain in the face of busier schedules and adolescent demands for autonomy. At the same time, however, we expect that shared activities will not simply disappear in families that earlier demonstrated the most public profiles but instead that they will shift to more private settings.

METHODS

Data and Sample

The PSID is a longitudinal study of a representative sample of U.S. individuals and the families in which they reside that has been tracked at annual and then biennial intervals since 1968. In 1997, the PSID supplemented its core data collection with the CDS—additional information on PSID parents and any children they had up to 12 years of age. The objective of the CDS was to provide researchers with a comprehensive, nationally representative, and longitudinal data base of children and their families with which to study the dynamic process of early human capital formation. Out of the 2,705 families selected for CDS-I in 1997, 2,394 families (88%) participated in data collection, providing information on 3,563 children. In 2002-2003, CDS re-contacted families in CDS-I who had remained active in the PSID panel up to 2001. CDS-II successfully re-interviewed 2,017 families (91%) who provided data on 2,908 children/adolescents who were between the ages of 5 and 18. For more information on these data, see the PSID website at www.psidonline.isr.umich.edu.

Four selection filters were employed to create the specific sample for this study. First, we selected a cohort of children from CDS-I, those aged 7-12, in order to ensure that all children in our sample were school-aged in the first wave and adolescents in the second. Second, we only included the portion of these CDS-I children who also participated in CDS-II in 2001. Third and fourth, because of the centrality of time use and academic achievement to the aims of this study, we only included young people who had time use data in both the 1997 and 2001 data collections and then applied the same selection filter for achievement test data. This selection process left a final study sample of 857 children. According to the statistics presented in Table 2, the selection

filters did skew the study sample slightly towards younger White girls with college-educated parents, but this bias was not extreme and, we argue, was balanced by the necessity of each filter.

[Table 1 About Here]

Measures

Descriptive statistics for all study variables are included in Table 2.

[Table 2 About Here]

Academic achievement. In CDS-I and CDS-II, interviewers administered standardized educational achievement tests to all study children. The Woodcock-Johnson Psycho-Educational Battery-Revised (WJ-R) is a well-established and respected diagnostic that provides researchers with information on several dimensions of intellectual ability, including current developmental status, degree of mastery in reading and mathematics, and group standing (either age or grade group). We selected two subtests to measure reading and math achievement respectively: the Letter-Word and the Applied Problems tests. The Spanish version of the WJ-R (Batería-R, Form A) was used for children whose primary language was Spanish. The mean scores on these tests hovered around 100 at each wave of data collection.

Time use. One major advantage of CDS was its administration of time diaries at each wave of data collection. For each study child, these diaries provided detailed accounting of the type, number, duration, and location of activities during sampled 24-hour days, beginning at midnight for one randomly sampled weekday and one randomly sampled weekend day. They also collected information on the context of the activity by specifying with whom the child was doing the activity and who else was present at, but not engaging in, the activity. With these diaries, we created variables indicating the amount of time per week children spent in four key activities with their parents: watching television, participating in 12 types of physical recreation

(including team sports, hiking, fishing, playground activities), attending 19 types of cultural events (including theater, zoos, and public sporting events), and participating in 7 educational activities (including reading, homework, working on school projects). For each primary activity, we summed the amount of time that the child had spent in this activity with a parent present (mother, father, step-mother, or step-father) over the two-day diary collection period. The highest values on these scales, therefore, were for those children who spent the most time with their parents in certain activities and not necessarily those who had spent the most time participating in those activities. The focus was on shared time, not total time.

Sociodemographic characteristics. To account for demographic and family-related variability in the associations of interest, this study also created a set of variables for use as controls in multivariate analyses: age (at time of CDS-I), gender (1 = female, 0 = male), race/ethnicity (dummy variables for non-Latino/a White, African-American, Latino/a, Asian-American, Other race/ethnicity), family structure (1 = two married biological parents, 0 = all other families), number of other children living in the household, parent education (1 = at least one college-educated parent, 0 = no college-educated parents, with the modal category imputed for missing cases and a binary marker of missingness used as a control), and parent employment (dummy variables for two parents, father only, mother only, and no parent employed).

Plan of Analyses

The analyses in this study preceded in three stages. The first stage involved the identification of typical profiles of shared parent-child activities. Cluster-analytic techniques sorted study children into groups with different configurations of the amount of time they spent with their parents in each of the four activities measured in this study. Because of the number of observations in PSID, we were unable to use a hierarchical clustering procedure and instead

employed kmeans clustering in STATA, a nonhierarchical clustering method that assigned observations to the appropriate cluster through an iterative procedure based on the z-scores of the four activity variables. After specifying the number of cluster seeds and initially partitioning the observations, STATA calculated Euclidean distances and assigned observations to the nearest centroid. To obtain an optimal result, in which clusters represented homogeneous groupings, we considered several cluster solutions (4–6) and ultimately decided on the five-cluster solution, which provided distinct substantive clusters that most closely matched our theoretical expectations in a parsimonious way. Each cluster represented a type of activity profile — children and adolescents in the same cluster spent similar amounts of time with their parents in similar types of activities. This procedure was conducted for both the 1997 and 2001 waves.

The second and third stages of analyses involved the use of the Wave I clusters as predictors of Wave II outcomes. To measure the association between shared activity profiles in childhood and achievement gains between childhood and adolescence, the Wave II WJ-R scores were regressed on the Wave I profile dummy variables, the full set of control variables, and the Wave I WJ-R test score. Finally, to measure the continuity and change in shared activity profiles between childhood and adolescence, Wave II shared activity profile membership was regressed on the Wave I shared activity profile dummy variables and the full set of control variables. All multivariate models were estimated in STATA, which allowed sample weighting to adjust for the differential probabilities of selection due to the original PSID sample design and subsequent attrition and, moreover, corrected the family-based clustering of the CDS sample to produce robust standard errors. Linear regression was used to estimate the Wave II achievement outcomes, multinomial logistic regression to estimate the Wave II shared activity profiles.

RESULTS

Shared Activity Profiles in Childhood

The first objective of this study was to identify basic configurations of shared time between parents and their children. As already described, these configurations were identified through cluster analysis of four shared time use measures. The five profiles that emerged from this analysis are presented graphically in Figure 1 (with all shared activity variables converted into z-scores, so that negative numbers represent below average rates and positive numbers represent above average rates). Profile means for selected demographic characteristics and the four shared activity variables (in raw, non-standardized form) are presented in Table 3.

[Figure 1 About Here]

[Table 3 About Here]

Recall that our expectation was that we would find two relatively homogenous profiles (one high in shared activity across the board, one low) and two “specialized” profiles (one privately-oriented, one publicly-oriented). The actual profiles that emerged from the cluster analysis did not map onto these expectations exactly, but they did tap similar themes. No profile was uniformly high or low on shared activities during childhood. Instead, each profile was characterized by high levels of one or two shared activities and low levels of all other activities. In other words, each profile was specialized in its own way.

First, in the *TV-focused* profile, parents and children had above average rates of shared television viewing but below average rates of everything else. In fact, these parents and children shared about six hours of television viewing during the time period assessed. The families in this profile tended to be less socioeconomically advantaged than those in other profiles—more likely

to be race/ethnic minorities, somewhat less likely to be headed by college-educated parents. Children in these families scored on the low end of the achievement tests during the same period.

Second, in the *private* profile, parents and children had above average rates of shared time in the two home-based activities (TV watching, educational activities) but below average rates of shared time in the two non-home-based activities (physical recreation, cultural events). Like the TV-focused profile, parents in this profile tended to be less socioeconomically advantaged than other families, and children in this profile tended to score lower on achievement tests during elementary school.

Third, in the *outdoor* profile, parents and children were above average in shared time in only one activity, physical recreation, and they shared the lowest amount of television viewing of all. The families in this profile were evenly split between Whites and race/ethnic minorities, fell somewhere in the middle on most socioeconomic measures, and were the least likely to be headed by two married parents. Children in this profile scored in the middle range on the reading achievement test and at the high end of the math achievement test.

Fourth, in the *cultural* profile, parents and children had above average rates of shared cultural events and educational activities. In fact, the time that they shared in cultural events was, by far, the highest of all. According to Table 3, these families were the only ones to average more than a minute or so of such shared activity, and they actually averaged more than an hour and a half (likely because such activities take a while). These families also had numerous socioeconomic advantages (e.g., most likely to be White, to be headed by married, college-educated, dual-employed parents), and the children in these families scored average to above average on achievement tests.

Fifth, in the *active* profile, parents and children shared above average amounts of time in physical recreation and educational ventures. The parents in these families tended to be White, married, and college-educated, and the children in these families scored the highest of all children on achievement tests during this period.

A couple of comments about these profiles are warranted. First, Figure 1 gives relative rates of shared activity (e.g., below average, average, or above average), but Table 3 gives absolute rates. Comparing the two revealed that, while the relative amount of television viewing varied across profiles, the absolute level was actually high in all profiles. Television viewing was the most common shared activity in all profiles. Moreover, shared time at cultural events was, for the most part, rare. Second, educational activities and physical recreation tended to be the most variable of shared activities. In most families, parents and children shared at least some time in both, but the amount of shared time in each varied a good deal as did the proportion of total activity accounted for by each.

Childhood Activity Profiles and Achievement Gains into Adolescence

The second objective of this study was to investigate whether children in these five shared activity profiles differed in their learning gains between childhood and adolescence. Table 4 presents the results of linear regressions of Wave II test scores in two subject areas (controlling for Wave I test scores) designed to determine whether this was indeed the case.

[Table 4 About Here]

The first panel in Table 4 contains the results for the WJ-R Letter-Word test, a tool for measuring reading/verbal achievement, administered at Wave II. After controlling for children's initial scores, most sociodemographic factors did not predict adolescents' later scores (African-American status being the one exception). Thus, holding the starting point in reading

achievement equal, adolescents from different demographic populations and family contexts did not exhibit differential *gains* in achievement between childhood and adolescence. At the same time, none of the four shared activity profiles predicted Wave II reading achievement when the TV-focused profile served as the reference category, and the test procedure in STATA indicated that this same pattern held no matter which profile served as the reference.

The second panel in Table 4 contains the results for the WJ-R Applied Problems test, a tool for measuring math achievement, administered at Wave II. These results indicated more sociodemographic and family-related variability in adolescent achievement even after controlling for childhood achievement. Specifically, African-American and Latino/a youth demonstrated lower gains in math achievement between childhood and adolescence, and youth with educated, employed parents (especially fathers) demonstrated greater gains during this period. Compared to membership in the TV-focused profile, membership in the outdoors and cultural profiles predicted greater math achievement at Wave II, net of Wave I achievement, but membership in the other two profiles did not. The test procedure revealed the following rank ordering of shared activity profiles in gains in math achievement: 1) cultural profile, 2) the outdoors profile and the active profile, and 3) the active profile, TV-focused profile, and private profile (the active profile was not significantly different from the other profiles in category 2 or 3).

Thus, although children who came from families with different shared activity profiles did differ, on average, in reading achievement during childhood, they did not differ in their gains in reading achievement between childhood and adolescence. Alternatively, even though shared activity profiles did less to differentiate mean levels of children's math achievement (compared to their reading achievement during childhood), they did differentiate children on gains in math achievement across the transition into adolescence, with children who shared more time with

their parents in cultural events and physical recreation gaining the most. These results provide some support for our expectation that children who shared more time with their parents in activities outside the home would out-achieve children who spent less time with their parents overall or who spent most of their shared time with parents in home-based activities.

Profiles of Shared Activity in Childhood and Adolescence

The third objective of this study was to assess continuity and change in configurations of shared activity within families as the children in these families transitioned from childhood into adolescence. The first step in doing so was to use cluster analysis to identify shared activity profiles in Wave II, and the second step was to regress these Wave II shared activity profiles on the Wave I shared activity profiles and the sociodemographic controls. Figure 2 presents the results of the five shared activity profiles that emerged from cluster analysis of the Wave II time use data, and Table 5 presents the results from multinomial logistic regressions in which the five-category cluster solution from Wave II served as the outcome.

[Figure 2 About Here]

[Table 5 About Here]

As seen in Figure 2, the shared activity profiles did change substantially between childhood and adolescence. In adolescence, an *uninvolved* profile—in which parents and adolescents shared below average amounts of time in all activities—did emerge. In fact, this was the largest profile, by far, during this period. The *TV-focused* and *outdoors* profiles remained, but the cultural and active profiles that were common during childhood were replaced by two different, but related profiles. The *public* profile was similar to the previously observed cultural profile, in that rates of shared time at cultural events were well above average in this profile, but different in the sense that physical recreation replaced educational activity as the other common

shared activity in this profile. Thus, what differentiated parents and adolescents in this profile was that, compared to other families, they tended to share time outside the home. This profile was, by far, the smallest of the five profiles, containing only 71 families. Finally, the *education-focused* profile was similar to the previously observed active profile, in that it was characterized by above average rates of shared time in educational activities, but different in the sense that these shared activities were not also coupled with shared physical recreation.

For the multinomial logistic analyses, we estimated our base model in several iterations—first estimating the model with the uninvolved profile as the reference against which all other Wave II profiles were compared, then estimating four other models with each of the remaining Wave II profiles serving as the reference, and, in all of these iterations, using the test procedure to assess significant differences in the predictive power of all five of the Wave I profiles on the Wave II profiles. Obviously, these iterations generated an enormous amount of results. Consequently, we have presented the results for the first iteration only in Table 5, and we will summarize the results across iterations here in the text. The best way to do this, we decided, was to track where young people from each of the five shared activity profiles in Wave I ended up in Wave II.

The young people who, as children, had TV-focused profiles of shared activity with their parents tended to remain in the TV-focused profile as adolescents, but the most striking pattern exhibited by this group was that these families were very unlikely to switch into the public profile across the transition into adolescence. The same trend—into the TV-focused profile, not into the public profile—characterized the young people who had been in the outdoors profile of shared activity with their parents as children.

Those children whose profiles of shared activity with parents were private or active (educational activities being the commonality between the two at Wave I) demonstrated similar trends over the transition into adolescence. They tended to move into the TV-focused and education-focused profiles, and they were unlikely to move into the outdoors profile. The children in the Wave I private profile, but not the Wave I active profile, were also quite unlikely to be in the public profile as adolescents. One striking characteristic of both of these profiles was that, of all of the Wave I profiles, they were the least predictive of membership in the uninvolved profile at Wave II. Finally, the young people in the cultural profile at Wave I (again, a profile characterized by above average educational activities) demonstrated a trend across the transition into adolescence similar to these other two profiles, with the exception being that the cultural families were *not as unlikely* to move into uninvolved profiles of shared activity.

In line with our expectations, therefore, the tendency in this sample was for shared activity between parents and their children to decrease across the transition into adolescence to the point that the most common family pattern was low shared time across activities. Also in line with expectations, the two least common shared activity profiles in adolescence were those with high rates of shared time in activities typically found outside the home. As for continuity and change in shared activity profiles over time, all types of parent-child relationships became more TV-focused parent-adolescent relationships, even those parent-child relationships that had once been the most active outside the home. Parent-child relationships characterized by above-average educational activities, however, managed to maintain this educational component even as other shared activities that often accompanied this educational component faded over time. Furthermore, the relationships with the highest levels of shared educational activity were the least likely to become generally uninvolved by adolescence.

CONCLUSIONS

Time is a precious commodity in modern American society. We do not have enough time to do the things that we want to do, and we scramble to find more minutes and hours to cram into our days. In this time-crunch, what is at stake is not just our own personal time but also the time that we spend with those we love, such as the time that parents and children spend together. This shared time is more than just accumulated minutes. It encompasses the building blocks of family attachments and family resources, and, at the same time, it is the result of these core family processes and statuses. In this way, the time that parents and children spend together—even doing the most mundane things—is central to our understanding of how families function and how individual family members develop, which is why the complicated and challenging collection of time use data in national studies, such as the Child Development Supplement of the PSID, is a valuable resource for social and behavioral scientists.

This study attempted to leverage this valuable resource by exploring the ways that parents and children spend time together in a longitudinal sample in which children crossed the threshold into adolescence. What we found was that general patterns of activity can be found among families and that these general patterns map onto to different demographic populations. Not surprisingly, given other studies of media use (see Bickham et al. 2003), television watching was the primary activity that parents and children shared in our sample. *Everyone* watched a good deal of television in their families, although some certainly watched more than others. What really varied was what other shared activities went along with this television time. In more socioeconomically advantaged families, shared television time was often coupled with activities outside the home, such as physical recreation and attendance at cultural events. In less socioeconomically advantaged families, shared television time was either the sole activity shared

between parents and children to any significant degree or else it was coupled with other home-based activities, such as educational work. Activities outside the home were far less common, probably because they are harder to plan, require more organization, and often take money, but, when families did engage in these activities, they tended to engage a lot. For example, few parents spent much time with their children in cultural events, but those who did spent a great deal of time doing so. Thus, the norm in our sample was for parents to find at least one activity in which to spend time with their children, but what this activity might be was highly variable.

Presumably, differences in family activities can translate into corresponding differences in human development, and we did uncover evidence that this was the case. As expected, young people who spent more time with their parents in activities outside the home (e.g., recreational, cultural activities) as children tended to show more growth in math achievement from childhood to adolescence than children whose shared time with parents occurred in the home, and this was especially true of children who engaged in both home-based and public activities with their parents. These findings took sociodemographic characteristics into account, and so they were independent of social class, race, and other factors tapping different cultures, lifestyles, and means. Our interpretation of this finding is that public activities maximize *both* the strengthening of intergenerational bonds in the family and the cultivation of social capital, especially the ability of parents to connect their children to larger social networks. Somewhat puzzling was the finding that this pattern only involved math achievement and did not extend to reading achievement. Decades of educational research has documented that math studies become more complex and demanding during secondary schooling than other subject areas, and this change may factor into the stronger observed connection between shared activities and math achievement during the transition from childhood into adolescence.

The results of our study also echo some of the core themes of adolescent research; namely that adolescents spend less time with their parents as they age because of new time demands, interests, and needs. As the children in our sample transitioned into adolescence, they tended to spend less time with their parents in various activities. In fact, the norm in most families was for parents and adolescents to share few activities. Moreover, the activities that required the most planning and that had the most public visibility were the ones in which the dropoff in shared time was most pronounced. In most relationships, regardless of what they entailed in terms of shared activity during childhood, television-watching became the primary shared activity during adolescence. Educational activities tended to be the one domain of shared activity that really carried over from childhood to adolescence, and, especially when this shared activity was initially large in amount, this domain also appeared to protect against large-scale shifts towards uninvolved parent-child relationships across the transition into adolescence. Why would this domain of activity matter? Unlike more “active” activities (e.g., physical recreation, cultural events), educational activities take less planning and are constantly motivated by the demands of schooling. Unlike other home-based activities (e.g., television viewing), they tend to be more enriching and useful for young people. Thus, because educational activities have to be done by young people across the stages of schooling and because of the potential value of these activities for young people, this domain of activity is one in which parents can and do maintain their presence in the lives of their children.

What do these findings say about the transition from childhood and adolescence? They demonstrate how early patterns of shared activity are a foundation for this transition, with some patterns connected to more successful transitions and others not. They demonstrate that shared activity is sometimes sacrificed during this transition as the time crunch intensifies and the

motivations for shared activity—on the part of each participant—decrease. At the same time, they suggest that some families manage to find ways to navigate this transition and leave their shared time intact, mostly by focusing on new, less demanding activities or by tying their shared time to outside demands, such as education. Overall, our analysis of time use data in the CDS reveals that shared parent-child time follows its own developmental course, in symphony with the developmental courses of the parents and children themselves. In other words, like the people doing the sharing, shared time changes and adapts as the environment changes.

The results reported in this study and the ways in which we have interpreted these results suggest the need for more study in this area in the future. Holistic perspectives on shared activity reveal new and different things about the inner-workings of families, and future research can expand the application of these perspectives by adding more shared activities to the mix, examining how holistic profiles of parents' daily activities and children's daily activities influence holistic profiles of shared parent-child activities, investigating the developmental significance of these shared activities for parents as well as children, and exploring demographic variability in the developmental significance—for parents and children—of various configurations of time spent together.

Such future research will go a long way towards illuminating what goes on in the family and how what goes on in the family changes over time and across contexts. This insight into the inner workings of the home may then be leveraged to understand the role of the family in demographic inequalities in important markers of child, adult, and family well-being. The time to get a handle on time is now.

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Table 1. Sample Characteristics for Each Stage of the Sample Selection Process

	<i>M (SD)</i>				
	Sample 1 ^a	Sample 2 ^b	Sample 3 ^c	Sample 4 ^d	Sample 5 ^e
Female	.50 (.50)	.50 (.50)	.50 (.50)	.51 (.50)	.52 (.50)
Age (years)	9.54 (1.72)	9.46 (1.68)	9.49 (1.68)	9.47 (1.67)	9.48 (1.69)
Non-Latino/a White	.45 (.50)	.46 (.50)	.50 (.50)	.50 (.50)	.49 (.50)
Parent education (college graduate)	.50 (.50)	.52 (.50)	.54 (.50)	.55 (.50)	.56 (.50)
<i>n</i>	1,620	1,294	1,072	944	857

^a CDS-I children aged 7-12

^b Sample 1 members who participated in CDS-II

^c Sample 2 members who had valid time use data in CDS-I

^d Sample 3 members who had valid time use data in CDS-II

^e Sample 4 members who had valid achievement test data in CDS-I and CDS-II

Table 2. Descriptive Statistics for All Study Variables

	<i>M</i>	<i>SD</i>
<i>Shared Time Use (Total Minutes)</i>		
Television (Wave I)	197.78	142.44
Television (Wave II)	160.53	153.65
Physical recreation (Wave I)	78.25	96.08
Physical recreation (Wave II)	51.81	95.53
Cultural events (Wave I)	10.01	29.18
Cultural events (Wave II)	9.67	31.94
Educational activities (Wave I)	25.28	31.93
Educational activities (Wave II)	27.21	45.68
<i>WJ-R Achievement Test Scores</i>		
Reading (Wave I)	106.35	17.40
Reading (Wave II)	102.41	20.02
Math (Wave I)	108.35	16.09
Math (Wave II)	100.14	17.55
<i>Sociodemographic Characteristics</i>		
Gender (female)	.52	.50
Age (years)	9.48	1.69
Non-Latino/a White	.49	.50
African-American	.40	.49
Latino/a	.06	.24
Asian-American	.01	.12
Other race/ethnicity	.03	.17
Family structure (two-parent)	.62	.49
Number of other children in home	1.39	1.04
Parent education (college graduate) ^a	.56	.50
Two parents employed	.46	.50
Father employed	.40	.49
Mother employed	.02	.15
No parent employed	.12	.32

n = 857

^a Mode imputed for those missing on parent education information. A binary marker of missingness/imputation was included in all analyses.

Table 3. Breakdown of Five Shared Activity Profiles in Childhood

	<i>M (SD)</i>				
	TV-Focused	Private	Outdoors	Cultural	Active
<i>Shared Time Use (Total Minutes)</i>					
Television	352.05 _a (88.69)	336.78 _a (87.67)	102.17 _d (73.82)	139.61 _b (109.16)	109.97 _c (78.00)
Physical recreation	64.22 _c (84.41)	32.93 _d (70.72)	103.50 _a (106.77)	62.73 _c (84.94)	84.32 _b (97.89)
Cultural events	1.39 _b (7.04)	.31 _b (3.03)	.41 _b (3.58)	96.69 _a (14.82)	.63 _b (.59)
Educational activities	5.27 _c (1.63)	66.82 _a (17.95)	5.81 _c (10.83)	29.43 _b (34.11)	67.81 _a (18.50)
<i>WJ-R Achievement Test Scores</i>					
Reading (Wave I)	104.77 _b (17.38)	103.97 _b (14.81)	106.31 _b (17.15)	107.20 _{ab} (17.22)	109.97 _a (19.22)
Math (Wave I)	107.15 _{ab} (15.13)	106.75 _b (15.47)	109.06 _{ab} (16.89)	108.41 _{ab} (15.53)	109.69 _a (16.47)
<i>Sociodemographic Characteristics</i>					
Gender (female)	.53 (.50)	.56 (.50)	.51 (.50)	.48 (.50)	.51 (.50)
Age (years)	9.39 (1.74)	9.53 (1.57)	9.48 (1.72)	9.63 (1.79)	9.51 (1.54)
Non-Latino/a White	.45 _c (.50)	.41 _c (.49)	.50 _{bc} (.50)	.61 _a (.49)	.55 _{ab} (.50)
Family structure (two-parent)	.60 _{ab} (.49)	.62 _{ab} (.49)	.59 _b (.49)	.71 _a (.46)	.67 _a (.47)
Parent education (college graduate) ^a	.46 _c (.50)	.48 _{bc} (.50)	.57 _b (.50)	.65 _{ab} (.48)	.67 _a (.47)
Two parents employed	.37 _c (.49)	.52 _b (.50)	.45 _b (.50)	.69 _a (.47)	.42 _{bc} (.50)
<i>n</i>	219	98	314	83	143

^a Mode imputed for those missing on parent education information. A binary marker of missingness/imputation was included in all analyses.

Note: Means with different subscripts differ significantly according to regression comparisons in STATA, with “a” representing the largest mean.

Table 4. Results from Linear Regression Models Predicting Wave II Achievement Test Score

	Reading		Math	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
<i>Sociodemographic Characteristics</i>				
Gender (female)	1.66	1.22	-.98	1.05
Age (years)	-.20	.34	.58	.39
Non-Latino/a White ^a	---	---	---	---
African-American	-3.78*	1.75	-5.51***	1.49
Latino/a	-1.46	2.52	-5.51*	2.52
Asian-American	.81	6.63	10.44	8.22
Other race/ethnicity	.23	4.31	.80	5.55
Family structure (two-parent)	1.64	2.79	1.55	1.72
Number of other children in home	-.84	.73	-1.00	.60
Parent education (college graduate) ^b	2.16	1.44	3.04*	1.52
Two parents employed ^a	.24	2.74	5.77*	3.22
Father employed	.53	2.16	7.69***	2.95
Mother employed	-2.82	2.95	5.93	4.41
No parent employed	---	---	---	---
<i>Wave I Achievement Test Scores</i>				
Reading	.77***	.04	---	---
Math	---	---	.54***	.05
<i>Shared Activity Profiles in Childhood</i>				
TV-focused ^a	---	---	---	---
Private	-.59	2.11	-.27	1.99
Outdoors	.36	1.59	3.31+	1.91
Cultural	3.85	2.87	4.45*	2.23
Active	2.27	2.08	.84	1.84
Intercept	-.20	.34	-.58	.39
<i>n</i>	857		857	

^a Reference category for set of dummy variables (race/ethnicity, parent employment status, shared activity profile).

^b Mode imputed for those missing on parent education information. A binary marker of missingness/imputation was included in all analyses.

Table 5. Results from Multinomial Logistic Regression Models Predicting Wave II Shared Activity Profiles

	Odds Ratios Compared to Uninvolved Profile			
	TV-Focused	Outdoors	Public	Education-Focused
<i>Shared Activity Profiles in Childhood</i>				
TV-focused ^a	---	---	---	---
Private	1.80	.88	3.67*	1.45
Outdoors	.99	.49*	2.03	1.06
Cultural	.84	.24*	2.01	.84
Active	1.95+	.64	3.16*	2.18*
Intercept	.97			
<i>n</i>	857			

Note: These models controlled for gender, age, race/ethnicity, family structure, number of other children in the household, parent education, and parent employment status.

^a Reference category for set of dummy variables for shared activity profile.

Figure 1. Five Profiles of Shared Activity During Childhood

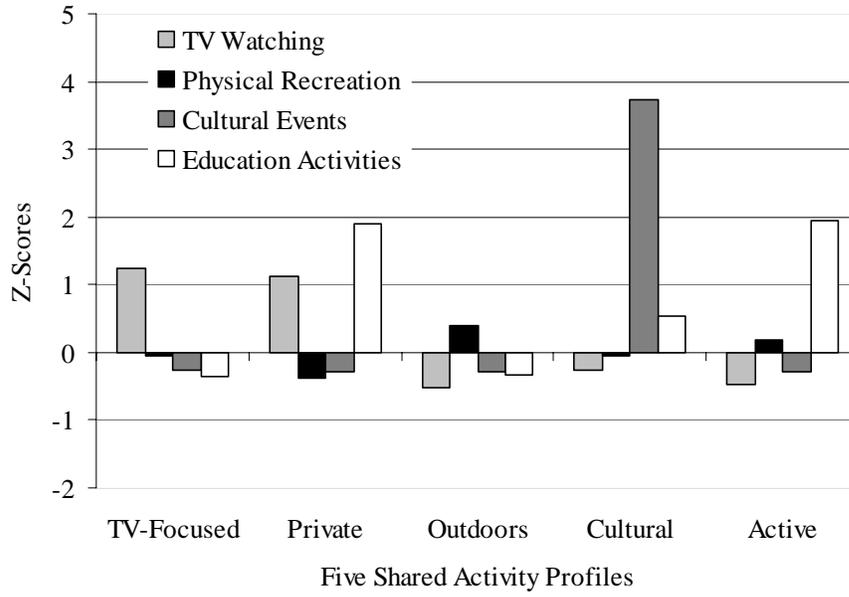


Figure 1. Five Profiles of Shared Activity During Adolescence

