

Ready To Learn
Workshop Participation:
Short-Term Impacts

Final Report

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EXECUTIVE SUMMARY

The PBS *Ready To Learn Television Service*, funded by a cooperative agreement from the U.S. Department of Education, supports the development of children's educational television programs and online resources and annually provides more than 7,000 workshops for more than 140,000 parents and early childhood educators. The workshops are designed to enhance children's school readiness by making parents and educators of children under 8 years old more aware of how they use television with these children and teaching them how to extend the lessons from the PBS children's programs. The main goal of the workshops is to explain and model the "*Ready To Learn* Learning Triangle—View-Read-Do." The "Learning Triangle" refers to the idea that adult-child interactions will involve *viewing* relevant children's television programs or video clips, *reading* a children's book, and *doing* an activity—all of which have similar themes. The Learning Triangle is designed to help adults extend the educational value of PBS children's programming by providing children the opportunity to practice and repeat important concepts. The goal of these related activities is to enhance children's learning through repetition. The workshops are conducted in 144 PBS *Ready To Learn* stations across the country.

In 2000, PBS contracted with Mathematica Policy Research, Inc. (MPR) to conduct a five-year evaluation of *Ready To Learn* outreach. The evaluation includes an impact study of the effects of *Ready To Learn* workshops on participating parents and early childhood educators, as well as on the preschool children in their care. Conducted in 20 *Ready To Learn* stations, the impact study includes an experimental design with random assignment of interested parents and early childhood educators to either the *Ready To Learn* workshop or a control group that did not receive a *Ready To Learn* workshop. In addition, the impact study includes a descriptive analysis of the content and quality of the 85 *Ready To Learn* workshops that study participants attended. This report, the first of two impact study reports, focuses on the content and quality of the observed workshops, the characteristics of the parents and educators in the study, and the short-term impacts of attending a *Ready To Learn* workshop on parents and early childhood educators, measured three months after workshop participation.

FINDINGS

The impact analysis yielded a mixed set of findings, with positive impacts on a relatively small portion of the outcome measures examined; however, the consistency of the findings across the various subgroups lends confidence to their robustness. The evidence establishes a modest link between workshop participation and participants' self-reported behaviors. The effect sizes of reported impacts, however, are small, suggesting caution in the use of these findings, summarized below.

- Workshop participation had a significant impact on implementation of many of the Learning Triangle behaviors measured and PBS co-viewing.
- Workshop participation did not significantly affect attitudes about television and PBS, adult-child reading and literacy behaviors (measured by reading frequency and number of children's books), or parents' use of online resources.
- Certain workshop characteristics appear important, particularly related to the implementation of Learning Triangle behaviors. Providing time for planning a View-Read-Do activity appears especially important.
- Workshops are having positive impacts on both parents and educators, particularly in parents' co-viewing behaviors and educators' use of Learning Triangle activities. Workshops are not clearly more effective for either parents or educators.
- There is no evidence to suggest that workshops are particularly effective for those in the four priority target populations (families with low literacy; families for whom English is not the primary language; families living in rural areas; children with disabilities)

PLANS FOR THE NEXT REPORT

The next report will analyze data from the second, and final, follow-up survey, administered six months after study enrollment, as well as concurrent data from the assessment of children in the care of study participants. This final report will focus on two key questions: (1) To what extent are the short-term impacts we found at three months sustained? and (2) Do any observed behavioral changes in parents and educators translate into significantly improved school readiness among the children in their care? Given the program's ultimate goal of improving the school readiness of at-risk children, these are critical questions to answer. While this interim report finds modest impacts on adult co-viewing and Learning Triangle behaviors, we do not know if these are done with sufficient frequency to make a difference in children's performance on measures of school readiness. Knowing whether the behavioral changes of parents and educators are sustained, and whether the impacts found here are large enough to significantly affect children, requires further study. Such issues will be the focus of the final analysis, following completion of the second round of data collection. The second follow-up data collection will end in fall 2003, and the final report will be available in summer 2004.

CHAPTER I

READY TO LEARN AND THE RESEARCH AGENDA

For more than 40 years, policymakers, educators, researchers, and child advocates have focused attention on the need to better prepare our nation's children, particularly our most vulnerable children, for success in school. Already, by the time they are three years old, children from low-income families are behind their peers in cognitive and language development—an achievement gap that persists through kindergarten and beyond (ACF 2002; and ACF 2003). The current administration has launched efforts aimed at increasing children's school readiness by providing more training for early childhood educators and strengthening existing early childhood programs for children and their parents.¹ In line with these initiatives, the Public Broadcasting Service (PBS) and the Corporation for Public Broadcasting (CPB) have been at the forefront of developing and broadcasting educational programming designed specifically for preschool children (see Bryant et al. 2001 for a history), in conjunction with outreach to parents and educators to help them use PBS programming and other resources to prepare children for school.

The PBS *Ready To Learn Television Service*, funded by a cooperative agreement from the U.S. Department of Education (ED), supports the development of children's educational television programs and online resources and annually provides more than 7,000 workshops for more than 140,000 parents and early childhood educators.² The workshops are designed to make parents and educators more aware of how they use television with the children in their care and to teach them how to extend the lessons from the PBS children's programs by reading related books to the children and doing a related activity, such as a craft project or game. Since *Ready To Learn* began in 1995, the parents and educators of more than 7.4 million children have attended workshops in their local communities conducted by participating PBS stations (PBS 2003). PBS *Ready To Learn* station broadcasts reach 96 percent of U.S. households, or approximately 37 million children. PBSKIDS.org receives

¹ *Good Start, Grow Smart*, the Bush administration's early childhood initiative, was launched in 2002.

² PBS *Ready To Learn* staff reported that from September 1, 2001 through August 31, 2002, 138 *Ready To Learn* stations conducted 7,882 workshops with 144,009 parents and educators who cared for 996,630 children (<http://www.pbs.org/readytolearn/research/impact.html>, accessed July 10, 2003).

more than 200 million “page visits” per month, with users spending an average of 30 minutes per visit (Tara Townsend, personal communication, October 30, 2003).

In 2000, PBS contracted with Mathematica Policy Research, Inc. (MPR) to conduct a five-year evaluation of *Ready To Learn* outreach. The evaluation includes: (1) a process study of how *Ready To Learn* outreach to parents and educators is conducted at participating stations and (2) an impact study of the effects of *Ready To Learn* workshops on participating parents and early childhood educators, as well as on the children in their care.³ Conducted in 20 *Ready To Learn* stations, the impact study includes a rigorous experimental design with random assignment of interested parents and early childhood educators to either the *Ready To Learn* workshop or a control group that did not receive a *Ready To Learn* workshop. In addition, the impact study includes a descriptive analysis of the content and quality of the 85 *Ready To Learn* workshops that study participants attended. This report, the first of two impact study reports, focuses on the content and quality of the observed workshops, the characteristics of the parents and educators in the study, and the short-term impacts of attending a *Ready To Learn* workshop on parents and early childhood educators, measured three months after workshop participation. The final report, planned for summer 2004, will focus on impacts on the parents and educators measured six months after workshop participation, as well as impacts on the school readiness of the children in their care.

HISTORY OF THE *READY TO LEARN TELEVISION SERVICE*, STATION REQUIREMENTS, AND COMMUNITY PARTNERSHIPS

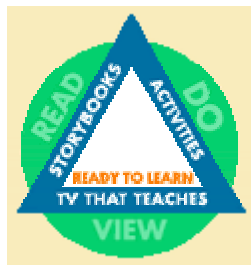
In 1995, the Corporation for Public Broadcasting (CPB), the U.S. Department of Education (ED), and the U.S. Congress created the *Ready To Learn Television Service*, with the goal of helping prepare children to succeed in school. ED funded the original grant to CPB, with PBS as a subcontractor. Over time, PBS assumed a larger role, and, in 2000, ED funded the program under a cooperative agreement with PBS. (For more information about the history of the *Ready To Learn Television Service*, see Vogel et al. 2001.) The *Ready To Learn Television Service* has two primary objectives: (1) developing new children’s television programming and online resources, and (2) supplementing new and existing children’s television programs with outreach efforts to help parents and early childhood educators (including family child care providers, center-based child care providers, and preschool, kindergarten, and early elementary school teachers) use these programs as teaching tools with the children in their care.

Outreach provided through the *Ready To Learn Service* takes several forms, including workshops and the distribution of *PBS Families* and *PBS para la Familia* magazines and children’s books. Although PBS requires that stations cover a number of key topics during workshops (described in Chapter III), the main goal of the workshops is to explain and model the “*Ready To Learn* Learning Triangle—View-Read-Do.” The “Learning Triangle” refers to the idea that adult-child interactions will involve *viewing* relevant children’s television

³ Two previous reports discuss lessons learned about implementing the *Ready To Learn* program (Vogel et al. 2001; and Vogel et al. 2002).

programs or video clips, *reading* a children's book, and *doing* an activity—all of which have similar themes (Figure I.1). The activities can be done in any order, although the adult is expected to make clear the connections among the activities. The Learning Triangle is designed to help adults extend the educational value of PBS children's programming by providing children the opportunity to practice and repeat important concepts. For example, if a child views a program segment about the letter "A," a parent might then read a book focused on the alphabet with the child, and later help the child glue cotton balls onto paper in the shape of an "A." The goal of these related activities is to enhance children's learning through repetition.

Figure I.1: The View-Read-Do Learning Triangle



PBS supports *Ready To Learn* stations in their outreach efforts by providing each station with a minimum of \$25,000 per year,⁴ in addition to training and technical assistance. PBS requires that participating stations:

- Broadcast a minimum of six and one half hours of PBS KIDS programming per day, as well as short, educational messages between programs⁵
- Designate a person responsible for managing and reporting to PBS on *Ready To Learn* activities (this person is called the *Ready To Learn* Coordinator)
- Conduct a minimum of 20 workshops per year
- Distribute 300 children's books per month to children who otherwise would not have books of their own

⁴ PBS provides some stations with additional funding, and these stations are required to conduct more workshops. Stations are also encouraged to leverage the PBS funding to attract additional funding to conduct more workshops.

⁵ The term "PBS KIDS" refers to children's programs provided by PBS to be broadcast on PBS stations.

- Distribute *PBS Families* and *PBS para la Familia* magazines, which are published twice per year
- Ensure that *Ready To Learn* Coordinators receive 40 hours of professional development training per year
- Provide PBS with an annual plan and budget and quarterly reports via the Web-based management information system

PBS and ED also require that stations make efforts to conduct outreach to children and families in four priority target populations: (1) families with low literacy, (2) families for whom English is not the primary language, (3) families living in rural areas, and (4) children with disabilities.

Stations meet these requirements by forming partnerships with local organizations that provide services for, or teach, children through 8 years of age. Partners include a variety of community service providers and organizations, including elementary schools, local libraries, Head Start programs, Even Start programs, and child care providers. Coordinators have the flexibility to then tailor certain aspects of *Ready To Learn* outreach within their respective communities. They determine whether they will offer workshops for parents, for early childhood educators, or for both; whether they will conduct all the workshops themselves or train other staff members or community partners to conduct workshops; and whether they will offer single- or multi-session workshops. Together with their community partners, Coordinators determine how long each workshop session will last (PBS guidelines recommend that workshops be at least 1 hour long). With their station administrators, Coordinators determine whether they will seek additional funding to support more outreach.

To support Coordinators and stations in meeting the *Ready To Learn* professional development requirements, PBS provides training and technical assistance. PBS requires that all Coordinators attend an annual *Ready To Learn* professional development seminar, which includes sessions on conducting effective outreach and child development. PBS also maintains a considerable library of online resources for Coordinators that includes workshop agendas, detailed information about PBS KIDS programs, and sample workshop evaluation forms. Although PBS previously provided guidance to stations on what counts as a *Ready To Learn* workshop and what workshops should include, for the first time, in July 2002, PBS conducted intensive training for Coordinators on the key topics that must be covered in all workshops. We review this list of topics in Chapter III, and the list will serve as the framework for our analyses of workshop content and quality.

THE RESEARCH CONTEXT

Near universal media access has dramatically expanded the opportunities for using television for educational purposes. Almost every home with a young child has a television and a videocassette recorder (VCR), with 78 percent subscribing to cable or satellite television (for national estimates of children's media use, see Rideout et al. 2003; Woodard and Gridina 2000; Roberts et al. 1999; and Wright et al. 2001). Early childhood educators

also have access to a wide variety of media to use as they care for and teach young children. In 1995, 82 percent of public school classrooms had access to broadcast television, and 72 percent had access to cable television (NCES 2001).

In the early 1970s, only a handful of television programs were designed specifically to educate preschool children. Today, there are 21 PBS KIDS programs designed for preschool children, as well as a number of other educational children's programs broadcast by other networks. Unfortunately, the full promise and potential of educational television in helping prepare children for school may not yet be fully realized, for two reasons: (1) for many children, the proportion of television programming they view that is educational is relatively low⁶ (Bickham et al. 2003); and (2) television viewing seems to displace other important activities, such as reading and physical activity (Rideout et al. 2003; Koolstra and Van der Voort 1996; and MacBeth 1996). Preschool children spend more than twice as much time every day watching television (not necessarily educational programming) as they do being read to or reading books or magazines. National estimates of television viewing for children under 7 years old range from an average of almost 2 to 2.5 hours per day, compared with 39 to 45 minutes per day of reading (Rideout et al. 2003; and Roberts et al. 1999). Were more of this time spent viewing educational programming, the impact of television on children's school readiness might be greater.

A growing body of research indicates that viewing PBS educational programming promotes the cognitive and language skills that children need to succeed in school. The initial experimental evaluations of *Sesame Street's* first and second seasons (Ball and Bogatz 1970; and Bogatz and Ball 1971) demonstrated that children who watched *Sesame Street* performed better on a variety of tests of literacy, numeracy, and other cognitive skills than children who did not watch the show. Similarly, in a nationally representative cross-sectional survey (the National Household Education Survey [NHES]), researchers found positive associations between viewing *Sesame Street* and emergent literacy and numeracy skills (Zill, Davies, and Daly 1994). Another study found positive associations between viewing *Sesame Street* and vocabulary acquisition (Rice, Huston, Truglio, and Wright 1990), and a follow-up study of the same children in high school found that the positive associations between early viewing of educational programming and academic achievement lasted into high school (Anderson, Huston, Wright, and Collins 1998).

Other PBS educational programs for pre-school age and early-school age children also have been shown to exhibit positive effects on cognitive and emotional development. A recent evaluation used an experimental design to study the effects of the PBS program *Between the Lions* on the emergent literacy skills of 164 children attending kindergarten and the first grade (Linebarger 2000). *Between the Lions* is a literacy-based PBS KIDS program for children 4 to 7 years old. Children in the experimental group watched 17 half-hour episodes of *Between the Lions* for a period of three months, while children in the control group did their usual classroom activities. The study found that children in the experimental group scored

⁶ Based on nationally representative data about a sample of children 3 to 5 years old; on average, 29 of percent children's total viewing time was categorized as educational.

higher on letter recognition, phonemic awareness, and letter-sound correspondence tests than did control-group children. A similar study examining the effects of *Dragon Tales*, a PBS program designed to help children develop social and emotional skills, showed that children who watched the show on a daily basis for four to five weeks demonstrated more goal-oriented behavior and social collaboration with peers than children who watched another program (Rust 2001). A recent study that analyzed children's television time use and included periodic developmental assessments found that watching educational programs was related to the acquisition of early academic skills (Wright et al. 2001).

In summary, a number of studies document positive associations between educational programming and children's social and cognitive development. While several have non-experimental designs that make it difficult to draw causal inferences, a few studies using experimental designs support the inference that viewing educational programs *causes* the observed improvement in school readiness skills.

Next, we turn to the question of what research evidence exists on the topic of how the lessons included in educational television programming might be extended by adults repeating and reinforcing those lessons after the programs are over. We note that the proportion of total television time that children spend viewing educational programming is low, compared to the time spent watching noneducational programming, partly because of the rapidly expanding selection of programming options; PBS faces stiff competition from this wide selection of viewing options that target children. Given this growing media menu, directing children toward educational programs via parents and educators is increasingly important. There is, however, little rigorous research that looks at the effectiveness of efforts to train parents and educators on ways to promote educational television viewing and further enhance the educational benefits from their content. A few studies, however, are suggestive.

Sesame Workshop, formerly The Children's Television Workshop, has supported both formative and summative evaluations of Sesame Street Preschool Education Program (PEP) and Building on Sesame Street, two early childhood educator training programs (for center-based and family child care providers, respectively) with features similar to *Ready To Learn* workshops. No evaluations of the impacts of Sesame Street PEP on the behavior of workshop participants or the cognitive skills of children have been completed to date (Yotive and Fisch 2001). The program developers reported promising results from Building on Sesame Street on co-viewing techniques and adult reinforcement of program content. However, the study was based on a very small sample and was conducted in only one station (Children's Television Workshop 1999).

In the late 1990s, PBS supported an independent evaluation of *Ready To Learn* outreach in 9 stations with 935 parents and early childhood educators (Bryant et al. 1999). The study found positive, short-term (one-month) and longer-term (six-month) effects of workshop attendance on the extent of adult-child co-viewing, rules about television viewing for children, frequency of children's viewing educational programs, and frequency of reading to children. These effects were largest for parents, and smaller for child care providers, who, the researchers surmised, had less control over activities. There are limitations to these

findings, however, because the study was based on a quasi-experimental design that could not control for all other influences.

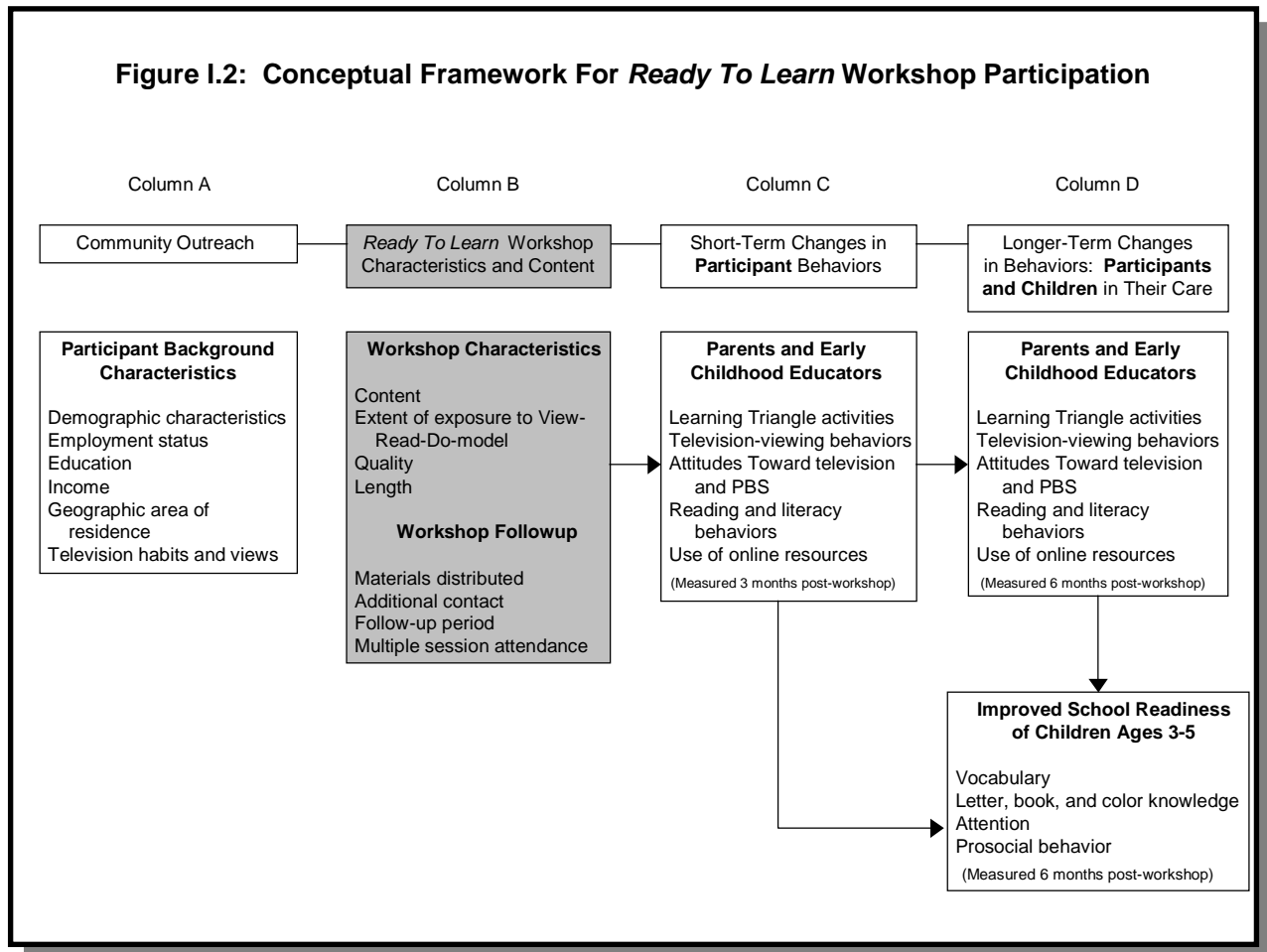
A recent quasi-experimental study of the effects of *Between the Lions* found that when center-based preschool, kindergarten, and first-grade teachers in two very rural, low-income areas had the children in their care view *Between the Lions* twice per week, read them a related book, and then led them in a related activity, children's reading and vocabulary test scores were enhanced under some conditions (Prince et al. 2002). For example, children in one study location demonstrated higher literacy skills at the start of the study than children in the other location, and the higher-functioning group's letter-sound correspondence skills significantly improved with the intervention, although the skills of the lower-functioning group did not. The full study sample of 400 children included a treatment and comparison group in two study locations within one state. There are limitations to the generalizability of the study findings, however, given that the design was quasi-experimental and could not control for all other influences, and that it was conducted in only one state.

THE CURRENT IMPACT STUDY

This body of earlier research suggests potential promise from an intervention in which adults are trained to enhance the value of educational television programming through View-Read-Do activities; however, it is only suggestive, due to the studies' design limitations. To address this, we designed the current evaluation of *Ready To Learn* outreach to answer the question of the program's impact using a strong random assignment design with both a short-term and a longer-term follow-up period, a large sample size, and observations of workshop content and quality that can be used to interpret impacts and guide program improvement. The design allows us to measure impacts of workshop participation on parents, educators, and the children in their care.

We developed a conceptual framework to guide our study and data analysis that reflects the hypotheses about how workshop participants and the children in their care are affected by adult attendance at a *Ready To Learn* workshop (Figure I.2). Column A on the far left shows the background characteristics of parents and educators that may affect potential participants' interest and response to *Ready To Learn* lessons. Column B shows such workshop characteristics as format, content, quality, and followup, which could affect the likelihood of changes in short- and longer-term behaviors for workshop participants. The short-term and longer-term behaviors in Columns C and D focus on participants' application of *Ready To Learn* lessons, such as engaging in View-Read-Do Learning Triangle activities with children and co-viewing television programs with children. Children, too, may experience the effects of their parents' or educators' participation in the workshop if these adults experience either short- or longer-term behavior changes as a result of workshop attendance (Column D). In this report, we test the central set of hypotheses depicted in Columns A through C that, compared to those who do not attend a workshop, adults who attend a *Ready To Learn* workshop will be more likely:

Figure I.2: Conceptual Framework For *Ready To Learn* Workshop Participation



1. To engage in activities with the children in their care that reinforce and repeat the educational lessons viewed on television—the Learning Triangle
2. To spend time co-viewing television, especially PBS programming, with their children
3. To have positive attitudes toward PBS, the use of television as an educational tool, and monitoring children's viewing
4. To have a greater number of children's books available to the children in their care and read more to children
5. To use PBS online resources

The study design allows us to make causal inferences about the impact that stations in the study have on the adults assigned to the workshop group. We are able to rigorously test the set of hypotheses described above and thus determine whether key short-term participant behaviors are affected by the workshops.

In addition, two other sets of hypotheses guided our analyses. The first set is related to how certain characteristics of workshops may be associated with impacts on participant behaviors (depicted in Column B of Figure I.2). To test these hypotheses, we grouped workshops according to their observed characteristics, such as whether all of the PBS requirements for workshop content were met, and whether participants were given the opportunity to plan a View-Read-Do activity during the workshops. This set of hypotheses and the associated subgroup analyses are designed to answer the question, “What types of workshops are more effective?” The detailed subgroup hypotheses and descriptions of how the subgroups were defined are described in Chapter V. We note that we cannot make causal inferences about impact findings based on the workshop characteristic subgroup analyses, because study participants were not randomly assigned to workshops with certain characteristics. We can, therefore, only demonstrate associations between workshop characteristics and outcomes.

The second set of hypotheses is related to whether participants with certain background characteristics are affected more or less than other participants (depicted in Column A of Figure I.2). To test these hypotheses, we grouped participants based on their baseline demographic characteristics, such as whether they were a parent or an educator, and whether they completed high school. This set of hypotheses and the associated subgroup analyses are designed to answer the question, “For whom are workshops effective?” We can make causal inferences about subgroup impacts based on analyses of participant characteristics, because these were measured prior to random assignment.

Taken together, the findings from this interim report on *Ready To Learn* workshop impacts will determine whether participants change key behaviors from attending workshops. The analysis of subgroups—whether based on workshop or participant characteristics—is important in formulating policy and operational decisions about service provision and the best use of program resources.

In the next chapter, we fully describe the impact study design and our analytic approach. In Chapter III, we then describe the workshop content and quality. In Chapter IV, we describe the baseline characteristics of the parents and early childhood educators in the study. In Chapter V, we describe the program’s short-term impacts on parent and educator behaviors targeted by *Ready To Learn* workshops, measured three months after workshop participation.

CHAPTER II

STUDY METHODS AND DESIGN

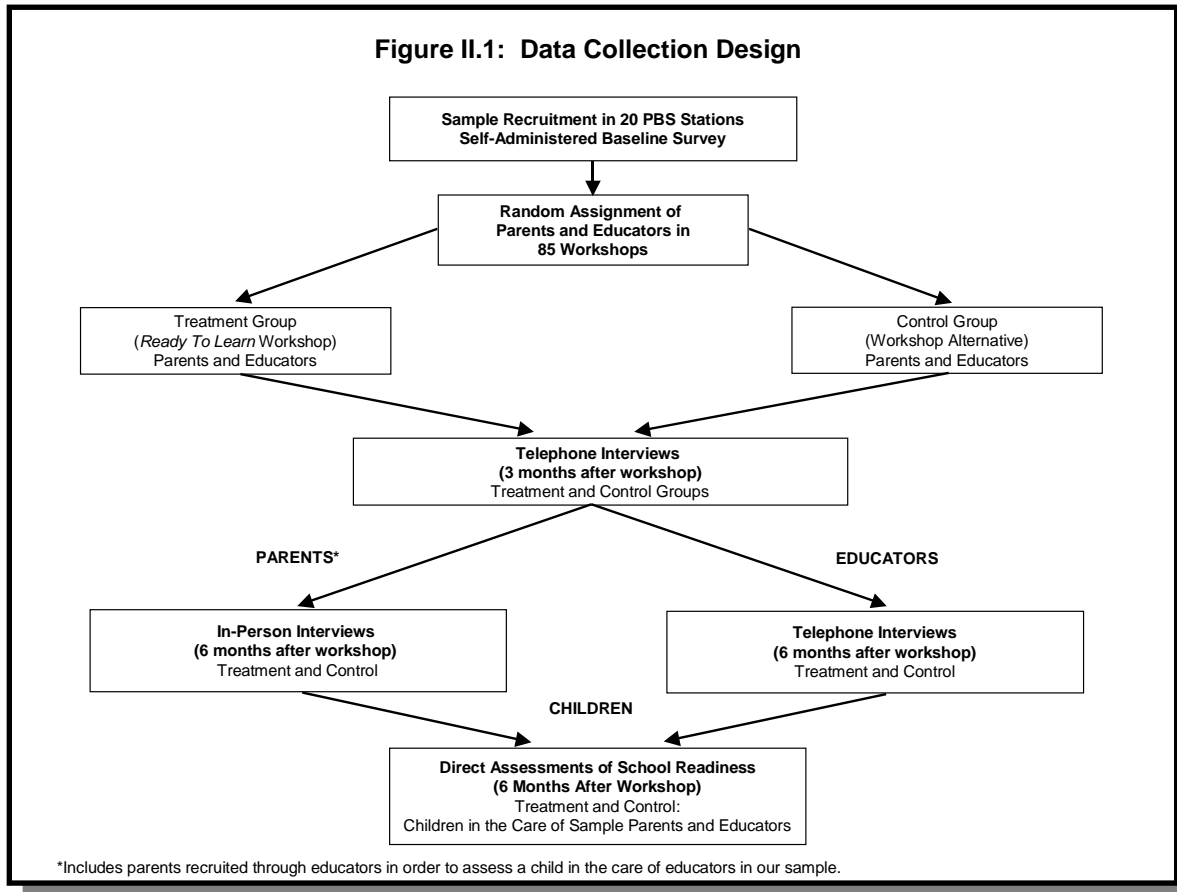
Based on hypotheses about the effects of attending a *Ready To Learn* workshop as depicted in the conceptual model in Figure I.2, our research is designed to address three key questions: (1) What do *Ready To Learn* workshops provide? (2) Who participates in *Ready To Learn* workshops? and (3) What are the impacts of *Ready To Learn* workshop participation on parents, educators, and the children in their care? To address these questions, we used an experimental design in which parents and early childhood educators were randomly assigned to attend a *Ready To Learn* workshop or not to attend. The advantage of a well-implemented, random assignment design is that it allows us to state with a measurable degree of certainty the effects of workshop participation on short- and longer-term adult behavioral changes and children's school readiness.

The study design entailed selecting PBS *Ready To Learn* stations, then working with each station's Coordinator to schedule workshops to recruit parents and educators into the study.¹ We collected information from consenting study members through surveys administered at three points in time: (1) prior to random assignment (baseline), (2) three months after the workshop (first followup), and (3) six months after the workshop (second followup). At the second followup, in addition to information on adults' attitudes and behaviors, we are collecting data on the school readiness of a "focus child"² in the care of study participants through standardized direct child assessments (Figure II.1 illustrates the study design and data collection points). The analysis here uses first follow-up survey data to measure workshop impacts related to Learning Triangle Activities, television co-viewing and attitudes,

¹ A full description of the station selection procedure is included in the following section.

² For parents, the focus child is selected from among children aged 3 to 6 in their care, identified at the time of the first follow-up interview. We also identified children aged 3 to 6 in the care of educators. At the first follow-up survey, we asked educators to give us a list of all children aged 3 to 6 in their care, randomly ordered these lists, and asked educators to contact the parents of the four highest-ranked children on the list. The parent of the highest-ranked child who agreed to be contacted will be included in the longer-term impact study. The final report will describe this process and the associated response rates in detail.

and adult reading and literacy behaviors and use of online resources by comparing the mean outcomes for the workshop (treatment) and control groups.



This chapter reviews the methods by which we selected the sample and the conditions to which we randomly assigned the sample, then discusses technical aspects of the random assignment procedures, sample response rates, and the statistical methods we used to estimate impacts. Further technical details can be found in Appendix B.

STATION SELECTION

We began by selecting a purposive sample of 20 PBS stations to participate in the study (Table II.1). The selection of stations was conducted with input from PBS, with consideration given to the stations' (1) capacity to do a random assignment study (in terms of average number of participants in workshops and the average number of workshops conducted annually); (2) number of community partners; (3) geographic representation (urban and rural, as well as region of the country); and (4) ability to provide exemplary workshops. In comparison to all PBS stations nationally, this group of 20 was somewhat more likely to serve urban rather than rural areas, more likely to be of medium or larger size (according to the number of paid staff members), and less likely to be located in the Northeast or Midwest (Table A.1).

Table II.1. *Ready To Learn* Stations Participating in the Evaluation

Region	South	Midwest	West	Northeast
Number of Stations	11	5	3	1
License Type	Community Organization	State Authority	Local Education	University
Number of Stations	12	4	0	4
Primary Market	Urban	Rural	Suburban	
Number of Stations	10	7	3	
Station Size (Paid Staff)	≤ 50 staff	51-149 staff	≥ 150 staff	
Number of Stations	7	8	5	

Source: Coordinator Survey as Reported in Vogel et al. 2001.

Within each participating station, Coordinators and their community partners determined a strategy for recruiting a larger population of workshop participants than they normally would (to create the control group) and developed a suitable control group condition. We initially estimated that each station would have to conduct roughly four workshops to enroll approximately 160 participants into the sample; in the end, some stations conducted many more than four workshops and some conducted fewer, based upon local challenges and opportunities for recruitment (Table A.2). On average, we recruited 26 parents and 29 educators per workshop into the study.

All sample members gave their consent to be in the study and to adhere to the random assignment decision. We did not screen out those who had previously attended a *Ready To Learn* workshop, although we attempted to recruit those without such prior exposure, as well as those with children in the 3- to 5-year age range for whom the impact on school readiness would be the most relevant.

WORKSHOP AND CONTROL CONDITIONS

All decisions about the workshop—such as structure, content, length, and number of sessions—were intended to be independent of the study and were made by the station Coordinators and partners.³ We measured the content and quality of each workshop (or the first in a planned series) through observations by trained observers using a uniform protocol. Chapter III describes the workshop observation process and measures in depth.

The control condition varied by station and by workshop, according to local preferences and based on a menu of allowable options determined by MPR. We allowed a number of variations so long as they did not include lessons or services that seemed to address topics that would be covered in a *Ready To Learn* workshop. These alternatives included workshops on such topics as physical fitness, holiday food preparation, nutrition, and arts and crafts. In

³ The structure and content of workshops should not vary much among the workshops because all Coordinators completed a training in July 2002 that included PBS's guidelines in these areas.

some cases, the alternative was simply the receipt of a stipend for cooperation with the study.

RANDOM ASSIGNMENT

Random assignment procedures were implemented with the following guiding principles: (1) participants would have an equal probability of assignment to either the workshop or the control group; and (2) we would allow latecomers to be assigned (those arriving after random assignment had been completed for the rest of the group), again with equal probability of being in either group.⁴

We conducted random assignment either on-site or in advance, depending upon the preferences, needs, and circumstances of each workshop facilitator and partner. Each method had advantages and disadvantages.⁵ Of the total 85 *Ready To Learn* study workshops conducted, 60 had on-site random assignment and 25 had advance random assignment.

To maintain the integrity of the random assignment design, all those assigned to the workshop group remained in that group regardless of whether they participated in the workshop.⁶ We asked those assigned to the control group to refrain from attending a *Ready To Learn* workshop through the end of the data collection period (roughly six months after the workshop); although we could not effectively track compliance, we have little reason to believe that many ignored our request. Regardless of whether they later attended a *Ready To Learn* workshop, all control group members remained in the control group.

We assessed the integrity of the random assignment procedures by conducting a series of *t*-tests to determine whether there were differences in the workshop and control groups on their baseline characteristics (Tables A.3 and A.4). Among parents, we found no statistically significant differences in most characteristics, including television attitudes, television viewing behaviors, race/ethnicity, education, living arrangements, or number of children aged 3 to 5. There were, however, significant differences in their likelihood of being from an “other” race/ethnicity. Comparisons between the educator groups yielded similar findings. Educators in the workshop and control groups did not differ on many characteristics at baseline, including television attitudes, job title, years of experience, or race/ethnicity. Educators did differ in their likelihood of working in an Early Head Start

⁴ In cases where parents of the same child or educators in the same classroom enrolled in the study, we randomly assigned them as a unit. See Appendix B for further discussion of the effects of this clustering.

⁵ The advantage of on-site random assignment was that there were no “no-shows” or people who were assigned to the workshop but did not attend (since all study members assembled at the workshop site). The disadvantage of on-site random assignment was that latecomers and logistical problems (such as computer malfunction) often extended the time required to complete random assignment. The advantages of advance random assignment were that it saved time at the start of the workshop and did not require control group members to come to the workshop facility. The disadvantage was that it resulted in a higher no-show rate because some of those who were assigned to the workshop group did not then attend.

⁶ There were 149 sample members assigned to the treatment group who ultimately did not attend a *Ready To Learn* workshop; they have been included in the impact analyses as workshop group members.

program, their stated reasons for attending a workshop, and their educational attainment (Table A.4). Given the number of comparisons and our threshold of 10 percent significance, we would expect four of these comparisons to differ by chance within parent and educator groups. In fact, we saw four or fewer significant differences in each group (only one of the parent characteristics and four of the educator characteristics); therefore we conclude that random assignment succeeded. We adjust for baseline characteristics in our regression models.

STUDY SAMPLE AND RESPONSE RATES

From the 20 participating stations, we enrolled a total of 2,319 adults into the study beginning in late September 2002 and ending in early April 2003. Of that total, 61 percent ($n = 1,415$) were parents and 39 percent were educators ($n = 904$). Sample members were split almost evenly between workshop and control groups (51 percent and 49 percent, respectively).⁷

The data reported here come from a baseline self-administered survey and a first follow-up survey. The baseline survey, available in both English and Spanish, was simple and brief, collecting a minimal amount of information on basic demographic characteristics and television attitudes, and was completed prior to random assignment.⁸ We collected first follow-up survey data on all study participants three months after the workshop. The first follow-up survey was administered using computer-assisted telephone interviewing (CATI) by trained telephone interviewers who were fluent in Spanish and English.⁹

The response rates for both baseline and first follow-up surveys were high, with an overall response rate of 99 percent for the baseline and 90 percent for the first followup; at the time of the first follow-up survey, parents had a slightly higher response rate than educators (Table II.2).

⁷ The higher rate of assignment to the workshop group is a result of clustering in some workshops. We assigned family members and educators from the same classrooms to the same condition, whether workshop or control.

⁸ For advance random assignment, the Coordinator or community partners distributed packets of consent forms, baseline surveys, and locating forms to potential study members. Those who were interested completed the forms, and the Coordinator or partner forwarded the packets to MPR for random assignment.

⁹ The first followup began in January 2003 and ended in August 2003. Interviewers attempted to complete first follow-up interviews by telephone for four weeks, after which field interviewers attempted to complete them in person for three additional weeks.

Table II.2. Sample Sizes and Response Rates

	Baseline Sample Size	Completed Baseline Interviews	Baseline Response Rate (Percentage)	Completed First Follow-Up Interviews	First Follow-Up Response Rate
Parents					
Workshop	740	731	98.8	685	92.6
Control	675	669	99.1	614	91.1
Total	1,415	1,400	98.9	1,299	91.8
Educators					
Workshop	445	445	100.0	379	85.2
Control	459	458	99.9	406	88.5
Total	904	903	99.9	785	86.8
Total Workshop	1,185	1,176	99.2	1,064	89.8
Total Control	1,134	1,127	99.4	1,020	90.0
Grand Total	2,319	2,303	99.3	2,084	89.9

Source: Random Assignment Database; Parent and Educator Baseline and First Follow-Up Surveys.

DATA AND STATISTICAL ANALYSIS

As described in the conceptual framework (Figure I.2), the outcomes of interest in this study center around five general areas: (1) implementation of the Learning Triangle; (2) adult and child television co-viewing behaviors; (3) attitudes toward television and PBS; (4) reading and literacy behaviors; and (5) use of online PBS resources (Table II.3).

Most of our outcome measures are based on single items, although, in a few cases, we constructed variables. The attitude variables are single items measured on four-point scales ranging from “strongly agree” to “strongly disagree.”¹⁰

The explanatory variables we used in our models were background characteristics collected at baseline, including gender, race, English-speaking, living in a rural area, education, and attitudes toward television and PBS (Table A.5). Appendix B describes in detail the form of the models we used to estimate impacts.

Regression models were used to estimate the impact of Ready To Learn workshops, rather than simply comparing means for the outcomes of interest.¹¹ These models improve statistical precision and control for any preexisting differences between the program and control groups that might, by chance, exist despite random assignment.¹²

¹⁰ We were unable to create scales of the attitude items due to low internal consistency (we set a threshold of .70; our values were higher than .60 but lower than .70).

¹¹ As a check on the robustness of our regression analysis findings, we include the simple means for all outcome variables for the full sample in Table A.6.

¹² The impact estimates generated from this model reflect an “intent-to-treat” design; in other words, the impacts are measured as the average outcome across *all* sample members, including workshop group members

Table II.3. Ready To Learn Outcome Variables

Outcome Area and Rating Scale	Specific Item
Learning Triangle Activities	
Percentage who engaged in eight specific View-Read-Do activities at least 3 to 5 times in the past month with the children in their care.	Discuss with (Focus Child/Children) what is going on in a program while you are watching Answer questions (Focus Child/Children) has about the program while watching
Rated on a 6-point scale: Almost every day 11 to 15 times 6 to 10 times 3 to 5 times 1 to 2 times Never	Discuss the characters from a program Sing songs from a program with (Focus Child/Children) Talk with (Focus Child/Children) about a program after it is finished Do activities related to the topic or theme of a program with (Focus Child/Children), such as making a craft, playing a game, or doing other activities that are related to the program Read a book related to the topic or theme of a program with (Focus Child). Educator version: Read a book related to the topic or theme of a program Watch a program, read a book, and do an activity all related to the topic or theme of the program
Television Co-Viewing Behaviors	
Percentage who co-viewed each of five children's television channels (PBS KIDS, Nick Jr., Cartoon Network, Disney Channel, ABC Family Channel) with their children all or most of the time.	When (Focus Child) watches PBS KIDS (other channel) programs or videos at home, how often do you or another adult watch with (him/her)? Educator version: When children in your care are watching PBS KIDS (other channel) programs or videos, how often do you or another child care provider watch with them?
Rated on a 5-point scale: All of the time Most of the time Some of the time Seldom Never	
If focus child or child care group does not watch television or a specific channel, co-viewing is coded as "never."	
Attitudes Toward Television and PBS	
Percentage who disagreed or strongly disagreed with five statements.	If it's a cartoon, I know it's safe for kids I don't keep track of what my child (the children in my care) watches on television or videos Television has no place in a child care setting
Rated on a 4-point scale: Strongly agree Agree Disagree Strongly disagree	I would be upset if I thought my child was watching television or videos while in (his/her) preschool or child care arrangement. Educator version: Parents would be upset if they thought their children were watching television or videos while in my care. The children's programs on PBS are no different than the children's programs on other TV channels

(continued)

who did not attend a *Ready To Learn* workshop. We took this approach because it retains the integrity of the random assignment design and does not require any assumptions about impacts on nonparticipants, whereas analyzing impacts among workshop group members who actually attended a workshop requires an assumption that there were no impacts on nonparticipants. For completeness, we also examined the effects on workshop participants through a two-stage least squares analysis. The results of both approaches are similar, possibly because participation rates were high.

Table II.3. Ready To Learn Outcome Variables (continued)

Outcome Area and Rating Scale	Specific Item
Percentage who agreed or strongly agreed with five statements.	Television can be an educational tool
Rated on a 4-point scale:	Even cartoon violence can be harmful to kids
Strongly agree	PBS, the station that airs PBS KIDS programs such as Sesame Street, Mister Roger's Neighborhood, and Clifford the Big Red Dog, broadcasts high-quality children's television programs
Agree	I would be comfortable if (Focus Child's) child care provider or teacher used television or videos to teach (him/her). Educator version: I'd consider using television or videos to teach children in my care
Disagree	If it's on PBS, I know it's safe for kids
Strongly disagree	
Reading and Literacy Behaviors	
Percentage with ≥ 26 children's books.	Number of books focus child or children in care have.
Rated on a 6-point scale:	
More than 50	
26 to 50	
10 to 25	
3 to 9	
1 or 2	
None	
Percentage who read once per day or more with children.	
For parents, rated on a 5-point scale:	For parents, asked as, "During the past week, how many times have you or someone in your family read to or looked at books with "Focus Child?"
Several times a day	
About once a day	
Three or four times	
Once or twice	
Not at all	
For educators, rated on a 6-point scale:	For educators, asked as, "While in your care, how frequently do the children in your care take part in reading or looking at books with an adult, as a group activity?"
Several times per day	
About once per day	
Three to 4 times a week	
One to 2 times a week	
Less than once a week	
Never	
Total number of minutes reading with children per day.	For parents, asked as, "On a typical day when you or someone in your family reads to or looks at books with "Focus Child," how much time do you spend in this activity?"
	For educators, asked as, "On a typical day, how much time do you or a co-worker/assistant spend reading to or looking at books with the children in your care?"
Use of Online Resources	
Visited any PBS website	Have you ever visited the Web site:
Used information from PBS Web site	www.pbskids.org
	www.pbsparents.org
Rated as percentage who visited pbskids.org or pbsparents.org.	
Percentage who used information from any of the PBS Web sites (if respondent did not use Web sites, use of materials is coded as "no").	Have you ever used the information or ideas you obtained from (this/these) Web sites to do activities with your children?

All models adjust for variable rates of nonresponse to the surveys and equalize the contribution of each station. Making stations equivalent will have the effect of “upweighting” stations with smaller sample sizes and “downweighting” stations with larger sample sizes, so that the impacts in a large station do not drive results for the entire group.¹³ Standard errors were inflated to reflect the design effects associated with these weights. We also estimated treatment/control differences for subgroups of interest. Appendix B provides further detail on the regression models.

¹³ The weighting procedures we used are described in the Technical Notes found in Appendix B.

CHAPTER III

WHAT DO *READY TO LEARN* WORKSHOPS PROVIDE?

An important goal of *Ready To Learn* workshops is to demonstrate to parents and early childhood educators how they can use television as a teaching tool with children. During workshops, participants learn about PBS KIDS programming and how the content of the programs can be used to teach children the skills they need to succeed in school—critical thinking, language and literacy, problem solving, counting and numeracy, social competence, and physical/motor skill development. Participants are introduced to the View-Read-Do Learning Triangle, which they can use to extend the learning objectives of a television program or segment through active co-viewing, reading a children’s story, and doing an activity built around the topic of the program. Other important goals of *Ready To Learn* workshops are to provide participants with information on media literacy, child development, and early childhood education, as well as provide them with educational materials, including children’s books and program guides.

In this chapter, we provide a detailed description of the 85 *Ready To Learn* workshops that were observed as part of this study. We describe the basic characteristics of the workshops—for example, type, location, length, and whether the workshop was conducted in English or Spanish. We also examine whether workshop facilitators covered the key content areas PBS identified during a three-day Institute for all Coordinators in July 2002, and rate the quality of the workshop presentation in a number of areas, including atmosphere, facilitator’s knowledge, and facilitator’s presentation skill. We then examine overall quality, as a measure of both full content coverage and high-quality presentation. We describe how Coordinators planned to promote the continuation of workshop lessons through follow-up efforts, and finally, we examine whether the characteristics or content of the workshops differed according to the type of participant (parent or educator).

In July 2002, PBS hosted a three-day Institute on *Ready To Learn* workshops for all Coordinators. Coordinators participated in a number of sessions covering topics on workshop content, preparation, presentation, and followup. Although Coordinators may customize the content of their workshops to meet the needs of the participants, each workshop should include the following key elements:

- A basic description of the PBS *Ready To Learn Service*
- Information about basic child growth and development
- Information about the *Ready To Learn* station, PBS children's programming, and how to access programming in the viewing area
- Information about critically selecting, viewing, and using media
- An explanation and modeling of the View-Read-Do Learning Triangle

PBS also provided Coordinators with a recommended workshop agenda framework that can be used in all *Ready To Learn* workshops. According to the agenda, all workshops should begin with introductions and an icebreaker, followed by an overview of the workshop's objectives. Coordinators should then begin to introduce the content of the workshop, starting with an overview of the *Ready To Learn* program and basic program concepts, such as critical viewing and the View-Read-Do Learning Triangle. The agenda also provides Coordinators with suggestions on introducing, modeling, and practicing the View-Read-Do Learning Triangle. Finally, the recommended agenda includes a wrap-up during which Coordinators should review the objectives of the workshop and encourage participants to take what they learned and use it with the children in their care.

An important part of this study is understanding what takes place during a *Ready To Learn* workshop. A detailed description of workshop content and quality provides valuable information about the extent to which participants are exposed to *Ready To Learn* topics, as well as the extent to which workshop facilitators are able to uniformly and effectively implement the key workshop areas and recommended agenda that PBS identified at the 2002 Institute. This information can be used to help understand whether particular workshop characteristics are associated with positive outcomes for adult participants and, ultimately, the children in their care.

The 85 *Ready To Learn* workshops we observed could vary in length and be offered as a single, one-time session or in sequential sessions offered over weeks or months.¹ We used a 34-item checklist for all observations (Table C.1), and field interviewers were given training in conducting the *Ready To Learn* workshop observations as part of the baseline data collection effort.²

¹ If workshops were conducted in multiple sessions, we observed only the first in the series, and asked the Coordinator to record who attended subsequent sessions.

² As part of the training, field observers watched a videotape of an actual *Ready To Learn* workshop and filled out a workshop observation form. Afterward, answers were reviewed as a group to determine which questions were answered similarly across observers, and which were not. The rest of the training was spent working to help interviewers interpret workshop situations in a similar, consistent manner.

WHAT ARE THE BASIC CHARACTERISTICS OF *READY TO LEARN* WORKSHOPS?

As noted in Chapter I, Coordinators tailor *Ready To Learn* outreach to their communities, so that basic workshop characteristics reflect local preferences.³

- **Most of the workshops took place in a single session and lasted, on average, a little over 90 minutes.** Sixty-eight percent of the workshops were single-session workshops, and about one-third were part of a series. The total length of the workshops ranged from 30 minutes to close to 6 hours.⁴ About a quarter of the workshops lasted less than an hour, 60 percent lasted from 1 to 2 hours, and 16 percent lasted for more than 2 hours. The large proportion of workshops that lasted at least an hour reflects the PBS recommendation that this duration constitute the minimum length for workshops.
- **The most frequently used format among the observed workshops was the “basic” *Ready To Learn* workshop.** Sixty-nine percent of the workshops were basic *Ready To Learn* workshops. The other workshops were either theme-based (23 percent) or program-related (8 percent). Basic workshops introduce participants to PBS KIDS programming and how it can be used as a learning tool. Program-related and theme-based workshops focus on either a single PBS KIDS program or a particular theme, such as “friendship.”
- **In most workshops, there was one facilitator who, in most cases, was the *Ready To Learn* Coordinator.** In 74 percent of the workshops, there was one facilitator; in 75 percent of the workshops the facilitator was the station’s *Ready To Learn* Coordinator. In workshops where the facilitator was not the *Ready To Learn* Coordinator, the workshop was conducted either by another *Ready To Learn* station staff person or by a community partner.
- **Workshops were most frequently conducted using a mix of lecture and audience participation.** In more than half of the workshops (58 percent), facilitators used a combination of lecture and audience participation. In 23 percent of the workshops, facilitators used lecture only, and in 19 percent they relied mostly on audience participation.
- **Partner location determined where the workshops took place.** Most of the workshops took place in either a community center (26 percent), elementary school (22 percent), or Head Start center (20 percent). Less than 2 percent took place at the stations.

³ Table C.2 presents all the findings from the workshop observation forms.

⁴ It is important to note that on several occasions the length of a workshop was shortened due to difficulties in implementing study procedures.

- **Most workshops were conducted in English.** Eighty percent of the workshops were conducted in English, 6 percent were conducted in Spanish, and 14 percent were conducted in both Spanish and English. In most cases where some participants did not understand the language of the workshop (19 percent of all workshops), a translator was present (94 percent) and translated materials were distributed (87 percent).

WHAT CONTENT IS COVERED DURING *READY TO LEARN* WORKSHOPS?

One of our main goals in observing the *Ready To Learn* workshops was to describe the topics that are covered during a workshop. We were particularly interested in seeing whether facilitators covered the key content areas PBS identified at the 2002 Institute, defined in Table III.1. Based on the workshop observation forms, a key area was considered covered when each of the individual items matching that area were observed during the workshop (Table III.1). All workshops included a basic description of the *Ready To Learn Service*; thus the remaining four essential content areas were analyzed.

- **The two areas most consistently covered in all workshops were media literacy and the Learning Triangle (90 percent and 93 percent, respectively).**
- **Overall, 65 percent of the workshops covered all the items in each key content area.**

We also examined how consistently key content areas were covered within each station that participated in the study. Overall, we found that eight stations delivered workshops that consistently covered all items in each of the key content areas, and in three stations fewer than half of the workshops covered all key content areas (Table III.2). In Chapter V, we examine the extent to which content coverage is associated with participant outcomes.

In addition to examining coverage of the key content areas above, we looked at other important elements of workshop content, such as whether participants were given the opportunity to plan their own View-Read-Do activity, whether participants were given time to practice View-Read-Do techniques, and whether facilitators demonstrated how to read a book during the workshop.⁵

⁵ Table C.1 provides the definitions and exact wording of all items from the workshop observation form.

Table III.1. Percentage of Workshops Covering Essential Content Areas

Four Essential Content Areas of <i>Ready To Learn</i> Workshops	Corresponding Observation Form Items	Percentage of Workshops
Child Development – All workshops must include some information about basic child growth and development	Discussed the importance of reading to young children	89
	Clearly presented child development concepts	84
	All items covered	80
Station and Program Information – All workshops must include information about the <i>Ready To Learn</i> station, PBS KIDS programming, and how to access the programming in the viewing area.	Provided program-specific information about PBS KIDS	94
	Provided information about how to access PBS KIDS programming or programming schedules	89
	All items covered	84
Media Literacy – All workshops must include information about critically selecting, viewing, and using media not limited to PBS television programming	Discussed media literacy and critical viewing	94
	Discussed adult/child co-viewing	94
	Discussed using television to initiate conversation	94
	All items covered	90
The View-Read-Do Learning Triangle – All workshops must explain, model, and use the View-Read-Do Learning Triangle	Introduced and defined View-Read-Do	99
	Demonstrated View-Read-Do	95
	Provided participants with concrete examples of how to use View-Read-Do	95
	Showed participants a video clip of a PBS KIDS program	100
	All items covered	93
Covered All Key Workshop Areas		65
Sample Size		85

Source: Workshop Observation Forms.

Table III.2. Number of Stations with Workshops Covering All Key Content Areas

Proportion of Workshops Covering All Key Content Areas	Number of Stations	Percentage of Stations
All	8	40
More than half	5	25
Half	4	20
Less than half	3	15
Total Number of Stations	20	

Source: Workshop Observation Forms.

- **In over half of the workshops (62 percent), participants planned their own View-Read-Do activity.**
- **Although most workshops provided participants with examples of using the Learning Triangle, fewer provided participants with actual time to practice this.** In 65 percent of the workshops, participants were given time to practice the Learning Triangle. In slightly over half of the workshops where participants were given time to practice, they were allowed 5 minutes or less to do so (54 percent). In just under half the workshops, the facilitators recommended how often participants should implement the View-Read-Do Learning Triangle with the children in their care. Their recommended frequency varied from at least once a day to once a week.
- **In three-quarters of the workshops, facilitators demonstrated how to read a book with child.** This was more common in workshops for parents, where 80 percent included this demonstration, compared to 63 percent of the workshops for educators.

HOW WELL IS INFORMATION PRESENTED AT WORKSHOPS?

The workshop facilitators' ability to organize the workshop, communicate with participants, and convey information and enthusiasm are important to the success of *Ready To Learn* workshops. We asked the workshop observers to rate the quality of the workshop presentation along several areas using a 5-point scale, where 1 is "poor" and 5 is "excellent" (Table III.3).

- **The average rating of presentation quality across all areas ranged from 3.5 (good) to 4.1 (very good)**
- **Facilitators were very likely to be rated high on their knowledge of workshop content, but less likely to be rated high on generating enthusiasm during the workshop.** In 75 percent of the workshops, observers

Table III.3. Workshop Presentation Ratings

Workshop Presentation Rating Items	Percentage of Workshops Receiving Score of:			Mean Score
	Poor/Fair	Good	Very good/Excellent	
Atmosphere (welcoming and conducive for the workshop)	9	34	56	3.7
Facilitator's ability to communicate with the participants	5	22	73	3.9
Participants' enthusiasm during the workshop	9	44	47	3.6
Facilitator's knowledge of the workshop content	4	21	75	4.1
Facilitator's organization of the workshop	6	33	61	3.7
Facilitator's ability to include child development concepts	16	31	53	3.5
Appropriateness of the content for participants	0	28	72	3.9
Overall presentation quality	4	35	61	3.7
Sample Size	82-85^a			

Source: Workshop Observation Forms.

^aThree workshops did not receive ratings for overall quality of presentation.

rated the facilitator's knowledge of workshop content as very good (4) or excellent (5). In only 47 percent of workshops did observers rate facilitators' ability to generate enthusiasm as very good (4) or excellent (5).

- **Facilitators were most likely to be rated low on their inclusion of child development concepts.** In 16 percent of the workshops, the observer rated the facilitator's inclusion of child development concepts as either poor (1) or fair (2). The overall mean was 3.5, with a range from 1 to 5.
- **In 96 percent of the workshops, observers rated the overall quality of the presentation as either good (3), very good (4), or excellent (5).** The overall mean was 3.7, with a range from 2 to 5. None of the workshops received an overall rating for quality of presentation of poor (1).

HOW FREQUENTLY DO WORKSHOPS PROVIDE BOTH FULL CONTENT COVERAGE AND A HIGH-QUALITY PRESENTATION?

As part of our analysis, we also examined the overall quality of the workshops. Overall quality is measured according to how well facilitators both cover the key content areas discussed above, and provide a high-quality presentation, according to the criteria above. Here, we divide workshops into four groups: those that covered all the key content areas, and also rated high (4 or 5) on overall workshop presentation; those that covered all content areas but did not rate high on presentation; those that did not cover all content areas but rated high on presentation; and those that met neither of these conditions (Table III.4). In Chapter V, we examine whether this measure of overall workshop quality is associated with participant outcomes.⁶

Table III.4. Overall Workshop Quality

Category	Number of Workshops	Percentage of Workshops
Covered all content; rated high on presentation	37	45
Covered all content; did not rate high on presentation	17	21
Did not cover all content; rated high on presentation	13	16
Did not cover all content; did not rate high on presentation	15	18
Total Number of Workshops	82^a	

Source: Workshop Observation Forms.

^aThree workshops did not receive ratings for overall quality of presentation.

- **Overall, 37 of the workshops observed as part of the study (45 percent) covered all key content areas and received a high rating on overall presentation.** In four stations, *all* of the workshops included in the study received this overall high-quality rating (not shown).
- **Fifteen of the workshops (18 percent) neither covered all content areas nor received a high rating on presentation.** In four stations, *all* of the workshops included in the study failed to rate high on either of these content or presentation measures.
- **Thirty workshops (37 percent) received mixed ratings: they either covered all content areas or were rated high in terms of presentation, but not both.** These 30 workshops were provided by a majority of stations in the study—12 of the 20. For some of their workshops, content coverage was complete, but presentation quality was not high; for other workshops, presentation quality was

⁶ In Chapter V, we examine overall quality by dividing workshops into two groups rather than four: those that covered all key content areas and were rated high on workshop presentation, versus those that met either none or only one of these conditions.

high but content coverage was not complete; and for some workshops they may have been high or low on both measures, but not consistently for all workshops.

HOW DO COORDINATORS PROMOTE CONTINUATION OF WORKSHOP LESSONS?

An important component of the *Ready To Learn Service* is distribution of educational materials and other resources, as well as following up with participants after the workshop to encourage use of the lessons learned with the children in their care. As part of the observations, we examined the types of materials that were distributed during the workshops, and documented whether and how facilitators planned to follow up with participants.

- **A variety of materials were distributed during the observed workshops.** In most of the workshops (94 percent), participants were given children's books.⁷ In a majority of workshops, participants also received producer-created materials (86 percent), program guides (80 percent), and View-Read-Do planning sheets (69 percent).
- **Most facilitators planned followup.** In 72 percent of the workshops, facilitators planned to follow up with participants. The most frequently planned method was written followup (59 percent), followed by in-person followup (44 percent) and telephone followup (23 percent).

DO WORKSHOPS DIFFER DEPENDING ON THE TYPE OF PARTICIPANT?

Finally, we examined whether there were differences in the basic characteristics of the workshops, the materials distributed, the content covered, and the quality of workshops for parents versus educators. Of the 85 workshops we observed, 54 were parent-only workshops, and 31 were educator-only workshops.⁸

For the most part, the parent-only and educator-only workshops were similar along the dimensions we examined. However, there were some important differences.⁹

⁷ Children's books were distributed in 84 percent of the 31 educator workshops (n=26), and in 100 percent of the 54 parent workshops (n=54).

⁸ In one workshop, both parents and educators attended. Since there were more educators than parents, we counted this workshop as an educator workshop.

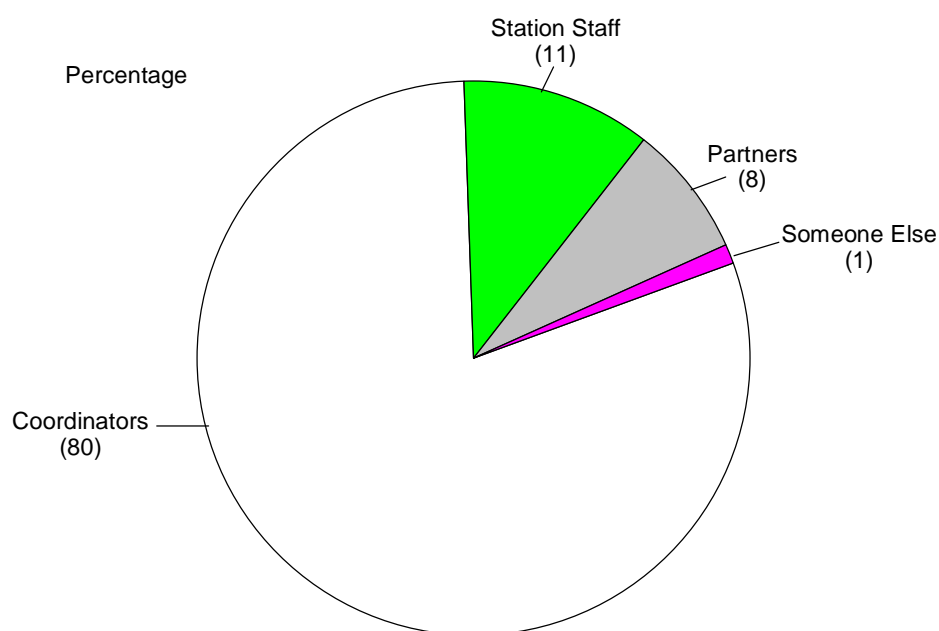
⁹ See Table C.2 for all differences.

- **On average, educator workshops lasted 40 minutes longer than parent workshops.¹⁰**
- **More parent than educator workshops were multi-session (41 percent versus 16 percent).**
- ***Ready To Learn* Coordinators facilitated 80 percent of the parent workshops, but only 68 percent of the educator workshops.** Other staff were more likely to facilitate an educator workshop compared to a parent workshop. Figures III.1 and III.2 illustrate which staff facilitated each kind of workshop.
- **Workshop facilitators planned for followup more often in parent than educator workshops (81 percent versus 55 percent).**

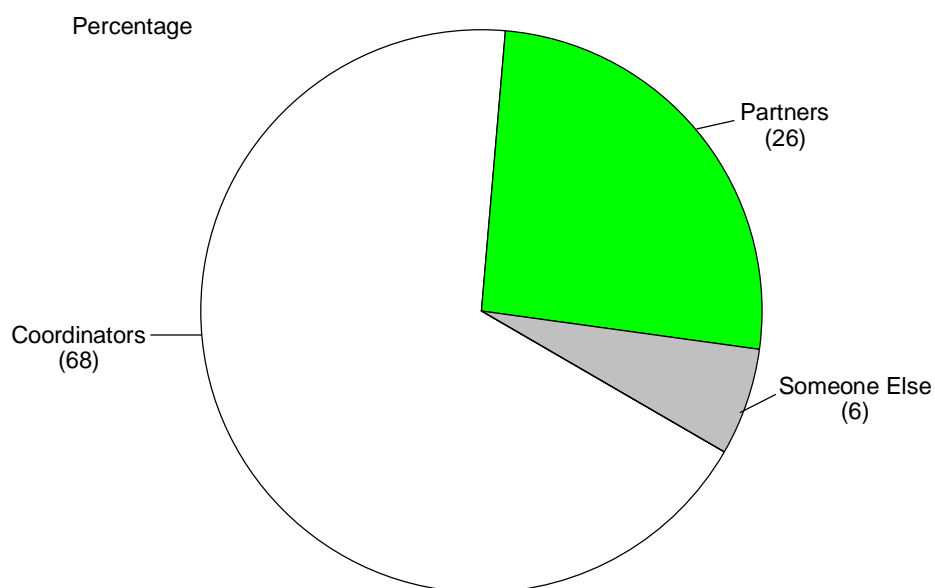
This descriptive summary of the 85 workshops included in the study shows moderate variability among workshops overall and among workshops that included only parents or only educators. On the whole, observers indicated that workshops were well organized, were delivered using good presentation skills, and included coverage of all the main content areas recommended by PBS. However, based on the workshop observations, there is room for improving workshop content coverage and quality. PBS should continue to provide training and technical assistance to station Coordinators on developing exemplary workshops. PBS should continue in its efforts to define the ideal workshop, in terms of content coverage, presentation criteria, and length. PBS should also continue to focus a portion of technical assistance time to training station Coordinators on delivery of workshops that adhere to that ideal.

In the next chapter, we examine the characteristics of participants in *Ready To Learn* workshops before turning to the impacts of the program on participants.

¹⁰ Slightly less than 10 percent (n=3) of the educator workshops exceeded 300 minutes, which partly explains the large difference in total time between educator and parent workshops. If we examine the difference in the median time for each group, the educator workshops lasted 30 minutes longer than parent workshops (median time for educator workshops was 105 minutes, compared to 75 minutes for parents).

Figure III.1: Parent Workshop Facilitators

Source: Workshop Observation Forms.

Figure III.2: Educator Workshop Facilitators

Source: Workshop Observation Forms.

CHAPTER IV

WHO PARTICIPATES IN *READY TO LEARN* WORKSHOPS?

The *Ready To Learn* program is intended to reach children who are most at risk of school failure. Therefore, PBS needs to know whether program resources are successfully targeting those workshop participants who fulfill this objective—those who will be most likely to use lessons from *Ready To Learn* workshops to support the school readiness of at-risk children. In this chapter, we ask three important questions: (1) What is the general profile of workshop participants? (2) Are stations successful at recruiting populations of particular interest to PBS and the U.S. Department of Education? and (3) What are participants' pre-workshop habits and attitudes concerning television? Data are based on the full sample of study participants interested in attending a *Ready To Learn* workshop offered by the 20 selected stations participating in this research effort; as such, it is important to note that the following descriptions largely pertain to *potential* workshop participants prior to receipt of a workshop (that is, both control and workshop group members).¹ It is also important to recognize that, because stations were not randomly sampled for the study, these descriptions do not necessarily generalize to the entire population of workshop participants in all PBS *Ready To Learn* stations.

WHAT IS THE GENERAL PROFILE OF STUDY PARTICIPANTS? ²

Stations can follow one of any number of approaches to workshop recruitment, but generally enroll either all parents or all early childhood educators in any given workshop. Some stations offer only workshops to parents, others offer only workshops to educators, and some offer workshops to parents as well as to educators. Targeting early childhood educators may be the most efficient use of resources, since each educator interacts with a comparatively larger number of children than do most parents. However, parents at home

¹ Several data items come from the first follow-up surveys.

² Tables D.1 and D.2 provide complete data on the background characteristics of educators and parents, respectively.

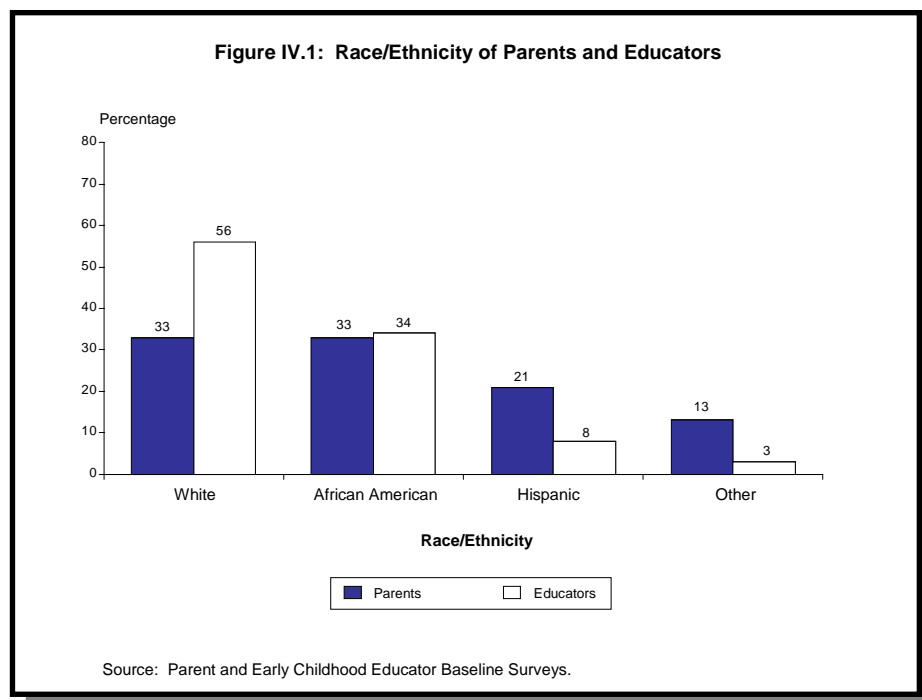
with their children are also an important population to target for teaching *Ready To Learn* techniques, given their many opportunities for co-viewing. In practice, exactly who is invited to a workshop often is left up to the outside agencies or partners interested in holding a workshop; whatever population that agency typically works with is offered the *Ready To Learn* workshop.

The majority of study participants were parents, and an overwhelming majority were women, with substantial racial and ethnic diversity overall.

Among the workshops included in this study, 61 percent of those recruited were parents, and 39 percent were educators. The vast majority of study participants were women: 90 percent among parents and 98 percent among educators. Parents were more diverse than educators in terms of race/ethnicity, with a third White, a third African American, and a third Hispanic and those from other backgrounds (Asian, Native American, and Other). Educators, on the other hand, included more who were White and fewer who were Hispanic or from another race/ethnicity (Figure IV.1).

Half of the parents in the study were not employed full- or part-time, most lived with another adult in the household, and just over half reported an annual income of \$20,000 or less.

Half of the study parents were not employed full- or part-time and may have had comparatively more time for using *Ready To Learn* techniques: 30 percent were homemakers, and the remaining 20 percent were either unemployed, disabled, or in school. The other half of the parent sample was employed either full- or part-time (38 and 12 percent, respectively).



Almost 70 percent of parents resided in households with two adults; this includes those who were married, as well as those living with a partner.³ Fifty-four percent of parents reported an annual income of \$20,000 or less, 27 percent reported an annual income of between \$20,000 and \$40,000, and 19 percent reported an annual income of more than \$40,000. While almost 60 percent said they received some form of supplemental income support (Women, Infants, and Children [WIC], food stamps, or Temporary Assistance to Needy Families [TANF]), 18 percent said they received TANF. Parents in this study reported higher incomes than did a national sample of Head Start parents, only 23 percent of whom reported incomes of \$15,000 or more (Schumacher and Rakpraja 2003).

Most study participants reported caring for children between 3 and 5 years of age.

In the first follow-up survey, parents and educators are asked about their behaviors related to a particular child or group of children. For example, “How often do you discuss with [focus child or group of children] what is going on in a program while you are watching?” For parents and educators alike, most answers pertained to interactions with children who were 3 to 5 years of age (87 and 91 percent, respectively). Among the sample of parents, the children were fairly evenly split between boys and girls. Children were predominantly in homes with more than 25 children’s books and in child care during some portion of the week; and the majority experienced few changes in parents’ marital status or household moves during the three-month interval between the workshop and the first follow-up survey (Tables D.3 and D.4).⁴

Educators reported on the group of children they regularly cared for and those children were mostly cared for in groups smaller than 10 (54 percent). In just over a third of the cases, there was only one educator in the classroom or group (Table D.4). Most (71 percent) were in settings with more than 25 children’s books. Virtually all educators retained the same job between the time of sample enrollment and the first follow-up survey.

Parents and educators have sufficient access to the forms of technology needed to put *Ready To Learn* lessons into practice.

All parents and virtually all educators (92 percent) have access to a television (Table D.5), which suggests that very few should be limited in their ability to implement the types of teaching and viewing strategies recommended during the workshops. Among parents, the majority indicated that they had three or more televisions in their home, while only 15 percent had a single set. Most educators (91 percent) have access to a VCR or DVD player, which is especially helpful in educational settings because it gives educators the flexibility to play only certain segments of a program. About three-quarters of parents, and just over half

³ The 68 percent may be an underestimation of the percentage of households with two adults, since it does not take into account three-generation households.

⁴ See Chapter II for a discussion of the selection of this focus child. Data from the second followup will provide additional information on the characteristics of these children.

of educators, have access to cable or satellite television. One implication of this extensive cable access, however, is the extensive corollary access to PBS competitor channels and programs.

Only about half of the parents and just over two-thirds of the educators in the study indicate that they ever use the Internet, making this a more limited medium to use for many (and parents in particular), in terms of accessing PBS on-line resources. Most parents and educators access the Internet at the library.

Educators in the study sample were positioned to use *Ready To Learn* techniques to benefit children: most had some measure of classroom autonomy, and most were veteran teachers looking for new child care techniques.

Almost 70 percent of the educators indicated that they were either a lead teacher or a family child care provider. Another 14 percent were program directors (Table IV.1). Only 16 percent of study participants were assistant teachers—those who may have more limited decision-making authority over the direct instruction of children. Thirty-nine percent of educators worked in what they classified as center-based programs, and 45 percent worked in home-based programs (Table IV.1). While those in home-based programs teach fewer children, on average, than those in center-based programs, they may have greater decision-making authority and flexibility, which would enable them to apply *Ready To Learn* techniques on a regular basis. In fact, only 13 percent of educators in home-based programs reported being required to use a specific curriculum, compared to 42 percent of educators in center-based programs.

On the whole, study participants had many years of experience. While 10 percent of the sample had 2 years or less, 39 percent had 15 years of experience or more, with an average of 13 years of experience across all educators. Just under a third of the sample indicated that at least one reason for their interest in workshop attendance was to receive credit toward their licensing requirements. About three-quarters, however, indicated that their core interests in attendance were to learn new child care techniques and help children be better prepared for school (Table D.1).⁵

ARE STATIONS SUCCESSFUL AT RECRUITING POPULATIONS OF PARTICULAR INTEREST?

Part of the mission of the *Ready To Learn* program is to provide services to four target populations: (1) those who live in rural areas, (2) those with a low literacy level, (3) those with limited English proficiency, and (4) families of children with special needs. How successful are stations at reaching these populations?

⁵ Respondents could select more than one reason for interest in workshop attendance. This variable was measured prior to random assignment.

Table IV.1. Employment Characteristics of Early Childhood Educators

	Educators (Percentage)
Job Title^a	
Family child care provider	41
Lead teacher	28
Director	14
Assistant teacher	16
Something else	1
Type of Child Care Program	
Center-based	39
Home-based (family child care)	45
Head Start	13
Early Head Start	3
Something else	1
Years of Experience	
≤ 2	10
3 to 6	20
7 to 14	31
≥ 15	39
Sample Size	881-890

Source: Early Childhood Educator Baseline Survey.

^aSome educators indicated that job titles fell into more than one category. In order to give every respondent a discrete job title, we imposed the following rules: if the respondent indicated that he or she was a family child care provider and anything else other than an assistant teacher, the respondent was coded as a family child care provider. (Those who indicated that they were an assistant teacher were always coded as such.) If the respondent indicated that he or she was a lead teacher and anything else other than a family child care provider (for example, a lead teacher and director), he or she was coded as a lead teacher.

Although a relatively small fraction of parents lived in rural areas, a majority of educators were teaching children from this population.

Determining whether stations are reaching rural populations can be measured in several different ways. Slightly less than 20 percent of the parent population reported that they live in a rural area, and 27 percent of the educator sample reported that they teach in a rural area (Tables D.1 and D.2). When asked specifically about the children they teach, not just the area in which they teach, 58 percent of educators reported that they teach at least some children who live in rural areas. About a third of educators said that this constitutes at least half of their children (Table IV.2). This difference between parents and educators in reaching rural populations coincides with station outreach: nearly 70 percent of all workshops for educators were provided by stations in rural areas, whereas just over a third of all workshops for parents were provided by stations in rural areas.

Table IV.2. Distribution of Children Taught by Early Childhood Educators

Characteristic	Educators Reporting Proportion of Children with Characteristic (Percentage)		
	None	Some	Half or More
Live in rural areas	43	26	32
Are from low-literacy families	49	31	20
Speak English as a second language	62	23	15
Have special needs	44	49	7
Sample Size	820-861		

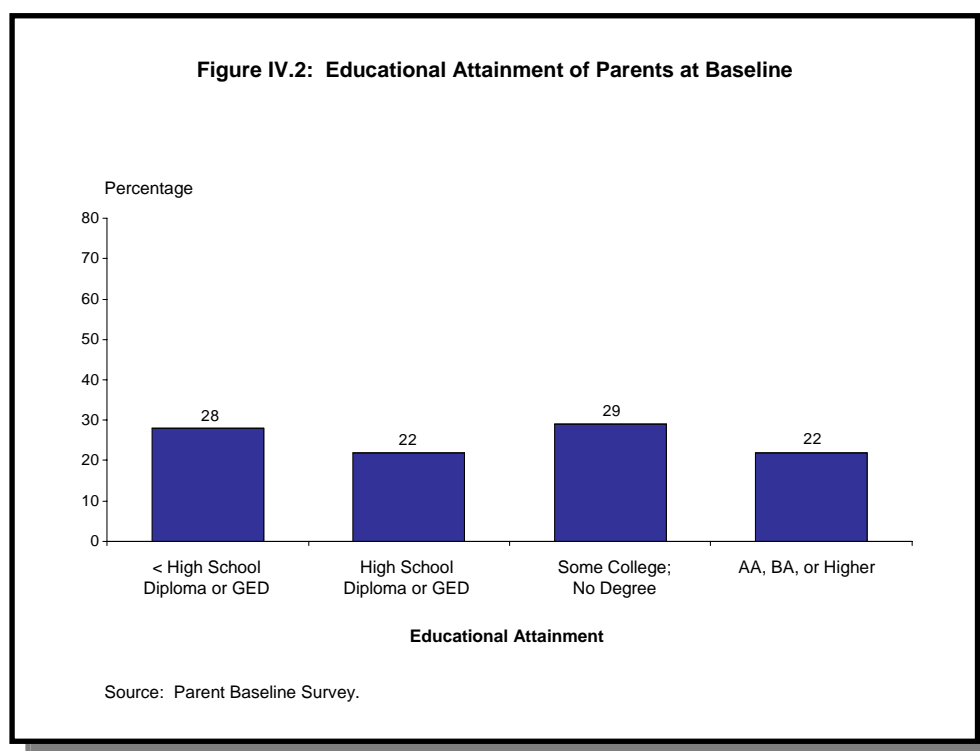
***Ready To Learn* workshops are reaching a diverse population in terms of literacy levels.**

We used years of education as an approximation of parents' literacy levels. Twenty-eight percent of parents reported that their highest level of education was less than a high school diploma or GED (Figure IV.2). Among this group with less than a high school diploma, 16 percent entered 12th grade but did not receive a diploma, 48 percent left high school somewhere between the 9th and 11th grade, and 36 percent completed the 8th grade or lower. A full 50 percent of the sample of study parents had more than a high school diploma. Just over half of the educators reported that they teach some children who are from low-literacy families; 20 percent said that this constitutes half or more of those they teach (Table IV.2).

***Ready To Learn* workshops are reaching those with limited English proficiency.**

We used the language spoken at home and reports from educators about the language spoken by children in their care as approximations of families' English proficiency. Among parents, 21 percent said that they did not speak English at home.⁶ Among educators, almost 40 percent indicated that they teach at least some children for whom English is their second language. Fifteen percent said this is at least half of all those they teach (Table IV.2).

⁶ Twenty-three percent of the parent baseline surveys were completed in Spanish. For educators, only about 5 percent of the baseline surveys were completed in Spanish.



Fifteen percent of parents in the study population have a child with special needs.

Parents with children in the study's target age range—between the ages of 3 and 5—were asked whether the “focus child” had special needs.⁷ Fifteen percent of parents indicated that they had a child with at least one of these special needs, the largest category of which was a speech impairment.⁸ Over half of the educators reported that they teach at least one child with special needs; for 7 percent, this constituted half or more of all those they teach (Table IV.2).

A minority of educators reported that they do not work with children in *any* of the four target populations.

Seventeen percent of educators indicated that they do not work with any children in the four target populations, while another 17 percent indicated that they work with at least some children from all four target populations. Twenty-five percent work with children from one target population, 20 percent with children from two of the four target populations, and 22 percent work with children from three of the four target populations.

⁷ The term “special needs,” as reported by parents, includes learning disability, developmental delay, mental retardation, speech impairment, serious emotional disturbance, deafness or other hearing impairment, blindness or other visual impairment, or any other physical or emotional disability lasting six months or more.

⁸ It is important to note that this percentage may be an underestimation because it refers only to the focus child. There could be other children in the household with special needs.

WHAT ARE PARTICIPANTS' PRE-WORKSHOP HABITS AND ATTITUDES CONCERNING TELEVISION?

The television viewing habits of the study population suggest that there are opportunities for parents to apply lessons learned from *Ready To Learn* workshops.⁹ This is especially true of certain populations of parents, including those with less education, less employment, and less household income. In addition, most pre-workshop attitudes about television and its use suggest a high level of potential receptivity to workshop messages and lessons, although the attitudes about television viewing of a portion of the targeted population may need particular attention.

Television Co-viewing Habits

Parents were asked questions about how much time they spent watching television geared toward adults (talk shows, comedies, dramas, news programs, soap operas) and how much time they spent with any of their children co-viewing child-focused television.

On a typical weekday, two-thirds of parents spent more than an hour with their children co-viewing children's programming; an even higher percentage co-viewed this much television with their children on weekends.

On a typical weekday, a sizable fraction of parents are spending a considerable amount of time with their children co-viewing children's programming. While a third watched an hour or less, 30 percent watched one-and-a-half to two-and-a-half hours, and slightly more than a third watched three hours or more on a typical weekday (Figure IV.3). On weekends, parents spent even more time co-viewing with children. A full 49 percent of parents reported spending at least three hours co-viewing television on weekends.

On weekdays, parents with less education, less household income, and those who were less likely to be employed full- or part-time spent more time with children watching children's programming than other parents. These relationships between background characteristics and viewing time are not evident in weekend television viewing.

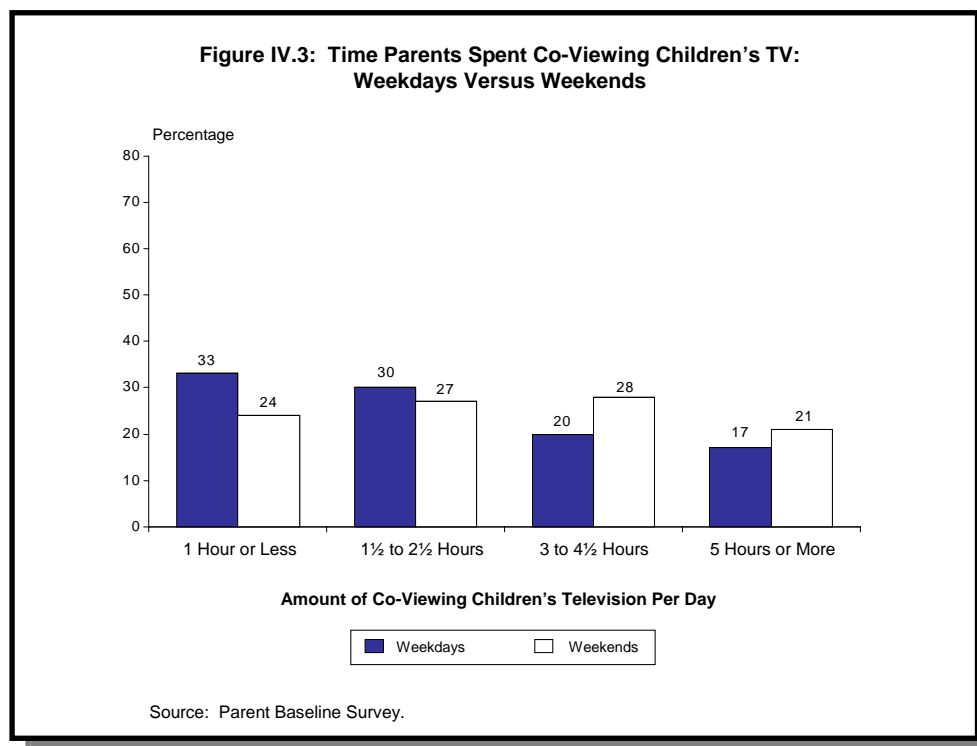
On a typical weekday, parents with less education spent more time watching children's programming. The average amount of time spent with children viewing children's programming was about three-and-a-half hours for those with a high school diploma or less, compared to about one-and-a-half hours for those with a bachelor's degree or higher. Similarly, those not working outside the home spent an average of about three-and-a-half hours co-viewing children's programs, compared to just under two-and-a-half hours for those working outside the home.

⁹ Educators were not asked about their own television viewing habits, so this discussion pertains only to parents.

Co-viewing varied by income level and employment status. Income and employment status are associated with the most dramatic variations in television co-viewing habits during weekdays, where rising income and greater rates of employment are associated with smaller percentages who co-viewed for five hours or more and larger percentages who co-viewed only one hour or less (employment status and co-viewing are depicted in Figure IV.4). Among those who identified themselves as homemakers, 18 percent of parents spent at least five hours a day co-viewing with their children. Twenty-one percent of those employed part-time co-viewed five hours or more of television, and only 13 percent of those employed full time co-viewed this much television. However, the opposite pattern emerges when looking at co-viewing only a limited amount of children's programming. Among those who were homemakers, 27 percent of parents spent an hour or less a day co-viewing with their children, but 32 percent of parents who worked part-time and 45 percent who worked full-time co-viewed this amount of television.

Other characteristics—including race, marital status, and whether English was the language spoken at home—did not show any clear patterns of associations with television co-viewing. In addition, the patterns noted above are not as clear when looking at the viewing habits for children's programming on weekends, rather than weekdays. Weekends clearly present a greater opportunity for all parents to spend time watching television with their children, with fewer constraints than on weekdays.

These patterns are consistent with national data showing that children from less-advantaged families view more television overall than children from more advantaged families (Wright et al. 2001). A nationally representative survey of households with children

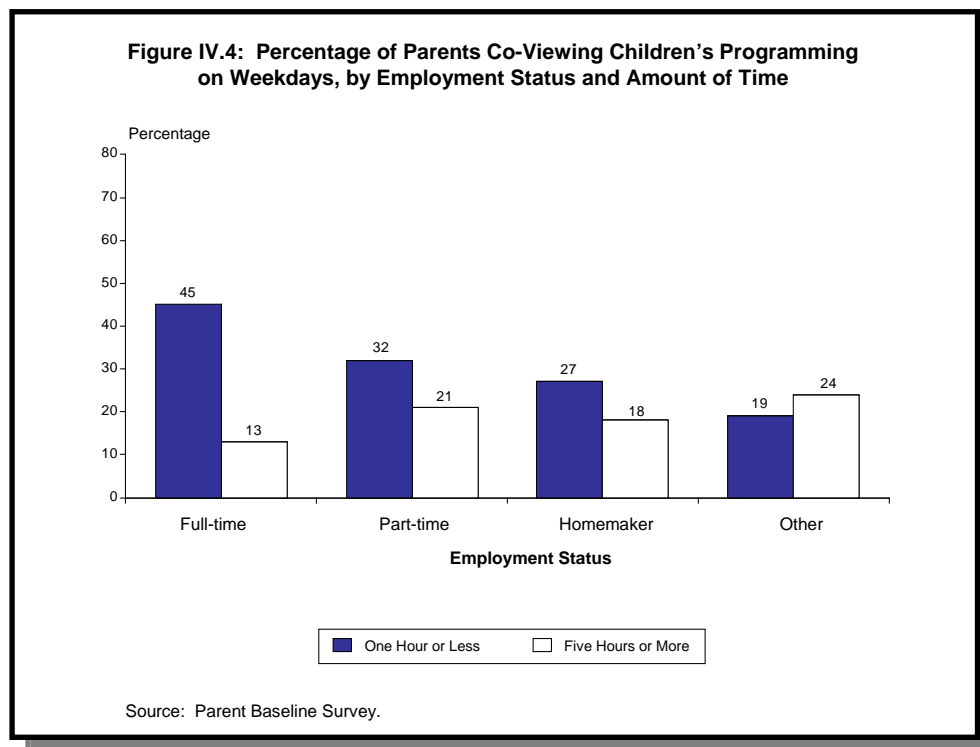


from 2 to 7 years old found that children in families who lived in areas with average annual income under \$25,000 watched a daily average of 2 hours and 28 minutes of television, whereas children from families in areas with average income over \$40,000 watched 1 hour and 42 minutes (Roberts et al. 1999).

Attitudes Toward Television

Understanding the pre-workshop views that parents and educators hold about television and its uses, while not representative of any larger population, nonetheless provides a glimpse into attitudes or perceptions that the *Ready To Learn* workshop providers, and PBS and the U.S. Department of Education more generally, may encounter in implementing *Ready To Learn* services. Understanding the extent to which educators feel television can or cannot be an educational tool could affect how workshop providers frame parts of their presentations. Understanding the extent to which parents do or do not recognize differences between PBS and other children's programming could also play a role in the messages workshop providers choose to emphasize. These pre-workshop attitudes will also be useful in interpreting the impacts discussed in Chapter V.

Parents and educators were asked whether they disagree or agree with a number of statements concerning television and its use.¹⁰ The statements generally fell into two categories: one category of statements consistent with the objectives of the *Ready To Learn*



¹⁰ Response options were on a four-point scale: disagree strongly, disagree, agree, or agree strongly.

program and, as such, to which a high level of *agreement* is preferable (for example, PBS broadcasts high-quality children's programs); and a second category of statements less consistent with *Ready To Learn* program objectives and to which, therefore, a high level of *disagreement* is preferable (for example, television has no place in a child care setting). The discussion below focuses on the groups of parents and educators for whom the preferred views were *not* endorsed. It is important to note that, in all cases, only a minority of parents and educators held the "non-preferred" view. The majority of parents and educators held the "preferred" view or attitude consistent with the objectives of the *Ready To Learn* program. For the purposes of program planning, however, it is more useful to understand the prevalence of the "non-preferred" view.

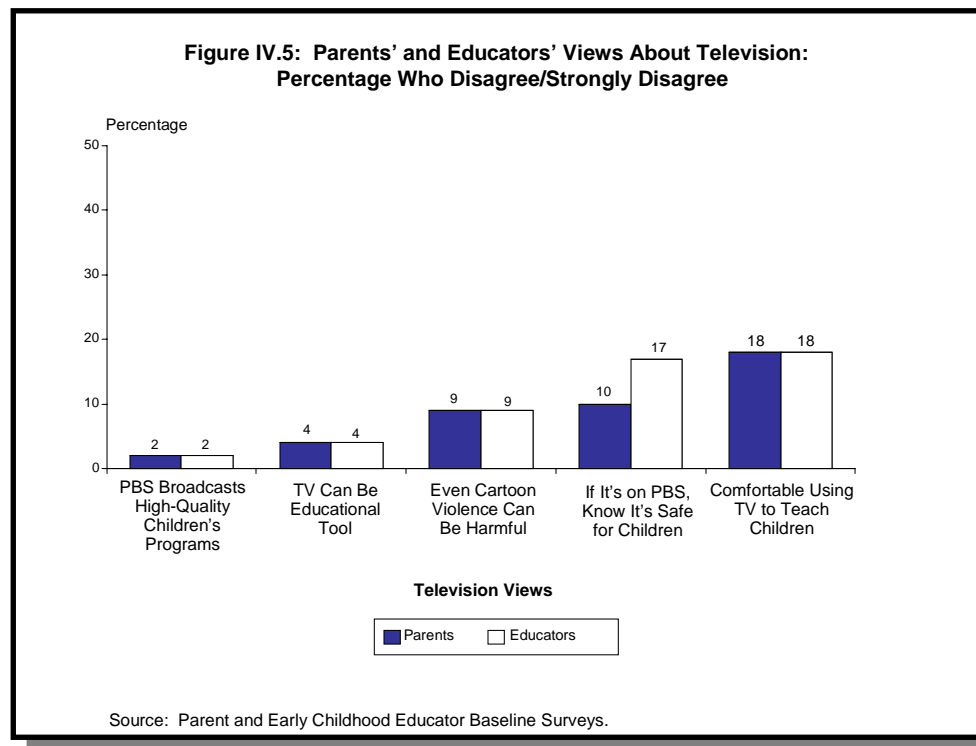
Parents and educators are almost unanimous in their view that PBS broadcasts high-quality programming for children. Almost 20 percent, however, are not comfortable using or having television used to teach their children.

Figure IV.5 shows statements to which a high level of agreement would be consistent with *Ready To Learn* program objectives. What the figure displays, however, is the percentage of parents and educators for whom there was disagreement with each statement.¹¹ The figure shows that very few parents and educators (2 percent in each group) disagreed with the statement that PBS broadcasts high-quality children's programs. Other statements, however, show higher percentages: 10 percent of parents disagreed with the statement, "If it's on PBS, I know it's safe for children"; and 17 percent of educators disagreed with this view. While there is comparatively little disagreement on the part of either parents and educators with the view that television can be an educational tool, 18 percent of educators disagreed with the statement, "I would be comfortable using television to teach children." Eighteen percent of parents also disagreed with the parallel statement, "I would be comfortable if my child care provider used television to teach my child." This provides some measure of the magnitude of the challenge for *Ready To Learn* workshop providers, in terms of shifting participants' attitudes about the potential for television as an educational tool.

A substantial fraction of parents, in particular, do not differentiate between PBS and other children's programming.

Figure IV.6 shows statements to which a high level of disagreement would be consistent with *Ready To Learn* program objectives, but to which some parents and educators agreed. What is striking here is the extent of parents' agreement with most of these statements. Other than the first statement—"I don't keep track of what my children watch"—at least

¹¹ For ease of presentation, and because the extent of disagreement is not as important as the lack of agreement, disagree and strongly disagree responses are combined.

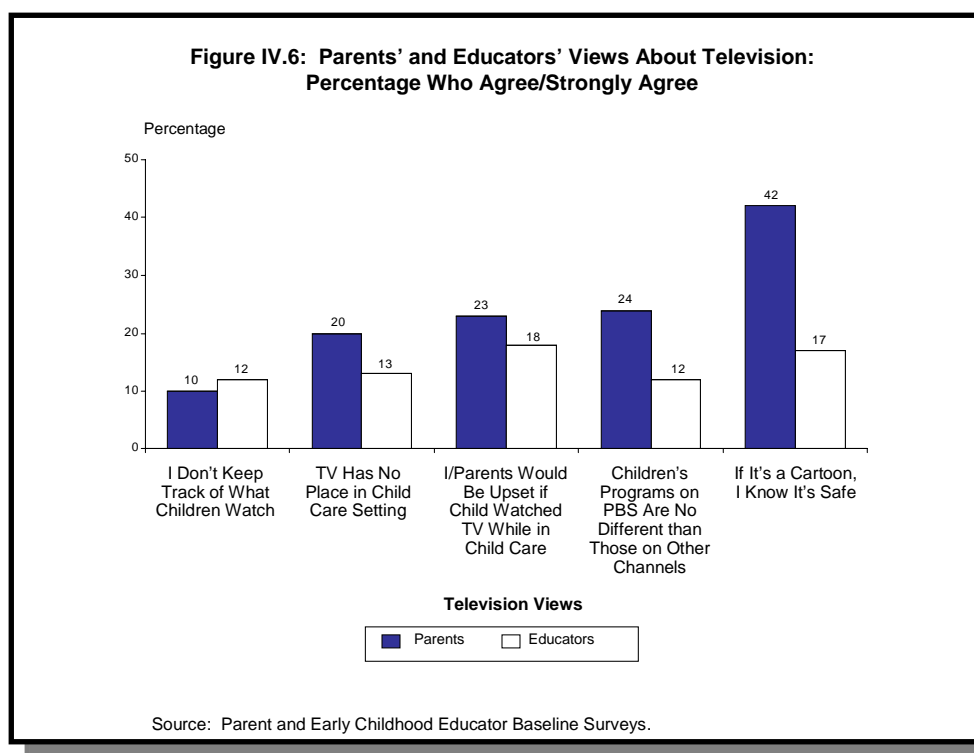


one out of five parents agreed with the other statements, including the statement that programs on PBS are no different than those on other channels (24 percent of parents, compared with 12 percent of educators). This view, as well as the view, “if it’s a cartoon, I know it’s safe,” are of particular concern, in that they reflect—particularly among parents—little differentiation between PBS and other children’s programming for a sizable fraction of potential workshop participants. If these views remain unchanged *after* workshop attendance, greater emphasis on such differences in workshops may be important.

In order to get a better sense of whether these views varied by background characteristics, we analyzed a single, crucial view: “Children’s programs on PBS are no different from those on other channels.” Because nearly a quarter of study parents agreed with this statement, we examined their background characteristics to explore whether certain populations were more or less likely to hold this view.

Homemakers, parents with less education and lower income, and those who do not speak English at home are less likely to differentiate between PBS and other children’s programming.

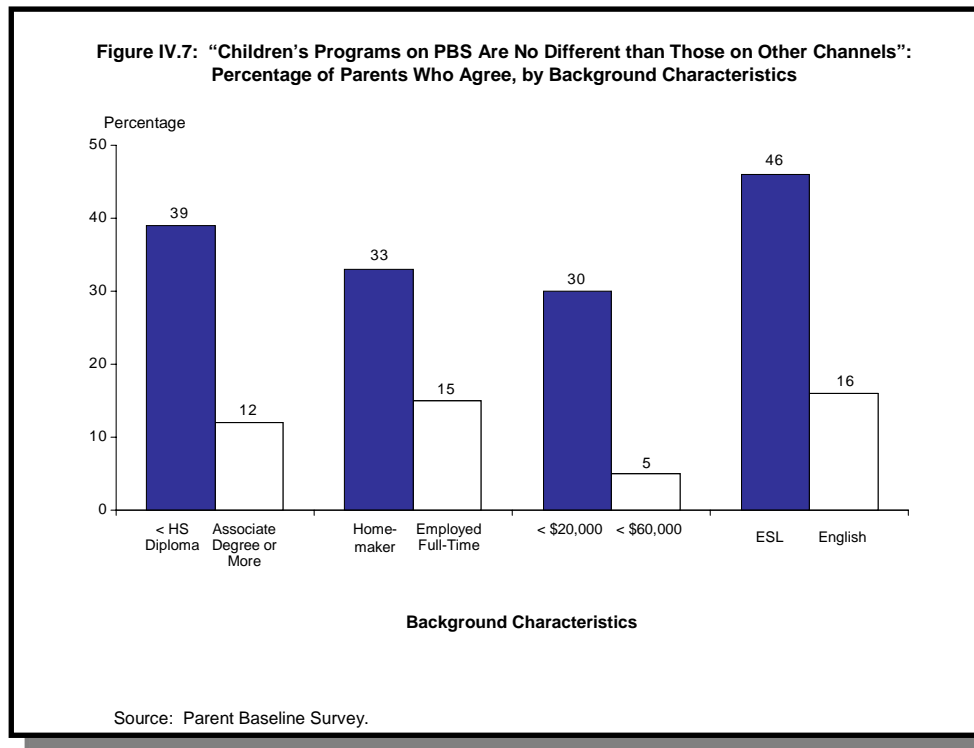
Patterns emerged that are fairly similar to the analysis above on television viewing habits. As the level of education went down, parents were more likely to agree with the statement, “Children’s programs on PBS are no different than those on other channels”: 39



percent of those with the lowest level of education (less than a high school diploma or GED) agreed with this statement, compared to 12 percent of those with the highest level of education. Those not employed outside the home were more likely to agree with the statement than were their employed counterparts; those in the lowest income bracket were also more likely to agree than were those in the highest income bracket (Figure IV.7). Unlike the analysis above on television co-viewing habits, here there were clearer differences by whether English was spoken at home and by race. Hispanics and those from other backgrounds were the most likely to agree with the statement: 39 and 31 percent, respectively, compared to 22 percent for African Americans and 9 percent for Whites (not shown). Among those who do not speak English at home, 46 percent agreed with the statement. In contrast, among those who speak English at home, 16 percent agreed with this statement.

It is important to reiterate that these are views held by those interested in attending a *Ready To Learn* workshop, prior to any receipt of *Ready To Learn* program services. The extent to which workshop participation may affect these views is examined in the next chapter.

From this analysis of parent and educator pre-workshop characteristics and attitudes, we recommend that PBS focus Coordinator training and technical assistance efforts on developing approaches to workshop recruitment that will increase enrollment of the target populations. Because many stations rely on partnering agencies to handle workshop recruitment, Coordinators may be relinquishing too much opportunity to reach certain populations. In particular, our analysis suggests that many potential workshop participants



were educated beyond high school, were more financially stable in comparison to Head Start parents, and had many books available to the children in their care. Our analysis suggests that greater enrollment of the target populations of interest to PBS would result in enrolling more participants with television-viewing habits, attitudes about PBS, and literacy behaviors that are important to affect. We also recommend that PBS encourage Coordinators to formally collaborate with local libraries as a way to promote Internet access to on-line PBS resources. Because educators and parents alike indicated that they would be most likely to access the Internet at their local library, collaboration between *Ready To Learn* stations and their local libraries may be an effective way to facilitate and promote such access.

CHAPTER V

WHAT ARE THE SHORT-TERM IMPACTS OF *READY TO LEARN* WORKSHOP PARTICIPATION?

This chapter presents the short-term impacts of participation in a *Ready To Learn* workshop. Impacts are measured using responses to the first follow-up survey, administered about three months after study enrollment. Here we test the hypotheses laid out in Chapter I and depicted in the study's conceptual framework (Figure I.2) that, compared to those who do not attend a workshop, adults who attend a *Ready To Learn* workshop will be more likely:

1. To engage in activities with the children in their care that reinforce and repeat the educational lessons viewed on television—the Learning Triangle
2. To spend time co-viewing television, especially PBS programming, with their children
3. To have positive attitudes toward PBS, the use of television as an educational tool, and monitoring of children's viewing
4. To have a greater number of children's books available to the children in their care and to read more to children
5. To use PBS online resources

This analysis measures the average station impact of *Ready To Learn* workshop participation.¹ The analysis is organized around our examination of changes among the

¹ All findings presented in the text reflect regression-adjusted means that take into account differential nonresponse rates at the time of the first follow-up survey, and weight each station equally. Additional analyses were conducted that (1) did not include this non-response adjustment; and (2) examined impacts for actual workshop participants rather than all those assigned to the treatment group. The impacts for participants were

parents and early childhood educators in our study sample in five broad outcome areas that correspond to the hypotheses above: (1) implementation of the Learning Triangle; (2) television co-viewing behaviors; (3) attitudes toward television and PBS; (4) reading and literacy behaviors other than those associated with the Learning Triangle; and (5) use of online PBS resources.^{2,3}

Also in this chapter, we test hypotheses related to the type of workshop and workshop participant. Impact estimates for the full sample might conceal important differences in impacts across subgroups. Impacts could, for example, be concentrated in or much larger for some subgroups. Conversely, if impacts are not evident overall for the full sample, they might still be evident for some subgroups. Further, this subgroup analysis also can help determine (1) whether certain workshop characteristics are associated with positive outcomes for participants, and (2) the participants for whom the *Ready To Learn* workshops are most effective.

There are some important limitations to our analysis. First, it is based on self-reported data, which always introduce the possibility that those in the treatment group may have given responses based on social desirability rather than actual behavioral practice. Second, the findings here do not generalize to the entire population of *Ready To Learn* stations. Twenty stations participated in this study, which were purposefully selected based on a number of characteristics, including the belief that they would likely provide workshops that closely reflect the PBS ideal. Third, by their very construction, the workshop subgroup analyses presented here are non-experimental. In other words, participants randomly assigned to the workshop group were not similarly randomly assigned to attend, for example, either a workshop that provided time for planning a View-Read-Do activity or one that did not. As such, it is not correct to say that a certain type of workshop *causes* any differences in the outcomes we find, but rather that there is an association between the two.

We begin our analysis with an examination of service receipt in order to provide a context for interpreting the short-term impacts. This analysis addresses the fundamental question of what *Ready To Learn* workshop participation is being compared to, and what service receipt is with, and without, the opportunity for participation in a *Ready To Learn* workshop.

(continued)

obtained by dividing the impact for enrollees by the participation rate among enrollees (Bloom 1984). There were very few differences in impacts between any of these approaches.

² Detailed information on the definition and/or construction of each of the outcome variables included in the tables throughout this chapter is provided in Table II.3.

³ The outcome related to use of online resources is confined to the sample of parents only. Educators who reported that they had not taken any other workshops or classes related to preschool education or child development were unintentionally skipped out of the questions about Internet use and are not included in the analysis of these outcomes.

RESEARCH CONTEXT: SERVICE USE AMONG THE STUDY SAMPLE

A critical contextual issue to understand is the nature and extent of service receipt. This information allows us to understand the amount of the intervention received and whether we are examining the impacts of *Ready To Learn* program participation compared to (1) no other program services, or (2) participation in something else. If, for example, we were to find that those assigned to the control group were motivated to attend other parenting or educational workshops, perhaps even similar in nature to *Ready To Learn* workshops, we would be measuring the incremental effect of *Ready To Learn* workshops relative to what is learned through participation in other local support services. If, on the other hand, those assigned to the control group do not enroll in any other workshops or classes, we would know that we are measuring the impacts of *Ready To Learn* relative to no other service support.

It is important first to understand the extent of service receipt for those intended to benefit from the *Ready To Learn* workshops. Eighty-eight percent of all those assigned to the *Ready To Learn* workshop group actually attended the baseline workshop (Table V.1; top panel). In cases where random assignment was done in advance, some who had been assigned to attend the workshop did not show up for it, which accounted for this 12 percent drop in attendance. There were slightly more “no shows” among parents than educators; 87 percent of parents in the workshop group attended a workshop at baseline, and 89 percent of educators did. Those assigned to the workshop group for study purposes, however, were also free to participate in other activities—additional *Ready To Learn* workshops, parenting classes, courses for professional development, and so on, offered in their local communities. Overall, 9 percent participated in subsequent *Ready To Learn* workshops, and 48 percent participated in other activities (44 percent of parents and 53 percent of educators). These other opportunities serve to increase the percentage of those in the workshop group who got some form of services during the three-month period between the baseline and first follow-up surveys to 94 percent overall (91 percent for parents and 97 percent for educators).

For educators, we know more about the content of the other activities because they were asked to indicate the topic of their workshop or class. Among those in the workshop group, 9 percent participated in a class on literacy and language development, and less than 1 percent participated in a class on using media in the curriculum—2 of the 10 topics specified in the survey that are especially relevant for their possible overlap with *Ready To Learn* workshop objectives.⁴ Parents were asked about the number of non-*Ready To Learn* activities they had attended during this time period; among those in the workshop group, they attended just under two additional activities on average.

⁴ Other topics were health and/or safety, including CPR; communicating with parents; managing children; integrating math and/or science into the curriculum; activity ideas/circle time ideas; accessing resources in the community; curriculum planning strategies; and child care advocacy.

Table V.1. Service Use Among Workshop and Control Group Members

	Total	Parent	Educator
Workshop Group			
Percentage Who Attended:			
<i>Ready To Learn</i> Workshop at Baseline	88.2	87.2	89.1
Subsequent <i>Ready To Learn</i> Workshop(s)	8.5	8.9	8.1
Workshop(s) Other Than <i>Ready To Learn</i>	48.3	44.0	52.5
Workshop(s) Including <i>Ready To Learn</i>	94.0	90.7	97.1
Literacy and Language Development Workshop(s)	9.3	N/A	9.3
Media Workshop(s)	0.3	N/A	0.3
Average Number of Workshops (Other Than <i>Ready To Learn</i>)	1.9	1.9	N/A
Control Group			
Percentage Who Attended:			
<i>Ready To Learn</i> Workshop at Baseline	0	0	0
Subsequent <i>Ready To Learn</i> Workshop(s)	4.0	2.0	6.5
Workshop(s) Other Than <i>Ready To Learn</i>	56.3	48.4	64.2
Workshop(s) Including <i>Ready To Learn</i>	62.4	57.3	67.4
Literacy and Language Development Workshop(s)	13.0	N/A	13.0
Media Workshop(s)	1.0	N/A	1.0
Average Number of Workshops (Other Than <i>Ready To Learn</i>)	2.2	2.2	N/A
Sample Size	2,002	1,372	630

Source: Parent and Early Childhood Educator First Follow-Up Surveys.

Turning to those in the control group and assessing their extent of service receipt, none participated in a *Ready To Learn* workshop at baseline (Table V.1; bottom panel). However, about 4 percent enrolled in workshops at a later date, despite requests not to. Forty-eight percent of parents and 64 percent of educators assigned to the study control group availed themselves of other parenting or educational opportunities in their communities. About 13 percent of educators in the control group attended workshops on language and literacy, and 1 percent attended workshops on using media in the curriculum. On average, control group parents attended just over two non-*Ready To Learn* activities.

We can measure the impacts on service use by looking at workshop and control group differences (Table V.2). The *Ready To Learn* workshops are increasing receipt of these particular services by the full extent of participation—88 percent overall. They are decreasing receipt of other services by 8 percentage points overall (4 percentage points for parents and 12 percentage points for educators). The control group figure of 56 percent participation in workshops other than *Ready To Learn* suggests that this is the extent of participation that workshop group participants would have received *in the absence* of *Ready To Learn*. When *Ready To Learn* workshops are offered, this drops to 48 percent, the figure for those in the workshop group.

Table V.2. Impacts on Service Use

	Total	Parent	Educator
Workshop-Control Group Differences in Service Use			
Percentage Who Attended:			
<i>Ready To Learn</i> Workshop at Baseline	88.2	87.2	89.1
Subsequent <i>Ready To Learn</i> Workshop(s)	4.5	6.9	1.6
Workshop(s) Other Than <i>Ready To Learn</i>	-8.0	-4.4	-11.7
Workshop(s) Including <i>Ready To Learn</i>	31.6	33.4	29.7
Literacy and Language Development Workshop(s)	-3.7	N/A	-3.7
Media Workshop(s)	-0.7	N/A	-0.7
Average Number of Workshops (Other Than <i>Ready To Learn</i> Workshops)	-0.3	-0.3	N/A

Source: Parent and Early Childhood Educator First Follow-Up Surveys.

In summary, the assessment of service use shows that *Ready To Learn* workshops are generally provided in communities where other opportunities for parenting or education services are available, and that about half of those who are interested in attending *Ready To Learn* workshops are motivated to seek these other options when a *Ready To Learn* workshop is not available to them (as exhibited by those in the control group). Therefore, the impact analysis that follows is measuring the incremental effect of *Ready To Learn* workshops relative to the effects of other workshops and classes. The extent of this participation—about half the study sample—makes detection of the impacts from *Ready To Learn* participation more difficult than it would be were study participants to have had no other form of education or parenting support services, since these other services (for example, workshops on language and literacy) could also affect the outcomes examined here. Were *Ready To Learn* workshops to be offered in communities with no or very limited other opportunities, the impacts would likely be greater. This information is important in placing the findings that follow in context.

WHAT ARE THE SHORT-TERM IMPACTS OF *READY TO LEARN* WORKSHOP PARTICIPATION?

- ▶ Workshop participation had a significant impact on increasing implementation of almost all the Learning Triangle behaviors measured.
- ▶ Workshop participation had a significant impact on increasing PBS co-viewing behaviors in the full sample of study participants.
- ▶ For the most part, participants' pre-workshop attitudes about television and PBS were positive, and workshop participation did not change them significantly.
- ▶ Workshop participation did not significantly affect participants' reading frequency to children or the available number of children's books.

Learning Triangle Behaviors. Workshops in the study stations increased the workshop group's likelihood of doing Learning Triangle activities as frequently as at least three to five times a month (Table V.3). Those in the workshop group were significantly more likely than those in the control group (1) to discuss a program with the child while watching ($p<.05$); (2) to discuss characters from the program ($p<.1$); (3) to talk about the program with the child after it is over ($p<.1$); and (4) to do activities with the child related to the topic or theme of a program ($p<.1$). There is no impact on the more stringent measure of the full Learning Triangle—viewing a program, reading a book, *and* doing an activity all related to the topic or theme of a program. (This outcome is discussed further when we examine certain subgroups.)

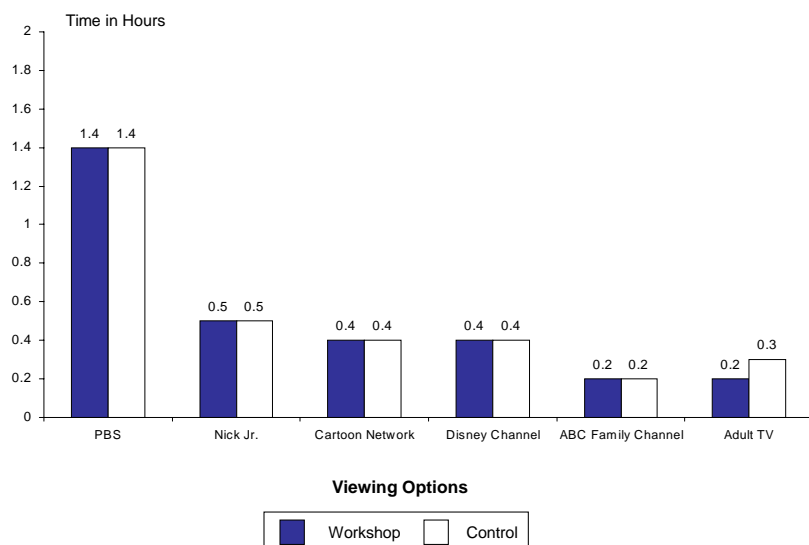
Co-Viewing. Workshops in the study stations increased the likelihood of the workshop group co-viewing PBS KIDS programs with their children all or most of the time they watch ($p<.01$). There are no impacts on co-viewing other networks that broadcast programming targeted to children (Table V.3). The results indicate that the estimated impact for workshop participation is an increase of about 7 percentage points among those who co-view PBS. This compares to a positive, but statistically insignificant, increase of between .1 and 3.8 percentage points for co-viewing other networks.

This finding of an overall increase among workshop participants in time spent co-viewing PBS children's programming raises several questions. Are adults in the workshop group really changing their behaviors and sitting with their children for longer periods of time while watching PBS, or are they co-viewing more television because workshop group children are watching more television? And why are those in the workshop group co-viewing more PBS and not other networks?

To address these questions, we looked at several additional measures. We looked at the total time parents and educators reported that children spent watching television, comparing those in the workshop and control groups, and found no significant differences, either for total viewing time or for viewing time of each of the individual options (PBS, Nick Jr., Cartoon Network, Disney Channel, ABC Family Channel, or adult-focused television). At the time of the first follow-up, children of those in the workshop group were not watching significantly more television than children of those in the control group. However, all children were watching substantially more PBS than other programming options (Figure V.1).

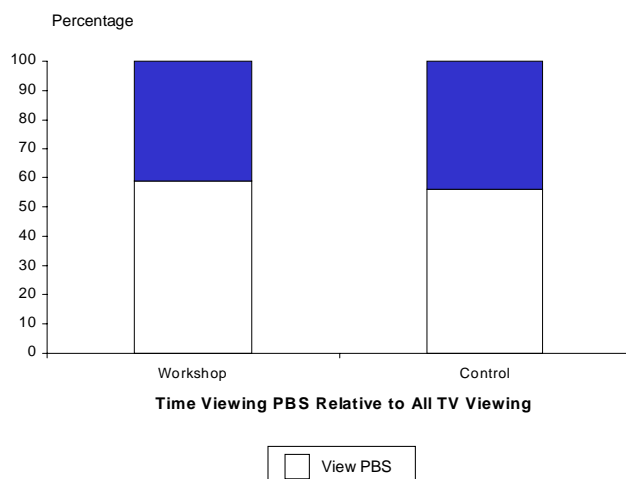
Among the full study sample, slightly under 60 percent of their total time spent watching television was spent viewing PBS programming, with the remaining portion of time spent viewing all other programming options combined (Figure V.2). (There is not a significant difference here between those in the workshop and control groups.) This suggests that the time children spent watching television has not changed, but instead adult co-viewing of PBS has increased.

Figure V.1: Average Weekday Hours Children View Television, by Treatment Status: Full Sample



Source: Parent and Educator First Follow-up Surveys.

Figure V.2: Children's PBS Viewing Time: Full Sample



Source: Parent and Educator First Follow-up Surveys.

This leaves the question as to why they are co-viewing more PBS and not other networks. To address this, it is important to separate the samples several ways. As discussed in a later section on participant characteristics, if we look at parents and educators separately, we find that the significant impact on co-viewing is found exclusively among parents, and that parents in the workshop group are significantly more likely to co-view not just PBS but four of the five networks (all but the ABC Family Channel). There are no significant impacts on educators' co-viewing behaviors for those in the workshop group. This analysis is presented more fully later in this chapter.

Separating the sample by cable access and examining those who have such access—and hence the opportunity to view, and co-view, more programming options—provides an additional important perspective on these behaviors. When confined to only those with cable access (74 percent of parents and 53 percent of educators), we find that there is no significant difference in total time children spent watching television between children of participants in the workshop group versus those in the control group. However, children of those in the workshop group changed their viewing preferences, though very slightly. Despite their broader programming options, they were more likely to spend time viewing PBS and less likely to spend time watching programming for adults, when compared to children's viewing time of those in the control group (not shown).⁵ Children of those in the workshop group spent significantly more of their total viewing time watching PBS relative to all time spent watching television, when compared to children of those in the control group (Figure V.3). This is, again, a result found even though the sample is restricted to those with cable access and, presumably, the broader array of viewing options provided by cable.

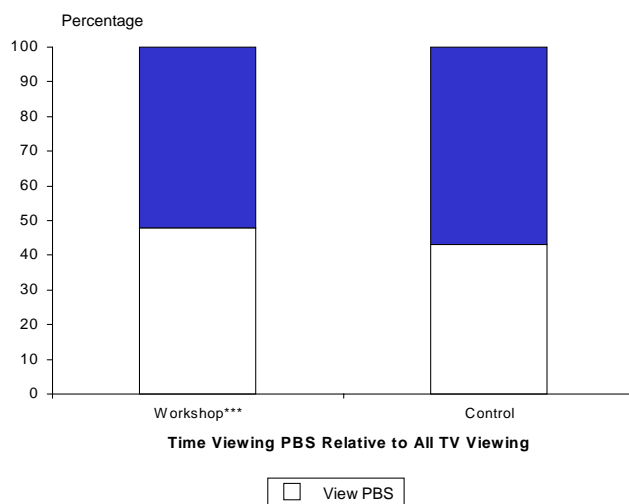
Among those with cable access, then, children of those in the workshop group are not significantly increasing their total viewing time, but are making slight shifts toward viewing more PBS (and away from viewing adult-focused programming). In looking at adult co-viewing time, as with the full sample we find that, among those with cable access, those in the workshop group are co-viewing significantly more than those in the control group (Figure V.4). This impact is again found among parents rather than educators.⁶

In sum, adult participation in workshops did not change the total time children spent viewing television. Program selection changed slightly for children of those in the workshop group (among the sample of those with cable access), in favor of PBS and away from adult-focused television, and co-viewing of PBS increased among parents in the workshop group, regardless of access to cable. Parents who participated in the workshops seem to be changing certain behaviors in response to lessons learned regarding the value of PBS programming and the importance of sitting with children while they watch television.

⁵ This analysis is based on a *t*-test of workshop/control group differences, and not a full regression analysis. The differences here are significantly different from zero at the 90 percent confidence level and may not appear were all background characteristics controlled for in a full regression.

⁶ This analysis is also based on a *t*-test of workshop/control group differences, and not a full regression analysis.

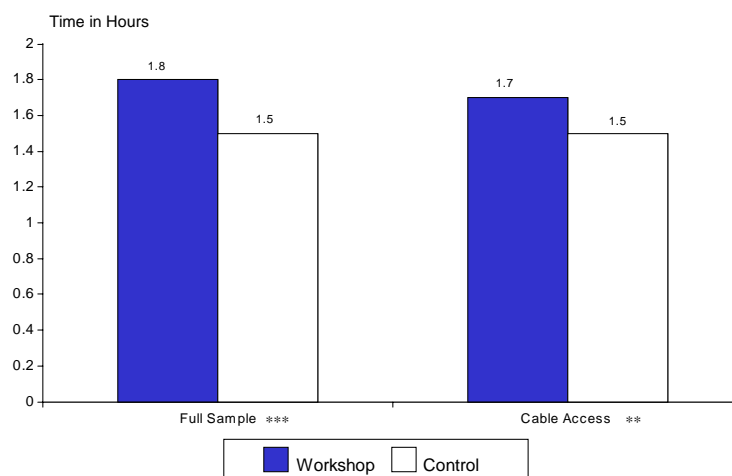
**Figure V.3: Children's PBS Viewing Time:
Full Sample with Cable Access**



Source: Parent and Educator First Follow-up Surveys.

***Estimate significantly different from zero at the 99% confidence level, two-tailed test.

**Figure V.4: Time Parents Co-view Children's Programs,
by Cable Access**



Source: Parent First Follow-up Survey.

**Estimate significantly different from zero at the confidence interval, two-tailed test.

***Estimate significantly different from zero at the 99% confidence interval, two-tailed test

Attitudes Toward Television and PBS. Workshops in the study stations did not affect any of the measures of participants' attitudes toward television and PBS (Table V.4).⁷ As can be seen from the table, there were no statistically significant increases among those in the workshop group, compared to those in the control group, in the percentage who, at the time of the first follow-up survey, disagreed with such statements as, "If it's a cartoon, I know it's safe for kids."⁸ Nor were there any increases in the percentage who agreed with such statements as, "TV can be an educational tool." The descriptive analysis of baseline data on the attitudinal variables presented in Chapter IV showed a high degree of concurrence on these views among the full study sample, prior to random assignment and workshop participation. Participation in the workshops did not influence these preexisting attitudes in any significant way. Should PBS want to change the attitudes of the minority of parents who, for example, hold views such as "PBS is no different from other channels," they might consider inclusion of an additional key content area for workshops that would focus on participants' preexisting attitudes and television-viewing habits.

Reading and Literacy Behaviors. Workshops in the study stations did not affect the percentage who had more than 25 children's books, the percentage who read with their child or children once a day or more, and the average number of minutes spent reading with a child on a given day. In general, the sample reported a fairly high level of literacy behaviors both at baseline and at the time of the first followup. About two-thirds of the sample reported having at least 26 children's books, and nearly 80 percent reported that they read at least once a day to their child. On average, parents and educators reported reading to their children about 45 minutes per day.⁹ But because stations are expected to distribute at least 300 children's books per month to children who otherwise would not have books of their own, and because the Learning Triangle places particular emphasis on reading with children books that are related to program themes, we looked for changes in these areas. Importantly, workshop participation did not significantly change any of these measures—measures which may be more directly linked to the longer-term school readiness outcomes of interest.

⁷ All estimates are based on models that weight each station equally. For all tables presented in this chapter, the estimated impact per eligible applicant is measured as the difference between the regression-adjusted means for all program and control group members. The effect size was calculated by dividing the estimated impact by the standard deviation of the outcome for the control group (it is the impact expressed as a percentage of the standard deviation). To account for the design effects from clustering, we have imposed a slightly stricter test of significance and have given one star (*) where the *p*-value is less than .09, rather than less than .10. See Appendix B for further discussion of this.

⁸ For ease of presentation, all variables have been coded so that a positive impact is consistent with the hypothesized effect of the workshops. Certain attitude variables were reverse-coded to allow for this: If it's a cartoon, I know it's safe for kids; I don't keep track of what my child/children in my care watches on television or videos; Television has no place in a child care setting; I/parents would be upset if I/they thought child was watching television or videos in preschool or child care arrangement; The children's programs on PBS are no different then the children's programs on other TV channels.

⁹ In a recent national study of media use among young children (6 months to 6 years old), researchers found that 83 percent of homes with children under 6 have 20 or more books, 65 percent of all children under 6 are read to every day, and the average amount of time spent reading is 39 minutes (Rideout, Vandewater, and Wartella 2003).

Table V.3. Impacts of *Ready To Learn* Workshops Three Months After Random Assignment: Full Sample

Outcome	Workshop Group	Control Group	Estimated Impact	p-value	Effect Size
Learning Triangle Activities					
Percentage Who (3–5 Times/Month):					
Discuss program while watching	81.3	76.3	5.0**	.02	11.7
Answer child's questions about program	82.6	80.9	1.8	.36	4.6
Discuss characters from program	81.7	78.3	3.4*	.09	8.3
Sing songs from program	79.2	79.8	-0.7	.76	-1.6
Talk about program once over	79.2	75.1	4.1*	.06	9.5
Do activities related to program	64.9	60.5	4.4*	.09	9.0
Read a book related to program	65.2	61.0	4.2	.10	8.6
View, read, and do related activity	43.0	39.1	3.9	.14	8.0
Television Co-Viewing Behaviors					
Percentage Who (All or Most of the Time):					
Co-view PBS KIDS	67.3	60.6	6.7***	.01	13.8
Co-view Nick Jr.	32.7	30.1	2.6	.29	5.6
Co-view Cartoon Network	22.2	19.0	3.2	.14	7.9
Co-view Disney Channel	29.8	25.9	3.8	.10	8.8
Co-view ABC Family Channel	16.4	16.3	0.1	.96	0.2
Reading and Literacy Behaviors					
Percentage with ≥26 children's books	64.2	67.0	-2.7	.23	-5.7
Read once a day or more	77.3	79.0	-1.7	.44	-4.0
Minutes reading with child per day	46.8	46.9	-0.1	.96	-0.3
Sample Size	1,008–1,062	950–1,020			

Source: Parent and Early Childhood Educator First Follow-Up Surveys.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test.

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

Table V.4. Impacts of *Ready To Learn* Workshops Three Months After Random Assignment: Full Sample

Outcome	Workshop Group	Control Group	Estimated Impact	p-value	Effect Size
Attitudes Toward Television and PBS					
Percentage Disagree That:					
Cartoons are safe for kids	68.1	65.0	3.0	.15	6.3
Don't keep track of what kids watch	88.8	91.3	-2.5	.11	-8.6
TV has no place in child care setting	80.7	82.3	-1.6	.39	-4.1
Would be upset if TV used in child care	74.9	74.3	0.5	.81	1.2
PBS is same as other channels	84.4	82.7	1.7	.32	4.5
Percentage Agree That:					
TV can be educational tool	96.9	96.8	0.1	.92	0.5
Even cartoon violence harmful to kids	89.8	89.7	0.1	.96	0.3
PBS broadcasts high-quality kids' TV	98.3	99.0	-0.7	.29	-6.1
Comfortable if used TV to teach	85.5	85.8	-0.3	.87	-0.9
PBS programs are safe for kids	87.6	87.2	0.4	.80	1.2
Sample Size	1,048–1,062	995–1,016			

Source: Parent and Early Childhood Educator First Follow-Up Surveys.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test.

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

In sum, although we find impacts in only two of four broad outcome categories of interest (Learning Triangle activities and television co-viewing behaviors), these positive impacts occur in areas likely to be considered at the core of the *Ready To Learn* program.¹⁰ It is important, however, to recognize that the effect sizes shown in the tables are generally small. Furthermore, there are no impacts on key adult-child reading and literacy behaviors, measured by reading frequency and number of children's books. Thus, although the program appears to have modest effects on Learning Triangle and co-viewing outcomes, it is too early to tell whether these impacts will translate into longer-term impacts on school readiness measures for children. We will not know whether the modest short-term impacts found here are sustained or if they matter for improving children's school readiness until the second follow-up data are analyzed as part of the final report.

ARE CERTAIN WORKSHOP CHARACTERISTICS ASSOCIATED WITH POSITIVE OUTCOMES?

- ▶ Certain workshop characteristics differentiate the impacts on implementation of Learning Triangle behaviors. Providing time for planning a View-Read-Do activity appears especially important.
- ▶ Differences in workshop characteristics do not clearly differentiate the impacts on attitudes toward television and PBS, co-viewing behaviors, or reading and literacy behaviors.

The content and format of *Ready To Learn* workshops have developed over time and, most recently, were explicitly defined during the three-day Institute for station Coordinators that PBS hosted in July 2002. As described in Chapter III, Coordinators participated in a number of training sessions covering topics on workshop content, presentation, and followup and were given guidelines on the recommended agenda for each workshop. Chapter III provides descriptive data on these characteristics from our workshop observations; here, we assess the extent to which content coverage, quality of presentation, and overall quality are associated with positive outcomes. We reiterate the limitations on interpretation of this analysis: findings cannot be used to state that certain workshop characteristics cause any differences in outcomes we find, since participants were not randomly assigned to one type of workshop or another; but, rather, that there is an association between the workshop characteristics and outcomes. Nevertheless, in the interest of contributing to the ongoing development of the “ideal” *Ready To Learn* workshop, these associations between workshop characteristics and participant outcomes are informative, particularly should patterns arise. One concern with such a subgroup analysis is

¹⁰ Use of online PBS resources is not measured for the full study sample, since valid data were available only for parents.

that impacts will be found to cluster within a particular set of stations, and that it may be aspects of the station—rather than workshop characteristics—that are driving the results. We return to this concern following the review of findings below.

The specific subgroups related to workshop characteristics that we analyze are: (1) workshops that do/do not cover all key content areas; (2) workshops that are/are not rated as providing a high-quality presentation; (3) workshops that are/are not rated overall as high quality; (4) workshops during which participants are/are not given time to plan a View-Read-Do activity; (5) workshops during which participants are/are not given time to practice a View-Read-Do activity; (6) workshops during which how to read a book to children was/was not demonstrated; and (7) workshops of more/less duration in time. For each of these seven subgroups, we discuss the findings and include tables covering outcomes for which there are any statistically significant differences between subgroups (for example, between participants in workshops that do and do not cover all key content areas). The statistical significance of these subgroup differences is presented in the far right-hand column of each table, and indicates where one type of workshop provided impacts that are statistically different from the impacts provided by the workshop counterpart. From a policy or operational perspective, this is really the statistical test of greatest relevance, for it answers the question as to how much a particular workshop characteristic matters.¹¹ Where there are no statistically significant subgroup differences, no tables appear. For all subgroups, however, the full set of findings on all outcomes measured is provided in the tables in Appendix E.

Full Content Coverage

PBS has defined key content areas to cover in workshops. These include information on *Ready To Learn*, child development, the station and its programming, media literacy, and the View-Read-Do Learning Triangle. The assessment of coverage of key concepts is based on the observations recorded on the workshop observation form by MPR field staff at the time of the baseline workshop. Based on these observations, a key area was considered covered when each of the individual items matching that area was observed during the workshop (see Table III.1). The analysis of workshop content coverage examines whether, in workshops in which all key concepts were covered, there were impacts that were significantly different from those found in workshops where not all key concepts were covered. The hypothesis is that workshops that meet the PBS guidelines for coverage of essential workshop elements will be associated with greater impacts than those that do not.

In workshops where all content areas were covered, we find some significant, positive impacts for the workshop group, compared to their control group counterparts, in several areas, primarily related to Learning Triangle behaviors: discussing a program while watching,

¹¹ Examining those in the workshop subgroup compared to the *control group* tells us only that the workshop impact is significant, but not that the particular workshop characteristic under examination is significant.

Table V.5. Impacts of Ready To Learn Workshops Three Months After Random Assignment: Workshop Content Coverage (Observer Rating)

	Did Not Cover All Content ^a			Covered All Content			Subgroup Difference
	Workshop Group	Control Group	Estimated Impact	Workshop Group	Control Group	Estimated Impact	
Learning Triangle Activities							
Percentage Who (3-5 Times/Month):							*
Discuss program while watching	88.3	86.4	1.8	76.7	67.5	9.2***	
Answer child's questions about program	89.4	88.8	0.6	78.8	74.8	4.0	
Discuss characters from program	90.0	84.5	5.4*	78.2	72.8	5.4**	
Sing songs from program	81.9	83.2	-1.3	76.3	74.4	1.9	
Talk about program once over	85.0	82.4	2.5	76.6	67.8	8.8***	
Do activities related to program	68.2	65.4	2.8	60.3	56.9	3.5	
Read a book related to program	69.8	65.9	3.9	62.6	56.1	6.5**	
View, read, and do related activity	47.5	42.9	4.6	39.1	35.0	4.2	
Television Co-Viewing Behaviors							
Percentage Who (All or Most of the Time):							
Co-view PBS KIDS	67.2	60.2	7.0	64.3	60.8	3.5	
Co-view Nick Jr.	39.1	28.7	10.4**	29.6	27.6	2.0	
Co-view Cartoon Network	30.2	24.9	5.3	19.3	19.5	-0.1	
Co-view Disney Channel	41.3	27.9	13.4***	25.0	22.6	2.5	
Co-view ABC Family Channel	25.1	16.3	8.8**	13.0	15.6	-2.5	
Sample Size	310-320	276-285		651-681	636-671		

Source: Parent and Early Childhood Educator First Follow-Up Surveys.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test.

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

discussing characters from a program, talking about a program once it's over, and reading a book related to a program (all three to five times a month) (Table V.5). Where all content areas were *not* covered, however, we also find significant positive impacts on workshop group behaviors compared to those in the control group, primarily related to co-viewing behaviors: likelihood of co-viewing Nick Jr., Disney, and ABC Family channels, and in the likelihood of discussing characters from a program with their children. In assessing whether these impacts are significantly different from each other—in determining how important it is for workshops to cover all content areas, as opposed to less coverage—there is no clear indication in favor of full content coverage. The far right-hand column in Table V.5 indicates where impacts for the two subgroups differ significantly from one another.¹² Only the impact related to one Learning Triangle behavior—discussing a program with a child while watching it—significantly favors those who attended workshops where all content areas were covered. In addition, the impacts related to co-viewing the ABC Family and Disney channels are significantly greater for those in the workshops with less coverage. There are no significant differences between workshops with more or less content coverage on attitudes toward television and PBS or on reading and literacy behaviors (Table E.1).

¹² A chi-squared statistic is used to test for subgroup differences.

Quality of Presentation

We explored the hypothesis that workshop facilitators' ability to organize a workshop, communicate with participants, and convey both information and enthusiasm would be important to their success. This measure of the quality of the presentation is based on data from the workshop observations, a measure that provides an overall rating of each workshop's presentation quality as poor, fair, good, very good, or excellent (Table III.3). This analysis examines whether the impacts for those who attended workshops rated as very good or excellent in presentation quality are significantly different from the impacts for those who attended workshops not considered to be of high quality. While there are a greater number of significant impacts for those who attended workshops where the presentation was of high quality than for those attending other workshops, none of these impacts is significantly different between the two subgroups (Table E.2). The lack of subgroup differences suggests that the quality of presentation—as measured here—does not play a role in determining where to expect impacts from *Ready To Learn* workshops. A possible explanation for this lack of effects is the limited variability among workshops. These were workshops offered by a selected group of 20 stations, and most were rated by observers as good, thereby reducing the differentiation between subgroups of workshops on such a measure.

Overall Workshop Quality

We tested the hypothesis that workshops rated high in terms of overall quality (those that (1) covered all the PBS essential content areas, and (2) were rated high in their presentation quality) will have a greater impact than those that did not. As above, there are no significant differences in impacts for those who attended what were determined to be overall high-quality workshops versus those attending other workshops. Positive (and a few negative) impacts appear on a number of outcome measures, for both subgroups (Table E.3). None, however, is significantly different for either subgroup.

We next looked at subgroups defined by additional, more-specific workshop characteristics. These are characteristics related to the content of the workshops but more directly linked to certain outcome measures, based on the hypothesis that workshops exhibiting these particular characteristics would have the best chance of producing the intended behavioral changes. These characteristics are (1) whether or not participants were given time to plan a View-Read-Do activity during the workshop, (2) whether or not participants were given time to practice a View-Read-Do activity during the workshop, and (3) whether or not the facilitator demonstrated how to read a book aloud to children during the workshop. The outcomes expected to change are engagement in the full Learning Triangle, given the planning and practice time, and literacy behaviors—either the reading of a book related to a program or the frequency of reading with children.

Planning a View-Read-Do Activity

In several Learning Triangle behaviors, workshop participation has a significantly greater impact on those who attended workshops that included time to plan a View-Read-

Do activity versus those who attended workshops that did not provide this opportunity (Table V.6). When given time to plan an activity, workshop participants were more likely to discuss with their children what's happening during a program ($p<.05$); do activities related to the topic of a program ($p<.1$); and view a program, read a book, and do an activity all on a related topic—the full Learning Triangle ($p<.1$). The consistency of impacts in favor of workshops that include this particular coverage suggests that providing participants with a hands-on planning opportunity is important in short-term behavioral changes.¹³

Table V.6. Impacts of *Ready To Learn* Workshops Three Months After Random Assignment: Planned View-Read-Do Activities

	Participants Did Not Plan V-R-D			Participants Planned V-R-D			
	Workshop Group	Control Group	Estimated Impact	Workshop Group	Control Group	Estimated Impact	Subgroup Difference
Learning Triangle Activities							
Percentage Who (3-5 Times/Month):							
Discuss program while watching	80.3	80.6	-0.3	84.0	75.3	8.7***	**
Answer child's questions about program	81.7	85.2	-3.6	84.3	82.4	1.8	
Discuss characters from program	78.9	80.0	-1.0	85.9	80.1	5.8**	
Sing songs from program	73.7	77.9	-4.2	81.8	81.3	0.5	
Talk about program once over	77.8	75.3	2.5	82.0	77.6	4.4	
Do activities related to program	60.5	63.2	-2.7	64.5	62.2	7.3**	*
Read a book related to program	62.6	62.7	-0.1	69.1	62.9	6.2*	
View, read, and do related activity	39.1	38.2	0.9	47.0	40.1	6.9**	*
Reading and Literacy Behaviors							
Percentage with ≥26 children's books	60.2	64.2	-4.0	65.9	64.9	1.0	
Read once a day or more	70.8	77.8	-7.0*	78.6	78.8	-0.2	
Minutes reading with child per day	44.9	44.2	0.7	48.6	48.2	0.4	
Sample Size	287-308	256-262		681-710	681-714		

Source: Parent and Early Childhood Educator First Follow-Up Surveys.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test.

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

¹³ An additional, significant difference is noted in Table E.4, between those who attended workshops during which they were given planning time, versus those not given this time: those given planning time were significantly more likely to experience a *negative* effect on their attitude about keeping track of what their children watch. There is no clear explanation of why workshops would have this type of negative impact on the workshop group, unless they are co-viewing more and have concluded, as a result, that there is less need to “keep track.”

Practicing a View-Read-Do Activity

In terms of giving workshop participants time actually to practice a View-Read-Do activity during the workshop, the findings are less clear. Those who attended workshops during which they were given this practice time are significantly more likely to discuss with their children what's happening in a program ($p<.1$) and to answer their children's questions about a program ($p<.1$). However, they are also significantly less likely to agree with the statement that if a program is on PBS, it's safe for kids ($p<.05$) (Table V.7). It is important to remember that, in just over half the workshops in which participants were given time to practice a View-Read-Do activity, they were given on average five minutes or less (see Chapter III).

Demonstrating How to Read a Book with Children

There are no significantly greater impacts on any outcomes for those who attended a workshop during which the facilitator demonstrated reading a book during the workshop, versus workshops where this was not done. While there are some significant impacts for those in each group—where reading a book was and was not demonstrated—none of these impacts is significantly different between the two groups, which suggests that this particular workshop component is not as important as others and does not play a clear role in whether participants subsequently read a book related to a television program or read more books overall (Table E.6).

Extent of *Ready To Learn* Exposure

Finally, we turn from measures of workshop content and quality to the amount of intervention received, to test the hypothesis that “more is better.” The extent of exposure to *Ready To Learn* concepts can be examined by looking at several measures: (1) the actual length of the workshop, in minutes; (2) the extent and form of followup by station Coordinators following a workshop; and (3) participation in subsequent workshops. Because of sample size limitations, the latter two measures cannot be addressed using regression analysis, so we discuss them based on descriptive data. The first measurement of exposure, however, can be analyzed, to test the hypothesis that participants who received longer workshops would have greater impacts than those who received shorter workshops. This subgroup is defined based on the workshop “dosage” received, measured in terms of the number of minutes for the baseline workshop.¹⁴

¹⁴ It would have been preferable to construct a “dosage” measure that summed all minutes of exposure to *Ready To Learn* workshops, so that the analysis took into account those who attended multiple sessions. Unfortunately, this was not possible, because attendance at subsequent workshops in a multi-session series was not uniform (or randomly assigned), and we could not easily determine which control group sample members would or would not also have attended additional sessions if offered the opportunity. Also, for some workshops, our implementation of study procedures cut into the time allocated for workshop delivery. Hence, this measure of dosage, while accurate, does not reflect usual practice in all cases.

Table V.7. Impacts of Ready To Learn Workshops Three Months After Random Assignment: Workshop Practice Time for View-Read-Do Activities

	Did Not Provide Practice Time			Provided Practice Time			Subgroup Difference
	Workshop Group	Control Group	Estimated Impact	Workshop Group	Control Group	Estimated Impact	
Learning Triangle Activities							
Percentage Who (3-5 Times/Month):							
Discuss program while watching	83.5	78.4	5.1	82.2	77.6	4.6*	*
Answer child's questions about program	87.0	86.7	0.3	83.1	81.4	1.7	*
Discuss characters from program	85.3	79.4	5.9	82.6	79.3	3.4	
Sing songs from program	76.5	81.5	-4.9	81.0	80.8	0.2	
Talk about program once over	84.1	76.0	8.1**	78.9	77.0	1.9	
Do activities related to program	68.0	63.1	4.9	63.9	60.9	3.0	
Read a book related to program	68.4	61.7	6.7	65.1	60.6	4.4	
View, read, and do related activity	42.9	37.0	5.9	41.9	39.1	2.7	
Attitudes Toward Television and PBS							
Percentage Disagree That:							
Cartoons are safe for kids	59.5	53.5	6.1	68.4	66.0	2.4	
Don't keep track of what kids watch	88.4	87.3	1.1	88.3	91.7	-3.5**	
TV has no place in a child care setting	74.2	76.2	-2.0	83.3	82.8	0.5	
Upset if TV used in child care	71.4	68.6	2.8	76.1	76.8	-0.8	
PBS is the same as other channels	77.3	75.9	1.6	86.8	83.6	3.2	
Percentage Agree That:							
TV can be educational tool	96.5	94.9	1.6	96.9	97.5	-0.6	
Even cartoon violence is harmful to kids	86.6	90.0	-3.5	91.0	90.3	0.6	
PBS broadcasts high-quality kids' TV	97.3	97.4	-0.1	98.7	99.5	-0.8	
Comfortable if used TV to teach	83.1	84.0	-0.9	86.6	85.3	1.3	
PBS programs are safe for kids	90.6	84.4	6.2**	88.4	89.4	-1.0	**
Sample Size	267-317	251-259		672-805	686-709		

Source: Parent and Early Childhood Educator First Follow-Up Surveys.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test.

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

Longer workshops are defined as those lasting more than 75 minutes.¹⁵ There are few differences between those who attended longer workshops compared to those attending shorter workshops (Table V.8). In attitudes, participants in longer workshops were significantly more likely to believe television can be an educational tool ($p < .1$) but more likely to agree that parents would be upset if television were used in a child care setting ($p < .05$).¹⁶ The limited and mixed nature of the results does not clearly suggest that a longer workshop is preferable to a shorter one. (See Table E.7 for the impacts on all outcome measures defined by this subgroup.)

As noted above, we examine the other two measures of exposure descriptively. First we examine the extent of followup after a workshop. Survey responses from the workshop group indicate that virtually all workshop participants were given materials at the time of the workshop, and almost everyone said that they looked at the materials (Table V.9).¹⁷ In addition, 90 percent of educators and about three-fourths of parents said that they used these materials a few times a month or more.¹⁸

According to survey responses, subsequent exposure to workshop concepts through Coordinator followup is more sporadic. Despite the fact that data from the workshop observation forms indicate that 72 percent of workshop facilitators planned to follow up with participants (Table C.2), only 22 percent of parents and 26 percent of educators recalled that happening during this three-month interval (Table V.9).¹⁹ Workshop observation data also indicate that facilitators planned to follow up with participants an average of three times after the workshop, within an average of 52 days. It is possible that this 90-day window between the workshop and the first follow-up survey has not yet captured all the follow-up activity planned to occur. This can be reexamined when we analyze data from the second (six-month) follow-up survey. In terms of the value of followup, a large majority of parents

¹⁵ The PBS recommended guideline for workshop length is one hour. Because of sample size limitations and a concern that some shorter workshops had been unintentionally compromised by study procedures, we increased this to 75 minutes.

¹⁶ Later findings show the impact on this attitude concerning parents' views of television use in a child care setting to be significantly greater for educators than parents (Table V.13). Because workshops for educators are, on average, longer than those for parents, this impact may be confined mostly to the educators within the workshops of longer duration. Educators may be particularly concerned about parents' views toward the use of television while their children are in paid care.

¹⁷ Table V.9 shows that, at the time of the follow-up survey, 99 percent of parents indicated that they were given materials at the workshop. However, in Chapter III, data from the workshop observation forms indicate that children's books were distributed at 100 percent of the workshops for parents. This 1 percent difference may result from the failure of some parents to remember having been given materials.

¹⁸ Unfortunately, we do not know which materials are being used—for example, whether it is the children's books or the View-Read-Do planning sheets.

¹⁹ The figures of 22 and 26 percent probably are an overestimation of the actual facilitator followup. Respondents were asked to identify the types of followup they had received; a review of these open-ended responses indicates that a number of people considered the telephone calls and mailings from MPR staff to schedule surveys to be a form of workshop followup.

Table V.8. Impacts of *Ready To Learn* Workshops Three Months After Random Assignment: Workshop Dosage

	Low Dosage (75 mins. or less)			High Dosage (greater than 75 mins.)			
	Workshop Group	Control Group	Estimated Impact	Workshop Group	Control Group	Estimated Impact	Subgroup Difference
Attitudes Toward Television and PBS							
Percentage Disagree That:							
Cartoons are safe for kids	67.9	62.2	5.6	69.1	66.3	2.8	
Don't keep track of what kids watch	89.0	90.8	-1.8	89.2	91.4	-2.2	
TV has no place in a child care setting	78.7	79.1	-0.5	80.9	83.0	-2.1	
Upset if TV used in child care	73.0	67.5	5.5	74.1	78.6	-4.5	**
PBS is the same as other channels	86.1	81.2	4.9*	84.8	82.9	1.9	
Percentage Agree That:							
TV can be educational tool	95.8	97.6	-1.8	97.5	95.8	1.7	*
Even cartoon violence is harmful to kids	89.1	91.4	-2.4	90.4	88.8	1.6	
PBS broadcasts high-quality kids' TV	99.0	99.7	-0.7	98.8	98.4	0.4	
Comfortable if used TV to teach	83.9	85.5	-1.7	86.2	85.8	0.4	
PBS programs are safe for kids	88.9	87.8	1.1	87.1	87.8	-0.7	
Sample Size	397-407	412-419		581-589	535-552		

Source: Parent and Early Childhood Educator First Follow-Up Surveys.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test.

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

(71 percent) said that the information was “very useful”; just under half the educators categorized it as such, with another 37 percent who said it was “somewhat useful.” Given the discrepancy between facilitators’ intent to follow up and its actual execution, coupled with participants’ general appreciation of followup when received, this may be a valuable way to continue reinforcement of workshop messages. Because educators appear slightly less inclined to find follow-up materials useful, the content of these materials may need to be modified.

The final measure of exposure to *Ready To Learn* concepts is participation in subsequent workshops. The data show that participation in subsequent workshops, like follow-up efforts, is also somewhat sporadic. Based on workshop observations, 26 (31 percent) of the 85 *Ready To Learn* workshops included in this study were intended to be offered in multiple sessions. We had two sources of data for attendance at subsequent workshops: self-reports of study participants at the first follow-up interview and attendance data collected by

Table V.9. Workshop Follow-up (Workshop Group Only)

	Percentage	
	Parents	Educators
Received Materials at the Workshop	99	99
Looked at/Read Materials Given at Workshop	93	96
Frequency of Use of Materials with Focus Child/Children in Care:		
Never	4	4
Right after workshop, but not since	23	6
A few times a month	25	41
A few times a week	39	27
Daily	9	23
Received Follow-up Since Workshop:		
Yes	22	26
No	78	74
Usefulness of Follow-up Contact:		
Not at all	3	4
A little	6	12
Somewhat	20	37
Very	71	47
Sample Size	530-577	304-326

Source: Parent and Early Childhood Educator First Follow-up Surveys.

Note: Data were weighted to adjust for survey nonresponse and to equalize the contribution of each station.

facilitators at the subsequent *Ready To Learn* workshops. Using self-report data from the first follow-up interviews, we examined the reported attendance of workshop group members who were in *Ready To Learn* workshops intended as multiple sessions. We found that 17 percent of parents (39 of 230) and 30 percent of educators (19 of 63) reported having attended a session subsequent to the study workshop. Across the entire workshop group, regardless of type of workshop, about 8 percent of parents and 9 percent of educators reported having attended a subsequent workshop. Those who reported that they attended a subsequent session reported attending approximately 2 additional sessions on average (ranging from 1 to 10).

Station-by-Station Analysis

As noted earlier, a concern with the subgroup analyses of workshop characteristics presented above is that workshop impacts may be clustered within a particular set of stations, and that it is really the station—rather than workshop—characteristics that are driving the results. For example, although the findings above suggest that workshops which provide time to plan View-Read-Do activities are especially effective, it could be that these workshops are all within stations that serve a particular population, for example, and that it is really this characteristic that accounts for the impacts, rather than the content of the workshop. To address this concern, we examined the estimated impact of each station in

the analyses of the subgroups above. For efficiency, we have confined this to a review of station-level impacts on only two outcomes: co-viewing PBS KIDS and discussing a program while watching it.

For each of these two outcome measures, and by subgroup based on the workshop characteristics, we indicate the number of stations for which the estimated station-level impact was negative, positive, and positive and significant (Table V.10). We then provide the percentage of stations for each workshop characteristic subgroup that contributed a positive impact (regardless of its significance). The third panel of the table is simply a summation of the counts of stations for each of the two outcome measures. As can be seen, the impacts are spread over a majority of stations for each of the workshop characteristics, which suggests that it is not a systematic station-level characteristic that is accounting for the impacts reported above.

Table V.10. Summary of Station-Level Impacts on Two Outcome Measures, by Workshop Subgroups

	Number of Stations			Percentage of Stations with Positive Impacts
	Negative Impact	Positive Impact	Positive, Significant Impact	
Outcome: Discuss Program While Watching				
High-Quality Presentation	6	9	2	65
All Content Covered	4	8	4	75
Overall High Quality	5	7	2	64
Planned V-R-D Activity	1	14	1	94
Practiced V-R-D Activity	4	12	0	75
Reading Demonstrated	5	10	3	72
More than 75 Minutes	3	9	2	79
Outcome: Co-View PBS				
High-Quality Presentation	4	10	3	76
All Content Covered	6	8	2	63
Overall High Quality	2	10	1	85
Planned V-R-D Activity	6	7	3	63
Practiced V-R-D Activity	4	10	2	75
Reading Demonstrated	3	12	3	83
More than 75 Minutes	1	13	0	93
Combined Outcomes				
High-Quality Presentation	10	19	5	71
All Content Covered	10	16	6	69
Overall High Quality	7	17	3	74
Planned V-R-D Activity	7	21	4	78
Practiced V-R-D Activity	8	22	2	75
Reading Demonstrated	8	22	6	78
More than 75 Minutes	4	22	2	86

Source: Parent and Early Childhood Educator First Follow-up Surveys.

Note: The number of stations on any given row does not add up to 20 if there were no workshops within some stations that fell into the particular subgroup (for example, were rated as high on the quality of presentation).

To investigate this further, however, we also looked at the number of times each station contributed a negative, positive, and positive and significant impact, regardless of the characteristic of the workshop subgroup. We then examined two groups of stations that formed the extremes—those for which 90 percent or more, and those for which 50 percent or fewer, of their impacts were positive (either positive or positive and significant) (Table V.11). In examining the demographic characteristics of these stations and their workshop participants, there does not emerge any clear indication or pattern of characteristics to define either group. Those stations contributing 50 percent or fewer positive impacts, for example, are not all stations serving large populations with limited English proficiency. Similarly, those stations contributing 90 percent or more positive impacts are not all stations serving populations with more than a high school degree.

Table V.11. Characteristics of Stations, by Extent of Positive Impact

Station	Demographic Characteristics of Station Populations (Percentage)					
	High School Degree or Less	Rural Area	Non-White	Primary Language Not English	Family Income of Less than \$20K	Parents
Stations with 50 Percent or Fewer Positive Impacts						
A	50	5	91	2	55	90
B	45	8	98	52	28	62
C	11	48	15	N/A	N/A	0
D	61	63	35	9	70	100
E	23	12	27	N/A	N/A	0
F	14	20	28	1	54	17
G	44	3	46	1	42	92
Average	35	23	49	13	50	52
Stations with 90 Percent or More Positive Impacts						
H	15	41	50	1	30	84
I	23	24	46	N/A	N/A	0
J	69	6	98	56	72	100
K	27	2	82	N/A	N/A	0
L	16	16	63	N/A	N/A	0
M	40	76	8	0	55	62
Average	32	28	58	19	52	41

Source: Parent and Early Childhood Educator First Follow-up Surveys.

Note: Data on primary language and family income are collected only for parents. Therefore, stations that served only educators are missing this demographic information.

**FOR WHICH PARTICIPANTS ARE *READY TO LEARN*
WORKSHOPS MOST EFFECTIVE?**

- ▶ Workshops are having a positive impact on parents, particularly in their co-viewing behaviors, and on educators, particularly in their use of Learning Triangle activities. Workshops are not clearly more effective for either parents or educators.
- ▶ Among parents, workshops are not notably more effective for low-literacy families compared to those with comparatively higher levels of literacy (as measured by education). There are also no consistent differences based on participants' employment status.
- ▶ There is some evidence to suggest that workshops are more effective for those living in non-rural areas, but statistically significant impacts appear on a limited number of outcome measures.
- ▶ There is not strong evidence to suggest that workshops are more or less effective for either Whites or non-Whites (African Americans, Hispanics, and those classified as "other" race/ethnicity).

This again suggests that it is not a station-level characteristic accounting for the impacts.²⁰ This supports the notion that it is the differences in workshop characteristics, as measured, that account for the impacts found and not systemic station-level characteristics.

Ready To Learn workshops are provided to both parents and early childhood educators. In addition, PBS requires that stations conduct outreach to children and families in four priority target populations: (1) families with low literacy, (2) families for whom English is not their primary language, (3) families living in rural areas, and (4) children with disabilities. Here, we explore what the subgroup impacts are from workshop participation based on participant characteristics. From a policy and operational perspective, it is important to know whether, and how, workshops affect different participants, so that resources are targeted efficiently.

Stations may have different impacts on parents and educators, although there is no clear hypothesis as to which group would have larger impacts. Parents have many more opportunities to co-view with their children than do educators, which might make it more likely that they would implement the workshop lessons. On the other hand, educators may be better equipped to incorporate the workshop lessons into their daily routines on a regular

²⁰ We also examined such station-level characteristics as size, region, primary market, and license type. To avoid identifying any of these stations directly, we do not report these characteristics, but instead note that there were no clear patterns here, other than that those stations for which 90 percent or more of their impacts were positive were all located in the same geographic region. This geographic region, however, was also represented among the stations for which 50 percent or fewer of their impacts were positive.

basis. In terms of the four PBS priority target populations, the hope is that workshops are particularly effective for each of these subgroups. Where we have sufficient data, these subgroups are explored.

Parents and Educators

Data presented in Chapter III show that there are some differences between workshops provided to parents and those provided to educators. On average, educator workshops are longer by about 40 minutes, but more parents attended workshops planned to be multi-session, workshops facilitated by Coordinators, and workshops in which the facilitator planned follow-up outreach. These differences will make it difficult to determine clearly how to interpret any impacts found.

Other descriptive data on parents' and educators' use of television provide additional context for interpreting the impact findings for these two populations. Among the parent sample, about three-quarters of the focus children are watching television in common spaces such as the living room, family room, or kitchen (Table V.12). The largest segment of time that the focus children spend watching television is between 3 P.M. and 6 P.M., during which they watch television, on average, for an hour. The next-largest segment of time spent watching television is after 6 P.M., when PBS typically does not air much children's programming. Qualitative data from the parents' first follow-up survey tells us that children's favorite programs, in descending order of popularity, were as follows: the PBS program *Clifford, the Big Red Dog*; the non-PBS program *Dora the Explorer*; the PBS programs *Sesame Street*, *Barney*, and *Dragon Tales*; the non-PBS programs *SpongeBob SquarePants* and *Blue's Clues*, followed by the PBS programs *Arthur* and *Teletubbies*.

Among educators, nearly half the sample reported using television with children as often as every day, although 35 percent use television as infrequently as a few times a month or less. About half the educators said that the television is on for 30 minutes or less when they are with the children in their care, which suggests a fairly limited use of television for a substantial portion of the educator sample. However, there are important differences in television use within the sample of educators. A comparison of television use between center-based educators and others—primarily those in home-based child care settings—shows a significant difference between these two groups ($p < .01$). Educators in center-based programs reported an average of 30 minutes of television time for the children in their care, compared to an average of slightly over two hours (128 minutes) for those in home-based settings.

The findings from the analysis of parent and educator subgroups show no clear indication that workshops are more effective for parents than for educators, or vice versa. The differences do not provide a clear policy or operational direction, since sometimes the impacts are significantly greater for parents and at other times are significantly greater for educators (far right-hand columns, Tables V.13 and V.14). Among parents and educators individually, however, there are some important, significant differences between those in the workshop groups and those in the control groups. These impacts are important to examine, because they address the basic policy question as to whether and how workshops affect parents, and whether and how they affect educators.

Table V.12. Television Use

Item	Percentage
Parents	
Where Focus Child Watches Television	
Living room, family room, or kitchen	72
In his/her own bedroom	20
Other place	8
Average Amount of Time Focus Child Watches Television (Minutes)	
Before 8 A.M.	10
8 A.M. to 3 P.M.	45
3 P.M. to 6 P.M.	60
After 6 P.M.	50
Sample Size	1,289-1,299
Educators	
How Frequently Use Television with Children	
Every day	47
A few times/week	19
A few times/month	13
Less than once a month	9
Never	13
Amount of Time Television Is on When with Children	
30 minutes or less	49
31 to 59 minutes	14
1 to 2 hours	25
2 hours or more	12
Sample Size	738-784

Source: Parent and Educator First Follow-Up Surveys.

Note: Data were weighted to adjust for survey non-response and to equalize the contribution of each station.

Among parents, workshop participation has a significant positive impact on behaviors related to Learning Triangle activities: significantly more workshop parents are likely to discuss programs at least three to five times a month while watching with their children ($p < .05$) and to discuss characters from a program ($p < .05$).

Workshop participation also has a significant, positive impact on parents' behaviors related to co-viewing. In particular, parents in the workshop group are significantly more likely than those in the control group to co-view not just PBS with their children all or most of the time ($p < .01$), but also Nick Jr. ($p < .1$), Cartoon Network ($p < .1$), and the Disney Channel ($p < .05$). On average, about 60 percent of the parents in the workshop group are co-viewing PBS all or most of the time, compared to about 52 percent of parents in the control group (Table V.14).

Table V.13. Impacts of Ready To Learn Workshops Three Months After Random Assignment: Parent and Educator Subgroups

	Parents			Educators			Subgroup Difference
	Workshop Group	Control Group	Estimated Impact	Workshop Group	Control Group	Estimated Impact	
Attitudes Toward Television and PBS							
Percentage Disagree That:							
Cartoons are safe for kids	60.6	54.9	5.7**	77.9	79.4	-1.5	*
Don't keep track of what kids watch	86.5	87.9	-1.4	91.5	96.2	-4.7**	
TV has no place in a child care setting	75.3	78.2	-2.9	87.6	87.8	-0.3	
Upset if TV used in child care	69.1	71.7	-2.5	81.9	77.4	4.5	*
PBS is the same as other channels	81.5	79.9	1.6	89.6	86.5	3.1	
Percentage Agree That:							
TV can be educational tool	96.5	96.1	0.5	97.5	97.4	0.1	
Even cartoon violence is harmful to kids	88.3	87.5	0.8	92.8	93.6	-0.8	
PBS broadcasts high-quality kids' TV	98.3	98.7	-0.4	98.7	98.9	-0.2	
Comfortable if used TV to teach	84.3	85.2	-1.0	86.2	85.1	1.1	
PBS programs are safe for kids	90.6	88.1	2.5	83.3	85.6	-2.4	
Sample Size	666-676	595-606		348-369	372-386		

Source: Parent and Early Childhood Educator First Follow-Up Surveys.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test.

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

Workshop participation has an impact on one of their attitudes about television and PBS: parents in the workshop group are significantly more likely to disagree with the statement that just because a program is a cartoon it is safe for kids ($p < .05$) (Table V.13).²¹

Among early childhood educators, workshop participation has a significant, positive impact on behaviors related to four of the Learning Triangle activities: (1) discussing programs with children while watching them ($p < .05$); (2) doing activities related to the theme of a program ($p < .05$); (3) reading a book related to the topic of a program ($p < .05$); and (4) engaging in the full Learning Triangle (viewing a program, reading a book, and doing an activity all related to the theme of the program) ($p < .1$). Educators in the workshop group are significantly more likely than those in the control group to do these activities at least three to five times a month (Table V.14).

²¹ The significance levels for these workshop-control differences are noted separately under the columns for parents and educators, respectively.

Table V.14. Impacts of Ready To Learn Workshops Three Months After Random Assignment: Parent and Educator Subgroups

	Parents			Educators			
	Workshop Group	Control Group	Estimated Impact	Workshop Group	Control Group	Estimated Impact	Subgroup Difference
Learning Triangle Activities							
Percentage Who (3-5 Times/Month)							
Discuss program while watching	89.6	85.4	4.2**	68.0	59.7	8.2**	
Answer child's questions about program	91.0	90.1	0.9	67.8	65.5	2.3	
Discuss characters from program	90.0	85.1	5.0**	69.0	64.4	4.6	
Sing songs from program	82.8	85.3	-2.5	73.0	70.2	2.7	
Talk about program once over	85.9	82.3	3.5	68.4	63.0	5.4	
Do activities related to program	68.0	66.9	1.1	58.6	48.5	10.1**	*
Read a book related to program	70.1	69.1	1.0	56.7	46.5	10.2**	*
View, read, and do related activity	42.9	42.4	0.6	40.0	32.0	8.0*	
Television Co-Viewing Behaviors							
Percentage Who (All or Most of the Time):							
Co-view PBS KIDS	60.0	51.6	8.4***	75.8	72.9	2.9	
Co-view Nick Jr.	37.8	32.3	5.6*	23.6	22.7	0.9	
Co-view Cartoon Network	31.5	26.1	5.4*	10.8	8.1	2.7	
Co-view Disney Channel	33.6	27.1	6.4**	23.0	19.7	3.3	
Co-view ABC Family Channel	21.6	21.1	0.5	10.0	7.7	1.9	
Reading and Literacy Behaviors							
Percent with ≥26 children's books	60.3	60.6	-0.3	71.5	74.8	-3.3	
Read once a day or more	68.0	68.5	-0.6	92.0	94.0	-2.1	
Minutes reading with child per day	50.6	48.5	2.1	41.7	46.5	-4.8	*
Use of Online Resources							
Whether visited Web site	25.1	26.2	-1.1	N/A	N/A		
Used information from Web site	18.3	19.6	-1.3	N/A	N/A		
Sample Size	646-677	588-606		325-433	331-386		

Source: Parent and Early Childhood Educator First Follow-Up Surveys.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test.

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

Workshop participation has a significant, negative effect on educators' views about television ($p < .05$): educators in the workshop group are significantly more likely than those in the control group to agree with the statement, "I don't keep track of what my children watch on TV/videos" (Table V.13). If those in the workshop group were spending more time co-viewing television with their children, it might explain the attitude that keeping track of what is being watched is not necessary because of the co-viewing. However, there is no significant impact on co-viewing behaviors for educators, which makes interpreting these negative impacts difficult.

Though modest, the evidence of positive impacts in several areas from the separate analyses of each of these two populations—parents and educators—indicates that stations are realizing some, though not all, of their intended effects on parents in the workshop group, compared to those in the control group, and on educators in the workshop group, compared to those in the control group.

We now turn to the *Ready To Learn* priority target populations to consider whether workshops are effective for these groups in particular: (1) families with low literacy, (2) families for whom English is not the primary language, (3) families living in rural areas, and (4) children with disabilities. Unfortunately, two of these populations are simply too small in the current sample to conduct a meaningful analysis of workshop impacts. Based on information concerning who needed to complete a baseline survey in a language other than English, only 5 percent of educators and 23 percent of parents fall into the target population of those for whom English is not the primary language. Other data from the surveys on primary language in the home concur with this estimate of the size of the non-English-speaking sample. In terms of the target population of children with disabilities, only 15 percent of parents reported having a focus child with special needs (Table D.2). There are no parallel data for the educators, so the sample cannot be pooled across parents and educators, which further limits our ability to obtain a large enough sample to analyze this participant characteristic.

However, for the other two target populations (families with low literacy and families living in rural areas), we do have sufficient sample sizes to analyze workshop impacts by subgroups. Following the discussion of findings for these final two priority target populations, we also examine subgroups defined by the participant characteristics related to employment and race. Because some of the data presented in Chapter IV reflect differences among sample members by employment status and race—particularly in television-viewing habits—these supplemental analyses explore the question of whether workshops are having differential effects on these particular subgroups of participants as well.

Low-Literacy Families

The analysis of low-literacy families is confined to parents because educators, on the whole, do not fall into the low-literacy population (75 percent have at least some postsecondary education; see Table D.1). Here, as in Chapter IV, we use education as an approximate measure of literacy, creating subgroups defined by whether or not the parent has less than a high school diploma or GED or more than this level of education. The

evidence here suggests that workshops are not more effective for one group over another, given that there are virtually no significant subgroup differences between these two populations (Table E.8). Only in the percent who agree that PBS broadcasts high-quality children's television programming do the impacts favor those with less education ($p < .1$) (Table V.15).

In addition to virtually no significant differences between these subgroups, there are almost no significant impacts when we look at only those workshop participants with less than a high school education, in comparison to their control group counterparts (Table E.8). Only in the percent who disagree that just because a program is a cartoon, it's safe for kids is there a significant impact on workshop group participants with less than a high school degree. On the other hand, stations are having some significant impacts on workshop participants with at least a high school diploma or GED compared to their control group counterparts. Although some of the impacts are negative, positive ones occur in two of the Learning Triangle behaviors and co-viewing.

Table V.15. Impacts of *Ready To Learn* Workshops Three Months After Random Assignment: Parent Education Subgroups

	Less than High School Diploma or GED			High School Diploma, GED or more			Subgroup Difference
	Workshop Group	Control Group	Estimated Impact	Workshop Group	Control Group	Estimated Impact	
Attitudes Toward Television and PBS							
Percentage Disagree That:							*
Cartoons are safe for kids	44.9	38.1	6.8*	73.4	70.7	2.8	
Don't keep track of what kids watch	80.9	81.1	-0.3	91.8	93.9	-2.2	
TV has no place in a child care setting	69.4	73.1	-3.6	77.3	83.7	-6.4**	
Upset if TV used in child care	62.9	68.4	-5.5	71.6	77.5	-6.0	
PBS is the same as other channels	71.9	67.2	4.7	88.3	89.8	-1.5	
Percentage Agree That:							
TV can be an educational tool	94.7	94.3	0.4	99.1	98.6	0.5	
Even cartoon violence is harmful to kids	83.5	82.5	1.0	92.8	92.4	0.3	
PBS broadcasts high-quality kids' TV	98.3	97.8	0.5	97.4	99.9	-2.4**	
Comfortable if used TV to teach	78.7	83.9	-5.2	89.2	87.5	1.7	
PBS programs are safe for kids	92.4	92.2	0.2	90.6	84.8	5.8**	
Sample Size	323-340	282-295		288-301	278-282		

Source: Parent First Follow-Up Survey.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

Employment Characteristics

Here, too, the analysis by employment status is confined to parents because educators, by definition, were all employed. The subgroups are defined by those who work either full- or part-time, versus all others, which includes homemakers, students, those disabled, and those looking for work. In Chapter IV, we found different viewing patterns based on employment status, and raised the possibility that those not employed full- or part-time may have greater opportunity to put into practice lessons learned from *Ready To Learn* workshops (Table V.16). While there are a few subgroup differences, the evidence does not strongly support the idea that workshops are particularly effective for those not employed (Table E.10). There are some positive impacts for this subgroup, compared to their control group counterparts, in particular in three Learning Triangle behaviors, but there are also positive impacts for those employed full- or part-time, also in Learning Triangle behaviors and in co-viewing. However, two of these subgroup differences suggest that workshops are more effective for those not employed, and two suggest that they are more effective for those employed (Table V.17). As such, it is not possible to conclude that those at home are likely to experience consistently greater effects than those working full- or part-time.²²

Race/Ethnicity Characteristics

The impact of workshop participation by race does not provide clear evidence to determine whether workshops are more or less effective for either Whites or non-Whites (African Americans, Hispanics, and those classified as “other” race/ethnicity) (Table V.18).

SUMMARY

In this report, we have looked at the characteristics of *Ready To Learn* workshop participants, the characteristics of the workshops themselves, and the impacts from workshop participation. The analysis is based on a rigorous, experimental design that randomly assigned those interested in workshop participation to a treatment or control group. Those in the control group did not receive *Ready To Learn* services, but they were free to enroll in any other parenting or educational opportunities available in their community. The impact analysis presents a mixed set of findings, with positive impacts for a relatively small portion of the outcome measures examined. Though many outcomes were not significantly affected by workshop participation, the consistency in the outcomes affected across the various subgroups lends confidence to the robustness of these particular measures. The evidence establishes a modest link between workshop participation and

²² We conducted a similar analysis using income to define the subgroups: those with less than \$20,000 in annual household income, and those with this amount or more. Consistent with the analysis based on employment characteristics, the findings did not clearly indicate that workshops were more effective for those with less household income. The only significant subgroup difference is found for co-viewing the Disney Channel, where those with less income had a significantly larger impact from workshop participation ($p < .05$).

Table V.16. Impacts of *Ready To Learn* Workshops Three Months After Random Assignment: Live in Rural Area Subgroups

	Rural Area			Non-Rural Area			
	Workshop Group	Control Group	Estimated Impact	Workshop Group	Control Group	Estimated Impact	Subgroup Difference
Learning Triangle Activities							
Percentage Who (3-5 Times/Month):							
Discuss program while watching	82.2	76.1	6.1	83.5	76.8	6.7***	
Answer child's questions about program	80.1	84.2	-4.1	85.7	81.5	4.1*	*
Discuss characters from program	80.3	76.8	3.5	84.7	79.7	4.9**	
Sing songs from program	80.8	79.2	1.6	81.1	79.6	1.5	
Talk about program once over	77.2	81.0	-3.8	81.9	73.6	8.2***	**
Do activities related to program	62.9	59.0	3.9	65.9	60.9	5.0*	
Read a book related to program	65.0	59.6	5.4	66.6	61.2	5.5*	
View, read, and do related activity	39.6	34.3	5.3	44.5	39.4	5.2*	
Attitudes Toward Television and PBS							
Percentage Disagree That:							
Cartoons are safe for kids	79.6	73.1	6.4	66.4	64.5	1.8	
Don't keep track of what kids watch	93.9	96.0	-2.1	88.3	90.8	-2.5	
TV has no place in a child care setting	91.5	89.6	2.0	80.2	81.3	-1.1	
Upset if TV used in child care	85.5	80.9	4.6	73.8	74.4	-0.6	
PBS is the same as other channels	92.3	96.0	-3.7	84.5	81.2	3.3	**
Percentage Agree That:							
TV can be educational tool	99.3	98.8	0.5	96.9	96.6	0.3	
Even cartoon violence is harmful to kids	95.9	94.5	1.4	89.7	89.0	0.7	
PBS broadcasts high-quality kids' TV	99.3	99.9	0.7	98.3	98.9	0.6	
Comfortable if used TV to teach	86.4	86.6	-0.3	86.1	85.9	0.2	
PBS programs are safe for kids	84.3	83.0	1.4	88.2	87.7	0.5	
Sample Size	323-340	282-295		288-301	278-282		

Source: Parent and Educator First Follow-Up Surveys.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test.

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

Table V.17. Impacts of *Ready To Learn* Workshops Three Months After Random Assignment: Parent Employment Status

	Not Employed Full- or Part-Time			Employed Full- or Part-Time			Subgroup Difference
	Workshop Group	Control Group	Estimated Impact	Workshop Group	Control Group	Estimated Impact	
Learning Triangle Activities							
Percentage Who (3-5 Times/Month):							
Discuss program while watching	86.6	83.5	3.1	92.1	84.7	7.4**	
Answer child's questions about program	89.5	88.8	0.7	93.6	90.3	3.4	
Discuss characters from program	91.3	83.4	7.9***	88.2	85.0	3.2	
Sing songs from program	82.8	84.7	-1.9	80.3	83.5	-3.3	
Talk about program once over	83.6	83.0	0.6	88.7	77.1	11.6***	**
Do activities related to program	70.4	66.0	4.5	66.2	66.4	-0.2	
Read a book related to program	74.4	65.3	9.2**	66.9	68.4	-1.5	*
View, read, and do related activity	46.9	37.2	9.7**	40.4	44.3	-3.9	**
Attitudes Toward Television and PBS							
Percentage Disagree That:							
Cartoons are safe for kids	49.7	43.8	5.9	68.7	63.2	5.5	
Don't keep track of what kids watch	82.6	84.9	-2.3	88.7	92.6	-3.9	
TV has no place in a child care setting	68.2	72.7	-4.5	82.2	84.1	-1.9	
Upset if TV used in child care	59.9	68.9	-9.0**	78.1	74.6	3.4	**
PBS is the same as other channels	76.3	73.2	3.1	84.6	86.3	-1.7	
Percentage Agree That:							
TV can be educational tool	94.9	94.5	0.5	97.2	96.5	0.6	
Even cartoon violence is harmful to kids	85.5	86.5	-1.0	90.2	90.1	0.1	
PBS broadcasts high-quality kids' TV	97.8	98.7	-0.8	98.5	99.1	-0.6	
Comfortable if used TV to teach	85.2	84.0	1.3	82.5	84.1	-1.6	
PBS programs are safe for kids	91.0	89.3	1.7	90.8	88.1	2.7	
Sample Size	332-347	296-307		289-304	256-263		

Source: Parent First Follow-Up Survey.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test.

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

Table V.18. Impacts of Ready To Learn Workshops Three Months After Random Assignment: Race/Ethnicity Subgroups

	African American, Hispanic, Other			White			Subgroup Difference
	Workshop Group	Control Group	Estimated Impact	Workshop Group	Control Group	Estimated Impact	
Learning Triangle Activities							
Percentage Who (3-5 Times/Month):							*
Discuss program while watching	85.5	79.3	6.2**	79.1	73.3	5.8*	
Answer child's questions about program	85.6	85.1	0.6	81.4	77.0	4.4	
Discuss characters from program	86.0	80.1	5.9**	78.6	73.7	4.9	
Sing songs from program	83.4	82.7	0.7	75.0	75.1	-0.1	
Talk about program once over	83.9	78.6	5.4*	75.2	70.4	4.8	
Do activities related to program	68.6	64.9	3.8	58.9	53.1	5.8	
Read a book related to program	67.1	66.9	0.2	63.7	53.2	10.5**	
View, read, and do related activity	47.7	46.1	1.6	36.1	29.4	6.7	
Attitudes Toward Television and PBS							
Percentage Disagree That:							**
Cartoons are safe for kids	57.4	53.0	4.4	83.2	81.6	1.6	
Don't keep track of what kids watch	83.4	86.1	-2.7	96.9	97.3	-0.4	
TV has no place in a child care setting	75.7	78.4	-2.6	90.6	88.1	2.6	
Upset if TV used in child care	67.0	71.3	-4.3	86.2	80.8	5.4*	
PBS is the same as other channels	80.2	77.8	2.3	93.6	93.1	0.6	
Percentage Agree That:							
TV can be educational tool	96.6	95.9	0.8	98.3	98.9	-0.6	
Even cartoon violence is harmful to kids	87.5	86.4	1.1	95.2	95.4	-0.2	
PBS broadcasts high-quality kids' TV	98.4	98.5	-0.1	99.0	99.4	-0.5	
Comfortable if used TV to teach	85.3	81.7	3.6	87.6	90.0	-2.3	
PBS programs are safe for kids	90.0	88.4	1.7	84.7	84.6	0.1	
Sample Size	573-603	482-621		351-391	297-465		

Source: Parent and Educator First Follow-Up Surveys.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test.

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

participants' self-reported behaviors. The effect sizes of reported impacts, however, are small, which suggests caution in the use of these findings:

- Workshop participation had a significant impact on implementation of many of the Learning Triangle behaviors measured and on PBS co-viewing.
- Workshop participation did not significantly affect attitudes about television and PBS, adult-child reading and literacy behaviors (measured by reading frequency and number of children's books), or parents' use of online resources.
- Certain workshop characteristics appear important, particularly related to the implementation of Learning Triangle behaviors. Providing time for planning a View-Read-Do activity appears especially important.
- Workshops are having positive impacts on both parents and educators, particularly in parents' co-viewing behaviors and educators' use of Learning Triangle activities. Workshops are not clearly more effective for either parents or educators.
- There is no evidence to suggest that workshops are particularly effective for those in the four priority target populations.

Plans for the Next Report

This report has focused on the analysis of data from the first follow-up survey, administered about three months after study enrollment. Thus far, we have established that there is a link between workshop participation and workshop participants' self-reported behaviors. However, we do not yet know the extent to which these impacts translate into improved school readiness for workshop group children—outcomes of primary importance to PBS and the U.S. Department of Education. The next report will analyze data from the second, and final, follow-up survey, administered six months after study enrollment, as well as concurrent data from the assessment of children in the care of study participants. This final report will focus on two key questions: (1) To what extent are the short-term impacts we found at three months sustained? and (2) Do any observed behavioral changes in parents and educators translate into significantly improved school readiness among the children in their care?

Given the program's ultimate goal of improving the school readiness of at-risk children, these are critical questions to answer. While this interim report finds modest impacts in areas such as discussing characters from a program at least three to five times a month and co-viewing PBS KIDS programs at least once a day, we do not know if these are done often enough to make a difference in children's performance. Knowing whether the behavioral changes of parents and educators are sustained, and whether the impacts found here are large enough to affect children significantly, requires further study. Such issues will be the focus of the final analysis, following completion of the second round of data collection. The second follow-up data collection will end in fall 2003, and the final report will be available in summer 2004.

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APPENDIX A

CHAPTER II SUPPLEMENTAL TABLES

Table A.1. Characteristics of Stations Participating in the Evaluation Compared to All Ready To Learn Stations

Characteristic	Stations in Evaluation (Percentage)	All <i>Ready To Learn</i> Stations (Percentage)
Region		
Northeast	5	16
South	55	35
Midwest	25	32
West	15	18
Primary Market		
Urban	50	41
Suburban	15	11
Rural	35	31
Statewide ^a	20	17
Station Size		
Small (50 or fewer employees)	35	48
Medium (51-149 employees)	40	35
Large (150+ employees)	25	17
Sample Size	20	136-139

Source: *Ready To Learn* Coordinator Second Follow-Up Survey.

Note: For all calculations the total universe of *Ready To Learn* stations was 139, except for region, which used a sample size of 136.

^a Statewide stations often serve rural markets. Four of the rural stations are also statewide.

Table A.2. Workshops and Sample Sizes, by Station

Station	Number of Parent Workshops	Total Sample Size (Parent)	Number of Educator Workshops	Total Sample Size (Educator)
1	0	0	5	220
2	4	107	2	74
3	4	130	0	0
4	5	66	0	8
5	4	106	0	0
6	2	87	1	54
7	4	108	0	0
8	0	0	3	27
9	0	0	4	63
10	2	90	2	95
11	5	100	0	0
12	1	31	1	31
13	0	0	2	35
14	6	200	3	84
15	0	0	1	43
16	3	97	1	19
17	5	88	0	0
18	2	23	1	77
19	4	113	4	68
20	3	69	1	6
Totals	54	1,415	31	904

Source: Random Assignment Data and Parent and Early Childhood Educator Baseline Surveys.

Table A.3. Parent Workshop/Control Group Differences at Baseline

Characteristic	Workshop Mean	Control Mean	Difference	p-value
Television Viewing				
Hours Per Weekday Watching TV (Parent)	3.8	3.9	-0.2	.49
Hours Per Weekend Day Watching TV (Parent)	4.0	4.0	-0.0	.99
Hours Per Weekday Watching TV (Child)	2.9	2.7	0.2	.23
Hours Per Weekend Day Watching TV (Child)	3.4	3.2	0.3	.17
Television Attitudes^a				
Cartoons Are Safe for Kids	2.4	2.4	0.1	.40
Don't Keep Track of What Kids Watch	1.5	1.5	-0.0	.87
TV Has No Place in a Child Care Setting	2.1	2.1	0.0	.70
Upset if TV Used in Child Care	2.1	2.1	-0.0	.33
PBS Is the Same as Other Channels	2.0	2.0	0.1	.34
TV Can be an Educational Tool	3.4	3.5	-0.1	.24
Even Cartoon Violence Is Harmful to Kids	3.4	3.4	-0.1	.32
PBS Broadcasts High-Quality Kids' TV	3.6	3.6	-0.0	.62
Comfortable if Provider Used TV to Teach	3.1	3.1	0.0	.83
PBS Programs Are Safe for Kids	3.4	3.3	0.1	.13
Reasons for Interest in <i>Ready To Learn</i> Workshop^b				
Learn New Parenting Techniques	67.7	64.7	3.1	.30
Learn to Use TV as a Teaching Tool	60.6	62.5	-1.8	.55
Help Children Be Better Prepared for School	76.1	74.3	1.8	.51
Required to Attend	7.6	6.5	1.1	.49
Attended for the Money	0.3	0.3	0.0	.91
Attended Due to Curiosity	0.7	0.8	-0.0	.98
Attended for Other Reasons	4.9	2.9	2.0	.10
Background Characteristics^c				
Female	89.5	90.0	-1.6	.39
Two-Adult Household	70.1	66.9	3.2	.27
Employed Outside the Home	49.6	49.7	-0.2	.96
Education				
High school or less	50.3	48.8	1.5	.62
Some post-secondary	27.6	30.1	-2.6	.36
Associate's degree	6.5	6.0	0.6	.71
Bachelor's degree or higher	15.7	15.2	0.5	.83

TABLE A.3 (continued)

Characteristic	Workshop Mean	Control Mean	Difference	p-value
Race/Ethnicity				
Hispanic or Latino	20.7	21.8	-1.1	.66
Black or African American	33.1	32.5	0.6	.84
White or Caucasian	30.8	35.5	-4.7	.10
Other race/ethnicity	15.3	10.2	5.1**	.01
Speak English at Home	79.9	78.0	2.0	.44
Have a child 3 to 5 years old	88.4	87.3	1.1	.58
Number of children 3 to 5 years old	1.4	1.4	-0.0	.80
Reside in Rural Area	18.3	17.1	1.2	.62
Receive WIC	47.1	47.6	-0.5	.87
Receive Food Stamps	39.3	40.1	-0.8	.80
Receive TANF	18.5	18.1	0.4	.88
Ever Attended a <i>Ready To Learn</i> Workshop	5.8	6.3	-0.5	.75
Sample Size	614-731	559-669		

Source: Parent Baseline Survey.

Note: Data were weighted to adjust for survey nonresponse and to equalize the contribution of each station.

^a All television attitudes were rated on a four-point scale from “strongly agree” to “strongly disagree.”

^b Percentages reported in each category.

^c Percentages reported in each category except the number of children 3 to 5.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test.

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

Table A.4: Early Childhood Educator Workshop/Control Group Differences at Baseline

Characteristic	Workshop Mean	Control Mean	Difference	p-value
Type of Early Childhood Program^a				
Center-Based Program	40.6	37.4	3.2	.52
Home-Based Program	45.3	44.2	1.1	.83
Head Start Program	12.4	13.2	-0.9	.80
Early Head Start Program	1.1	4.6	-3.5**	.04
Other Program	0.7	0.7	0.0	.99
Program Licensed	93.2	96.1	-3.0	.19
Television Attitudes^b				
Cartoons Are Safe for Kids	1.9	1.9	-0.0	.88
Don't Keep Track of What Kids Watch	1.4	1.5	-0.1	.28
TV Has No Place in a Child Care Setting	1.9	1.9	-0.0	.83
Parents Upset if TV Used in Child Care	2.0	2.0	-0.0	.78
PBS Is the Same as Other Channels	1.8	1.8	0.1	.50
TV Can be an Educational Tool	3.4	3.5	-0.1	.44
Even Cartoon Violence Is Harmful to Kids	3.5	3.4	0.1	.24
PBS Broadcasts High-Quality Kids' TV	3.5	3.6	-0.0	.62
Comfortable Using TV to Teach	3.0	3.0	0.0	.99
PBS Programs Are Safe for Kids	3.1	3.1	0.0	.98
Reasons for Interest in <i>Ready To Learn</i> Workshop^a				
Learn New Child Care Techniques	69.8	77.7	-8.0*	.08
Learn to Use TV as a Teaching Tool	59.9	61.8	-1.9	.71
Help Children Be Better Prepared for School	73.3	76.1	-2.8	.54
Required to Attend	7.3	8.0	-0.7	.80
Attended for Credit	21.3	35.5	-14.1***	.00
Other Reason	2.9	3.1	-0.2	.89
Background Characteristics^c				
Female	98.4	98.8	-0.4	.79
Lead Teacher	71.8	64.5	7.2	.13
Employed in Rural Area	29.2	25.3	3.9	.41
Years of Preschool Child Care Experience	12.2	13.2	-0.9	.79
Education				
High school or less	19.6	24.0	-4.4	.31
Some post-secondary	44.9	34.1	10.8**	.03
Associate's degree	12.8	18.6	-5.7	.13
Bachelor's degree or higher	22.7	23.4	-0.7	.87

TABLE A.4 (continued)

Characteristic	Workshop Mean	Control Mean	Difference	<i>p</i> -value
Race/Ethnicity				
Hispanic or Latino	7.6	8.1	-0.5	.86
Black or African American	30.7	36.5	-5.8	.24
White or Caucasian	59.9	51.8	8.0	.12
Other race/ethnicity	2.4	3.8	-1.4	.45
Speaks English	95.6	97.4	-1.8	.35
Ever Attended a <i>Ready To Learn</i> Workshop	13.3	10.0	3.3	.33
Sample Size	393-445	397-458		

Source: Early Childhood Educator Baseline Survey.

Note: Data were weighted to adjust for survey nonresponse and to equalize the contribution of each station.

^a Percentages reported in each category.

^b All television attitudes were rated on a four-point scale from “strongly agree” to “strongly disagree.”

^c Percentages reported in each category except years of experience.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test.

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

Table A.5. Control Variables Used in Regressions (Measured at Baseline)

Characteristic
Male
Female ^a
Race/Ethnicity
Hispanic/Latino
African American
White
Other ^a
Parent
Educator ^a
Speaks English
Does Not Speak English ^a
Resides/Employed in Rural Area
Does Not Reside in Rural Area ^a
Education
High School or Less ^a
Some post secondary
Associate's degree
Bachelor's degree or higher
Attitudes ^b
Cartoons Are Safe for Kids
Don't Keep Track of What Kids Watch
TV Has No Place in a Child Care Setting
Upset if TV Used in Child Care
PBS is the Same as Other Channels
TV Can Be an Educational Tool
Even Cartoon Violence Is Harmful to Children
PBS Broadcasts High-Quality Kids' TV
Comfortable if Provider Used TV to Teach
PBS Programs Are Safe for Kids
Prior Exposure to a <i>Ready To Learn</i> Workshop
No Prior Exposure to a <i>Ready To Learn</i> Workshop ^a

Source: Parent and Early Childhood Educator Baseline Surveys.

^a Indicates omitted category in regressions.

^b All television attitudes were rated on a four-point scale from "strongly agree" to "strongly disagree."

Table A.6. Impacts of *Ready To Learn* Workshops Three Months After Random Assignment: Simple Differences in Means in the Full Sample

Outcome	Workshop Group	Control Group	Difference	p-value
Learning Triangle Activities				
Percentage Who (3-5 Times/Month):				
Discuss program while watching	81.6	76.5	5.0**	0.02
Answer child's questions about program	83.0	81.0	2.0	0.35
Discuss characters from program	81.9	78.6	3.4	0.11
Sing songs from program	79.2	80.1	-1.0	0.68
Talk about program once it is over	79.5	75.3	4.2*	0.06
Do activities related to program	65.0	60.8	4.2	0.11
Read a book related to program	65.4	61.4	4.0	0.12
View, read, and do related activity	43.0	40.0	3.5	0.19
Television Viewing Behaviors				
Percentage Who (All or Most of the Time):				
Co-view PBS KIDS	67.1	60.7	6.4**	0.01
Co-view Nick Jr.	33.3	30.3	3.0	0.23
Co-view Cartoon Network	22.7	18.9	4.0*	0.08
Co-view Disney Channel	30.2	25.9	4.4*	0.07
Co-view ABC Family Channel	17.0	16.1	1.0	0.66
Attitudes Toward Television and PBS				
Percentage Disagree That:				
Cartoons are safe for kids	68.1	64.8	3.3	0.19
Don't keep track of what kids watch	88.8	91.3	-3.0	0.12
TV has no place in a child care setting	81.0	82.4	-1.3	0.51
Upset if TV used in child care	74.5	74.8	-0.2	0.93
PBS is the same as other channels	84.8	82.6	2.2	0.25
Percentage Agree That:				
TV can be an educational tool	97.0	96.8	0.2	0.81
Even cartoon violence is harmful to kids	89.9	89.5	0.4	0.82
PBS broadcasts high-quality kids' TV	98.3	99.0	-1.0	0.27
Comfortable if used TV to teach	85.5	85.9	-0.4	0.83
PBS programs are safe for kids	87.8	87.2	1.0	0.73
Reading and Literacy Behaviors				
Percent with ≥26 children's books	64.2	66.8	-3.0	0.31
Read once a day or more	76.9	79.1	-2.2	0.31
Minutes reading with child per day	50.1	51.6	-1.5	0.54
Sample Size	1,011-1,064	968-1,020		

Source: Parent and Early Childhood Educator First Follow-Up Surveys.

Note: Data were weighted to adjust for nonresponse and to equalize the contribution of each station.

*Estimate significantly different from zero at the 90% confidence level, two-tailed test.

**Estimate significantly different from zero at the 95% confidence level, two-tailed test.

APPENDIX B

TECHNICAL NOTES

APPENDIX B

TECHNICAL NOTES

This Appendix contains technical details documenting our analysis of the *Ready To Learn* impact data. First, we describe the weights we used, then we describe the general method of estimating full-sample impacts, and finally, we describe the model for estimating impacts within subgroups of interest.

WEIGHTING

We developed two sets of weights, one associated with the baseline data and one with the first follow-up data. The baseline weight contained a correction for survey nonresponse and a rescaling factor that equalized station size within the parent and educator subgroups. This is the weight we used for the parent and educator *t*-tests of baseline characteristics (Appendix A) and for the descriptive data reported in Chapter IV.

For the first follow-up data, we used two weights that contained corrections for: (1) overall survey nonresponse, and (2) survey nonresponse within the parent and educator subgroups. In the regression models that estimate overall impacts described in Chapter V, we report the results using the overall nonresponse weight. We used this same weight for all the subgroup regressions, with the exception of the parent/educator subgroup analyses, in which we used a weight created specifically to account for differential nonresponse in these groups. We describe the rationale and procedures for calculating each set of weights in the following section.

Weighting Methods

For ease of presentation, we discuss the weights within categories, rather than by the wave of data to which they were applied (baseline or first follow-up). We first discuss the scaling variables that equalized the impact of the stations in the analysis of the full sample. Then we discuss the nonresponse adjustments (used in the impact models described below). The products of the rescaling variables and the nonresponse adjustments created the combined weight variables which, as noted, were used in the baseline *t*-tests and presentation of descriptive data.

Scaling Components

The scaling variables were calculated to equalize the contributions of stations to the average impact (that is, stations with smaller sample sizes would contribute as much to the average as stations with larger sample sizes). The scaling variables weighted the sample sizes in each station and treatment combination or station, treatment, and parent versus educator status combination to a common count corresponding to the rounded average station sample size for these subgroups. The original, recruited sample contains 2,319 parents and educators, which averages across the 20 stations to include 59 treatment cases and 57 control cases.¹ Given that not all of the stations included both parents and caregivers, the average station sample size for workshop and controls for the parent samples are 49 and 46, respectively and among workshop and controls for the educator sample are equal to 30 for both.

We computed these weight variables as a ratio adjustment using the formula given in expression (1). In (1), we index each station by ST, the treatment status by TRT (TRT=1 for workshop and TRT=2 for controls) and the parent/educator classification by PE (PE=1 for parents, PE=2 for educators). We also use $n_{ST,TRT}$ and $n_{ST,TRT,PE}$ to denote the original, recruited sample size in each station, treatment assignment and parent/educator status subgroup and to overstrike these values with the standard “bar” notation to reflect the average value of these sample sizes across the member combinations:

$$(1) \quad \text{RESCALE_TRT}_{ST,TRT} = \frac{SPE_{TRT}}{n_{ST,TRT}} = \frac{60}{n_{ST,TRT}} \approx \frac{\bar{n}_{ST,TRT}}{n_{ST,TRT}}$$

$$\text{RESCALE_TRTPE}_{ST,TRT,PE} = \frac{SPC_{TRT,PE}}{n_{ST,TRT,PE}} = \frac{40}{n_{ST,TRT,PE}} \approx \frac{\bar{n}_{ST,TRT,PE}}{n_{ST,TRT,PE}}$$

“SPE” reflects the common sample size we selected to equalize the impact of the individual station findings on the pooled analysis. In selecting the SPE value, we wanted to have the weighted count across the stations sum to a value that was close to the original sample size of 2,319 to support the use of standard variance estimation procedures. Furthermore, so the precision levels obtained from the two methods of analysis would be comparable, we wanted the two weights to sum to the same total. We selected 2,400 as the total weighted sample size because it was a common multiple of 40 and 60, the respective number of station by treatment, and station by treatment and parent/educator combinations.

In our analysis, we did not use these weights alone, but those derived from the product of the rescaling factor within parent/educator subgroups and the nonresponse adjustment described below (combined weight).

¹ Total station sample sizes range from 27 to 284, averaging to 115. Among the workshop group, station sample sizes range from 16 to 150, averaging to 59, and among controls from 11 to 134, averaging to 57.

Baseline and First Follow-Up Survey Nonresponse Adjustments

Our goal in preparing the nonresponse adjustments was to compensate for any differences between the original sample of recruited parents and educators and the respondents to the baseline survey or first follow-up survey that could have an impact on the survey results. To develop the adjustment methodology, we considered the extent of information available for both respondents and nonrespondents and the observed patterns of nonresponse. Given that only 16 of the original recruits did not complete the baseline survey, we focus on the nonresponse pattern in the first follow-up data which showed a cooperation rate of 89.9 percent.² We used first follow-up results to develop the adjustment methodology and applied the same techniques to form the nonresponse adjustments for the baseline survey data.³ During the recruitment process, in addition to basic information on station, treatment and parent/educator status, we collected characteristics including gender, race (non-Hispanic white, non-Hispanic black, Hispanic, and other), and education level. On these characteristics we compared first follow-up respondents to the recruited sample to identify any noticeable differences in the cooperation rates on these characteristics and to check for the consistency of these nonresponse patterns by station membership. Overall, the biggest difference in these items is that between educators and parents, with educators responding at a lower rate (86.7 percent) compared to their parent counterparts (91.8 percent).

Because we had few characteristics that showed differences in response rates, we used a weighting-class approach for the adjustments. This approach divides the combined sample of respondents and nonrespondents into a set of cells for which the response pattern to the survey outcome is expected to be random. This is accomplished, to the extent possible, by defining the cells on the available characteristics that had differential observed cooperation rates. Once the cells are formed on these criteria, the associated adjustment factors weight the completed interviews in each cell in proportion to the cell's contribution to the full sample or the associated population (rather than in proportion to the number of completed interviews) to reduce the potential for bias in the survey estimates.⁴

We computed the four nonresponse adjustments for the baseline and first year follow-up survey using the expression given in (2). In (2), we use “c” to index each of the cells and “n_all,” “n_cbl,” and “n_fu” to denote the original sample size, the sample of baseline completed interviews and the sample of completed first-year follow-up interviews, respectively. We used the same set of adjustment cells for the baseline survey adjustment

² Among the 2,319 recruited individuals, 2,084 (89.9 percent) completed the first follow-up survey.

³ Given the high baseline cooperation rate, we computed the baseline adjustment factors merely as a formality since, for the great majority of the records, the adjustment factor is equal to 1.00.

⁴ As an alternative to the weighting-class technique, we considered the use of a propensity score adjustment process. Since our analysis of the cooperation rates showed differential (interacting) response patterns by station, and the number of influential characteristics were small, we opted for the weighting-class methodology, as we expected it to provide the same, if not better, bias reduction capabilities.

noting that, given the low level of baseline nonresponse, only seven of the cells received an adjustment factor greater than 1.00.

(2) $ADJ_FU1_c = \frac{\sum_{i \in n_all,c} SURVEY_WEIGHT}{\sum_{i \in n_cfu,c} SURVEY_WEIGHT}$	First follow-up overall nonresponse adjustment
$ADJ_FU2_c = \frac{\sum_{i \in n_all,c} SURVEY_WEIGHT_TYP}{\sum_{i \in n_cfu,c} SURVEY_WEIGHT_TYP}$	First follow-up parent/educator subgroup nonresponse adjustment
$ADJ_BL1_c = \frac{\sum_{i \in n_all,c} SURVEY_WEIGHT}{\sum_{i \in n_cbl,c} SURVEY_WEIGHT}$	Baseline overall nonresponse adjustment
$ADJ_BL2_c = \frac{\sum_{i \in n_all,c} SURVEY_WEIGHT_TYP}{\sum_{i \in n_cbl,c} SURVEY_WEIGHT_TYP}$	Baseline parent/educator subgroup nonresponse adjustment

The four adjustment values range from a value of 1.00 to values of 1.137 for ADJ_BL1 and ADJ_BL2 and 1.63 for ADJ_FU1, and 1.64 for ADJ_FU2.

Finally, we created combined weights, which were the product of the scaling factor and the nonresponse adjustment specific to each wave of data collection. When we estimated impacts separately for parent and educator subgroups, we used the nonresponse adjustment that accounted for their differential nonresponse to the first follow-up survey.

Precision of Survey Estimates

Because we did not restrict sample recruitment, occasionally parents of the same child or educators in the same classroom enrolled in the study. When these groupings occurred, we randomly assigned group members as a unit. This was a relatively infrequent occurrence; 89 percent of cases in our sample were assigned singly and 11 percent were assigned as groups (mainly groups of two individuals). These groupings occurred in 58 percent of the workshops, approximately equally among those for parents and those for educators. Without correction, “clustered” assignments of sample members can understate the true variance of an impact estimate, leading its statistical significance to be overstated.

To measure the extent to which the significance levels might be overstated due to this clustering, we used the SUDAAN software package to compute variance estimates for illustrative outcomes both accounting for clustering and not accounting for clustering. Based on this exercise, we raised the threshold for interpreting an impact as statistically significant from a 90 percent level of confidence to a 91 percent level (equivalent to a p -value on the impact estimate of less than 0.09).

For the most part, our use of a nine percent significance level did not change our overall findings. There were, however, a few cases in which impacts no longer reached significance. These are summarized in Table B.1 below.

Table B.1. Outcomes Significant at $p < .10$ But Not at $p < .09$

Outcome	p -value
Full Sample	
Read a book related to a program	0.0992
Did Not Practice VRD Subgroup	
Cartoons are safe for kids	0.0972
Discuss characters from a program	0.0998
Educator Subgroup	
Minutes reading to child per day ^a	0.0990
Lower Quality Workshop Subgroup	
View, read, and do related activity	0.0944
Did Not Plan V-R-D Subgroup	
Cartoons are safe for kids	0.0926
Low Dosage Subgroup	
Co-view Nick Jr.	0.0988
Less than High School Diploma or GED Subgroup	
Co-view Cartoon Network	0.0962
Discuss program while watching	0.0973
Percentage with ≥ 26 books ^a	0.0949

Source: Parent and Early Childhood Educator First Follow-Up Surveys.

^a These outcomes were significant at $p < .10$ in the negative direction (the workshop group was less favorable than the control group).

REGRESSION MODEL

Program impacts were estimated using a simple linear model:

(1)

$$Y = \alpha + X B_1 + S B_2 + \sum_{j=1}^{20} \delta_j (s_j * t) + \varepsilon$$

where:

- Y is the response to a given outcome measure, Y
- X is a vector of explanatory variables, measuring demographic characteristics, attitudes, and other information as they existed prior to random assignment
- S is a vector of 19 station-level indicator variables equal to 1 if the sample member is from station j
- s_j is an indicator variable representing an individual station
- t is an indicator variable equal to 1 if the sample member is in the workshop group
- δ_j is the regression-adjusted impact estimate for station j
- B_1 and B_2 are sets of parameters to be estimated
- ε is a random disturbance (error term)

As noted above, we used only a nonresponse adjustment weight (not shown in the model), both for overall impact estimates and for subgroups, with a specific parent/educator nonresponse weight for impacts computed within that subgroup.

ESTIMATING SUBGROUP IMPACTS

The subgroup analysis uses a regression model similar to equation (1). The only difference is the addition of an interaction term indicating membership in the subgroup, such as parent or educator. The basic specification is given by:

(2)

$$Y = \alpha + X_1 B_1 + X_2 B_2 + S B_3 + (X_2 * S) B_4 + \sum_{j=1}^{20} [\delta_j (s_j * t)] + \sum_{j=1}^{20} \sum_{k=1}^n [\gamma_{jk} (t * s_j * x_{2k})] + \varepsilon$$

where:

- Y is the response to a given outcome measure, Y
- X_1 is a vector of explanatory variables, measuring demographic characteristics, attitudes, and other information as they existed prior to random assignment
- X_2 is a set of additional explanatory variables that are the focus of the subgroup analysis; for example, an indicator for parent or educator status
- S is a vector of 19 station-level indicator variables equal to 1 if the sample member is from station j
- s_j is an indicator variable representing an individual station
- t is a dummy indicator for whether a sample member is a member of the *Ready To Learn* workshop group or the control (1 if workshop, 0 if control)
- x_2 is an indicator variable for the k subgroups of interest
- δ_j is the regression-adjusted impact estimate for station j
- B and γ are sets of parameters to be estimated
- ε is a random disturbance (error term).

For any given subgroup of interest, the overall impact of the program is calculated similarly to equation (1) except that now there is an additional term that represents the subgroup (for example, parent or educator):

(3)

$$\sum_{j=1}^{20} \delta_j + \sum_{j=1}^{20} (\gamma_{jk} x_{2k}) / 20$$

APPENDIX C

CHAPTER III SUPPLEMENTAL TABLES

Table C.1: Ready To Learn Workshop Observation Form Items^a

1.	Date form completed
2.	Station call letters
2a.	Station location
3.	Workshop title
4.	Location of workshop Include type of location: Head Start Center, community action, school, church, library, etc.
5.	Is this workshop part of a multi-session series? Some workshops plan to have more than one session. You will observe only the first of any planned multi-session series. You should know in advance whether the workshop is part of a planned series, but confirm that with the coordinator or facilitator to be sure. It is also possible that the group will not decide whether they will have additional sessions until the first session is over. Please note that this is a possibility and that you may have to revise your response when the session is over.
6.	If this workshop is part of a multi-session series, how many total sessions will there be? If this workshop is part of a multi-session series, enter what session this is and how many total sessions are planned.
7.	How many facilitators were there? By facilitators we mean a person who has a substantive role in presenting information during the workshop. Do not include a person who simply introduces the coordinator or facilitator.
8.	Who facilitated the workshop? A variety of different people might serve as the RTL workshop facilitator. The <i>Ready To Learn</i> coordinator is designated on the workplans. In some stations, the coordinator has trained staff members or contracts with individuals she has trained to facilitate workshops. Code these individuals as RTL staff. If the facilitator is not the coordinator, confirm their status with them. In other situations, the coordinator has trained community partners, such as Head Start teachers, to facilitate RTL workshops. Code these as partner. For all other situations, code other and specify the status of the facilitator.

^aThe actual form included a column to record responses. Where the responses were other than yes/no or easily filled in, we have included the response category in this table.

TABLE C.1 (continued)

9.	How many <i>Ready To Learn</i> workshops has/have the facilitator/s conducted? Ask the facilitator about this. If there is more than one facilitator with the same title, please make note of that and code the person in the “other” data. If you have more than one person in the “other” category, make a clear note of this in the large blank space under the question and fill in the correct category for that person.
10.	How many participants were in attendance? Count the number of participants who were present for any part of the workshop. If there are so many that it is difficult to get an accurate count, do your best and indicate that on the form.
11.	Type of participants? The workshop participants will generally fall into two categories: (1) parents of young children or other adults who live with young children (for example, grandparents); or (2) child care professionals, including both center-based and family child care providers, Head Start teachers, and public school teachers.
12.	Does the facilitator plan to follow up with participants?
13.	What form will the follow up take? Note that they may plan to do a variety of follow-up activities with different start dates and different frequency. For example, they may put the participants on the mailing list for the monthly station program guide, and also send them <i>PBS Families</i> magazines twice per year. If there is more than one type of follow up planned, be sure to note that here and answer the questions below for each type of follow up that is planned. Use the back of this form if needed.
14.	When will the follow-up happen?
15.	In total, how many times will the facilitator follow-up with participants?
16.	Over what period of time?
17.	What language was the workshop conducted in?
18.	Were there any workshop participants who did not understand the language the workshop was conducted in?
18a.	Were any of the following accommodations made for the participants who did not speak the language in which the workshop was conducted?

TABLE C.1 (continued)

19. Did the facilitator introduce and define the View-Read-Do model?
By this we mean the idea of watching a PBS video clip or live broadcast, reading a book with a related theme, and doing an activity with children that builds on or reinforces the theme. This is also referred to as the Learning Triangle. The three components can be discussed and done in any order.
20. Did the facilitator demonstrate the View-Read-Do model?
By this we mean did the facilitator show a clip, suggest a book, and suggest an activity that could be done around a theme so that participants are able to experience a concrete example of what is meant by the View-Read-Do model. Code this yes even if the facilitator relies on the group to brainstorm ideas for books and activities. Code this no if the facilitator did not show a video clip.
21. Did the facilitator give participants concrete examples of how to use the Learning Triangle in their home or classroom setting?
This covers the logistics of how to plan a View-Read-Do sequence, such as using producer-developed materials cataloged by program episode number to develop ideas for implementing the model, knowing when a show is coming on, taping a show ahead of time, and selecting books and planning activities.
22. Did the facilitator ask participants to plan a View-Read-Do activity that they could do with their child/children?
Some learning theorists believe that actually doing what is being taught is the best way to fully comprehend what is being presented. Give credit here only if the facilitator gave the group time to plan a View-Read-Do activity. This could be done in small groups or by each participant individually.
23. Did the facilitator provide time to practice the View-Read-Do model?
23a. When practicing the View-Read-Do model, did participants break into groups and/or come up with their own idea for an activity or did the facilitator lead a practice demonstration, using an idea of his/her own?
Participants came up with their own ideas for activities __
The facilitator lead a practice demonstration using an idea of his/her own..... __
24. How many minutes were allotted for this?
25. Did the facilitator recommend a frequency of using the View-Read-Do model?
It is possible that the more participants use the model, the more effects it will have on the children in their care. We want to know whether the facilitator recommended that the participants use the model a certain number of times (per week, per month) with the children in their care.

TABLE C.1 (*continued*)

26.	How often did the facilitator recommend using View-Read-Do? Fill in the frequency the facilitator recommended using the model by the correct unit, day, week, or month.
27.	Did the facilitator show a video clip of a PBS children's television program in the workshop? If you have any doubts about whether a clip was from a PBS children's program, ask the facilitator after the workshop.
28.	Did the facilitator demonstrate reading a book? Many adults do not know how to read a book to keep the interest of a young child. Code yes if the facilitator demonstrated how to read aloud to young children.
29.	Did the facilitator demonstrate an activity that could be done in conjunction with a book and video clip? Give credit for this even if the facilitator does not take the time for the adults to actually do the activity. For example, she might have made up an example of a craft that would go with the book and video and that would count here.
30.	Were any of the following done or discussed in the workshop?
a.	Ice Breaker activity By an ice breaker activity we mean any activity that gets the group to interact with each other and relax in the environment. Examples include having each person introduce themselves, playing a game, and doing a group activity. Do not include starting the meeting with refreshments as an ice breaker.
b.	Media literacy/critical television viewing (watching educational television) By media literacy/critical television viewing, we mean that the facilitator discussed the idea that we are consumers of media information and that we need to be active in deciding what we expose ourselves and our children to from media sources.
c.	Adult-child co-viewing (watching television with a child/children) Facilitators may mention that co-viewing is one way to supervise what children watch and that it also provides an opportunity to not only share time together, but also to discuss what the child is watching. Simply citing how often children and adults watch television together is not enough to get credit here, the facilitator has to explain what it is and why it is important.
d.	Using television to initiate conversations/ask questions with children
e.	The importance of reading to young children (ways to read, encouraging more reading)

TABLE C.1 (continued)

f.	Ways to improve children's social skills
	To get credit here, the facilitator has to do more than just mention that a particular show's focus is children's social skills, she/he needs to explicitly mention or describe ways to work with children that may improve social skills or how a show does this. Examples of ways to improve social skills include modeling good social interactions for children, explaining social responsibility, and discussing what it means to be empathetic to others.
g.	Ways to enhance children's problem solving abilities
	To get credit here, the facilitator has to do more than just mention that a particular show's focus is children's problem solving abilities; she/he has to explicitly describe ways to work with children that may improve problem solving skills. Examples of this include certain types of games and puzzles, sequencing activities, and other problem solving activities either in the cognitive or the social area.
h.	Ways to promote numeracy skills
	To get credit here the facilitator has to do more than just mention that a show's focus is numeracy or math skills. She/he has to explicitly describe ways to work with children that may improve their math and number skills. Examples of this include counting, sequencing, and grouping activities.
i.	Inclusion/special needs (modifying activities for children with special needs, talking to children about those with special needs)
	To get credit here, the facilitator has to explicitly address what it means to adapt activities and settings for children with disabilities. Also give credit if the facilitator discusses how to work with children to help them be more accepting of those with special needs.
j.	Local station information/other outreach offerings
	Stations may have a variety of resources and activities available for workshop participants. Give credit here if the facilitator describes the local station and its activities and the other types of community outreach it is doing.
k.	Program-specific information about a particular PBS children's program
	Some workshops may be specifically about a particular PBS show and you will learn about the characters, the way the show is designed to teach children, and the facilitator may distribute documents about the show. Even in a basic RTL workshop, the facilitator may provide program-specific information. Give credit here if the facilitator provides information about a particular show, but do not give credit if the facilitator simply tells the participants when the show is on the air.

TABLE C.1 (continued)

I.	Information about how to access PBS children's programs/program schedules Give credit here if the facilitator mentions what the PBS schedule is or how to access the schedule (on the web, TV guide, or the station's program guide).
31.	Were any of the following materials distributed to all workshop participants?
a.	View-Read-Do planning sheets We are not looking for a specific document here, simply a form that provides space for participants to fill in information about: (1) an episode or show clip, (2) a book or related reading activity, and (3) a related activity.
b.	Program guides linked to episodes Every episode of a show has a number. Some producers provide materials to help support View-Read-Do that are keyed by the episode number. If you do not know the episode number, it is very difficult to use these materials. Stations can make the episode numbers available in a calendar-type document. Give credit here if the facilitator distributes something that provides this information or if she/he instructs participants how to access the information (some stations provide this on their web sites).
c.	Producer-created materials for specific children's television programs You may have to ask the facilitator about this to be sure that the materials were not created by the station rather than by the producers of the program. Give credit if the facilitator has made copies of materials from the producers.
d.	Children's books
e.	Other materials _____ SPECIFY
32.	Was the workshop format mostly lecture, interactive, or a mixture of lecture and interactive? By lecture, we mean that the facilitator talked for most of the presentation and questions and answers were exchanged between her and the participants in a traditional classroom style. By interactive, we mean that the facilitator engaged the participants in group discussions and exchanges with her or him that represented a more flexible style of sharing information. By a mixture of lecture and interactive, we mean that there were periods during which the facilitator lectured in a more traditional style and periods of exchanges with the group.

TABLE C.1 (continued)

33. Observer Ratings	
a.	<p>Welcoming atmosphere of the workshop (physical space, facilitator actions)</p> <p>Poor: No effort was made to make the space welcoming and conducive to the workshop. No effort was made to welcome participants to the workshop.</p> <p>Fair: Some effort was made to arrange the space to make it welcoming and conducive for the workshop (this might include having refreshments set up). Some effort was made to welcome participants and make them feel comfortable (this might include greeting the participants as they entered the room and inviting them to have refreshments or explaining where to hang their coats and where the rest rooms are).</p> <p>Good: The space and the behavior of the facilitator were welcoming.</p> <p>Very Good: Efforts were made to make the space welcoming, such as arranging the chairs in a semi-circle and providing interesting displays for participants to look at while they waited for the workshop to begin. The facilitator greeted most of the participants as they arrived.</p> <p>Excellent: The space was arranged to make it very welcoming for participants and all participants were greeted when they arrived.</p>
b.	<p>The facilitator's ability to communicate with the participants</p> <p>Poor: The facilitator was not a good communicator or there was a major communication barrier (for example, the microphone did not work in a large room and not everyone could hear).</p> <p>Fair: The facilitator was able to communicate some ideas to the workshop participants, but experienced some communication problems.</p> <p>Good: The facilitator was able to communicate well with the participants.</p> <p>Very Good: The facilitator was a good communicator and was able to consistently convey a clear message and keep the participants engaged. The facilitator checked for understanding some of the time.</p> <p>Excellent: The facilitator was highly skilled at both communicating ideas and messages to the audience and at receiving feedback from them to check that the communication was understood.</p>

TABLE C.1 (continued)

<p>c. The participants' enthusiasm in the workshop</p> <p>Poor: The participants' energy level and enthusiasm was low. Cross-talk, obvious lack of attentiveness.</p> <p>Fair: The participants demonstrated some enthusiasm about the topic, but the energy level and enthusiasm were not consistently good.</p> <p>Good: The participants consistently demonstrated enthusiasm and a good level of energy and involvement during the workshop.</p> <p>Very Good: The participants were highly enthusiastic and highly energized at times during the workshop</p> <p>Excellent: The participants were highly enthusiastic and energized throughout the workshop.</p>
<p>d. The facilitator's knowledge of the workshop content</p> <p>Poor: The facilitator was not knowledgeable about the workshop content.</p> <p>Fair: The facilitator was somewhat knowledgeable about the content but was not as knowledgeable as she/he could have been. For example, she/he was not able to answer reasonable questions about the material presented.</p> <p>Good: The facilitator was knowledgeable about the workshop content.</p> <p>Very Good: The facilitator was very knowledgeable about the workshop content and demonstrated that knowledge consistently throughout the workshop. They displayed interest in the topic and asked and answered questions some of the time.</p> <p>Excellent: The facilitator is clearly a knowledgeable expert on the topic and demonstrated her/his expertise many times during the workshop.</p>

TABLE C.1 (continued)

e.	<p>The facilitator's organization of the workshop</p> <p>Poor: The facilitator and the workshop were disorganized. Examples include that she/he was not ready to start when the workshop was scheduled to begin, the workshop itself did not flow logically and was confusing, or materials were not being prepared for participants.</p> <p>Fair: The facilitator and the workshop were somewhat disorganized.</p> <p>Good: The facilitator and the workshop were organized--the workshop had a logical sequence and the facilitator was prepared.</p> <p>Very Good: The facilitator and the workshop were well organized.</p> <p>Excellent: The organization of the workshop and the facilitator were so good that the structure and its strong organization were reinforcing to the content the facilitator was trying to deliver.</p>
f.	<p>The facilitator's ability to include child development concepts in the workshop</p> <p>Poor: The facilitator did not include child development concepts (such as the idea of developmentally appropriate practice, brain development, or social development) or when included, they were not clearly presented.</p> <p>Fair: The facilitator included some child development concepts, but not all of them were clearly presented.</p> <p>Good: The facilitator included child development concepts and all of them were clearly presented.</p> <p>Very Good: The facilitator included many child development concepts and all of them were clearly presented.</p> <p>Excellent: The facilitator clearly weaved child development concepts into the entire workshop. The foundation of the workshop was based on child development concepts.</p>

TABLE C.1 (continued)

g.	<p>Appropriateness of content for participants (in terms of literacy, knowledge of child development)</p> <p>Poor: The content of the workshop was inappropriate for the participants (for example, it was pitched at a level of knowledge too high or too low for the group as demonstrated by a lack of engagement or many questions and puzzled looks)</p> <p>Fair: The content of the workshop was somewhat appropriate for participants.</p> <p>Good: The content of the workshop was appropriate for the participants.</p> <p>Very Good: The content of the workshop was very appropriate for the participants as demonstrated by their engagement in the workshop.</p> <p>Excellent: The content of the workshop was tailored to the needs and interests of the participants. Evidence for this might include the facilitator offering the groups options about the pace and content and adjusting the presentation as required or examples tied to their experiences as parents or childcare providers.</p>
h.	<p>The overall quality of the workshop</p> <p>Poor: The quality was very low in key areas or there was a major barrier that was not overcome. For example, the Learning Triangle was not clearly presented and the presentation was poorly organized.</p> <p>Fair: The quality was mixed with key topics not covered clearly or some dimension scoring very low.</p> <p>Good: The quality was good. Key areas were presented clearly and competently.</p> <p>Very Good: The quality was high with key areas presented very well, most dimensions scoring high, and good levels of participant engagement and enthusiasm.</p> <p>Excellent: All key content areas were covered, the workshop objectives were clearly defined at the start and they were met, and participants remained engaged.</p>
34.	<p>Qualitative Notes</p> <p>This section is for your use during the observation. If anything happened during the workshop that would help us interpret your responses or make them more meaningful, please include them here.</p>

Table C.2. Characteristics of *Ready To Learn* Workshops

Workshop Characteristic	Percentage All Workshops	Percentage Parent Workshops	Percentage Educator Workshops
Type of Workshop			
Basic <i>Ready To Learn</i> workshop	69	73	61
Thematic workshop	23	21	26
Program-related workshop	8	6	13
Location of Workshop			
Head Start	20	28	6
Preschool	6	9	0
Elementary school	22	31	6
Community center	26	17	42
Station	1	0	3
Library	6	6	6
Other	19	9	35
Workshop Part of Multiple Sessions			
Yes	31	41	16
No	68	59	84
Average Length of Time for Workshop (minutes)			
	95 Ranging from 32 to 350	80 Ranging from 32 to 165	121 Ranging from 45 to 350
Total Time			
Less than 1 hour	23	29	14
Between 1 and 2 hours	60	62	59
Greater than 2 hours	16	10	28
Workshop Format			
Lecture	23	23	20
Interactive	19	23	17
Mix	58	54	63

TABLE C.2 (continued)

	Percentage All Workshops	Percentage Parent Workshops	Percentage Educator Workshops
Average Number of Participants/Workshop	15 Ranging from 4 to 56	15 Ranging from 4 to 56	16 Ranging from 5 to 55
Type of Facilitator			
<i>Ready To Learn</i> Coordinator	75	80	68
<i>Ready To Learn</i> staff	14	8	26
Partner	7	11	0
Other	4	2	13
Experience—<i>Ready To Learn</i> Coordinator			
Conducted fewer than 5 workshops	3	3	5
Conducted 5 to 15 workshops	97	98	95
Experience—<i>Ready To Learn</i> Staff			
Conducted fewer than 5 workshops	0	0	10
Conducted 5 to 15 workshops	100	100	90
Experience—Partner			
Conducted fewer than 5 workshops	77	77	0
Conducted 5 to 15 workshops	23	23	0
Experience—Other			
Conducted fewer than 5 workshops	44	50	33
Conducted 5 to 15 workshops	56	50	67
Number of Facilitators			
One	74	69	84
More than one	26	31	16
Participant Followup Planned			
Yes	72	81	55
No	28	19	45

TABLE C.2 (continued)

	Percentage All Workshops	Percentage Parent Workshops	Percentage Educator Workshops
Type of Followup Planned			
Telephone	23	23	24
Written	59	57	65
In Person	44	48	35
Other	5	5	6
Average Time to When Facilitators First Plan to Follow Up with Participants (Days)			
	52 Ranging from 0 to 365	56 Ranging from 7 to 365	43 Ranging from 7 to 194
Average Number of Times Facilitators Plan to Follow Up (Per Year)			
	3 Ranging from 1 to 10	3 Ranging from 1 to 10	2 Ranging from 1 to 6
Language of Workshop			
English	80	70	97
Spanish	6	7	3
Both	14	22	0
Participant Did Not Understand Language			
Difficulty understanding	19	29	3
No difficulty understanding	81	71	97
Used translator	94 (out of 16)	100 (out of 15)	0
Used translated materials	87 (out of 16)	93 (out of 15)	0
Exposure to View-Read-Do			
Introduced	99	100	97
Demonstrated	95	96	94
Gave examples	95	96	94
Participants planned an activity	62	60	65
Time to practice	65	62	71
5 Minutes or less to practice	54	57	48
Greater than 5 minutes to practice	46	43	52
Participants came up with ideas	84	93	69
Recommended frequency of use	48	51	43

TABLE C.2 (continued)

	Percentage All Workshops	Percentage Parent Workshops	Percentage Educator Workshops
Recommended Frequency of VRD Use (of Those Given a Recommendation)			
Daily	54	44	80
Weekly	46	56	20
Monthly	0	0	0
Other Workshop Content			
Showed a clip of PBS program	100	100	100
Demonstrated reading a book	74	80	63
Demonstrated activity related to video and book	92	98	80
Used an “icebreaker”	79	74	87
Discussed media literacy	94	93	97
Discussed adult/child co-viewing	94	96	90
Discussed using TV to initiate conversation	94	94	93
Discussed the importance of reading	89	85	97
Discussed improving social skills	55	50	65
Discussed problem solving	56	55	58
Promoted numeracy skills	53	59	42
Inclusion of special needs	16	13	23
Provided local station information	71	76	61
Discussed program-specific information	94	91	100
Discussed how to access PBS	89	91	87
Materials Distributed at Workshop			
VRD planning sheets	69	66	74
Program guides	80	76	87
Producer-created materials	86	81	93
Children’s books	94	100	84
Children’s activity materials	28	31	23
Other	57	59	53
Workshop Quality			
Welcoming atmosphere			
Poor	0	0	0
Fair	9	9	10
Good	34	33	35
Very good	38	37	39
Excellent	19	20	16

TABLE C.2 (continued)

	Percentage All Workshops	Percentage Parent Workshops	Percentage Educator Workshops
Facilitator's communication			
Poor	0	0	0
Fair	5	6	3
Good	22	28	13
Very good	47	46	48
Excellent	26	20	35
Participant's enthusiasm			
Poor	0	0	0
Fair	9	6	16
Good	44	50	32
Very good	29	31	26
Excellent	18	13	26
Facilitator's knowledge			
Poor	0	0	0
Fair	4	4	3
Good	21	26	13
Very good	39	34	48
Excellent	36	36	35
Organization			
Poor	0	0	0
Fair	6	6	6
Good	33	38	26
Very good	45	43	48
Excellent	15	13	19
Ability to provide child development information			
Poor	4	4	3
Fair	12	10	16
Good	31	40	16
Very good	37	33	45
Excellent	16	13	19
Appropriate content			
Poor	0	0	0
Fair	0	0	0
Good	28	35	16
Very good	51	44	61
Excellent	21	20	23

TABLE C.2 (*continued*)

	Percentage All Workshops	Percentage Parent Workshops	Percentage Educator Workshops
Overall quality			
Poor	0	0	0
Fair	4	4	3
Good	35	40	27
Very good	45	44	47
Excellent	16	12	23
Sample Size	85	54	31

Source: Workshop Observation Forms.

APPENDIX D

CHAPTER IV SUPPLEMENTAL TABLES

Table D.1. Background Characteristics of the Early Childhood Educators

Item	Educators (Percentage)
Demographic Characteristics	
Female	98
Race	
White	56
African American	34
Hispanic	8
Other	3
Languages Spoken	
English	96
Language in addition to English	5
Geographic Area in Which Educator Works	
Urban	48
Suburban	25
Rural	27
Education Degree	
High school/GED or less	22
Some postsecondary but no degree	39
Associate's degree	16
BA or higher	23
Taken College Courses in Each Childhood Development	71
Ready To Learn	
Previous Program Exposure	11
Time of Previous Program Exposure (Among 14 percent)	
Within last 3 months	18
Within last year but not last 3 months	35
More than a year ago	47
Reasons to Attend Workshop	
Learn child care techniques	74
Help children be better prepared for school	75
Learn about ways to use TV	61
Credit	28

TABLE D.1 (*continued*)

	Strongly Disagree	Disagree	Agree/ Strongly Agree
Views Concerning Television			
Cartoons are safe for kids	35	48	17
Don't keep track of what kids watch	70	18	12
TV has no place in a child care setting	22	65	13
Parents upset if TV used in child care	23	59	18
PBS is the same as other channels	38	50	12
	Disagree/ Strongly Disagree	Agree	Strongly Agree
TV can be an educational tool	4	46	50
Even cartoon violence is harmful to kids	9	33	58
PBS broadcasts high-quality kids' TV	2	40	58
Comfortable using TV to teach	18	58	23
PBS programs are safe for kids	17	56	28
Sample Size	790-903		

Source: Early Childhood Educator Baseline Survey.

Note: Data were weighted to adjust for survey nonresponse and to equalize the contribution of each station.

Table D.2. Background Characteristics of Parents

Item	Parents (Percentage)
Demographic Characteristics	
Female	90
Race	
White	33
African American	33
Hispanic	21
Other	13
Language Spoken at Home	
English	79
Geographic Area	
Urban	64
Suburban	18
Rural	18
Marital Status	
Married	55
Divorced, separated, or widowed	15
Never married	27
Have Children 3 to 5 Years Old	88
Focus Child Has Special Needs ^a	15
Education and Employment	
Education	
Less than high school diploma or GED	28
High school diploma or GED	22
Some college/voc. or tech. school but no degree	29
AA, BA, or higher	22
Employment Status	
Employed full-time	38
Employed part-time (less than 30 hours/week)	12
Homemaker	30
Other ^b	20

TABLE D.2 (continued)

Item	Parents (Percentage)		
Annual Income			
\$20,000 or less			54
\$20,000 to \$40,000			27
More than \$40,000			19
Receives Supplemental Income Support ^c			59
Ready To Learn			
Previous Program Exposure			6
Reasons to Attend Workshop			
Help my children be better prepared for school			75
Learn new parenting techniques			66
Learn to use TV as a teaching tool			62
Required to attend			7
	Strongly Disagree	Disagree	Agree/Strongly Agree
Views Concerning Television			
Cartoons are safe for kids	19	40	42
Don't keep track of what kids watch	66	24	10
TV has no place in a child care setting	18	62	20
Upset if TV used in child care	15	62	23
PBS is the same as other channels	33	44	24
	Disagree/ Strongly Disagree	Agree	Strongly Agree
TV can be an educational tool	4	44	52
Even cartoon violence is harmful to kids	9	39	52
PBS broadcasts high-quality kids' TV	2	36	62
Comfortable if provider used TV to teach	18	54	28
PBS programs are safe for kids	10	46	44
Sample Size	1,173-1,400		

Source: Parent Baseline Survey.

Note: Data were weighted to adjust for survey nonresponse and to equalize the contribution of each station.

^aThis variable comes from the first follow-up survey, administered three months after the baseline survey.

^bThe other category includes full-time student; unemployed (not looking for work); unemployed (looking for work); and disabled.

^cThis includes anyone who indicated they received any of the following: TANF, WIC, or Food Stamps.

Table D.3. Focus Child Characteristics—Parents Only

Item	Percentage
Age	
Younger than 3	5
3 to 5	87
Older than 5	8
Gender	
Male	49
Female	51
Number of Children's Books Owned	
Less than 10	12
10 to 25	26
26 to 50	22
More than 50	40
In Child Care Some Portion of the Week	63
Experienced Family Change Since Baseline	
Parents' marital status changed	3
Moved homes	10
Sample Size	1,173-1,400

Source: Parent First Follow-Up Survey.

Note: Data were weighted to adjust for survey nonresponse and to equalize the contribution of each station.

Table D.4. Characteristics of Focus Classroom or Group of Children—Early Childhood Educators

Item	Percentage
Age of Group Educator Cares for	
Younger than 3	9
3 to 5	91
Older than 5	1
Number of Children in Group	
Less than 10	54
10 to 18	35
More than 18	11
Number of Additional Educators Who Work With Group	
None	36
1	34
2	20
More than 2	10
Number of Books Available to Children	
Less than 10	5
10 to 25	24
26 to 50	26
More than 50	45
Educator's Classroom Autonomy	
Regularly plans activities	93
Required to use a plan or curriculum other than own	35
Can make changes to this external plan	96
Educator Worked at Current Job Since Time of Workshop	98
Sample Size	790-903

Source: Early Childhood Educator First Follow-Up Survey.

Note: Data were weighted to adjust for survey nonresponse and to equalize the contribution of each station.

Table D.5. Media Access and Use—Full Study Sample

Item	Percentage Parents	Percentage Educators
Has Access to Television	100	92
Number of Televisions in Home		
0	0	N/A
1	15	N/A
2	34	N/A
3 or more	51	N/A
Has Access to VCR/DVD	N/A	91
Has Cable/Satellite Television	74	53
Uses the Internet/Web	51	67
Has Access to the Internet at		
Home	57	76
Work	34	65
Library	83	90
Friend/relative's home	67	83
Sample Size	1,173-1,400	790-903

Source: Parent and Early Childhood Educator First Follow-Up Surveys.

Note: Data were weighted to adjust for survey nonresponse and to equalize the contribution of each station.

APPENDIX E

CHAPTER V SUPPLEMENTAL TABLES

Table E.1. Impacts of *Ready To Learn* Workshops Three Months After Random Assignment: Content Coverage (Observer Rating)

	Did Not Cover All Content			Covered All Content			Subgroup Difference
	Workshop Group	Control Group	Estimated Impact	Workshop Group	Control Group	Estimated Impact	
Learning Triangle Activities							
Percentage Who (3-5 Times/ Month):							*
Discuss program while watching	88.3	86.4	1.8	76.7	67.5	9.2***	
Answer child's questions about program	89.4	88.8	0.6	78.8	74.8	4.0	
Discuss characters from program	89.9	84.5	5.4*	78.2	72.8	5.4**	
Sing songs from program	81.9	83.2	-1.3	76.3	74.4	1.9	
Talk about program once over	84.9	82.4	2.5	76.6	67.8	8.8***	
Do activities related to program	68.2	65.4	2.8	60.3	56.9	3.5	
Read a book related to program	69.8	65.9	3.9	62.6	56.1	6.5**	
View, read, and do related activity	47.5	42.9	4.6	39.1	35.0	4.2	
Television Co-Viewing Behaviors							
Percentage Who (All or Most of the Time):							
Co-view PBS KIDS	67.2	60.2	7.0	64.3	60.8	3.5	
Co-view Nick Jr.	39.1	28.7	10.4**	29.6	27.6	2.0	
Co-view Cartoon Network	30.2	24.9	5.3	19.3	19.5	-0.1	
Co-view Disney Channel	41.3	27.9	13.4***	25.0	22.6	2.5	
Co-view ABC Family Channel	25.1	16.3	8.8**	13.0	15.6	-2.5	
Attitudes Toward Television and PBS							
Percentage Disagree That:							
Cartoons are safe for kids	66.3	63.4	2.9	69.1	64.7	4.3*	
Don't keep track of what kids watch	89.9	91.0	-1.1	87.4	91.3	-3.9**	
TV has no place in a child care setting	80.4	79.8	0.7	81.4	81.8	-0.4	
Upset if TV used in child care	73.6	70.7	2.9	74.1	76.8	-2.7	
PBS is the same as other channels	81.8	82.2	-0.4	86.1	83.4	2.7	
Percentage Agree That:							
TV can be an educational tool	97.0	96.4	0.6	96.0	96.8	-0.8	
Even cartoon violence is harmful to kids	90.3	91.1	-0.7	90.0	89.7	0.4	
PBS broadcasts high-quality kids' TV	98.2	98.9	-0.7	98.6	99.0	-0.4	
Comfortable if used TV to teach	85.6	83.6	1.9	84.4	85.5	-1.1	
PBS programs are safe for kids	91.8	88.0	3.8	87.7	87.3	0.5	
Reading and Literacy Behaviors							
Percentage with ≥26 children's books	68.4	67.7	0.7	64.7	65.2	-0.4	
Read once a day or more	70.7	72.1	-1.4	79.4	80.1	-0.8	
Minutes reading with child per day	49.9	47.5	2.3	45.5	47.3	-1.8	
Sample Size	310-320	276-286		681-700	636-696		

Source: Parent and Early Childhood Educator First Follow-Up Surveys.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test.

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

Table E.2. Impacts of *Ready To Learn* Workshops Three Months After Random Assignment: Quality of Presentation (Observer Rating)

	Observer Rating Low			Observer Rating High			Subgroup Difference
	Workshop Group	Control Group	Estimated Impact	Workshop Group	Control Group	Estimated Impact	
Learning Triangle Activities							
Percentage Who (3-5 Times/Month):							
Discuss program while watching	88.2	83.6	4.6	76.6	70.4	6.2**	
Answer child's questions about program	89.9	89.4	0.5	76.8	75.5	1.3	
Discuss characters from program	89.7	81.9	7.8***	76.9	75.0	1.9	
Sing songs from program	83.9	83.7	0.2	77.0	77.4	-0.4	
Talk about program once over	86.3	79.7	6.6**	74.9	71.7	3.2	
Do activities related to program	70.3	64.7	5.5	62.7	55.3	7.4**	
Read a book related to program	68.7	67.2	1.6	63.9	57.1	6.9**	
View, read, and do related activity	43.8	39.9	3.9	42.6	36.6	6.0*	
Television Co-Viewing Behaviors							
Percentage Who (All or Most of the Time):							
Co-view PBS KIDS	63.4	62.6	0.8	68.8	59.8	9.0***	
Co-view Nick Jr.	34.2	33.6	0.6	32.3	28.0	4.3	
Co-view Cartoon Network	28.2	23.6	4.6	20.7	18.6	2.1	
Co-view Disney Channel	30.0	30.9	-0.8	30.0	24.2	5.8*	
Co-view ABC Family Channel	19.0	18.9	0.1	15.3	14.0	1.3	
Attitudes Toward Television and PBS							
Percentage Disagree That:							
Cartoons are safe for kids	65.4	62.7	2.7	68.3	66.6	1.7	
Don't keep track of what kids watch	89.8	91.4	-1.6	87.7	91.7	-4.0*	
TV has no place in a child care setting	80.1	81.4	-1.4	79.7	84.1	-4.4*	
Upset if TV used in child care	74.8	73.4	1.4	74.1	76.0	-1.8	
PBS is the same as other channels	84.7	83.4	1.3	84.1	82.4	1.7	
Percentage Agree That:							
TV can be an educational tool	96.9	96.5	0.4	97.2	97.4	-0.2	
Even cartoon violence is harmful to kids	90.3	90.1	0.2	90.3	90.0	0.2	
PBS broadcasts high-quality kids' TV	97.9	99.3	-1.4	98.3	98.5	-0.2	
Comfortable if used TV to teach	85.1	87.5	-2.3	85.9	85.2	0.7	
PBS programs are safe for kids	88.2	86.7	1.6	87.7	86.4	1.3	
Reading and Literacy Behaviors							
Percentage with ≥26 children's books							
Read once a day or more	65.1	68.1	-3.0	63.7	64.1	-0.4	
Minutes reading with child per day	70.3	74.1	-3.8	80.7	81.5	-0.9	
	47.2	46.9	0.4	48.0	46.1	1.9	
Sample Size	311-381	336-352		511-760	583-637		

Source: Parent and Early Childhood Educator First Follow-Up Surveys.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test.

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

Table E.3. Impacts of *Ready To Learn* Workshops Three Months After Random Assignment: Overall Quality (Observer Rating)

	Lower Quality			High Quality			Subgroup Difference
	Workshop Group	Control Group	Estimated Impact	Workshop Group	Control Group	Estimated Impact	
Learning Triangle Activities							
Percentage Who (3-5 Times/ Month):							
Discuss program while watching	88.7	83.4	5.1**	71.1	63.6	7.5**	
Answer child's questions about program	89.0	87.6	1.3	72.6	69.5	3.0	
Discuss characters from program	89.4	82.7	6.6***	72.8	69.0	3.8	
Sing songs from program	83.2	82.3	0.8	73.2	71.2	2.1	
Talk about program once over	85.1	79.2	5.8**	71.0	64.2	6.8**	
Do activities related to program	71.2	64.3	6.9**	57.2	53.6	3.6	
Read a book related to program	69.0	66.6	2.3	59.4	52.0	7.3*	
View, read, and do related activity	47.8	41.8	6.0	36.3	33.2	3.1	
Television Co-Viewing Behaviors							
Percentage Who (All or Most of the Time):							
Co-view PBS KIDS	66.3	62.0	4.0	68.3	56.7	11.6***	
Co-view Nick Jr.	35.3	31.6	3.9	29.1	24.4	4.7	
Co-view Cartoon Network	27.6	21.9	5.9*	16.5	16.3	0.2	
Co-view Disney Channel	36.4	27.8	8.8***	24.9	18.8	6.1*	
Co-view ABC Family Channel	21.9	17.6	4.5	11.2	12.2	-1.0	
Attitudes Toward Television and PBS							
Percentage Disagree That:							
Cartoons are safe for kids	63.5	61.4	1.7	67.9	65.0	2.9	
Don't keep track of what kids watch	88.5	90.9	-2.5	85.8	90.2	-4.4*	
TV has no place in a child care setting	79.5	80.9	-1.4	82.4	82.7	-0.4	
Upset if TV used in child care	72.9	71.1	1.7	72.5	76.4	-3.9	
PBS is the same as other channels	82.0	80.9	0.9	84.8	81.9	2.9	
Percentage Agree That:							
TV can be an educational tool	96.4	96.3	0.1	96.4	97.1	-0.7	
Even cartoon violence is harmful to kids	89.9	90.0	-0.2	88.5	89.9	-1.5	
PBS broadcasts high-quality kids' TV	97.7	98.9	-1.3	98.5	98.0	0.5	
Comfortable if used TV to teach	84.8	84.7	-0.2	83.9	84.6	-0.7	
PBS programs are safe for kids	90.7	87.3	3.5	88.0	86.9	1.1	
Reading and Literacy Behaviors							
Percentage with ≥26 children's books							
Read once a day or more	71.1	73.0	-2.2	82.6	82.2	0.4	
Minutes reading with child per day	49.1	47.1	2.2	45.2	47.5	-2.3	
Sample Size	474-578	490-515		357-563	422-473		

Source: Parent and Early Childhood Educator First Follow-Up Surveys.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test.

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

Table E.4. Impacts of *Ready To Learn* Workshops Three Months After Random Assignment: Planned View-Read-Do Activities (Observer Rating)

	Participants Did Not Plan V-R-D			Participants Planned V-R-D			Subgroup Difference
	Workshop Group	Control Group	Estimated Impact	Workshop Group	Control Group	Estimated Impact	
Learning Triangle Activities							
Percentage Who (3-5 Times/Month):							**
Discuss program while watching	80.3	80.6	-0.3	84.0	75.3	8.7***	
Answer child's questions about program	81.7	85.2	-3.6	84.3	82.4	1.8	
Discuss characters from program	78.9	80.0	-1.0	85.9	80.1	5.8**	
Sing songs from program	73.7	77.9	-4.2	81.8	81.3	0.5	
Talk about program once over	77.8	75.3	2.5	82.0	77.6	4.4	
Do activities related to program	60.5	63.2	-2.7	69.5	62.2	7.3**	
Read a book related to program	62.6	62.7	-0.1	69.1	62.9	6.2*	
View, read, and do related activity	39.1	38.2	0.9	47.0	40.1	6.9**	
Television Co-Viewing Behaviors							
Percentage Who (All or Most of the Time):							
Co-view PBS KIDS	62.7	56.6	6.1	65.7	61.0	4.6	
Co-view Nick Jr.	27.6	26.1	1.5	38.2	29.9	8.3***	
Co-view Cartoon Network	25.4	20.4	5.0	25.2	19.9	5.3*	
Co-view Disney Channel	28.4	28.3	0.1	32.9	25.1	7.8***	
Co-view ABC Family Channel	13.8	15.5	-1.7	19.1	18.0	1.1	
Attitudes Toward Television and PBS							
Percentage Disagree That:							*
Cartoons are safe for kids	61.8	55.5	6.3	67.5	66.1	1.5	
Don't keep track of what kids watch	87.7	86.5	1.3	88.0	93.2	-5.1***	
TV has no place in a child care setting	73.6	76.5	-2.9	82.6	83.7	-1.1	
Upset if TV used in child care	69.8	68.3	1.5	76.4	75.7	0.7	
PBS is the same as other channels	82.1	77.2	4.9	85.5	84.7	0.9	
Percentage Agree That:							
TV can be an educational tool	96.2	96.0	0.2	96.7	97.7	-0.9	
Even cartoon violence is harmful to kids	86.8	88.7	-1.9	92.6	90.6	2.1	
PBS broadcasts high-quality kids' TV	97.6	97.6	-0.0	98.8	99.6	-0.8	
Comfortable if used TV to teach	82.5	82.9	-0.4	86.3	86.7	-0.4	
PBS programs are safe for kids	88.3	85.5	2.8	88.0	86.2	1.8	
Reading and Literacy Behaviors							
Percentage with ≥26 children's books	60.2	64.2	-4.0	65.9	64.9	1.0	
Read once a day or more	70.8	77.8	-7.0*	78.6	78.8	-0.2	
Minutes reading with child per day	44.9	44.2	0.7	48.6	48.2	0.4	
Sample Size	267-317	237-262		667-714			

Source: Parent and Early Childhood Educator First Follow-Up Surveys.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test.

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

Table E.5. Impacts of Ready To Learn Workshops Three Months After Random Assignment: Workshop Practice Time for View-Read-Do Activities (Observer Rating)

	Did Not Provide Practice Time			Provided Practice Time			Subgroup Difference
	Workshop Group	Control Group	Estimated Impact	Workshop Group	Control Group	Estimated Impact	
Learning Triangle Activities							
Percentage Who (3-5 Times/Month):							
Discuss program while watching	83.5	78.4	5.1	82.2	77.6	4.6*	*
Answer child's questions about program	87.0	86.7	0.3	83.1	81.4	1.7	*
Discuss characters from program	85.3	79.4	5.9	82.6	79.3	3.4	
Sing songs from program	76.6	81.5	-4.9	81.0	80.8	0.2	
Talk about program once over	84.1	76.0	8.1**	78.9	77.0	1.9	
Do activities related to program	67.9	63.1	4.9	63.9	60.9	3.0	
Read a book related to program	68.4	61.7	6.7	65.1	60.6	4.4	
View, read, and do related activity	42.9	37.0	5.9	41.9	39.1	2.7	
Television Co-Viewing Behaviors							
Percentage Who (All or Most of the Time):							
Co-view PBS KIDS	62.2	60.4	1.9	66.9	60.6	6.3**	
Co-view Nick Jr.	32.2	26.8	5.3	33.7	30.7	2.9	
Co-view Cartoon Network	28.4	24.1	4.3	23.1	20.1	3.0	
Co-view Disney Channel	29.3	26.5	2.9	33.5	25.4	8.1***	
Co-view ABC Family Channel	16.7	17.1	-0.4	17.7	16.4	1.4	
Attitudes Toward Television and PBS							
Percentage Disagree That:							
Cartoons are safe for kids	59.5	53.5	6.1	68.4	66.0	2.4	
Don't keep track of what kids watch	88.4	87.3	1.1	88.3	91.7	-3.5**	
TV has no place in a child care setting	74.2	76.2	-2.0	83.3	82.8	0.5	
Upset if TV used in child care	71.4	68.6	2.8	76.1	76.8	-0.8	
PBS is the same as other channels	77.5	75.9	1.6	86.8	83.6	3.2	
Percentage Agree That:							
TV can be educational tool	96.5	94.9	1.6	96.9	97.5	-0.6	
Even cartoon violence is harmful to kids	86.6	90.0	-3.5	91.0	90.3	0.6	
PBS broadcasts high-quality kids' TV	97.3	97.4	-0.1	98.7	99.5	-0.8	
Comfortable if used TV to teach	83.1	84.0	-0.9	86.6	85.3	1.3	
PBS programs are safe for kids	90.6	84.4	6.2**	88.4	89.4	-1.0	**
Reading and Literacy Behaviors							
Percent with ≥26 children's books	61.8	64.8	-3.0	65.2	64.9	0.4	
Read once a day or more	72.9	77.4	-4.5	75.6	77.0	-1.4	
Minutes reading with child per day	43.7	46.4	-2.7	47.7	47.5	0.2	
Sample Size	286-295	245-259		682-716	680-708		

Source: Parent and Early Childhood Educator First Follow-Up Surveys.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test.

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

Table E.6. Impacts of *Ready To Learn* Workshops Three Months After Random Assignment: Demonstrated Reading a Book (Observer Rating)

	Did Not Demonstrate Reading a Book			Demonstrated Reading a Book			Subgroup Difference
	Workshop Group	Control Group	Estimated Impact	Workshop Group	Control Group	Estimated Impact	
Learning Triangle Activities							
Percentage Who (3-5 Times/Month):							
Discuss program while watching	80.2	73.8	6.4	83.1	76.3	6.8***	
Answer child's questions about program	80.8	79.7	1.0	85.2	81.8	3.4	
Discuss characters from program	83.0	74.4	8.6*	84.4	79.2	5.2**	
Sing songs from program	81.6	77.8	3.8	80.3	80.2	0.1	
Talk about program once over	77.5	71.0	6.4	80.9	76.1	4.8**	
Do activities related to program	65.2	55.3	9.9*	66.5	61.6	4.9*	
Read a book related to program	61.0	53.8	7.2	68.5	61.3	7.2***	
View, read, and do related activity	36.9	35.0	2.0	43.6	39.3	4.3	
Television Co-Viewing Behaviors							
Percentage Who (All or Most of the Time):							
Co-view PBS KIDS	60.2	60.2	-0.1	68.2	60.7	7.5***	
Co-view Nick Jr.	37.0	30.5	6.5	32.6	27.9	4.7*	
Co-view Cartoon Network	23.6	22.2	1.4	23.7	19.9	3.8	
Co-view Disney Channel	33.7	25.8	7.9	30.4	23.3	7.1***	
Co-view ABC Family Channel	18.5	13.6	4.9	16.8	16.1	0.8	
Attitudes Toward Television and PBS							
Percentage Disagree That:							
Cartoons are safe for kids	69.8	61.6	8.3*	64.6	63.0	1.7	
Don't keep track of what kids watch	90.1	94.0	-3.9	87.4	89.8	-2.4	
TV has no place in a child care setting	84.5	87.4	-2.9	77.3	78.8	-1.4	
Upset if TV used in child care	74.5	74.3	0.2	72.8	75.0	-2.1	
PBS is the same as other channels	87.2	87.8	-0.6	82.0	79.2	2.8	
Percentage Agree That:							
TV can be an educational tool	97.2	98.0	-0.8	96.0	95.5	0.5	
Even cartoon violence is harmful to kids	93.3	90.3	3.0	88.8	89.5	-0.6	
PBS broadcasts high-quality kids' TV	98.9	99.2	-0.3	98.1	98.7	-0.6	
Comfortable if used TV to teach	84.6	83.2	1.5	85.7	85.2	0.5	
PBS programs are safe for kids	89.0	85.5	3.6	88.9	87.3	1.6	
Reading and Literacy Behaviors							
Percentage with ≥26 children's books	65.0	66.5	-1.5	63.1	62.0	1.1	
Read once a day or more	78.2	74.9	3.3	76.3	77.6	-1.3	
Minutes reading with child per day	44.9	51.5	-6.6*	46.7	46.7	0.1	
Sample Size	208-218	209-221		727-770	679-735		

Source: Parent and Early Childhood Educator First Follow-Up Surveys.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test.

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

Appendix E: Chapter V Supplemental Tables

Table E.7. Impacts of *ReadyTo Learn* Workshops Three Months After Random Assignment: Workshop Dosage

	Low Dosage (75 mins. or less)			High Dosage (greater than 75 mins.)			Subgroup Difference
	Workshop Group	Control Group	Estimated Impact	Workshop Group	Control Group	Estimated Impact	
Learning Triangle Activities							
Percentage Who (3-5 Times/Month):							
Discuss program while watching	80.7	79.0	1.7	82.1	77.2	5.0*	
Answer child's questions about program	83.3	82.8	0.5	82.2	80.2	2.1	
Discuss characters from program	85.0	80.2	4.8	81.1	77.4	3.7	
Sing songs from program	77.0	81.0	-4.0	80.5	80.0	0.6	
Talk about program once over	81.1	81.0	0.1	77.5	73.2	4.3	
Do activities related to program	61.8	61.5	0.3	66.0	59.1	6.9**	
Read a book related to program	64.8	60.4	4.4	66.3	60.5	5.8*	
View, read, and do related activity	39.0	38.9	0.1	44.4	37.4	6.9**	
Television Co-Viewing Behaviors							
Percentage Who (All or Most of the Time):							
Co-view PBS KIDS	62.4	58.4	4.0	69.5	60.4	9.2***	
Co-view Nick Jr.	37.8	31.5	6.3	32.3	28.7	3.6	
Co-view Cartoon Network	26.8	22.1	4.7	21.4	19.8	1.6	
Co-view Disney Channel	32.8	26.9	5.9	30.9	26.3	4.6	
Co-view ABC Family Channel	17.0	14.5	2.6	16.6	15.6	1.0	
Attitudes Toward Television and PBS							
Percentage Disagree That:							
Cartoons are safe for kids	67.9	62.2	5.6	69.1	66.3	2.8	
Don't keep track of what kids watch	89.1	90.8	-1.8	89.2	91.4	-2.2	
TV has no place in a child care setting	78.7	79.1	-0.5	80.9	83.0	-2.1	
Upset if TV used in child care	73.0	67.5	5.5	74.1	78.6	-4.5	
PBS is the same as other channels	86.1	81.2	4.9*	84.8	82.9	1.9	
Percentage Agree That:							
TV can be an educational tool	95.8	97.6	-1.8	97.5	95.8	1.7	*
Even cartoon violence is harmful to kids	89.1	91.4	-2.4	90.4	88.8	1.6	
PBS broadcasts high-quality kids' TV	99.0	99.7	-0.7	98.8	98.4	0.4	
Comfortable if used TV to teach	83.9	85.5	-1.7	86.2	85.8	0.4	
PBS programs are safe for kids	88.9	87.8	1.1	87.1	87.8	-0.7	
Reading and Literacy Behaviors							
Percentage with ≥26 children's books							
Read once a day or more	69.3	70.1	-0.9	59.7	64.4	-4.7	
Minutes reading with child per day	77.5	80.8	-3.3	76.4	75.3	1.1	
	46.7	47.4	-0.6	48.5	47.0	1.5	
Sample Size	377-408	386-420		567-589	525-552		

Source: Parent and Early Childhood Educator First Follow-Up Surveys.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test.

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

Table E.8. Impacts of *Ready To Learn* Workshops Three Months After Random Assignment: Parent Education Subgroups

	Less than High School Diploma or GED			High School Diploma, GED or more			
	Workshop Group	Control Group	Estimated Impact	Workshop Group	Control Group	Estimated Impact	Subgroup Difference
Learning Triangle Activities							
Percentage Who (3-5 Times/Month):							
Discuss program while watching	85.2	82.9	2.3	93.4	88.8	4.6	
Answer child's questions about program	87.7	91.2	-3.5	92.8	90.0	2.8	
Discuss characters from program	89.2	86.7	2.5	90.4	83.3	7.1**	
Sing songs from program	80.1	84.8	-4.7	85.1	85.6	-0.5	
Talk about program once over	82.8	81.9	0.9	88.1	82.3	5.8*	
Do activities related to program	69.4	66.1	3.2	65.2	65.9	-0.7	
Read a book related to program	71.1	66.8	4.3	67.8	68.4	-0.6	
View, read, and do related activity	44.6	41.2	3.4	39.7	42.0	-2.4	
Television Co-Viewing Behaviors							
Percentage Who (All or Most of the Time):							
Co-view PBS KIDS	56.8	52.5	4.3	59.7	51.6	8.1*	
Co-view Nick Jr.	35.4	33.4	2.0	37.7	31.3	6.4	
Co-view Cartoon Network	30.8	28.0	2.8	32.0	25.0	7.0	
Co-view Disney Channel	30.0	24.8	5.2	35.9	32.3	3.6	
Co-view ABC Family Channel	23.7	21.4	2.3	19.3	20.9	-1.7	
Attitudes Toward Television and PBS							
Percentage Disagree That:							
Cartoons are safe for kids	44.9	38.1	6.8*	73.4	70.7	2.8	
Don't keep track of what kids watch	80.9	81.1	-0.3	91.8	93.9	-2.2	
TV has no place in a child care setting	69.4	73.1	-3.6	77.3	83.7	-6.4**	
Upset if TV used in child care	62.9	68.4	-5.5	71.6	77.5	-6.0	
PBS is the same as other channels	71.9	67.2	4.7	88.3	89.8	-1.5	
Percentage Agree That:							
TV can be an educational tool	94.7	94.3	0.4	99.1	98.6	0.5	
Even cartoon violence is harmful to kids	83.5	82.5	1.0	92.8	92.4	0.3	
PBS broadcasts high-quality kids' TV	98.3	97.8	0.5	97.4	99.9	-2.4**	*
Comfortable if used TV to teach	78.7	83.9	-5.2	89.2	87.5	1.7	
PBS programs are safe for kids	92.4	92.2	0.2	90.6	84.8	5.8**	
Reading and Literacy Behaviors							
Percentage with ≥26 children's books	49.4	47.0	2.4	69.5	75.6	-6.2	
Read once a day or more	62.6	66.3	-3.7	73.9	71.4	2.5	
Minutes reading with child per day	49.9	51.4	-1.5	51.5	47.2	4.3	
Use of Online Resources							
Visited any PBS website	13.3	13.0	0.4	35.5	38.7	-3.0	
Used information from PBS website	10.0	10.0	-0.1	25.9	26.4	-0.5	
Sample Size	323-340	282-295		288-301	278-282		

Source: Parent First Follow-Up Survey.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

Table E.9. Impacts of *Ready To Learn* Workshops Three Months After Random Assignment: Live in a Rural Area

	Rural Area			Non-Rural Area			
	Workshop Group	Control Group	Estimated Impact	Workshop Group	Control Group	Estimated Impact	Subgroup Difference
Learning Triangle Activities							
Percentage Who (3-5 Times/Month):							
Discuss program while watching	82.2	76.1	6.1	83.5	76.8	6.7***	
Answer child's questions about program	80.1	84.2	-4.1	85.7	81.5	4.1*	*
Discuss characters from program	80.3	76.8	3.5	84.7	79.7	4.9**	
Sing songs from program	80.8	79.2	1.6	81.1	79.6	1.5	
Talk about program once over	77.2	81.0	-3.8	81.9	73.6	8.2***	**
Do activities related to program	62.9	59.0	3.9	65.9	60.9	5.0*	
Read a book related to program	65.0	59.6	5.4	66.6	61.2	5.5*	
View, read, and do related activity	39.6	34.3	5.3	44.5	39.4	5.2*	
Television Co-Viewing Behaviors							
Percentage Who (All or Most of the Time):							
Co-view PBS KIDS	66.4	58.2	8.2	66.6	62.0	4.6	
Co-view Nick Jr.	32.3	27.7	4.6	34.7	33.4	1.3	
Co-view Cartoon Network	21.8	20.4	1.4	22.9	21.5	1.5	
Co-view Disney Channel	28.9	29.7	-0.7	31.1	24.8	6.3**	
Co-view ABC Family Channel	15.2	14.1	1.1	17.7	18.1	-0.4	
Attitudes Toward Television and PBS							
Percentage Disagree That:							
Cartoons are safe for kids	79.6	73.1	6.4	66.4	64.5	1.8	
Don't keep track of what kids watch	93.9	96.0	-2.1	88.3	90.8	-2.5	
TV has no place in a child care setting	91.5	89.6	2.0	80.2	81.3	-1.1	
Upset if TV used in child care	85.5	80.9	4.6	73.8	74.4	-0.6	
PBS is the same as other channels	92.3	96.0	-3.7	84.5	81.2	3.3	**
Percentage Agree That:							
TV can be educational tool	99.3	98.8	0.5	96.9	96.6	0.3	
Even cartoon violence is harmful to kids	95.9	94.5	1.4	89.7	89.0	0.7	
PBS broadcasts high-quality kids' TV	99.3	99.9	-0.7	98.3	98.9	-0.6	
Comfortable if used TV to teach	86.4	86.6	-0.3	86.1	85.9	0.2	
PBS programs are safe for kids	84.3	83.0	1.4	88.2	87.7	0.5	
Reading and Literacy Behaviors							
Percentage with ≥26 children's books							
	70.3	71.6	-1.3	65.3	64.2	1.1	
Read once a day or more	80.9	80.4	0.5	77.1	77.5	-0.4	
Minutes reading with child per day	44.8	51.5	-6.8*	46.7	47.3	-0.6	
Sample Size	210-224	180-203		715-774	696-750		

Source: Parent and Educator First Follow-Up Surveys.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test.

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

Table E.10. Impacts of Ready To Learn Workshops Three Months After Random Assignment: Parent Employment Status

Parent Employment Status	Not Employed Full- or Part-Time			Employed Full- or Part-Time			Subgroup Difference
	Workshop Group	Control Group	Estimated Impact	Workshop Group	Control Group	Estimated Impact	
Learning Triangle Activities							
Percentage Who (3-5 Times/Month):							**
Discuss program while watching	86.6	83.5	3.1	92.1	84.7	7.4**	
Answer child's questions about program	89.5	88.8	0.7	93.6	90.3	3.4	
Discuss characters from program	91.3	83.4	7.9***	88.2	85.0	3.2	
Sing songs from program	82.8	84.7	-1.9	80.3	83.5	-3.3	
Talk about program once over	83.6	83.0	0.6	88.7	77.1	11.6***	
Do activities related to program	70.4	66.0	4.5	66.2	66.4	-0.2	
Read a book related to program	74.4	65.3	9.2**	66.9	68.4	-1.5	
View, read, and do related activity	46.9	37.2	9.7**	40.4	44.3	-3.9	
Television Co-Viewing Behaviors							
Percentage Who (All of Most of the Time):							
Co-view PBS KIDS	56.6	52.3	4.3	61.2	51.0	10.2**	
Co-view Nick Jr.	32.6	31.0	1.6	41.4	31.0	10.3**	
Co-view Cartoon Network	32.1	27.1	5.0	29.5	26.3	3.2	
Co-view Disney Channel	27.9	22.3	5.6	39.5	32.5	7.1	
Co-view ABC Family Channel	20.9	20.3	0.6	22.4	22.3	0.3	
Attitudes Toward Television and PBS							
Percentage Disagree That:							**
Cartoons are safe for kids	49.7	43.8	5.9	68.7	63.2	5.5	
Don't keep track of what kids watch	82.6	84.9	-2.3	88.7	92.6	-3.9	
TV has no place in a child care setting	68.2	72.7	-4.5	82.2	84.1	-1.9	
Upset if TV used in child care	59.9	68.9	-9.0**	78.1	74.6	3.4	
PBS is the same as other channels	76.3	73.2	3.1	84.6	86.3	-1.7	
Percentage Agree That:							
TV can be educational tool	94.9	94.5	0.5	97.2	96.5	0.6	
Even cartoon violence is harmful to kids	85.5	86.5	-1.0	90.2	90.1	0.1	
PBS broadcasts high-quality kids' TV	97.8	98.7	-0.8	98.5	99.1	-0.6	
Comfortable if used TV to teach	85.2	84.0	1.3	82.5	84.1	-1.6	
PBS programs are safe for kids	91.0	89.3	1.7	90.8	88.1	2.7	
Reading and Literacy Behaviors							
Percentage with ≥26 children's books							
	53.8	52.7	1.0	65.7	67.5	-1.8	
Read once a day or more	70.0	66.8	3.2	67.6	68.1	-0.5	
Minutes reading with child per day	52.0	49.1	2.9	47.5	46.9	0.6	
Use of Online Resources							
Visited any PBS website	21.0	18.6	2.4	31.8	33.8	-2.0	
Used information from PBS website	15.7	15.3	0.4	23.6	23.2	0.4	
Sample Size	332-347	296-307		289-304	256-263		

Source: Parent First Follow-Up Survey.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test.

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

Table E.11. Impacts of Ready To Learn Workshops Three Months After Random Assignment: Race/Ethnicity

Race/Ethnicity	African American or Hispanic			White			Subgroup Difference	
	Workshop Group	Control Group	Estimated Impact	Workshop Group	Control Group	Estimated Impact		
Learning Triangle Activities								
Percentage Who (3-5 Times/Month):								
Discuss program while watching	85.5	79.3	6.2**	79.1	73.3	5.8*	*	
Answer child's questions about program	85.6	85.1	0.6	81.4	77.0	4.4		
Discuss characters from program	86.0	80.1	5.9**	78.6	73.7	4.9		
Sing songs from program	83.4	82.7	0.7	75.0	75.1	-0.1		
Talk about program once over	83.9	78.6	5.4*	75.2	70.4	4.8		
Do activities related to program	68.6	64.9	3.8	58.9	53.1	5.8		
Read a book related to program	67.1	66.9	0.2	63.7	53.2	10.5**		
View, read, and do related activity	47.7	46.1	1.6	36.1	29.4	6.7		
Television Co-Viewing Behaviors								
Percentage Who (All or Most of the Time):								
Co-view PBS KIDS	68.5	60.5	8.0**	64.5	59.4	5.1		
Co-view Nick Jr.	37.8	31.4	6.4**	31.1	29.0	2.1		
Co-view Cartoon Network	29.4	21.3	8.0***	16.9	15.0	2.0		
Co-view Disney Channel	34.4	26.0	8.4***	28.1	24.9	3.3		
Co-view ABC Family Channel	20.0	18.8	1.2	14.0	13.3	0.7		
Attitudes Toward Television and PBS								
Percentage Disagree That:								
Cartoons are safe for kids	57.4	53.0	4.4	83.2	81.6	1.6	**	
Don't keep track of what kids watch	83.4	86.1	-2.7	96.9	97.3	-0.4		
TV has no place in a child care setting	75.7	78.4	-2.6	90.6	88.1	2.6		
Upset if TV used in child care	67.0	71.3	-4.3	86.2	80.8	5.4*		
PBS is the same as other channels	80.2	77.8	2.3	93.6	93.1	0.6		
Percentage Agree That:								
TV can be educational tool	96.6	95.9	0.8	98.3	98.9	-0.6		
Even cartoon violence is harmful to kids	87.5	86.4	1.1	95.2	95.4	-0.2		
PBS broadcasts high-quality kids' TV	98.4	98.5	-0.1	99.0	99.4	-0.5		
Comfortable if used TV to teach	85.3	81.7	3.6	87.6	90.0	-2.3		
PBS programs are safe for kids	90.0	88.4	1.7	84.7	84.6	0.1		
Reading and Literacy Behaviors								
Percentage with ≥26 children's books	56.9	55.4	1.5	78.2	80.6	-2.4		
Read once a day or more	71.5	71.1	0.4	83.0	84.6	-1.5		
Minutes reading with child per day	49.6	49.5	0.0	45.8	45.0	0.8		
Sample Size	573-603	482-621		351-391	297-465			

Source: Parent and Educator First Follow-Up Surveys.

* Estimate significantly different from zero at the 90% confidence level, two-tailed test.

** Estimate significantly different from zero at the 95% confidence level, two-tailed test.

*** Estimate significantly different from zero at the 99% confidence level, two-tailed test.

