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FACT SHEET
TEEN OUTREACH PROGRAM

The Teen Outreach Program (TOP) was established in 1978 by Brenda Hostetler, director of pregnancy prevention programs in the St. Louis Public Schools. In 1981, the Junior League of St. Louis and the Danforth Foundation began sponsoring the program, whose goal was to decrease the rate of adolescent pregnancy and increase the rate of high-school graduation for at-risk teens. In 1984, the Junior League of St. Louis initiated a national demonstration effort funded by the Charles Stewart Mott Foundation. Since 1987 the Association of Junior Leagues International Inc. (AJLI) has been responsible for the national program, with funding from the Charles Stewart Mott Foundation, the Lila Wallace-Reader's Digest Fund, the Smith Richardson Foundation, the Carnegie Corporation of New York, and the Stuart Foundations.

The Teen Outreach Program expanded from eight Junior League sponsors with nine classroom sites in 1984 to a total of 33 Junior Leagues and other community-based sponsors and 95 classroom sites in the 1992-93 school year. AJLI is currently developing state and community models to institutionalize TOP and replicate it on a wider basis. A state model for TOP is being developed in California. AJLI is working with community sponsors in seven communities (Atlanta; Bronxville, NY; New Orleans; Reno; Roanoke, VA; Charleston, WV; and Seattle) to develop a community/school partnership which will focus on implementing the program on a district-wide basis.

Teen Outreach began as a comprehensive program to help adolescents develop a positive self-image, concrete life management skills, and future goals, though the marketing strategy identified it primarily as a program aimed at preventing adolescent pregnancy. Over the past six years, its focus has been on fostering positive development in at-risk youth.

In every Teen Outreach Program, a group experience, a facilitator/student relationship, and a volunteer experience build self-esteem and individual skills. A unique relationship develops between the program facilitators and the female and male adolescents who participate in the TOP curriculum in small peer-group settings. The community service component enhances the students' sense of self-worth and enables them to see themselves as valuable, contributing members of their communities. Both the volunteer component and the classroom discussions have been identified as key elements in TOP's success.

The 'helper-therapy' principle introduced by Riessman (1965) suggests that helping other people can be therapeutic and can lead to personal growth, particularly for persons in disempowered groups. A sense of empowerment is engendered by placing students in help-giving rather than help-seeking roles, such as in hospitals, nursing homes, day care centers and other community sites (Bronfenbrenner, 1979; Rappaport, 1987). The volunteer component is also based on the premise that when young people become effective volunteers, a belief that they can succeed in attempts to behave competently increases. This belief in turn leads to more persistent effort to perform competently (Bandura, 1977).

TOP's volunteer component is consistent with the notion that education may most effectively proceed in real-life settings outside of classrooms (Sarason, 1984). Gottfredson (1985) has noted that outside work may provide youths who do not fit into the mold of traditional schooling an alternative route for success; work may provide a legitimate means to meet needs and strengthen adolescents' bond to the social order. Because volunteer experiences teach pre-employment skills, yet do not increase financial independence from parents, they do not

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weaken parental control, a potential problem with teenage jobs. A successful TOP volunteer component ideally offers assignments that actively engage students and provide them with choices about their volunteer work.

TOP links the volunteer program to the school experience; a U.S. Department of Labor study found that work experience, when closely coordinated with school, increases both school attendance and grades (Barton & Frazer, 1980). An emotionally supportive classroom environment in which the students do most of the talking and facilitators relate to students in a compassionate and non-judgmental manner has been found to be most successful. The Teen Outreach classroom activities increase students' commitment to academic endeavors, to the program facilitator, to each other, and to TOP itself. Teen Outreach may increase adolescents' attachment and commitment to basic societal norms, such as completing school and avoiding delinquent behavior.

Finally, the Life Options curriculum, because it emphasizes positive decision-making skills, may enhance adolescents' skills in dealing with social situations they face. The curriculum presents topics and exercises that the facilitator can use to generate further group discussion. The content and the interactive style of sessions about relationships, life planning, peer pressure and family issues help teens learn to think critically about these issues and to evaluate their own behavior. TOP participants are helped to develop better communication skills and learn to resolve differences of opinion and other conflicts.

The average Teen Outreach group consists of 15 to 20 females and males. Sessions take place during the daily school curriculum or after school; at some of the schools it may be taken for credit. All Teen Outreach programs have a community sponsor, typically a Junior League but sometimes another community agency. The sponsor is responsible for 1) securing funding for the program, 2) arranging for and monitoring the volunteer experiences, and 3) collaborating with the school system.

TOP includes a significant evaluation component and maintains a database on participants and comparison students. National data indicate that the program has resulted in statistically significant reductions in teenage pregnancies and school failure. In the seven years ending in 1991, Teen Outreach participants averaged a 5 percent lower rate of course failure, a 18 percent lower rate of school suspension, a 50 percent lower rate of school drop out, and a 33 percent lower rate of pregnancy than students in the control group.

The Teen Outreach Evaluation represents 3,674 students at 60 sites who range in age from 11 to 21, and whose average age is 14.9 years old. About 40% of the students are black, 40% are white, and 13% are Latina/o. Those in other racial/ethnic groups include mostly native Americans and Asians. Two-fifths of the participants come from single parent families; the parents of about one-fifth had less than a high school education. Approximately 1500 students participated in the program in the 1991-92 school year. Some students enter TOP on a volunteer basis when they hear of the program; others are targeted by program facilitators or counselors as at "high risk" for leaving school or becoming pregnant. High risk factors include having a parent or older sibling who did not graduate from high school or who became pregnant as a teenager. At still other schools, facilitators seek out students who are not yet exhibiting negative behaviors but who could be at risk.

TOP's congruence with related research undoubtedly contributes to its unusually positive outcomes. In 1987, the report of the National Research Council's Panel on Adolescent Pregnancy and Childbearing, Risking the Future: Adolescent Sexuality, Pregnancy and Childbearing, named TOP as one of only three teen pregnancy prevention strategies with any documented evidence of reducing pregnancy. The first published academic article on the Teen Outreach Program was published in the American Journal of Community Psychology in December 1990, entitled "School-Based Prevention of Teenage Pregnancy and School Dropout: Process Evaluation of the National Replication of the Teen Outreach Program." More recently, TOP's success has been documented in Preventing Adolescent Pregnancy: Model Programs and Evaluations.

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FACT SHEET

THE ASSOCIATION OF JUNIOR LEAGUES INTERNATIONAL, INC.

The Association of Junior Leagues International Inc. (AJLI) is an organization of women committed to promoting voluntarism and to improving the community through the effective action and leadership of trained volunteers. The 284 Junior Leagues throughout the United States, Canada, Mexico, and Great Britain have a collective membership of more than 190,000 women.

ASSOCIATION STRUCTURE:

The international headquarters in New York City serves as a base from which staff and volunteers serve the Junior Leagues. A 27-member Board of Directors is accountable to the Leagues for the development of governing policies and AJLI's strategic plan, which are implemented by staff and volunteer service providers. A 19-member Resolutions Committee consisting of elected League members manages the process by which Junior Leagues determine AJLI external policies to effectuate community impact. AJLI is supported by membership dues, foundations, corporations, and grants, and it sponsors revenue-producing efforts to meet the cost of its programs and activities.

ASSOCIATION GOALS

(1) To be in the forefront of community leadership as an influential advocate and catalyst for societal change. (2) To empower trained volunteers to be a leading force in meeting critical community needs through direct service projects and programs. (3) To be a creative, viable association that meets League and individual member needs. (4) To promote multiculturalism and contribute to eliminating discrimination against women and discrimination based on race, ethnicity, or religion.

The Association's strategic plan enables AJLI and the Junior Leagues to achieve these goals. The plan focuses on (1) issue priorities -- specific areas in which the Association seeks change at the community, national, or international levels -- and (2) organizational priorities -- those functions or concerns that the AJLI Board identifies as vital to building organizational capacity. The identification of these priorities, based on input from the Leagues, enables the Association to marshal its resources to assist Junior Leagues in maximizing their community impact.

ISSUE PRIORITIES

The Association has two issue priorities: Child Health and Education. In addition to building on the Leagues' long history of involvement in these areas, the issue priorities were selected for their potential to impact broad populations and to advance diverse community collaborations. The Association provides technical assistance in the form of consultations, demonstration projects, publications, and conferences to Junior Leagues working in these areas.

•**CHILD HEALTH**: The Association believes that all children, youth, and pregnant women should be guaranteed availability of and access to appropriate preventive and primary care. For over 70 years, AJLI and the Junior Leagues have been leaders and innovators in child health reform. *AJLI's Child Health Program*, launched in fall 1992, is supporting the development by Junior Leagues of successful community models that demonstrate the impact of effective citizen action on community child health issues. Junior Leagues and State Public Affairs Committees (SPACs) will pursue child health initiatives in their communities that employ multi-strategic approaches, including direct service, public education, and advocacy. A team of trained volunteers and staff provides technical assistance to Junior Leagues pursuing child health initiatives. Partial funding for the Child Health program is provided by the Aetna Foundation.

•**EDUCATION**: AJLI supports efforts to ensure that all people have access to an education that will provide the skills necessary to be productive members of our global society. Strategies for the achievement of this outcome include the identification of effective ways for citizen volunteers and voluntary groups to engage with and have impact on educational systems. While the Education priority is in the planning stages, AJLI currently sponsors two related programs:

•Partnership for Progress (PFP). Six Junior Leagues are active in the Association's PFP program, supported by the Edna McConnell Clark Foundation. The purpose of the program is to establish the community as a major stakeholder in school reform with the power to leverage for change.

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•Teen Outreach Program (TOP). Designed to provide a positive environment to support youth development, TOP helps youth avoid at-risk behaviors, such as adolescent pregnancy, substance abuse, and school failure. Currently operating in 108 classrooms in 39 cities, TOP helps teens develop life goals and a sense of self-efficacy through facilitated group discussions and a community service component. Independent evaluations have verified TOP's success in reducing the rate of teenage pregnancy and school failure. AJLI is developing replication models for the institutionalization of the program in educational systems at local and state levels. Current TOP funders include the Carnegie Corporation of New York, the Charles Stewart Mott Foundation, the Smith-Richardson Foundation, and the Stuart Foundations.

In addition to the collective activities related to education and child health, the Junior Leagues address a wide range of other issues depending on the needs and opportunities facing their local communities. These include substance abuse, child abuse and neglect, violence against women, criminal justice, health, family services, education, cultural enrichment, historic preservation, urban revitalization, and the environment.

ORGANIZATIONAL PRIORITIES

The Association's organizational priorities focus on building a strong infrastructure for the Leagues and the entire Association as a foundation for the achievement of their strategic plans. Key activities of the infrastructure that ensure capacity-building include the achievement of multiculturalism; educational and training events, consultations, and resources focusing on leadership development; effective organizational governance; membership retention; and sound organizational management at the international, national, and local levels.

The Association and Leagues recognize that today's complex issues demand innovative, disciplined approaches that draw on all functions and members of the League. In response, they have adopted an outcome-oriented or goal-centered approach, in which the entire League strategically determines its goals and then decides on a plan to achieve them. Every function and activity of the League is centered around its goals, assuring that League resources and energy are aligned with that to which the League is truly committed. AJLI and the Leagues believe that collaborations are critical to identifying and solving community problems.

MULTICULTURALISM

Junior Leagues reach out to women of all races, religions, and national origins who demonstrate an interest in and commitment to voluntarism. One of the Association's overarching goals and organizational priorities is the promotion of multiculturalism and the elimination of discrimination based on gender, race, ethnicity, or religion.

The Association provides a network of services to help Junior Leagues reach this goal and to ensure that its membership is inclusive of all women who share the mission. AJLI's services seek to create an environment in Junior Leagues and their communities where diverse perspectives and different cultures are respected and valued. AJLI provides a variety of written and visual resources to assist Leagues in their multicultural work. An innovation is the multiculturalism demonstration project, a three-year effort designed to create and test strategies and methodologies for furthering League and community diversity. AJLI staff, a cadre of trained service providers, and expert consultants provide leadership for League visits, telephone consultations, workshops, and seminars to enhance cross-cultural awareness, understand the effects of prejudice and racism, and develop community collaboration and networking skills.

RESOURCES AND TECHNICAL ASSISTANCE

Trained Junior League volunteers and staff provide services to Leagues on organizational priorities through individual consultations, trainings, and meetings. The Association encourages a multi-strategic approach to community impact that encompasses direct service, public awareness, and advocacy. The Association's Washington, D.C. office coordinates national advocacy activities and assists Junior Leagues in their work on local and state policies. To enable Junior Leagues to access and exchange information about trends in the voluntary sector and community activities, the Association has developed and implemented an Electronic Bulletin Board.

The Association also publishes a number of periodicals and resources designed to provide technical assistance, background information, and strategies for community impact in key areas. These include: *Junior League Review*, the official magazine of the Association, with a circulation of 190,000; *What Works*, a newsletter for League leadership; a periodic *Legislative Network* on federal legislation and activities related to the strategic plan; and tip sheets, briefing papers, and manuals targeting key functions.

FACT SHEET

TEEN OUTREACH PROGRAM

THE EVALUATION OF TEEN OUTREACH
1984 to 1991

The evaluation of Teen Outreach began in the 1984-85 school year and has now covered 7 years, through 1990-91.

During that time, data have been gathered from:

** 3,674 Teen Outreach students, and
** 4,202 comparison students, nationwide and in Canada.

During the last three of these years, a portion of these students were in sites where true random assignment of Teen Outreach and control students was possible. The random assignment data set includes:

** 472 Teen Outreach students, and
** 496 comparison students.

In the entire 7 year sample, the following results have been obtained:

** a 5% lower rate of course failure in school;
** an 18% lower rate of school suspension;
** a 33% lower rate of pregnancy; and
** a 50% lower rate of school dropout among Teen Outreach students than among comparison students.

The differences in these rates between Teen Outreach and comparison students are statistically significant and participation in Teen Outreach is significantly related to each outcome when controls are introduced for race, gender, grade, mother's education, living arrangement, and pre-program levels of each of these indicators. In other words, this impact of Teen Outreach is net of the impacts of these other factors.

These same results in the random assignment subsample show:

** a 32% lower rate of course failure in school;
** a 37% lower rate of school suspension;
** a 43% lower rate of pregnancy; and
** a 75% lower rate of school dropout among Teen Outreach students than among a randomly assigned group of control students.

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These results too, are statistically significant and net of the control variables listed above.

Research on the components of the program that seem essential to its success show that it is important that each Teen Outreach group include the following:

A volunteer component that:

** includes assignments that actually engage students, and
** gives young people choices about their volunteer work.

A classroom environment that:

** students feel is emotionally supportive, and
** in which students, rather than facilitators, do most of the talking.

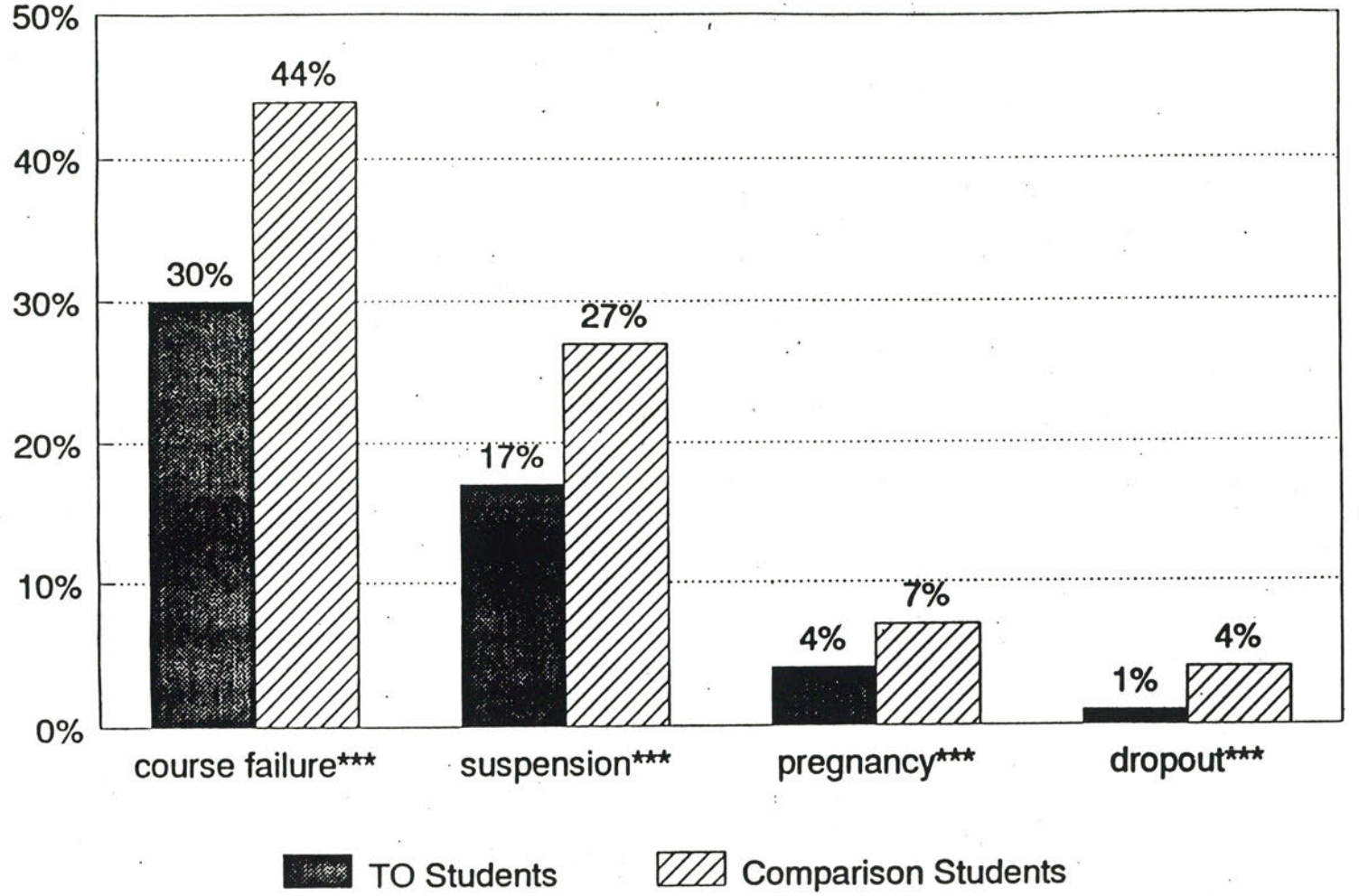
This research has also shown that the following are NOT related to the success of the program:

** student characteristics such as race or gender;
** facilitator characteristics such as age, education, or background;
** location of the program (urban or rural);
** structural characteristics of the program such as whether or not it is offered for credit, whether it is after or during school.

Thus, the results of the program seem robust in many settings and for varying audiences.

There is a trend in these data for the program to be more successful with older students. The program does have beneficial impacts on middle school students but at least in terms of the outcomes reported above, these impacts are not as consistently strong as they seem to be among older students. The program is currently developing a revised curriculum to be used with middle school students.

DATA FROM THE RANDOM ASSIGNMENT SAMPLE
1988-89 to 1990-91



***Participation in Teen Outreach is significantly related to lower rates of this behavior after controlling for race, gender, grade, mother's education, living arrangement and the pre-program level of each of these indicators. Note: (The significance level of Teen Outreach participation on pregnancy rates is .06)

PREVENTING ADOLESCENT PREGNANCY

Model Programs and Evaluations

Brent C. Miller
Josefina J. Card
Roberta L. Paikoff
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Life Options and Community Service

Teen Outreach Program

SUSAN PHILLIBER
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Introduction

Teen Outreach is a school-based program for adolescents that was designed originally to prevent early pregnancy and to encourage regular progress in school. The program seeks to reach its goal through a combination of small group discussion strategies using its own curriculum and by providing volunteer service experience in the community for its young participants. It is, in other words, a program in the "life options" tradition of teen pregnancy prevention programs (Dryfoos, 1990; Hayes, 1987) and a program that has amassed several years of evaluation data showing positive results.

AUTHORS' NOTE: Teen Outreach and its evaluation are funded by the Charles Stewart Mott Foundation, the Lila Wallace-Reader's Digest Fund, and other foundations. We are grateful for their support. The program is coordinated by the Association of Junior Leagues International, to whom the authors express appreciation for their support and assistance in gathering these data. The authors also wish to thank Kathy Arnold and Merry Oakley of Philliber Research, who have patiently coded, computer-entered, and processed these data. Most important, we wish to thank the Teen Outreach facilitators and their Junior League colleagues from throughout the United States and Canada who have gathered the data and run the programs that made this evaluation possible.

In 1981, the Junior League of St. Louis assumed a major role in promoting and funding the Teen Outreach program, which had begun in 1978 as a collaborative effort between the Danforth Foundation and the St. Louis Public Schools. In 1983, funding was obtained from the Charles Stewart Mott Foundation to begin a 3-year national replication of Teen Outreach. By 1987, a second 3-year national replication effort began under the direction of the Association of Junior Leagues International, in cooperation with the American Association of School Administrators.

Teen Outreach has maintained a nationwide evaluation system to monitor program outcomes since 1984. This chapter reports the data produced by that system, with special emphasis on data from the fifth year of this monitoring, the 1988-1989 school year. This latter year is emphasized because it is the most recent for which analysis is complete and because it was the first year in which the program had any substantial number of teens who were assigned randomly to the program or control groups for evaluation. In addition, however, the chapter compares these last year results with those from the other four years of evaluation in order to make clear the general pattern in program outcomes for Teen Outreach.

Program Components

Teen Outreach is a school-based program that is most often run through the collaborative efforts of a local Junior League, local school personnel, and, when the League is not the funder, a local funder as well. The program has two main components: use of a curriculum in small group discussion sessions led by a facilitator, and involvement of young people in volunteer service in the community.

The curriculum and volunteer service are the core components of Teen Outreach and are shared by all its sites nationwide and in Canada. Beyond these commonalities, however, are variations in program implementation, shown in Table 6.1. Most Teen Outreach programs are offered after school hours, with about one third offered during school; slightly less than half are offered for credit.

The students in Teen Outreach meet at least once per week throughout the school year and engage in discussions on such topics as understanding themselves and their values, communication skills, human growth and development, issues related to parenting, and family relationships and community resources. While the curriculum does contain

Table 6.1 Selected Variations in the Teen Outreach Program Among Sites: 1988-89

Percentage of Programs Offered			
During school	31%	For credit	46%
After school	69%	No credit	54%

	Reported Coverage of Unit			
Curriculum Unit	*None*	*A Little*	*A Lot*	*Almost All*
Orientation	6	31	23	40
Volunteer experience	6	31	34	28
Understanding yourself	0	11	51	37
Values	3	31	34	31
Life planning	8	26	43	23
Communication	6	28	37	28
Life pressures	11	23	23	43
Family	6	31	34	28
Relationships	6	20	37	37
Growth/development	23	40	14	23
Parenting	28	31	23	17
Issues in parenting	28	43	11	17
Community resources	20	43	26	11

some traditional sex education information, this is not its primary emphasis. In fact, as the data in Table 6.1 show, the curriculum units on these topics are covered less thoroughly by facilitators than are other topics.

The style of the curriculum is to utilize group discussions and activities that are facilitated rather than taught. The best facilitators in the program become mentors and friends for their Teen Outreach students and create a support-group environment in which students are assured of understanding and confidentiality from both peers and the facilitator. Facilitators for the program often receive training at the annual national Teen Outreach conference, in which a variety of workshops are held to acquaint them with the structure of the program, its curriculum, and the facilitator style that the program seeks. Some facilitators have been trained by those who have been running the program in their local areas or by personnel from the Junior League.

The volunteer activities in the program vary widely in their settings and tasks, reflecting variations in community needs and in the ages and

Table 6.2 The Growth of Teen Outreach, 1984 to 1990

School Year	*Students*	*Cities*	*Sites*
1984-85	148	8	9
1985-86	444	16	24
1986-87	632	15	35
1987-88	782	14	44
1988-89	1028	28	60

circumstances of the Teen Outreach students. These activities are most often coordinated by the local Junior League and have included work in hospitals and nursing homes, participation in walkathons, work at the school itself, tutoring for younger students, and many other types of work.

Teen Outreach sites do not all offer the same number of classroom hours or the same number of volunteer hours for each student. The minimum standards at Teen Outreach sites are that students should meet for 1 hour per week for a year and that each student should perform a minimum of 1 hour per week of volunteer work.

Characteristics of Teen Outreach Students

Table 6.2 shows the growth of Teen Outreach since 1984. The number of Teen Outreach sites increased from 9 in the 1984-85 school year to 60 in 1988-1989. During the same period of time, the number of students enrolled in the program increased by almost seven-fold, to over 1,000 in the 1988-1989 school year. Teen Outreach has always been located in geographically dispersed areas of the United States. The first Canadian site was added in the 1985-1986 school year.

Local Teen Outreach sites range in size from 5 students in Bristol, Rhode Island, to 23 students in Charlotte, North Carolina. Middle schools, junior highs, and senior highs all serve as sites for Teen Outreach. The average Teen Outreach site enrolls 15 students in a single section of the program.

Teen Outreach students enter the program in a variety of ways. At most schools, they volunteer to participate, responding to announcements of the program on posters or in the school media. At other sites,

students are sought out by the Teen Outreach facilitators or by school counselors because they are believed to be "high risk" for school leaving or pregnancy. At still other schools, facilitators seek out students who are not yet exhibiting negative behaviors but who could become high risk. Table 6.3 shows the characteristics of the national sample of Teen Outreach students and their comparisons in 1988-1989. Data for each of the 5 years of evaluation show similar characteristics.

Over 75% of those enrolled in Teen Outreach nationwide are females. They range in age from 11 to 21, with an average age of 14.9 years. A similar range occurs in grade level, with students as young as the fifth grade and as old as high school seniors. About 40% of the Teen Outreach students are black, another 40% are white, and 13% are Hispanic. Those in other race/ethnicity groups include mostly Native Americans and Asians.

About 41% of these young people come from nonintact families, and about a fifth have mothers and fathers with less than a high school education. Much variation exists in the socioeconomic level of the families of Teen Outreach students, however, since almost 30% of their mothers have at least some college education. In each year of the evaluation, the Teen Outreach and comparison students have been generally well matched on the characteristics shown in Table 6.3. In 4 out of the 5 years, however, some variables were not matched. For example, in 1988-1989, students in Teen Outreach were significantly more likely than their comparisons to be female. In Years 3 and 4, more Teen Outreach students than comparisons came from nonintact families, and in Year 1, Teen Outreach students came from school grades lower than did the comparison students. In each year's analysis, these differences were controlled in the multivariate analyses, as will be illustrated below.

The Evaluation Design

The evaluation design for Teen Outreach relies on the utilization of common reporting forms at all sites. Each site recruits a local comparison group at the beginning of the school year, preferably using true random assignment procedures. When this is not possible, the comparison students are generally named by the program participants as young people they know who might have filled out the intake form "about like you did." In 1988-1989 five sites were able to use randomization

Table 6.3 Demographic Characteristics of Teen Outreach and Comparison Students: 1988-89

Characteristics	*Teen Outreach Students* *N = 495*	*% = 100*	*Comparison Students* *N = 490*	*% = 100*
Sex				
Male	116	23.6	159	32.5
Female	375	76.4	330	**67.5
Age				
11-13	52	10.6	61	12.5
14	144	29.5	142	29.0
15	143	29.2	131	26.8
16	80	16.4	82	16.8
17	52	10.6	47	9.6
18-21	18	3.7	26	5.3
Average		14.9		14.9
Grade				
5-7	32	6.5	46	9.4
8	70	14.3	53	10.9
9	169	34.3	182	37.5
10	105	21.4	100	20.5
11	73	14.9	60	12.3
12	42	8.6	46	9.4
Average		9.5		9.4
Sibs				
0-1	163	33.2	145	29.7
2-4	229	46.6	245	50.2
5 or more	99	20.2	98	20.1
Average		2.8		2.9
Race				
Black	197	40.1	191	39.1
White	199	40.6	209	42.7
Hispanic	66	13.4	62	12.7
Asian	3	0.6	6	1.2
Native American	23	4.7	17	3.5
Other	3	0.6	4	0.8
Lived with				
Mother and father	288	58.8	281	57.6
Mother only	171	34.8	161	33.0
Father only	9	1.8	9	1.8
Guardian	10	2.0	13	2.7
Other arrangement	13	2.6	24	4.9
Mother's education				
Less than high school	99	20.3	85	17.5
High school graduate	181	37.0	173	35.6
Some college	89	18.2	89	18.3

Table 6.3 Continued

Characteristics	Teen Outreach Students N = 495	% = 100	Comparison Students N = 490	% = 100
College graduate plus	52	10.6	74	15.2
Don't know	68	13.9	65	13.4
Father's education				
Less than high school	83	16.9	75	15.4
High school graduate	147	30.0	140	28.8
Some college	64	13.1	64	13.1
College graduate plus	63	12.9	93	19.1
Don't know	133	27.1	115	23.6

NOTE: **Difference between the Teen Outreach and comparison students is statistically significant at $p < .01$. The totals vary somewhat from 495 (Teen Outreach students) and 490 (comparison students) due to missing information on some variables.

procedures to assign students to their Teen Outreach or control groups. This chapter presents data separately for these five randomized sites, as well as for the total program samples in each year.

The evaluation of Teen Outreach has always monitored the following outcome variables for both program students and their comparisons: school suspension, failure of courses in school, dropping out of school, and pregnancies.

In 1988-1989, data were also gathered on arrests, skipping school, use of alcohol or marijuana, having sexual intercourse, using contraception when sexually active, joining after-school activities, getting an award, getting on the honor roll, and educational aspirations.

These outcomes were added to produce a fuller picture of other impacts that Teen Outreach might be having on young people and to include some positive outcomes to those already monitored.

The evaluation is thus somewhat demanding for a school-based program of this kind, in that it measures almost exclusively behavioral outcomes, neglecting the traditional emphasis on participant testimonials, knowledge change, or attitude change. The evaluation system for Teen Outreach seeks to report outcome measures on these variables at the end of the school year for all students originally enrolled in the program, regardless of their attendance at the program or their volunteer work patterns. Data are collected, however, on how much exposure to Teen Outreach each student receives.

Table 6.4 Information on the Evaluation Samples

Year	Total Number of Sites	Sites Participating in Evaluation	Prercentage Loss to Follow-up Between Intake and Exit*	# Teen Outreach Students	# Comp Students
1984-85	9	9	10.2	151	151
1985-86	24	22	4.0	444	542
1986-87	35	35	3.8	632	848
1987-88	48	44	5.8	823	912
1988-89	60	35	10.1	495	490
1988-89 Random assignment sample	5	5	0.0	79	89

NOTE: *Among participating sites.

Table 6.4 shows how many of the Teen Outreach sites in each year participated in the evaluation and the rates of loss to follow-up in each of these years. When the number of Teen Outreach sites was small, every effort was made to ensure full participation in the national evaluation. As the number of sites has become larger, participation in the evaluation (which must, of course, be voluntary) has been less, even while the actual number of students on whom data are available continues to grow. Only in the 1988-1989 school year was the participation rate in the evaluation worrisome. This lower participation rate was most probably due to the difficulty of maintaining communication with the rapidly growing number of sites participating in Teen Outreach. Unfortunately, it is not possible to tell how sites that participate in the evaluation may differ from those that do not. A 5-year comparison of the characteristics of students in the program for whom data were reported in the evaluation, however, demonstrates little change. A random sample of about one third of the program sites has been chosen in 1990-1991 to participate in the national evaluation.

For sites that have furnished evaluation information, loss to follow-up between program intake and exit has been acceptably low. This rate has not risen above 10.2% and in most years has been considerably lower. The rate of loss is slightly higher among comparison students than among Teen Outreach students, as might be expected.

Since the sample size in 1988-1989 permitted such an analysis, the demographic characteristics of Teen Outreach students who were lost were compared with those same characteristics among the comparison students who were lost. Age, gender, race, parents' education, or family intactness did not differ, but the two lost samples did differ in two other ways. The lost Teen Outreach students were more likely to have received awards in school in the previous year than were the students from the comparison group who were lost. Also, the lost Teen Outreach students were less likely to report being previously suspended than were the lost comparison students. Since overall loss was so low, these differences are unlikely to affect the conclusions reported here. Also, these variables on prior status of Teen Outreach and comparison students are controlled in relevant analysis.

Risk Factors at Program Entry

Table 6.5 shows the baseline or program entry measures of program outcomes for students in the 1988-1989 sample. Again, these data are similar across all 5 years. It is important to examine these factors as they appeared when the Teen Outreach and comparison students entered the program year in order to (a) describe the kind of population being served by Teen Outreach, and (b) ensure that these are indeed two well-matched groups of students.

In the year before entry into the program, over 4% of the Teen Outreach students had already been pregnant at least once. Over 17% of them had been suspended, and 5% of them reported having been arrested. Almost 40% reported failing courses in the year before the program began, and more than 30% had skipped school. More than a third had used alcohol or marijuana during the past month, and more than a fifth had had intercourse during that month. Only 41% of those having had intercourse had used any form of contraception.

On the positive side, almost 60% said they had received some kind of an award. Slightly more than a fourth were on the honor roll in the previous year. Virtually all the students asserted at the beginning of the school year that they intended to complete both high school and college, an overstatement of likely achievement.

Again in each year of the evaluation, one or another of these factors has not been perfectly matched between Teen Outreach and the comparison groups. For example, in 1988-1989, the Teen Outreach students

Table 6.5 Status of Teen Outreach and Comparison Students at Intake: 1988-89

Characteristics	*Teen Outreach Students* *N = 495*	*% = 100*	*Comparison Students* *N = 490*	*% = 100*
Negative Behaviors				
Ever been pregnant or caused a pregnancy	22	4.5	38	*7.8
Last year ever -				
get suspended	85	17.3	86	17.6
get arrested	25	5.1	27	5.5
fail courses	190	38.8	190	39.2
skip school	151	30.9	141	29.1
Last month ever -				
used alcohol/marijuana	129	33.7	121	31.7
had intercourse	81	21.2	84	22.4
used contraception	33	40.7	47	55.9
Positive Behaviors				
Last year ever -				
get awards	283	57.9	251	*51.3
get on the honor roll	126	25.7	149	30.5
Educational Aspirations				
Complete high school				
likely	480	98.0	474	97.7
unlikely	10	2.0	11	2.3
Complete college				
likely	397	81.0	387	79.6
unlikely	93	19.0	99	20.4

NOTE: *Difference between the Teen Outreach and comparison students is statistically significant at $p < .05$.

were significantly less likely than their comparisons to have been pregnant before they began Teen Outreach. Teen Outreach students were also more likely to have gotten awards prior to the start of the program year.

The Outcomes of Teen Outreach

Figures 6.1 through 6.4 show the impact of Teen Outreach on the four major outcome variables of interest: pregnancy, school suspension, course failure, and school dropout. Figure 6.1 shows the percentage of Teen Outreach and comparison students who became pregnant during

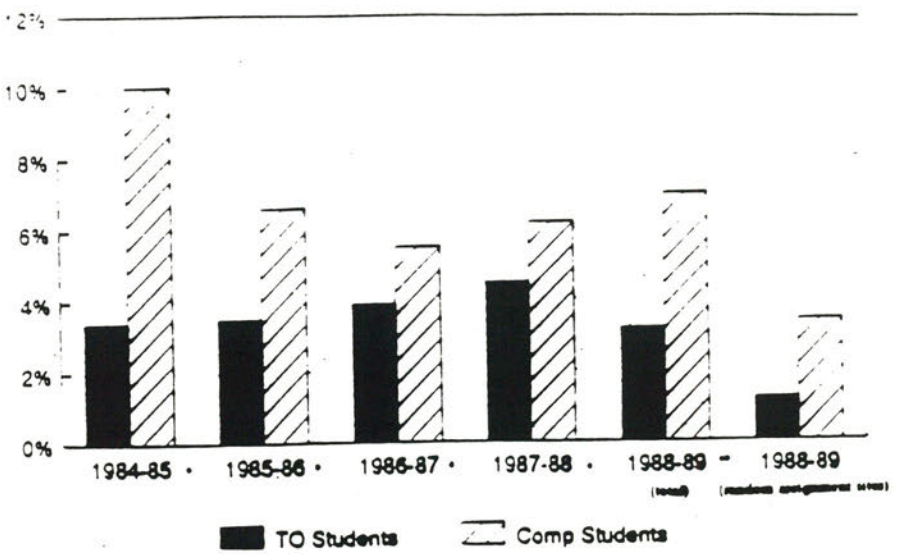

Figure 6.1. Percentage Pregnant or Causing Pregnancy.

each of the 5 program years and in the random assignment sample in 1988-1989. The percentage data shown in this figure and in the three to follow are without any controls for background differences between these two samples of students. The figure also shows, however, the results of multivariate analyses using logistic regression. In each year, grade level of the students and prior suspension history were included in the multivariate equation. In addition, other variables were introduced into these equations if the Teen Outreach and comparison students differed on the variable (e.g., gender in 1988-1989) or if the variable might confound the results (e.g., failing courses was also controlled in the suspension equation). The specific variables in each equation thus varied somewhat from year to year. The asterisks at the bottom of each year's data indicate whether participation in Teen Outreach was still significantly related to the outcome variable of interest, net of these other variables.

Figure 6.1 shows that in all six samples, Teen Outreach students had lower pregnancy rates during the program year than did the comparison students. In all but the random assignment sample (which was too small to permit analysis), participation in Teen Outreach was significantly related to having a lower pregnancy rate.

Figure 6.2 shows the percentage of Teen Outreach and comparison students who were suspended from school in each of the six samples.

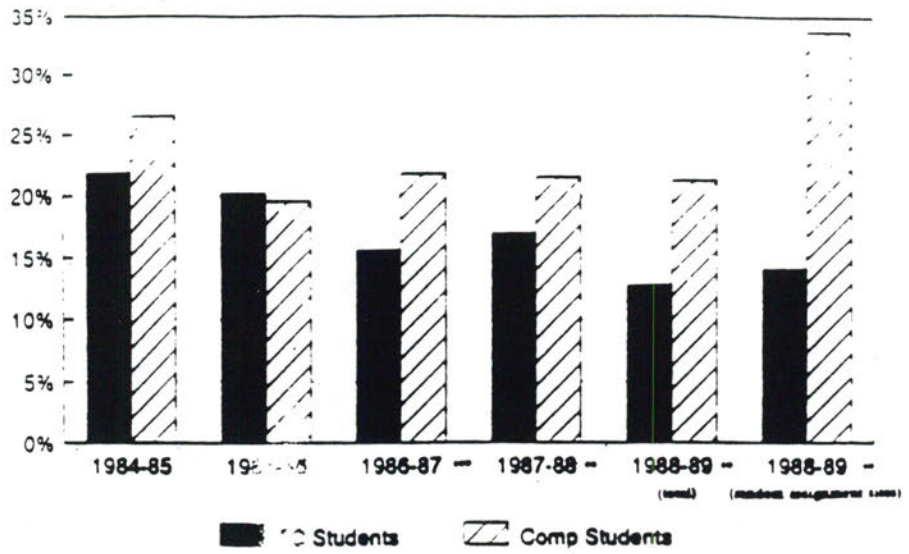

Figure 6.2. Percentage Suspended During Program Year.

In five of the six samples shown, Teen Outreach students had lower rates of school suspension than did comparison students. In four of the samples, including the smaller random assignment sample, participation in Teen Outreach was significantly related to lower rates of suspension, net of grade, prior rates of suspension, failing courses, and selected other variables introduced in a given year to control for sample differences.

In Figure 6.3, comparable data are shown for rates of failing courses during the program year among Teen Outreach and comparison students. Again, in five of the six samples, Teen Outreach students were doing better at the end of the program year. In four samples, participation in Teen Outreach was significantly related to lower rates of course failure, net of grade, prior rates of failure, and other necessary variables introduced in a given equation to control sample differences.

Figure 6.4 offers data on school leaving in the same six samples. In all six samples, Teen Outreach students had lower rates of dropping out. Again, in four samples, participation in Teen Outreach was significantly related to lower rates of dropping out when grade, pregnancy during the program year, and selected other variables were controlled.

As noted above, the 1988-1989 evaluation data set also included some additional outcomes not common to all six samples. An examination of these outcomes showed that participation in Teen Outreach was

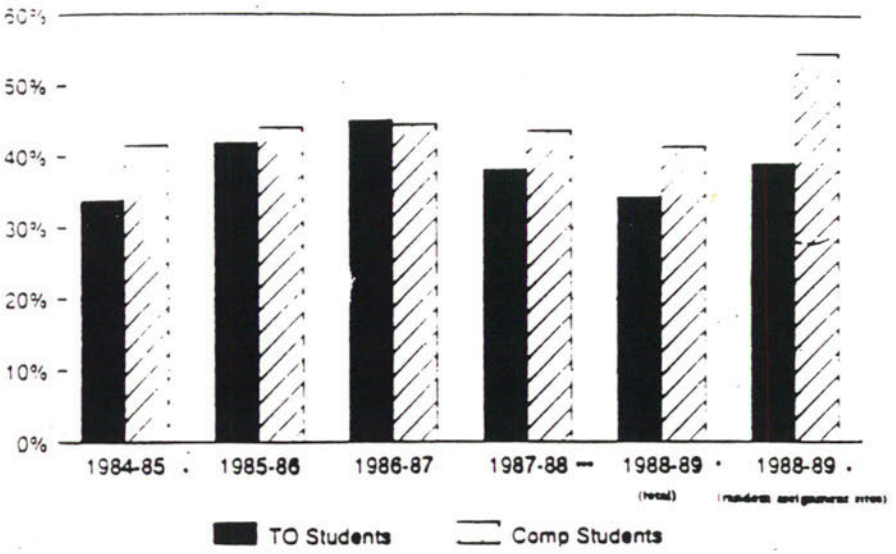

Figure 6.3. Percentage Failing Courses During Year.

significantly related to not getting arrested, skipping school less frequently, more regular use of contraception among sexually active students, getting awards, and getting on the honor roll, again net of the prior history of these behaviors and selected background characteristics. Participation in Teen Outreach was not significantly related to less use of alcohol or marijuana or to raising aspirations to finish high school, although both of these differences favored Teen Outreach students.

Correlates of Teen Outreach Success

In data published elsewhere (Allen, Philliber, & Hoggson, 1990), the correlates of successful change among students in Teen Outreach have been examined. The focus of this analysis was to assess under which conditions and for which kinds of participants this program was most successful. This analysis found that the sites that served primarily older students had lower levels of student problem behaviors at program exit, after controlling for problem behaviors at entry. In addition, programs that most fully implemented the volunteer component had greater success.

Equally important are the findings on which variables did not seem related to program success. Analysis has not found any relationship between gender of students and program success. Minority status of students is likewise not related to success, nor is parent education.

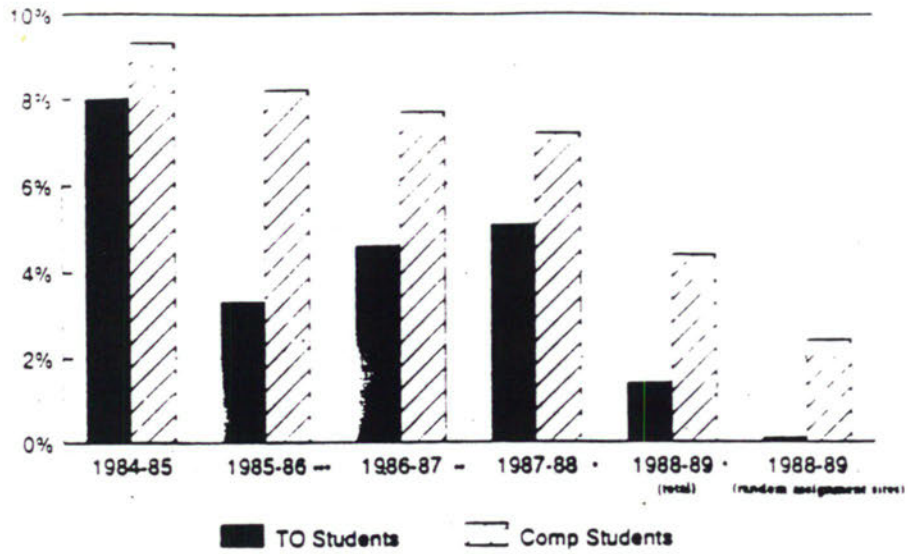

Figure 6.4. Percentage Dropping Out of School.

Several program characteristics or variations are also not related to program success. These include classroom hours, whether credit is offered for participation, whether the program is offered during or after school, and the amount of the curriculum used.

The higher success rate of the program among older students is not surprising in one sense, since Teen Outreach was created originally for high school students. On the other hand, it may be that the evaluation of the program is not currently measuring enough outcome variables appropriate to younger students.

The importance of the volunteer component is to be expected in light of current theories of empowerment and ecological development (Bronfenbrenner, 1979; Rappaport, 1987). The opportunity of young people to become help givers may indeed be an important experience in their development. Still, this research cannot demonstrate a causal link between these experiences and positive outcomes. It may be that some other factor not yet measured completely (such as a caring facilitator who works hard to provide successful volunteer experiences and who cares, in general, about his or her students) produces this finding.

It is gratifying for any program to discover that it is equally successful with both males and females and with those of different racial/ethnic groups. Similarly, for purposes of program replication, it is encouraging

to find that when the program is offered and whether or not it is attached to course credit, makes little impact on its success.

The lack of relationships between classroom hours and amount of curriculum use and program success pose interesting questions. Certainly it seems reasonable to posit that number of classroom hours should be less important than the quality of those hours. The curriculum used in the Teen Outreach program does include discussions around topics that should support the development of life options to pregnancy and other negative behaviors. The activities in the curriculum and the style in which they are offered to students, however, are intended to facilitate group bonding and trust among Teen Outreach group members and their facilitator. Thought of in that context, then, it seems likely that the sheer amount of such material used may be less important than the way in which it is delivered. Indeed, case reports from facilitators suggest that they use a variety of supplemental materials to keep their discussions timely and responsive to student needs.

Conclusions

This chapter has presented data on program outcomes in Teen Outreach from six different samples. These data were gathered over 5 different school years. Only one of these samples utilized random assignment to create a control group. Unfortunately, this was the smallest sample of the six. Still, in all of these samples, the results are similar.

Almost all of the differences between the Teen Outreach and comparison students are in the desired direction: Teen Outreach students generally had fewer pregnancies, fewer courses failed, fewer school suspensions, and lower rates of school dropout than comparison students. More important, in each of the samples, the Teen Outreach students had significantly lower rates than did comparison students in half or more of these negative behaviors, even when prior risk and background characteristics were controlled.

These are results that, to our knowledge, are not duplicated by any other program of this kind in the nation. The random assignment results obtained in 1988-1989 add yet additional strength to the conclusion that Teen Outreach is a program that works.

We hasten to add that such a positive conclusion is supported more by the weight of evidence here than by the rigor of the research procedures used in each year. In only one sample were all the Teen

Outreach and comparison students assigned randomly, and this sample is the smallest of the six, leaving too little power to detect statistical significance except in the case of the largest differences, and limiting the capacity for multivariate analysis. At many Teen Outreach sites, participants were self-selected. Also, these data are from self-reports, and future studies will need to validate these with more objective sources of information such as report cards. Still, the weight of evidence here is overwhelmingly positive.

If these effects for Teen Outreach are real (as they appear to be), the evaluation design has not yet revealed for how long they last. While some 1-year follow-up data have been gathered from subsets of the youth enrolled and their comparisons, this question of the length of effects will need further research.

Given these cautions, however, it may still be worth discussing why Teen Outreach appears to be often successful in lessening school problems and postponing pregnancy. Indeed, the program does include elements that are being recommended currently by those who have reviewed what we know about success in these areas (e.g., Dryfoos, 1990; Hayes, 1987; Mueller & Higgins, 1988).

At its heart and when it works best, Teen Outreach includes mentoring from a caring and supportive facilitator, a work experience in the community that offers both the opportunity for skill building and the opportunity to feel needed, and a peer support group atmosphere. In addition, the curriculum concentrates on developing concrete coping skills, as well as the cognitive base necessary to avoid pregnancy. These include skills in assertiveness, in decision making, in use of community resources, and in communication.

The intervention is not a "one-shot" brief program, but rather a year-long effort. In fact, many Teen Outreach students request a second year of participation. While no direct measures of such a dimension have been taken by the current evaluation system, visits to Teen Outreach sites repeatedly confirm the impression that students become proud of their membership in the group and that it comes to function as their "in-crowd" or "clique."

These characteristics of the program, taken together, would seem to account for the general success of the program. Future evaluation of Teen Outreach will focus on increasing the number of sites that can use true random assignment to create a control group, on assembling information on the longer term impacts of the program, and on continuing examination of the conditions under which the program works best.

References

Allen, J. P., Philliber, S., & Hoggson, N. (1990). School-based prevention of teenage pregnancy and school dropout: Process evaluation of the national replication of the Teen Outreach program. *American Journal of Community Psychology, 18*, 505-524.

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.

Dryfoos, J. G. (1990). *Adolescents at risk: Pregnancy and prevention*. New York: Oxford University Press.

Hayes, C. (Ed.). (1987). *Risking the future*. Washington, DC: National Academy.

Mueller, D., & Higgins, P. (1988). *Funders' guide manual: A guide to prevention programs in human services*. St. Paul, MN: Amherst S. Wilder Foundation.

Rappaport, J. (1987). Terms of empowerment/exemplars of prevention: Toward a theory for community psychology. *American Journal of Community Psychology, 15*, 121-148.

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Innovative Programs

School-Based Prevention of Teen-Age Pregnancy and School Dropout: Process Evaluation of the National Replication of the Teen Outreach Program[1]

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Examined a program designed to prevent adolescent pregnancy, school failure, and dropout using a process model of evaluation to assess with which groups of participants and under what conditions the program was most effective. Students in the Teen Outreach Program of the Association of Junior Leagues and matched comparison students in 35 schools nationwide participated. Sites that highly utilized a volunteer service component, and sites that primarily served older students reported lower levels of student problem behaviors at program exit, after controlling for problem behaviors at entry. These findings occurred only for program youths and not for comparison youths. The connection of volunteer service to reductions in adolescent problem behaviors is interpreted in terms of helper-therapy and empowerment theories. Limitations of the analytic strategy used in this study, as well as techniques for addressing the limitations, are also disucssed.

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Many of the problems that affect adolescents in our society—such as teen-age pregnancy, school failure, and school dropout—have serious consequences for adolescent development as well as substantial costs to society (Burt, 1986, Huesmann, Eron, Lefkowitz, & Walder, 1984; Loeber & Dishion, 1983; National Research Council, 1987). The high short- and long-term costs associated with these problems create a pressing need for preventive programs in this area.

Schools provide an attractive potential site for preventive interventions, given both their geographic consolidation of adolescents and the 15,000 hours students spend in formal schooling through the high school years (Weissberg & Allen, 1986; Zigler, Kagan, & Muenchow, 1982). As preventive programs are developed, however, there is a need for research that focuses not only upon program outcomes but also upon the processes by which programs produce change in participants (Gray & Braddy, 1988). In assessing program effects, action research with children and adolescents must also account for the developmental stage of program recipients (Rolf, 1985). Such research is needed to move beyond a simple catalog of programs which did and did not work and to provide a base for developing new programmatic interventions.

This study describes process-oriented evaluation data from a preventive intervention that has attracted national attention for its role in preventing school dropout and teen-age pregnancy. The Teen Outreach Program, sponsored by the Association of Junior Leagues in collaboration with the American Association of School Administrators, is a school-based program that encourages young people to perform volunteer service in their communities. The program links volunteer work to classroom-based group discussion on a wide range of issues, from human growth and development to making life decisions. The Teen Outreach Program was recently identified by the National Research Council (1987) in an extensive review of teen pregnancy prevention programs as one of only three approaches with documented effectiveness in reducing teen-age pregnancies. Four consecutive years of data on the program have indicated that it reduces teen-age pregnancy and school failure and dropout rates by approximately 30 to 50% relative to matched comparison groups of students (Philliber, Allen, Hoggson, & McNeil, 1989).

Yet, important as these initial findings are, they tell us little about which aspects of the program are important to its apparent success and under which conditions the program is most likely to be successful. The present study utilized a comparative design to move beyond the traditional evaluation focus (i.e., Did it work?) to the more informative questions: "What works best?," "With whom?," and "Under what conditions?" (Basham, 1986). Such an ap-

proach is a necessary step in moving from successful individual programs to identified principles of intervention that can be used in designing new programs and modifying existing systems.

For example, one potentially important element of the Teen Outreach Program is its emphasis upon volunteer service. This emphasis has the potential to empower students by taking them out of traditional classroom roles and giving them a chance to be help-givers rather than just help-receivers (Bronfenbrenner, 1979; Rappaport, 1987). The "helper-therapy" principle, introduced by Riessman (1965), suggests that helping other people can be therapeutic and can lead to personal growth, particularly for persons in disempowered groups. A number of programs based upon this principle have now been developed, including programs targeted at adolescents. Although the effects of these programs have not yet been systematically documented (Cowen, 1982; Harrington, 1986), the helper-therapy principle suggests one mechanism by which volunteer work in the Teen Outreach program might benefit students.

A second possible effect of volunteer service on students may be to increase their identification with the prosocial values of adults in the larger community. Adolescents' prosocial values have been directly related to multiple indices of their social competence and inversely related to several serious adolescent problem behaviors (Allen, Leadbeater, & Aber, 1990; Allen, Weissberg, & Hawkins, 1989). Also, Staub (1979), in a review of empirical studies of children participating in helping interactions, concluded that helping interactions may shape a child's prosocial behavior. Thus there are many benefits that potentially accrue to children when education is moved "beyond the walls of the classroom" as Sarason (1982) has suggested. Yet, whether a volunteer service component is actually related to the program's overall success has not yet been examined.

Several other aspects of the Teen Outreach Program may also be related to the program's success. For example, a diverse population of young people participate in the Teen Outreach program, including males and females, in 7th through 12th grades, who are from a range of racial/ethnic backgrounds. The program uses a curriculum that provides information on human development, information on skills for making life-options decisions, and supportive group discussions. Again, however, whether any of these factors is actually related to program success is unknown.

This study addressed questions about the conditions under which the Teen Outreach program was successful by examining naturally occurring variations in the implementation of the Teen Outreach program at 35 different sites in 30 schools across the United States. Within each site, we assessed four different types of factors that were potentially relevant to the success

of students in the Teen Outreach program. These included (a) student demographic factors (age, race, gender); (b) structural program factors (whether the program was given during vs. after school and whether it was offered for credit vs. not-for-credit); (c) program intensity factors (number of hours spent in classroom discussions and in volunteer activities); and (d) curricular factors (use of various parts of the Teen Outreach curriculum).

Our goal was to identify factors that would explain the differing *relative* effectiveness of different Teen Outreach programs at different sites. Because it is virtually impossible to assign students randomly to enough different versions of any national program to meaningfully explore *intra*-program differences experimentally,[3] an analytic framework was established to assess and account for multiple potential confounding factors. Thus, an effort was made to assess the role of overall cohort effects, schoolwide effects, and motivational biases in influencing the results at any given site.

This study was embedded within a larger evaluation that used a quasi-experimental design involving Teen Outreach students and a comparison group of students closely matched on various background characteristics (Philliber et al., 1989). Following the lead of several recent studies of adolescent problem behaviors (Donovan & Jessor, 1985; Donovan, Jessor, & Costa, 1988; Kandel & Raveis, 1987; Leadbeater, Hellner, Allen, & Aber, 1989) we assessed outcomes in terms of multiple problem behaviors, and we assessed the presence of an overall problem behavior syndrome as our outcome measure.

METHOD

Settings

The Teen Outreach Program was conducted at 35 different sites in 30 schools nationwide in 1986–1987. It was a collaborative effort between local school personnel, local Junior Leagues, and the Association of Junior Leagues and American Association of School Administrators. The program was

[3]Obtaining random assignment of students to treatment and control groups *within a site* is a somewhat more feasible goal which is being implemented in future years' evaluations of Teen Outreach. However, this use of random assignment still does not help in the comparison of Teen Outreach programs at *different* sites, where site and population of students are inevitably confounded.

designed to provide meaningful volunteer service experiences and classroom-based discussion opportunities to young people identified by teachers and guidance counselors as at risk for significant behavioral problems (particularly school dropout and teen-age pregnancy).

Students in the program participated in ongoing classroom-based discussions of issues covered in the Teen Outreach Curriculum (Association of Junior Leagues, 1988) in meetings held at least once weekly throughout an academic year. The curriculum consisted primarily of techniques for engaging students in discussions of selected topics, group exercises, and films and informational presentations. The primary emphasis of the curriculum was on the promotion of meaningful discussions of developmental tasks faced by adolescents. Topic areas included understanding yourself and your values, communication skills, dealing with family stress, human growth and development, and issues related to parenting. Although the program was partially directed at prevention of teen-age pregnancy, materials relating to sex education constitute less than 10% of the overall curriculum and are incorporated within the general program emphasis upon making good decisions about important life options. Classroom discussions were led by trained facilitators, who were often schoolteachers or guidance personnel.

An additional role of the classroom-based discussions was to introduce and tie together the volunteer experiences which are at the heart of the Teen Outreach Program. Teen Outreach participants are all expected to participate in a range of volunteer activities provided to them by their facilitators, working in conjunction with volunteers of local Junior Leagues. Volunteer activities were developed to be sensitive to the needs and capacities of local communities, and thus varied substantially in their nature, and in the amount of commitment they required of students. The one common feature of all of the volunteer work was that students ratified it as meaningful to them. Volunteer activities included work as aides in hospitals and nursing homes, participation in walkathons, volunteer work at school, and a wide range of other types of work. Although all programs share the common features described above, there is significant diversity among programs around the country in terms of populations of students, curriculum use, and intensity of the program.

Although there was tremendous diversity in the implementation of Teen Outreach Program, certain elements were common to all programs. For example, all programs involved both classroom and volunteer activities. The classroom activities involved meeting at least once weekly for a period of 1 hour. Although the type of volunteer work students performed varied considerably, a minimum of an average of ½ hour per week of volunteer activity was expected of students in all implementations of the programs.

Participants

Participants in the study included 632 students who participated in the Teen Outreach Program and 855 comparison students. Students ranged in age from 11 to 19 years and in grade level from 7th to 12th grade. At any given site, students tended to be at or near the same grade level; across sites, however, the target grade levels of the program varied depending upon the interests of those running the program locally. Teen Outreach students entered the program in a variety of ways. At some sites, students elected to participate in response to schoolwide announcements. At other sites, they were targeted by program facilitators if they were considered at risk of school dropout or pregnancy, although they may not have yet exhibited any negative behaviors. A small number of participants (approximately 6%) had been previously involved with the Teen Outreach Program. Finally, at some sites, students were arbitrarily assigned by facilitators and guidance counselors.

Comparison students were selected in two ways. Either Teen Outreach students nominated other students whom they guessed "would fill out the entry questionnarie about the same way [they] did," or facilitators or guidance counselors responsible for selecting Teen Outreach students sought students from similar sociodemographic backgrounds and with similar levels of problems as Teen Outreach participants. Background characteristics of Teen Outreach participants and comparison students at program entry are presented in Table I. Participation in the evaluation was a requirement of the Teen Outreach Program. Thus, all participating students were included in the evaluation at entry. Attrition over the course of the study was 2.4% among Teen Outreach students and 4.8% among comparison students. Incomplete program and exit data were obtained for an additional 6.5% of Teen Outreach students, who were also excluded from the analyses. However, there were no significant effects of loss-to-follow-up on the demographic or problem behavior measures presented in Table I, nor were there significant interactions of loss-to-follow-up with membership in the program versus comparison group for any of these measures.

Measures

Demographic Characteristics. Students filled out a brief self-report questionnaire indicating their age, grade level in school, race, predominant household composition (one-vs. two-parent) and parents' education levels (1 - not a high school graduate, 2 - high school graduate, 3 - some college, 4 - college graduate). These data, reported in Table I, indicate significant diversity in the Teen Outreach sample but a close match between Teen Outreach and com-

Table I. Background Characteristics of Teen Outreach and Comparison Students at Entry

	Teen outreach $n = 632$[a]		Comparison $n = 855$[a]	
	M	*SD*	*M*	*SD*
Demographic factors				
Age (years)	15.6	1.3	15.7	1.4
Grade in school	9.8	1.3	9.8	1.3
Grade (%)				
7–9	44		47	
10–12	56		53	
Gender (%)				
Female	70.3		67.1	
Male	29.7		32.9	
Race (%)				
White	49.5		51.7	
Black	32.6		31.4	
Hispanic	9.7		7.7	
Other	8.2		9.2	
Mother's education level	2.29	1.01	2.33	1.02
Father's education level	2.29	1.07	2.44[b]	1.08
Live in two-parent household (%)	53.5		62.7[b]	
Problem behaviors				
Fail any courses in prior year (%)	53.9		44.3%[b]	
Suspended in prior year (%)	21.8		17.4	
Pregnant previously (%)	4.9		5.1	
Total problem behaviors at entry (0–8)	0.80	0.77	0.66[b]	0.76

[a] *N*'s vary somewhat due to missing data for some variables.
[b] $p < .05$.

parison students. However, Teen Outreach students were significantly less likely to report having lived in a two-parent household for most of their lives than were comparison students; they also reported that their fathers had slightly lower levels of education than comparison students' fathers (median education level in both groups was high school graduation).

Problem Behaviors. Self-report questionnaires were used to assess students' problem behaviors. When sensitively collected, anonymous self-report instruments have been found to be among the *least* biased means of assessing adolescent problem behaviors such as teen-age pregnancy, with substantial evidence available to support their overall reliability and validity (Elliott & Ageton, 1980; Farrington, 1973; Patterson & Stouthamer-Loeber, 1984). At

entry, we asked students (a) whether they had ever been pregnant (female) or caused a pregnancy (male), (b) whether they had failed any courses during the prior year at school, and (c) whether they had been suspended in the prior year at school. At exit we asked the same questions of students (except that the pregnancy question was modified to refer only to the academic year of the program) and also added a question about whether a studlent had dropped out of school in the prior year or intended not to return to school in the fall. Because each of these problem behaviors had sufficiently low base rates to make estimation of program effects upon them difficult, and because they were significantly intercorrelated, problem behaviors were combined into an overall problem behavior syndrome scale which was a 0–3 scale at entry and a 0–4 scale at exit.[4] This approach is consistent with extensive evidence that these specific problem behaviors constitute a meaningful syndrome of problematic behavior (Donovan & Jessor, 1985; Donovan et al., 1988; Kandel & Raveis, 1987; Leadbeater et al., 1989). Additionally, use of a syndromal measure prevents fluctuation in the *form* of expression of problematic behavior (e.g., school failure vs. school dropout) from confounding the results. Although this approach does not permit estimation of program effects on individual problem behaviors, it does provide a maximally sensitive indication of program effects on an important and theoretically relevant syndrome of problem behaviors, while minimizing the number of partially redundant hypotheses being tested.

Program Implementation

Variations in the implementation of Teen Outreach at different sites were assessed by the collection of various measures from Teen Outreach facilitators.

Intensity measures consisted of facilitators' reports of the number of volunteer hours worked by participating adolescents as well as the number of group discussion hours for each student. Although these measures were obtained for each student, data were summed and averaged within individual Teen Outreach sites for all analyses. This was done to provide the best measures of the program offered to students at a site, while minimizing the extent to which these measures were confounded with motivational differences among individual students at a site.

Structural program measures assessed whether Teen Outreach was offered during versus after school, and as a for-credit versus a not-for-credit

[4]Maximum-likelihood factor analysis revealed that a one-factor solution was sufficient to account for the common variance in the measures

activity. These measures were judged particularly likely to be sensitive to differences in the motivation levels of students in different Teen Outreach programs. Students in during-school and for-credit versions of the program might be expected to have somewhat less intrinsic motivation to participate in the program (because they were receiving credit and/or avoiding other courses) than students in after-school and not-for-credit versions. This effect may be mitigated by the fact that in-school versions of the program sometimes involved after-school volunteer activities, whereas after-school versions sometimes involved school-based volunteer activities.

Curriculum-use was measured in two ways. All facilitators completed a survey of how much they used the 11 units of the cirriculum, using a 4-point Likert scale ranging from (1) *none of this unit,* (2) *a little of this unit,* (3) *a lot of this unit,* to (4) *almost all of this unit.* A measure of overall curriculum use was the average use of all units of this curriculum. However, an iterated principal factors analysis of usage of these 11 units (using a Varimax rotation and using squared multiple correlations for initial estimates of communality) also suggested an interpretable four-factor solution of curriculum factors. Using standardized scores of variables with loadings above .40 to produce factors yielded the following four curriculum-use factors: (a) An *orientation* section (consisting of introductory units as well as material explaining the volunteer experience); (be) a *self-awareness* section including units on understanding yourself and life pressures; (c) a *social awareness* section including units on life planning, family, values, relationships, and communication; (d) a *developmental* section including units on growth, parenting, issues related to parenting, and community resources. Units within each of these four factors were largely contiguous in the curriculum. Thus, each factor represented a discrete section of the curriculum.

Procedure

Students were assessed at program entry at the start of the school year and again at program exit in the late spring. The Teen Outreach Program was conducted during this same period. Questionnaires were administered by Teen Outreach facilitators during an early Teen Outreach class, or in study halls and other school settings for comparison students. Students were told that none of their answers would be reported to other school officials and that no data that identified them in any way would be reported. Student consent and parental consent were obtained both for participation in the program and in its evaluation.

Design

This study was designed to assess individual and programmatic factors that were related to the behavioral changes of Teen Outreach participants.

Because of the double-nested nature of the design (students within sites), the study treated program differences as fixed instead of random) effects. Although this makes it impossible to establish the generalizability of the reported findings, it does allow identification of features that are related to the programs' success and that can be examined in future replications. All program inputs were considered in terms of the average program input received by students at a given site. For some program inputs, such as volunteer experience, individual students varied in their amount of experience within a site. This individual variation was *not* used, as it was considered likely to be highly sensitive to student motivational differences within a site (its use could artifactually enhance the relation between volunteer experience and behavioral outcomes). Thus, the *average* amount of volunteer experience at a site was used to provide a measure of the volunteer experience available at a site. In contrast, behavioral outcomes were analyzed at the level of individual students, as each student provides an independent test of the effect of the specified level of program inputs on behavioral outcomes, and motivational differences appear appropriately as error variance in this analysis (e.g., within-site variation in outcomes provides a background against which between-site variation could be gauged).

RESULTS

Program Implementation

There was substantial variation in the implementation of the Teen Outreach Program across different sites in both the in-class and volunteer components of the curriculum. The mean score for the use of the curriculum was 2.99 (SD = 0.82), which corresponds to using "a lot" of the material in each of the units of the curriculum. There was some variation across sites in how much various subsections of the curriculum were used, with the developmental section (including issues on human growth and development, and parenting) the least consistently used (mean use = 2.55, SD = 0.69) and the section on self-awareness being the most consistently used (mean use: 3.32, SD = 0.73). The average participant in the program received 72 hours of classroom-based discussion time (SD = 33.0), over a range of from 28 to 165 sessions during the year.

There was also substantial variation across sites in the amount of volunteer experience received by students. The average site gave its participants 32.2 hours of volunteer work (SD = 24.4, range = 1.15 to 125 hours); 90% of sites provided students with an average of at least 1 hour of volunteer work per month. These data on variations in program implementation–

though not unusual for a nationally oriented program tailored to local needs—highlight the importance of examining the relation between different implementations of the program and its success at various sites.

Preliminary Analyses of Changes in Problem Behaviors

The overall effectiveness of Teen Outreach has been previously documented for these data, with the finding that Teen Outreach participants had significantly lower levels of suspension, school dropout, and pregnancy, and insignificantly lower levels of failure in courses than comparison students, even after controlling for levels of problem behavior at entry and significant demographic factors (National Research Council, 1987; Philliber et al., 1989). Although not the focus of this paper, a brief summary of these findings provides a context for interpreting data on why and when Teen Outreach is effective. At entry, Teen Outreach students in this study had an average of 0.80 of a possible 3 problem behaviors whereas comparison students had 0.66 problem behaviors, a statistically significant difference, $T(628, 853) = 3.45, p < .001$. However, at exit, Teen Outreach students had an average of 0.70 of a possible 4 problem behaviors, whereas comparison students had 0.80 problem behaviors, and this difference was also significant, $T(615, 815) = 2.16, p < .04$. These findings are robust even when controlling for entry problem behaviors and preexisting group differences in fathers' level of education and household composition.[5] Thus, Teen Outreach students went from having significantly more problem behaviors than comparison students at the beginning of the program to significantly fewer problem behaviors by the program's end.

Initial analyses for this study also examined the continuity in levels of behavior problems within both the Teen Outreach and comparison group students over time. Students' total number of behavior problems at exit were significantly correlated with their number of problems at entry within both the Teen Outreach ($r = .44, p < .001$) and comparison groups ($r = .51, p < .001$). This finding indicates the importance of statistically accounting for students' levels of problem behaviors at entry prior to examining the correlates of levels of problem behaviors at exit.

[5]Analysis of problem behaviors individually supports these findings, with significant differences found between the Teen Outreach and comparison groups in levels of school failure, teen-age pregnancy, and school dropout, after controlling for entry levels of problem behavior and group demographic differences in logistic regressions (Philliber et al., 1989). When a combined problem behavior factor was created using only school dropout, failure, and pregnancy data at both entry and exit, comparable results for program effectiveness were obtained.

There were no interactions of the relation between entry and exit levels of problem behaviors with student demographic characteristics, or any of the program factors examined in the study. This indicates that it is statistically valid to remove the effects of entry level of problem behaviors from measures of exit levels when examining predictors of exit levels of problem behavior.

Next, analyses were performed to assess whether schoolwide factors at each site significantly influenced changes in problem behavior levels of both Teen Outreach and comparison students at individual sites. These analyses served to decrease the likelihood that relative differences in the success of Teen Outreach programs at different sites would inadvertently be confounded with unrelated schoolwide influences at these sites. Change in problem behavors was measured as the residual in Time 2 problem behaviors over and above what could be predicted in a regression equation by Time 1 problem behaviors. This method accounts for both the slightly different metrics of the measures at Times 1 and 2, and for regression effects within the data, while providing a sensitive measure of behavior problem change (Elliott & Voss, 1974; Luborsky et al., 1980; Weisz, 1986). Use of residualized change scores, rather than simple Time 2 scores, also reduces the influence of preexisting differences in the populations of Teen Outreach students at different sites on outcomes at those sites.

Next, we examined the relationship between residualized change scores of Teen Outreach and comparison students at the same sites. No correlation was found between change in number of problem behaviors in Teen Outreach participants and change in comparison students at the same site using site level data ($r(35) = .02$, ns) and residualized measures of change. This lack of correlation suggests that the success of Teen Outreach students at a given site was unlikely to be an artifact of schoolwide factors unrelated to the program. Based on these data, it was not considered necessary or useful to use comparison student change at a site as a covariate in further analyses. Further analyses were conducted using only data from the sample of Teen Outreach participants.

Multiple regression equations were used to examine relationships between student outcomes at program exit and four sets of student entry characterisitcs and program factors thought likely to predict these outcomes: (a) student demographic characteristics at program entry, (b) the amount of various components of the program received by students at a site, (c) the structure of the program, and (d) use of the prescribed curriculum. Regression equations were set up with the number of behavioral problems at exit as the dependent variable. As discussed above, the number of behavior problems at entry was entered first in all equations to remove its effects. Then, each of the four groups of factors listed above was entered as a block and assessed

for the significance of its contribution to predicting the number of students' behavior problems at exit. Finally, for each group of program factors assessed, interactions of these factors with relevant demographic variables were also considered as a block.

Demographic Factors

The role of three demographic factors—students' gender, grade level, and minority status—and two child-rearing environment factors—parents' years of education, and living in a one versus two-parent family—were assessed using the technique described above. Table II presents the results of this equation in which entry level of problem behaviors was entered first, followed by a block of demographic factors followed by the block of child-rearing environment factors. Only the block of demographic factors added significantly to the prediction of Teen Outreach students' problem behaviors at exit, F_{change} (3, 544) = 3.89, $p < .01$. Examination of individual demographic factors within this block reveals that students' grade level was the sole significant predictor of problem behaviors at exit, $F(1, 544) = 9.90$, $p = .002$. Teen Outreach students in higher grades were significantly more likely to have fewer problem behaviors than would be predicted based on entry data than were Teen Outreach students in lower grades. This effect remains equally strong even when school dropout was excluded from analyses (due to its potential confound with grade level). When the comparison group was examined, neither grade in school, nor the blocks of demographic or child-rearing environment factors, were significantly related to problems at exit. Examination of the relation of grade to amount of volunteer ex-

Table II. Hierarchical Regression Using Demographic Factors to Predict Behavior Problems at Exit

Step	Variables entered	β	Change in R^2	Total R^2
1	Behavior problems (entry)	.45[c]		
	Total for step		.19[c]	.19[c]
2	Grade	−.12[b]		
	Sex	−.03		
	Minority status	.02		
	Total for step		.02[b]	.21[c]
3	Parents' education	.00		
	Live in two-parent family	.08[a]		
	Total for step		.01	.22[c]

[a] $p < .05$.
[b] $p < .01$.
[c] $p < .001$.

perience, number of classroom-discussion hours, overall curriculum use, and structural features of the program revealed only a small significant relation of grade with number of volunteer hours worked ($r = .10$, $p < .02$).

Given these findings, all further analyses included the effects of grade level of students as well as the interaction of grade level with various program factors.

Intensity Factors

Two intensity factors representing the amount of classroom-based discussion and volunteer service experiences at a site were considered next. These were entered as a block in a hierarchical regression to predict number of problems at exit, after entering number of problems at entry and students' grade level. Results are presented in Table III. This block significantly contributed to the prediction of problems at exit, $F_{change}(2, 570) = 3.34$, $p < .05$. The average number of hours of volunteer work at a site was the single significant predictor within this block. This equation reveals that students in programs where more volunteer work was performed had fewer problems at exit after controlling for problem behaviors at entry than did students in programs where less volunteer work was performed. Further, entry of a block of interaction effects of these two Intensity factors with students' grade levels also significantly added to the predictive power of the equation, $F_{change}(2, 568) = 3.1$, $p < .05$. Within this block, only the interaction of number of classroom hours with grade was significantly related to problem behaviors. This interaction indicated that more classroom hours were related to fewer problems for younger students but not for older students.

Table III. Hierarchical Regression Using Program Dosage Factors to Predict Behavior Problems at Exit

Step	Variables entered	Beta	Change in R^{2a}	Total R^{2a}
1	Behavior problems (entry)	.45[c]		
	Grade	−.13[c]		
	Total for step		.21[c]	.21[c]
2	Classroom hours	−.02		
	Volunteer hours	−.09[b]		
	Total for step		.01[b]	.22[c]
3	Class hours * Grade	.10[b]		
	Volunteer hours * Grade	.00		
	Total for Step		.01[b]	.23[c]

[a]Values for R^2 and change in R^2 are rounded.
[b]$.01 < p < .05$.
[c]$p < .001$.

Structural Factors

Two structural factors—whether a program was offered during versus after school and for-credit versus not-for-credit were entered in the next equation using dummy variables. As with intensity factors above, these were entered as a block in a hierarchical regression to predict number of problems at exit, after entering number of problems at entry and students' grade level. Entry of this block did not significantly improve the predictive power of the equation nor did entry of a block of interaction effects of these two structural factors with students' grade level.

Curriculum Use

A hierarchical regression to predict students' number of problems at exit was next examined. The total curriculum-use score was entered after number of problems at entry and grade level. Because logistical difficulties in data collection resulted in significant missing data for curriculum use, these analyses were conducted in equations separate from those described above. Although total curriculum use was not a significant predictor of problems at exit, the interaction of curriculum use with grade was significant when next entered into the equation. Examination of total curriculum use separately for younger and older students (below 10th grade and at/above 10th grade) revealed that higher levels of curriculum use had a stronger relationship to decreased problem behaviors for younger students than for older students, though in neither group was this relationship significant. Thus, the substantive meaning of the interaction of curriculum use with grade in predicting outcomes appears to be minimal.

Finally, we used a hierarchical regression equation to examine the four more specific curriculum-use factors entered as a block following problems at entry and grade level. Neither this curriculum-use block, nor a subsequent block of interactions of curriculum use with grade level, significantly added to the equation.

DISCUSSION

The results of this study indicate that Teen Outreach sites were most successful when they worked with older (vs. younger) students, and when the volunteer component of the program was more intensively (vs. less intensively) implemented at a site. In addition, sites that worked with younger students tended to be more successful when they had more rather than less intensive classroom components. Several potential markers of students' moti-

vation levels were related to students' characteristics at entry across sites but were not related to change over the course of a program. Finally, students' gender and minority status appeared unrelated to their success in the program.

Because these findings about different program and student factors were not based upon an experimental design (which would have required randomly assigning participants to different sites around the country), several procedures were undertaken to increase our confidence that the findings were not artifactual in nature. Students' entry levels of problem behaviors were examined and controlled, and comparison students' change over time was also examined for its possible relation to the findings presented. This approach reduces, but does not eliminate, the likelihood that student differences at entry and extraprogrammatic effects in schools might have produced the relationships described above.

In addition, examination of structural variables (e.g., whether a program was for-credit vs. not-for-credit) that were most likely to be related to students' motivation levels reduced the likelihood that observed program effects were simply a result of motivational differences between students at different sites at entry. Significantly, these structural variables were related to exit problem behaviors *prior to* controlling for entry problem behaviors. Controlling for problem behaviors at entry thus appears to be at least a moderately effective strategy for handling important differences among students entering the program. This approach decreases the likelihood that findings about the effects of Teen Outreach and its various components are artifacts of preexisting student characteristics at different sites and in program versus comparison groups.

Although these attempts to eliminate confounding factors are far from foolproof, they increase our confidence in our findings by ruling out several of the major alternative explanations for them. Any interpretation of these findings, however, must begin with the statement that none are *demonstrably* causal in nature, and that all require replication in other programs, in other sites, and in studies using methods other than self-reports. Given these limits, however, we believe this study offers several contributions to our understanding of programs targeted at preventing adolescent behavior problems.

The finding that Teen Outreach appears to be more effective with high school than with junior high school students highlights the need to be developmentally sensitive in both targeting and evaluating prevention programs for children and adolescents (Leadbeater et al., 1989). Clearly, even an apparently successful prevention program was not equally successful with all age groups. These findings further document the importance of considering differential effects of interventions for different subgroups of participants (Allen, 1989). The findings also suggest the need to be alert to possible limits to the approach of "intervening early" in preventive programming; making

interventions age-appropriate may be more important than simply making them early. For example, although it appears that the volunteer component of the Teen Outreach Program may partially account for its success, particularly with older students, there is some evidence that increased emphasis upon the classroom-based portion of the program (classroom hours and curriculum use) was related to better outcomes among younger students. Alternatively, the age effects reported might reflect differential sensitivity of the outcome measures to changes in students of different ages. For example, among younger students, who are not legally permitted to drop out and who are less likely to become pregnant, poor attendance patterns may be a more appropriate outcome measure. In either case, the importance of sensitivity to developmental differences within a program's target population is clear. Future studies are needed to assess Teen Outreach in terms of outcomes which are more developmentally relevant for younger children (e.g., skipping school) and which follow younger participants over time.

The relation between the extent of the volunteer component and fewer behavior problems at exit supports a central premise of the program and current theories of empowerment and ecological development (Bronfenbrenner, 1979; Rappaport, 1987): that volunteer experiences—the opportunity to be help-givers—may be essential formative experiences for at-risk adolescents. This study cannot, of course, demonstrate a causal relation between volunteer experiences and student success; some other factor, such as a highly skilled program facilitator, might account both for more extensive volunteer experiences and for more student success at a site. In addition, the effect of number of volunteer hours performed on student outcomes was quite small in absolute terms. It must be remembered, however, that the measure of volunteer experience—raw number of hours—is relatively crude. Further studies that assess types and qualities of volunteer experiences may help to better specify the nature of this effect. For example, the different quality of volunteer activities open to older students may partially explain the relatively greater success of Teen Outreach within that age group. Also, given that most sites provide students with volunteer activity in amounts at least equal to that provided by many short-term interventions with school-age children (e.g., 10–20 hours), it is most appropriate to interpret the effect of volunteer work on outcomes as reflecting the effect of large versus moderate amounts of volunteer work and not as the effect of some versus no volunteer work. Given that the volunteer component of Teen Outreach is one of its most distinguishing features, and that Teen Outreach is one of the only school-based, non-contraceptive-focused programs to demonstrate reductions in teen pregnancy (National Research Council, 1987), the current findings regarding the volunteer component are particularly significant and are important to investigate further.

An important caveat in interpreting negative results in this study is that analyses are relatively insensitive to effects of program factors that were consistently implemented across sites (e.g., have little variance). For example, because most sites used most of the curriculum units, it is impossible to assess the importance of the curriculum to the success of the program. Yet, while sex education curricula have generally been found to have little effect on adolescent behavior (National Research Council, 1987), it may be that the broader life skills curriculum of Teen Outreach, *in combination* with relevant volunteer experience, does indeed contribute to the program's success. This question can only be addressed by evaluating future implementations of the program in which the curriculum is less fully utilized.

Research is currently being conducted to explore further the relation between volunteer service in a Teen Outreach program and lower levels of problem behaviors of students in that program. For example, does volunteer service foster the development of relationships with adults who are not authority figures, who do not threaten adolescents' sense of autonomy as a teacher might (Allen, Aber, & Leadbeater, 1990), and who can thus positively influence adolescents' values and behaviors? Or, does volunteer service empower adolescents and provide them with the chance to try out adaptive adults roles as help-givers? Research in progress is also beginning to address some of the methodological limitations of this study, such as the wide variety of means of selection of students for comparison groups. Research to increase our understanding of the connection between volunteer service and adolescent problem behavior is essential to determining how and whether other preventive interventions might effectively incorporate volunteer service components.

Overall, this study illustrates the value of an analytic strategy that focuses upon why and how a program works, rather than just whether it works. In addition, this study demonstrates the usefulness of an analytic strategy that seeks to rule out possible confounding factors in the absence of random assignment, while capitalizing on the natural variations in program implementation that occur in the replication of many successful programs. The results of this study also suggest that the Teen Outreach Program, especially its volunteer component, may provide important lessons for other preventive interventions targeted at adolescents. Further research is now being conducted to determine why volunteer activities were associated with success in Teen Outreach, and why the program appears more effective with older students, and to replicate the basic findings about the success of the program using a random assignment experimental design. Research of this type is essential if we are to move beyond identifying a host of fragile programs, which work under some conditions and not others, and toward the development of a truly useful technology for preventive interventions.

REFERENCES

Allen, J. P. (1989). The effect of school setting on youth social interaction across ages. *Journal of Educational Psychology, 81,* 408-416.

Allen, J. P., Aber, J. L., & Leadbeater, B. J. (1990). Adolescent problem behaviors: The influence of attachment and autonomy. *Psychiatric Clinics of North America, 13,* 455-467.

Allen, J. P., Leadbeater, B. J., & J. L. (in press). The relationship of adolescents' expectations and values to delinquency, hard drug use and unprotected sexual intercourse. *Development and Psychopathology, 2,* 85-98.

Allen, J. P., Weissberg, R. P., & Hawkins, J. (1989). The relation between values and social competence in early adolescence. *Developmental Psychology, 25,* 458-464.

Association of Junior Leagues. (1988). *Teen Outreach Program curriculum.* New York: Author.

Basham, R. B. (1986). Scientific and practical advantages of comparative design in psychotherapy outcome reach. *Journal of Consulting and Clinical Psychology, 54,* 88-94.

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design.* Cambridge, MA: Harvard University Press.

Burt, M. R. (1986). Estimating the public costs of teenage childbearing. *Family Planning Perspectives, 18,* 221-226.

Cowen, E. L. (1982). Primary prevention: Children and the schools. *Journal of Children in Contemporary Society, 14,* 57-68.

Donovan, J. E., & Jessor, R. (1985). Structure of problem behavior in adolescence and young adulthood. *Journal of Consulting and Clinical Psychology, 53,* 890-904.

Donovan, J. E., Jessor, R., & Costa, F. M. (1988). Syndrome of problem behavior in adolescence: A replication. *Journal of Consulting and Clinical Psychology, 56,* 762-765.

Elliott, D. S., & Ageton, S. S. (1980). Reconciling race and class differences in self-reported and official estimates of delinquency. *American Sociological Review, 45,* 95-110.

Elliott, D. S., & Voss, H. L. (1974). *Delinquency and Dropout.* Lexington, MA: D.C. Heath.

Farrington, D. (1973). Self reports of deviant behavior: Predictive and stable? *Journal of Criminal Law, Criminology and Police Science, 61,* 99-110.

Gray, D. O., & Braddy, B. A., (1988). Experimental social innovation and client-centered jobseeking programs. *American Journal of Community Psychology, 16,* 325-343.

Harrington, D. (1986). Early adolescent helper program. *Journal of Experiential Education, 9,* 26-29.

Huesmann, L. R., Eron, L. D., Lefkowitz, M. M., & Walder, L. O. (1984). Stability of aggression over time and generatins. *Developmental Psychology, 20,* 1120-1134.

Kandel, D., & Raveis, V. (1987, April). *Depression, suicidal ideation, and substance use in adolescence and young adulthood.* Paper presented at the biennial meeting of the Society for Research in Child Development, Baltimore, MD.

Leadbeater, B. J., Hellner, I., Allen, J. P., & Aber, J. L. (1989). The assessment of interpersonal negotiation strategies in multi-problem youth. *Developmental Psychology, 25,* 465-472.

Loeber, R., & Dishion, T. (1983). Early predictors of male delinquency: A review. *Psychological Bulletin, 94,* 68-99.

Luborsky, L., Mintz, J., Auerbach, A., Christoph. P., Bachrach, H., Todd, T., Johnson, M., Cohen, M., & O'Brien, C. P. (1980). Predicting outcomes of psychotherapy: Findings of the Penn Psychotherapy Project. *Archives of General Psychiatry, 37,* 471-481.

National Research Council (1987). *Risking the future: Adolescent sexuality, pregnancy and childbearing* (C. D. Hayes, Ed.). Washington, DC: National Academy Press.

Patterson, G. R., & Stouthamer-Loeber, M. (1984). The correlation of family management practices and delinquency. *Child Development, 55,* 1299-1307.

Philliber, S. P., Allen, J. P., Hoggson, N., & McNeil, W. (1989). *Teen Outreach: A three-year evaluation of a program to prevent teen pregnancy and school dropout.* Manuscript submitted for publication.

Rappaport, J. (1987). Terms of empowerment/exemplars of prevention: Toward a theory for community psychology. *American Journal of Community Psychology, 15,* 121-148.

Riessman, F. (1965). The helper-therapy principle. *Social Work, 10,* 27-32.

Rolf, J. E. (1985). Evolving adaptive theories and methods for prevention research with children. *Journal of Consulting and Clinical Psychology, 53,* 631-646.

Sarason, S. B. (1982). *The culture of the school and the problem of change* (2nd ed.). Boston: Allyn and Bacon.

Staub, E. (1979). *Positive social behavior and morality: Vol. 2. Socialization and development.* New York: Academic Press.

Weissberg, R. P., & Allen, J. P. (1986). Promoting children's social skills and adaptive interpersonal behavior. In L. Michelson & B. Edelstein (Eds.), *Handbook of prevention* (pp. 153-176). New York: Plenum Press.

Weisz, J. R. (1986). Contingency and control beliefs as predictors of psychotherapy outcomes among children and adolescents. *Journal of Consulting and Clinical Psychology, 54,* 789-795.

Zigler, E., Kagan, S. L., & Muenchow, S. (1982). Preventive interventions in the schools. In C. R. Reynolds & T. B. Gutkin (Eds.), *The handbook of social psychology.* New York: Wiley.

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TEEN OUTREACH NEWS

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SERVICE LEARNING AND THE TEEN OUTREACH PROGRAM

by Anne Collins

"Service learning" is a phrase on the lips of members of Congress these days. Compelled by evidence that volunteering can provide both young people and their communities with numerous benefits, in September, the President and Congress reauthorized the National and Community Service Act as part of the President's National and Community Service Trust Act of 1993. This Act could influence educational experiences for as many as 750,000 children in its first year.

Although service learning is a relatively new phenomenon to Congress, it is not new to Teen Outreach. Core components of the program — the volunteer activity and time for reflection — have provided many students with the opportunity to engage in service learning. In fact, evaluations indicate that this combination of volunteer service with a classroom atmosphere that enables reflection, has been the key to the program's success in many communities.

"What we've learned from Teen Outreach is that volunteering is closely linked to young people's ability to avoid some of the problems — such as school failure and dropout, and teen pregnancy — that devastate so many teens each year," explains evaluator Dr. Joseph Allen. "At the same time, we've learned that simply performing volunteer work may not be as important as **how** the volunteer work is structured. For example, volunteer work selected by the students and performed against the backdrop of supportive classroom discussions was strongly associated with positive student outcomes; without these conditions in place, volunteer work was only tenuously linked to any positive outcomes. This suggests that volunteering may be helpful to students, but primarily when they feel they have some control over it and when it isn't provided in isolation."

"What we've learned from Teen Outreach is that volunteering is closely linked to young people's ability to avoid some of the problems — such as school failure and dropout, and teen pregnancy — that devastate so many teens each year," explains evaluator Dr. Joseph Allen.

Reflection is the component of service learning that provides this necessary context for students' volunteer work. "The reflection component is what makes the difference between community service and service learning," explains Paula Flaherty, director of the West Virginia Service Learning Institute. "It is a structured method by which students evaluate what happens both to them and to the community as they undertake community service." Reflection occurs when participants observe, question and fit together facts to better understand their communities and their roles as community members.

Atlanta Teen Outreach Students at the Festival of Trees with their facilitator Lillie Mitchell

Implementing Service Learning in Teen Outreach

Thoughtfully planned activities in which students' wishes and needs are placed at the forefront are essential to successful service learning. Because students' preferences, community needs, and program resources are different for each Teen Outreach classroom, there is no single way to implement service learning. However, there are some common elements of good programs:

Students help plan the activities. Whether the volunteer component consists of group or individual activities, students must participate in deciding what to do. For many young adolescents, however, "What do you want to do?" is a question they are not yet equipped to answer without adults who offer ideas and information

(continued on page 5)

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INNOVATION IN SMALL MANUFACTURING FIRMS

by Ruth C. Young, Joe D. Francis, and Christopher H. Young

For many decades economists have claimed that the main stimulus for fundamental economic change is innovation, the successful introduction of new products to the market (Schumpeter 1939; 1947).

A good idea for a new product is only the beginning of innovation, for many new ideas never reach production. Innovative firms must be effective at marketing and a host of other practices that make good business sense.

Innovators Are Leaders

Only the very few firms on the cutting edge of change are genuine innovators, according to Schumpeter (1947 p. 82). There is no such thing as an "innovative industry," only leaders and followers within each industry.

There is no such thing as an "innovative industry," only leaders and followers within each industry.

In Schumpeter's view, changes begun by innovative firms cause the whole economy to evolve on a continuous basis. Innovation creates an economic revolution from within.

Importance for Growth

Fostering innovation may be a key to growth in the nation's economy. Efforts to understand innovation and to locate and support innovative firms are receiving substantial funding from both governmental and private sources.

Important innovations have had their start in small businesses, and smaller firms face greater risks, especially during their crucial early years. Thus programs have developed to help small innovators, like the Small Business Innovation Research Program, a federal-state partnership.

How can we find a way to identify individual innovators within an industry?

Measuring Innovation: The Problem

But working definitions of innovation are far from precise. Even as money is spent to find and nurture innovation, debate continues over what it is or is not, how we identify it, and how it is related to other factors such as the use of high technology production or special marketing strategies.

Moreover, innovation has proven difficult to quantify using data from the typical census of business. Researchers on innovation often rely on two measures that are supposed to gauge the use of high technology: employment of scientists and engineers, and expenditures on research and development. Data are not available firm-by-firm; the numbers are usually averaged over an entire industry.

High technology and research and development expenditures are not good indicators of innovation.

But the chain of reasoning is tenuous that links these two measures to high technology and then by extension to innovation, and it has led far from Schumpeter's original idea that the individual innovative firm stimulates economic change.

Unanswered Questions

First, does it make sense to say that a whole industry is "high technology" because many firms use high-technology processing? Does the use of high-technology processing tell anything about innovative product design or effective marketing?

And are we sure that the number of scientists and engineers on the payroll and the dollars spent on research and development are the best indicators of innovative output?

More to the point, how can we find a way to identify individual innovators within an industry? Industry-wide statistics are little help: data concerning innovative firms are lost when averaged into a mass of data collected from non-innovators.

And finally, how can we distinguish innovation from other kinds of change? For example, flexibility, the constant adjustment of