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ABSTRACT

This study evaluates how grantees of the Office of Adolescent Pregnancy Programs (OAPP) implemented their teen pregnancy and parenting programs and how program participation affected the lives of clients. Chapter I outlines the structure and history of the evaluation project. Chapter II highlights the major client outcomes of OAPP-funded projects and compares these outcomes to data from other sources. Chapter III describes project characteristics, characteristics of clients at project entry and exit, and the types and amounts of services delivered by the projects. Chapter IV describes pregnancy outcomes such as delivery complications and low birth weight for clients who were pregnant when they began participating in the projects and looks at what effects the services given to clients had on those outcomes. Chapter V describes outcomes such as repeat pregnancies, school completions, and welfare dependency for teen mothers, and hospitalization and living arrangements for babies. It also assesses the degree to which projects affected these outcomes. Chapter VI reports on financial data from eight project sites. Chapter VII focuses on the difficulties many projects encountered in becoming fully operational and offers suggestions for avoiding such difficulties. Chapter VIII explores the management and coordination functions of OAPP itself and suggests improvements. Appendices provide detailed financial and service data for eight projects, the summary report forms used by OAPP-funded projects, the indicators of program performance used, and unstandardized statistical data about project outcomes. (RDN)

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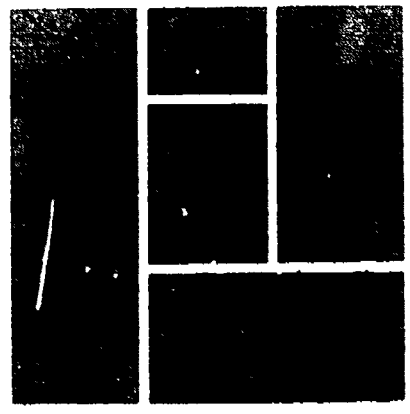

THE URBAN INSTITUTE

Project Report

Helping Pregnant Adolescents: Outcomes and Costs of Service Delivery

Final Report on the Evaluation of Adolescent Pregnancy Programs

February 1984

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CHAPTER I

PROJECT STRUCTURE AND HISTORY

The Office of Adolescent Pregnancy Programs of the Department of Health and Human Services began functioning under the mandate of P.L. 95-626, and continues to operate under the Adolescent Family Life authorization contained in P.L. 97-35. Both pieces of legislation authorize the Office (referred to as OAPP throughout this report) to fund service projects for pregnant teens, parenting teens, teens at risk of pregnancy, and their families and male partners. The original legislation concentrated heavily on care projects for pregnant and parenting teens, and put less emphasis on prevention. Both pieces of legislation specify certain services that projects funded with OAPP money are to offer to teen clients, either through their own auspices or by referral to other agencies in their communities. Projects funded under the legislation were also directed to make maximum use of other federally funded sources of assistance to pregnant and parenting teens, such as AFDC, Medicaid, Food Stamps, WIC, and maternal and child health programs.

After a first experimental year in which four projects received funding (FY 1979, using FY 1978 appropriations), OAPP funded 26 grantees in October 1980 to develop supportive services for pregnant and parenting teens. These 26 grantees encompassed 38 individual projects and a range of program designs and service delivery locations. All of these projects were responsible for delivering the services specified in the legislation (more preventive services were added with P.L. 97-35, but the basic care services of P.L. 95-626 remained intact in the later legislation):

- Core Service 1 — Pregnancy testing and maternity counseling;
- Core Service 2 — Family planning counseling and services;
- Core Service 3 — Primary and preventive health care;

- o Core Service 4 — Nutrition counseling, education, and services;
- o Core Service 5 — Venereal disease counseling, testing, and treatment;
- o Core Service 6 — Pediatric care;
- o Core Service 7 — Family life education, including parenting education;
- o Core Service 8 — Educational and vocational counseling, referral, and services;
- o Core Service 9 — Adoption counseling and referral;
- o Core Service 10 — Other health care.

In addition to these core services, the legislation also allowed funding for four specific supplemental services:

- o Supplemental Service 11 — Child care;
- o Supplemental Service 12 — Consumer/homemaking counseling and education;
- o Supplemental Service 13 — Counseling for male partners and extended family members;
- o Supplemental Service 14 — Transportation.

The Urban Institute Evaluation

At the same time that OAPP projects received their funding, DHHS' Office of the Assistant Secretary for Planning and Evaluation contracted with the Urban Institute to evaluate how grantees implemented their programs and what impact program participation had on the lives of program clients. This evaluation study contained several components. First, the Urban Institute was to develop a case management system for projects to use. The system was to have the capacity for recording and aggregating project data. The Urban Institute was also responsible for offering technical assistance to projects that wanted to use the system. Technical assistance helped projects adjust the system to their own unique circumstances and abilities. The forms used in this system appear as Appendix D of this report; Appendix E gives the indicators constructed from the data.

Second, the Urban Institute staff was to describe the implementation activities projects undertook as they moved toward full operational status and

analyze the achievements and problems encountered along the way. The results of this work are reported in Chapter VII. Third, we were to analyze the aggregated project data that resulted from projects' use of their case management systems. This analysis was designed to yield descriptive data about project characteristics, client entry and exit characteristics, services delivered, pregnancy outcomes for clients entering projects pregnant, and outcome information at 6, 12, and 24 months after the birth of a baby for all project clients. Fourth, we were to conduct case studies of the client outcomes of those projects that could produce individual client data. These data, unlike the aggregated project data, were designed to yield causal information about the effects of project participation on client outcomes. Analyses based on both aggregate and individual data appear in Chapters III, IV, and V of this report.

Finally, we were to collect information on service costs. This information, from a small number of projects with excellent records, was designed to tell us what the range of costs were for each type of service and what the average cost for each service and for customary service packages was for selected OAPP projects. These data, presented in Chapter VI, also allow us to analyze the cost effectiveness of the projects on which we have cost data.

During the 1981 fiscal year (the first year of grantee and Urban Institute activity), grantees turned their attention to the complex tasks of achieving fully operational projects. At the same time, Urban Institute researchers visited grantees to get baseline information on implementation, develop and revise case management forms, pretest these forms, prepare technical assistance materials, and offer technical assistance in using the

case management system to all projects. This involved individualized assistance to grantees on how to record case management information with the least disruption of their own recordkeeping system if they had one, and how to develop a recordkeeping system if they did not.

During FY 1982 most grantees maintained case management information. Based on their activities, we have aggregate data from 20 grantees, encompassing 30 individual project sites since some grantees had more than one site of primary case management. We have individual client data from 23 individual project sites. This report summarizes the evaluation results from the data recorded by OAPP projects during FY 1982.

Both the aggregate and the individual data reported here have certain properties of which the reader should be aware. Their biggest advantage as data sets lies in having roughly the same data, defined in uniform ways and recorded in uniform format, from many projects with otherwise quite individual configurations. This is especially important with respect to service delivery, which is usually so different across projects that cross-project comparisons are precluded. Because all OAPP-funded projects operated in the context of P.L. 95-626, all were constrained to offer some form of the core (and possibly supplemental) services mandated in the legislation. This fact gave us the starting place to develop uniform service definitions across projects. The resulting definitions, although totally pleasing to no one, were usable by everyone. There was even less problem establishing uniformity of definitions and categories for entry characteristics and outcome data. Because the aggregate and individual data sets have these properties, they are probably the only ones available that allow inter-project comparisons without needing to make massive assumptions and adjustments to achieve comparability.

However, to balance this advantage, the aggregate data set also has the disadvantage that all the data are at the aggregate level. Therefore, with these data we can make no finer distinctions than were contained in the original forms (see Appendix D for the forms used in this aggregate data system). For instance, we can describe how many pregnant clients were under 15 at project entry and we can describe how many pregnant clients were in school at entry, but we cannot go the next step with the aggregate data and say how many pregnant 15-year-olds were in school at entry. This means that for all analyses beyond reporting simple frequencies and percentages we will use the individual level data derived from case studies of selected projects.

In addition, some variables of initial interest turn out to be not very useful in the final analysis. Most prominent of these is "program model." At funding time, OAPP labeled all of its grantees as representing some "model" or type of project. The initial "models" turned out not to be analytically distinct; for example, a project labeled "single-site" and one labeled "all-city" turned out to look almost identical in structure. Urban Institute researchers tried to derive accurate labels for program models, and proposed "single site," "network," "multiple primary," and "combinations." Even at the beginning, too many projects fell in the "combination" category, and by the end of the data collection period projects had evolved, developed new services and approaches and new community linkages, and looked more and more like points on a continuum rather than distinct types. A further problem for analyzing the impact of "program model" arises from the uneven distribution of models over the cooperating projects. Only three projects could initially be classified as "multiple primaries" (case management could occur at any of several cooperating agencies rather than centrally), and one of them did not

participate in the case management system. Only two projects fit the pure "network" definition, and then only if you looked at corporate structure rather than at what services were available in the same building that housed the project offices. Analyses using "program model" therefore did not prove fruitful, despite the fact that this variable held a great deal of interest for OAPP and others at the beginning of the project. To compensate, we have created a number of variables that describe projects and for which there is a reasonable degree of variance across projects (e.g., site of primary service delivery; urban-rural; percentage of clients pregnant at entry; percentage of services delivered on site; case management approach) and have used these in analyses reported in the following chapters.

The small number of projects (N=30) and the constraints on developing adequate project-level variables limit the analysis that can be performed on the aggregate data set, but do not preclude it completely. Indeed, we can learn some useful things from the aggregate data, not the least of which are its opportunities and limits. Since aggregate program data are the type most likely to be available from adolescent pregnancy projects, it is wise to understand how much they can tell you and how much they cannot. For this particular study, analyses with individual client data supplement the aggregate analyses to answer correlational and causal questions.

Finally, the Urban Institute's contract with DHHS did not include the collection of comparison or control group data from a sample of nonservice recipients. If we want to answer the question, "Do OAPP projects make a difference to clients?" we are thus forced to search the literature for comparison data and to settle for what we find there. Data recording categories in the case management system were carefully selected to make these

comparisons as precise as possible. Nevertheless, what we find often does not correspond to data from the OAPP-funded projects because of varying lengths of time at follow-up, different definitions of important variables, different populations measured, or great differences in time or circumstances under which the comparison data and the OAPP data were collected. We have used what comparison data we could find and, where necessary, have noted the important differences from the conditions prevailing in the OAPP-funded projects. Comparisons for the most important outcome variables are summarized in Chapter II; other comparisons occur as appropriate in the text of the remaining chapters. We have not included every possible set of comparison data; rather, we have included enough to give the reader a sense of how OAPP-funded program performance compares with some other criteria. Sometimes those criteria are other service programs, in which case the comparisons should yield roughly similar outcomes. Sometimes the comparisons are with national sample survey data, in which case we assume that most survey respondents have not received services from a special program similar to the ones OAPP funded and that we should therefore see some significant differences in the desired direction from the OAPP data.

Chapter III uses aggregate data to describe project characteristics, characteristics of clients at project entry and at the time they leave the project, and service delivery. Individual data are then used to assess whether the clients' entry characteristics or the characteristics of the projects themselves make a difference for what types of service, and how many services overall, the average client receives. Chapter IV uses aggregate data to describe pregnancy outcomes for mothers and babies for those mothers who delivered a baby while a project participant. Analyses using individual data

explore the effects of project services on achievement of desired pregnancy outcomes (health outcomes for mother and baby, school and welfare outcomes for the mother). Chapter V uses aggregate data to describe clients' achievement of desired outcomes at 6, 12, and 24 months after delivery. Outcomes at these periods include postponement of subsequent pregnancies, school and job-training participation or completion, employment, independence from welfare, and health outcomes for babies. Individual data are then used to explore the impact of services on these outcomes. Chapter VI offers an examination of financial information collected at eight Title VI project sites, including unit costs of services, estimates of average service amounts delivered, average service and service package costs, sources of funding, and a cost-effectiveness analysis of project services. Chapter VII summarizes the implications of OAPP grantee experiences of project implementation; Chapter VIII does the same for projects' ongoing management and OAPP's performance against legislative mandates. Both of the final chapters offer suggestions for how to increase the probabilities of funding well-run, high-quality programs.

The appendices contain some basis material used in the study. Appendices A to C provide detailed financial and service data for the eight projects reported in Chapter IV. Appendix D contains the summary reporting forms developed by the Urban Institute and used by OAPP-funded projects. Appendix E provides the indicators of program performance used to analyse project data. Appendix F gives unstandardized regression equations for individual-level data analysis of dependent variables reported in Chapters IV and V.

CHAPTER II

MAJOR CLIENT OUTCOMES OF OAPP-FUNDED PROGRAMS COMPARED TO OTHER AVAILABLE DATA

This chapter highlights the major client outcomes of OAPP-funded teen pregnancy and parenting programs and compares these outcomes to data from other sources where those are available. Chapters III, IV and V present more detailed data about the OAPP-funded projects only.

Outcomes--How "Good" Are the OAPP Projects' Results

Although the Urban Institute's work with OAPP-funded projects explicitly excluded collection of comparison or control data, nevertheless everyone wants to know how well the projects performed in comparison both to other teen pregnancy projects and to comparison populations who received no special services. Table II-1 presents major infant and maternal health outcomes for which there are national or other project comparisons. Table II-2 does the same for major client (mother) outcomes at 12 and 24 months postpartum. The outcomes reported in these tables are all important foci of legislative and program efforts. In some instances, the populations or measures are not perfectly compatible. However, the data cited are the only ones available to make the desired comparisons. Footnotes to each table describe the comparison data and tell the major points of difference from OAPP data.

Infant and Maternal Health

Table II-1 indicates that OAPP-funded projects did quite well in the immediate consequences of pregnancy and childbearing. Fewer infants born to OAPP project mothers died within the first week of life than was true for babies in Klerman and Jekel's project or in national natality statistics. The one-year death rate, which is the most commonly cited infant mortality

TABLE II-1

INFANT OUTCOMES - COMPARISONS
BETWEEN OAPP-FUNDED PROGRAMS AND
OTHER DATA SOURCES

Outcome	OAPP-Funded Projects	NCHS or Other National Data	Klerman and Jekel[a]
Infant death <7 days	3.5/1,000 live births[b]	7.5/1000 white[c] 12.5/1000 nonwhite[c]	12/1,000 - project clients[b]
Infant mortality 28 days - 11 months	10.9/1,000 live births		24/1,000 - comparison group
Infant mortality - 1 year	14.4/1,000 live births	11.0/1000 white[c] 19.1/1000 nonwhite[c]	-
Miscarriages	7%[f]	13%[g] 7.5%[h]	-
Pre-eclampsia, eclampsia, toxemia	5%	-	14-15% project clients 28% - comparison group
Low birth weight (2500 grams)	7%	8.0% whites[d] 14.3% nonwhites[d]	11.3-15.6% - project clients 20.5% - comparison group 9.3% - Project Redirection[e]
Babies born with no complications	83%	-	80-86% - project clients 75% - comparison group

a. Klerman and Jekel (1973) report data on participants in two special projects who were all pregnant, under 18 and unmarried at the time of the study (1963-1965), and on a comparison sample with similar characteristics who received no special services.

b. OAPP figure calculated using "Other Baby Deaths" divided by live births (8÷2256÷1000=3.5/1,000). These are deaths before leaving the hospital, usually within the first week. The figures from Klerman and Jekel are hebdomadal deaths--deaths within the first week. The NCHS figures are deaths within the first 28 days.

c. NCHS Monthly Vital Statistics Report, Vol. 32, No. 4, Supplement, August 11, 1983. "Advance Report of Final Mortality Statistics, 1980."

d. NCHS Monthly Vital Statistics Report, Vol. 31, No. 8, Supplement, November 30, 1982. "Advance Report of Final Natality Statistics, 1980," Table 13. These figures are for mothers 17 and under.

e. Denise Polit, Principal Investigator, Project Redirection Impact Analysis. Personal Communication. Project Redirection Clients and comparisons are unmarried, minority, urban and poor, with a mean age of 16 at baseline. This figure is for clients who were pregnant at baseline, and is a composite of the figure for Redirection Clients (10.6%) and comparison group members (8.2%).

f. Figure calculated using "Fetal Deaths" divided by all pregnancy outcomes (186÷ 2504 = .074).

g. AGI, "Teenage Pregnancy: The Problem that Hasn't Gone Away," 1981, Figure 10. This figure was compiled using data from NCHS, CPS, Population Council and other sources.

h. Estimates for 1980 based on the 1976 National Survey of Family Growth. Mosher and Pratt, "Reproductive Impairments among Married Couples: United States." Vital and Health Statistics, Series 23, No. 11, DHHS Publication No. PHS83-1987, December 1982.

statistic, shows infant deaths within OAPP-funded projects occurring at a rate between that for white and nonwhite infants in the nation as a whole. The fair comparison would be to use 15/1000 as the national figure, which combines the white and nonwhite rates in approximately the same ratio (50/50) that clients appear in OAPP programs. With 15/1000 as the comparison, OAPP-funded programs have achieved some reduction in the infant mortality rate for project clients. OAPP projects target a very high risk population whereas the NCHS data summarize the experiences of all babies born in the U.S. during the 12 months ending in October 1982 to mothers of any age. In comparison to these national statistics, OAPP projects seem to do very well in bringing clients through healthy pregnancies and producing healthy babies.

Low birth weight and other complications of delivery are traditional threats to babies' well-being. On these important variables, projects' clients show better outcomes than clients of two other teen pregnancy projects and do much better than special comparison group or national data. Only 7 percent of OAPP project clients had babies who weighed 2500 grams or less, compared to 11 to 16 percent of Klerman and Jekel's experimental clients (from 20 years ago), 9 percent for Project Redirection clients (mostly welfare recipients), and 9 to 14 percent for U.S. natality statistics as a whole (to mothers 17 and under, of all economic statuses). OAPP clients' infants also compare well with Klerman and Jekel's client and comparison groups on the number of infants born with no complications. Miscarriages and mothers' eclampsia and toxemia complications of delivery are also lower than the available comparisons, indicating good project performance on infant and maternal health outcome measures.

Teen Parent Outcomes at 12 and 24 months

Table II-2 presents outcomes on major variables of interest to legislators, public policymakers, and funders: repeat pregnancies, educational completions, job training, welfare dependency, and employment. The data in Table II-2 reveal a mixed picture, depending on which outcome one looks at. We expected that all the figures reporting the results of special service projects aimed directly at pregnant teens and teen parents would look approximately the same. We also expected that the major points of difference would be between some program and no program. Results in line with our expectations appear to be strongly true only for educational continuation and completion rates which hover around the 60 percent level. Both Klerman and Jekel's and Project Redirection's control samples, whose members are reasonably well matched to experimental clients on baseline characteristics, have higher dropout rates from educational programs. Mott and Maxwell's data reveal quite high rates of educational participation, but (a) this is at 9 months postpartum, (b) it lumps together the entire age range of 14 to 22, and (c) it samples the U.S. population as a whole rather than concentrating on the particularly disadvantaged groups who constitute the clients of special adolescent pregnancy projects. For outcomes from OAPP projects to approximate these Mott and Maxwell data, therefore, should probably be looked upon as a significant achievement.

With respect to repeat pregnancies, clients from OAPP-funded projects do well in comparison to both Klerman and Jekel's experimental and control samples and to Project Redirection's control sample. They are roughly equivalent to Project Redirection's experimental sample and to the 1976 data on second pregnancies reported by Zelnik (1980) using national data on U.S. teenagers.

TABLE II-2

TEEN PARENT OUTCOMES - COMPARISONS BETWEEN OAPP-FUNDED PROGRAMS AND OTHER DATA SOURCES

Outcome	OAPP-Funded Projects	Other Service Programs		Comparison and Control Populations			
		Klerman & Jekel[a]	Project Redirection[b]	Klerman & Jekel[a]	Project Redirection[b]	Mott & Haskell[c]	Kantner & Zelnik
Pregnant Again Within 1-12 Months of last baby's birth:							
Clients delivering in program	15%	23%	17%[d]	18%	22%[d]	-	22%-1971[e] 15%-1976[e]
Clients entering with baby	17%	-		-		-	
Pregnant again within 1-24 Months of last baby's birth:							
Clients delivering in Program	34%[f]	51%	-	66%	-	-	50%-1971[e] 30%-1976[e]
Clients entering with baby	30%[f]	-	-	-	-	-	
In or completed school program							
At delivery (pregnant clients only)	71%	71%	-	38%	-	62%-Whites[c] 71%-Blacks[c]	-
Within 1-12 months of last baby's birth:							
Clients delivering in program	62%	57%[a]	66%[d]	30%	50%[d]	58%-Whites[c] 61%-Blacks[c]	-
Clients entering with baby	61%	-		-		-	-
Within 1-24 months of last baby's birth:							
Clients delivering in program	60%[f]	51%[a]	-	24%	-	-	-
Clients entering with baby	55%[f]	-	-	-	-	-	-
In or completed job training program							
Within 1-12 months of last baby's births:							
Clients delivering in program	12%	-	34%[d]	-	21%[d]	-	-
Clients entering with baby	12%	-	-	-	-	-	-
Within 1-24 months of last baby's birth:							
Clients delivering in program	12%	-	-	-	-	-	-
Clients entering with baby	21%	-	-	-	-	-	-

TABLE II-2 CONT'D

Outcome	OAPP-Funded Projects	Other Service Programs: Klerman & Jekel[a]	Other Service Programs: Project Redirection[b]	Comparison and Control Populations: Klerman & Jekel[a]	Comparison and Control Populations: Project Redirection[b]	Comparison and Control Populations: Mott & Maxwell[c]	Comparison and Control Populations: Kantner & Zelnik
Welfare Status-Not receiving any public support:							
At 12 months after last baby's birth:							
Clients delivering in program	39%	-	20%[g]	-	-[g]	White[h]: 77%-graduates, 68%-dropouts; Black[h]: 55%-graduates, 26%-dropouts	-
Clients entering with baby	39%						-
At 24 months after last baby's birth:							
Clients delivering in program	48%	34%	-	-	-	-	-
Clients entering with baby	33%		-	-	-	-	-
Employment							
Working 20+ hours/week at 12 months:							
Clients delivering in program	13%	35%[i]	15%-working, 45%-looking for work	-	18%-working, 34%-looking for work	White[h]: 45%-graduates, 26%-dropouts; Black[h]: 41%-graduates, 8%-dropouts	-
Clients entering with baby	10%			-			-
Working 1-20 hours/week at 12 months							
Clients delivering in program	8%						
Clients entering with baby	6%						
Looking for work	14-22%						
Working 20+ hours/week at 24 months:							
Clients delivering in program	21%	31%[i]	-	29%[i]	-	-	-
Clients entering with baby	10%		-		-	-	-
Working 1-20 hours/week at 24 months:							
Clients delivering in program	4%		-		-	-	-
Clients entering with baby	7%		-		-	-	-

Footnotes for Table II-2

[a]Klerman and Jekel (1973) report data on participants in two special projects who were all pregnant, under 18, and unmarried at the time of the study (1963-1965), and on a comparison sample with similar characteristics who received no special services. Important differences from the OAPP-funded projects are: (1) the time when the project took place; (2) the follow-up periods--Klerman and Jeckel reinterviewed project participants and controls at 15 months postpartum and again at 26 months postpartum, but we have compared these follow-up periods with our own 12-month and 24-month follow-ups; (3) they had no clients equivalent to our "client entering with baby". Their percentages are based on known responses--clients they could not find at follow-up are not included, which makes their follow-up data similar to ours.

[b]Denise Polit, "Early Impacts on the Project Redirection Program for Pregnant and Parenting Teens," Draft Report, 1983. Cited with permission. Project Redirection clients are unmarried, minority, urban, and poor, with a mean age of 16 at baseline. Important differences from the OAPP-funded projects are: (1) more than 80 percent of clients were on welfare at baseline, a participation requirement, compared to only 26 percent of our pregnant clients and 53 percent of our entry mothers; (2) follow-up occurred at 12 months after project entry (baseline), rather than 12 months after the birth of the client's last baby; (3) Project Redirection programs had a heavy, consistent emphasis on school and on job readiness and job training. Clients entering Project Redirection pregnant (about half their clients) were probably somewhere between 6 to 9 months postpartum at the time of the 12-month follow-up, whereas clients entering with a baby were more than 12 months postpartum, by an unknown number of months.

[c]Mott, Frank L. and Nan L. Maxwell, "School-Age Mothers: 1968 and 1979," Family Planning Perspectives 13, 6 (November/December 1981): 287-292. Mott and Maxwell analyze data from the NLS and NLSY. We report only their NLSY data, since these data contain information on youth who were 14 to 22 in 1979. This is a nationally representative random sample of youth, containing 3400 white women, 1500 black women, and 950 Hispanic women. Reported figures are weighted to match the CPS samples of the same ages. From this sample Mott and Maxwell analyzed the experiences of those who had had at least one child in relation to their first birth. First births to black women occurred earlier than those to white women. Also, the data are pooled for all mothers aged 14 to 22, which for our purposes mixes populations of quite different characteristics. Unfortunately, they do not give age at first birth for their sample. Also, their "follow-up" times are different; they report data at the time of the birth, and nine months after the birth. We have compared these data to our 12-month follow-up. Given the mixture of ages at first birth, we would expect the Mott and Maxwell figures to be substantially "better" than the OAPP project figures, but cannot estimate precisely any realistic correction factor. We give them because they are the only national figures available that include high school dropouts and report most of the outcome variables measured for the OAPP projects.

[d]Project Redirection figures are adjusted to account for differences between project and comparison respondents in baseline school status, age,

ethnicity, marital status, age of youngest child, and whether the grandmother was present in the household. In addition, pregnancy status at follow-up was controlled for length of time at risk.

[e]M. Zelnik, "Second Pregnancies to Premaritally Pregnant Teenagers, 1976 and 1971, "Family Planning Perspectives 12 (1980): 69ff. Similar figures for 1979 are not yet available.

[f]These figures assumed that data collected from OAPP projects on clients at 12 months postpartum and a different set of clients at 24 months postpartum are cumulative. Because these data are not longitudinal, we can only make this as an assumption based on aggregate data. They are also based only on those clients known to the project at the follow-up period.

[g]Project Redirection did not collect data on welfare status for either project clients or comparison subjects. Denise Polit indicated in a personal communication that 80 percent or more of the Project Redirection clients were on welfare at baseline, hence the 20 percent figure cited here.

[h]These figures are at the time of the interview, when respondents were "at least ten months postpartum." However, they could be many more months, or years, postpartum, and we cannot estimate how many from the data given.

[i]These figures are for "currently employed" at the time of follow-up.

Besides the OAPP-funded projects, only Project Redirection includes data on job training and placement; in fact, Project Redirection has both more extensive data on job readiness, job training, employment and employment aspirations, and a more pronounced program emphasis on employment, than the OAPP-funded projects. It is therefore not surprising that on both the job training and employment variables in Table II-2, Project Redirection clients exceed the involvement of OAPP clients in these activities.

Comparisons to other populations on welfare dependency are perhaps the most difficult to make. Reasonable analyses now exist which document that substantial proportions of welfare rolls are made up of single mothers who had their first child while still a teenager (see Moore and Burt, 1982, for a summary of these studies), but the converse statistic--how many women who experienced a first birth as a teenager ultimately receive welfare--is nowhere available. For our purposes, Project Redirection does not supply an appropriate comparison, since welfare dependency was a condition of being accepted into the program. Therefore, the finding that clients' welfare participation rate is higher than that for OAPP projects is not particularly meaningful. By the same token, Klerman and Jekel's data compare favorably with OAPP program data, but since they reflect a period almost 20 years ago and welfare participation has changed significantly in that time, the meaningfulness of the comparison is open to question. The Mott and Maxwell data also pose comparison difficulties, since the age range is so great, they include married as well as unmarried mothers and they cover the U.S. population as whole, not the high-risk-of-poverty population targeted by OAPP programs. Therefore, it is not surprising that Mott and Maxwell show greater independence from welfare in their National Longitudinal Survey of Youth

sample for 1979 than OAPP clients show. Somewhat more delivered clients are independent of welfare at 24 months postpartum than are independent of welfare in the 12-month postpartum group, but the same is not true for entry mothers.

Finally, OAPP clients do not do very well on employment at 12 to 24 months no matter what comparison group one uses. OAPP clients have lower employment rates than any of the control samples and significantly lower rates than the other experimental service projects. We have no ready explanation for this phenomenon because even though the OAPP projects did not have a major work focus parallel to Project Redirection's, neither did Kleruan and Jekel's experimental program yet their clients also show much higher proportions of clients working than OAPP project clients.

CHAPTER III

THE PROJECTS AND THEIR CLIENTS

This chapter and the next two present descriptive data about OAPP-funded projects and their clients, and also analyze the impact projects and project services had on client behavior and achievements 12 months after delivering a baby. Chapter III describes project characteristics, characteristics of clients at project entry and at the time they left the project, and the types and amounts of services delivered by the projects. Chapter IV describes pregnancy outcomes such as delivery complications and low birth weight for those clients who entered the projects pregnant and looks at what effects the services given to clients had on those pregnancy outcomes. Chapter V describes outcomes such as repeat pregnancies, school completions, and welfare dependency for teen mothers, and hospitalizations and living arrangements for babies. It also assesses the degree to which projects were able to affect these outcomes for their clients.

Project Characteristics

Throughout FY 1982, 20 of the grantees then funded by OAPP, encompassing 28[1] Title VI adolescent pregnancy projects, used their case management systems to collect data on their clients. The participating projects are a diverse group, with varying locations, structures, and capabilities. Table III-1 highlights some of the salient characteristics.

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[1]For the analyses in Chapters III, IV, and V, aggregate data from two small satellite projects and one large project all under one grantee's auspices have been merged to yield a total of 28 projects for the aggregate data analysis.

TABLE III-1: CHARACTERISTICS OF TITLE VI PROJECTS

Characteristics	Number of Projects	Percentage
Length of time in operation:		
24 months or less	11	39%
25 to 36 months	8	29%
37 to 60 months	2	7%
More than 60 months	7	25%
Sponsoring Agency:		
Hospital	3	11%
Other health agency	7	25%
School/education agency	3	11%
Social service agency	10	36%
Special corporation	5	18%
Service delivery location:		
Hospital	4	14%
Other health agency	5	18%
School	6	21%
Social service agency	2	7%
Child care center	1	4%
Adolescent pregnancy	10	36%
Catchment area:		
Large urban	10	36%
Small urban (less than 100,000)	6	21%
Rural	12	43%
	28	100%

The majority of the Title VI projects had been in operation more than two years by October 1982, indicating that most of the projects existed prior to receiving Title VI grants. This is consistent with the central programmatic purposes of the legislation:

- to expand and improve the availability of and access to needed comprehensive services;
- to establish better coordination, integration and linkages among existing programs (emphasis added); and
- to promote innovative, comprehensive and integrated approaches to the delivery of such services.

Where the grantee was an existing service delivery project, Title VI funds usually went to expand a particular aspect of the service program or to facilitate service coordination and linkage.

Sponsors of the Title VI projects tended to be strong community service organizations; 36 percent were social service agencies and another 25 percent were health agencies. All the sponsoring organizations were in the health, educational, or social services fields, the main components of comprehensive services for teenagers. Service delivery similarly took place at such agencies, although sites dedicated to adolescent pregnancy services per se were the dominant model (36 percent). Schools were the next most popular site (21 percent) for Title VI services.

One interesting characteristic of the projects is catchment area. Forty-three percent of the projects served rural areas, while 36 percent and 21 percent served large and small urban areas, respectively. We could not discern any pattern to the projects' sponsorship by catchment area; all types of agencies seem to recognize the need for adolescent pregnancy services in rural as well as urban areas.

Project location and sponsorship can be expected to affect the numbers and kinds of clients which come to the projects. Table III-2 presents figures on client population, overall and by several project characteristics. The average Title VI project had 339 clients, 89 percent of them females. Very few projects served a substantial male population; when we look only at projects with at least 5 percent of their client population male, we find that the average number of males per project nearly doubles from 38 to 72. Since so few projects concentrate on serving males as clients (many give them services through a female primary client), we will not further examine variations in the male population.

Among the females served by the Title VI projects, 53 percent of them received services while they were pregnant. Many of these girls stayed on to deliver in the projects; 51 percent of all the active females received services as delivered clients. By constrast, 14 percent of the females ever active in the projects received services as entry mothers, meaning they first came to the project with a child and were not pregnant at project entry. Twelve percent of the active clients were served as other females, neither pregnant nor having a child at the time. These percentages are duplicative since a girl could have been in several different statuses during the time she received project services. The figures demonstrate that projects concentrate on helping teens who are pregnant or are mothers, consistent with the Title VI directive to place "primary emphasis on services to adolescents. . .who are pregnant or who are parents."[2]

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[2]P.L. 95-626, Section 601(b)(1).

TABLE III-2: CLIENT POPULATION SIZE BY PROJECT TYPE

	Total Number	Percent of all Females	Average per Project	Range Across Projects
Active Females (unduplicated)	8434		301	53-760
Pregnant[b]	4501	53%		
Delivered[b]	4671	55%		
Entry Mothers[b]	1163	14%		
Other Females[b]	1049	12%		
Number of Active Males	1074	-	38	0-408
			(72[a])	(3-408[a])
Total	9508		339	61-864
Catchment area[c]:				
Large Urban (10)	3764	45%	376	122-760
Small Urban (6)	2539	30%	423	232-568
Rural (12)	2131	25%	178	53-652
Delivery sites[c]:				
Hospital (4)	2037	24%	509	368-760
Other health (5)	1670	20%	334	111-652
School (7)	2325	28%	332	109-568
Adolescent pregnancy (10)	1799	21%	180	53-375
Other (2)	603	7%	301	258-345
Age of project[c]:				
24 months or less (11)	2557	30%	232	53-568
25 to 36 months (8)	2534	30%	317	106-531
More than 36 months (9)	3343	40%	371	111-760

[a] Using only those 14 projects where males made up 5% or more of the client population.

[b] These figures contain duplicate counts of individuals who occupied two or more different statuses (e.g., pregnant clients become delivered clients, and entry mothers sometimes become pregnant).

[c] Figures are for females only.

Looking more closely at the populations of female clients, we are not surprised to observe substantially larger populations served by urban projects. Projects in small urban areas (metropolitan areas of less than 100,000 people) serve an average of 423 female teens, and large urban projects serve 376. By contrast, rural projects serve an average of 178 females in a year, although the range across projects in all three groups is substantial and makes these inferences less than conclusive.

Population variations across service delivery site types show a somewhat more stable pattern. Hospitals serve the largest numbers of females while adolescent pregnancy service programs serve the smallest. This is reasonable since teens may come to a hospital for a range of health problems, including pregnancy services at regular OB/GYN clinics, and may be more easily referred to specialized adolescent pregnancy services located in the clinic or close by in the hospital. It may also be that hospital-based projects simply have more space and staff, hence they can serve larger numbers of clients. This notion is supported by implementation data on project staffing levels; overall, projects average 9.7 FTE staff, while hospital-based projects average 11.4 FTE staff.

The clearest pattern of population variation appears in relation to age of project. On average, the newer the project, the fewer clients it is likely to have. This pattern is supported not only by the average number of females served, but also by the end points of the range for each project group: the smallest projects are the newest ones and the largest projects are the oldest ones.

Characteristics of Entering Clients

Entry characteristics are useful for two purposes: to determine whether projects are targeting services to particular types of clients and to establish a baseline for project populations. To the extent that targeting is planned, projects can evaluate how well their outreach and client-finding efforts are tapping the desired population group. Where targeting is occurring by accident rather than design, projects can begin to examine their intake procedures to identify causes of targeting, and can adjust their efforts to best fit with project goals. At the same time, these entry data reveal the general condition of clients when they first come into contact with the project and suggest in various ways the kinds and levels of difficulty which projects face in working with the clients. These two aspects--targeting and expectations for client change--are the focus of the discussion which follows.

The total number of clients entering all projects in all four quarters equaled 4935, or an average of 40 clients per project per quarter.[3] Sixty-four percent (3172) entered as pregnant teenagers, 14 percent (712) as mothers, 11 percent (549) as other female teens. Ten percent (502) were males. The distribution of clients by status suggests that the Title VI projects oriented themselves more to treatment and support than to preventing first pregnancies; girls already mothers or soon to be so make up more than three-fourths of the entering population. Males make up a minor portion, largely because the primary focus has been on mothers and mothers-to-be. They

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[3]These numbers are lower than those in Table II-2 because they do not include 4573 clients who were already active in projects on October 1, 1981, the date data collection began. We have limited entry characteristics data recorded for these continuing clients.

nonetheless receive services, through their female partners, even if they are not considered to be clients in their own right. Table III-3 summarizes the characteristics of female clients at entry.

Consonant with the legislative objective of Title VI to target services to teens 17 or younger, it is important to note that 73 percent of entering clients were under 18. The majority of these were between 15 and 17: 66 percent of the pregnant teens, 53 percent of the entry mothers, and 64 percent of the other female teens were between 15 and 17 years old. Another 9 percent, 4 percent, and 20 percent, respectively, were 14 or younger. Other female teens tend to be the youngest group, and entry mothers the oldest. This is not surprising since girls who already have a child are likely to be older than girls who have never been pregnant. Most Title VI projects focused primarily on care to pregnant and parenting teens, and their entry data reflect where they put most of their energy.

Racial and ethnic characteristics of project clients are almost completely determined by where the project is located. Projects were funded in areas with high teen pregnancy rates, and their clientele reflect the racial distribution of teen pregnancy in the U.S. Among nonwhites aged 15 to 19, the birth rate is more than twice as high as among whites (100.2 vs. 44.5 per 1,000 in 1979) and the out-of-wedlock birth rate is almost six times as high (87.1 vs. 14.7 per 1,000 unmarried women in 1979) (Monthly Vital Statistics).

The racial distribution of entering clients shows a preponderance of blacks. According to the 1980 census, blacks comprise 14.6 percent of all females between the ages of 10 and 19. On the other hand, they experience 54

TABLE III-3: ENTRY AGE AND RACE BY ENTRY STATUS

		Pregnant		Mothers		Other Female Teens		Total
		N	%	N	%	N	%	
AGE	14 or younger	279	9%	25	4%	112	20%	9%
	15 -17	2104	66%	378	53%	354	64%	64%
	18 or older	789	25%	309	43%	72	13%	26%
	Unknown	0	-	0	-	11	2%	
RACE	American Indian/ Alaskan Native	23	0.7%	9	1%	13	2%	1%
	Asian/Pacific Island	12	0.4%	2	0.3%	6	1%	0.5%
	White	1411	44%	238	33%	203	37%	42%
	Black	1512	48%	378	53%	252	46%	48%
	Hispanic	210	7%	85	12%	62	11%	8%
	Unknown	4	0.1%	0	-	13	2%	0.4%
TOTALS		3172	64%	712	14%	549	11%	4433

percent of the live births to unmarried women under 20.[4] The adolescent pregnancy projects are 48 percent black, reflecting OAPP's targeting of financial support to areas with high adolescent pregnancy rates, many of which have largely black populations. Several large OAPP-funded projects are heavily black; the larger projects tend to be in urban areas, which also tend to have higher proportions of black teenagers than do rural areas. The racial distribution of the project populations is therefore substantially different from the general teenage population, but not from the population of teenagers with children.

The racial distribution of entering clients also differs across the client types. Most entry classifications show an equal balance of whites and blacks, but entry mothers is a notable exception. Thirty-three precent of entering mothers are white, while 53 percent are black. This higher proportion of blacks in the entry mother population probably reflects the decision of projects in heavily black, heavily urban areas to target both pregnant and parenting teens for services (there are some projects that require a girl to be pregnant at entry—these projects do not accept entry mothers).

By contrast to the populations of black and white clients, Hispanic females infrequently enter the projects as pregnant teens. Hispanics constitute 11 percent of the entering other females and 12 percent of the entering teen mothers, while they are only 7 percent of the entering pregnant teens. In only 8 of the Title VI projects do Hispanic clients make up more

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[4]Kristin A. Moore and Martha R. Burt, Private Crisis, Public Cost: Policy Perspectives on Teenage Childbearing (Washington, D.C.: The Urban Institute, 1982), Table 7.

than 3 percent of the client population, and only 4 of these have any Hispanic other female teens. These figures reflect projects' geographical location, and not the frequency of births to Hispanic teenagers.

A client's pregnancy history can suggest how much difficulty projects will have in helping her achieve positive outcomes. As previous studies have shown, repeat pregnancies make it less likely that the client will reenter school, enter the job market, or eventually decrease her welfare dependency. Babies resulting from repeat pregnancies to adolescents face increased health risks.[5] In simple terms, girls with previous pregnancies are often harder to help than girls in their first pregnancy. In the entering population, 80 percent of the pregnant teens had never been pregnant before. However, 16 percent had one previous pregnancy and 4 percent had two previous pregnancies (see Table III-4). Entry mothers by definition have already had one pregnancy, but 21 percent reported two pregnancies by the time they entered the program.

A related issue concerns whether a client has children living with her. Like pregnancy history, this factor suggests how difficult it may be for projects to help clients "to become productive independent contributors to family and community life."[6] Having children at home increases the physical and fiscal pressures on a client. The more children a client has, the less likely that client is to return to school and become financially independent.[7]

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[5]Moore and Burt, Private Crisis, Public Cost, pp. 19-20.

[6]P.L. 95-626, Title VI of the Health Services and Center Amendments of 1978, Section 601(b).

[7]Sandra L. Hofferth and Kristin A. Moore. "Early Childbearing and Later Economic Well-Being," American Sociological Review 44 (October 1979): 784-815.

TABLE III-4: FEMALE CLIENTS' PREGNANCY HISTORY, SCHOOL AND WELFARE STATUS AT ENTRY, BY THEIR ENTRY STATUS (PREGNANT OR ENTRY MOTHER)

		Pregnant		Mothers	
		N	%	N	%
Previous Pregnancies	None	2522	80%		
	1	521	16%	548	77%
	2 or more	129	4%	151	21%
	Unknown	0	-	13	2%
Living Arrangements	Alone	85	3%	81	11%
	Husband	330	10%	85	12%
	Other Male	171	5%	60	8%
	Parents	2089	66%	403	57%
	Other	423	13%	83	11%
	Unknown	74	2%	0	-
Client's Children Living with Client -	None	2702	85%	58	8%
	1 or more	343	11%	645	91%
	Unknown	127	4%	9	1%
School Status					
Attending	6 or below	14	*	8	1%
	7-9	565	18%	84	12%
	10-12	1333	42%	198	28%
	Other	35	1%	11	1.5%
Total Attending		1947	60%	301	41%
Graduated		313	10%	90	13%
Dropout	9 or below	380	12%	142	20%
	10-12	419	13%	165	23%
Total Dropout		799	25%	307	43%
Special Ed**		96	3%	17	2%
Unknown		17	*	0	-
Welfare Status	Receiving Welfare**	787	25%	303	43%
	Receiving Medicaid**	839	26%	268	38%
	Baby only	43	1%	73	10%
TOTALS		3172	64%	712	14%

*Less than 1 percent
**May be duplicated

Therefore, those clients with the most children will have the most difficulty making positive changes in their lives. This also suggests that the needs of a client with children are substantively different from those who do not yet have children. Among the projects' pregnant clients, most have no children living with them; however, 11 percent already have at least one child. By contrast, 91 percent of entry mothers have at least one child living with them; some proportion of the remaining 9 percent entered OAPP-funded projects hoping that the projects would help them regain custody of children who were in foster care at project entry.

Data on living arrangements can be a measure of independence or can be indicative of whether or not the client lives in a supportive situation. The most common living arrangement for both pregnant teens and entry mothers is with their parents, 66 percent and 57 percent, respectively. Consistent with the high proportions of clients living with parents, relatively few girls are living alone: only 3 percent of the pregnant teens and 11 percent of the entry mothers. Equal proportions of both client types are married and living with their spouses. This is interesting since entry mothers tend to be older and might be expected to be more independent than the pregnant teens. The remaining clients live in some other situation, which might imply a less stable and supportive living arrangement.

A major objective of Title VI is to enable clients to finish high school. At the time of program entry, 60 percent of the pregnant teens were still in school and 10 percent had graduated. Twenty-five percent had already dropped out of school. The number of dropouts is not only a measure of projects' potential difficulty in helping clients complete their education, but also an indicator of population targeting. Some Title VI projects are

designed to work with school dropouts, while others require school attendance as a condition of project participation.

School attendance differs strikingly between the pregnant teens and the entry mothers. Forty-one percent of the entry mothers were in school at the time of entry, 13 percent had graduated, and 43 percent had already dropped out of school. Furthermore, among those entry mothers that left school, 46 percent of them left in or before the ninth grade. Many of these girls probably became pregnant after leaving school. The high dropout figure for entry mothers suggests that projects need to catch clients before they leave school, and before or while they are pregnant.

Data on welfare and Medicaid are indicators of project targeting, showing the extent to which projects are serving needy populations. Twenty-five percent of pregnant teens receive welfare at the time they enter the project and 26 percent receive Medicaid, while 42 percent of entry mothers receive welfare and 38 percent receive Medicaid. These percentages show that far fewer pregnant teens receive welfare than entry mothers, suggesting the poverty of entry mothers and their categorical eligibility for welfare because they are single parents. Many of the pregnant teens on welfare probably receive it through their parents.

Like living arrangements, welfare and Medicaid participation rates were monitored throughout a client's contact with a project, since a major legislative objective is to foster financial independence. It is important to recognize, however, that in the short term the goals of financial independence, school completion, and full-time motherhood are in conflict. To the extent that a project gets clients back into school, those clients are likely to stay on welfare until they finish and find a steady job; financial

stability may necessarily be many years down the road. We will examine this argument in Chapter V, where we look at school attendance and welfare participation rates at 6, 12, and 24 months after the birth of a baby.

Characteristics of Clients Inactivated During the Year

Each project compiled an annual summary of the characteristics of clients whom they declared inactive during FY 1982. The aggregated figures for 26 of the 28 participating projects are shown in Table III-5. Of the 86788 clients who were active at any time during the year, 2898, or 33 percent, were inactivated. Of these 2898, 52 percent were inactivated at some point after they delivered in the project; the median length of time which delivered clients spent in the project was 7 to 12 months. Another 15 percent of the inactivated clients were entry mothers, meaning they already had a child, and were not pregnant when they entered the project. These clients generally spent six months or less in the project.

Of the entry mothers inactivated during FY 1982, a substantial number left because they had received all the service help they needed and/or the project could provide. Seventeen percent of the delivered clients (those who entered pregnant and delivered in the project) and 21 percent of the entry mothers were self-sufficient,[9] and a further 33 percent and 11 percent, respectively, had completed the services offered by the project. Reinforcing this observation that the mothers had received all the services they needed are the data on service comprehensiveness: nearly 60 percent of the inactive

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[8]This figure differs from the total active clients noted in Table III-2 we do not have data on inactive clients from two projects, hence we have not included their client counts here.

[9]Projects developed their own definitions of self-sufficiency as long as the client was not on welfare at the time she left the project.

TABLE III-5: CHARACTERISTICS OF CLIENTS BECOMING INACTIVE DURING FY 1982

SUMMARY CHARACTERISTICS		CLIENT STATUS WHEN PRESUMED INACTIVE											
		PREGNANT		DELIVERED		ENTRY MOTHERS		OTHER FEMALE TEENS		TOTAL FEMALES		TOTAL MALES	
		#	%	#	%	#	%	#	%	#	%	#	% of All Clients
TOTAL NUMBER OF CLIENTS BECOMING INACTIVE THIS FISCAL YEAR:		319	11%	1516	52%	432	15%	335	12%	2602	90%	296	10%
TIME IN PROGRAM: (Date of entry to date last contacted)	0 - 6 Months	255	80%	537	35%	246	57%	128	39%	1166	45%		
	7 - 12 Months	34	11%	421	28%	118	27%	90	27%	663	25%		
	13 - 18 Months	14	4%	184	12%	41	9%	9	3%	248	10%		
	19 - 24 Months	6	2%	209	14%	13	3%	1	*	229	9%		
	25 - 36 Months	6	2%	54	4%	12	3%	106	32%	178	7%		
	More than 36 Months	4	1%	102	7%	2	*	0	-	108	4%		
	Unknown	-	-	9	1%	-	-	1	*	10	*		
COMPREHENSIVE SERVICE PROVISION:	Clients receiving 40% of fewer core services	208	65%	308	20%	251	58%	197	59%	964	37%		
	Clients receiving 50% or 60% of core services	84	26%	275	18%	127	29%	23	7%	509	19%		
	Clients receiving 70% of more core services	27	8%	885	59%	54	13%	114	34%	1080	42%		
	Unknown	-	-	48	3%	-	-	1	*	49	2%		
REASON FOR INACTIVE STATUS:	Self-Sufficient	17	5%	252	17%	92	21%	38	11%	399	15%		
	Completed services offered by program, but not self-sufficient	6	2%	497	33%	47	11%	59	18%	609	23%		
	Moved	98	31%	173	11%	75	17%	65	19%	411	16%		
	Requested end of services	64	20%	173	11%	69	16%	55	16%	361	14%		
	No longer eligible	12	4%	206	14%	20	5%	77	23%	315	12%		
	Other	41	13%	68	4%	47	11%	14	4%	170	7%		
	Cannot be located/ Unknown	81	25%	147	10%	82	19%	27	8%	337	13%		

* less than 1%

delivered clients had received seven or more of the ten core services available to all clients and another 18 percent received five or six core services. One core service (prenatal care) is not applicable to nonpregnant teens (including entry mothers), so we would expect the comparable figures for entry mothers to be slightly lower. However, only 13 percent received seven or more services, while 58 percent received four or less. These figures indicate that projects had a more difficult time delivering the full range of comprehensive services to entry mothers than to pregnant clients.

Pregnant clients, other female teens, and male teens make up fairly equal proportions of the inactivated population, between 10 and 12 percent. Compared to the numbers of these clients active in the projects during the year, however, the three groups show very different patterns. The 319 clients who were inactivated while pregnant represent 8 percent of all pregnant clients served by the projects, while the 335 other females and the 296 males make up 47 percent and 28 percent of their active populations, respectively. Only 11 percent of pregnant clients were inactivated while still pregnant. Those girls who did not leave projects during pregnancy most often left for reasons beyond the projects' control: 31 percent moved and another 25 percent could not be located; they may have moved and not informed project staff. An additional 20 percent requested an end to services, meaning they refused further help. This is an ambiguous category which may include factors both within and beyond the influence of project staff.

In contrast to the pregnant clients, other female teens were inactivated most often at the projects' initiation: 23 percent were declared no longer eligible (e.g., dropped out of school where the adolescent pregnancy program was school-based, or turned 21), 11 percent became self-sufficient, and

another 18 percent completed appropriate services. Since adolescent pregnancy projects have tended to focus on pregnant teens and teen mothers rather than on nonpregnant teens, it is not surprising that a substantial portion of the active other female teen population was inactivated, most often after less than a year of project services. Whether this fairly short contact with the projects influenced their status at later points in their lives is beyond the scope of this project. Projects did not collect information about male clients' reasons for leaving projects.

Service Delivery

We have discussed above the nature of the client population served by the Title VI projects and their characteristics at entry and when they left the projects. Now we turn to a description of how many services projects actually delivered to clients.

Table III-6 shows the frequency with which clients received selected services. We have calculated the percentage of active clients receiving each service for relevant subgroups of project populations. In general, counseling services are important to all types of clients, while many health services are only applicable to pregnant teens or to new mothers. It is important to note that these figures represent one year of projects' service delivery efforts, which may not correspond to either one year of service to every client or to all the services received by any one client. It is simply a one-year snapshot of services to clients who enter and leave projects at varying times. Table III-6 therefore necessarily underrepresents the total amount of services that clients will receive during their tenure in a project. (In the next section below, we examine the comprehensiveness of services given to clients who have now left the projects, presumably after having received all the services that they need or that are available).

TABLE III-a: SERVICE DELIVERY AT 28 PROJECTS — FY 1982

		#	%
Active Pregnant	- P	4501	53%
New Pregnant	- (P)	3275	-
Active Delivered	- D	4671	55%
Delivered FY '82	- (D)	2634	-
Active Entry Mother	- E	1163	14%
Active Other Female	- OF	1049	12%

Unduplicated pregnant and mothers - Total 7417

Unduplicated Females - AF 8434

Total Males - M 1074

CORE #:

1a. Percent of pregnancy tests that were positive = positive pregnancy tests / all pregnancy tests = 2728/3368 = 81%

1b. Percent of pregnant clients receiving at least one hour of maternity counseling = maternity counseling (P) / (P) = 2610/3275 = 80%

2a. Percent of females/males receiving contraceptive counseling = contraceptive counseling / AF = 4747/8434 = 56%

= contraceptive counseling / M = 266/1074 = 25%

2b. Percent of teen mothers/other females receiving device/natural family planning = device / D+E = 2952/5834 = 51%

= device / OF = 550/1049 = 52%

= NFP / D+E = 158/5834 = 3%

= NFP / OF = 109/1049 = 10%

2c. Percent of females/males receiving counseling on sexual decision-making = sexual counseling / AF = 2772/8434 = 33%

= sexual counseling / M = 145/1074 = 14%

3a. Percent of new pregnant clients who enter prenatal care = prenatal care / (P) = 2852/3275 = 87%

3b. Percent of pregnant clients receiving childbirth education = childbirth education / P = 2046/4501 = 45%

3c. Percent of clients delivering in FY'82 who received post-partum home visit = home visit / (D) = 1221/2634 = 46%

3d. Percent of clients delivering in FY'82 who received 6-week check-up = 6-week check / (D) = 1638/2634 = 62%

3e. Percent of teen mothers receiving 12-month check-up = 12-month check / D+E = 265/5834 = 5%

3f. Percent of pregnant teens and teen mothers receiving other health care = other health ? / P+D+L = 1196/7417 = 16%

4a. Percent of female/pregnant clients receiving nutrition counseling or education = nutrition counseling/education / AF = 1896/8434 = 22%

= nutrition / P = 1264/4501 = 28%

4b. Percent of pregnant clients/teen mothers enrolled in breakfast or lunch program = $\frac{\text{breakfast}}{P}$ = $\frac{479}{4501}$ = 11%

= $\frac{\text{breakfast}}{D+E}$ = $\frac{508}{5834}$ = 9%

4c. Percent of pregnant clients/teen mothers enrolled in WIC = $\frac{\text{WIC}}{P}$ = $\frac{1439}{4501}$ = 32%

= $\frac{\text{WIC}}{D+E}$ = $\frac{1315}{5834}$ = 23%

4d. Percent of teen mothers receiving food stamps = $\frac{\text{food stamps}}{D+E}$ = $\frac{660}{5834}$ = 11%

5a. Percent of VD tests that were positive = $\frac{\text{positive VD tests}}{\text{all VD tests}}$ = $\frac{155}{3457}$ = 4%

5b. Percent of females/males receiving VD treatment = $\frac{\text{VD treatment}}{\text{positive VD tests}}$ = $\frac{155}{155}$ = 100%

5c. Percent of clients receiving VD counseling or education = $\frac{\text{VD counseling/education}}{AF+M}$ = $\frac{1665}{9508}$ = 18%

6. Percent of clients delivering in FY '82 who kept first pediatric visit = $\frac{\text{first pediatric visit}}{(D)}$ = $\frac{1682}{4671}$ = 36%

7. Percent of pregnant teens and teen mothers/males receiving parenting/family life education = $\frac{\text{parenting/family life education}}{P+D+E}$ = $\frac{2013}{7417}$ = 27%

= $\frac{P + M_L}{M}$ = $\frac{114}{1074}$ = 11%

8a. Percent of females/males receiving educational/vocational counseling and services = $\frac{\text{educational/vocational services}}{AF}$ = $\frac{3281}{8434}$ = 39%

= $\frac{\text{educational/vocational services}}{M}$ = $\frac{404}{1074}$ = 38%

8b. Percent of females/males entering educational/vocational program = $\frac{\text{educational/vocational program}}{AF}$ = $\frac{1754}{8434}$ = 21%

= $\frac{\text{educational/vocational}}{M}$ = $\frac{139}{1074}$ = 13%

8c. Percent of clients entering job training program = $\frac{\text{Job Training}}{AF+M}$ = $\frac{441}{9508}$ = 5%

9. Percent of pregnant teens and teen mothers receiving adoption services = $\frac{\text{adoption services}}{P+D+E}$ = $\frac{809}{7417}$ = 11%

10a. percent of teen mothers receiving assistance with child care arrangements = $\frac{\text{child care assistance}}{D+E}$ = $\frac{1277}{5834}$ = 22%

10b. Percent of teen mothers with licensed or private day care = $\frac{\text{child care}}{D+E}$ = $\frac{1110}{5834}$ = 19%

S2. Percent of teen mothers/all females receiving consumer education and homemaking = $\frac{\text{consumer education}}{D+E} = \frac{348}{5834} = 6\%$

= $\frac{\text{consumer education}}{AF} = \frac{1179}{8434} = 14\%$

S3a. Percent of pregnant teens and teen mothers receiving counseling for extended family members = $\frac{\text{family counseling}}{P+D+E} = \frac{2249}{7417} = 30\%$

S3b. Percent of pregnant teens and teen mothers whose male partner receives counseling = $\frac{\text{counseling male partner}}{P+D+E} = \frac{820}{7417} = 11\%$

S4. Percent of pregnant teens/teen mothers receiving transportation services = $\frac{\text{transportation}}{P} = \frac{1256}{4501} = 29\%$

= $\frac{\text{transportation}}{D+E} = \frac{845}{5834} = 14\%$

*1. Percent of clients receiving personal counseling = $\frac{\text{personal counseling}}{AF + M} = \frac{3768}{9508} = 40\%$

*2. Percent of clients receiving financial assistance = $\frac{\text{financial assistance}}{AF + M} = \frac{1105}{9508} = 12\%$

*3. Percent of clients receiving housing assistance = $\frac{\text{housing assistance}}{AF + M} = \frac{302}{9508} = 3\%$

Number of extended family members served per client = $\frac{\text{extended family}}{AF + M} = \frac{3076}{9508} = 32$, or 1 family member per 3 clients

Projects appear to be the most thorough in their delivery of the health services critical to pregnant teens and new mothers. In the core areas of pregnancy testing and maternity counseling (Core Service 1) and primary and preventive health services (Core Service 3), over 80 percent of the relevant client groups received pregnancy tests, maternity counseling, and prenatal care. Sixty-two percent of the new mothers received a six-week check up, and nearly half received a postpartum home visit and, while pregnant, got childbirth education.

Closely related to these health services, family planning services show the next highest level of client coverage (Core Service 2). Fifty-six percent of all female clients received contraceptive counseling, and over half of the nonpregnant teens received a family planning device or were instructed in natural family planning. Of this 56 percent were pregnant or mothers at entry.

Decision making around a contraceptive method is often only part of the teen's service need. Many need more fundamental help in taking control of their own sexual decision making; a third of female clients and 14 percent of male clients received such additional sexuality counseling.

The two remaining health care areas received varying attention from Title VI projects. In the area of infant health (Core Service 6), only 36 percent of new mothers kept their first pediatric visit. This percentage may in fact be somewhat higher, since mothers who delivered late in the fourth quarter may not have yet begun regular pediatric visits. Nonetheless, it points to the potential difficulty in getting teens to bring their babies for regular check-ups. In the area of venereal disease screening and treatment (Core Service 5), 36 percent received VD tests, of which 4 percent were

positive. These clients all received VD treatment. Only 18 percent of all clients received VD counseling or education, but all of those with positive VD tests received treatment.

Looking next at service areas related to counseling and education, we find that projects have given a substantial amount of attention to educational services (Core Service 8). Nearly 40 percent of all clients received educational or vocational counseling, and nearly 20 percent were assisted in entering an educational or vocational program. This latter figure may again be misleadingly low, since projects generally did not count clients whom they helped to <u>stay</u> in school (rather than to enter school, as the service label suggests). Closely related to the education services are job-training programs; 5 percent of clients were aided by the projects in this area, reflecting project priorities to help clients to finish their basic education first.

We grouped several educational services into the category of "Life Skills Development," including nutrition counseling (Core Service 4), family relationships and parenting education (Core Service 7), and consumer and homemaking skills (Supplemental Service 2). Twenty-eight percent of the pregnant teens received nutrition counseling, 27 percent of pregnant teens and teen mothers received education in parenting and family life, and 6 percent of the mothers received consumer information. These figures for mothers and mothers-to-be contrast slightly with the service coverage afforded to females overall: pregnant teens received nutrition counseling and services a little more often than female clients as a whole (28 percent versus 22 percent), but teen mothers received consumer education somewhat less often than female clients overall (6 percent compared to 14 percent). Among pregnant clients,

22 percent are in breakfast or lunch programs and 32 percent are in WIC, suggesting that projects have been particularly attentive to getting pregnant teens in their nutritional programs as early as possible. Participation rates are somewhat lower for delivered clients and entry mothers—9 percent are enrolled in breakfast or lunch programs, 25 percent are enrolled in WIC, and 11 percent receive food stamps.

Other supportive services show varying coverage for relevant groups of clients. Eleven percent of pregnant teens and teen mothers received adoption counseling or referral (Core Service 9), a proportion in keeping with the number of clients releasing a child for adoption (see discussion in Chapter V). Twenty-two percent of mothers received help in making child care arrangements, and 19 percent of them actually obtained licensed center or private/familial child care. This is a surprisingly low percentage in light of the importance of child care in allowing a girl to return to school. Among all pregnant teens and teen mothers 30 percent receive counseling for extended family members.

Transportation is another service which is quite important to teens as they try to meet their own as well as their infant's needs. Especially in rural areas, project-provided transportation is the only way for a girl to get her child to day care, herself to school, and both of them to doctor's appointments. A substantial 29 percent of pregnant teens benefited from transportation services, but only 14 percent of mothers received the same services. Part of the difference may be due to spouses or partners having access to private cars; from discussions with project staff, however, we suspect that a more likely explanation is that mothers are less often in school and so may not be eligible for the limited transportation services that projects make available.

Among the services that Title VI projects regularly offered were three services not included in either the Title VI or the Title XX of the Public Health Services Act legislation: personal counseling, financial assistance, and housing assistance. A substantial 40 percent of all clients received personal counseling; 2 percent received financial help, usually referral to the state AFDC program; and 3 percent were referred to local housing programs. The prevalence of personal counseling, above and beyond the specific counseling areas covered in the 14 legislatively defined services, suggests that broad counseling of this type is an essential component of comprehensive services to adolescents. The importance of a one-to-one counseling relationship cannot be appreciated by looking simply at discrete problem areas such as sexual decision making or educational plans; the whole is greater than the sum of the parts.

Factors Affecting Service Delivery

We have seen the proportion of projects' clients who receive each of the services mandated by OAPP's legislation. Before going on to explore whether these services make a difference for clients, we will explore the question of whether services were distributed evenly among clients and projects. It may be that some types of projects were more able to deliver some types of services; it may also be that some types of clients received more services, either in general or of specific types, than other types of clients. In later analyses of effects of services on clients we will control for client and project characteristics, but first we need to see the extent to which such factors affect service delivery.

The data for the analyses to follow and for the analyses of service impact in Chapters IV and V come from individual client data collected by 23

projects using their case management systems. Seven of the projects with aggregate data did not have appropriate individual data and two projects that did not aggregate their data were able to contribute individual data. Only clients with pregnancy outcomes or follow-up data are included in the individual client data on which these analyses are based. The individual data cannot, therefore, be compared to the aggregate data in any simple way. The two types of data are used in this report for quite different types of analyses--aggregate data for descriptions of all projects and all clients, and individual data for causal analyses with clients on whom cooperating projects had sufficient information to make such analyses possible.

Table III-7 presents an analysis of clients and program factors affecting the amount of services delivered to clients in 21 OAPP-funded projects. The table gives the regression equations, using unstandardized regression coefficients, for the following groups of services:10

- Core Service 2--family planning, including contraceptive counseling, prescription and nonprescription contraceptive devices, natural family planning instruction, and counseling around issues of sexual decision making;
- Core Service 8--educational and vocational counseling, referral and services, including public school, special schools, GED programs, vocational education, and job training;
- Health Services--Core Services 1, 3, 4, 6, and 10--pregnancy testing; maternity counseling; prenatal care; childbirth education; other primary and preventive health care; venereal disease counseling, testing, and treatment; pediatric care; and other health care;

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[10]These measures are based on sums of units of service. See Table III-7, footnote a, for further explanation. A dollar-weighted summary measure and several other ways to group, weight, or summarize services were also calculated and the same regressions were run against them, but results did not differ from those obtained for the summary measures of intensity and diversity presented in Table III-7.

TABLE III-7: CLIENT AND PROGRAM FACTORS AFFECTING SERVICES DELIVERED

(Unstandardized regression Coefficients, N = 1054, Clients entering pregnant or with a baby and having at least one follow-up interview)

	SERVICES (DEPENDENT VARIABLES)						
INDEPENDENT VARIABLES	Family Planning (Core Service 7)	Education/Vocational Counseling and Services (Core Service 8)	Health Services (Core Services 1, 3, 5, 6, 10)	Life Skills Development (Core Services 4, 7, 12)	Supportive Services (Core Services 9, 11, 13, 14)	Total Service Units[a]	Total Number of Core Services[b]
CLIENT CHARACTERISTICS							
Race (0 = white, 1 = nonwhite)	- .166+	.041	.068	- .160	- .363*	- .675	- .461+
Entry Age	- .114**	- .019	- .069	.015	- .130*	- .299	- .204*
Number of Previous Pregnancies	.049	- .010	- .170	- .047	- .115	- .306	- .015
Number of Children	- .045	- .070	- .443	- .011	.158	- .656	- .470
Entry Status (1 = pregnant, 3 = entry mother)	- .198	- .013	-1.696***	- .554*	- .273	-2.849***	- .980*
School Status (0 = dropout, 1 = in school, 2 = graduated)	.077	.036	- .107	.173	.097	.193	.118
Grade	- .018	- .019	.031	- .038	- .025	- .063	- .031
On Welfare at Entry	.108	.194	.341	.533*	.415*	2.102**	.640*
On Medicaid at Entry	- .119	.086	- .237	.007	- .155	- .239	- .236
Intercept	3.861	1.489	7.154	2.582	6.543	20.136	11.359
R^2	.029**	.016	.105***	.029**	.026**	.070***	.056***
PROGRAM CHARACTERISTICS							
Urban-Rural (rural = higher)	- .038	- .110+	- .346+	- .300*	- .196+	-1.179**	- .330*
Model							
Single Site (1 = single site, 0 = all others)	.834***	.466+	2.839***	1.082*	.217	5.740***	3.837***
Network (1 = network, 0 = all others)	1.318***	.819**	2.713***	.984+	- .475	4.735**	3.350***
School (1 = school, 0 = all others)	1.623***	.273	6.510***	2.805***	1.783**	11.856***	7.983***
Delivery Site							
Hospital (1 = hospital, 0 = all others)	-1.878***	.695***	-4.826***	-1.285***	- .512+	-4.103***	-4.758***
School (1 = School, 0 = all others)	.709**	.396*	.894	1.060*	.946*	3.807**	2.302**
Other Health (1 = other health, 0 = all others)	- .280	.187	.233	- .114	- .194	- .019	- .232
Special Program (1 = special program, 0 = all others)	.022	.347+	1.903***	.831*	1.002***	4.496***	1.849***
Percent of Caseload Who are Pregnant	.243***	.116**	.680***	.449***	.381***	1.723***	1.031***
Percent of Services Delivered On-site	- .108	.060	- .276	.202	- .229	- .013	- .535*
Case Management (higher = more)	.109*	.097+	- .088	.270*	.013	.490+	.281+
Length of Follow-up Commitment (higher = more)	- .783***	- .357***	-2.852***	- .687***	- .673***	-4.716***	-2.931***
Intercept	1.580	- .020	4.171	-1.774	2.691	6.704	7.109
R^2	.170***	.142***	.282***	.159***	.[illegible]***	.254***	.308***

+ = $p \leq .05$
* = $p \leq .01$
** = $p \leq .001$
*** = $p \leq .0001$

[a] This score sums up the total number of service units of all services, core and supplemental. A client received. Six hours of nutrition counseling would count as six units, three months of day care as three units, etc.

[b] This score counts whether or not a client got any of each core or supplemental service. It measures the diversity or comprehensiveness of service delivery. Its range is 0 to 17. A client who received no services would score 0. A client who received some services in each of four core service areas would get 4's, etc.

- Life Skills Development Services--Core Services 4 and 7 and Supplemental Service 12--nutrition counseling and education, WIC, food stamps, school lunch and breakfast programs, family life education and counseling, parenting education, consumer/homemaking education and counseling;

- Supportive Services--Core Service 9 and Supplemental Services 11, 13, and 14--adoption counseling and referral, child care and assistance to find child care, counseling for male partners and extended family members, and transportation;

- Total Service Units--the total number of service units a client received in any core or supplemental service (e.g., ten months of WIC counts as ten units of nutrition service, three months of school counts as three units of education service, etc.), summed across all core and supplemental services--this is a measure of service intensity;

- Total number of core or supplemental services in which a client received at least one unit--if a client got anything within a service type, the client received a score of "1" for that service type; if the client got no service within a service type, the score was "0". The higher the summed score on this variable, the more core or supplemental services the client got at least one service from--this is a measure of service diversity.

The data presented in the top half of Table III-7 answer the question, "Does who the client is when she comes to the program make any difference for the types or amount of total services she receives?" For the most part, the answer to this question is "no." The most consistent patterns in the data suggest that girls pregnant at entry (as opposed to entry mothers) get more services, particularly health and life skills services. Since several services are geared primarily to pregnant girls and the legislation concentrates most heavily on their needs, this pattern is to be expected. Younger girls seem to get marginally more services, focused mainly on family planning and supportive services. They do not get more total service units than their older counterparts. White clients also receive marginally more family planning and supportive services than nonwhite clients, and girls who are on welfare at entry (including being part of their own mother's welfare

unit) receive more life skills and supportive services and more service units overall. However, none of these equations account for more than 10 percent of the variance in the dependent variable (see row labeled "R2") and some account for considerably less. Thus client characteristics are not the primary determinants of amount or type of services received.

Since this is a regression analysis, the results just described for each variable take into account the effects of all the other client characteristics in the equation--that is, even when you take race, age, school status, welfare status, and so on into account, pregnant girls still get more services than entry mothers.

The data presented in the bottom half of Table III-7 answer the question, "Do characteristics of the projects themselves make any difference for the types or amount of total services their clients receive?" The answer to this question is more affirmative than for client characteristics. Project characteristics account for between 14 and 31 percent of the variance in services received (see row marked "R2" at bottom of table). Summarizing the effects displayed in the bottom half of Table III-7, rural projects deliver fewer services of most types and fewer services overall. The next three variables--single site, network, and school--are dummy variables representing project model, or the way services are organized. The equation compares each variable against all others and against hospital-sponsored projects. The positive coefficients for all three model variables suggest a pattern where they all deliver more services of most types and more total services than do hospital projects. This pattern is borne out in the next set of variables--hospital, school, other health site, and special adolescent pregnancy program (a service delivery site set up especially and exclusively to serve pregnant

and parenting teens). Here, the "hospital" variable produces negative coefficients on all but one dependent variable, rather strongly indicating that hospital-based projects do not do as well as other projects in delivering services to pregnant and parenting teens. This is true even for health services.

Other aspects of project structure also affect service delivery. The higher the percentage of a project's active caseload who are pregnant at any given time, the more services that project delivers. This finding parallels the earlier analysis that girls entering projects pregnant receive more services than those coming in as entry mothers. A final indicator of this pattern is the effect of the last variable in these equations, length of follow-up commitment. The shorter the length of follow-up, the more services of all types clients receive. This suggests that some projects concentrate their energies on services during pregnancy and immediately after, when service needs are most intense, and do not have many clients who need only the more intermittent services of the parenting period.

The percentage of a project's services delivered on site appears to affect the diversity of services delivered. The higher the percentage of a project's services delivered on site, the lower the diversity--clients do not get as many different kinds of services. Taken in conjunction with the findings that single sites, networks, and school programs all succeed in delivering a range of services to clients, the finding that projects with a high percentage of their services delivered off site by other community agencies to whom they refer clients have as good or better a track record of service delivery as those which give all services to clients under one roof has important implications for funding agencies. In conjunction with case

management, which the data in Table III-7 also indicates makes a difference for the amount of services a client gets, any program structure, model, or delivery site can work as well as any other, although some arrangements may take longer to achieve full operation than others. The key for a good program lies more in competent management and good community relations, as discussed in Chapter VII of this report, than it does in specific structures or models.

CHAPTER IV

PREGNANCY OUTCOMES

Title VI programs were developed on the assumption that the outcome of a pregnancy can be affected by services and care received during pregnancy. Good prenatal health care including childbirth education and good nutrition are assumed to contribute to a safe delivery and a healthy infant. Title VI projects specifically seek to ensure that clients receive early and comprehensive prenatal care services.

Descriptive Statistics from Aggregate Data

Across the 28 adolescent pregnancy projects, 2504 clients had pregnancy outcomes during FY 1982. As Table IV-1 shows, 90 percent of these pregnancies (2256) resulted in live births and 7 percent resulted in fetal deaths. Assuming all these fetal deaths were miscarriages, they compare favorably with a miscarriage proportion of 13 percent for women under 20 in 1978.[1] The high proportion of live births to project clients reflects self-selection into the projects of girls who have decided to carry their baby to term.

Prenatal Care and Pregnancy Outcomes

Forty-seven percent of clients with pregnancy outcomes entered prenatal care in the first trimester of pregnancy, 35 percent entered in the second trimester, and 10 percent entered in the third trimester. For the remaining 8 percent the data were not reported. These proportions are comparable to 1978 national figures for 16- to 19-year-olds: 54 percent enter in first trimester, 35 percent in second, and 11 percent in third or never.[2] Projects

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[1] Teenage Pregnancy: The Problem That Hasn't Gone Away (NY: Alan Guttmacher Institute, 1981).

[2] Ibid.

TABLE IV-1: PREGNANCY OUTCOMES

	Number	Percentage
Total Outcomes:	2504	100
Birth Outcome:		
Live birth	2256	90%
Fetal death (less than 20 weeks)	101	4%
Fetal death (20 weeks or more)	85	3%
Other baby death	8	*
Unknown	54	2%
Date entering prenatal care:		
First trimester	1180	47%
Second trimester	868	35%
Third trimester	259	10%
Unknown	197	8%
Maternal complications:		
None	1462	58%
One or more	876	35%
Inappropriate weight gain	345	14%
Anemia	126	5%
Preeclampsia or eclampsia	129	5%
Caesarian section	278	11%
Hemorrhage, etc.	159	6%
Unknown	166	7%
Infant problems (percent of live births):		
None	1872	83%
One or more	218	10%
Underweight (less than 5.5 lbs.)	150	7%
Premature (less than 36 weeks)	176	8%
Respiratory distress, etc.	90	4%
Intensive care	137	6%
Unknown	166	7%

appear to be about as likely to get their clients into prenatal care as teenagers generally.

Data of entry into prenatal care might be expected to influence the rate of delivery complications and the health status of the newborn. Young mothers are known to face higher risks of complications than the population at large. Of the 2504 mothers who delivered in the projects, 58 percent had no complications. The most common complication was an inappropriate weight gain, a problem for 14 percent of the delivery clients. The number of caesarian sections was 11 percent, which compares favorably with national statistics of 13.2 percent for 15- to 19-year-olds during 1981.[3]

We can explore the relationship of prenatal care and nutrition supplements to positive pregnancy outcomes for clients of these OAPP-funded projects using individual level data. We ran regressions on three dependent variables: low birth weight, a summary measure of mother's complications of pregnancy, and a summary of baby's complications of pregnancy that includes low birth weight as one of the complications. The regression equations first controlled for each client's personal characteristics at program entry (see Table III-7, top) and for project characteristics (see Table III-7, bottom). Three independent variables describing services--trimester entered prenatal care, number of prenatal care visits, and receipt of WIC services--were then tested to see how much difference they made for pregnancy outcomes. Neither trimester or WIC services affected any of the three outcomes for the clients of these projects. The number of prenatal care visits was related to all

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[3]Paul J. Placek, Selma Taffel and Mary Molen, "Caesarian Section Delivery Rates: Unites States, 1981," American Journal of Public Health 73, 8 (August 1983): 861-862.

three, but in a negative direction. That is, the more prenatal care visits a client received, the more likely she was to experience complications herself and the more likely her baby was to experience complications and low birth weight. One possible explanation of this relationship is that high-risk girls receive more prenatal care because physicians, aware of their risk level, see them more often. Because we do not have a comparison or control group, we do not know what difficulties clients would have experienced without the prenatal medical attention they received in the project. We can compare our data with those of Miller, who interviewed 12- to 15-year-old mothers in three cities.[4] In her sample she found no relationship between trimester or number of prenatal visits and low birth weight or other complications of pregnancy. Her sample would uniformly be considered high-risk because of their age and her data indicate that they received highly attentive prenatal care.

Infant Outcomes

The figures on infant's birth status show even better outcomes than for the mothers. Eighty-three percent of the infants born in the program had no complications. In particular, the figures on low birth weight babies are lower than the national average. Nationally, approximately 8.8 percent of white teen mothers and 14.3 percent of nonwhite teen mothers have low birth weight babies[5], while among project clients only 7 percent had low birth weight babies. Since about half the clients entering pregnant are black, the

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[4]Miller, Shelby H. Children as Parents: Final Report on a Study of Childbearing and Child Rearing Among 12- to 15-Year-Olds (NY: Child Welfare League of America, 1983), Chapter 2.

[5]"Advance Report of Final Natality Statistics, 1979," NCHS Month Vital Statistics Report 30 (6, Supplement 2, September 1981), Table 12. These figures are for mothers 17 and under.

expected proportion of low birth weight babies would be the average of the white and nonwhite rates, or about 12 percent. Projects clearly compare favorably to this national rate.

Infant Living Arrangements

Information on where the infant would be living was collected and can be compared with both the living arrangements at entry and at various follow-up periods. As was true at entry, we find that the most common living arrangement for a client and baby is with her parents, the situation for 53 percent of the new mothers. This proportion is somewhat lower than at entry, possibly indicating that the girls are taking steps toward independence. It may also be that once the baby comes, the girl can no longer be accommodated in her parents' home. However, the numbers of infants living with the mother and father suggest that there has been some movement toward a nuclear family (see Table IV-2).

Several living patterns show subtantial increase since entry. Twenty-one percent of the babies will live with clients who are married and/or living with their spouse/male partner, compared to 15 percent at entry. The number of mother-child dyads living alone is 13 percent, four times the number of girls living alone at entry. These data can be interpreted in two ways. Either the client has chosen this situation or she was no longer permitted to remain at home and must now care for the infant with a reduced support system. These proportions alter slightly downward during follow-up periods.

The remaining infants born to project clients lived in a variety of settings. Fifty-nine percent lived with their own mother and at least one grandparent—a living arrangement that gives the young mother substantial social and practical support. Only 5 percent of infants born in the projects

TABLE IV-2: LIVING ARRANGEMENTS OF ENTERING AND DELIVERING CLIENTS (LIFE BIRTHS ONLY)

	Entering Pregnant Clients		Delivering Clients & Babies	
	Number	Percentage	Number	Percentage
Number of clients	3172	100%	2256	100%
Living Arrangements of Mother and Child				
Alone (only mother and child)	85	3%	295	13%
With husband/father of child	501	16%	515	23%
With mother's parents, with or without male partner	2089	66%	1320	59%
Other	423	13%	—	—
Infant without mother but with other relatives	—	—	56	2%
Infant in foster home	—	—	21	1%
Infant in adoptive home	—	—	50	2%
Unknown	74	2%	—	—

lived apart from their mothers. Fifty infants, or 2 percent of the newborns, were adopted, while another 2 percent were to live separated from their mothers but with grandparents or other relatives, and 1 percent were in foster homes.

School and Welfare Status at Delivery

School status at the time of pregnancy outcome is one indicator of projects' success in keeping girls in school (Table IV-3). The proportion of clients who remain in school until delivery is 49 percent, a substantial reduction from the 60 percent of pregnant clients who were still in school at the time for program entry (an additional 2 percent completed their schooling). The lower attendance rate is naturally accompanied by a higher dropout rate, 29 percent of the delivering clients versus 25 percent at entry. While this increase in dropouts is not overwhelming, it is sufficiently large to prompt concern for the difficulty of keeping pregnant girls in school, a client problem that may be aggravated by restrictive policies of some school systems.[6]

Welfare receipt at delivery is to be expected since girls are too young to expect financial independence. In fact, since the girls have increased medical costs and are now eligible for more welfare due to the new infant, we expect to see an increase in Medicaid and welfare participation rates. The figures show this pattern, with 34 percent now on welfare and 40 percent on Medicaid for themselves and their baby, and an additional 5 percent of babies receiving aid when the mother does not. This is a 14 percent increase in Medicaid and 9 percent increase in welfare since program entry. Again, we are

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[6]Gail L. Zellman. The Response of the Schools to Teenage Pregnancy and Parenthood (Santa Monica, CA: The Rand Corporation, 1981), R-2759/1 NIE.

TABLE IV-3: SCHOOL AND WELFARE STATUS OF DELIVERING CLIENTS

	Number	Percentage
Schooling:		
Completed school before delivering	296	12%
Stayed in school until delivering	1239	49%
Dropped out before delivering	737	29%
Unknown	232	10%
Welfare:		
On welfare at delivery*	863	34%
On Medicaid at delivery*	1000	40%
Mother on neither, baby on one or both	126	5%
Mother and child on neither	1027	41%
Unknown	232	10%

*May be duplicated

interested in monitoring changes in these rates over time. By the 24-month follow-up, we might expect to see more clients become self-sufficient, signalled by a reduction in the welfare and Medicaid participation rates. These data will be reported in Chapter V.

Relationships Between Services and Outcomes Using Individual Data

Aggregate program data will not allow us to make any inferences about the relationships between services and individual client outcomes. For that type of analysis we turn to data on individuals. The differences between the aggregate data base and the individual data base are important to keep in mind at this point. The two data bases come from slightly different subsets of all projects funded by OAPP from October 1980 through September 1982. Data in the aggregate set include information on all clients in 28 projects. Data in the individual set include information on only 18 projects, and only on those clients who had pregnancy outcomes and/or at least one follow-up. In addition, in very large projects we sampled from appropriate clients rather than take all clients, which would have been prohibitively time-consuming and expensive. The two data bases should, therefore, not be expected to yield identical information. We use them for quite different purposes, one for descriptive statistics and one for exploring the relationships between client outcomes and client entry characteristics, project characteristics, and services received.

The individual data analyses reported here and in Chapter V should be considered associational rather than causal. To justify the analysis as causal, we would have to be certain about the temporal ordering of the independent and dependent variables. Independent variables are entry characteristics, project characteristics, and services. Dependent variables are pregnancy outcomes and 12-month follow-up outcomes. We would have to know

that every independent variable occurred before any dependent variable, and could therefore logically be expected to affect the dependent variable. In this data set, we have this confidence about some of the independent variables, but not about all of them. We know that entry characteristics of clients exist at an earlier point in time than either of the dependent variable groups (pregnancy outcomes and 12-month outcomes). We also know that project characteristics exist before the dependent variables occur. Further, we know that pregnancy outcomes occur before 12-month outcomes.

The service delivery variables constitute the major departure from our confidence in the temporal ordering of variables. The variables representing service delivery categories summarize the total number of service units within a category of service that a client received, regardless of when that service occurred. For instance, a client could have received one unit of parenting education before giving birth, 5 units between birth and the 12-month follow-up, and 2 units after the 12-month follow-up. In this case the variable recording parenting education service delivery would register eight units of service. We were forced to combine service delivery information in this way due to constraints of sample size and missing data (often the project had not recorded when a service was delivered). Given this characteristic of the service delivery data, the reader is advised to consider the relationship between services and outcomes associational rather than causal. These analyses can, therefore, suggest or indicate associations, but cannot claim a strick causal relation or impact between a service given at one time and an outcome measured at a later time.

Explaining Variance in Pregnancy Outcomes

Table IV-4 presents the variance explained (R^2) in selected pregnancy outcomes by clients' characteristics at program entry, project

TABLE IV-4: VARIANCE EXPLAINED (R^2) IN SELECTED PREGNANCY OUTCOMES CLIENT CHARACTERISTICS, PROJECT CHARACTERISTICS, AND SERVICES (N = 1042)

Model[a] (Independent Variables)	PREGNANCY OUTCOME (Dependent Variable)				
	Low Birth Weight	Baby's Complications	Mother's Complications	School Status at Delivery	Welfare Status at Delivery
EC	.008	.010	.009	.561	.296
PC	.018	.023	.064	.040	.244
EC + PC	.025	.030	.072	.569	.431
EC + PC + CS1 to SS17	.057	.082	.110	.588	.450
EC + PC + DS1 to DS17	.042	.052	.100	.589	.447

[a]EC = client characteristics at entry: age, race, previous pregnancies, number of children, school status, welfare status, Medicaid status; PC = project characteristics: urban-rural, model, delivery site, percent of services given on-site, percent of clients who are pregnant, case management approach, length of postpartum services; CS1 to SS17 = units of service received within each core and supplemental service; DS1 to DS17 = same as CS1 to SS17, but weighted by average cost per unit of each service.

characteristics, and services received. Services were summarized in two ways: CS1 through SS17 represent the total number of units of service a client received in each core or supplemental service. If a client got three hours of counseling for sexual decision making, CS2 would be scored a "3;" if a client got four months of child care, SS11 would be scored "4," and so on. DS1 through DS17 summarize service units within each core or supplemental service, weighted by the average cost of that service unit (see Chapter VI and Appendices A through C for cost data and analyses). The last equation in Table IV-4 thus represents a dollar-weighted effect of services and answers the question, "Do dollar-weighted service measures explain more variance in pregnancy outcomes than simple counts of service units?" Comparing the last two lines of Table IV-4, the answer to this question appears to be "no." The dollar-weighted figures consistently explain slightly less of the variance in each dependent variable than service variables using only units of service without weighting.

Table IV-4 reveals some interesting findings. Entry characteristics of clients account for very little (less than 1 percent) of health-related pregnancy outcomes in these data. Entry characteristics have substantial impact on school and welfare status at delivery, with the client's entry status on each variable exhibiting the strongest predictive value (that is, school status at entry predicts best to school status at delivery, welfare status at entry to welfare status at delivery).

Project characteristics have some impact on pregnancy outcomes, notably on mother's complications and welfare status. As we will see in Table IV-5, welfare status of a project's clients varies by whether that project is in an urban or rural setting and mother's complications of pregnancy and delivery vary by whether or not a client attends a hospital-based project. Clients at

higher risk of complications are probably channeled to hospital-based projects, and the hospital-based project contributing individual data to this analysis is a receiving hospital for high-risk teenagers.

The most interesting comparison to make with the data in Table IV-4 are those between the amount of variance explained in equations using only entry and project characteristics (EC and PC, respectively) and those equations that include service delivery data. Service data significantly improve our ability to account for the variance in health-related outcomes of pregnancy. EC and PC by themselves could explain only 2.5 percent of the variance in low birth weight, 3 percent of the variance in baby's complications, and 7.2 percent of the variance in mother's complications. Adding service delivery information increases the explanatory power to 5.7, 8.2, and 11.0 percent, respectively.

Services received by project participants are not associated as strongly with the nonhealth-related outcomes of school status and welfare dependency. For school status, clients' status at entry is the dominant associated factor, while both entry and project characteristics play a role in explaining welfare status at delivery. We turn now to the data in Table IV-5, which present the multinomial logit coefficients[7] for each pregnancy outcome for the equation associating each dependent variable with entry characteristics (EC), project

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[7]Multinomial logit analysis is a statistical technique similar to regression analysis, but specifically designed to yield more accurate estimates of effects when a dependent variable has only two values (e.g., 0 or 1). The technique estimates the effect of each independent variable on a logarithmic transformation of the odds that a dependent variable will be a zero or a one. For most readers of this report, it will probably be sufficient to think of the logit coefficient as similar in interpretation to an unstandardized regression coefficient. For readers desiring a more detailed description of the technique, see Eric A. Hanushek and John E. Jackson, Statistical Methods for Social Scientists (NY: Academic Press, 1977).

TABLE IV-5: MULTINOMIAL LOGIT COEFFICIENTS FOR SELECTED PREGNANCY OUTCOMES ASSOCIATED WITH ENTRY AND PROJECT CHARACTERISTICS AND SERVICES RECEIVED, FOR CLIENTS DELIVERING IN PROGRAM

Independent Variables	PREGNANCY OUTCOME (Dependent Variable) Low Birth Weight (N = 657)	Baby's Complications (N = 670)	Mother's Complications (N = 658)	School Status at Delivery (N = 645)	Welfare Status at Delivery (N = 605)
Entry Characteristics[a]					
Nonwhite	.512	.085	- .143	.262	.746*
Entry Age	- .157	- .128	- .016	.042	.051
Previous Pregnancies	- .015	.217	- .099	- .413	.075
Number of Children	.192	- .566	.001	- .291	.928*
Living Arrangements	- .417	- .494*	- .397*	.384	.655**
School Status (0 = dropout, 1 = in school, 2 = graduated)	- .394	- .424+	.097	3.655***	- .371+
Grade	- .014	.228+	- .032	.417**	- .072
On Welfare at Entry	- .215	- .381	.018	- .883*	1.855***
On Medicaid at Entry	- .108	.443	- .122	.376	.587*
Project Characteristics					
Rural	- .359	- .268+	.248*	- .275+	- .630***
Delivery Site (the following four dummy variables)					
Hospital	.849	1.128	1.988*	- .743	2.270**
School	.169	.815	.955+	-1.226	- .110
Other Health	1.359+	.720	.769	.282	- .119
Special Program	2.083*	1.401	- .456	- .304	1.211+
Percent Pregnant	.362	.180	- .001	- .074	.021
Percent of Services On-site	.331	.083	- .452*	.336	.411*
Case Management	.193	- .239	- .737	-. 361+	- .268+
Length of Follow-up	- .076	.019	- .980**	- .083	1.013***
Months in Program	- .322	- .030	- .024	- .014	- .015
Service Variables[b]					
CS1--Maternity Counseling	.431+	.375+	.247+	- .380+	.469**
CS2--Family Planning	.210	.029	- .034	- .132	.046
CS3--Prenatal Care	- .134	- .085	.039	- .146	- .053
CS4--Nutrition	- .224	- .028	.177*	- .136	.065
CS5--VD	.301	- .047	.165	.474*	.248+
CS6--Pediatric Care	- .186	- .221	- .337+	- .044	.114
CS7--Parenting/Family Life	.058	.333*	- .057	- .225	.026
CS8--Education	.390	- .024	.097	.301*	.280*
CS9--Adoption	- .087	.472	- .447+	.366	.044
CS10--Other Health	- .240	- .049	- .039	- .028	- .127
SS11--Child Care	- .135	- .226	- .168	.904**	- .201
SS12--Consumer Education	- .003	.073	.058	- .186	.289*
SS13--Extended Family	- .934+	- .603+	.064	.563	- .108
SS14--Transportation	.301+	.172	.054	.619***	- .120
SS15--Personal Counseling	.140+	.129+	.046	- .085	.060
SS16--Financial Assistance	.008	.096	- .021	.971*	- .546
SS17--Housing Assistance	.187	.532	1.325*	-1.351*	1.036
Constant	-2.551	-2.122	5.197	-7.170	-5.906

+ = $p \leq .10$
* = $p \leq .05$
** = $p \leq .01$
*** = $p \leq .001$

[a]All variables are named in the direction of the scoring; thus a "1" on nonwhite = nonwhite, a "0" = white.

[b]See Chapter I.

characteristics (PC), and units of service delivered within each core and supplemental service (CS1 through SS17).

Among entry characteristics, race is related to welfare status at delivery, even controlling for welfare status at entry. Having had at least one child prior to the index child for whom these pregnancy outcomes pertain is predictive of a higher probability of being on welfare at delivery. "Living arrangements" are scored so that an infant living with its mother and another adult (grandmother, father) gets a higher score than an infant living with the mother alone, which in turn is higher than not living with the mother at all. Welfare status at delivery is associated with the high end of this variable, while complications at delivery for both mother and baby are associated with the low end. As previously noted in conjunction with Table IV-4 data, school status at entry strongly predicts school status at delivery, and welfare and Medicaid status at entry strongly predict welfare status at delivery.

Project characteristics do not affect baby's delivery complications and only marginally affect school status at delivery. They more significantly relate to low birth weight, mother's complications, and welfare status at delivery. Mothers in rural programs are more likely to experience pregnancy and birth complications and are less likely to receive welfare. As we noted earlier, hospital-based and other health-based projects have clients with more delivery complications. A possible explanation for this finding is that hospitals receive referrals for more high-risk clients. The proportion of a project's services that are delivered on site relates negatively to mother's complications, but positively to welfare status at delivery. The same relations appear for length of follow-up.

Services and Outcomes

Using logit analysis makes it possible for us to test (using a t-test) the hypothesis that the combined effects of all services move the mean of a dependent variable significantly in the desired direction (i.e., toward higher birth weights, fewer complications, better school outcomes, and less welfare dependency). This test overcomes the difficulty of trying to summarize the effects of 17 service variables, each with different magnitudes and signs. We conducted this test for the five pregnancy outcomes reported in Table IV-5. We found no significant overall association between services taken as a group and any of the five pregnancy outcomes. The statistically significant associations of individual service variables reported in Table IV-5 should be interpreted cautiously in light of these findings of no overall association.

Turning to the association of individual services with pregnancy outcomes, we must remember that some of the services were delivered to clients after the birth of their babies and may be in response to a pregnancy outcome as well as contributing to it. We stress that the coefficients describe associations between services and pregnancy outcomes, rather than exclusively causal relationships.

Maternity counseling shows associations with all five pregnancy outcomes, relating positively to all the health complications and to welfare status and negatively to school status at delivery. One possible explanation for this finding is that projects may have spent extra time in counseling high-risk girls about likely difficulties with their pregnancies. The marginally positive associations between personal counseling (SS15) and low birth weight and baby's complications, and the positive association between baby's complications and parenting education (CS7) lend some support to this interpretation.

School status at delivery is positively associated with education services, child care, and transportation, the latter two being enabling services that make it easier for a client to maintain her school standing. School and welfare appear to affect each other as both outcome and service. Financial assistance (SS16--usually welfare) relates positively to school status and education services (CS8) relate positively to welfare status. This suggests that the support offered by welfare may help clients remain in school. If this is so, it may represent a short-term cost for a long-term gain.

These associations of individual service categories with pregnancy outcomes may or may not, in the reader's mind, override the findings of "not significant" for the effects of services taken as a whole. Many knowledgeable researchers and program people will be happy to see that individual services do stand out in these analyses. Considering the difficulties that adolescent pregnancy projects face in trying to alter the direction of their clients' lives, it is promising to see that individual services show some empirically demonstrable associations with the desired outcomes.

It remains the task of future research based on more complete project data, including timing of service delivery, to achieve a more precise estimate of the causal effects of services on pregnancy outcomes. Such research must also include data collected from equivalent control groups. Only then will a true test of program impact be possible. This test would compare the outcomes of project clients to those of a control group, and then analyze any differences to see if they can be attributed to project services.

CHAPTER V

OUTCOMES FOR 6, 12, AND 24 MONTHS FOR MOTHERS AND BABIES

While we did not observe substantial changes in client characteristics between entry and delivery on nonhealth measures, we may reasonably expect to see differences on these measures as clients progress through the postpartum period, learning the neccessary mothering skills and beginning to plan for the future. Some Title VI projects collected information on clients as they reached 6, 12, and 24 months after delivery, whether or not the client was still actively receiving project services. Using such information we can begin to explore patterns in teens returning to and completing school, obtaining job training or regular employment, stabilizing their living arrangements, and taking control over their own sexual activity.

Descriptive Statistics Using Aggregate Data

Before presenting the data on client status postpartum, it is important to understand the limitations inherent in our analysis using aggregate data. These data will be used to describe all clients in all projects contributing data to this study. This descriptive analysis will be followed by analysis using data from individuals sampled from the total population of 18 projects. These individual data allow us to discover associations between input and outcome variables. Projects collected follow-up data for one year on whatever clients reached the milestones of 6, 12, and 24 months after conclusion of their pregnancy, both for clients delivering in the program and for entry mothers. Some of these clients were known to a project for a long enough time that we have information at delivery, 6 months, 12 months, and perhaps even 24 months postpartum (a few projects prepared retrospective data

for FY 1981). More often, however, the population of clients with 6-month follow-up includes different individuals than the group with 12-month follow-up, or even than the group with delivery information. In speaking of patterns of change over time using these aggregate data, therefore, we are assuming that these different populations do not systematically vary on critical characteristics, e.g., one can reasonably expect to see the clients with reported pregnancy outcomes performing at six-month postpartum much like the clients reported in the six-month follow-up.

One other proviso is in order for statistics based on the aggregate data. All the following tables concerning client status and infant status report percentages based on the number of known responses. Projects planned to do follow-up on all clients who had received project services, whether or not the client was still active at the time the follow-up interview was due. However, since many clients become inactive because they sever contact with the service project, project staff categorized substantial numbers of clients as "unknown" for one or more items. For example, the number of unknowns among mothers represents between 17 and 37 percent of any particular cell, enough to render misleading any computations based on the total number of clients. Hence Table V-1 reports percentages of known responses. These calculations thus overrepresent clients who stay in ready contact with the projects. We can only guess at the direction of the bias: perhaps clients who leave the projects have fewer problems than those who stay (this is suggested by the data on inactivated clients, presented in Chapter III). Alternatively, the clients who are "unknown" may be more difficult not only to keep in touch with but also to help through problems.

TABLE V-1: CLIENT STATUS AT FOLLOW-UP

	Client Delivering in the Projects						Client Delivering Before Project Entry						Other Female Teens		Males	
Follow-up Period:	6		12		24		6		12		24		12		12	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Educational/Vocational program:																
In program	727	45%	390	42%	56	29%	128	50%	119	43%	46	37%	111	62%	73	34%
Completed program	266	16%	196	21%	38	31%	31	12%	30	18%	23	18%	40	22%	66	31%
Neither	632	39%	343	37%	76	40%	99	38%	111	40%	57	45%	27	15%	74	35%
Unknown	364	-	316	-	102	-	68	-	97	-	42	-	62	-	26	-
Job training:																
In program	80	5%	73	8%	15	8%	19	7%	23	8%	16	12%	3	2%	12	6%
Completed program	19	1%	32	4%	7	4%	8	3%	12	4%	11	9%	8	5%	23	16%
Neither	1445	94%	785	88%	164	88%	230	89%	236	87%	100	79%	139	93%	113	76%
Unknown	443	-	355	-	106	-	69	-	106	-	41	-	70	-	91	-
Employment:																
Working 20 hrs. or more	126	8%	112	13%	40	21%	28	11%	26	10%	13	10%	13	9%	67	44%
Working less than 20 hrs.	75	5%	73	8%	7	4%	10	4%	15	6%	9	7%	9	6%	22	14%
Looking for work	200	13%	122	14%	19	10%	49	19%	58	22%	26	20%	8	5%	32	21%
Not in job market	1183	75%	558	65%	121	65%	176	67%	164	62%	81	63%	121	80%	33	21%
Unknown	405	-	380	-	105	-	63	-	114	-	39	-	69	-	85	-
Public Assistance:																
Yes	966	62%	331	61%	98	52%	158	61%	183	68%	88	67%	12	8%	30	21%
No	584	38%	346	39%	89	48%	101	39%	87	32%	44	33%	138	92%	115	79%
Unknown	437	-	368	-	105	-	67	-	107	-	36	-	70	-	94	-
Pregnancy Status:																
Pregnant	80	5%	86	10%	35	19%	15	6%	29	11%	17	13%	9	5%		
Not Pregnant	1569	95%	795	90%	152	81%	242	94%	240	89%	111	87%	172	95%		
Unknown	338	-	364	-	105	-	69	-	108	-	40	-	39	-		
Living Arrangement:																
Alone	90	6%	65	7%	21	11%	32	12%	46	17%	26	20%	2	1%	12	6%
Spouse	297	18%	166	18%	44	24%	40	15%	38	14%	19	14%	15	8%	64	31%
Other male	121	7%	73	8%	12	6%	19	7%	19	7%	11	8%	8	5%	3	1%
Parent	970	61%	536	60%	89	48%	150	56%	156	56%	61	44%	143	81%	116	56%
Other	127	8%	58	6%	19	10%	26	10%	16	5%	15	11%	9	5%	14	7%
Unknown	382	-	347	-	107	-	59	-	107	-	36	-	43	-	30	-
Total Clients	1987		1245		292		326		377		168		220		239	

Table V-1 presents characteristics of clients at 6, 12, and 24 months after delivery on which project case management systems collected data. The data are reported separately for those girls entering the project pregnant and delivering while receiving project services and those who delivered before coming to the project (entry mothers). We expect to observe some contrasts between these two groups since the entry mothers probably received services for a shorter period of time and did not receive any project help during the critical period of pregnancy.

Looking first at educational attainment, we see an expected pattern of increasing rates of school completion over time. For both delivered clients and entry mothers, the proportion of clients completing school is lowest at 6 months postpartum and highest at 24 months postpartum. The proportions currently in school show the opposite pattern. The intergroup contrast is also as anticipated: entry mothers are less likely to have completed their education and are more likely to be currently in school than are clients delivering in the projects. These figures together suggest that projects are helping entry mothers stay in school, though these girls seem to take longer to complete their education.

Another finding regarding school attendance is the percentage of clients neither in school nor graduated. We see a fairly stable 37 percent to 45 percent of clients, looking across both client types and all three periods. This suggests that a core of clients are particularly hard to get back in school, perhaps because they have been out of school for too long or because they cannot find adequate child care. These data suggest that projects are more successful at keeping school-oriented clients in school to completion than they are getting those alienated from school back in to complete their education.

Comparing project clients to teen mothers in general, we find reason to be optimistic about project efforts to keep clients in school. National data[1] for 1968 and 1979 indicate substantially lower levels of school attendance: at nine months after childbirth, only 4 percent of white teen mothers and 13 percent of black teen mothers were still enrolled in school in the 1968 sample; in 1979 the rates had increased to 14 percent and 31 percent, respectively (see Chapter II, Table II-2). These figures are still far below the 42 percent enrollment rate we find among all project teen mothers at 12 months after delivery.

With respect to employment, we are not surprised to see relatively few mothers in job training or in the job market. Projects have generally focused first on education, although helping clients to find part-time employment, summer employment, and/or job training are often important components of comprehensive services to these teens. Entry mothers appear to act in much the same way as delivering clients, showing only minimally higher proportions in job training or having completed job training. The one interesting contrast between the two groups of mothers is in the percentage looking for work: more entry mothers than delivering mothers are seeking employment at each of the three follow-up periods and increasing numbers are so engaged as the postpartum period gets longer. This may suggest that financial pressures are felt more keenly by the entry mothers, who may have had less emotional and financial support during pregnancy than did the girls delivering in the projects. The hypothesis is somewhat confirmed by the higher rates of public assistance among entry mothers in two of the three follow-up periods.

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[1] Mott and Maxwell, "School-Age Mothers: 1968 and 1979," Family Planning Perspectives 13 (1981): 287.

In terms of public assistance, we would expect to see some decline in participation rates over time as clients complete school and find jobs. The data for mothers delivering in the projects does show this pattern, as welfare participation decreases from 62 percent at 6 months postpartum to 52 percent at 24 months postpartum. At the same time the proportion of these mothers who are employed full time increases, from 8 percent to 21 percent.

In contrast to the increasing financial independence of the delivering mothers, entry mothers show fairly steady rates of welfare participation throughout the follow-up periods. Sixty-one percent of the 6-month group receive public assistance, as do 68 percent and 67 percent of the 12- and 24-month groups, respectively. Since their employment rates and rates of school completion are fairly low even at 24 months after delivery, it may be premature to expect noticeable drops in welfare participation. Entry mothers need to first complete their education before they can enter the job market at a level which will lead to financial stability.

The relationship between schooling, employment, and welfare is not a simple one. A young mother's drive to finish school, find a job, and get off welfare is influenced by and related to not only the services she receives, but also to the control she takes over sexual activity. One important measure of this control is pregnancy status. On a national scale 15.2 percent of teenagers with a first premarital pregnancy conceive again within a year.[2] Among the Title VI project mothers, only 10 percent were pregnant at 12 months postpartum. The pregnancy rate increases as the time since delivery

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[2]Zelnik and Kantner, "Sexual Activity, Contraceptive Use and Pregnancy Among Metropolitan-Area Teenagers: 1971-1979," Family Planning Perspectives (1980).

lengthens, suggesting that the more recently a girl was pregnant, the more conscious she is of the risks and burdens of another pregnancy and the more careful she is in her sexual activity. By 24 months, a girl may either have gotten less concerned about possible pregnancy or may have consciously decided that she wants another child. Pregnancy status of girls participating in OAPP-funded projects more nearly approximates national data at 24 months (see Table II-2).

Explicit decisions about further childbearing, schooling, or employment may depend a great deal on the nature of a client's support system. The 1972 data from Baltimore[3] suggest that teen mothers who are living with parents or other relatives fare much better than their counterparts who live alone: 87 percent return to school compared to 76 percent of teen mothers living alone; over 60 percent complete school, find a job, and get off welfare compared to well under half of the mothers living alone. In the OAPP projects, we find that the majority of all the teen mothers still live with their parents, as was the case at entry and at delivery, thus facilitating a girl's return to school because extended family members can share many responsibilities. However, substantially more entry mothers than delivering clients live alone. The proportion of delivering clients who live alone shows a substantial decrease from delivery; at that time, 13 percent of the new mothers planned to live alone with their babies, while we see half that percentage (6 to 7 percent) living alone at 6 and 12 months postpartum. The percentage of delivering mothers living with a spouse or other male appears to increase fairly steadily (21 percent up to 30 percent) from delivery through

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[3]Cited in Teenage Pregnancy: The Problem That Hasn't Gone Away.

the three follow-up periods, but entry mothers reside noticeably less often with their spouses or other males (20 to 22 percent). This again suggests less social support for the entry mother and greater need for project intervention if entry mothers are to return to and complete school.

Table V-1 also presents information on other female teens and male clients at 12 months after project entry. These girls provide some contrasts to the mothers discussed above since they do not face the pressures of parenthood. The males, on the other hand, are a mixed group, including both fathers and other males; their profile is less predictable.

In terms of school status, other female teens display a noticeably higher rate of current enrollment than does any other group (62 percent). This can be partially explained by their age; we saw above that entering other female teens were younger than entering pregnant teens or mothers, and hence legally obliged to attend school. However, a fairly high percentage of these girls have also completed school at 12 months after they became project clients, which certainly suggests better school attendance in recent years than the mothers have had.

By contrast, the males' rate of school enrollment is among the lowest of the groups, possibly because the males are likely to be older than their female counterparts. Although the school completion rate is among the highest of the groups, males nonetheless show a 35 percent rate of noninvolvement in school. The older the boy, the longer he has probably been away from school and the less likely he is to go back, especially if he now feels parenting responsibility. This is confirmed by the high proportions of males who are employed--44 percent full-time, 14 percent part-time, and another 21 percent actively looking for work. These percentages are substantially higher than

for any of the female groups. Males are also the group most likely to have completed a job training program, 16 percent.

Welfare participation for other female teens and for males shows expected patterns. Most males are in the work force and hence not on public assistance. Other female teens show an even higher rate of welfare independence than males, and overwhelmingly higher than for teen mothers. This is both because they don't have a baby, with the associated expenses and AFDC eligibility, but also because they are more likely to be living with and supported by their parents—81 percent live with parents in contrast to between 48 and 60 percent of the mothers.

Other female teens constitute only a small proportion of the clients served by the Title VI projects, yet there are important lessons to be gleaned from their profile. These girls are faring much better than any of the mothers with respect to schooling, welfare, and probably general stability. Clients delivering in the projects come next, demonstrating more success at coping with motherhood than entry mothers. Under any circumstances it would seem desirable to work with girls before they become pregnant, since the choices available once pregnancy occurs are harder ones to make. Also, the investment necessary to help clients once pregnant is much greater than that involved for the more preventive activities appropriate to other female teens.

Analyzing Factors Associated With Outcome Variables for Female Clients with Individual Data

We turn now to the individual data set to explore what factors are associated with the maternal outcomes just described. The following analyses focus exclusively on entry mothers and clients who delivered in the projects (i.e., they entered pregnant), on whom projects also collected follow-up information at 12 months after the birth of their index child. We have

analyzed 12-month follow-up data because it was the longest time period for which we had enough clients with data to yield meaningful analyses. Similar analyses are not available for other female teens or for males because we do not have follow-up information on enough clients.

Caveats. We remind the reader that the results of the multinomial logit analyses presented below should be interpreted as associations and not as causal effects. Please refer to Chapter IV (pages 58-59 and 62) for a detailed discussion of how to interpret the logit coefficients in these analyses and a description of the ways that the sample represented in the individual data set differs from the clients represented in the aggregate data.

The multinomial logit technique is a type of statistical analysis developed especially for giving accurate estimates of relationships when a dependent variable only has two values, as is the case with our dependent variables (clients either had a repeat pregnancy or not, were on welfare or not, etc.). Because it is the most appropriate statistical technique for analyzing the type of data we have, we used it where possible and report the results in this chapter. However, the technique has somewhat more stringent requirements than ordinary regression analysis, one of which is that the user must have a larger number of cases before the analysis will work. As a result, we could not analyze certain subgroups of interest, particularly clients 16 and older at entry and in school or graduated at entry, using logit analysis. We were able to run these analyses using ordinary least squares regression, and report the results in Appendix F for those readers interested in seeing how these subgroups differ from the larger samples. We could not run analyses of clients 15 and under, or dropouts at entry, even using

regression analysis because we have too few people in these subgroups for any analysis.

Delivered Clients and Entry Mothers--12-Month Outcomes

Tables V-2 and V-3 present multinomial logit analyses of the associations between client entry characteristics, project characteristics, services received, and, for delivered clients, pregnancy outcomes and the dependent variables of repeat pregnancies, educational attainment, job training, employment, and welfare dependency at 12 months postpartum. Table V-2 shows these analyses for delivered clients; Table V-3 gives them for entry mothers.

Delivered Clients. Looking first at Table V-2 for delivered clients (clients entering a project pregnant, who deliver their baby while a client in the project, and receive postpartum supportive services), we can see that the most consistent predictors to 12-month status are the client's positions on those variables at earlier points in time. Thus school status at entry and at delivery relate strongly to her educational attainment at 12 months. Welfare and Medicaid status at entry and delivery relate to welfare status at 12 months, as does the number of children the client had at project entry (an eligibility factor for welfare).

For services, the results are scattered. The analyses show some services with significant relationships to some outcomes, but no pattern emerges. Further, for each dependent variable we tested the hypothesis that all the services taken together moved that dependent variable in the desired direction (i.e., fewer repeat pregnancies, higher educational attainment, job training, and employment, lower welfare dependency). None of these tests produced significant results, leading to the conclusion that we have not demonstrated that receiving the services given in these adolescent pregnancy projects

TABLE V-2: DELIVERED CLIENTS
MULTINOMIAL LOGIT COEFFICIENTS FOR SELECTED 12-MONTH OUTCOMES
ASSOCIATED WITH ENTRY AND PROJECT CHARACTERISTICS AND SERVICES RECEIVED

	12-Month Outcomes				
N =	Repeat Pregnancy 716	Educational Attainment 707	Job Training 280	Employment 278	Welfare Status 277
Nonwhite[a]	.217	.362	1.939+	.209	.770
Age at Entry	.284*	-.086	.463*	.202	-.046
Previous Pregnancies at Entry	.001	-.263	-.995	-.257	-.692
Number of Children at Entry	-.191	.175	.293	-.537	3.461**
Living Arrangments at Entry	-.129	.042	1.118*	-.106	.615
School Status at Entry	-.094	.441**	.638	-.004	.166
Grade at Entry	-.164	-.005	.034	.332*	-.155
On Welfare at Entry	.108	-.440	.111	.076	1.404*
On Medicaid at Entry	.446	.029	#	-.734	.132
Urban-Rural[b]	-.355	.232*	-.318	-.112	-.637*
Delivery Site[c]					
Hospital	.502	-1.193+	-35.457	-1.280	2.967
School	-1.475	-.763+	1.233	.300	2.813+
Other Health Agency	.452	-1.181*	1.150	-1.247	2.376
Special Program	1.185	-1.185+	3.284	-.307	3.008+
Client Mix[d]	.179	-.105	.221	.412**	.257
Percent of Services Delivered On-site	.307	.081	-.102	-.160	-.401
Case Management Approach[e]	-.110	.275	.122	.212	-.199
Length of Follow-up	.634	.305*	-1.809	-.753	.097
Services					
Core 1--Maternity Counseling	.224	.286*	-.833+	.013	.044
Core 2--Family Planning	.157	.015	-.154	-.109	.119
Core 3--Prenatal Care	.101	-.115	-.008	-.118	.398+
Core 4--Nutrition	-.024	-.085	-.767*	.198	.050
Core 5--VD	-.055	.088	.022	.212	.164
Core 6--Pediatric Care	-.519	.304	.575	.156	-.958
Core 7--Parenting/Family Life	-.131	-.123	.443	-.220	.210
Core 8--Education/Vocational	-.013	.112	.176	.106	.346
Core 9--Adoption Counseling	.498	.182	2.570*	.184	-.463
Core 10--Other Health	.237	-.016	#	.278	.936*
Supp 11--Child Care	-1.117*	.149	.016	.259	.495
Supp 12--Consumer/Homemaker	.049	-.073	#	.116	.122
Supp 13--Family Counseling	-.724	.075	1.372+	-.171	-.285
Supp 14--Transportation	.324	-.224+	-.210	-.182	-.065
Supp 15--Personal Counseling	-.199	.077	-1.137	-.026	-.127
Supp 16--Financial Assistance	-.623	.025	1.135	-.877	-.513
Supp 17--Housing Assistance	.556	-.562	4.266*	.340	-1.166
Months in Project	.002	.039*	-.052	-.020	.016
Pregnancy Outcome Variables[g]					
Low Birth Weight	-3.498+	.336	-2.181+	-.043	-.087
School Status at Delivery	.296	2.161***	-1.969*	-.281	-.838
Welfare Status at Delivery	-.422	.374	.975	.366	.841
Medicaid Status at Delivery	-.121	-.008	#	-.694	1.411*
Mother's Complications	.784*	-.159	#	.279	-.009
Constant	10.195	-2.004	-9.291	-6.268	.002

= variable dropped to comply with statistical requirements of the logit computer program.
+ = $p \leq .10$; * = $p \leq .05$; ** = $p \leq .01$; *** = $p \leq .10$.

[a]Nonwhite coded 0 = white, 1 = nonwhite.

[b]Urban-Rural coded 1 = urban 100,000+, 2 = small urban, 3 = rural.

[c]These four variables are in dummy format, with the named delivery site coded "1" and all others coded "0". In addition to these four, other delivery sites included social service agencies, child care agencies and "other" agencies.

[d]Client mix = percent clients pregnant out of all active female clients.

[e]Case Management Approach coded 0 = none, 1 = different people for different services, 2 = one case manager who also has service responsibilities, 3 = one case manager whose duties are primarily case management.

[f]Length of Follow-up coded as 0 = none, 1 = shortest up to 3 = longest.

[g]Pregnancy Outcome Variables were only available for girls who delivered while a project client.

TABLE V-3: ENTRY MOTHERS
MULTINOMIAL LOGIT COEFFICIENTS FOR SELECTED 12-MONTH OUTCOMES
ASSOCIATED WITH ENTRY AND PROJECT CHARACTERISTICS AND SERVICES RECEIVED

	12-Month Outcomes				
N =	Repeat Pregnancy 297	Educational Attainment 297	Job Training 165	Employment 165	Welfare Status 165
Nonwhite[a]	-1.203+	.454	.696	.277	3.151*
Age at Entry	-.153	-.217	.539*	-.341	.121
Previous Pregnancies at Entry	1.225+	-.273	#	-.398	-.751
Number of Children at Entry	-1.236	.309	.775	.999	-.860
Living Arrangments at Entry	-.288	.826**	#	.564	-1.009
School Status at Entry	-.376	2.064***	-.399	-.005	-.055
Grade at Entry	.618+	-.043	#	.383	.210
On Welfare at Entry	.637	.859+	#	.601	.736
On Medicaid at Entry	#	-.098	#	#	2.689*
Urban-Rural[b]	-.074	.030	.623**	.084	-.705
Delivery Site[c]					
Hospital	#	-.175	#	#	-9.415
School	#	-.068	#	#	-.141
Other Health Agency	#	2.202*	#	#	1.656
Special Program	#	.795	#	#	5.924*
Client Mix[d]	#	-.014	#	.346	1.264+
Percent of Services Delivered On-site	#	.543*	#	.171	-.174
Case Management Approach[e]	#	.735+	#	#	1.796
Length of Follow-up	#	.208	#	#	-6.853+
Services					
Core 1--Maternity Counseling	.230	-.025	-.372	-.138	1.556*
Core 2--Family Planning	-.676*	.119	.171	-.011	-.410
Core 3--Prenatal Care	-.283	.220	.204	-.544	-.961
Core 4--Nutrition	-.038	.029	#	.067	.229
Core 5--VD	-.301	1.195***	-.202	-.342	-.083
Core 6--Pediatric Care	.774	-.673+	.999	1.108	2.348+
Core 7--Parenting/Family Life	#	-.389*	#	-1.006	.645
Core 8--Education/Vocational	-.101	.362+	.250	.552+	.194
Core 9--Adoption Counseling	.302**	-1.584	2.253	.653	.211
Core 10--Other Health	#	-.471	#	-1.213+	-.734
Supp 11--Child Care	-.470	.502**	.288+	.960**	-.045
Supp 12--Consumer/Homemaker	#	-.082	#	-.151	.964+
Supp 13--Family Counseling	-1.781	.145	#	-.984	7.217
Supp 14--Transportation	#	.370	-37.395	-.036	-.084
Supp 15--Personal Counseling	#	.101	-.239	-.787	-.296
Supp 16--Financial Assistance	#	-.028	-1.497	1.093	1.170
Supp 17--Housing Assistance	#	.258	.367	-1.355	-2.164
Months in Project	-.110*	-.066+	.067	-.053	-.014
Pregnancy Outcome Variables[g]					
Low Birth Weight	—	—	—	—	—
School Status at Delivery	—	—	—	—	—
Welfare Status at Delivery	—	—	—	—	—
Medicaid Status at Delivery	—	—	—	—	—
Mother's Complications	—	—	—	—	—
Constant	6.562	-6.336	-13.770	-4.221	1.293

= variable dropped to comply with statistical requirements of the logit computer program.
+ = $p \leq .10$; * = $p \leq .05$; ** = $p \leq .01$; *** = $p \leq .10$.

[a]Nonwhite coded 0 = white, 1 = nonwhite.

[b]Urban-Rural coded 1 = urban 100,000+, 2 = small urban, 3 = rural.

[c]These four variables are in dummy format, with the named delivery site coded "1" and all others coded "0". In addition to these four, other delivery sites included social service agencies, child care agencies and "other" agencies.

[d]Client mix = percent clients pregnant out of all active female clients.

[e]Case Management Approach coded 0 = none, 1 = different people for different services, 2 = one case manager who also has service responsibilities, 3 = one case manager whose duties are primarily case management.

[f]Length of Follow-up coded as 0 = none, 1 = shortest up to 3 = longest.

[g]Pregnancy Outcome Variables were only available for girls who delivered while a project client.

helped clients achieve important outcomes. In interpreting this result, it is important to bear in mind that we have no control for this analysis. Therefore, we are testing the differences between some services and more services, not between no services and some services. We also have no data on clients with whom projects lost contact before they could obtain 12-month outcome data. These deficiencies in the available data suggest that the results be treated as suggestive rather than conclusive.

Of client entry characteristics, other than school and welfare status, only age is significantly associated with outcomes at 12 months. Older girls are more likely to have repeat pregnancies at 12 months postpartum and are also more likely to be in or have completed job training. Having a low birth weight baby appears marginally related to the same variables, but in the opposite direction. Clients whose babies weighed less than 2500 grams (5.5 pounds) at birth were less likely to have repeat pregnancies and were also less likely to be in or have completed job training.

Clients in rural projects were less likely to be on welfare at 12 months, a finding which probably reflects state welfare policy in the states where rural projects were located and the greater tendency of clients in these projects to be married. Clients in rural projects also appear to have higher educational attainment at 12 months than their more urban counterparts.

Entry Mothers. Turning now to Table V-3, we can see the parallel multinomial logit analyses of factors associated with 12-month outcomes for entry mothers. (Appendix F gives the regression analyses for these variables for the same subgroups we analyzed with delivered clients.) Entry mothers show the same effects of earlier status on later status for educational attainment and welfare. School status at entry affects educational attainment

at 12 months, and Medicaid status at entry affects welfare status at 12 months. Entry welfare status also affects educational attainment, suggesting that clients who had support from welfare were able to achieve more with their education than girls without this support. Living arrangements at entry also affected educational outcomes for entry mothers (but not for delivered clients). The more entry mothers had other adults living in the same household with themselves and their babies, the higher their educational attainment at 12 months. This suggests that these clients may receive support from household members that enables them to continue and complete their education. Finally, nonwhite entry mothers had fewer repeat pregnancies, but greater welfare dependency, than white entry mothers.

The results for services for entry mothers are both different and more patterned than those for delivered clients. Family planning services are negatively related to repeat pregnancies--those girls receiving more family planning services also had fewer repeat pregnancies. Educational services are marginally related to better educational and employment outcomes at 12 months.

Day care services show a relationship to three of the outcome variables, all indicating that more day care services are associated with more desirable outcomes. Clients receiving more day care show better educational attainment and better employment outcomes at 12 months, and appear to have marginally better job training outcomes as well. Day care services probably have an enabling function with respect to these outcomes, freeing the young mother of child care responsibilities for enough time to let her accomplish some other desirable goals. These accomplishments may contribute to her future ability to take care of herself and her baby.

Two other results in Table V-3 require some comment. Adoption counseling is related to repeat pregnancies in this table. This result only occurs for entry mothers who were not pregnant when they entered a project. They would, therefore, not have received maternity or adoption counseling at the beginning of their time in the project. Those few entry mothers who experienced a pregnancy at some time after they entered the project would be counted as a repeat pregnancy, and would probably receive both maternity and adoption counseling at that time. Other entry mothers would not receive this service, so the pattern of repeat pregnancy and adoption counseling would emerge as an association, but probably does not indicate a causal relationship.

Finally, increased pediatric care is marginally associated with increased welfare dependency and decreased educational attainment. The association with welfare may indicate that clients on welfare, who are also eligible for Medicaid support and health benefits, are more likely to obtain pediatric care for their babies than clients without Medicaid benefits. However, the lower educational attainment associated with increased pediatric care may mean that clients whose babies require more medical attention have a harder time completing their school obligations.

As with delivered clients, the statistical tests of the effects of all services taken together do not show that the total service packages received by entry mothers helped them achieve desired results of any of the five client outcomes reported in Table V-3. However, unlike the results for delivered clients, those for entry mothers do show some significant patterns for the effects of individual services.

Prior to this data analysis, one assumption about clients in OAPP-funded projects was that entry mothers were just like clients who entered projects

pregnant but they simply had been referred to a project later in their childbearing history (i.e., after they had delivered rather than before). The analyses reported in Tables V-2 and V-3 suggest that this may not be true (the regression analyses reported in Appendix F strengthen this impression). Several possibilities exist to account for this finding. Projects with many entry mother clients may attract a different type of client than those which focus more exclusively on pregnant teens. Or clients who come to any project after a birth may simply be different from those who come during pregnancy. A third possibility is that projects treat the two types of clients differently. A final possibility is that the two types of clients may respond differently to the same services. At any rate, these two types of clients respond to different personal and service factors; lumping them together in analysis and in programs conceals more than it reveals. These analyses of individual data have allowed us to see this policy-relevant finding.

Future research should be structured to collect data that would allow policy makers and program planners to choose among these alternative explanations. Data for such an investigation, and for many other promisng avenues of exploration suggested by the analyses just presented, may soon be available from many adolescent pregnancy projects. Two states, New York and Massachusetts, are using case management systems for their projects funded through the Maternal and Child Health Block Grants that are based on the system developed by the Urban Institute. Other states probably collect some comparable data. In addition, many of the care projects currently funded by OAPP also collect the key data elements in this system. Research that compiled this growing data base from many projects could conduct analyses that would provide important comparison information for policy decisions.

Follow-up Outcomes for Infants--Aggregate Data

Just as early childbearing is a risk to the young mother and often a barrier to her educational and employment goals, so too it poses a substantial risk to the health of the new infant. We noted above that the health status of the babies at birth was remarkably good, better than national figures would lead one to expect. But does the healthier start contribute to healthier infants in the longer term? We examine below the status of infants at 6, 12, and 24 months of age.

Suspected Abuse or Neglect

All of the indicators of infant status are designed to be calculated at 12 months old, and many of them again at 24 months old. Only two items are measured at all three follow-up periods--suspected abuse or neglect, a condition which may appear early and should be dealt with immediately, and infant death, a rare event which may arise from many causes, only one of which is poor parenting. Table V-4 indicates that less than 1 percent of project infants die. This figure compares favorably with national statistics showing that 1.2 percent of infants born to teen mothers die by 12 months of age.[4] Table II-1 in Chapter II gives national infant mortality statistics and data from other teenage pregnancy projects that suggest the OAPP projects are doing well by this measure.

Table V-4 also shows that projects know of only 2 percent of infants whom they suspect of being abused or neglected. While we know that 39.3 percent of maltreated children were born to teen mothers,[5] the appropriate national

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[4]Zelnik and Kantner, "Sexual Activity, Contraceptive Use and Pregnancy Among Metropolitan-Area Teenagers: 1971-1979," Family Planning Perspectives (1980).

[5]American Humane Association, National Analysis of Official Child Neglect and Abuse Reporting (Englewood, Colorado: AHA, 1978).

TABLE V-4: INFANT MALTREATMENT AND DEATH

	Infant Death		Suspected Abuse* or Neglect	
Infants born in the projects:				
6 months old	25	1%	42	2%
12 months old	17	1%	16	1%
24 months old	4	1%	5	2%
Infants born before project entry:				
6 months old	0	-	12	4%
12 months old	0	-	11	3%
24 months old	0	-	4	2%
Total infants	46	1%	90	2%

*The number of "unknowns" for this variable are so high that these figures are at best suggestive. Projects did not have access to child protection records. Their reports are based on their own knowledge or suspicion of abuse or neglect by their clients.

figure, the percentage of teen mothers who maltreat their children, does not exist. Between the inadequacies of project data and the inappropriateness of national comparison data, we can only say that the figures suggest that projects continue to emphasize parenting skills.

Immunizations and Infant Development

By 12 months old, several indicators of infant health become particularly relevant (see Table V-5). On the average, 83 percent of project infants received the appropriate immunizations by their first birthday and 95 percent had passed important developmental milestones—they were able to pull to stand, wave goodbye, sit up alone, pick up objects with thumb and forefinger, and respond to sound. The variation between infants born in the projects and those born before project entry shows an interesting pattern; infants born before the mother entered the project are slightly more likely to have received their immunizations and to have developed at a normal rate. While both groups show high percentages for these positive outcomes, the difference may arise because the entry mothers tend to be newer to the projects and perhaps receive special attention. By 24 months we see the pattern reversed; substantially more infants born in the project have received their immunizations—93 percent versus 78 percent for infants born before project entry.

Hospitalizations

One indicator of infant health, the rate of infants being hospitalized, is more difficult to interpret. Infants may get seriously ill through no fault of the mother; our data do not distinguish between such "uncontrollable" incidents and others which might have been avoided by better maternal care. On the average, 22 percent of project infants had to be hospitalized in their first year; the rate was identical whether the infant was born before or after project entry. Similar proportions of 24-month-old infants were hospitalized

TABLE V-5: INFANT STATUS BY FOLLOW-UP
(Percentages of Known Responses)

	Infants Born in the Projects				Infants Born Before Project Entry				All Infants	
	12 months old		24 months old		12 months old		24 months old		12 months old	
Received appropriate immunizations:										
Yes	597	82%	121	93%	231	88%	111	78%	828	83%
No	135	18%	9	7%	29	11%	31	22%	164	17%
Unknown	481	-	168	-	123	-	42	-	606	-
Passed developmental milestones:										
Yes	749	91%			245	97%			994	92%
No	75	9%			7	3%			82	8%
Unknown	389	-			133	-			522	-
Hospitalized: Yes	184	22%	32	18%	57	22%	25	23%	241	22%
No	664	78%	141	82%	200	78%	86	77%	864	78%
Unknown	365	-	125	-	128	-	73	-	493	-
Number of Pediatric visits										
None	5	1%			17	7%			22	2%
1-4	212	31%			98	42%			310	34%
5-7	304	45%			90	39%			394	43%
8 or more	155	23%			27	12%			182	20%
Unknown	537	-			153	-			690	-
Total Number of Infants	1213		298		385		184		1598	

Note: The number of unknowns is high because projects were required to do follow-up on all clients, whether or not they were still active in the project by the time of the three follow-ups.

since their first birthdays, suggesting that such rates are not unusual for small children. In 198[illegible], hospitalizations of infants under one year of age occurred for 23.6 percent of all infants delivered in 1982.[6] Since these national data include infants born to mothers of all ages and risk levels, the relatively higher-risk teens in the OAPP projects appear to be doing quite well on this measure.

Although hospitalization rates were comparable across the two groups of infants, we observe a noticeable difference in the number of pediatric visits made by babies born before and after project entry. Sixty-eight percent of infants born in the projects had five or more visits, in comparison to 51 percent of infants born after project entry. This difference may indicate that entering mothers need the parenting education which they receive from adolescent pregnancy projects. Once they begin receiving services, they may become more aware of the importance of regular pediatric care and begin a schedule of regular visits.

Living Arrangements

While various indicators of infant health may reflect the level of a teenager's parenting skills, one measure is where the infant is living. The number of teen mothers who are separated from their babies is fairly small but nonetheless worth examining. In Table V-6 we compare the proportions of infants living apart from their mothers at 12-months-old and 24-months-old. Noticeably larger percentages of infants born before project entry are living with grandparents at one and two years old than are infants born in the projects. These may be temporary situations, while the young mother tries to stabilize her life so that she can again take charge of her child.

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[6]National Hospital Discharge Survey, 1982. Unpublished NCHS data.

TABLE V-6: INFANTS LIVING APART FROM THEIR MOTHERS

	Infants born in the Projects				Infants Born Before Project Entry			
	12 Months Old		24 Months Old		12 Months Old		24 Months Old	
With grandparents only	10	1%	7	4%	11	3%	29	16%
In foster home	27	3%	12	7%	8	2%	2	1%
In adoptive home	12	1%	2	1%	1	*	0	-
Total number of infants	1213		298		385		184	

*Less than 1 percent

The proportions of infants in foster care or adoptive homes signals a more permanent separation, even though by definition foster care is temporary. A surprisingly high 7 percent of two-year-olds born in the projects are in foster homes, perhaps indicating that teens do not quickly overcome the strains of parenting. This compares to national figures of 0.27 percent for all children under one and 0.24 percent for all children between one and two years of age.[7]

It is important to note that the 12-month and 24-month figures are additive; when an infant is either adopted or placed in foster care, the projects are no longer responsible for following up on the infant (although they do continue to follow the mother). For example, we would interpret the adoption figures to say that 1 percent of 12-month-olds born in the projects were placed in adoptive homes and another 1 percent of the infants that stayed with their mothers until at least one year old were, in the subsequent year, placed for adoption. These figures may also be interpreted as additive to the 2 percent of newborns who were released for adoption. Summing the number of adoptions and dividing by all infants ever born into the project, we find an adoption rate of 2 percent among mothers delivering in the projects, comparable to the 1976 nationwide adoption rate of 3 percent for children of unwed teen mothers.[8]

[redacted]

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[7]The base for these numbers is all children born to all mothers in the U.S. in 1981 (for one-year-olds) and 1980 (for two-year-olds), of all ages, races, and all economic statuses. The foster care numbers come from DHHS data. The reader should interpet the rates in light of OAPP clients' demographic differences from national statistics.

[8]Zelnik and Kantner, "First Pregnancies to Women Aged 15-19, 1976 and 1971," Family Planning Perspectives 10 (11, 1978).

With the passage of P.L. 97-35, the Adolescent Family Life Act, increasing emphasis has been placed on presenting adoption as a viable option for pregnant teenagers. Adoption counseling was one of the ten "core" services included in the earlier Title VI legislation so most of the projects we examine in this report offered some adoption counseling to their clients. These data contain a selection bias reflecting those two or three projects with a strong adoption component. Most of the adoptions in these data occurred in the two or three projects with a major adoption emphasis, so it is most likely that clients entering these projects already sought adoption as an option and received the relevant services.

Selected Infant Outcomes Using Individual Data

Due to various problems with the data on infants, particularly a good deal of missing data, we report multinomial logit analyses for only two of the infant outcomes measured at 12 months. These two are quite important outcomes--hospitalizations within the first year of birth and living arrangements--for which we have confidence in the reliability of the data as reported. (Regression analyses for the samples and subsamples appear in Appendix F.) Table V-7 reports the relationships among mother's status at project entry, project characteristics, services received, and infant's hospitalization and living arrangements at 12 months after birth.

Hospitalizations

The first two columns of Table V-7 give the logit coefficients for infant hospitalizations within the first 12 months after birth for entry mothers (first column) and delivered clients (second column). The only entry characteristics of mothers that relate to infant outcomes are grade and welfare status. Mothers who were in lower grades in school at project entry

TABLE V-7: INFANT OUTCOMES AT 12 MONTHS OF AGE
MULTINOMIAL LOGIT COEFFICIENTS FOR SELECTED OUTCOMES ASSOCIATED WITH ENTRY AND PROJECT CHARACTERISTICS AND SERVICES RECEIVED

	Baby Hospitalizations by 12 Months		Infant Living Arrangements at 12 Months	
	Mothers	Delivered Clients	Mothers	Delivered Clients
N =	130	237	134	240
Nonwhite[a]	-.085	-.097	.351*	1.005
Age at Entry	.297	.300+	-.039	-.009
Previous Pregnancies at Entry	.579	-.617	-.094	-2.123+
Number of Children at Entry	-.092	.108	.223	3.623**
Living Arrangements at Entry	.560	-.239	.312***	3.911***
School Status at Entry	-.692	.526	.186*	-.719
Grade at Entry	-1.114**	-.399*	-.040	-.279+
On Welfare at Entry	2.231**	.215	-.010	.324
On Medicaid at Entry	#	-.304	-.129	.042
Urban-Rural[b]	.334	-.116	-.017	.099
Delivery Site[c]				
Hospital	#	-38.408	-.203	40.642
School	#	-1.900	-.691	3.927**
Other Health Agency	#	-.453	.022	.628
Special Program	#	.841	-.312	.854
Client Mix[d]	#	-.177	-.008	.522*
Percent of Services Delivered On-site	#	-.038	-.076	-.646*
Case Management Approach[e]	#	-.270	-.009	.503
Length of Follow-up	#	.508	-.408*	-1.827+
Services				
Core 1--Maternity Counseling	-1.376+	.127	-.036	.217
Core 2--Family Planning	-.006	.513**	-.001	-.440*
Core 3--Prenatal Care	-.038	-.196	-.054	.345
Core 4--Nutrition	.216	-.367	.001	.344
Core 5--VD	.450	-.130	.124+	-.287
Core 6--Pediatric Care	-2.573*	.882	.096	-1.080
Core 7--Parenting/Family Life	-.489	-.587	-.001	-.326
Core 8--Education/Vocational	.244	.201	.018	-.715**
Core 9--Adoption Counseling	-35.438	.272	-.541*	2.698*
Core 10--Other Health	-.061	-.736	.146	.557
Supp 11--Child Care	.153	-1.008+	-.001	.793+
Supp 12--Consumer/Homemaker	1.196*	.231	.055	-.093
Supp 13--Family Counseling	1.066	1.732**	-.257	.556
Supp 14--Transportation	-1.258	-.094	.067	.142
Supp 15--Personal Counseling	-.408	.496	-.115+	-.253
Supp 16--Financial Assistance	#	.778	-.010	-.288
Supp 17--Housing Assistance	#	2.239	.110	-.459
Months in Project	.000	-.008	.004	.011+
Pregnancy Outcome Variables[g]				
Low Birth Weight	—	1.256*	—	3.157**
School Status at Delivery	—	-.906	—	1.766***
Welfare Status at Delivery	—	-.131	—	-.814
Medicaid Status at Delivery	—	.611	—	1.591*
Mother's Complications	—	.342	—	-.748+
Constant	4.458	-1.578	2.319	-2.674

= variable dropped to comply with statistical requirements of the logit computer program.
+ = $p \leq .10$; * = $p \leq .05$; ** = $p \leq .01$; *** = $p \leq .10$.

[a]Nonwhite coded 0 = white, 1 = nonwhite.

[b]Urban-Rural coded 1 = urban 100,000+, 2 = small urban, 3 = rural.

[c]These four variables are in dummy format, with the named delivery site coded "1" and all others coded "0". In addition to these four, other delivery sites included social service agencies, child care agencies and "other" agencies.

[d]Client mix = percent clients pregnant out of all active female clients.

[e]Case Management Approach coded 0 = none, 1 = different people for different services, 2 = one case manager who also has service responsibilities, 3 = one case manager whose duties are primarily case management.

[f]Length of Follow-up coded as 0 = none, 1 = shortest up to 3 = longest.

[g]Pregnancy Outcome Variables were only available for girls who delivered while a project client.

have infants who are more likely to experience hospitalization by one year of age. Since the age of the mother at project entry does not relate to infant hospitalization, it may be that grade level reflects mothers who are behind in school. Welfare related to infant hospitalizations for entry mothers only, with those on welfare being more likely to have an infant hospitalized than those not on welfare.

Low birth weight is strongly related to hospitalization, with more low birth weight babies experiencing hospitalization during their first year than normal weight babies. (These hospitalizations occur after the infant has left the hospital following its birth.) We do not have equivalent data on birth weights for infants of entry mothers. Low birth weight babies in OAPP projects thus appear to experience health difficulties similar to those of low birth weight infants in other studies.

Among services, more pediatric care is associated with fewer infants hospitalized for entry mothers, but not for delivered clients. Other service results are scattered and less easy to interpret. The test for overall effect of services on increasing or decreasing infant hospitalizations again showed that the total service package received did not make a difference for this outcome.

Living Arrangements

Where infants of teen mothers live and with whom is a matter of some concern, sinc research indicates that living with other adults in addition to the mother contributes to infants' cognitive development.[9] Infant living arrangements, the second infant outcome reported in Table V-7, is coded so

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[9]Wendy Baldwin and Virginia Cain, "The Children of Teenage Parents" Family Planning Perspectives 12 (January/February 1980): 34-43.

that an infant living with both mother and grandmother receives the highest score, with gradations down to an infant who does not live with its own mother, who receives the lowest score. Infants of entry mothers are reported in the third column of Table V-7, while those of delivered clients appear in the fourth column.

Living arrangements of the mother at project entry of course is a strong predictor of where the infant (and mother) will be living at follow-up, as is the number of children at project entry for delivered clients. For delivered clients, on whom we have pregnancy outcome information, having a low birth weight baby is associated with a greater likelihood of mother and infant living with the maternal grandparent or other adult relative at 12 months. Delivered clients receiving Medicaid at delivery and having better educational achievement at delivery are also more likely to be living with both their infant and their own parents.

Among services, adoption counseling is negatively related to infant living arrangements at 12 months for entry mothers, meaning that mothers and mothers-to-be who receive adoption counseling have a high probability of releasing their babies for adoption. For delivered clients the association is positive--more adoption counseling occurs along with a higher probability that infants live with their own mother and grandparents at 12 months of age. We have no ready explanation for this finding. Other services do not show a consistent or strong pattern in relation to infant living arrangements. The test of impact for the total service package showed no effect for this as for every other outcome variable.

As with the 12-month outcome variables for mothers, infant outcomes in these individual data vary significantly by the entry status of the

mother—whether she entered the project with a baby already born or entered pregnant. The outcome variables associated with infants belonging to mothers in these two groups of clients respond to different factors, once again emphasizing the importance of designing projects carefully with a specific target population in mind.

In this data set, school dropouts comprised only 30 to 40 percent of entering clients. The youngest clients of OAPP-funded projects, those 15 and under, were even fewer. Only 6 percent of entry mothers and 16 percent of delivered clients entered the projects when they were 15 or younger. We were unable to analyze the data from these very small groups, just as we were unable to use logit anlaysis on the subgroups of in or completed school or 16 and older at entry. Future projects that target very young teenage mothers might contribute some data for further insights into what helps these clients, as might projects targeted toward helping school dropouts. Future research should also focus on obtaining data from service projects designed to help special subgroups of the teen mother population. Information on such specialized populations would help policy makers and program planners design programs that address unique needs of these populations..

CHAPTER VI

FINANCIAL DATA ANALYSIS

How much adolescent pregnancy programs cost, and what benefits result from public expenditures for them, have been important but largely unanswered questions. Finding answers has been difficult in part because programs offer widely differing services, using different project structures and sponsors. Comparability across projects has thus eluded most efforts to understand cost issues in this area. The projects funded by OAPP in FY 1982 offered a rare opportunity to overcome some of these obstacles to estimating costs. Because projects were legislatively mandated to provide a core set of similar services, whether directly or by referral, we were able to come close to estimating a price for the same set of services across different projects. The findings reported in this chapter focus on financial data in the form of unit costs of services. The data come from eight projects in which we did intensive case study work to obtain the cost data.

Selecting Projects

We chose projects that were fully operational, that provided services to significant numbers of clients and that had the potential of providing data on clients up to 12 months postpartum at a minimum. We also wanted projects that, as a group, maximized the variability of several factors including program model, sponsoring agency, location, and types of clients serviced. The eight sites selected have the following spread on these important variables.

1. Program model--

   - three sites in which most project services were located together in a single site;

- o two sites in which most project services were coordinated through a network of agencies throughout the community;

- o three sites in which some services were on-site and some were provided through referral networks.

2. Sponsoring agency--two schools, one hospital, two health agencies other than hospitals, and three social service/voluntary agencies.

3. Location--two rural, three medium-sized cities, and three major/central cities.

4. Types of clients--among the eight projects some accept only girls pregnant at entry; some accept both pregnant and parenting adolescents; some also include nonpregnant at-risk teenagers. They also vary as to whether they have male as well as female clients.

In general, the projects chosen were fairly representative of the projects funded by OAPP during FY 1981 and FY 1982. Excluded from selection were very small projects--small numbers of clients and few staff--that tended to be funded through the statewide programs.

The process of exploring all aspects of projects' financial arrangements generally took four days at each site and occurred during May and June, 1982. UI staff met first with project staff to discuss which services were delivered on-site, what agencies were responsible for off-site service delivery, and how services were paid for. For the on-site services, we explored with the project the nature of those services: what made up a typical "dose" of the service, what professional delivered the service, and how often a client typically received the service. Where flat fees were available (e.g., pregnancy testing), we used those figures; in other cases, we computed a unit cost based on staff time, overhead, and related expenses. We then telephoned or visited the collateral service agencies to gather comparable information for off-site services.

Financial/Cost Analysis

Several of the legislative objectives contained in P.L. 95-626 and P.L. 97-35 focus on fiscal concerns. In this chapter, we first examine the cost of services provided by eight adolescent pregnancy programs, varying according to program model, sponsoring agency, location, and types of client, paying special attention to the factors affecting costs of services, as well as the sources of funding for particular services. For pregnant clients, this analysis assumes one year of service delivery in which a client enters the program in her fourth month of pregnancy, delivers after five months and remains in the program for the next seven months, receiving appropriate services. For entry mothers, the analysis assumes one year of project participation and no repeat pregnancy. These analyses are followed by a cost-effectiveness analysis on those seven of the eight projects on which we have individual client data.

For each of these eight projects we have developed estimates of the costs of providing:

- o a single unit of service for each component of the complete service package;
- o one ideal package of comprehensive services;
- o the average package of services provided by adolescent pregnancy programs to pregnant teens and to teen mothers.

We have also examined the sources of funding for each component of the service package.

These data allow us to look across programs to:

(1) isolate the more and less costly components of the service packages;

(2) estimate the costs of providing both ideal comprehensive and average actual packages of services;

(3) examine those factors that contribute to variation in costs; and

(4) determine the sources of funding for each component of the service package.

Unit Cost Comparisons

We examined the unit costs of the individual service components provided by adolescent pregnancy projects, and compared the cost of services across projects. This comparison demonstrates the cost of service delivery by projects or referral agencies. In Table A in the Appendix, we display the cost of each service unit for all of the core and supplemental services for each project. The unit costs represent the total costs of the service unit including the direct costs of providing the service, fringe benefits, overhead costs and the cost of preparation or ancillary activities.[1] Appendixes B and C display the average number of units a client gets if she or he receives the service at all, and the proportion of a project's clients who get the service.

The most costly service units in the ideal service package are prenatal health care, child care, public school attendance, and financial assistance.[2] One unit of prenatal health care is defined to include laboratory fees, prenatal visits, professional delivery fees, hospital fees, and one postnatal visit. This service is by far the most expensive on a unit basis. However, resources devoted to the other major expenditure items,

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[1]Discussions with project personnel revealed that a substantial amount of back-up work is needed for every hour of direct counseling or teaching. Intake, referral and follow-up add substantially to the amount of time spent in direct provision of services. Based on the staff reports, we estimated one-half hour of ancillary service is needed for every hour of direct service provision in counseling or educational/training activities.

[2]All units except prenatal health care are measured as one month's participation.

usually delivered in multiple service units over a number of months, can also mount up rapidly.

Comparing Costs of Service Packages

Both P.L. 95-626 and P.L. 97-35 stress that services provided to pregnant adolescents should be comprehensive, suggesting that every client should receive some help in at least the ten core service areas. Naturally, as a client receives more frequent and more comprehensive services, the total costs for serving the client increase. Greater comprehensiveness means higher per client costs. Across our eight project sites, we found considerable variation in the configuration of the typical service package, i.e., projects varied in the level of service comprehensiveness. Since cost is a direct function of the level of comprehensiveness, projects also vary greatly in total service costs. If we were to construct hypothetical service packages using different criteria for each, how much would costs vary? To examine this question, we define three different configurations of services, shown in Table VI-1 as the Ideal Comprehensive Package, the Average Actual Package for Pregnant Clients, and the Average Actual Package for Entry Mothers.

We selected the 23 services in the Ideal Comprehensive Package to include virtually all services mandated or permitted by OAPP's governing legislation. This package assumes that pregnant teens need health care assistance in dealing with the life disruption caused by an early pregnancy, and that special services are needed to help them attain educational or work goals.

The configurations of the Average Actual Packages arise from looking at the typical service packages provided in each of the eight project sites. The 15 services selected in the actual package for pregnant clients and the 13 services in the entry mothers actual package are provided to most clients at

TABLE VI-1: CONFIGURATIONS OF SERVICES

	High Comprehensive Package	Average Actual Package for Pregnant Clients	Average Actual Package for Entry Mothers
Pregnancy test and maternity counseling	X	X	
VD test, counseling, and education	X	X	
Prenatal health care (vaginal delivery)	X	X	
Childbirth education	X		
Initial pediatric visit	X	X	
Contraceptive information and/or counseling	X	X	X
Prescription device and counseling (pills)	X	X	X
Counseling related to sexual decision making	X		X
Counseling--extended family members	X	X	X
Counseling--male partner	X		
Adoption counseling	X		
Assistance to find child care	X		X
Child care--licensed, regular	X		
Transportation	X	X	X
Educational/vocational counseling and/or referral	X	X	X
Educational/vocational program	X		
Family relationships/parenting education	X	X	X
Consumer/homemaking education	X		
Nutrition counseling/education	X	X	X
WIC	X	X	X
Food Stamps	X	X	X
Personal counseling	X	X	X
Financial assistance	X	X	X

most of the sites, and therefore constitute a fairly typical representation of the actual package of services given to a pregnant teenager or an entry mother.

Table VI-2 gives the costs of the Ideal Comprehensive Package. This package, comprised of 23 services, shows an average cost of $8269, with individual project costs ranging between $5636 and $9117. The major expenditure items that were isolated in the unit cost comparisons continue to be the most costly components of this package--prenatal health care, child care, public school attendance and financial assistance. Financial assistance and prenatal health care alone account for an average of 36 percent of the total cost of this package.

Table VI-3 presents comparable cost information for the Average Actual Service Packages. The major differences between the actual packages given to teens entering pregnant and as entry mothers lie in the health care area. Entry mothers obviously do not receive pregnancy-related services, and this accounts for virtually all of the cost differential between the two packages. They do more consistently receive sexuality counseling and assistance to find child care.

Comparing Tables VI-2 and VI-3, we find that the average cost for the Average Actual (Pregnant) Package is quite a bit lower than that for the Ideal Comprehensive Package, $3892 versus $8269. The range across the eight projects is $2982 to $4650, while the Ideal Comprehensive Package has a range of $5636 to $9117. The cost of the Average Actual (Mother) Package varies substantially also. These figures suggest that the nature of service delivery may affect costs since such variation occurs in the cost of comparable service packages.

TABLE VI-2: SUMMARY OF COSTS FOR THE IDEAL COMPREHENSIVE PACKAGE

	Average	Range	Number of Projects Offering Service
Pregnancy test and maternity counseling	$ 28.80	$ 20.43-$ 37.90	8
VD test, counseling and education	19.46	12.55- 30.00	8
Prenatal health care (vaginal delivery)	1912.56	1300.00-2470.00	8
Childbirth education	30.17	10.15- 57.44	8
Initial pediatric visit	27.56	17.90- 56.60	8
Contraceptive information and/or counseling	53.88	16.22- 139.48	8
Prescription device and counseling (pills)	59.40	12.40- 92.76	7
Counseling - extended family members	48.76	14.94- 108.84	8
Assistance to find child care	31.05	12.88- 62.20	8
Educational/vocational counseling and/or referral	64.34	33.60- 123.65	8
Nutrition counseling/ education	48.46	10.18- 147.30	7
WIC	364.39	241.32- 532.44	7
Food stamps	293.13	175.00- 329.00	8
Financial assistance	409.37	35.00- 588.00	8
Personal counseling	270.07	43.08- 1018.44	7
Counseling - sexual decision-making	$ 84.10	$ 2.75-$ 380.40	7
Counseling - male partner	69.03	8.40- 173.12	8
Adoption Counseling - on-site	281.32	92.80- 735.01	4
Child Care - licensed, regular	1408.15	145.69-2022.00	5
Transportation - regular	243.98	163.20- 522.00	7
Educational/vocational education program	2374.36	1566.61-3528.99	8
Family relationships/ parenting education	47.92	23.85- 74.92	5
Consumer/homemaking education	99.13	10.83- 186.03	4
Total Ideal Package Cost	$8269.39	$5636.31-$9116.55	

Prenatal Health Care	23%
Financial Assistance, Food Stamps and WIC	13%
Other Services	64%

TA. A VI-3: SUMMARY OV COSTS FOR PREGNANT CLIENTS AND ENTRY MOTHERS

Costs of Average Actual Packages for Pregnant Clients

	Average	Range	Number of Projects Offering Services
egnancy test and maternity unseling	$ 28.80	$ 20.43-37.90	8
test, counseling and education	19.46	12.55-30.00	8
enatal health care (vaginal delivery)	1912.56	1300.00-2470.00	8
itial pediatric visit	27.56	17.90-56.60	8
ntraceptive information d/or counseling	53.88	16.22-139.48	8
escription device and unseling (pills)	59.40	12.40-92.76	7
unseling - extended mily members	48.76	14.94-108.84	8
ansportation	243.98	163.20-525.00	7
ucational/vocational unseling and/or referral	64.34	33.60-123.65	8
mily relationships/ renting education	47.92	23.85-74.92	5
trition counseling/ ucation	48.46	10.18-147.30	7
C	364.39	241.32-532.44	7
od stamps	293.13	175.00-329.00	8
nancial assistance	409.37	35.00-588.00	8
rsonal counseling	270.07	43.08-1018.44	7
tal Package Cost	$ 3892.08	$ 2981.83-4649.82	

enatal Health Care	49%
nancial Assistance, od Stamps and WIC	27%
her Services	24%

Costs of Average Actual Packages for Entry Mothers

	Average	Range	Number of Projects Offering Services
Contraceptive information and/or counseling	$ 53.88	$ 16.22- 139.48	8
Prescription device and counseling (pills)	59.40	12.40- 92.76	7
Counseling - sexual decision-making	84.10	2.75- 380.40	7
Counseling - extended family members	48.76	14.94- 108.84	8
Assistance to find child care	31.05	12.88- 62.20	8
Transportation - regular	243.98	163.20- 525.00	7
Educational/vocational counseling and/or referral	64.34	33.60- 123.65	8
Family relationships/ parenting education	47.92	23.85- 74.92	5
Nutrition counseling/ education	48.46	10.18- 147.30	7
WIC	364.39	241.32- 532.44	7
Food stamps	293.13	175.00- 329.00	8
Financial assistance	409.37	35.00- 588.00	8
Personal counseling	270.07	43.08- 1018.44	7
Total Package Cost	$ 2018.85	$ 867.70- 2909.38	

Financial Assistance, Food Stamps, and WIC	53%
Other Services	47%

Factors Affecting Differences in Cost Among Projects

Having examined the cost of various service packages differing in level of comprehensiveness, we now turn to an analysis of the sources of cost variation among the eight projects. Several important factors can be identified, including the typical number of service units delivered, amount of government benefits available, rural-urban differences, and site of service delivery (on-site versus off-site delivery).

The typical number of service units delivered has a substantial effect upon the differences in cost among the projects. The service costs we have been discussing above were derived by multiplying the costs of a single service unit times the average number of units delivered to clients in each of the eight projects. Table B in the Appendix shows the average number of service units that clients receive in each program. Wide variations tend to occur largely in educational and counseling services. For example, clients receive an average of 5 classes in childbirth education at one site, 7 to 8 classes at three sites, 10 classes at two other sites, and 13 to 16 classes at the remaining two sites. Contraceptive counseling also demonstrates extreme variations: between one and 11 units of service are delivered to the typical client. In personal counseling, most sites provide between 2 to 15 hours, although one site offers up to 41 hours of individual counseling; in addition, two sites supplement the individual attention with group counseling of 8 to 12 hours. Other services which show substantial variation in the number of service units delivered are child care (1 to 6 months), transportation (6 to 12 months), counseling on sexual decision-making (1 to 30 hours), and on-site adoption counseling (5 to 31 hours).

Several factors related to project location appear to have substantial impact on inter-project cost differentials. For example, the cost of government programs, such as welfare benefits and public school attendance, depends upon policies developed at the state or local government level. Rural-urban differences also explain some differences in costs between sites. In most cases, salaries and medical costs are higher in urban areas due to higher standards of living. Projects in some urban areas, however, because of special arrangements with medical care providers or extensive use of public health facilities, are able to limit their medical care costs.

Another differentiating factor among adolescent pregnancy projects is where service delivery occurs. Projects are responsible for providing clients with a comprehensive package of services, whether those services are provided directly or by referral to another community agency. We had previously hypothesized that service delivery location would affect both the cost of delivering a service and the impact of that service on clients. Table VI-4 presents evidence that fails to clearly support our hypothesis that cost varies by delivery location.

In the top part of Table VI-4, we compare the costs of particular educational services when delivered at the project site and when delivered by collateral agencies at another location. Although some of the average costs show substantial differences, a quick inspection of the table reveals that the pattern is not a consistent one: on-site average cost is higher for childbirth education but lower for the other two services. More important, for each of the three services listed, the off-site service costs for individual projects consistently fall within the range of the on-site costs. The off-site "averages" are mostly single project costs.

TABLE VI-4: ON AND OFF-SITE SERVICE DELIVERY COST

A. Selected services offered either on or off-site at each project listed

	On-site		Off-Site	
	Individual Project Cost	Average Cost	Individual Project Cost	Average Cost
Childbirth education	$ 10.15 23.79 43.10 45.00 57.44	$ 35.90	$ 11.90 22.48	$ 17.19
Family relationships and parenting education	$ 23.85 43.20 46.59 74.92	$ 47.14	$ 51.04	$ 51.04
Consumer/homemaking education	$ 10.83 14.64 186.03	$ 70.50	$ 185.00	$185.00

B. Services offered both on and off-site at each project listed

Pregnancy test & maternity counseling	$ 24.05 19.10 18.73 27.53	$ 22.35	$ 21.20 23.60 22.00 28.99	$ 23.95
Initial pediatric visit	$ 21.20 23.50 45.00	$ 29.90	$ 30.50 27.00 74.00	$ 43.83
Educational/vocational counseling	$ 12.68 14.10	$ 13.39	$ 18.51 28.74	$ 23.63

In section B of Table VI-4, we compare the on and off-site costs of services where a given project offers both options; we can thereby presume to control for factors related to an individual project's location. Among all the services we examined, only three services are offered both on- and off-site in more than one project location. For pregnancy testing and maternity counseling, on- and off-site service costs are comparable. For the other two services, off-site costs appear substantially higher. It is important to note, however, that one service is delivered both on- and off-site in only two projects of the eight, and the other service in three projects; we would hesitate to draw any far-reaching conclusions from such a small sample.

In summary, the factors that account for the variations found in the total project costs appear to be comprehensiveness of program services, amount of services delivered, variations in government benefits, and rural-urban differences in medical costs and staff salaries.

Sources of Funding for Services to Pregnant and Parenting Teens

In addition to examining the costs of services provided through adolescent pregnancy programs, our study of service costs also looked at the funding sources used to pay for all the services to clients in OAPP projects, including services paid for by sources other than the OAPP projects themselves. Since data were collected for this part of the study from April through June of 1982, the sources of funding described here are those that were used in fiscal 1982. Sources were divided into three categories--federal, nonfederal public, and project sources.

Federal sources included funding such as Medicaid and other health care funding, some Title XX funding, and USDA nutrition funds. These sources were considered federal even though some of them (Medicaid and Title XX) include

significant amounts of state and local government funds. Most services paid for by these sources were delivered in agencies other than the OAPP projects. Nonfederal public sources included sources such as local or state health or welfare departments and public hospitals, even though some of these agencies' operating funds come from federal sources. Project sources include OAPP funding plus a range of nongovernmental sources, including private hospital and physician payments, client fees, and private nonprofit organizations. Even though most OAPP projects receive significant federal funding, including the grants, these funds are not specifically traceable to particular services. Consequently, services provided on-site and covered out of project funds not earmarked for particular services are considered to be project sources of funding.

Table VI-5 shows the sources of funding for each of the core and supplemental services, regardless of which agency delivers the service. In most cases, health-related and family planning services are the only services which vary. These are also the services that are most likely to be provided off-site. Variations in the distribution of these funding sources are associated with the percentage of clients who are receiving Medicaid benefits and the availability of public health clinics and hospitals.

Several figures in Table VI-5 indicate projects' compliance with legislative mandates to use all available non-OAPP funding, both federal and local. On average, 93 percent of all money spent on educational services comes from nonfederal public funding--primarily local school districts. Thus neither the federal government nor OAPP projects are paying for educational services that are already provided elsewhere. Similarly, approximately half of all pregnancy testing, maternity counseling, and prenatal and pediatric

TABLE VI-5: DIRECT SOURCES OF FUNDING FOR SERVICES

Service	Source of Funding: Percentage of service cost covered Federal Average (Range) Percentage	Non-Federal Public Average (Range) Percentage	Project Average (Range) Percentage
Health-related:			
Pregnancy test and maternity counseling	44% (0-77%)	16% (0-76%)	40% (10-77%)
VD test, counseling and education	32% (0-63%)	30% (0-100%)	38% (0-66%)
Prenatal health care (vaginal delivery)	51% (31-72%)	3% (0-20%)	46% (15-68%)
Childbirth education	-	14% (0-100%)	86% (0-100%)
Initial pediatric visit	52% (17-88%)	8% (0-35%)	40% (11-78%)
Family planning:			
Contraceptive information and counseling	0% (0-2%)	28% (0-100%)	72% (0-100%)
Prescription device and counseling	49% (0-90%)	22% (0-69%)	29% (0-58%)
Counseling - sexual decision-making	-	17% (0-100%)	83% (0-100%)
Other support:			
Counseling - extended family	-	14% (0-100%)	86% (0-100%)
Counseling - male partner	-	14% (0-100%)	86% (0-100%)
Adoption counseling	-	15% (0-90%)	85% (0-100%)
Assistance to find child care	-	14% (0-100%)	86% (0-100%)
Child care - licensed, regular	12% (0-50%)	20% (0-100%)	68% (0-100%)
Transportation - regular	-	17% (0-100%)	83% (0-100%)
Education/job training:			
Educational/vocational counseling	-	17% (0-100%)	83% (0-100%)
Educational/vocational program	-	93% (50-100%)	7% (0-50%)
Life skills:			
Family relationships/parenting	-	33% (0-100%)	67% (0-100%)
Consumer/homemaking education	-	80% (0-100%)	20% (0-100%)
Nutrition counseling and education	16% (0-100%)	43% (0-100%)	41% (0-100%)
WIC	100% (100%)	-	-
Food stamps	100% (100%)	-	-
Financial assistance	89% (26-100%)	-	11% (0-74%)
Personal counseling	-	17% (0-100%)	83% (0-100%)

care are covered by non-OAPP funding (mostly other federal funding). WIC, Food Stamps, and AFDC programs are equally well utilized.

Sources of Funding for OAPP Projects[3]

Services that occur primarily on site, especially counseling services, are generally not supported by earmarked funds and hence are considered to be covered by general funds of the adolescent pregnancy project. Because these on-site services form a substantial part of adolescent pregnancy service offerings, it is important to examine the source of these general project funds. Table VI-6 breaks out the distribution of the budgetary sources of the "project" column of Table VI-5, for the eight OAPP projects on which we have financial data. We have separated the sources of funding for OAPP grantees into federal (usually OAPP), nonfederal public, and private components. In fiscal 1982, most grantees relied heavily on federal funding, and two of them received very little funding from other sources. Nonfederal public sources contributed relatively little to the budgets of most projects, with only two of these receiving more than 25 percent of their revenues from nonfederal public sources. The extent of private funding also varied a great deal; the average amount of funding attributable to private sources in these adolescent pregnancy programs is 17 percent.

The overall funding picture thus shows considerable project reliance on federal financing through project funding and also through accessing federally funded services delivered off site by other agencies. Health-related services

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[3]Since several adolescent pregnancy programs received state block grants in fiscal 1983, the distribution of funding sources described here is only applicable to fiscal 1982. Sources of funding for adolescent pregnancy services changed significantly in fiscal 1983, as our discussion of funding changes for these adolescent pregnancy projects suggests (see addendum).

TABLE VI-6: PERCENTAGES OF GRANTEE BUDGET DERIVED FROM DIFFERENT SOURCES (BREAKOUT OF THIRD COLUMN OF TABLE VI-5)

	Projects							
	1	2	3	4	5	6	7	8
Federal (including OAPP)	71	95	41	73	95	70	52	49
Nonfederal public	0	0	20	0	0	18	45	47
Private	29	5	39	27	5	12	3	4

are the most heavily federally funded of the service types, junior high and high school participation relies primarily on local and state revenues, while counseling and specific counseling/education services are most likely to be directly covered by project funds. Insofar as these funds come from the general budget of the adolescent pregnancy projects, counseling and specific educational services can also be seen to rely indirectly on federal funds. This funding pattern can be expected to change dramatically in coming years, as categorical funding sources increasingly give way to block grants, and state and local governments shoulder greater responsibility for funding social programs. An important point to note is the relatively low level of private funding sources, suggesting that private philanthropy cannot be expected to keep these projects going without major involvement of public monies.

Cost-Effectiveness Analyses

Because we have both individual outcome data and cost data on clients and services in seven projects, we can make some modest attempt to compare the cost effectiveness of different projects. That is, we can begin to answer the question, "To what extent does spending money in Project X produce the same, better, or less desirable results than spending the same amount of money in Project Y?"

We emphasize the tentative and preliminary nature of these analyses, however, for several reasons. First, two projects have outcome data on a very small number of clients (fewer than 20 in each client category), so statistics based on these samples may not be stable. Second, projects differed greatly in the completeness of their follow-up efforts. Some projects have follow-up data on upwards of 75 percent of their clients, giving confidence to the generalizability of their data. Other projects have follow-up data on only 40

percent or fewer of their clients. When follow-up is more likely for clients still in contact with the project, and when continued contact with the project has implications for outcome measures (e.g., in a school-based project, clients still in school will have more complete data than those who have left, either through dropping out or graduation), the data reported by projects following up only a small proportion of their clients must be interpreted cautiously.

Finally, we have only one overall cost figure for each project, but numerous dependent variables of interest. When you analyze each dependent variable separately, this in effect says that the total cost of the project's services are being counted as contributing to the client's performance only on this one variable/outcome. If you then analyze four dependent variables (outcomes) separately, you greatly exaggerate the cost of producing each single outcome. For this reason we urge the readers to consider Tables VI-7 through VI-12 as a group. A literal interpretation of cost will not be as appropriate as a comparative one.

Constructing Indexes of Outcomes. To compensate for the redundancy in single-outcome analyses, we have constructed two indexes of project outcomes, one for pregnancy outcomes and one for 12-month outcomes. Even this approach leaves much redundancy, since the same cost information is being applied to two different indexes for the same individual. However, problems with missing data make it unadvisable to try to create an index with more than three outcome variables. The index for pregnancy outcomes summarizes the incidence of low birth weight babies, mother's pregnancy complications, and mother's school status at delivery for clients delivering in the projects only. The index for 12-month outcomes summarizes repeat pregnancies, welfare dependency,

TABLE VI-7: LOW BIRTH WEIGHT BABIES (< 2500 GRAMS); COST-EFFECTIVENESS COMPARISONS FOR SEVEN ADOLESCENT PREGNANCY PROJECTS

Project[a]	1		2		3		5		6		7		8	
Client Type[b]	D	E	D	E	D	E	D	E	D	E	D	E	D	E
Number of Clients[c]	66	—	106	—	13	—	33	—	60	—	10	—	46	—
Mean Cost Per Client	2282	2093	1831	1294	1580	1931	4384	3171	2500	1464	3919	2090	2054	4134
Rate of Low Weight Births(%)	18.2	—	4.7	—	0.0	—	6.1	—	6.7	—	20.0	—	10.9	—
Number of Clients With Normal Weight Babies	54	—	101	—	13	—	31	—	56	—	9	—	41	—
Average Cost of Services for Each Client With a Normal Weight Baby	2789	—	1922	—	1580	—	4666	—	2679	—	4897	—	2304	—

[a]Numbers correspond to numbers in Appendices A, B, and C. Project 4 did not have usable individual data, although the financial data in the appendices is still valid.

[b]D = delivered clients; E = entry mothers.

[c]These are clients with data recorded on the relevant outcome variables. Readers may wish to interpret these figures in light of the percent of active clients on whom the projects have recorded either 6- or 12-month follow-up data. Information from the aggregate data analysis indicates the following rates of completed follow-ups: Project 2--D = 73 percent, E = 39 percent; Project 3--D = 35 percent, E = 29 percent; Project 5--D = 94 percent, E = 69 percent; Project 6--D = 51 percent, E = 66 percent; Project 7--D = 45 percent, E = 67 percent; Project 8--D = 93 percent, E = 100 percent. Project 1 did not report aggregate data so these rates are not available.

TABLE VI-8: SUMMED PREGNANCY OUTCOMES:[a] COST-EFFECTIVENESS COMPARISONS FOR SEVEN ADOLESCENT PREGNANCY PROJECTS

Project[a] / Client Type[b]	1 D	1 E	2 D	2 E	3 D	3 E	5 D	5 E	6 D	6 E	7 D	7 E	8 D	8 E
Number of Clients[c]	64	—	105	—	13	—	25	—	59	—	10	—	43	—
Mean Cost Per Client	2282	2093	1831	1294	1580	1931	4384	3171	2500	1464	3919	2090	2054	4134
Percent With Summed Score of 1 or 0 (%)	31	—	26	—	0	—	24	—	19	—	10	—	7	—
Number of Clients With Summed Score of 2 or 3	44	—	78	—	13	—	19	—	48	—	9	—	40	—
Average Cost of Services for Each Client With Summed Score of 2 or 3	3319	—	2465	—	1580	—	5767	—	3073	—	4354	—	2208	—

*SUM computed scoring: low birth weight--yes = 0, no = 1; mother's complications—1 or more = 0; none = 1; school status at delivery--dropout = 0, in or graduated = 1. Range = 0 to 3.

[a]Numbers correspond to numbers in Appendices A, B, and C. Project 4 did not have usable individual data, although the financial data in the appendices is still valid.

[b]D = delivered clients; E = entry mothers.

[c]These are clients with data recorded on the relevant outcome variables. Readers may wish to interpret these figures in light of the percent of active clients on whom the projects have recorded either 6- or 12-month follow-up data. Information from the aggregate data analysis indicates the following rates of completed follow-ups: Project 2--D = 73 percent, E = 39 percent; Project 3--D = 35 percent, E = 29 percent; Project 5—D = 94 percent, E = 69 percent; Project 6—D = 51 percent, E = 66 percent; Project 7--D = 45 percent, E = 67 percent; Project 8—D = 93 percent, E = 100 percent. Project 1 did not report aggregate data so these rates are not available.

TABLE VI-9: REPEAT PREGNANCIES BY 12 MONTHS; COST-EFFECTIVENESS COMPARISONS FOR SEVEN ADOLESCENT PREGNANCY PROJECTS

Project[a] / Client Type[b]	1 D	1 E	2 D	2 E	3 D	3 E	5 D	5 E	6 D	6 E	7 D	7 E	8 D	8 E
Number of Clients[c]	67	12	107	9	16	12	34	46	62	78	10	12	48	2
Mean Cost Per Client	2282	2093	1831	1294	1580	1931	4384	3171	2500	1464	3919	2090	2054	4134
12-Month Pregnancy Rate (%)	7.5	8.3	7.5	11.1	0.0	8.3	0.0	4.4	11.3	7.7	0.0	16.7	2.1	—
Number of Clients Not Getting Pregnant	62	11	99	8	16	11	34	44	55	72	10	10	47	—
Average Cost of Services for Each Client With no Subsequent Pregnancy by 12 Months	2466	2283	1979	1456	1580	2107	4384	3315	2818	1586	3919	2508	2098	—

[a]Numbers correspond to numbers in Appendices A, B, and C. Project 4 did not have usable individual data, although the financial data in the appendices is still valid.

[b]D = delivered clients; E = entry mothers.

[c]These are clients with data recorded on the relevant outcome variables. Readers may wish to interpret these figures in light of the percent of active clients on whom the projects have recorded either 6- or 12-month follow-up data. Information from the aggregate data analysis indicates the following rates of completed follow-ups: Project 2--D = 73 percent, E = 39 percent; Project 3--D = 35 percent, E = 29 percent; Project 5--D = 94 percent, E = 69 percent; Project 6--D = 51 percent, E = 66 percent; Project 7--D = 45 percent, E = 67 percent; Project 8--D = 93 percent, E = 100 percent. Project 1 did not report aggregate data so these rates are not available.

TABLE VI-10: EDUCATIONAL ATTAINMENT BY 12 MONTHS; COST-EFFECTIVENESS COMPARISONS FOR SEVEN ADOLESCENT PREGNANCY PROJECTS

Project[a]	1		2		3		5		6		7		8	
Client Type[b]	D	E	D	E	D	E	D	E	D	E	D	E	D	E
Number of Clients[c]	65	12	107	8	16	12	33	46	62	79	10	12	48	2
Mean Cost Per Client	2282	2093	1831	1294	1580	1931	4384	3171	2500	1464	3919	2090	2054	4134
Percent of Clients Neither in School or Graduated at 12 Months (%)	52	42	45	75	19	0	21	28	63	42	20	50	23	--
Number of Clients in School or Graduated	31	7	59	2	11	12	26	33	23	46	8	6	37	--
Average Cost of Services for Each Client in School or Graduated by 12 Months	4743	3588	3321	5176	2298	1931	5563	4420	6739	2514	4899	4180	2665	--

[a]Numbers correspond to numbers in Appendices A, B, and C. Project 4 did not have usable individual data, although the financial data in the appendices is still valid.

[b]D = delivered clients; E = entry mothers.

[c]These are clients with data recorded on the relevant outcome variables. Readers may wish to interpret these figures in light of the percent of active clients on whom the projects have recorded either 6- or 12-month follow-up data. Information from the aggregate data analysis indicates the following rates of completed follow-ups: Project 2--D = 73 percent, E = 39 percent; Project 3--D = 35 percent, E = 29 percent; Project 5--D = 94 percent, E = 69 percent; Project 6--D = 51 percent, E = 66 percent; Project 7--D = 45 percent, E = 67 percent; Project 8--D = 93 percent, E = 100 percent. Project 1 did not report aggregate data so these rates are not available.

TABLE VI-11: WELFARE DEPENDENCY AT 12 MONTHS; COST-EFFECTIVENESS COMPARISONS FOR SEVEN ADOLESCENT PREGNANCY PROJECTS

Project[a] / Client Type[b]	1 D	1 E	2 D	2 E	3 D	3 E	5 D	5 E	6 D	6 E	7 D	7 E	8 D	8 E
Number of Clients[c]	11	3	64	3	11	10	14	35	18	37	—	4	25	—
Mean Cost Per Client	2282	2093	1831	1294	1580	1931	4384	3171	2500	1464	3919	2090	2054	4134
Welfare Rate (%)	82	67	25	67	82	100	100	97	83	54	—	100	88	—
Number of Clients Not on Welfare	2	1	48	1	2	0	0	1	3	17	—	0	3	—

[a]Numbers correspond to numbers in Appendices A, B, and C. Project 4 did not have usable individual data, although the financial data in the appendices is still valid.

[b]D = delivered clients; E = entry mothers.

[c]These are clients with data recorded on the relevant outcome variables. Readers may wish to interpret these figures in light of the percent of active clients on whom the projects have recorded either 6- or 12-month follow-up data. Information from the aggregate data analysis indicates the following rates of completed follow-ups: Project 2--D = 73 percent, E = 39 percent; Project 3--D = 35 percent, E = 29 percent; Project 5--D = 94 percent, E = 69 percent; Project 6--D = 51 percent, E = 66 percent; Project 7--D = 45 percent, E = 67 percent; Project 8--D = 93 percent, E = 100 percent. Project 1 did not report aggregate data so these rates are not available.

TABLE VI-12: INDEX* OF REPEAT PREGNANCY, EDUCATIONAL ATTAINMENT, WELFARE DEPENDENCY AT 12 MONTHS; COST-EFFECTIVENESS COMPARISONS FOR SEVEN ADOLESCENT PREGNANCY PROJECTS

Project[a] / Client Type[b]	1 D	1 E	2 D	2 E	3 D	3 E	5 D	5 E	6 D	6 E	7 D	7 E	8 D	8 E
Number of Clients[c]	66	12	103	9	15	12	34	46	62	79	10	12	48	—
Mean Cost Per Client	2282	2093	1831	1294	1580	1931	4384	3171	2500	1464	3919	2090	2054	4134
Percent with Index Score of 1 or 0 (%)	56	42	32	78	13	8	24	28	63	35	20	58	25	—
Number of Clients With Index Score of 2 or Higher	29	7	75	2	13	11	26	33	23	51	8	5	36	—
Average Cost of Services for Each Client With Index Score of 2 or Higher	5194	3588	2512	5823	1823	2107	5732	4420	6739	2268	4899	5016	2739	—

*INDEX computed scoring: repeat pregnancy--yes = 0, no = 1; on welfare--yes = 0, no = 1; educational attainment--neither in school or finished by 12 months = 0, in school = 1, graduated = 2, graduated and in an other program = 3. Possible range = 0 to 5. Missing data are counted as zeros; that is, they count against the client.

[a]Numbers correspond to numbers in Appendices A, B, and C. Project 4 did not have usable individual data, although the financial data in the appendices is still valid.

[b]D = delivered clients; E = entry mothers.

[c]These are clients with data recorded on the relevant outcome variables. Readers may wish to interpret these figures in light of the percent of active clients on whom the projects have recorded either 6- or 12-month follow-up data. Information from the aggregate data analysis indicates the following rates of completed follow-ups: Project 2--D = 73 percent, E = 39 percent; Project 3--D = 35 percent, E = 29 percent; Project 5--D = 94 percent, E = 69 percent; Project 6--D = 51 percent, E = 66 percent; Project 7--D = 45 percent, E = 67 percent; Project 8--D = 93 percent, E = 100 percent. Project 1 did not report aggregate data so these rates are not available.

and educational attainment at 12 months after delivery for both delivered clients and entry mothers. Both indexes count missing data on any variable as a "zero" or negative outcome on that variable--that is, missing data count against the client or project.

Calculating Average Cost per Client. The average-cost-per-client figures used in Tables VI-7 through VI-12 are based on individual client data combined with cost figures as given in Appendix A. For each client, the cost of a unit of service was multiplied by the number of units of that service actually recorded as having been given to that client. The resulting cost per client was then summed across all clients in a given group (delivered clients or entry mothers) and divided by the number of clients in that group for each project. These average-cost-per-client figures are thus different from those reported earlier in this chapter, which were estimates from aggregate data and average service packages rather than calculations based on each client's actual receipt of services. The average-cost-per-client figures in Tables VI-7 through VI-12 are thus as precise as we are capable of producing from the several data sets and cost information available to us.

Pregnancy Outcomes

Table VI-7 reports cost-effectiveness comparisons for seven projects on the frequency of low birth weight babies born to girls who entered the projects pregnant and delivered in the projects. Table VI-8 reports an index of pregnancy outcomes combining low birth weight, mother's complications, and mother's school status at delivery. As Table VI-7 indicates, projects varied in the frequency with which their clients gave birth to low birth weight babies, ranging from a low of zero (Project 3) to a high of 20 percent. These rates of success influence the average cost of services for each successful

client (one who delivers a normal-weight baby), but not greatly. The three least expensive projects are still the least expensive and the three most expensive are still the most expensive. Project position relative to each other changes no more than one rank for any project. (Table VI-13 gives rank order by "cost effectiveness" for all outcomes reported in Tables VI-7 through VI-12.)

The constructed dependent variable summarizing three pregnancy outcomes reported in Table VI-8 confirms that the relative ranks of the seven projects remain much the same when several pregnancy outcomes are considered together. In terms of the meanings of the outcomes themselves (as opposed to what they cost), we considered positive scores on two out of the three summed outcomes to be a "success." Projects range from having no failures (Project 3) to a 31 percent "failure" rate (Project 1). However, two of the projects with very low failure rates on this summed pregnancy outcome index also have very few clients in their data base, and the lowest proportion of clients on whom follow-up data are available. These facts suggest extreme caution in attributing great success to these projects. On the other hand, Project 8 has a good success rate and a very high rate of completed data on all clients; findings for this project can therefore be more reliably interpreted as indicating project success at reasonable cost.

Table VI-8 also indicates a great range of costs for each successful client. The cheapest project spends under $1600 per successful client, whereas the most expensive project spends slightly under $6000--more than three and a half times as much. As explained earlier in this chapter, fixed costs of medical services (preganancy and delivery) and school account for much of these differences, and are beyond the projects' control. The data do

TABLE VI-13: PROJECT RANK BY AVERAGE COST AND COST-EFFECTIVENESS FOR DIFFERENT OUTCOME VARIABLES

Project	Average Cost D	Average Cost E	Low Birth Weight	Summed Pregnancy Outcomes	Second Pregnancies D	Second Pregnancies E	Educational Attainment D	Educational Attainment E	12-Month Index D	12-Month Index E
1	4	4.5	5	5	4	4	4	3	5	3
2	2	1	2	3	2	1	3	6	2	6
3*	1	3	1	1	1	3	1	1	1	1
5	7	6	6	7	7	6	6	5	6	4
6	5	2	4	4	5	2	7	2	7	2
7*	6	4.5	7	6	6	5	5	4	4	5
8	3	–	3	2	3	–	2	–	3	–

*Figures based on very few cases (fewer than 15), and probably unstable.

suggest that it might be possible to "shop around" for the best-priced package of medical care, since this influences total cost to such a great degree.

12-Month Outcomes

Tables VI-9 through VI-12 report cost-effectiveness comparisons for three 12-month outcome variables taken one at a time (Tables VI-9, VI-10, and VI-11) and a summary index of all three. As discussed earlier, the cost figures reported in the tables taking one variable at a time greatly exaggerate the cost of producing a given outcome. The cost-effectiveness information in Table VI-12 will more accurately reflect what projects paid to help a client achieve good outcomes on a number of important variables simultaneously. This of course reflects much more appropriately the process projects actually pursue, since they work with clients to affect several outcomes at once, and all services given can be seen as influencing several outcomes simultaneously.

Table VI-9 shows cost-effectiveness comparisons for repeat pregnancies by 12 months postpartum. This variable takes into account a client's pregnancy status at 6 months postpartum and at 12 months postpartum. If the client experiences a subsequent pregnancy at either of these times, she is counted as a "failure." For delivered clients, three projects report data indicating that none of their delivered clients experienced repeat pregnancies by 12 months postpartum. The project least successful at preventing repeat pregnancies shows only an 11 percent failure rate among delivered clients. Success with entry mothers was slightly more difficult, with failure rates ranging from a low of 4.4 percent to a high of 16.7 percent. Average costs for each successful client increase, of course, over the average cost for all clients, but failure rates do not change the relative rank of any project for delivered clients. Rankings with respect to entry mothers do change, with

Project 6 doing substantially better with entry mothers than with delivered clients and Project 3 doing somewhat less well. Average costs for a "success" with delivered clients vary by a factor of almost 2.8 from the least to the most expensive, while those for entry mothers vary by a factor of almost 2.3.

Table VI-10 reports educational attainment by 12 months postpartum. This variable combines a client's performance at 6 months with that at 12 months, such that being in an educational program at either 6 or 12 months was scored as a "1," having completed an educational program at either 6 or 12 months was scored as a "2," having done both received a "3," and having done neither (being a dropout) received a score of "0." "Failure" is a score of "0"—being neither in an educational program or graduated from one. Any other score on the variable counts as a success.

Projects reported success rates ranging from 37 percent to 81 percent for delivered clients and from 25 percent to 100 percent for entry mothers.[4] Average costs for a "success" varied significantly from those for all clients for both delivered clients and entry mothers. Five projects change relative positions by one or more ranks on average costs for successful delivered clients, and one project (Project 2) that does quite well with delivered clients slips from first place on overall average cost for entry mothers to sixth place. The average cost of a success varies by a factor of 2.9 for delivered clients and by a factor of 2.7 for entry mothers.

Another thing evident from Table VI-10 is the differential success projects have with the two types of clients. Some projects do much better

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[4]Project 3 was a school-based project, so for the most part participation also meant being in school. This condition is not true for the other six projects. Findings should be interpreted in light of this fact.

with delivered clients than with entry mothers (Projects 2 and 7) while two projects (Project 1 and especially Project 6) do better with entry mothers than with their delivered clients. These project variations in their ability to help particular types of clients have implications for the design of future projects targeted to specific populations. As we saw in Chapter V, different factors appear to operate in affecting outcomes for delivered clients and entry mothers. Here we have further evidence that these clients have different needs and circumstances, and that some projects are better with some types of clients than with others.

Table VI-11 presents data on welfare dependency, but omits calculations of cost effectiveness. The table is included to show that independence from welfare appears to be an unrealistic goal for clients of these projects at 12 months postpartum. Only Project 2 shows outcomes indicating that anywhere near a majority of clients are independent of welfare at 12 months and that project has several unique features that explain these figures independent of project effort. It may be that support from welfare enables project clients in these seven projects to continue with their schooling and develop the motivation to avoid subsequent pregnancies. In the long run, completion of schooling will contribute more to self-sufficiency than what is perhaps premature insistence on independence from welfare as an outcome variable.

Table VI-12 presents the index of 12-month outcomes (repeat pregnancy, educational attainment, and welfare dependency) for our seven projects. A client would score as a failure on this index (score of "1" or "0") if she experienced positive outcomes on only one, or on none, of the three variables comprising the index). If she experienced positive outcomes on two or more outcome variables, she is counted as a success.

Projects show success rates ranging from 37 percent to 87 percent for delivered clients, and from 22 percent to 92 percent for entry mothers. (The highest success rates in both instances are again with Project 3, and the same caveats apply to these data as we cited when discussing the data in Tables VI-8 and VI-10.) Success rates affect average costs for a successful client for delivered clients. Two projects change relative position by two ranks and one project changes one rank. Changes in cost-effectiveness rank are even more dramatic with respect to entry mothers. For these clients the overall least expensive project moves to become the most expensive and several other projects shift one or two ranks as well. Average cost for a successful delivered client at 12 months varies by a factor of 3.7—from $1823 to $6739. Average cost for a successful entry mother at 12 months varies from $2107 to $5823—a factor of 2.8. Removing Project 3 from these calculations still leaves a variation from $2515 to $6739 (a factor of 2.7) for delivered clients and a variation from $2268 to $5823 (a factor of 2.6) for entry mothers. Clearly projects incur very different costs in helping teen parents achieve successful outcomes, just as they are differentially successful at producing the outcomes themselves.

Conclusions

Table VI-14 summarizes these cost-effectiveness analyses, showing both the increased dollar outlay for a successful client in the seven projects and the percentage increase these dollars represent over the project's average cost for all clients. In this table the differences between the more successful and less successful projects show up rather dramatically. Looking at the results for the variable measuring summed 12-month outcomes, we can see that Project 6 spends an extra $4239, or 170 percent of its base rate, for

TABLE VI-14: COMPARISON OF "PER-PERSON" COSTS VERSUS "PER-SUCCESS" COSTS

	Project						
	1	2	3	5	6	7	8
Summed Pregnancy Outcomes[a]							
Per-person costs ($)	2282	1831	1580	4184	2500	3919	2054
Per-success costs ($)	3319	2465	1580	5767	3073	4354	2208
Difference							
$	1037	634	0	1383	573	435	154
%	45	35	0	32	23	11	7
Summed 12-Month Outcomes[b]							
Delivered Clients							
Per-person costs ($)	2282	1831	1580	4384	2500	3919	2054
Per-success costs ($)	5194	2512	1823	5732	6739	4899	2739
Difference							
$	2912	681	243	1348	4239	980	685
%	128	37	15	31	170	25	33
Entry Mothers							
Per-person costs ($)	2093	1294	1931	3171	1464	2090	—
Per-success costs ($)	3588	5823	2107	4420	2268	5016	—
Difference							
$	1495	4529	176	1249	804	2926	—
%	71	350	9	39	55	140	—

[a]Compare to Table VI-8.

[b]Compare to Table VI-12.

each successful delivered client, but has a much lower increase against a much lower base for its entry mother clients. Project 2 exhibits the reverse pattern, having a 350 percent increase over its base rate for each successful entry mother, but only a 37 percent increase for each delivered client. Other projects, except for Project 5, show a similar but less extreme pattern.

Managers of these projects would use these cost-effectiveness figures to begin raising the issue of why they do so much better with one type of client than with another. A thorough examination of this issue would probably then lead to program modification to try to correct the difficulties. Program managers might also use these figures to identify projects that do particularly well with clients with whom the manager's project has not had much success. Exchange of program design information across projects should increase the ability of all projects to serve more types of clients well (or else to decide to refer certain clients to projects that have exceptional success with people in their particular circumstances).

Funders will also find these data helpful, since they give the range in price for "success" that emerges from a fairly representative group of projects from around the country. Funders can weigh these prices against the probable long-term public and human cost of <u>not</u> assisting young mothers in making decisions about which programs to support.

CHAPTER VII

LESSONS FROM PROJECT IMPLEMENTATION EXPERIENCES

During the course of the Urban Institute's contact with OAPP-funded projects, we learned what it takes to start and run a teen pregnancy and parenting project. This chapter and the following one incorporate our impressions of project implementation, on-going service delivery, management, and organization. They marshal these impressions into suggestions for project funders about what kinds of help projects could use at start-up and for on-going operational effectiveness. In this chapter we make a variety of suggestions for helping new projects. Chapter VIII addresses similar issues for ongoing projects. These suggestions are directed to any agency—federal, state, or local—considering funding for adolescent pregnancy programs. Communities thinking about developing such programs should also find them relevant and important to their own deliberations.

Several conclusions emerged from the Urban Institute's review of implementation activities. All grantees began to serve clients during their first year of OAPP project operation, although some had considerable difficulty achieving full operational status. Establishing the interagency coordination necessary to deliver comprehensive services proved time-consuming for all, and difficult for some. Internal client management, including mechanisms to assure that all clients receive the comprehensive services they need, also was troublesome to a significant number of grantees.

When we first laid out our evaluation plan for the OAPP programs, we distinguished between three successive evaluation phases:

(1) Implementation—Has the project begun operations and stabilized enough to make evaluation meaningful?

(2) Process--Does the program deliver services? How many? To whom? What types?

(3) Outcome--Does the program make a difference for its clients? On how many of its stated objectives?

This framework assumes that it is pointless to evaluate program process or outcome until a project is fully implemented. That is, a model of service delivery must be operational and stable before we ask whether it works and provides care to clients. Furthermore, outcome-oriented program evaluation, which asks what difference a project has made in clients' lives, makes little sense if the program input (e.g., services delivered) cannot be fully documented. For this study the Urban Institute developed indicators for all three aspects of program performance--implementation, process, and outcome. All the projects had at least one year's implementation experience; here we highlight the implications of these experiences for funders.

Although most of the projects have demonstrated remarkable vitality, we will focus on the difficulties many have encountered in becoming fully operational. Some of the difficulties are common to most projects, some are unique. A few projects have shown impressive flexibility in the face of adversity. From these experiences we can learn how to anticipate and respond to the implementation problems typically faced by adolescent pregnancy programs.

We discuss these problems as they relate to the projects' attempts to achieve the legislative objectives of P.L. 95-626 for program implementation (similar objectives are found in P.L. 97-35):

- to establish better coordination, integration, and linkages among existing programs;
- to expand and improve the availability of and access to needed comprehensive services; and

- to promote innovative, comprehensive, and integrated approaches to the delivery of such services.

Agency Coordination and Linkages

In the fall of 1980, when we made our initial site visits to 22 projects supported with FY 1980 funds, we asked how they began and the difficulties they encountered. Twelve projects told us about the problems they faced in getting agencies to work together on the grant application or on program development. Among these difficulties, "turf problems" and "competition" among agencies for OAPP grant monies were frequently mentioned. Another five projects appeared to have circumvented these problems by spending a significant amount of time, usually at least one year, getting agencies together to discuss and plan the project prior to receiving funding. Three other projects were located in established programs which already had long-standing good relationships with other community agencies. Two projects were unable to talk about the background of the project or difficulties because the staff were new.

It appears that initial agency coordination problems are endemic to adolescent pregnancy programs. This happens because the appropriate service approach for pregnant teens and teen mothers requires coordination of at least three service sectors in the community which typically operate autonomously from one another--the medical system, the school system, the social service system. It takes a lot of meetings and discussions to work out whether, and how, these agencies will change their standard operating procedures. Time is therefore a critical ingredient--time to discover all the problems that coordination will inevitably produce and time to find satisfactory solutions. When community agencies have not held these discussions prior to receiving funds, they must do so afterwards. However, allowing sufficient

time for coordination becomes difficult after receiving funds because of internal and external pressures to hire staff and to start delivering services.

Some OAPP-funded projects had started the discussion process prior to the grant award but much remained to be resolved. Initial interagency discussions had resulted in agreements about how the grant monies would be distributed between agencies and which services the agencies would specialize in. However, in many projects mechanisms of interagency coordination which ensure that services are coordinated for each individual client had not been developed. When the Urban Institute provided technical assistance to these projects in the use of a case management system, these deficiencies became clear. Projects needed to answer such questions as: "What services do clients get from different agencies in the community?" "What happens to a client at delivery and one or two years later?" "How do you ensure that clients are not lost in the system?" If information-sharing mechanisms had not yet developed between agencies (and sometimes within the grantee agencies themselves), the need for information about clients pushed projects to start these discussions. It further established the need to account for every client.

The authorizing legislation for OAPP projects assumed the need for agency coordination to assure that individual clients benefit from a full range of services, without duplicating services or having clients "fall through the cracks." Any funder with this goal must ask itself whether it wants to fund initial (and necessary) planning activities that ensure agency coordination. Whether or not a funding agency explicitly supports planning activities, it should provide more specific guidelines and technical assistance to both

prospective and actual grantees about what interagency coordination really requires--how to get agencies to work together in ways that differ significantly from standard operating procedures.

Options funding agencies may wish to consider are:

1. Only fund programs that provide clear evidence that they have resolved agency coordination problems. Indicators of full coordination are agreements and mechanisms in place to share information about individual clients and to assign case management responsibility.

2. Fund planning grants so that community agencies can devote adequate time and effort to program development and coordination. These should be low-cost, one-person-year efforts.

3. Provide clear guidance to prospective grantees about the full meaning of interagency cooperation and coordination.

4. Provide technical assistance to prospective and/or actual grantees to help then achieve interagency cooperation and coordination.

5. Encourage new grantees to spend the first two or three months working out interagency coordination problems before hiring all the service staff and recruiting clients.

6. Examine practices of the funding agency itself which could potentially hinder or facilitate strong project development:

   a. the importance placed on projects serving large numbers of clients early in their existence;

   b. the timeliness of the funder's response to project requests for assistance or guidance;

   c. the degree of flexibility which projects are given to develop interagency coordination efforts which respond to local conditions;

   d. the extent of funder involvement in individual projects' management decisions (e.g., hiring/staffing decisions, physical location, and facilities decisions).

Expansion of Availability and Access of Comprehensive Services

A number of projects demonstrated difficulties in assuring that comprehensive services were delivered to their clients. Both P.L. 97-35 and P.L. 95-626 specify that projects should "expand and improve the availability of and access to needed comprehensive services." Interpretations of this mandate varied considerably from project to project, perhaps because of a lack of clarity about what comprehensive service approaches require. We suspect that some projects read the mandate without giving any emphasis to the concept of comprehensiveness. In doing so, they focused their efforts on expanding existing services without examining whether the services were indeed comprehensive and/or whether the services actually got to the clients who needed them.

Evidence for this conclusion comes from our initial visits during the summer and fall of 1981, when projects had their grants since October 1980. We found that:

- four projects could not identify who their clients were;
- fourteen projects could not tell us what services clients received on a client-by-client basis;
- fifteen projects would not be able to report medical complications at birth and the health status of mother and infant because they could not access necessary medical records (this group included some hospitals); and
- six projects would not be able to report what happened to clients after their babies were delivered because they had no plans to follow clients after delivery.

These figures changed substantially as a result of our technical assistance visits because many projects implemented the procedures necessary to ensure that clients received needed services and projects could document their activities. However, initially many projects had not confronted the

programmatic necessity of knowing what services individual clients had received in order to determine what else the client needed. Also, a few projects did not think it was necessary to ensure that services were delivered to clients after the baby's birth.

We would argue that to expand the availability and access of comprehensive services, projects must both assess the individual needs of their clients and provide or arrange services to meet those needs. Such an approach demands active, rather than passive, involvement with clients. It means that a project does more than simply offer the ten core services and hope that clients get to them. Someone must assume responsibility for monitoring individual cases to make sure that clients get available services according to their needs. (Of course, clients always have the option of refusing services.) This case management approach ensures that needed services are offered to all clients.

Attention to assigning case management responsibility is important for all types of service models (networks, single site, multiple primary, and combinations). Even when all the core services are available at a single site, some mechanism should be in place to make sure that individual clients get the services they need. We found that case management in hospital-based projects offers a special challenge. We discovered that hospitals have difficulty with case management, although a number of the hospital-based projects have attempted to improve their ability to manage client cases. The traditional organization of hospitals, with distinct divisions of responsibility according to medical specialties, makes it extremely difficult for these projects to identify their clients and to account for clients' passage through different services. Furthermore, these programs seemed to

have the most problem insuring that all clients delivering in their program get services--even health services.

A critical issue for hospitals, once the need for case management is acknowleged, is who should do it. Traditionally in hospitals physicians have the final word in ordering services. The high costs of a physician as the case manager requires that alternative approaches be utilized.

Although we believe that it is tremendously important for projects to develop case management mechanisms, we would anticipate substantial variations among projects in how case management is organized. Funding agencies might consider funding a variety of case management models so that their relative effectiveness and efficient use of resources can be tested. The basic ingredients of a case management mechanism--whatever its structure--are:

(1) a way of identifying all clients served by the project;

(2) a means of determining which services are delivered to these clients, both through the project and by referral agencies;

(3) assignment of the responsibility to offer particular services to individual clients when these appear to be needed;

(4) a method for confirming receipt of services, determining whether clients are falling through the cracks--not showing up for appointments, for example.

Furthermore, we would urge funders to encourage projects to provide or arrange services that extend beyond the birth of the baby. It is difficult to see how projects which do not maintain contact with a majority of their clients postpartum will be able to insure that the important gains made by the project are maintained and that clients meet long-term goals of independence and productivity.

Specific options a funder might consider are:

(1) provide clear guidance to prospective and actual grantees that their commitment to provide comprehensive services includes

their acceptance of responsibility for case management before and after the birth of the baby;

(2) fund demonstration projects which offer alternative solutions for a number of unresolved service issues:

(a) different models of case management,

— different types of personnel responsible for case management

— utilization of management information systems in case management

(b) different models of services extended beyond the birth of the baby,

— length of follow-up period

— different mechanisms to handle follow-up services

(c) different comprehensive service packages,

(d) control groups to provide appropriate comparisons.

Innovative, Comprehensive and Integrated Approaches

Our discussion of projects in terms of this final mandate is specific to agencies funding research and demonstration projects. It is also of necessity more qualitative. Project innovativeness is an elusive concept, often gauged in terms of the assessor's experience. Our experience working with the diverse group of OAPP-funded projects leads us to the following observations, which may help funding agencies to fulfill their legislative or other mandate.

We have noted above that a few projects did not understand that OAPP funding required more than a business-as-usual approach to delivering services. OAPP can expect to receive many more such applications because agencies across the country may try to maintain their established service efforts with new OAPP dollars. The challenge for OAPP and for other funders which also have research and demonstration goals will be to distinguish between these applications to find those which:

- offer the opportunity to experiment with important service delivery issues through existing and new service efforts;
- are committed to a research and demonstration effort.

Repackaging existing community services into a new comprehensive program for teens is not an undesirable effort. The key is to distinguish between a true realignment of agency responsibilities, combined with a working understanding of interagency cooperation and coordination, and a primarily linguistic rearrangement of community services. From our contact with the OAPP-funded programs we have observed both strong and weak models of interagency coordination. The critical difference involves a formal, operationalized commitment to joint service; if the agency won't commit itself at the proposal stage to give particular attention to any and all "project" clients and share the case management and record-keeping responsibilities, it is unlikely to agree to do so after the grant award. It is a worthwhile investment to push agencies to explain the newness of their individual approach or the depth of their joint approach to serving teens.

The second crucial issue in reviewing research and demonstration service applications is the proposal's relevance to important service delivery issues. We have discussed above the questions surrounding comprehensive service delivery, "What is a comprehensive package of services, and how is its delivery best assured?" When resources are scarce, one needs to ask what is the <u>least</u> a project needs to do to achieve the desired impact on teens and their children. Funders may want to support projects featuring a range of service packages, to best explore the importance of particular service components. The financial analysis of existing projects and the process and outcome evaluation results described in other chapters of this report provide some initial input to this issue.

We would also encourage funding agencies to consider funding limited (less than comprehensive) service projects in communities where the existing services system is not well developed. Most of the existing projects must rely on community agencies to fill out their service capacity. Communities with poor community services have little hope of mounting full-fledged comprehensive service approaches, and hence are not currently eligible for funding through OAPP. Yet the residents of these communities might benefit most from an infusion of service dollars. Tied to a research and demonstration effort, such limited projects might provide clues about how to most effectively serve adolescents in these communities, on a less than fully "comprehensive" basis.

The extent of a grantee's commitments to a research and demonstration effort is the final broad criterion to be applied to funding applications. Projects should demonstrate a solid comprehension of research methodology, from sampling to hypothesis testing to analysis, to distinguish them from the direct service delivery models that have been supported in the past. Documenting service delivery should be a significant activity, as the critical link between interacting with clients and proving you have helped them. Further, applicants should be able to identify immediate uses for their own research and demonstration findings, as a testimony to the community-wide commitment to improve services to teens.

The difficulties that some FY 1980 OAPP projects experienced in implementing programs which fulfill the mandate of P.L. 95-626 and 97-35 have been described. We would encourage funders and programs to consider these descriptions of project difficulties as an invitation to find creative solutions to problems many adolescent pregnancy programs face.

CHAPTER VIII

OAPP'S LEGISLATIVE MANDATE

This chapter explores the management and coordination functions of the Office of Adolescent Pregnancy Programs. In doing so, it also summarizes the common organizational and management issues encountered by OAPP projects and draws conclusions about the varieties of technical assistance that might help similar projects function better. We have structured this report around the major legislative objectives of Title VI and VII of the Health Services and Centers Amendments of 1978, P.L. 95-626, and the corresponding sections of the 1981 authorizing legislation, Title XX of the Public Health Services Act, P.L. 97-35 (Adolescent Family Life Demonstration Projects). Although these observations pertain most directly to projects funded under the old legislation and to OAPP activities while operating under that authority, enough similarities of purpose remain in the new legislation to warrant using the lessons of the past to guide future activity.

Effectively, Title XX retained the major legislative objectives of Title VI and VII which we have used to structure this report. However, Title XX significantly broadened the scope of OAPP to include more emphasis on preventing adolescent sexual activity and pregnancy, and further strengthening the role of parents in preventing pregnancies and supporting adolescent parents. In addition, Title XX has a research and demonstration focus in comparison to the earlier Titles, which were more oriented toward providing a federal role in the ongoing support of projects for pregnant adolescents.

The information reported here comes from projects operating under the old legislative goals; however, to a large extent these goals continue in the new legislation. Hopefully, the observations contained in this report will be of

value to the Office of Adolescent Pregnancy Programs as it continues to carry out its mandate to support research and demonstration programs for pregnant and parenting adolescents. The Office's new role in the prevention of adolescent pregnancy is not discussed.

We discuss the Office's performance on five policy issues legislatively mandated by both the earlier Titles VI and VII and also the later Title XX. For each policy issue, we state the issue and cite the relevant part of the legislation, discuss relevant findings, and suggest directions for further OAPP activity. Sources of information for this analysis are primarily the Urban Institute's contacts with OAPP grantees from October 1980 through September 1982. Discussions occurred with the grantees in the fall of 1980 and May 1981. In addition, all projects were visited and trained to use the Urban Institute-developed case management system in the summer and fall of 1981. Most also received technical assistance visits in the spring of 1982. During all these visits we observed grantee progress and problems and talked with them about how they were getting along. A final source of information is the aggregate program statistics that projects compiled from their own case management systems for each quarter of FY 1982. These data, reported in other chapters of this report, reflect the degree to which programs have achieved a comprehensive level of service delivery.

The Urban Institute worked with OAPP from October 1, 1980 through April 30, 1983. The top administration of the Office changed early in this period, although many of the support staff remained constant during this time frame. Only four grantees, those first funded with FY 1979 appropriations, worked for a significant period of time under both administrations. Most of the FY 1980 projects had brief experience with the earlier administration at

the beginning of their grant periods. In addition to this changing of the guard, from early 1981 through fall 1982, the Office experienced considerable uncertainty related to its future existence, funding, and functions. The grantees, in turn, were confronted with similar problems. A satisfactory resolution to funding difficulties was reached with passage of P.L. 97-35. Since late 1982 the Office has functioned with some project personnel responsible for care projects and other personnel responsible for prevention projects.

II. Policy Issues

A. ISSUE: Legislative and Policy Recommendations and Modifications

Legislative Mandate: P.L. 95-626, Section 701(a) (corresponding to Section 2007(a)(1) and (3) of Title XX, Public Health Services Act)

The Secretary shall —

(1) require that grantees under Title VI report periodically on Federal, State, and local programs or policies that interfere with the delivery and coordination of pregnancy prevention and pregnancy-related services to adolescents;

(3) recommend legislative modifications of programs of the Department of Health, Education, and Welfare that provide pregnancy-related services in order to facilitate their use as a base for delivery of more comprehensive pregnancy prevention and pregnancy-related services to adolescents.

There has, of course, been considerable flux in federal and state programs. A number of federal programs utilized by the grantees to put together supportive services for pregnant adolescents were altered by the Omnibus Budget Reconciliation Act of 1981 (P.L. 97-35). These include AFDC, Medicaid, WIC, Food Stamps, Title XX (now Social Services Block Grant), and a variety of other programs. The changes in regulations and policies were slow to filter down to the local level for implementation, and several grantees noted that they might have been better prepared for changes if they had been

alerted to them earlier. This comment has implications for OAPP's relationships with future grantees. As changes in federal programs occur, OAPP could disseminate information about these changes so projects could have more lead time to develop alternative approaches to providing services for adolescents. Furthermore, since OAPP grantees all experienced changes in federal, state, and local programs during 1981 and 1982 and are likely to experience changes in the future, the Office might ask its grantees to provide information on the effects of the changes in their service delivery efforts and might also ask for reports on their successes in securing funding after the OAPP grants run out.

As documented by the replacement of P.L. 95-626 by P.L. 97-35, legislative modification of the program at DHHS occurred with the express purpose of facilitating more comprehensive pregnancy prevention and pregnancy-related services to adolescents. We have already noted that OAPP's function was expanded to address pregnancy prevention more explicitly. Many of the alterations of the Office's legislative mandate occurred with the Office's support. Anticipating a restructured role for the Office, in early 1981 the newly appointed director held open access meetings to obtain a range of views about potential roles for OAPP. The Office's emphasis on pregnancy prevention in addition to supportive services for pregnant adolescents was further strengthened by the appointment of the director to two additional positions, Deputy Assistant Secretary for Populations Affairs and Director of Family Planning.

As the Office turns its attention to pregnancy prevention, it should consider developing administrative mechanisms to ensure supportive services for pregnant adolescents. With the dual emphases of pregnancy prevention and

comprehensive service delivery demonstrations for pregnant adolescents, a splitting of staff functions might ensure that both special interests are maintained. Of course, the grantees themselves may offer both types of services, and all office personnel dealing directly with programs should be prepared to deal with most problems of both types of programs.

B. ISSUE: Coordination of Policies and Programs
Legislative Mandate: P.L. 95-626

SECTION 601(b) (corresponding to Section 2001(b)(3) of Title XX, Public Health Services Act)	Therefore, the purposes of this Act are— (1) to establish better coordination, integration, and linkages among existing programs in order to expand and improve the availability of, and access to, needed comprehensive community services which assist in preventing unwanted initial and repeat pregnancies among adolescents to obtain proper care and assist pregnant adolescents and adolescent parents to become productive independent contributors to family and community life, with primary emphasis on services to adolescents who are 17 years of age and under and are pregnant or who are parents;
SECTION 701(a) (corresponding to Section 2007(a)(1) through (5)	The Secretary shall coordinate, consistent with provisions of other Federal law respecting coordination of such policies and programs, providing services related to prevention of initial and repeat adolescent pregnancies. Among other things, the Secretary shall— (1) require that grantees under Title VI report periodically on Federal, State, and local programs or policies that interfere with the delivery and coordination of pregnancy prevention and pregnancy-related services to adolescents; (2) provide technical assistance to assure that coordination by grantees of Federal programs at the State and local level will be facilitated; (3) recommend legislative modifications of programs of the Department of Health, Education, and Welfare that provide pregnancy-related services in order to facilitate their use as a base for delivery of more comprehensive pregnancy prevention-related services.

As noted in this Chapter VIII, many projects encountered start-up difficulties around the problems of interagency coordination and service linkage. From the proposal development stage through the early days of offering comprehensive services to teens, many projects struggled with how to foster the development of service networks among very disparate community agencies. These problems became clear when we began giving the projects technical assistance to use their case management system. We found that projects were often unclear about what services clients received from what agencies, and even more uncertain about what became of clients after they had received the "core" prenatal and postpartum services. These particular difficulties pointed to the underlying need for information-sharing mechanisms between agencies, something which the case management system encouraged projects to develop.

Projects' early linkage problems further pointed to the need for any granting agency to attend to coordination and linkage issues even before funding projects. Because the development of full service networks seems to require up to a year of planning, funders should consider funding planning grants, having projects spend their first few months on coordination before they begin service delivery, or only funding projects that already have their interagency networks fully in place.

Beyond agency coordination at the local level, the Office also funded three statewide projects with FY 1980 appropriations. Now, because money is available at the state level through the new Maternal and Child Health Block Grant, a number of other grantees have also become involved in statewide coalitions to coordinate services for adolescents. These statewide linkages suggest a potential future role for OAPP in assisting states to coordinate

prevention and support services for adolescents. A preliminary step in defining OAPP's role might be to determine what states are currently doing to coordinate, plan, and develop pregnancy and parenting services for adolescents.

C. Nonduplication of Services Available under other Federal Programs: Adequate Integration and Linkage of Available Services

Legislative Mandate: P.L. 95-626

SECTION 601(a) (corresponding to Section 2004(a)(1) through (4) of Title XX, Public Health Services Act)	Funds provided under this Act may be used by grantees only to— (1) provide core services to eligible persons; (2) coordinate, integrate, and provide linkages among providers of core, supplemental, and other services for eligible persons in furtherance of this Act; (3) provide supplemental services where such services are not adequate or not available to eligible persons in the community and which are essential to the care of pregnant adolescents to the prevention of adolescent pregnancy; (4) plan for the administration and coordination of pregnancy prevention and pregnancy-related services for adolescents (including family life and sex education), which will further the objectives of this Act.
SECTION 605(a) (corresponding to Section 2005(a)(4) through (7)	In approving applications for grants under this Act, the Secretary shall give priority to applicants who— (4) will utilize to the maximum extent feasible, existing available programs and facilities such as neighborhood and primary health care centers, family planning clinics, children and youth centers, maternal and infant health centers, regional rural health facilities, school and other educational programs, mental health programs, nutrition programs, recreation programs, and other ongoing pregnancy prevention and pregnancy-related services; (5) make use, to the maximum extent feasible, of other Federal, State and local funds, programs, contributions, and other third-party reimbursements;

> (6) can demonstrate a community commitment to the program by making available to the project non-Federal funds, personnel, and facilities; and
>
> (7) have involved the community to be served, including public and private agencies, adolescents, and families, in the planning and implementation of the project.

Although we have noted that projects initially had difficulty fully implementing coordinated service delivery networks, the majority of the projects were ultimately able to use existing service resources to provide comprehensive services to clients. We found that on the average, projects utilized six of the following eight community agencies: hospitals and physician groups, other health agencies, family planning agencies, schools, social services and child care agencies, counseling agencies, vocational agencies, and others. Furthermore, our data suggested that only a small percentage (16 percent) of services from referral agencies were purchased using OAPP funds. Sources of funding for the remaining services included third-party reimbursements (e.g., Medicaid, private insurance) and other public and private funds. The financial data discussed in Chapter VI of this report has been used to examine funding sources in greater depth. Further evidence that projects used other available federal and state funds are the utilization rates for WIC, Food Stamps, Medicaid, and AFDC, as described in Chapter III.

While projects have evidently tapped into a number of existing resources in their community, most are interested in obtaining further information about other likely funding sources. One form of assistance that OAPP could provide to its grantees is information about other ways to finance adolescent pregnancy programs. In addition to alerting projects to changing federal funding sources, OAPP might gather and disseminate information on such

nongovernmental means of support as the use of volunteers or agencies bartering with one another for services.

D. ISSUE: Comprehensive Service Delivery
Legislative Mandate: P.L. 95-626

SECTION 601(b)(3) (corresponding to Section 2001(b)(3) of Title XX, Public Health Services Act)	to promote innovative, comprehensive, and integrated approaches to the delivery of such services;
SECTION 605(a)(3) (corresponding to Section 2005(a)(3)	show evidence of having the ability to bring together a wide range of needed core and, as appropriate, supplemental services in comprehensive single-site projects, or to establish a well-integrated network of such services (appropriate for the target population and geographic area to be served including the special needs of rural areas) for adolescents at risk of initial or repeat pregnancies;
SECTION 606(a)(5) (corresponding to Section 2006(a)(5) and (6)	a description of how all of the core services will be provided in the project using funds under this Act or otherwise provided by the grantee, to whom they will be provided, how they will be coordinated, integrated, and linked with other related programs and services and the sources or sources of funding of such core services; (6) a description of how adolescents needing services other than those provided directly by the grantee will be identified and how access and appropriate referral to those services (such as Medicaid; public assistance; employment services; child care services for adolescent parents; and other city, county, and state programs related to adolescent pregnancy) will be provided including a description of the plan to coordinate such services with activities funded under this Act;
SECTION 2006(a)(6)	adds reference to referral services offered by licensed adoption agencies and "maternity homes";

SECTION 7001(a)(5) (corresponding to Section 2007(a)(5)	give priority, where appropriate, to providing funding under existing federal programs to projects providing comprehensive pregnancy prevention and pregnancy-related services.

Earlier in this chapter we discussed the grantees' fulfillment of the comprehensive service delivery mandate. Initially the concept of comprehensiveness was much misunderstood by projects. Some failed to understand that comprehensiveness included the provision of services before and after the birth of the baby. Some failed to understand that they were responsible for case management or case coordination to ensure that a full range of services was available for clients. During the first half of FY 1982 many projects improved on these dimensions. However, many projects still experienced difficulty in documenting comprehensive service delivery, especially for services provided by referral agencies. In addition, follow-up services were still most likely to be provided only to a subset of clients who remained in contact with the project after they had a baby. Even when it was a major goal of the project, maintaining that contact was not always easy. Yet, since most of a teenager's difficulties will occur as a parent rather than while pregnant, OAPP might want to give top priority to helping projects retain their parenting clients.

OAPP's experience with earlier projects increased its awareness of how much management activity is required to achieve comprehensiveness. The Office's announcement of Competitive Grant Applications for Adolescent Family Life Demonstration Projects, issued in July 1982, included the requirement that applicants describe case management and follow-up procedures. Furthermore, program evaluation by an independent organization was also required. If the Office is able to fund different experimental case

management and follow-up models of delivery complete with evaluation components, as planned, needed information may be collected about effective and ineffective models. The FY 1982-83 Research Grant announcements from the Office similarly demonstrate an interest in supporting innovative, comprehensive, and integrated approaches to the delivery of services. Major research questions posed for potential studies were:

(1) Is the current array of programs and policies adequate?

(2) What are the effects on participants, their families, or their offspring?

(3) To what extent do current efforts to aid pregnant adolescents "pay off"?

These are basic questions that need to be answered before program planning efforts can be expected to result in desired outcomes.

E. ISSUES: Appropriate Technical Assistance

Legislative Mandate: P.L. 95-626

SECTION 701(a) (corresponding to Section 2007(a) of Title XX, Public Health Services Act)	The Secretary shall-- (2) provide technical assistance to facilitate coordination by grantees of Federal programs at the state and local level.
SECTION 2006(b)(3) of Title XX, Public Health Services Act	The Secretary may provide technical assistance with respect to the conduct of evaluations required under this subsection to any grantee which is unable to develop a working relationship with a college or university in the applicant's state.

When the Urban Institute first began in May 1981 to explore the wide variety of technical assistance needs that projects experienced, we talked briefly with adolescent pregnancy projects across the country, interviewing OAPP grantees, nonfunded OAPP applicants, and other agencies offering services to pregnant teens and teen parents. We explored the agencies' perception of

the role that OAPP could and should play in relation to adolescent pregnancy projects and to the greater network of supporting agencies.

The answers identified three major functions for OAPP: disseminate information, facilitate inter-project communication, and advocate for adolescent pregnancy services. In terms of information sharing, projects cited the need for greater knowledge of funding sources and procedures, greater availability of and access to consultants, literature on adolescent pregnancy issues, statistical reports, and general information about other adolescent pregnancy service efforts. With respect to fostering inter-project communication, people urged OAPP to convene national and regional meetings and offer workshops on various pregnancy-related and teen-related issues. In the advocacy area, OAPP was encouraged to work at both the federal and state levels to generate support for adolescent pregnancy projects, and especially to work with state and local governments to educate them about the long-term effects of early parenthood and the efficacy of particular service programs. It is clear that the grantees envisioned a broader role for OAPP in the technical assistance area than mandated by the legislation.

During 1982 the Office sponsored a number of activities responding to these requests for assistance. The Office let a contract for technical assistance to an outside firm and notified projects of the availability of this assistance. Many projects availed themselves of this service. In addition, OAPP organized and conducted several sets of regional meetings to facilitate the sharing of information among grantees. Most grantees thought the meetings during late 1981 and 1982 were particularly useful since these meetings offered the first opportunity to learn what their counterparts were doing.

The mandate of the Office to provide technical assistance is limited to two areas: (1) coordination of federal programs at the state and local level, and (2) evaluation. Yet grantees think that there are a number of other areas in which the Office could provide assistance; the Office might review its role in assisting projects to be successful. The levels of assistance can range from selecting projects with evidence of sufficient talents and resources to be successful on their own to providing assistance in all the areas suggested by the problems current grantees have faced. Since the Office may have a limited ability to develop expertise in all areas, specialization in particularly helpful areas might be an efficient strategy to adopt. The careful utilization of consultants in tandem with a feedback mechanism for evaluating their effectiveness is another approach. Should the Office consider expanding its technical assistance role, a second policy issue is whether to expand the availability of this assistance to adolescent pregnancy projects beyond OAPP grantees. Related to this issue is a final concern, dissemination of knowledge. To the extent that current or future grantees build up a knowledge base about what works and does not work, the Office should consider its role in making this information available beyond its circle of grantees.

ADDENDUM

Information on Grantees' Future

FY 1982 brought an end to Title VI, replaced by Adolescent Family Life funds and by various federal block grants. In October 1982 we talked with project personnel to find out plans for the coming year: would the project continue to operate; if so, with what funds; how would it be changing its service program; etc. We believe that such information can cast important light on the ability of local service delivery agencies to respond to shifts in federal funding practices.

Twenty-five of the twenty-six grantees told us about twenty-nine service projects (five in the New York State Health Department). Twenty-eight of these plan to continue to operate, in spite of the loss of Title VI funding. Many of these projects received substantial support from Title VI: their 96 percent continuation rate indicates determined efforts on their part to find new sources of financial assistance.

Table A-1 displays the assured funding sources for the 28 ongoing projects. As the successor to Title VI, Adolescent Family Life grants were a popular avenue for projects seeking continued funding. Seventeen FY 1980 grantees, or 59 percent, applied for AFL funds; only 8 (28 percent) received the funds, and the grants were often at levels below the requested amounts. By far the most common source of support was the Maternal and Child Health Block Grant, the federal block grant designated as including adolescent pregnancy service programs. The 21 projects which received MCH monies span 15 different states and all regions of the country. Perhaps evidence of prior federal support is seen favorably by state decision makers, regardless of particular states' general level of support for social services. Between

TABLE A-1: TITLE VI FY 1980 GRANTEES' FUNDING FOR FY 1983

	Number of Projects	Percentage
Adolescent Family Life*	8	28%
Maternal and Child Health Block Grant*	21	72%
Social Services Block Grant	2	7%
Community Services Block Grant	1	3%
United Way	5	17%
State Government	8	28%
Local Government	4	14%
Other Local	13	45%
Other Federal	2	6%
Foundations	9	31%
Other (donations, client fees, etc.)	3	10%
*MCH or AFL	23	79%

these two "expected" funding sources, 23 of the 29 Title VI grantees (79 percent) received some support.

State and local government agencies, other local organizations, and private foundations provided the bulk of the remaining support. Forty-five percent of the projects received financial assistance from "other local" sources, including school districts, community mental health centers, and local corporations. Such local contributors attest to the community relevance and relatedness of the adolescent pregnancy projects, which seek to coordinate a multiplicity of services for teen clients.

A surprising number of projects secured foundation funding. Nine projects, or 31 percent, obtained financial support from nine different private foundations, mostly local and/or population-specific. In addition, United Way supported five projects. Between these two sources of private dollars, 12 different projects received financial help.

Although 28 of the 29 projects were able to keep their doors open, all faced budget constrictions which necessitated changes in the structure of their service programs. Table A-2 presents some of these program modifications. Forty-three percent (12 of 28 projects) had to decrease staffing levels, and 21 percent (6 projects) decreased the variety of services they offered to clients, either on-site or through collateral agencies. By contrast, 39 percent or 11 of the projects increased the number of clients they were prepared to serve; 5 of these were projects which simultaneously increased staff, while 3 were projects who decreased staffing levels, suggesting larger workloads for those service providers.

Another area of change was the relationship with collateral agencies. Approximately equal numbers of projects decreased as increased the number of

TABLE A-2: PROJECT CHANGES FROM FY 1982 TO FY 1983

	Number of Projects	Percentage
Number of sites decreased	3	11%
increased	14	21%
Staffing levels decreased	12	43%
increased	6	21%
Service offerings decreased	6	21%
increased	9	32%
Number of clients decreased	6	21%
increased	11	39%
Target client population changed	10	36%
Case management changed	9	32%
Number of collateral agencies decreased	8	29%
increased	9	32%
Services by collateral agencies decreased	12	43%
increased	2	7%
Total number of continuing projects	28	100%

agencies working with them to comprehensively serve clients: eight projects decreased their collateral agencies while nine increased them. The nature of the referral relationship showed more substantial change: in 43 percent of the projects, staff anticipated less referral services would be available, as opposed to only 7 percent of the projects where more services would be offered. Such shifts are not surprising, given the generally reduced funding available for human services.

APPENDIX A

Unit Costs of Services

APPENDIX A

UNIT COSTS OF SERVICES

HEALTH RELATED	PROGRAM 1	2	3	4	5	6	7	8
Pregnancy test (per test)								
Average cost	---	$10.90	10.00	$5.00	$13.58*	$7.25*	---	$9.69*
On-site/off-site contrast	---	---	---	---	---	---	---	$8.97/10.00
Public/private contrast	---	---	---	---	---	$5.00/$9.00	---	---
Maternity counseling								
Individual counseling (per hour)								
Average cost	---	$18.00*	$25.00	$17.63	$25.87*	$14.10	---	$10.74
On-site/off-site contrast	---	---	---	$19.05/$16.20	$18.73/$33.00	---	---	---
Public/private contrast	---	---	---	---	---	---	---	---
Pregnancy test and maternity counseling (combined service)								
Average cost	$28.50*	---	---	---	---	---	$21.50	---
On-site/off-site contrast	$27.53/$28.99	---	---	---	---	---	---	---
Public/private contrast	---	---	---	---	---	---	---	---
VD test (per test)								
Average cost	$10.00	---	$12.00	---	---	---	---	$13.03*
On-site/off-site contrast	---	---	---	---	---	---	---	$15.50/$10.55
Public/private contrast	---	---	---	---	---	---	---	---
VD counseling/education								
Individual counseling (per hour)								
Average cost	---	---	---	---	---	---	---	$15.00
On-site/off-site contrast	---	---	---	---	---	---	---	---
Public/private contrast	---	---	---	---	---	---	---	---
Group counseling (per hour)								
Average cost	$2.55	---	$1.83	---	---	---	---	$2.91
On-site/off-site contrast	---	---	---	---	---	---	---	---
Public/private contrast	---	---	---	---	---	---	---	---
VD test and VD counseling/education (combined service)								
Average cost	---	$13.40*	---	$23.00	$20.12	$30.00	$20.52	---
On-site/off-site contrast	---	---	---	---	---	---	---	---
Public/private contrast	---	$14.00/$13.00	---	---	---	---	---	---
VD treatment								
Average cost	$35.70	$31.60*	$39.00	$18.00	$14.00	$17.50	$35.37*	$21.10
On-site/off-site contrast	---	---	---	---	---	---	---	---
Public/private contrast	---	$25.00/$36.00	---	---	---	---	---	---

*Indicates that cost is the average of two or more service providers.

TABLE 1 CONT'D

	PROGRAM							
	1	2	3	4	5	6	7	8
Prenatal health care (Lab fees, prenatal clinic visits, professional delivery fees, hospital fees for mother, 1 postnatal visit)								
Vaginal delivery								
Average cost	$1300	$1807.15	$1600	$1636*	$2470*	$2409*	$1718.64	$2359.70*
On-site/off-site contrast	---	---	---	---	---	$532/$2618	---	$2286/$2396
Public/private contrast	---	---	---	---	---	$532/$2618	---	---
Caesarian section delivery								
Average cost	$2740	$4715.60	$2700	$2967	$3530*	$4496*	$5134.64*	$3057.30*
On-site/off site contrast	---	---	---	---	---	$875/$4936	---	$2930/$3120
Public/private contrast	---	---	---	---	---	$875/$4936	---	---
Childbirth education (per class)								
Average cost	$2.30	$4.50	$1.83	$2.81	$1.70	$3.59	$4.31	$3.44
Pediatric visits (per visit) (without immunizations)								
Initial visit								
Average cost	---	$30.00	$21.00	$19.00	---	$56.60*	$17.90*	$25.00
On-site/off-site contrast	---	---	---	---	---	$35.00/$62.00	---	---
Public/private contrast						$35.00/$62.00	$17.50/$18.00	---
Subsequent visits (without immunizations)								
Average cost	---	$25.00	$16.00	$23.33	---	$23.80*	$17.90*	$18.00
On-site/off site contrast	---	---	---	---	---	$35.00/$21.00	---	---
Public/private contrast	---	---	---	---	---	$35.00/$21.00	$17.50/$18.00	---
1st visit with immunizations	$27.53*	---	---	---	$23.40*	$68.20*	$26.30*	---
On-site/off-site contrast	$21.20/$30.50	---	---	---	---	$45.00/$74.00	$23.50/$27.00	---
Subsequent with immunizations	$27.53*	---	---	---	$22.00*	$35.40*	$26.30*	---
On-site/off-site contrast	$21.20/$30.50*	---	---	---	---	$45.00/$33.00	$23.50/$27.00	---
Mother's 12-month check up								
Average cost	$21.20	$25.00	$15.00	$24.67*	$27.00*	$21.00	$37.25*	$25.00
Public/private contrast	---	---	---	---	$35.00/$25.00	---	---	---
Lab-costs	---	---	$8.50	$2.68	---	---	$23.20	---

*Indicates that cost is the average of two or more service providers.

TABLE 1 CONT'D

	PROGRAM							
	1	2	3	4	5	6	7	8
FAMILY PLANNING								
Contraceptive information and/or counseling without family planning method								
Individual counseling (per hour)								
Average cost	$15.53	$18.00	$14.60	$12.68	$25.87	$14.10	$24.00	$15.00
On-site/off-site contract	---	---	---	---	$18.73/$33.00	---	---	---
Public/private contract	---	---	---	---	---	---	---	---
Group counseling (per hour)								
Average cost	$2.55	---	$1.83	---	---	---	---	$2.91
On-site/off-site contrast	---	---	---	---	---	---	---	---
Public/private contrast	---	---	---	---	---	---	---	---
Method received								
Prescription device and counseling (pills)								
Office visits (per visit)								
Average cost	---	$15.50*	$15.00	$30.68*	$29.80*	$24.30*	$15.63*	$7.50
On-site/off-site contrast	---		---	---	---	$37.50/$21.00	---	---
Public/private contrast	---	$14.00/$21.50	---	$50.00/$24.23*	$25.00/$33.00	$37.50/$21.00	$14.85/$26.00	---
Prescription cost (per prescription)								
Average cost	---	$10.00*	$3.48	$5.25*	$6.23*	$9.78	$4.19*	$ .70
On-site/off-site contrast	---	---	---	---	---	$2.92/$11.50	---	---
Public/private contrast	---	---	---	$3.00/$6.00	$2.75/$11.45	$2.92/$11.50	$3.75/$10.00	---
Natural family planning instruction (total service)	$1.88							
Counseling to develop coping skills related to sexual decision-making								
Individual counseling (per hour)								
Average cost	$15.53	$18.00	---	$12.68	$18.73	$25.08	part of	$3.36
On-site/off-site contrast	---	---	---	---	---	$14.10/$28.74	personal	---
Public/private contrast	---	---	---	---	---	---	counseling	---
Group counseling (per hour)								
Average cost	---	---	$1.83	---	---	---	---	---
On-site/off-site contrast	---	---	---	---	---	---	---	---
Public/private contrast	---	---	---	---	---	---	---	---

*Indicates that cost is the average of two or more service providers.

TABLE 1 CONT'D

	PROGRAM							
	1	2	3	4	5	6	7	8
Non-prescription device and Counseling (contraceptive foam)								
Office visit								
Average cost	---	$15.50*	$15.00	$24.43*	$22.73	$24.30	$15.63*	---
On-site/off-site contrast	---	---	---	---	---	$37.50/$21.00	---	---
Public/private contrast	---	$14.00/$21.50	---	$25.00/$24.23*	---	$37.50/$21.00	$14.85/$26.00	---
Device								
Average cost	---	$4.50	$3.99	$4.13*	$2.08	$3.75*	$1.64*	---
On-site/off-site contrast	---	---	---	---	---	---	---	---
Public/private contrast	---	---	---	$3.00/$4.00	---	---	$1.50/$3.50	---
OTHER SUPPORT/ASSISTANCE								
Counseling - extended family member(s)								
Individual counseling (per hour)								
Average cost	$15.53	$18.00	$21.64	$12.68	$18.73	$17.03*	$20.93	$9.96
On-site/off-site contrast	---	---	---	---	---	$14.10/$28.74	---	---
Public/private contrast	---	---	---	---	---	---	---	---
Counseling - male partner								
Individual counseling (per hour)								
Average cost	$15.53	$18.00	$21.64	$12.68	$18.73	$17.03*	$23.51	$8.40
On-site/off-site contrast	---	---	---	---	---	$14.10/$28.74	---	---
Public/private contrast	---	---	---	---	---	---	---	---
Group counseling (per hour)								
Average cost	---	---	---	---	$1.95	---	---	---
On-site/off-site contrast	---	---	---	---	---	---	---	---
Public/private contrast	---	---	---	---	---	---	---	---
Adoption counseling (per hour)(on-site)								
Average cost	$18.56	$18.00	---	$19.05	---	---	$23.71	---
Adoption counseling-offsite	$30.00	$22.05[2]	$21.22[2]	$40.00	45.00	$31.16	---	---
Assistance to find child care (per hour)								
Average cost	$12.44	$19.50	$25.76	$12.68	$18.73	$14.10	$19.06	$8.40
On-site/off-site contrast	---	---	---	---	---	---	---	---
Public/private contrast	---	---	---	---	---	---	---	---

[1] Includes food cost

[2] Loaded with 40% OH

*Indicates that cost is the average of two or more service providers.

TABLE 1 CONT'D

	PROGRAM 1	2	3	4	5	6	7	8
Child care - licensed, regular (per month) Average cost	---	$145.69	$768.60	$329.28[1]	$337.00	---	$214.30	$208.20
Child care - private/familial, regular (per month) Average cost	---	$142.20	---	$120.00	$124.30	---	---	---
Transportation - regular (per month) Average cost	$71.08	$21.01	$12.00	$8.05	$27.20	$43.75	$17.50	$30.60
(Additional driver salary)	---	---	($74.80)	($10.17)	---	---	($50.00)	---
EDUCATION/JOB TRAINING								
Education/vocational counselling and/or referral								
Individual counselling - caseworker (per hour) Average cost	$17.75*	$16.00	$25.76	$13.44*	$18.73*	$19.96*	$20.93	$8.40
On-site/off-site contrast	---	---	---	$12.68/$18.51	---	$14.10/$28.74	---	---
Public/private contrast	---	---	---	---	---	---	---	---
Group counselling (per hour). Average cost	---	---	$1.83	---	---	---	---	---
Educational/vocational education program CFD (per month) Average cost	---	$62.40	---	---	$273.89	---	$60.00	---
Public school (per month) Average cost	$392.11	$174.07	$205.56	$226.44	$273.89	$299.14*	$365.00	$300.00
On-site school (per month) Average cost	$316.72	---	---	---	---	---	$239.33	---
Job training program (other than high school courses) (per month) Average cost	---	$240.00	$102.78	---	$840.00	$193.85	$404.65	---

[1] Includes food cost.
*Indicates that cost is the average of two or more service providers.

TABLE I CONT'D

	PROGRAM 1	2	3	4	5	6	7	8
LIFE SKILLS DEVELOPMENT								
Family relationships/parenting education								
Individual counseling (per hour)								
Average cost	$15.53	---	Included in school	---	$18.73	---	Included in school	Included in school
Group counseling (per hour)								
Average cost	---	$1.80		$1.59	---	$3.19		
Consumer/homemaking education								
Individual counseling (per hour)			part of				Included	Included
Average cost	---	---	school cost	$18.50	$18.73	---	in school	in school
Group counseling/teaching (per hour)								
Average cost	$1.61	$2.44	---	---	---	---	---	---
Learning lab (per month)								
Average cost	---	---	---	---	$23.20	---	---	---
Nutrition counseling/education								
Individual counseling (per month)								
Average cost	$15.53	$18.00		---	$20.93	$14.10	$22.95	$14.54
Group counseling (per hour)			part of					
Average cost	$2.04	$1.79	school cost	$1.03	$3.49	---	$0.64	---
Breakfast or lunch program								
Lunch only (per month)	$51.00	---	$72.40	---	---	---	$25.20[3]	$25.30
Average cost	---	---	---	---	---	---	---	---
Breakfast and lunch (per month)								
Average cost	$76.00	---	$35.20	$29.28	---	---	$39.20[3]	---
WIC (per month)								
Average cost for vouchers	$30.00	$44.37	$20.11	$25.00	$30.00	$35.00	$31.00	---
(admin)	(5.33)	(3.65)	(5.89)	(7.00)	(2.72)			
Food stamps program								
Average increase in benefits for recipient family (per month)	$43.00	$44.00	$44.00	$44.00	$44.00	$44.00	$47.00	$25.00
Financial assistance - welfare								
Average increase in benefits for recipient family (per month)	$65.85	$5.00	$24.00	$63.00	$84.00	$81.00	$71.00	$74.00
Personal counseling								
Individual counseling (per hour)								
Average cost	$15.53	$21.60	$25.76	$12.68	$18.73	---	$24.84	$8.40
On-site/off-site contrast	---	---	---	---	---	---	---	---
Public/private contrast	---	---	---	---	---	---	---	---
Crisis counseling (per hour)	---	$54.00	---	$37.50	---	---	---	---
Average cost	---	---	---	---	---	---	---	---
Housing Assistance								
Individual counseling (per hour)								
Average cost	---	---	---	---	$18.73	---	$20.93	---

[1] Loaded with 40% overhead

APPENDIX B

Typical Service Units

APPENDIX B

TYPICAL NUMBER OF SERVICE UNITS RECEIVED DURING ONE YEAR BY CLIENT DELIVERING IN PROGRAM*

TYPE OF SERVICE	PROGRAM							
	1	2	3	4	5	6	7	8
HEALTH RELATED								
Pregnancy test (# tests)	–	1	1	1	1	1	–	1
Maternity counseling								
Individual counseling (# hours)	–	1.5	1	1.5	0.8	1	–	1
Pregnancy test and maternity counseling (combined service)(# visits)	1	–	–	–	–	–	1	–
VD test (# visits)	1	–	1	–	–	–	–	1
VD counseling/education								
Individual counseling (# hours)	–	–	–	–	–	–	–	0.2
Group counseling (# hours)	1	–	1.5	–	–	–	–	2
VD test and VD counseling/education (combined service)(# visits)	–	1	–	1	1	1	1	–
VD treatment (complete service)	1	1	1	1	1	1	1	1
Prenatal health care (lab fees, prenatal clinic visits, professional delivery fees, hospital fees for mother, 1 postnatal visit)								
Vaginal delivery	1	1	1	1	1	1	1	1
Cesarean section delivery	1	1	1	1	1	1	1	1
Childbirth education (# classes)	5	10	13	8	7	16	10	8
Pediatric visits (# visits)								
Initial visit	1	1	1	1	1	1	1	1
Subsequent visits	3	2	2	3	3	2	2	5
Mother's 12-month check up	1	1	1	1	1	1	1	1
FAMILY PLANNING								
Contraceptive information and/or counseling without family planning method								
Individual counseling (# hours)	2	4.5	2	11	1	2.5	2.5	0.5
Group counseling (# hours)	4	–	1.5	–	–	–	–	3

*Entering in fourth month of pregnancy.

	PROGRAM 1	2	3	4	5	6	7	8
FAMILY PLANNING (Cont'd)								
Prescription device and counseling (pills)								
Office visits (# visits)	-	1	1	1	1	1	1	1
Prescription cost (# prescriptions)	-	7	7	7	7	7	7	7
Natural family planning instruction	1	-	-	-	-	-	-	-
Counseling to develop coping skills related to sexual decision-making								
Individual counseling (# hours)	4	3	-	30[2]	2	1	-	8
Group counseling (# hours)	-	-	1.5	-	-	-	-	-
Non prescription device and counseling (contraceptive form)								
Office visit (# visits)	-	1	1	1	1	1	1	-
Device (# units)	-	7	7	7	7	7	7	-
OTHER SUPPORT/ASSISTANCE								
Counseling - extended family members(2)								
Individual counseling (# hours)	1.8	2	2.5	7.8[2]	1	1.8	5.2[2]	1.5
Counseling - male partner								
Individual counseling (# hours)	1	4	8	7.8[2]	1	1.4	4.7[2]	1
Group counseling (# hours)	-	-	-	-	16	-	-	-
Adoption counseling (# hours)	5	7	-	9	-	-	31	-
Adoption counseling: off-site	18	43.5	-	10	8	21	19.5	-
Assistance to find child care (# hours)	5	1	0.5	4	2	1	2	1.6
Child care - licensed, regular (# months)	-	1	6	6	6	-	6	6
Child care - private/familial, regular (# months)	-	1	-	6	6	-	-	-
Transportation - regular (# months)	12	12	6.5	12	6	12	12	9
EDUCATION/JOB TRAINING								
Education/vocational counseling and/or referral								
Individual counseling - caseworker (# hours)	3	2	2.5	9.2	2	2.2	4	4
Group counseling (# hours)	-	-	1.5	-	-	-	-	-
Educational/vocational education program								
GED (#months)	-	6	-	-	6	-	3	-
Public school (# months)	9	9	9	9	9	9	9	9
Job training program (other than high school courses (# months)	-	1	9	-	6	9	4.5	-

[2]Assumes 52 weeks of counseling per client.

LIFE SKILLS DEVELOPMENT	PROGRAM 1	2	3	4	5	6	7	8
Family relationships/parenting education								
Individual counseling (# hours)	3	–	Part of	–	4	–	Part of	Part of
Group counseling (# hours)	–	24	school	15[3]	–	16	school	school
Consumer/homemaking education								
Individual counseling (# hours)	–	–	Part	10	2.5	–	Part	Part
Group counseling (# hours)	3	6	of	–	–	–	of	of
Learning lab (# months)	–	–	school	–	6	–	school	school
Nutrition counseling/education								
Individual counseling (# hours)	2.5	2	Part of	–	2.5	1.5	6[4]	0.7[5]
Group counseling (# hours)	1.0	4	school	10	4.0	–	15[3]	–
Breakfast or lunch program								
Lunch only (# months)	9	–	9	–	–	–	9	9
Breakfast and lunch (# months)	9	–	9	9	–	–	–	–
WIC (# months)(food vouchers)	12	12	12	12	12	11	12	–
Food stamps program								
Average increase in benefits for recipient family (# months)	7	7	7	7	7	7	7	7
Financial assistance - welfare								
Average increase in benefits for recipient family (# months)	7	7	7	7	7	7	7	7
Personal counseling								
Individual counseling (# hours)	12	10	7.5	14.7	2.3	–	41[4]	5.6
Crisis counseling (# hours)	–	8	–	12	–	–	–	–
Housing Assistance								
Individual counseling (# hours)	–	–	–	–	1.5	–	0.5	–

[3]Assumes 10-wk class.

[4]Assumes 12 months of counseling.

[5]Additional time included in school program.

APPENDIX C

Proportion of Clients Receiving Services

PERCENTAGE OF CLIENTS RECEIVING SERVICES DURING ONE YEAR
EIGHT ADOLESCENT PREGNANCY PROGRAMS

Type of Service	Program							
Health Related	1+	2	3	4+	5	6	7	8
Pregnancy Test	-	29	6	7	12	20	8	78
Maternity Counseling	-	60	100	14	50	39	95	81
VD Test	55	16	8	-	10	7	9	100
VD Counseling/Education	55	3	19	-	0	1	1	33
VD Treatment	0	1	1	2	0	0	1	4
Prenatal Health Care	100	100	100	-	61	63	100	98
Vaginal Delivery	83	80	95	100	92	92	97	93
Caesarian Section	17	20	5	0	8	8	3	7
Childbirth Education	45	38	82	4	10	22	72	39
Initial Pediatric Visit	45	45	70	7	63	60	30	93
Mother 12-Month Checkup	0	3	9	7	1	.6	7	0
Family Planning								
Contraceptive Information	50	17	66	35	26	35	53	72
Prescription/Non-prescription Device	-	22	100	15	17	35	42	67
Natural Family Planning Instruction	33	0	0	0	0	*	0	1
Other Support/Assistance								
Counseling Extended Family	5	17	30	34	10	4	38	50
Counseling Male Partner	25	19	10	34	5	8	23	13
Adoption Counseling	1	1	0	3	2	2	5	2
Assistance to Find Childcare	1	*	48	16	19	*	31	22
Child Care Licensed or Private	0	2	48	12	16	4	31	36
Transportation	33	13	76	33	4	13	36	54
Education/Job Training								
Education/Vocational Counseling and/or referral	100	17	23	57	28	26	61	39
Educational/Vocational Program	5	6	12	11	11	18	59	60
Job Training Program	0	3	4	-	14	5	22	*

+One quarter's data only

Type of Service	Program							
	1+	2	3	4+	5	6	7	8
Life Skills Development								
Family Relationships/ Parenting Education	100	8	100	65	1	16	26	36
Consumer Homemaking Education	0	*	4	14	0	2	31	100
Nutrition Counseling/ Education		5	11	30	15	11	47	34
Breakfast or Lunch Program		0	48	-	1	0	38	75
WIC	100	33	97	100	15	22	24	44
Food Stamps Program	10	5	57	50	6	6	1	11
Financial Assistance	45	16	*	21	7	3	49	46
Personal Counseling	60	8	19	50	4	2	74	64
Housing Assistance	0	3	0	-	2	0	9	1

*Less than 1%

APPENDIX D

Urban Institute Summary Forms*

The Urban Institute also wrote a manual describing these forms and containing suggestions and recommendations to help projects develop their own case management systems. This manual, "Revised Data System Manual for Adolescent Pregnancy Projects," is available for $6.50 from the Urban Institute Library, 2100 M Street, N.W., Washington, D. C. 20037.

ENTRY CHARACTERISTICS OF CLIENTS

[illegible]: QUARTER ☐, 198_ (1-5)

CLIENT ENTRY STATUS

CHARACTERISTICS		PREGNANT	MOTHERS	OTHER FEMALE TEENS	
B. AGE:	14 or younger				(21-27)
	15 - 17				(28-35)
	18 or older				(36-43)
C. RACE:	American Indian/Alaskan Native				(44-50)
	Asian/Pacific Islander				(51-57)
	White/Caucasian				(58-64)
	Black				(65-71)
	Hispanic				(72-78)
D. PREVIOUS PREGNANCIES:	None				(79-86)
	1				(87-94)
	2 or more				(95-102)
E. LIVING ARRANGEMENT OF GIRLS, WITH OR WITHOUT THEIR CHILD:	Alone				(103-110)
	Husband				(111-118)
	Other Male				(119-126)
	Parent(s)				(127-134)
	Other				(135-142)
F. CLIENT'S CHILDREN LIVING WITH CLIENT:	None				(143-150)
	1 or more				(151-158)
G. SCHOOL STATUS:	Attending, in grade: 6 or below				(159-166)
	7 - 9				(167-174)
	10 - 12 (and GED's in progress)				(175-182)
	Other				(183-190)
	Graduated (includes GED)				(191-198)
	Dropout, last grade: 9 or below				(199-206)
	10 - 12				(207-214)
	In Certified Special Education?				(215-222)
H. WELFARE STATUS:	Receiving welfare				(223-230)
	Receiving Medicaid				(231-238)
	Baby only				(239-246)

NUMBER OF CLIENTS ENTERED THIS QUARTER

- ☐☐ Pregnant (6-8)
- ☐☐ Mothers, not pregnant (9-11)
- ☐☐ Other female teens (12-14)
- ☐☐ Males (15-17)
- ☐☐ Extended family members served (18-20)

CLIENT SHOULD BE COUNTED ONCE ONLY, IN THE QUARTER IN WHICH SHE/HE ENTERED THE PROGRAM.

IN ALL BOXES!!

Notice:

PREGNANT: Girls who are pregnant at program entry, whether or not they are also mothers.

ENTRY MOTHERS: Girls who: (1) enter program after they already have a baby, and (2) whose baby lives with them, and (3) who are not pregnant.

OTHER FEMALE TEENS: Girls other than those who are pregnant or entry mothers.

MALES: Male clients, including husbands or male partners of female clients, and/or the baby's father.

EXTENDED FAMILY MEMBERS: Clients' family, relatives, or other significant adults using program counseling services (does not include girls' husbands, male partners, or babies' fathers).

[illegible] instructions on back of form.

NUMBER OF CLIENTS BECOMING PREGNANT AFTER PROGRAM ENTRY:

- ☐☐ Delivered (219-220)
- ☐☐ Entry Mothers (221-222)
- ☐☐ Other female teens (223-224)

NUMBER OF CLIENTS REACTIVATED THIS QUARTER:

- ☐☐ All females reactivated (225-227)
- ☐☐ All males reactivated (228-230)

BEST COPY

SERVICE DELIVERY

PROGRAM: | QUARTER ___ 19__

1. ACTIVE CLIENTS THIS QUARTER:
   - ___ P.* Pregnant (6-8)
   - ___ D. Delivered (9-11)
   - ___ E. Entry mothers (12-14)
   - ___ OF. Other female teens (15-17)
   - ___ AF. All Females (18-20)
   - ___ M. Males (21-23)

SERVICES

	NUMBER OF CLIENTS SERVED ON-SITE					NUMBER OF CLIENTS SERVED AT REFERRAL SITE					
	P*	D	E	OF	M	P	D	E	OF	M	
2. HEALTH-RELATED											
a. Negative pregnancy tests											(23-28)
b. Positive pregnancy tests											(29-34)
c. Pregnancy counseling (1 hour)											(35-40)
d. Negative VD tests											(41-58)
e. Positive VD tests											(59-76)
f. VD treatment											(77-94)
g. VD counseling/education (1 hour)											(95-112)
h. Enc'ged prenatal health care											(113-118)
i. Childbirth education (5 hours)											(119-136)
j. Post-partum home visit (within 2 weeks)											(137-142)
k. Mother's post-partum medical checkup (within 6 weeks)											(143-148)
l. Infant's first pediatric visit (within 6 weeks)											(149-154)
m. Mother's 12-month medical checkup											(155-156)
n. Other health care - mother											(157-174)
3. FAMILY PLANNING											
a. Contraceptive information and/or counseling (1 hour)											(175-204)
Method received:											
b. Prescription device (pills, IUD, diaphragm)											(205-222)
c. Non-prescription device (foam, cream, jelly, condoms)											(223-246)
d. Natural family planning instruction											(247-276)
e. Counseling to develop coping skills related to sexual decision-making (1 hour)											(277-306)
4. OTHER SUPPORT/ASSISTANCE											
a. Counseling - extended family member(s) (1 hour)											(307-330)
b. Counseling - male partner (1 hour)											(331-354)
c. Adoption counseling											(355-360)
d. Assistance to find child care											(361-378)
e. Child care - licensed, regular											(379-390)
f. Child care - private/familial, regular											(391-402)
g. Transportation - regular											(403-432)

* = Pregnant (even if subsequent mother)

D = Delivered (pregnant at entry, delivered while in program)

E = Entry mothers (not pregnant

OF = Other female teens

M = Male teens

SERVICE DELIVERY

	CLIENTS RECEIVING SERVICES ON-SITE					CLIENTS RECEIVING SERVICES AT REFERRAL SITE					
	P	D	E	OF	M	P	D	E	OF	M	
[illegible]ATION/JOB TRAINING											
Educational/vocational counseling and/or referral (1 hour)											(433-462)
Entered education/vocational educational program											(463-492)
Entered job-training program (other than high school courses)											(493-522)
SKILLS DEVELOPMENT											(523-552)
Family relationships/parenting education (5 hours)											(553-582)
Consumer/homemaking education (5 hours)											(583-612)
Nutrition counseling/education (5 hours)											(613-642)
Enrolled in breakfast or lunch program											(643-660)
Enrolled in WIC											(661-678)
Enrolled in food stamps program											(679-696)
Personal Counseling (1 hour)											(697-726)
Financial Assistance											(727-756)
[illegible]ousing Assistance											(757-786)
______											(787-816)
______											(817-846)
______											(847-876)

[illegible]ormational/educational presentations [illegible] to:

	Number of Presentations	Total Audience/Attendance (approximate)	
Adult-agency personnel (in-service, etc.)			(877-882)
Adult-other audiences			(883-888)
Teenagers			(889-894)

PREGNANCY OUTCOME

PROGRAM: QUARTER ☐ 198__ (1-5)

	Total Cases This Quarter	
PREGNANCY OUTCOMES:		
Live Births	☐☐☐	(6-8)
Fetal Deaths (less than 20 weeks)	☐☐☐	(9-11)
Fetal Deaths (20 weeks or more)	☐☐	(12-13)
Other Baby Deaths	☐	(14)
Maternal Deaths	☐☐	(15-16)
PRENATAL HEALTH CARE - all clients with pregnancy outcome this quarter:		
Entered Prenatal Care at:		
First Trimester	☐☐☐	(17-19)
Second Trimester	☐☐☐	(20-22)
Third Trimester	☐☐☐	(23-25)
Prenatal Care Received:		
1 - 6 Visits	☐☐☐	(26-28)
7 - 12 Visits	☐☐☐	(29-31)
13 or more Visits	☐☐☐	(32-34)
COMPLICATIONS		
Inappropriate Weight Gain (under 20 or over 36 lbs.)	☐☐☐	(35-37)
Anemia at Delivery (less than 10 grams hemoglobin)	☐☐☐	(38-40)
Preeclampsia* or Eclampsia	☐☐☐	(41-43)
Caesarian Section Delivery	☐☐☐	(44-46)
Hemorrhage, Sepsis, and/or Premature Labor or Rupture of Membrane	☐☐☐	(47-49)
Clients with None of the Above Above Complications	☐☐☐	(50-52)

ITEMS 4 - 7 APPLY TO LIVE BIRTHS ONLY	Total Cases This Quarter	
4. INFANT STATUS -		
Weight Under 2500 Grams	☐☐☐	(53-55)
Gestational Age of 36 Weeks or Less	☐☐☐	(56-58)
Respiratory Distress Syndrome, Neonatal Pneumonia, Sepsis and/or Jaundice Requiring Transfusion	☐☐☐	(59-61)
Received Intensive Neonatal Care	☐☐☐	(62-64)
Infants with None of the Above Problems	☐☐☐	(65-67)
5. INFANT TO LIVE WITH:		
Mo ± Fa ± CF	☐☐☐	(68-70)
Mother and Father	☐☐☐	(71-73)
Mother	☐☐☐	(74-76)
Grandparent/Other Relative	☐☐☐	(77-79)
Foster Home	☐☐☐	(80-82)
Adoption	☐☐☐	(83-85)
Father/Other	☐☐☐	(86-88)
Unknown	☐☐☐	(89-91)
6. MOTHER'S SCHOOL STATUS - All clients delivering at time of delivery:		
Stayed in Education/Vocational Education Program Until Delivery	☐☐☐	(92-94)
Completed Education/Vocational Education Program Before Delivery	☐☐☐	(95-97)
Dropped Out	☐☐☐	(98-100)
7. MOTHER'S WELFARE STATUS - all clients delivering, at hospital discharge		
Applied for or Receiving Welfare	☐☐☐	(101-103)
Applied for or Receiving Medicaid	☐☐☐	(104-106)
Baby only - Welfare/Medicaid	☐☐☐	(107-109)
Not on Welfare/Medicaid	☐☐☐	(110-112)

*Blood pressure greater than 140/90, protein in urine, and edema; or diastolic increase greater than 15 millimeters mercury.

M:

CLIENT STATUS		Clients Delivering* in Program - Months Post-Partum			Mothers Entering Program with Baby - Months Post-Partum			Other Female Teens	Males	
		6 mo.	12 mo.	24 mo.	6 mo.	12 mo.	24 mo.	14 mo.	17 mo.	
PREGNANCY STATUS:	Pregnant									(6-19)
	Not Pregnant									(20-33)
	Unknown									(34-47)
EDUCATIONAL STATUS:	In education/ voc. ed. program									(48-63)
	Completed education/ voc. ed. program									(64-79)
	Neither									(80-95)
	Unknown									(96-111)
JTA TRAINING STATUS:	In program									(112-127)
	Completed program ...									(128-143)
	Neither									(144-159)
	Unknown									(160-175)
EMPLOYMENT STATUS:	Working 20 hrs./wk. or more									(176-191)
	Working less than 20 hrs./wk.									(192-207)
	Looking for work ...									(208-223)
	Not in labor market..									(224-239)
	Unknown									(240-255)
PUBLIC ASSISTANCE:	Yes									(256-269)
	No									(270-283)
	Unknown									(284-297)
WHEN CLIENT WITH OR WITHOUT CHILD, LIVES WITH:	Alone.....									(298-309)
	Spouse									(310-321)
	Other male									(322-333)
	Parent(s)									(334-345)
	Other									(346-357)
	Unknown									(358-369)
TOTAL NUMBER OF CLIENTS.....										(370-383)

*Delivery includes any pregnancy outc

QUARTER ☐, 19__ (I-5)

B. INFANTS' STATUS

		Infants born in Program – Infants at: 6 mo.	12 mo.	24 mo.	Infants born before Program Entry – Infants at: 6 mo.	12 mo.	24 mo.	
1. HOSPITALIZATION(s) DURING YEAR:	Yes							(394–401)
	No							(402–409)
	Unknown							(410–417)
2. [illegible] VISIT(S) [illegible] YEAR:	Yes							(418–425)
	No							(426–433)
	Unknown							(434–441)
3. ANEMIA DURING FIRST YEAR:	Yes							(442–445)
	No							(446–449)
	Unknown							(450–453)
4. FIRST-YEAR IMMUNIZATIONS COMPLETED:	Yes							(454–461)
	No							(462–469)
	Unknown							(470–477)
5. FIRST-YEAR DEVELOPMENTAL MILESTONES PASSED:	Yes							(478–481)
	No							(482–485)
	Unknown							(486–489)
6. PEDIATRIC WELL-BABY APPOINTMENTS KEPT:	0							(490–493)
	1 – 4							(494–497)
	5 – 7							(498–501)
	8 or more							(502–505)
	Unknown							(506–509)
7. INFANT LIVES WITH:	Mo ± Fa + GP							(510–517)
	Mother and Father							(518–525)
	Mother							(526–533)
	Grandparents/ Other relatives							(534–541)
	Foster home							(542–549)
	Adopted							(550–557)
	Father/Other							(558–565)
	Unknown							(566–573)
8. INFANT DEATHS								(574–585)
9. SUSPECTED ABUSE OR NEGLECT								(586–597)
10. TOTAL NUMBER OF INFANTS								(598–615)

CLIENTS BECOMING INACTIVE THIS YEAR: SUMMARY CHARACTERISTICS

OGRAM:

FISCAL YEAR ENDING OCTOBER 198__ (1-4)

SUMMARY CHARACTERISTICS		CLIENT STATUS WHEN PRESUMED INACTIVE: PREGNANT	DELIVERED	ENTRY MOTHERS	OTHER FEMALE TEENS	MALES	
TAL NUMBER OF CLIENTS BECOMING ACTIVE THIS FISCAL YEAR:							(20-31)
ME IN PROGRAM:	0 - 6 Months						(32-43)
ce of entry to e last contacted)	7 - 12 Months						(44-55)
	13 - 18 Months						(56-67)
	19 - 24 Months						(68-79)
	25 - 36 Months						(80-91)
	More than 36 Months						
EHENSIVE VICE OVISION:	Clients receiving 40% or fewer core services						(92-103)
	Clients receiving 50% or 60% of core services						(104-115)
	Clients receiving 70% of more core services						(116-127)
EASON FOR ACTIVE STATUS:	Self-sufficient						(128-139)
	Completed services offered by program, but not self-sufficient						(140-151)
	Moved						(152-163)
	Requested end of services.....						(164-175)
	No longer eligible						(176-187)
	Other						(188-199)
	Cannot be located/ Unknown						(200-211)

Activity Period: Qtr 1 ☐ Qtr 2 ☐ Qtr 3 ☐ Qtr 4 ☐

CASE MANAGEMENT

CLIENT NAME: | DATE OF ENTRY | CLIENT No.

TYPE OF SERVICE							RESULTS/REMARKS
HEALTH RELATED							
Pregnancy test (1)							Pos./Neg.?
Maternity counseling (1 hour) (1)							
VD test (5)							Pos./Neg.?
VD treatment (5)							
VD counseling/education (1 hour) (5)							
Entered prenatal health care (3)							
Childbirth education (5 hours) (3)							
Post-partum home visit (within 2 weeks) (3)							
Mother's post-partum medical checkup (within 8 weeks) (3)							
Infant's first pediatric visit (within 8 weeks) (6)							
Mother's 12-month medical checkup (3)							
Other health care - mother (Core #10)							
Other (Core #3, 6) _____							
Other (Core #3, 6) _____							
FAMILY PLANNING							
Contraceptive information and/or counseling (1 hour) (2)							
Method received:							
Prescription device (pills, IUD, diaphragm)							
Non-prescription device (foam, cream, jelly, condoms)							
Natural family planning instruction							
Counseling to develop coping skills related to sexual decision-making (1 hour) (2)							
Other (Core #2) _____							
OTHER SUPPORT/ASSISTANCE							
Counseling - extended family member(s) (1 hour) (S3)							
Counseling - male partner (1 hour) (S3)							
Adoption counseling (9)							
Assistance to find child care (S1)							
Child care - licensed, regular (S1)							
Child care - private/familial, regular (S1)							
Transportation - regular (S6)							
EDUCATION/JOB TRAINING							
Educational/vocational counseling and/or referral (1 hour)(8)							
Entered educational/vocational education program (8)							Completed?
Entered job/training program (other than high school courses) (8)							Completed?
Other (Core #8) _____							
LIFE SKILLS DEVELOPMENT							
Family relationships/parenting education (5 hours) (7)							
Consumer/homemaking education (5 hours) (S2)							
Nutrition counseling/education (5 hours) (4)							
Enrolled in breakfast or lunch program (4)							
Enrolled in WIC (4)							
Enrolled in food stamps program (4)							
Other _____							
Other _____							
Other _____							

APPENDIX E

Indicators

TABLE I

FINAL PROCESS INDICATORS - MEASURES OF SERVICE DELIVERY

CORE OR SUPPLEMENTAL SERVICE	INDICATORS
1. Pregnancy testing and maternity counseling	a. positive pregnancy tests on-site (at referral site) / clients receiving pregnancy test on-site (at referral site)
	b. pregnant clients receiving at least 1 hour of 1-to-1 maternity counseling on-site (at referral site) / all pregnant clients
2. Family planning services	a. pregnant (teen mother)(non-pregnant)(male) clients receiving at least 1 hour of contraceptive information and counseling on-site (at referral site) / all pregnant (teen mother)(non-pregnant)(male) clients
	b. teen mother (non-pregnant) clients receiving prescription devices (non-prescription devices)(accurate family planning instruction) family planning services on-site (at referral site) / all teen mother (non-pregnant) clients
	c. female (male) clients receiving at least 1 hour of group coping skills related to family planning-e.g. values clarification, assertiveness training, sexual decision-making, etc. on-site (at referral site) / all female (male) clients
	d. number of presentations made in community settings to adult agency personnel (other adults)(teens)
	e. approximate number of adult agency personnel (other adults)(teens) attending presentations
3. Primary and preventive health care (limited here to pregnancy and childbirth-related care for female teens)	a. pregnant clients with first prenatal visit in first (second) (third) trimester of pregnancy on-site (at referral site) / all pregnant clients
	b. pregnant clients keeping 1-6 (7-12)(13+) prenatal visits on-site (at referral site) / all pregnant clients
	c. pregnant clients attending at least 5 hours of childbirth preparation classes/group meetings on-site (at referral site) / all pregnant clients
	d. delivered clients receiving outreach home visit within 2 weeks after hospital discharge / all delivered clients
	e. delivered clients keeping first post-partum visit within 6 weeks of delivery on-site (at referral site) / all delivered clients
	f. teen mothers keeping 12-month post-partum visit on-site (at referral site) / all teen mothers
4. Nutrition education and counseling	a. pregnant (teen mother) clients receiving at least 5 hours of nutrition counseling, class, or group session on-site (at referral site) / all pregnant (teen mother) clients
	b. pregnant (teen mother) clients enrolling in regular breakfast and/or lunch programs on-site (at referral site) / all pregnant (teen mother) clients
	c. pregnant (teen mother) clients enrolling in WIC / all pregnant (teen mother) clients
	d. pregnant (teen mother) clients enrolling in food stamp program / all pregnant (teen mother) clients
5. Screening and referral for venereal disease	a. female (male) clients receiving VD tests on-site (at referral site) / all female (male) clients
	b. female (male) clients with VD who receive treatment on-site (at referral site) / all female (male) clients with VD
	c. female (male) clients with VD who receive at least 1 hour of VD counseling/education on-site (at referral site) / all female (male) clients with VD
	d. pregnant clients with VD / all pregnant clients

TABLE I (Cont'd)

6. Pediatric care (preventive, well-baby services to infants; illness-related care is measured as outcome information)	a. delivered clients keeping infant's first scheduled pediatric visit (usually 2 weeks post partum) on-site (at referral site) / all delivered clients	
	b. delivered (entry mother) clients keeping [illegible] (3-7) (8+) pediatric appointments for their infants during the first 12 months after delivery on-site (at referral site) / all delivered (entry mother) clients	
7. Education for family relationships and parenting (see Core Service 2 for measures related to family planning education)	a. pregnant (teen mother)(non-pregnant) clients receiving at least 10 hours of education for family relationships and parenting on-site (at referral site) / all pregnant (teen mother)(non-pregnant) clients	
	b. male clients receiving at least 5 hours of education for family relationships and parenting on-site (at referral site) / all male clients	
8. Educational and vocational counseling and referral	a. pregnant (teen mother)(male) clients receiving at least 1 hour of 1-to-1 education/vocational education/job training* counseling and/or referral on-site (at referral site) / all pregnant (teen mother)(male) clients	
	b. pregnant (entry mother) clients already in and continuing to attend an education/vocational education program at entry to OAPP / all pregnant (entry mother) clients	
	c. pregnant (teen mother)(male) clients entering an education/ vocational education program on-site (at referral site) / all pregnant (teen mother)(male) clients	
	d. pregnant (teen mother)(male) clients entering job training / all pregnant (teen mother)(male) clients	
9. Adoption counseling and referral	a. pregnant clients receiving adoption counseling / all pregnant clients	
10. Other health care (non-pregnancy/childbirth-related medical care for teen clients)	a. pregnant (teen mother) clients receiving health services beyond gynecological/obstetric care on-site (at referral site) / all pregnant (teen mother) clients	
11. Child care (services to infants)	a. teen mothers who receive assistance in making day care arrangements / all teen mothers	
	b. teen mothers with licensed day care (private/familial day care) arrangements sufficient to permit them to attend school, job training, or work on a regular basis / all teen mothers	
12. Consumer education and homemaking	a. pregnant (teen mother) clients receiving at least 5 hours of consumer education and homemaking on-site (at referral site) / all pregnant (teen mother) clients	
13. Counseling for extended family members	a. number of extended family members who participate in at least one 1-hour counseling session on-site (at referral site)	
	b. pregnant (teen mother) clients for whom some family member(s) or other significant adult(s) attend at least one 1-hour counseling session on-site (at referral site) / all pregnant (teen mother) clients	
	c. pregnant (teen mother) clients for whom the baby's father/her husband/her male partner attend at least one 1-hour counseling session on-site (at referral site) / all pregnant (teen mother) clients	
14. Transportation	a. pregnant and teen mother clients, with or without their babies, who are transported or get transportation paid to school, program, or work on a regular basis / all pregnant and teen mother clients	

*"Education/vocational education" includes regular or alternative high school, G.E.D. preparation, and vocationally-oriented classes offered in a high school setting. "Job training" includes programs in a vocational-technical school, CETA, WIN, Job Corps, apprenticeships, or on-the-job training. "workplaces," work-study involving formal apprenticeships.

TABLE II

FINAL OUTCOME INDICATORS - MEASURES OF PROGRAM OBJECTIVES

PROGRAM/LEGISLATIVE OBJECTIVES	INDICATORS
1. To reduce initial and unplanned subsequent adolescent pregnancies	a. delivered clients (entry mothers) with no further pregnancy at 6 months (12 months)(24 months) post-partum / all delivered clients (entry mothers)
2. To reduce medical complications of pregnancy and delivery (limited here to health of the mother, see 3 for health of infant)	a. fetal deaths (less than 20 weeks gestation) / all pregnant clients
	b. fetal deaths (20 weeks or more gestation) / all pregnant clients
	c. delivered clients with inappropriate weight gain (under 20 or over 36 pounds) / all delivered clients
	d. clients with anemia at delivery (less than 10 gram percent of hemoglobin) / all delivered clients
	e. delivered clients with preeclampsia[1] or eclampsia / all delivered clients
	f. clients delivered by Cesarean section / all delivered clients
	g. delivered clients experiencing any of the following complications (post-partum hemorrhage, sep is, premature labor and/or premature rupture of membrane / all delivered clients
	h. delivered clients hospitalized prior to day of delivery / all delivered clients
	i. maternal deaths / all pregnant clients
3. To improve health outcomes for infants	a. low birthweight infants (below 2500 grams) / all delivered clients
	b. premature infants (36 weeks gestation or less) / all delivered clients
	c. infants with any of the following health complications (respiratory distress syndrome, neonatal pneumonia, jaundice requiring exchange transfusion, or sepsis) / all delivered clients
	d. infants needing intensive neonatal care / all delivered clients
	e. infants of delivered clients (entry mothers) who are hospitalized[2] during first 12 months / all 12 month old infants of delivered clients (entry mothers)
	f. infants of delivered clients (entry mothers) who visit an emergency room at least once during first 12 months / all 12 month old infants of delivered clients (entry mothers)
	g. infants of delivered clients (entry mothers) who are anemic at any time during first 12 months / all 12 month old infants of delivered clients (entry mothers)
	h. twelve month old infants of delivered clients (entry mothers) who cannot pull to stand, wave bye-bye, sit up alone, pick up objects with thumb and forefinger or respond to sound / all 12 month old infants of delivered clients (entry mothers)
	i. infants of delivered clients (entry mothers) who die within first twelve months post partum / all delivered clients (entry mothers) 12 months post partum
	j. infants of delivered clients (entry mothers) who have all appropriate immunizations at 12 months of age / all 12 month old infants of delivered clients (entry mothers)
	k. suspected abused or neglected infants at 6 months (12 months)(24 months) of age / all 6 (12)(24) month old infants of delivered clients (entry mothers)

[1] Blood pressure greater than 140/90, protein in urine, and edema; or diastolic increase greater than 15 millimeters mercury.

[2] "Hospitalized" refers to at least one night's stay in a hospital.

TABLE II (Cont'd)

4. To provide opportunities and encouragement for adolescents to continue and complete their education	a. clients remaining in an education[3] program until delivery (completing education program prior to delivery) / all delivered clients
	b. teen mothers attending an education program 6 (12)(24) months after delivery / all teen mothers 6 (12)(24) months post partum
	c. teen mothers completing an education program 6 (12)(24) months after delivery / all teen mothers 6 (12)(24) months post partum
	d. teen mothers with higher educational aspirations at 6 months post partum than at intake / all teen mothers 6 months post partum
5. To provide job training and employment opportunities as appropriate	a. teen mothers attending job training programs[4] at 6 (12)(24) months after delivery / all teen mothers 6 (12)(24) months post partum
	b. teen mothers completing job training programs at 6 (12)(24) months after delivery / all teen mothers 6 (12)(24) months post partum
	c. teen mothers working at least 20 hours/week at 6 (12)(24) months after delivery / all teen mothers 6 (12)(24) months post partum
	d. teen mothers receiving welfare (AFDC, Public Assistance) at 6 (12)(24) months post partum / all teen mothers 6 (12)(24) months post partum
6. To increase participation of male partners in prevention-related and support/care services	[This is a process objective. See Table 2, Service 2, Indicators (a) and (c); Service 7, Indicator (b); and Service 53, Indicator (a).]
7. To enhance the participation of families of origin in decision-making of adolescent clients	[This is a process objective. See Table 2, Service 53, Indicators (a) and (b).]
8. To provide adolescents with activities designed to increase their understanding of parenting and family life	a. female (male) clients achieving minimum level of understanding of family life and parenting / all female (male) clients
	b. teen mothers with higher self esteem at 6 months post partum than at intake / all teen mothers 6 months post partum
9. [5]Deliver ALL core services to clients, as appropriate 13. To develop comprehensive approaches to delivering services	a. inactive clients who received at least 50% of appropriate core services during program participation / all clients becoming inactive during reporting year
	b. inactive clients who received at least 80% of appropriate core services during program participation / all clients becoming inactive during reporting year

[3]Includes regular or alternative high school, G.E.D. preparation, and vocationally-oriented classes in a high school setting.

[4]Includes programs in a vocational-technical school, CETA, WIN, Job Corps, Apprenticeships, or on-the-job training, "workplaces," work-study involving formal apprenticeships.

[5]Objectives 10, 11, 12 and 14 are discussed in another section of this set of final indicators.

APPENDIX F

Unstandardized Regression Coefficients for Individual Data

TABLE F-1: REPEAT PREGNANCIES AT 12 MONTHS POSTPARTUM (RANGE = 0 TO 1): UNSTANDARDIZED REGRESSION COEFFICIENTS FOR PREDICTOR AND DEPENDENT VARIABLES FOR ENTRY MOTHERS AND DELIVERED CLIENTS IN OAPP-FUNDED PROJECTS DURING FY 1982

	Sample and Subsamples/					
			16 or Older at Entry		In School or Graduated at Entry	
Predictor Variables N =	All Entry Mothers 297	All Delivered Clients 716	Mothers 281	Delivered 649	Mothers 172	Delivered 495
Nonwhite[a]	.079+	-.010	.059	-.016	.066	-.030
Age at Entry	.005	-.012	-.005	-.015	-.008	-.001
Previous Pregnancies at Entry	.144**	.005	-.157**	.006	-.038	-.004
Number of Children at Entry	.142*	.014	.166**	.013	-.041	.010
Living Arrangments at Entry	.011	.018	.006	.017	.014	.012
School Status at Entry	.037	.025	.047+	.036	.128*	-.060
Grade at Entry	-.030*	.004	-.031*	.004	-.026	.002
On Welfare at Entry	-.066	-.008	-.086+	-.021	-.046	.030
On Medicaid at Entry	.036	-.021	.061	-.026	.007	-.033
Urban-Rural[b]	.013	.014	.010	.016	.004	.004
Delivery Site[c]: Hospital	-.153	-.018	-.185	-.005	-.224	.038
School	-.061	.037	-.093	.056	.056	.033
Other Health Agency	.028	-.016	-.016	.005	-.054	-.023
Special Program	.034	-.033	.001	-.013	.022	-.064
Client Mix[d]	.008	-.005	.003	-.006	.019	-.018*
% of Services Delivered On-site	-.005	-.004	.007	-.005	-.017	.006
Case Management Approach[e]	-.004	.003	-.010	.007	.013	.005
Length of Follow-up	-.030	-.017	-.007	-.018	-.022	.018
Services						
Core 1--Maternity Counseling	-.034	-.013	-.027	-.017	-.056	-.011
Core 2--Family Planning	.046**	-.011	.043**	-.007	.053**	.013
Core 3--Prenatal Care	.028	-.000	.039+	.002	.056*	.014
Core 4--Nutrition	-.021	.003	-.022	.004	-.004	.007
Core 5--VD	.019	.007	.002	.004	.023	-.005
Core 6--Pediatric Care	-.054	.028	-.067+	.019	-.196***	.045+
Core 7--Parenting/Family Life	.012	-.002	.010	-.000	.018	-.006
Core 8--Education/Vocational	.009	.005	.012	.003	-.004	.006
Core 9--Adoption Counseling	-.324**	-.042	-.313**	-.023	-.290**	-.033
Core 10--Other Health	.046	-.019	.052	-.022	.012	-.022
Supp 11--Child Care	.002	.020+	-.003	.021+	.008	.021
Supp 12--Consumer/Homemaker	.013	.016	.009	.019	-.061	-.004
Supp 13--Family Counseling	-.037+	-.000	-.045*	-.003	-.035	-.019
Supp 14--Transportation	-.016	-.014	-.014	-.014	-.012	-.007
Supp 15--Personal Counseling	.034+	.003	.036*	.006	.041+	.000
Supp 16--Financial Assistance	.047	.035	.036	.411	.009	.008
Supp 17--Housing Assistance	-.010	-.031	-.020	-.035	-.116	-.040
Months in Project	-.008**	.002	-.006*	.000	-.007+	.004
Pregnancy Outcome Variables[g]						
Low Birth Weight	—	.091*	—	.091*	—	.069
School Status at Delivery	—	-.031	—	-.038	—	.007
Welfare Status at Delivery	—	.018	—	.022	—	.002
Medicaid Status at Delivery	—	-.011	—	-.004	—	-.020
Mother's Complications	—	-.024	—	-.018	—	-.025
Days Between Entry & Delivery	—	.000**	—	.000***	—	.000***
R^2	.211**	.071n.s.	.218**	.082n.s.	.340**	.103n.s.

+ = $p \leq .10$; * = $p \leq .05$; ** = $p \leq .01$; *** = $p \leq .001$

[a]Nonwhite coded 0 = white, 1 = nonwhite.

[b]Urban-Rural coded 1 = urban 100,000+, 2 = small urban, 3 = rural.

[c]These four variables are in dummy format, with the named delivery site coded "1" and all others coded "0". In addition to these four, other delivery sites included social service agencies, child care agencies and "other" agencies.

[d]Client mix = percent clients pregnant out of all active female clients.

[e]Case Management Approach coded 0 = none, 1 = different people for different services, 2 = one case manager who also has service responsibilities, 3 = one case manager whose duties are primarily case management.

[f]Length of Follow-up coded as 0 = none, 1 = shortest up to 3 = longest.

[g]Pregnancy Outcome Variables were only available for girls who delivered while a project client.

TABLE F-2: EDUCATIONAL ATTAINMENT AT 12 MONTHS POSTPARTUM (RANGE = 0 TO 3): UNSTANDARDIZED REGRESSION COEFFICIENTS FOR PREDICTOR AND DEPENDENT VARIABLES FOR ENTRY MOTHERS AND DELIVERED CLIENTS IN OAPP-FUNDED PROJECTS DURING FY 1982

	Sample and Subsamples					
	All Entry	All Delivered	16 or Older at Entry		In School or Graduated at Entry	
Predictor Variables	Mothers	Clients	Mothers	Delivered	Mothers	Delivered
N =	297	707	281	640	174	489
Nonwhite[a]	.068	.075	.084	.137	-.056	.067
Age at Entry	.023	.002	.043	-.015	.048	.024
Previous Pregnancies at Entry	.028	-.061	.036	-.075	.146	-.065
Number of Children at Entry	.098	-.003	.107	.006	.053	-.020
Living Arrangements at Entry	.168**	-.042	.177**	-.055	.186+	-.121+
School Status at Entry	.553***	.045	.571***	.059	.354+	-.110
Grade at Entry	.053	-.001	.048	-.003	.077	.000
On Welfare at Entry	.062	-.113	.043	-.123	.130	-.071
On Medicaid at Entry	-.038	-.053	-.035	-.038	.039	-.109
Urban-Rural[b]	.067	.092**	.063	.114***	.078	.090
Delivery Site[c]: Hospital	.273	-.350*	.284	-.318+	.574	-.454*
School	.043	-.097	.048	-.020	.307	-.297*
Other Health Agency	.268	-.131	.309+	-.081	.334	-.190
Special Program	.011	-.217	.044	-.157	-.087	-.378+
Client Mix[d]	.014	-.025	.019	-.020	.009	.042+
% of Services Delivered On-site	.034	.009	.035	.004	-.061	.023
Case Management Approach[e]	.135+	.055+	.126+	.066+	.183	.085*
Length of Follow-up	.119	-.023	.120	-.044	.071	-.050
Services						
Core 1—Maternity Counseling	-.017	.060	-.030	.058	.027	.085+
Core 2—Family Planning	-.004	.010	-.007	.013	-.030	-.005
Core 3—Prenatal Care	.002	-.017	.037	-.020	-.056	-.045+
Core 4—Nutrition	-.003	-.024	-.004	-.021	.070	-.017
Core 5—VD	.141*	-.004	.146*	-.024	.190*	-.010
Core 6—Pediatric Care	-.104	.078	-.100	.063	-.180	.740
Core 7—Parenting/Family Life	-.077*	-.019	-.089*	-.007	-.108+	-.005
Core 8—Education/Vocational	.099*	.043+	.112*	.032	.092	.042
Core 9—Adoption Counseling	-.205	.129+	-.189	.193*	-.114	.121
Core 10—Other Health	-.044	-.047	-.023	-.036	-.149	-.116
Supp 11—Child Care	.074*	.008	.073*	.005	.074+	.026
Supp 12—Consumer/Homemaker	-.034	-.007	-.028	-.006	.008	-.023
Supp 13—Family Counseling	-.043	-.036	-.039	-.047+	-.048	-.032
Supp 14—Transportation	.024	-.065+	.025	-.076*	.047	-.131**
Supp 15—Personal Counseling	.041	.025	.048	.035+	.049	.016
Supp 16—Financial Assistance	.118	.007	.101	.038	.236	.148
Supp 17—Housing Assistance	.058	-.153	.031	-.161	.107	-.157
Months in Project	-.010	.013	-.011	.015*	-.013	.005
Pregnancy Outcome Variables[g]						
Low Birth Weight	—	-.026*	—	-.063	—	-.007
School Status at Delivery	—	.559***	—	.562***	—	.562***
Welfare Status at Delivery	—	.053	—	.074	—	.037
Medicaid Status at Delivery	—	.037	—	.030	—	.056
Mother's Complications	—	-.023	—	-.011	—	-.030
Days Between Entry & Delivery	—	.000	—	.000	—	.000
R^2	.370***	.330***	.382***	.345***	.273+	.280***

+ = $p \leq .10$; * = $p \leq .05$; ** = $p \leq .01$; *** = $p \leq .001$

[a]Nonwhite coded 0 = white, 1 = nonwhite.

[b]Urban-Rural coded 1 = urban 100,000+, 2 = small urban, 3 = rural.

[c]These four variables are in dummy format, with the named delivery site coded "1" and all others coded "0". In addition to these four, other delivery sites included social service agencies, child care agencies and "other" agencies.

[d]Client mix = percent clients pregnant out of all active female clients.

[e]Case Management Approach coded 0 = none, 1 = different people for different services, 2 = one case manager who also has service responsibilities, 3 = one case manager whose duties are primarily case management.

[f]Length of Follow-up coded as 0 = none, 1 = shortest up to 3 = longest.

[g]Pregnancy Outcome Variables were only available for girls who delivered while a project client.

TABLE F-3: JOB TRAINING AT 12 MONTHS POSTPARTUM (RANGE = 0 TO 3); UNSTANDARDIZED REGRESSION COEFFICIENTS FOR PREDICTOR AND DEPENDENT VARIABLES FOR ENTRY MOTHERS AND DELIVERED CLIENTS IN OAPP-FUNDED PROJECTS DURING FY 1982

Predictor Variables	Sample and Subsamples					
	All Entry Mothers	All Delivered Clients	16 or Older at Entry		In School or Graduated at Entry	
N =	165	280	Mothers 156	Delivered 242	Mothers 101	Delivered 188
Nonwhite[a]	-.027	.150	-.046	.129	-.081	.340*
Age at Entry	.032	.055+	.001	.065+	.070	.047
Previous Pregnancies at Entry	.054-	.066	.053	-.117	.202	-.118
Number of Children at Entry	-.226+	-.009	-.233	.019	-.103	.064
Living Arrangements at Entry	-.077	.056	-.099	.035	-.099	.124
School Status at Entry	-.122+	.037	-.142+	.062	-.028	.189
Grade at Entry	.032	.002	.035	-.006	-.022	-.021
On Welfare at Entry	.064	.066	.015	.085	-.008	.048
On Medicaid at Entry	.110	-.065	.183	-.051	.137	-.064
Urban-Rural[b]	.139*	-.013	.153*	-.007	.145	-.009
Delivery Site[c]: Hospital	-.601	-.344	-.484	-.327	.089	-.355
School	-1.023*	-.090	-.069*	-.119	-.630	-.088
Other Health Agency	-.215	-.039	-.340	.014	-.136	.128
Special Program	-.291	.060	-.384	.101	-.476	.340
Client Mix[d]	-.034	.006	-.043	-.003	-.053	.027
% of Services Delivered On-site	-.114	-.007	-.091	-.015	-.143	.049
Case Management Approach[e]	-.296	-.014	-.274	-.038	-.013	-.025
Length of Follow-up	-.119	-.103	-.049	-.108	-.246	-.105
Services						
Core 1--Maternity Counseling	-.023	-.013	-.032	-.025	-.028	.016
Core 2--Family Planning	.026	-.004	.038	.008	-.065	-.002
Core 3--Prenatal Care	.008	-.012	.024	-.017	-.057	-.081
Core 4--Nutrition	.003	-.048	.011	-.062	.008	-.052
Core 5--VD	.004	-.069	-.027	-.069	.154+	-.050
Core 6--Pediatric Care	.064	.078	.029	.073	.277	.206
Core 7--Parenting/Family Life	.014	.014	.023	.016	-.123	.019
Core 8--Education/Vocational	.096*	.006	.098*	-.000	.045	.026
Core 9--Adoption Counseling	.133	.252*	.143	.313+	.308	.256
Core 10--Other Health	-.064	-.005	-.087	.005	-.034	.039
Supp 11--Child Care	-.005	.098	.002	.115	.021	.143
Supp 12--Consumer/Homemaker	-.091	.118	-.115	.109	-.122	.076
Supp 13--Family Counseling	-.049	-.066	-.025	-.080	-.024	-.005
Supp 14--Transportation	-.062	-.000	-.071	.002	.015	.001
Supp 15--Personal Counseling	.024	-.029	-.000	-.013	-.026	-.055
Supp 16--Financial Assistance	-.176	.071	-.146	.104	-.464*	.088
Supp 17--Housing Assistance	.099	.479*	.110	.490+	.268	.392
Months in Project	.004	-.007	.005	-.007	.001	-.011
Pregnancy Outcome Variables[g]						
Low Birth Weight	—	-.149	—	-.199	—	-.277+
School Status at Delivery	—	-.087	—	-.111	—	-.030
Welfare Status at Delivery	—	.040	—	.043	—	-.081
Medicaid Status at Delivery	—	-.035	—	-.027	—	.065
Mother's Complications	—	-.020	—	.000	—	.030
Days Between Entry & Delivery	—	.000	—	.000	—	.000
R^2	.288+	.191n.s.	.307+	.207n.s.	.390n.s.	.264n.s.

+ = $p \leq .10$; * = $p \leq .05$; ** = $p \leq .01$; *** = $p \leq .001$

[a]Nonwhite coded 0 = white, 1 = nonwhite.

[b]Urban-Rural coded 1 = urban 100,000+, 2 = small urban, 3 = rural.

[c]These four variables are in dummy format, with the named delivery site coded "1" and all others coded "0". In addition to these four, other delivery sites included social service agencies, child care agencies and "other" agencies.

[d]Client mix = percent clients pregnant out of all active female clients.

[e]Case Management Approach coded 0 = none, 1 = different people for different services, 2 = one case manager who also has service responsibilities, 3 = one case manager whose duties are primarily case management.

[f]Length of Follow-up coded as 0 = none, 1 = shortest up to 3 = longest.

[g]Pregnancy Outcome Variables were only available for girls who delivered while a project client.

TABLE F-4: EMPLOYMENT AT 12 MONTHS POSTPARTUM (RANGE = 0 TO 3); UNSTANDARDIZED REGRESSION COEFFICIENTS FOR PREDICTOR AND DEPENDENT VARIABLES FOR ENTRY MOTHERS AND DELIVERED CLIENTS IN OAPP-FUNDED PROJECTS DURING FY 1982

	Sample and Subsamples					
	All Entry	All Delivered	16 or Older at Entry		In School or Graduated at Entry	
Predictor Variables	Mothers	Clients	Mothers	Delivered	Mothers	Delivered
N =	165	278	156	241	101	187
Nonwhite[a]	.091	.126	.128	.204	.101	.313
Age at Entry	-.010	.062	-.019	.087	-.063	.192*
Previous Pregnancies at Entry	-.186	-.166	-.132	-.251	-.191	-.200
Number of Children at Entry	.171	-.098	.153	-.043	.268	-.226
Living Arrangments at Entry	.086	-.102	.105	-.131	.178	-.133
School Status at Entry	-.006	.134	-.020	.206	-.169	.782*
Grade at Entry	.135*	.068	.143*	.026	.164*	-.036
On Welfare at Entry	.125	.021	.152	.078	.217	-.129
On Medicaid at Entry	-.141	-.393+	-.180	-.376	-.358	-.291
Urban-Rural[b]	-.032	.056	-.013	.087	-.344+	.015
Delivery Site[c]: Hospital	-.308	-.651	-.176	-.385	-2.110	-1.370*
School	-.606	-.121	-.629	-.067	.863	-.111
Other Health Agency	-.328	-.628	-.147	-.509	-.031	-1.060+
Special Program	-.090	-.449	-.010	-.400	1.460*	.980
Client Mix[d]	.021	.109+	.008	.101	.343*	.153*
% of Services Delivered On-site	.146	-.080	.121	-.093	.774**	-.223+
Case Management Approach[e]	-.061	.130	-.087	.134	.458+	.247+
Length of Follow-up	.256	-.225	.242	-.215	.187	-.471+
Services						
Core 1—Maternity Counseling	-.064	-.066	-.085	-.131	-.194	-.040
Core 2—Family Planning	.041	-.065	.034	-.027	.094	-.145+
Core 3—Prenatal Care	-.002	-.030	-.016	-.046	.085	-.060
Core 4—Nutrition	.004	.083	-.009	.054	-.079	.100
Core 5—VD	-.103	.099	-.086	.132	-.021	.178+
Core 6—Pediatric Care	.023	.055	.063	.087	-.327	-.066
Core 7—Parenting/Family Life	.044	-.045	.033	-.037	-.224	-.074
Core 8—Education/Vocational	.067	.025	.076	.039	.102	.047
Core 9—Adoption Counseling	.170	.109	.148	.239	.073	.052
Core 10—Other Health	-.208	.089	-.184	.150	-.373	.254
Supp 11—Child Care	.191**	.148	.202**	.129	.179+	.175
Supp 12—Consumer/Homemaker	-.319	-.080	-.325	-.069	-.296	-.195
Supp 13—Family Counseling	.061	.045	.064	.046	.092	.123
Supp 14—Transportation	-.038	-.111	-.046	-.095	-.259	-.090
Supp 15—Personal Counseling	-.074	-.052	-.066	-.055	-.132	-.050
Supp 16—Financial Assistance	.122	-.295	.100	-.206	.614+	-.433
Supp 17—Housing Assistance	-.418	.463	-.401	.369	.049	.487
Months in Project	-.009	-.003	-.010	-.002	.001	.017
Pregnancy Outcome Variables[g]						
Low Birth Weight	—	-.063	—	-.106	—	-.171
School Status at Delivery	—	-.015	—	-.047	—	-.057
Welfare Status at Delivery	—	.120	—	.091	—	.152
Medicaid Status at Delivery	—	-.107	—	-.146	—	.040
Mother's Complications	—	-.008	—	.009	—	-.060
Days Between Entry & Delivery	—	.000	—	.001	—	.002*
R^2	.320*	.214*	.325*	.217n.s.	.489*	.409***

+ = $p \leq .10$; * = $p \leq .05$; ** = $p \leq .01$; *** = $p \leq .001$

[a]Nonwhite coded 0 = white, 1 = nonwhite.

[b]Urban-Rural coded 1 = urban 100,000+, 2 = small urban, 3 = rural.

[c]These four variables are in dummy format, with the named delivery site coded "1" and all others coded "0". In addition to these four, other delivery sites included social service agencies, child care agencies and "other" agencies.

[d]Client mix = percent clients pregnant out of all active female clients.

[e]Case Management Approach coded 0 = none, 1 = different people for different services, 2 = one case manager who also has service responsibilities, 3 = one case manager whose duties are primarily case management.

[f]Length of Follow-up coded as 0 = none, 1 = shortest up to 3 = longest.

[g]Pregnancy Outcome Variables were only available for girls who delivered while a project client.

TABLE F-5: WELFARE STATUS AT 12 MONTHS POSTPARTUM (RANGE = 0 TO 1, 1 = ON WELFARE); UNSTANDARDIZED REGRESSION COEFFICIENTS FOR PREDICTOR AND DEPENDENT VARIABLES FOR ENTRY MOTHERS AND DELIVERED CLIENTS IN OAPP-FUNDED PROJECTS DURING FY 1982

	Sample and Subsamples					
			16 or Older at Entry		In School or Graduated at Entry	
Predictor Variables	All Entry Mothers	All Delivered Clients	Mothers	Delivered	Mothers	Delivered
N =	165	277	155	240	100	187
Nonwhite[a]	.285**	.138	.333**	.173	.410**	.045
Age at Entry	-.011	-.002	.000	.011	.032	.015
Previous Pregnancies at Entry	-.001	-.093	.006	-.067	.005	-.065
Number of Children at Entry	-.033	.364**	-.043	.359**	-.157	.349*
Living Arrangements at Entry	-.068	.076	-.061	.070	-.039	.063
School Status at Entry	-.028	.000	-.018	-.059	-.149	.029
Grade at Entry	.022	-.007	.011	.015	.032	-.006
On Welfare at Entry	.194*	.183*	.196+	.235*	.099	.219*
On Medicaid at Entry	.277**	-.033	.252*	-.071	.460**	.082
Urban-Rural[b]	.014	-.086+	.045	-.071+	.202*	-.126*
Delivery Site[c]: Hospital	-.459	.258	-.214	.177	.287	.310
School	-.358	.367*	-.380	.294	-.776+	.450*
Other Health Agency	.189	.319+	.262	.342+	.143	.535*
Special Program	.293+	.337	.347*	.309	-.068	.355
Client Mix[d]	.028	.044+	.022	.041	-.065	.053+
% of Services Delivered On-site	-.000	-.070+	-.017	-.061	-.226+	-.084
Case Management Approach[e]	-.061	.003	-.060	-.041	-.259*	-.040
Length of Follow-up	-.214+	-.027	-.251*	-.027	-.106	-.035
Services						
Core 1--Maternity Counseling	.118*	.011	.102+	.017	.166*	-.043
Core 2--Family Planning	-.050	-.003	-.037	-.002	-.052	-.036
Core 3--Prenatal Care	-.044	.043	-.049	.038	-.083	.016
Core 4--Nutrition	-.004	-.010	-.000	.009	-.009	-.026
Core 5--VD	-.006	-.009	.004	-.018	-.052	.035
Core 6--Pediatric Care	.101	-.144+	.106	-.166*	.201	-.088
Core 7--Parenting/Family Life	.036	.018	.033	.006	.118	.024
Core 8--Education/Vocational	.083*	.021	.069+	.029	.063	.006
Core 9--Adoption Counseling	.024	.002	-.012	-.148	.062	.058
Core 10--Other Health	-.111	.117+	-.112	.126+	-.061	.300**
Supp 11--Child Care	-.046	.044	-.041	.100	-.084*	.055
Supp 12--Consumer/Homemaker	.181	.033	.196	.055	.117	.029
Supp 13--Family Counseling	.064	.025	.108*	.008	.059	.076
Supp 14--Transportation	-.035	.033	-.031	-.021	-.030	.011
Supp 15--Personal Counseling	.010	-.003	-.008	.004	.080	-.013
Supp 16--Financial Assistance	.064	-.001	.080	-.040	-.000	.114
Supp 17--Housing Assistance	-.122	-.036	.014	-.083	-.407*	-.123
Months in Project	-.006	-.059	-.008	.009+	-.007	-.001
Pregnancy Outcome Variables[g]						
Low Birth Weight	—	.004	—	.013	—	.019
School Status at Delivery	—	-.012	—	-.039	—	-.077
Welfare Status at Delivery	—	-.068	—	.084	—	.093
Medicaid Status at Delivery	—	.077***	—	.139**	—	.012
Mother's Complications	—	.126	—	-.021	—	-.013
Days Between Entry & Delivery	—	-.026	—	.000	—	-.000
R^2	.566***	.446***	.578***	.495***	.713***	.521***

+ = $p \leq .10$; * = $p \leq .05$; ** = $p \leq .01$; *** = $p \leq .001$

[a]Nonwhite coded 0 = white, 1 = nonwhite.

[b]Urban-Rural coded 1 = urban 100,000+, 2 = small urban, 3 = rural.

[c]These four variables are in dummy format, with the named delivery site coded "1" and all others coded "0". In addition to these four, other delivery sites included social service agencies, child care agencies and "other" agencies.

[d]Client mix = percent clients pregnant out of all active female clients.

[e]Case Management Approach coded 0 = none, 1 = different people for different services, 2 = one case manager who also has service responsibilities, 3 = one case manager whose duties are primarily case management.

[f]Length of Follow-up coded as 0 = none, 1 = shortest up to 3 = longest.

[g]Pregnancy Outcome Variables were only available for girls who delivered while a project client.

TABLE F-6: INFANTS HOSPITALIZED AT LEAST ONCE WITHIN 12 MONTHS OF BIRTH (RANGE = 0 TO 1); UNSTANDARDIZED REGRESSION COEFFICIENTS FOR PREDICTOR AND DEPENDENT VARIABLES FOR ENTRY MOTHERS AND DELIVERED CLIENTS IN OAPP-FUNDED PROJECTS DURING FY 1982

	Sample and Subsamples					
	All Entry	All Delivered	16 or Older at Entry		In School or Graduated at Entry	
Predictor Variables	Mothers	Clients	Mothers	Delivered	Mothers	Delivered
N =	130	237	121	205	74	166
Nonwhite[a]	-.124	-.024	-.106	.040	-.299	.026
Age at Entry	.040	.037	.025	.036	-.028	.023
Previous Pregnancies at Entry	.022	-.004	.091	.032	-.071	-.036
Number of Children at Entry	.038	-.067	.008	-.102	.076	-.140
Living Arrangements at Entry	-.005	-.040	.020	-.049	.018	-.113
School Status at Entry	-.087	.042	-.095	.012	-.297	.107
Grade at Entry	-.080*	-.054+	-.070	-.038	-.027	-.048
On Welfare at Entry	.199	.063	.170	.036	.031	.167
On Medicaid at Entry	.031	-.082	.060	-.028	.271	-.216
Urban-Rural[b]	.016	-.008	.021	.018	-.087	-.020
Delivery Site[c]: Hospital	.306	-.085	.243	-.030	-.705	-.391
School	.939+	-.171	.873+	-.081	.807	-.298
Other Health Agency	-.074	.000	-.098	.046	.002	-.101
Special Program	.017	.142	.009	.181	.732	-.027
Client Mix[d]	-.035	-.035	-.038	-.020	.030	-.019
% of Services Delivered On-site	.030	.000	.023	.009	.175	-.063
Case Management Approach[e]	.350	-.003	.334	-.002	-.071	.017
Length of Follow-up	.168	.033	.168	.047	.216	-.072
Services						
Core 1—Maternity Counseling	-.091	.039	-.105	.042	.001	.014
Core 2—Family Planning	.007	.078*	-.002	.074*	.036	.062
Core 3—Prenatal Care	.033	-.032	.030	-.040	.048	-.022
Core 4—Nutrition	-.001	-.057	.005	-.048	.082	-.068
Core 5—VD	.010	-.021	.015	-.004	-.065	.001
Core 6—Pediatric Care	-.237+	.106	-.217	.117	-.242	.000
Core 7—Parenting/Family Life	.010	-.004	-.006	-.009	.110	.009
Core 8—Education/Vocational	.035	.006	.038	.018	.006	.033
Core 9—Adoption Counseling	-.188	.052	-.148	.086	-.010	-.101
Core 10—Other Health	-.123	-.094	.038	-.003	-.262	-.173
Supp 11—Child Care	.074*	-.109	.071+	-.151+	.011	-.077
Supp 12—Consumer/Homemaker	.102+	.231**	.090	.239**	-.038	.285**
Supp 13—Family Counseling	.102	.011	.099	.378	.045	.006
Supp 14—Transportation	-.049	-.007	-.046	-.008	-.090	-.029
Supp 15—Personal Counseling	-.008	.029	.003	.027	.072	.042
Supp 16—Financial Assistance	-.137	.125	-.114	.142	-.286	.159
Supp 17—Housing Assistance	.119	.277	.074	.235	-.172	.377
Months in Project	-.010	-.000	-.011	-.002	.001	.008
Pregnancy Outcome Variables[g]						
Low Birth Weight	—	.182+	—	.212+	—	.305*
School Status at Delivery	—	-.027	—	-.013	—	-.065
Welfare Status at Delivery	—	-.015	—	.022	—	.098
Medicaid Status at Delivery	—	.052	—	.023	—	-.024
Mother's Complications	—	.037	—	.027	—	.044
Days Between Entry & Delivery	—	.000	—	.000	—	-.000
R^2	.398*	.22n.s.	.388+	.219n.s.	.545n.s.	.279n.s.

+ = $p \leq .10$; * = $p \leq .05$; ** = $p \leq .01$; *** = $p \leq .001$

[a]Nonwhite coded 0 = white, 1 = nonwhite.

[b]Urban-Rural coded 1 = urban 100,000+, 2 = small urban, 3 = rural.

[c]These four variables are in dummy format, with the named delivery site coded "1" and all others coded "0". In addition to these four, other delivery sites included social service agencies, child care agencies and "other" agencies.

[d]Client mix = percent clients pregnant out of all active female clients.

[e]Case Management Approach coded 0 = none, 1 = different people for different services, 2 = one case manager who also has service responsibilities, 3 = one case manager whose duties are primarily case management.

[f]Length of Follow-up coded as 0 = none, 1 = shortest up to 3 = longest.

[g]Pregnancy Outcome Variables were only available for girls who delivered while a project client.

TABLE F-7: INFANT LIVING ARRANGEMENTS AT ONE YEAR (RANGE = 0 TO 3)*; UNSTANDARDIZED REGRESSION COEFFICIENTS FOR PREDICTOR AND DEPENDENT VARIABLES FOR ENTRY MOTHERS AND DELIVERED CLIENTS IN OAPP-FUNDED PROJECTS DURING FY 1982

	Sample and Subsamples					
			16 or Older at Entry		In School or Graduated at Entry	
Predictor Variables N =	All Entry Mothers 134	All Delivered Clients 240	Mothers 124	Delivered 210	Mothers 81	Delivered 170
Nonwhite[a]	.375	-.027	.318	-.127	.692+	-.007
Age at Entry	-.040	.028	-.059	.059	-.048	.044
Previous Pregnancies at Entry	-.235	-.158	-.336	-.196	-.220	-.154
Number of Children at Entry	.327	.276	.407	.243	.184	.351
Living Arrangments at Entry	.420**	.582***	.370*	.584***	.519**	.800***
School Status at Entry	.303*	-.145	.296*	-.078	.545	-.441+
Grade at Entry	-.105	-.042	-.133	-.083+	-.144	-.055
On Welfare at Entry	.010	.168	-.088	.272	-.157	.104
On Medicaid at Entry	-.248	-.061	-.157	-.142	-.536	-.151
Urban-Rural[b]	-.047	.020	-.050	.008	-.386*	-.004
Delivery Site[c]: Hospital	-1.122	.678	-1.280	.836	-.7'0	.161
School	-1.020	.390	-1.190	.273	-.620	.066
Other Health Agency	-.193	.284	-.219	.168	-.2?1	.111
Special Program	-.576	.144	-.537	.067	-1.100+	.010
Client Mix[d]	.095	.052	.082	.018	.020	.049
% of Services Delivered On-site	-.192	-.009	-.152	-.005	-.010	.037
Case Management Approach[e]	-.067	-.023	-.119	-.053	.146	.058
Length of Follow-up	-.091**	-.299	-.873**	-.224	-.604	-.329
Services						
Core 1--Maternity Counseling	.064	.070	.114	.066	-.120	.076
Core 2--Family Planning	.045	-.058	.010	-.037	-.046	-.067
Core 3--Prenatal Care	-.090	.020	-.074	.020	-.098	.025
Core 4--Nutrition	.010	.044	-.062	.034	.117	.078
Core 5--VD	.154	-.042	.155	-.036	.129	-.136
Core 6--Pediatric Care	.148	-.096	.256	-.088	.383	-.218
Core 7--Parenting/Family Life	-.039	-.010	-.040	-.006	-.038	-.049
Core 8--Education/Vocational	-.075	-.123+	-.033	-.131+	-.115	-.024
Core 9--Adoption Counseling	-.929*	.191	-.827+	.132	-1.300*	.223
Core 10--Other Health	.406*	.056	.372+	-.00%	.095	-.111
Supp 11--Child Care	-.031	.237*	-.045	.251*	-.051	.241+
Supp 12--Consumer/Homemaker	.076	.139	.056	-.080	-.572	.169
Supp 13--Family Counseling	-.535	-.039	-.481	.122	.077	-.000
Supp 14--Transportation	.018	.048	.024	.070	.179	.074
Supp 15--Personal Counseling	-.151	-.039	-.139	-.053	-.161	-.056
Supp 16--Financial Assistance	-.195	.021	-.131	-.012	-.167	-.004
Supp 17--Housing Assistance	-.016	.144	-.128	.199	.495	.310
Months in Project	.018	-.005	.020	-.004	.031	.007
Pregnancy Outcome Variables[g]						
Low Birth Weight	—	.529**	—	.533**	—	.423+
School Status at Delivery	—	.067	—	.005	—	.296*
Welfare Status at Delivery	—	-.050	—	-.144	—	-.100
Medicaid Status at Delivery	—	.138	—	.152+	—	.129
Mother's Complications	—	-.118	—	-.118	—	-.070
Days Between Entry & Delivery	—	-.000	—	-.000	—	-.000
R^2	.507***	.387***	.514***	.403***	.684**	.493***

+ = $p \leq .10$; * = $p \leq .05$; ** = $p \leq .01$; *** = $p \leq .001$

[a]Nonwhite coded 0 = white, 1 = nonwhite.

[b]Urban-Rural coded 1 = urban 100,000+, 2 = small urban, 3 = rural.

[c]These four variables are in dummy format, with the named delivery site coded "1" and all others coded "0". In addition to these four, other delivery sites included social service agencies, child care agencies and "other" agencies.

[d]Client mix = percent clients pregnant out of all active female clients.

[e]Case Management Approach coded 0 = none, 1 = different people for different services, 2 = one case manager who also has service responsibilities, 3 = one case manager whose duties are primarily case management.

[f]Length of Follow-up coded as 0 = none, 1 = shortest up to 3 = longest.

[g]Pregnancy Outcome Variables were only available for girls who delivered while a project client.