

**ASSESSMENT OF THE  
ADOLESCENT FAMILY LIFE  
RESEARCH PROGRAM AND  
RECOMMENDATIONS FOR THE  
FUTURE**

by

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## FOREWORD

The Office of Adolescent Pregnancy Programs (OAPP) within the Office of Population Affairs (OPA) administers the Adolescent Family Life (AFL) Program. For more than 30 years, OAPP has funded research grants seeking a deeper understanding into the complexities of teenage pregnancy. During that time period, the AFL program funded research on societal causes and consequences of adolescent premarital sexual relations, adolescent pregnancy and parenting, including parent-child communication and adoption. Much of what is known about teenage pregnancy was contributed by AFL-supported investigators.

In 2008, the AFL program awarded a cooperative agreement to Brandeis University to systemically review and examine more than three decades of this research. Based on the review, recommendations were developed to guide the direction of AFL's future research agenda, building on past work and the questions that arose, as well as exploring current and emerging topics that have not been addressed in the literature. However, we cannot do this work alone. Our goal is for the research reviewed in this report and, more importantly, the recommendations made for future research directions to be considered valuable to and adopted by other Federal agencies, think tanks, and private funders so that the lessons learned from this effort are applied broadly to the greater field.

This project was initially directed by Dr. Lorraine Klerman, a highly regarded scholar within the field of adolescent health and sexuality. Her experience and breadth of knowledge naturally lent itself to spearheading this project. Dr. Klerman led the development of the review, convened an expert work group panel, conducted a survey of professionals in the field, and made preliminary recommendations for future research directions for the program before she passed away in August of 2010.

We are extremely grateful to Drs. Sumru Erkut and Alice Frye at Wellesley College for their efforts to complete this effort despite the loss of a legendary colleague. We hope that this report is reflective of the passionate spirit that Dr. Klerman brought to all of her work.

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## PREFACE

This report was designed to assist the Office of Population Affairs (OPA) in developing a new Adolescent Family Life (AFL) research agenda on adolescent pregnancy and parenting that is directly applicable to prevention and care demonstration projects supported through AFL funding. To this end, the contractors have assessed the scope of AFL-funded research with input from a panel of experts in the field of adolescent pregnancy and parenting research, representatives of federal agencies that fund and/or carry out research on these topics, and a sample of end-users of this body of research. It is important to note that while the body of research the contractors examined is broad, except for the published results of AFL-funded studies, it is not exhaustive of the whole field of adolescent pregnancy and parenting. Therefore, the recommendations for OPA's research agenda that emerged from the contractors' assessment should not be viewed as reflecting the research gaps in the entire field of adolescent pregnancy and parenting.

Sections of this Report to Office of Population Affairs (OPA) for the Cooperative Agreement # APRPA006016 were initially compiled by Lorraine V. Klerman, Dr.P.H. of the Heller School for Social Policy and Management at Brandeis University. They were presented to the Expert Work Group that met in November 2009. The Expert Work Group meeting was attended by John Santelli, Douglas Kirby, Maria Idali Torres, Loral Patchen, and Sarah Brown serving as experts; Lynne Haverkos and Alison Spitz as representatives of government agencies working on topics related to adolescent family life; Melanie Brown, Evelyn Kappeler, and Diana Schneider representing OPA; and Sumru Erkut, Alice Frye, Laurie Nsiah-Jefferson, and Pat Paluzzi, as consultants and Blake Dohrn as assistant to Lorraine Klerman.

As planned in the original proposal for the Cooperative Agreement, at the meeting the Expert Work Group reviewed the draft of the report available at that time and endorsed the contractor's approach. Members of the Group discussed their varying perspectives, and made recommendations about the structure, content, and format of proposed interim and final reports. Additionally, the Expert Work Group asked Dr. Klerman to solicit input from representatives of NICHD, MCHB, and CDC on their agency's process of arriving at funding priorities and to survey professionals in the fields of pregnancy prevention and services to pregnant and parenting adolescents on their use of research.

In December 2009 Dr. Klerman set about making the recommended changes to the draft with the goal of creating an interim report, to be resubmitted to OPA for additional comments. She also began developing and implementing the survey of providers, and soliciting information from agency representatives. Also, in discussion with OPA, she and the consultants constructed a new, shortened framework for the report tables, which contain summary information about each of the reviewed funded projects. These tasks were completed by the time Dr. Klerman passed away in August of 2010. Work drawing these component parts into interim and final reports necessarily came to a halt at the time of Dr. Klerman's death.

In January of 2011 the Cooperative Agreement between OPA and the Heller School at Brandeis was subcontracted to the Wellesley Centers for Women, with Sumru Erkut as the PI of the subcontract. The subcontractor's tasks were to submit the Interim Report to the new program officer at OPA, Christina Lachance, generate a final product by incorporating the results of the survey with professionals into the report of what AFL has funded, describe broad gaps in the funded research, and draft a set of recommendations for funding priorities, and solicit feedback from the Expert Work Group on the recommendations. The final tasks were to incorporate the Expert Work Group's feedback to the recommendations and submit the final assessment and the final report to OPA.

The present report was drafted by Sumru Erkut and Alice Frye. Susan Phillips analyzed the data from the survey of professionals and wrote a report which has been excerpted into the draft. Ineke Ceder gave important feedback on earlier drafts. We are grateful for the responsiveness of the OPA staff, particularly, Evelyn Kappeler, Diana Schneider, Melanie Brown, and Euginia Eckhard who worked closely with Lorraine Klerman and Alice Frye to decide on what format the data tables in the Final report should include and to Christina Lachance who became the program officer at the time the cooperative agreement was subcontracted to the Wellesley Centers for Women for her comments on the Interim Report. We also thank the members of the Expert Work Group as well as everyone who attended the November 2009 meeting at Brandeis.

## **INTRODUCTION**

The Adolescent Family Life Program<sup>1</sup> enacted in 1981 as Title XX of the Public Health Service Act, provided support for prevention and care demonstration projects and also authorized research and demonstration activities related to adolescent sexuality and childrearing. Implementation of the Act's research provision began in March 1982 with the issuance in the Federal Register of a Request for Applications in three fields: adolescent sexual behavior, adoption, and services to pregnant and parenting youth.

In March 2008, the Office of Adolescent Pregnancy Programs (OAPP) issued an "Announcement of Availability of Funds for One Cooperative Agreement for Adolescent Family Life Research." The purpose of the cooperative agreement was "to survey, review and assess Title XX Adolescent Family Life (AFL) funded research to assist the Office of Population Affairs (OPA) in developing a new AFL research agenda that is directly applicable to prevention and care demonstration projects that are also supported through the AFL program."

This report summarizes the research funded by OPA under the AFL program, reports results of a survey on the use of research by professionals working in the fields of pregnancy prevention and services to pregnant and parenting teens, and provides recommendations for research priorities for AFL. The recommendations are intended not only to fill gaps in the existing knowledge base but also to take into consideration the latest developments in the use of technology that has markedly changed the social and technological lives of adolescents.

In the course of the activities undertaken through the Cooperative Agreement an Expert Work Group met in November 2009. The Expert Work Group meeting was attended by John Santelli, Douglas Kirby, Maria Idali Torres, Loral Patchen, and Sarah Brown serving as experts; Lynne Haverkos and Alison Spitz as representatives of government agencies working on topics related to adolescent family life; Melanie Brown, Evelyn Kappeler, and Diana Schneider representing OPA; and Sumru Erkut, Alice Frye, Laurie Nsiah-Jefferson, and Pat Paluzzi, as consultants and Blake Dohrn as assistant to Lorraine Klerman. The experts made substantive input into the progress of the project, made suggestions to enhance the data collection and commented on the recommendations.

## **USE OF TEEN PREGNANCY AND PARENTING RESEARCH**

In order to assess how professionals in the field of adolescent health use and regard research on pregnant and parenting adolescents, an on-line survey was designed with assistance from members of the Expert Work Group and OPA staff. The survey was

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<sup>1</sup> The Adolescent Family Life Program is administered by the Office of Adolescent Pregnancy Programs, one of three offices within the OPA. The other two offices are the Office of Family Planning (OFP) and the Office of Research and Evaluation (ORE). OPA is located within the Office of the Assistant Secretary for Health (OASH) in the Department of Health and Human Services and is directed by the Deputy Assistant Secretary for Population Affairs.

distributed to all current and former AFL project grantees (project directors, principal investigators, and evaluators) and to all members of the Healthy Teen Network (HTN). (HTN is a national membership network that serves as a comprehensive educational resource to professionals working in the area of adolescent reproductive health focusing on teen pregnancy prevention, teen pregnancy, teen parenting and related issues.) The AFL list included 160 individuals at 120 agencies and the HTN list included 309 individuals and agencies. Survey Monkey was used to distribute the survey. The web site was open for responses for seven weeks, during which several reminders were sent. The response rate for the AFL list was 40% and for the HTN it was 32%, yielding a total response rate of 35% (164 respondents in total but because some respondents did not answer all the questions, sample size varies across analyses of different questions). The response rate, although lower than desired, is well within the range of electronic survey response rates of professionals.

Responses were analyzed by the respondent's "primary role" in programs to prevent teenage pregnancy or provide services for sexually active, pregnant, and parenting adolescents and young people. The categories of primary roles were Program Administrator/Manager, Evaluator, Educator, and Other, which included Clinician, Social Worker, and Advocate. The largest group of responses was from the Program Administrator/Manager category by both primary role and among those who were current or former AFL grantees. Evaluators were mostly from the AFL grantees group while Educators tended to be among non-AFL grantees.

Respondents reported they read or learned about research frequently. The most frequently cited reasons for using research were to design or choose programs, modify existing programs for use with particular groups, and to seek or allocate funds. Close to two-thirds of the respondents reported finding the research they consulted to be very helpful, which suggests that professionals feel positively about the research they rely on for making programmatic decisions.

### **Suggestions for disseminating findings**

Specific websites such as those for the National Campaign to Prevent Teen and Unplanned Pregnancy, Healthy Teen Network, and Advocates for Youth as well as professional conferences, journals and newsletters were noted. OPA conferences were highlighted as the best conferences at which to disseminate findings by AFL grantees while non-grantees suggested Healthy Teen Network or state and local governmental agency or voluntary association conferences for dissemination. This finding also may be an artifact of the sampling design. Nevertheless, it suggests that having an AFL grant may have helped build a community among grantees among whom the agency is viewed as playing a key role in disseminating information that is highly valued.

### **Recommendations for improving dissemination**

The most frequently mentioned recommendation for improving dissemination of research findings was to condense and summarize the information in lay language. Use of email, e-blasts, and listservs were the next most frequently suggested improvement. The importance of making research findings readily accessible through use of non-technical

language and widely available through electronic media may help people who reported finding research they wanted to use to be somewhat difficult. The suggestion for using e-blasts, emails and listservs highlights the wish of professionals in the field to be informed of new research developments as they become available.

### **Suggestions for research priority areas**

Research targeting specific populations and specific kinds of programs were the most frequently mentioned priority areas, followed by integration of pregnancy prevention with other areas of teen health and well being, improving teen parenting by both teen fathers and mothers, risk and protective factors for teen pregnancy, parent/child connectedness and family influences, prevention of subsequent pregnancy, and effectiveness of school-based programs. These have been incorporated into the recommendations that follow this chapter.

In conclusion, the survey results show that professionals in the fields of teen pregnancy prevention and services to pregnant and parenting teens rely on research frequently, which they find helpful in their work, can name a number of specific sources of research they go to for their professional needs, and recommend using many of these same sources for improving dissemination. Many of the topics for research they mention as priority areas are currently the types of topics being researched. These findings suggest the field has come a long way since the 1970s and OPA has played a key role not only in funding research that is being used but also in bringing together a community of professionals in the field who rely on the agency's conferences and website for their informational needs. OPA should build on its successes to make research even more easily and widely accessible. One particular recommendation for improving dissemination is to condense and summarize research findings and disseminate them using lay language and to use email or e-blasts to publicize its availability. The benefit from this improvement will likely affect educators the most, as they report the lowest rates of utilizing research and highest rates of difficulty being able to apply research findings to their work as well as being the most strapped for time for consulting research findings. Indeed, the *OPA Research and Evaluation Updates* that are posted on the OPA website and the "Get Email Updates" feature that has been available since 2009 appear to be the type of dissemination many professionals are looking for. An effort to publicize the availability of this service is warranted.

## **AFL RESEARCH PROJECTS FUNDED BETWEEN 1986 AND 2005**

This report reviews only those 43 research studies that had start dates from 1986 through 2005 and that were successfully completed (See Appendix A).<sup>2</sup> OPA staff agreed with the contractor that it would not be valuable to summarize research projects that had been funded before 1986 because their relevance to current needs was limited, and, further, final reports were not yet available for most studies funded after 2005.

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<sup>2</sup> Two projects were funded but not completed.

This project's lead investigator and the methodologist on the Team<sup>3</sup> read all of the final reports submitted by researchers to OPA independently and categorized them by quality using as criteria sample size, representativeness, and quality of analyses. They agreed that six studies did not meet the criteria of methodological soundness due to issues including biased or undescribed samples inappropriate for the quantitative approaches that were used, very small samples, or unidentifiable intervention approaches in intervention studies, and, consequently, should not be included in the summaries. When only one of these two Team members graded the study as "poor quality," it was included. Thus, this chapter of the report focuses on a total of 37 studies.

In order to summarize the reports in a productive manner, the research team divided the 37 studies into the following nine categories:

1. Antecedents of adolescent sexuality, pregnancy, and parenting for females and males;
2. Antecedents of adolescent sexuality, pregnancy, and parenting for females only;
3. Antecedents of adolescent sexuality, pregnancy, and parenting for males only
4. Consequences of adolescent sexuality, pregnancy, and parenting for females and males;
5. Consequences of adolescent sexuality, pregnancy, and parenting for females only;
6. Consequences of adolescent sexuality, pregnancy, and parenting for males only;
7. Consequences of adolescent sexuality, pregnancy, and parenting for children and other family members;
8. Adoption; and
9. Program evaluations/services.

A few studies fell into more than one category, e.g., several studies examined both antecedents and consequences. When data in more than one category were analyzed in the report, they were usually summarized in all relevant categories.

For most of the categories, the summaries that follow use a table format that focuses on the type of research that was conducted, i.e., data source, characteristics of the sample, research design, and principal outcome variables. The Team, in consultation with OPA staff decided that detailed descriptions of the results in each category would not be useful because, in almost all of the categories, much research has been conducted without OPA support and, therefore descriptions that included only the OPA-funded work, no matter how detailed, would not come close to reflecting the present status of knowledge in any of these nine areas, and would not further the aim of the funded project. The Team suggested, and the project officer concurred, that this overview of the types of research that OPA had funded would be sufficient to assist the Expert Work Group and OPA in deciding whether the AFL research program has met the objectives established by Congress and in addressing future research initiatives. Consequently, the summaries in the tables were streamlined, intended to inform readers about what was researched, without cumbersome information on study results. Readers who are interested to learn

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<sup>3</sup> The original project Team at the Heller School at Brandeis was composed of Lorraine Klerman, PI, Alice Frye, methodologist, Laurie Nsiah-Jefferson, Pat Paluzzi, and Sumru Erkut. Subsequent to Dr. Klerman's death work continued as a subcontract at the Wellesley Centers for Women with Sumru Erkut, PI and Alice Frye, methodologist.

more can refer to the references to publications, which can be found in Appendix B-1 and B-2.

## **Results**

### **Antecedents of Adolescent Sexuality, Pregnancy, and Parenting**

Data sources of the studies of antecedents and consequences fell into three categories: 1) one or more large national datasets, 2) smaller school or clinic samples, and 3) largely ethnographic work. The three types of data sources have different advantages. Studies based on representative national datasets are generalizable, but often do not provide the in-depth study of psychological and other factors available from the smaller samples that often seek more detailed information from study participants and sometimes their families. The insights from these smaller samples and the one ethnographic study offer important insights into the dynamics of adolescent sexuality, pregnancy, and parenting, but cannot be generalized to large populations. Six of the eight Federal RFAs and FOAs have mentioned some aspect of influences on adolescent sexuality, pregnancy, and parenting, and 16 of the 37 studies summarized fell into this category. The research studies were both cross-sectional and longitudinal and, in the latter case, the time between the two data collection points varied widely, from a few weeks to several years.

Seven studies examined antecedents for both females and males, including one study with a later follow-up study (Table 1); seven studies examined antecedents for females only (Table 2); and three studies examined antecedents for males only (Table 3). The variables analyzed for their association with sexuality, pregnancy, and parenting covered a wide range, including age, race/ethnicity, education of the adolescent and of their parents, religion, influences of peers and parents, cognitive ability, other behavioral problems, psychological status, and service availability and utilization. Two studies examined the possible influence on adolescent behavior of the community in which the adolescents lived. Billy (1987) commented, “Although a young woman’s sexual behavior is a highly personal and private act, it is indeed shaped by the characteristics of the community in which she lives.” Moore (1992) found some associations between the characteristic of zip codes and adolescent sexual behavior.

The researchers did not restrict their studies to the influence of these factors on sexually-related behaviors and attitudes, such as attitudes towards sexuality, initiation and frequency of sexual activity, number of sexual partners, contraception, and pregnancy/birth/abortion; but also examined, often as part of their multivariate analyses, their impact on factors such as marital status, education, behavioral problems, relationship with others, and psychological status. Thus, in several studies, variables that were antecedent in some analyses were outcomes in others.

These studies revealed what has been confirmed in many other studies, that there are multiple antecedents to adolescent sexual activity and its consequences, some proximal, such as cognitive ability, and others distal, such as rates of neighborhood poverty. Advanced statistical techniques are currently being used in the more recent

studies funded by OPA and other funders in attempts to determine the relative importance of these factors, but none of the studies reviewed here used these approaches.

### Guide to Tables

**PI/Date:** Principal investigator and grant start date. If PI used the same data set for more than one study, or started with one data set and added to it for additional studies, the information has been placed in only one row, with multiple start dates.

#### Study Design:

- *Cohort:* Data collected at single time points from different sources and compared, Cohort also refers to analyses in which data collected at a single time point are aggregated, e.g., data collected from 13 year olds in 1984, 1986, and 1988 combined for an analysis would be described as cohort.
- *Cross sectional:* Data and analyses of data collected at one time point.
- *Intervention:* Analyses that include a deliberate effort to influence an outcome.
- *Longitudinal:* Data collected from the same source at more than one time point.
- *Multilevel:* Analyses that use more than one level of data within the same analysis, e.g., individuals nested by zip code or census tract.
- *Multivariate:* Analyses that include more than one predictor/explanatory or control variable in examining an outcome.
- *Qualitative:* Analyses that do not rely primarily on statistics, but rather use interviews for descriptive content.
- *RCT Randomized controlled trial:* Studies in which participants were randomly assigned to an intervention and control conditions.
- *Univariate:* Analyses that include only one predictor/explanatory variable in examining an outcome.

**Data Source:** Actual source of the study data. If the PI collected data for the study that data set is briefly described or if an existing data set is used it is noted. Sample size and selected characteristics are noted. Nationally representative samples are noted.

**Principal Outcome Variables:** Refers to the outcome variables categorized by content type. Studies may include additional outcomes not listed. Outcomes listed are only the major areas of work examined, according to the study itself.

**Table 1. Studies of Antecedents of Adolescent Sexuality, Pregnancy, and Parenting: Females and Males (N=7)**

<i>PI / Date</i>	<i>Title</i>	<i>Study Design</i>	<i>Data Source</i>	<i>Principal Outcome Variables</i>
Chewning 1988	Adolescent Sexual Risk-Taking: Antecedents and Sequelae	Longitudinal Cohort Intervention	Primary Data Collection Midwestern high school 13,419 7 <sup>th</sup> , 9 <sup>th</sup> , 11 <sup>th</sup> graders and adults. White, middle class, two-parent families Convenience sample	Sexual onset, contraceptive use, substance use, perceived peer sex, perceived negative peer behaviors, rule breaking, religious beliefs, contraceptive attitudes, source of sexual information, depression, self esteem, body self image, parent communication/support
Quandt 1989	Rural Adolescent Family Life: Health and Well Being	Longitudinal Cohort	NLSY79 Nationally representative	Sexual onset, birth, pregnancy social status, marriage, cohabitation, non-residence with parents, living alone, school completion, employment, non-salary income, public assistance
Robbins 1987	Pregnancy, Abortion and Parenthood in the Adolescent Life Course: Psychosocial Causes and Consequences	Longitudinal	Primary Data Collection Houston TX, junior high schools, 7,618 7 <sup>th</sup> graders, 5,138 at 10 yr follow-up. 2/3 White	Pregnancy, birth, abortion, marriage, employment, financial status, financial satisfaction, education, public assistance, post pregnancy distress, income
Moore 1992	Antecedents of Adolescent Sexual Attitudes and Behavior	Longitudinal	National Survey of Children National Education Longitudinal Study 1988 State/census data Nationally representative	Sexual onset, school-age birth, second teen birth, mental health, attitudes about sex, educational achievement, educational goals
Mott 1992	Adolescents at Risk: Family Predictors of Problem Behaviors	Longitudinal	NLSY79 Higher risk sample of younger mothers Nationally representative	Sexual onset, contraceptive use, birth, family structure, emotional/behavioral problems, cognitive stimulation, maternal warmth, emotional/behavioral resilience, smoking, reading scores, home environment
Blum 2005	Impact of Parenting on Adolescent Sexual Risk	Longitudinal	ADD Health Nationally representative	Sexual onset, number of partners
Longmore 2005	Social Relationships, Identity and Teen Sexuality	Longitudinal Multivariate	Primary Data Collection Lucas County, OH 62 schools/7 districts 7 <sup>th</sup> , 9 <sup>th</sup> , 11 <sup>th</sup> graders T1: 1,316, T2: 1,177, 3: 1,114 Most White, some Black, few Hispanic; Stratified random sample	Regular condom use, number sexual partners, sexual onset, "player" identity, marriage, cohabitation, attempted partner influence, partner influence, confidence, awkwardness, perceived power, love

**Table 2. Studies of Antecedents of Adolescent Sexuality, Pregnancy, and Parenting: Females Only (N=7)**

<i>PI / Date</i>	<i>Title</i>	<i>Study Design</i>	<i>Data Source</i>	<i>Principal Outcome Variables</i>
Borkowski 1986	Predicting and Modifying Parenting in Adolescent Mothers	Longitudinal Multivariate	Primary Data Collection South Bend, IN Clinics, Agencies 168 pregnant teens 48 non-pregnant teens 35 primiparous adult women Mostly minority Convenience sample	Behavior problems, birthweight, cognitive functioning, maternal-child interactions, parenting knowledge, parenting attitudes, parenting style, parenting stress, psychological functioning, social support, attachment
Billy 1987	Contextual Effects on Adolescent Sexual Behavior	Cross-sectional Multilevel	NSFG Cycle III; County & census tract data; Nationally representative All analyses race specific- Black/Non-Black	Sexual intercourse, sex frequency, sex consistency, pregnancy
Dean 1989	Premarital Sexual Activity in a Rural Black Community	Qualitative	Primary Data Collection Louisiana rural parish Schools & clinics, 44 pregnant teens, 42 never-pregnant teens, their mothers Black Convenience sample	Majority of results qualitative or non-statistical, not presented here
Vicary 1996	Young Adult Outcomes of Adolescent Sexuality and Pregnancy	Longitudinal Multivariate	Primary Data Collection Northern Appalachia Junior high schools, Teenage girls: 50 pregnant, 50 no sex, 50 had sex /not pregnant White Convenience sample	Sexual onset, education, occupation, employment, income, public assistance, social support, home stress/satisfaction, parenting satisfaction/efficacy, romantic relationships, marriage style, child antisocial/challenging, child desirable/undesirable behavior
Manlove 1997	The Demographic Context of Teen Motherhood, 1980-1995	Cross-sectional Cohort Multilevel	NSFG 3 cohorts of teenage mothers: 1 <sup>st</sup> =1980-1986 2 <sup>nd</sup> =1987-1991 3 <sup>rd</sup> =1992-1995 Nationally representative sample	Birthrate, change in birthrate, by individual, state, and census level predictors
Barber 2003	Reducing The Risk Of Early Sex In Single-Mother Families	Longitudinal Multilevel Multivariate	ADD-Health Nationally Representative; Michigan Study of Adolescent Life Transitions Convenience sample	Parenting behaviors of single, repartnered and married mothers, child socialization, sports participation, parenting cluster types
East 1998	Follow-Up of the Siblings of Teen Mothers	Longitudinal	Primary Data Collection California Follow-up of previous high school/clinic sample T1-112 pregnant/new mothers, 115 never-pregnant, younger sisters, brothers, mothers Black, Hispanic Convenience sample	Sexual risk, pregnancy, school orientation, drug/alcohol use, attitudes re: teen birth/ parenting, maternal warmth/harshness/expectation, maternal achievement/ permissiveness attitudes, maternal monitoring, sex/contraceptive communication, perception of teen sex.

**Table 3. Studies of Antecedents of Adolescent Sexuality, Pregnancy, and Parenting: Males Only (N=3\*)**

<i>PI / Date</i>	<i>Title</i>	<i>Study Design</i>	<i>Data Source</i>	<i>Principal Outcome Variables</i>
Sonenstein 1990; 1993 (*2 separate studies)	Influences on Adolescent Male Premarital Sexual Behavior; Paternity and Pregnancy Among Adolescent Males	Cross- sectional Cohort Multilevel	1979 National Survey of Young Men; National Survey of Adolescent Males 1988, 1991, 1995; Nationally representative	Sexual onset, contraception at first sex, number partners, sex frequency, condom use, condom consistency, contraceptive use, pregnancy birth, male attitude, sex with IVD/prostitute, condom attitudes, sexual risk, 100% condom use, veracity of fertility reports by teen males, child support knowledge, concern about pregnancy
Pirog-Good 1990	The Background, Education and Employment of Teen Fathers	Longitudinal Cohort	NLSY79 males only Nationally representative	Income, father absenteeism, education, poverty threshold

### **Consequences of Adolescent Sexuality, Pregnancy, and Parenting**

Five of the eight Federal RFAs and FOAs released by OPA have mentioned some aspect of the consequences of adolescent sexuality, pregnancy, and parenting on the mother, the father, and other family members and 9 of the studies summarized fell into this category.

Two studies examined consequences for both females and males (Table 4); three studies examined consequences for females only (Table 5); five studies examined consequences for males only (Table 6); and four studies examined the consequences for children of being born to an adolescent mother and one study examined the consequences of an adolescent birth for siblings and the adolescent's mother (Table 7).

These studies focused primarily on five broad domains of consequence for both females and males of adolescent sexuality, pregnancy, and parenting: educational attainment, marriage, subsequent childbearing, economic well-being, and psychological well-being. In general, becoming sexually active, pregnant or making someone pregnant had short-term negative effects on education although many young mothers were able to finish high school or obtain a GED over a longer time period. Having more than one child reduced educational attainment. The studies that looked at marital status found that few adolescent mothers married the fathers of their first infants, although many were married at some subsequent time. One study reported high rates of marriage if a second birth occurs within 24 months of the first. Parenting had negative effects on income and employment for both teen mothers and teen fathers, and often led to welfare dependence for teen mothers. Studies differed in the impact of adolescent parenting on psychological well-being with some finding it had a deleterious effect and others not – or that psychological status was explained by status prior to the birth rather than to the birth itself.

In regard to the children of adolescent mothers, three of the studies compared outcomes for children of adolescent mothers with those of older mothers in an attempt to determine what relationship age had to outcomes. In order to isolate the effect of age from other background factors, one matched the comparison group on SES and race and another included background factors in her regressions. All studies suggested reasons for differences in outcomes between adolescent and adult mothers. In two studies based on an a priori theoretical framework reasons included the mother's readiness to parent, her resilience and characteristics of the grandmother-teen mother relationship.

Borkowski found that parenting stress, sensitive mother-child interactions, and child temperament at 6 months were predicted by cognitive readiness to parent rather than measures of social support, personal adjustment, and intelligence.

Stevenson compared infant temperament sociability, social experience, and performance, as well as caregiver knowledge of infant development at 4 months and found that the infants of adolescent mothers were more unpredictable. There were few differences in the Bayley scores, but adult mothers' infants were more responsive to people and adult mothers were more likely to behave in ways that supported infant cognitive and socio-emotional growth.

Kalmuss found that children of adolescent mothers scored lower than children of older mothers on Peabody Reading Recognition and Reading Comprehension scales but higher on Peabody Pictures Vocabulary Test scores. Maternal age did not affect mathematics score. Mother's Armed Forces Qualification Test (AFQT) score, quality of HOME environment, and number of other children being raised in the household were as strong or stronger influences on cognitive development.

Finally, Black noted that among mothers who did not have a harmonious relationship with the baby's grandmother (low harmony operationalized as support minus conflict in mother-grandmother relationship), participation in an intervention was associated with child resilience at 7 years.

Only East examined how adolescent sexuality, pregnancy, and parenting affected the adolescent's siblings and the adolescent's mother. Multiple analyses revealed that the impact was generally negative.

**Table 4. Studies of Consequences of Adolescent Sexuality, Pregnancy, and Parenting: Females and Males (N=2)**

<i>PI/Date</i>	<i>Title</i>	<i>Study Design</i>	<i>Data Source</i>	<i>Principal Outcome Variables</i>
Quandt 1989	Rural Adolescent Family Life: Health and Well Being	Longitudinal Cohort	NLSY79 Nationally representative	Sexual onset, birth, pregnancy social status, marriage, cohabitation, non-residence with parents, living alone, school completion, employment, non-salary income, public assistance
Robbins 1987	Pregnancy and Parenthood in the Adolescent Life Course	Longitudinal	Primary Data Collection Houston TX, Junior high schools, 7,618 7 <sup>th</sup> graders, 5,138 at 10- yr follow-up	Pregnancy. Abortion, marriage, employment, financial status, financial satisfaction, education, public assistance, post pregnancy distress, income

**Table 5. Studies of Consequences of Adolescent Sexuality, Pregnancy, and Parenting: Females Only (N=3)**

<i>PI/Date</i>	<i>Title</i>	<i>Study Design</i>	<i>Data Source</i>	<i>Principal Outcome Variables</i>
Kalmuss 1990	The Consequences of Early Childbearing	Longitudinal Cohort	NLSY Nationally representative	SES, birth, psychological functioning, cognitive functioning, relationships biology
Vicary 1996	Young Adult Outcomes of Adolescent Sexuality and Pregnancy	Longitudinal Multivariate	Primary Data Collection Northern Appalachia Junior high schools Teen girls: 50 pregnant, 50 no sex, 50 had sex /not pregnant White Convenience sample	Sexual onset, education, occupation, employment, income, public assistance, social support, home stress/satisfaction, parenting satisfaction/efficacy, Romantic relationships, marriage style, child antisocial/challenging, child desirable/undesirable behavior
Black 2003	Resilience Among Adolescent Mothers and Children Age 7	Longitudinal Intervention	Primary Data Collection Baltimore, MD Hospital sample 120 mother-child pairs Black, low-income, 7 year follow-up previous study Convenience sample	SES, family structure, birth, parenting, employment, residence, cognitive functioning, academic achievement, social-emotional functioning

**Table 6. Studies of Consequences of Adolescent Sexuality, Pregnancy, and Parenting: Males Only (N=5\*)**

<i>PI/Date</i>	<i>Title</i>	<i>Study Design</i>	<i>Data Source</i>	<i>Principal Outcome Variables</i>
Pirog-Good 1990	The Background, Education and Employment of Teen Fathers	Cross-sectional Longitudinal Cohort	NLSY79 Nationally representative	SES, family structure, problem behaviors, psychological functioning, drug use, employment, income
Sonenstein 1990; 1993 (*2 separate studies)	Influences on Adolescent Male Premarital Sexual Behavior; Paternity and Pregnancy Among Adolescent Males	Cross-sectional Cohort Multilevel	1979 National Survey of Young Men; National Survey of Adolescent Males 1988, 1991, 1995; Nationally representative	Sexual onset, contraception at first sex, number partners, sex frequency, condom use, condom consistency, contraceptive use, pregnancy, birth, male attitude, sex with IVD/prostitute, condom attitudes, sexual risk, 100% condom use, veracity of fertility reports by teen males, child support knowledge, concern about pregnancy
Florsheim 1996	Cross-ethnic Longitudinal Study of Adolescent Fatherhood	Longitudinal Multivariate Qualitative	Primary Data Collection Chicago, IL School, clinics T1:190 expectant teen fathers, 209 expectant teen mothers, T2: 146/175, T3:102/131 Over ¾ minority	Family structure, mother-father relationships, father-child relationships, psychological functioning, paternal parenting involvement, parenting behavior, parenting stress, child abuse potential, child behavior problems
Black 1998	Adolescent Fathers: Patterns of Involvement	Longitudinal Multivariate	Primary Data collection Baltimore, MD Hospital sample Fathers participating in home intervention project, 7 weeks postpartum: 109 fathers 24 month postpartum: 105 Black, low-income Convenience sample	Parenting, paternal involvement, mother-father relationships, family structure, employment, cognitive development, father-grandmother relationships

**Table 7. Studies of Consequences of Adolescent Sexuality, Pregnancy, and Parenting for Children and Other Family Members (N=5)**

<i>PI/Date</i>	<i>Title</i>	<i>Study Design</i>	<i>Data Source</i>	<i>Principal Outcome Variables</i>
Borkowski 1986	Predicting and Modifying Parenting in Adolescent Mothers	Longitudinal Multivariate	Primary Data Collection South Bend, IN Clinics, Agencies 168 pregnant teens 48 non-pregnant teens 35 primiparous adult women Mostly minority Convenience sample	Behavior problems, birthweight, cognitive functioning, maternal-child interactions, parenting knowledge, parenting attitudes, parenting style, parenting stress, psychological functioning, social support, attachment
Stevenson 1986	Adolescent Parenting Behavior	Longitudinal Univariate	Primary Data Collection Wisconsin 3 non-urban areas Birth records Infant's 4 <sup>th</sup> month: 84 single teen mothers & children, 82 single adult mothers & children 12 month follow-up not in report White Convenience sample	SES, family structure, parenting behavior, psychological, cognitive functioning, social-emotional functioning, attachment, resilience, services, infant growth and physical development
Ward 1988	Teen Mothers' Attachment Relationships: 3-Year follow-up	Longitudinal Multivariate	Primary Data Collection Clinic sample Enrolled during 3 <sup>rd</sup> trimester Reassessed at 3, 9, 15 months 92 primiparous adolescents & their infants 77 dyads at 15 months Black, Hispanic Convenience sample	Attachment, maternal sensitivity
Kalmuss 1990	Consequences of Early Childbearing	Longitudinal Cohort	Nationally representative, NLSY	SES, birth, psychological, cognitive, relationships, biology
East 1998	Follow-Up of the Siblings of Teen Mothers	Longitudinal	Primary Data Collection California Follow-up of previous high school/clinic sample T1-112 pregnant/new mothers, 115 never-pregnant, younger sisters, brothers, mothers Black, Hispanic Convenience sample	Sexual risk, pregnancy, school orientation, drug/alcohol use, attitudes re teen birth/parenting, maternal warmth/harshness/expectations, maternal achievement/permissiveness attitudes, maternal monitoring, sex/contraceptive communication, perception of teen sex

## **Adoption Studies**

In its first RFA in 1982, OPA included “adoption studies” as one of its three research areas. Adoption was also listed as a priority area in announcements in 1984 (emphasizing long-term consequences for adolescent mother), 1985, 1986 (stressing factors that influence success of adoption components in AFL pregnancy care projects), 2003, and 2004. Four groups of researchers were funded as a result of these announcements; several for more than one study. (When the researchers used the same data for several studies or data from follow-up studies of the original sample, the related studies are reported together. One researcher, Kallen, will not be reviewed because his grant was funded before the 1986 cut-off point for this analysis.)

Several of the McLaughlin et al. and the Namerow et al. studies examined the factors associated with the choice to relinquish or to parent and on the consequences of the decision. The McRoy et al. studies and one of the Namerow et al. studies were devoted to the issue of openness in adoption and its consequences. One of the McLaughlin studies focused on the promotion of adoption in AFL-funded care demonstrations.

All the studies that examined factors leading to adoption and/or the consequences of the decision recognized the difficulty of studying adoption among adolescents because relatively few adolescent mothers chose this option as compared to abortion or parenting. Moreover, many of the earlier adoption studies had been retrospective, used small and/or clinical samples, and did not have comparison groups, making their results questionable.

The McLaughlin et al. study of adolescents drew its sample from one pregnancy counseling program in Washington State over a 3-year period beginning during pregnancy and continuing at 6, 14, and 26 months after birth. The initial sample size was 134 adopters and 253 parenters, but there was a 50% drop in responders by 26 months, which the researchers attempted to compensate for by weighting the data. A second study was conducted on this sample 5 years after the birth of the child.

McRoy et al. used a cohort from 34 adoption agencies in 31 states to study the effect of adoption on the adoption triad, i.e., birth mothers (130), adoptive mothers (151), adoptive children (132), with a particular emphasis on the effect of openness in adoption. This study was conducted in two waves: Wave 1, begun in 1987, 4.5 to 12 years after placement, and Wave 2, begun in 1995, 12 to 20 years after placement.

Namerow et al. collected data from 592 adolescents in maternity residences, prenatal clinics, and teen pregnancy programs or adoption agencies. Data were collected in the last trimester of pregnancy, 4-6 months postpartum (527), and 4 years postpartum (406). This study has the largest group of non-Whites, although their number was still small.

McLaughlin’s study of 29 AFL Care Demonstration projects was based on data for 869 clients from agency records and a survey of agency staff.

The studies arrived at similar conclusions about the antecedents of the relinquish/parent decision. Adolescents who were socially disadvantaged or had educational problems were more likely to relinquish. (Only the Namerow study could analyze for minority status and it found that African Americans were more likely to parent.)

The studies also reached similar conclusions about the consequences of the decision in terms of education, economic status, marriage and fertility, and psychological status.

Only McLaughlin et al. found that relinquishers were significantly less satisfied with their pregnancy resolution than parenters. All found that adolescents who relinquished had better educational and economic outcomes. Namerow et al. found that at 6 months and 4 years, both groups were relatively comfortable with their decisions and that the pregnancy resolution choice was not significantly related to outcome measures. She found some short-term regret among relinquishers but, in general, there were no long-term negative emotional consequences for the adolescents.

The issue of openness in adoption was addressed by both McRoy et al. and Namerow et al. Namerow et al. found that openness was associated with positive outcomes for the birth mother and McRoy et al. found this for both the birth mother and the adoptive family.

The study of rates of relinquishment in 26 AFL Care Demonstration Projects found that adoption counseling overall and specific adoption counseling practices increased the rate of relinquishment. Rural communities and those with high rates of public assistance had lower rates of relinquishment. A separate analysis of the Namerow et al. sample by McCroy (APR #954), including additional data collection focusing on mothers who had placed their babies for adoption through maternity residences and agencies, found associations between agency practices and client grief and regret.

**Table 8. Studies of Adoption (N=4)**

<i>PI/Dates</i>	<i>Title</i>	<i>Study Design</i>	<i>Data Source</i>	<i>Results: Outcomes</i>
McLaughlin 1984 1991	The Consequences of the Adoption Decision	Longitudinal Multivariate	Primary Data Collection Washington state Pregnancy Agency Teen mothers 6, 14, 26 months post birth, and 5-6 years later T1: 387 T4: 192 White Convenience sample	SES, pregnancy, birth, abortion, sexual behaviors, family structure, psychological functioning, education, income, marriage
McLaughlin 1987	The Relationship of Client and Project Characteristics to the Relinquishment Rates of AFL Care Demonstration Projects	Cross-sectional Multivariate Multilevel	Primary Data Collection Nationwide 29 AFL/Care Demonstration projects 869 clients Staff survey Convenience sample	Relinquishment
McRoy 1987 1990 1997	Openness in Adoption: Outcomes for the Adoption Triad; Openness in Adoption: Birthmother Adjustment Patterns; Adoption Openness: Longitudinal Birthmother Outcomes	Cross-sectional Longitudinal Multivariate	Primary Data Collection 14 states 34 adoption agencies, T 1: 170 birth mothers 4.5-12 years post birth T 2: 127 birth mothers 12-20 years post birth Adoptive mothers, children White Convenience sample	SES, family structure, pregnancy, psychological functioning, adoption, adoption openness, adoption satisfaction, parent-child relationships, mother-father relationships
Namerow 1987 1993	Decision-Making Regarding Adoption and Parenting; Adoption versus Parenting: Consequences for Young Women	Longitudinal Multivariate	Primary Data Collection Maternity residences, prenatal clinics, teen pregnancy programs, adoption agencies Prenatal: 592 6-8 months: 527 4 years: 406 White	SES, family structure, relinquishment, adoption openness, psychological functioning

### **Program Evaluations/Services**

The first Federal Register announcement of Requests for Research Applications from the Office of Populations Affairs (3/1/82) included among possible research areas Services to Pregnant and Parenting Youth. In 1985, the announcement mentioned Adolescent Pregnancy Services, one 1986 announcement included Research Evaluating Family Involvement Strategies in AFL Adolescent Pregnancy Care Services and another in 1986 focused on Research Evaluating Factors Influencing Success of Adoption Components in AFL Adolescent Care Projects. Twelve grants were awarded which dealt with these areas in whole or in part, however, in five the research design or its implementation was of such limited quality that they will not be reviewed. (See discussion of quality earlier in this report.) Another study (McLaughlin) examined the impact of client and project characteristics on relinquishment rates of AFL Care demonstration projects. It was reviewed in the section on adoption and will not be summarized here.

All of the results are based on randomized control trials, but most started with small samples and/or experienced high rates of attrition resulting in very small samples at follow-up. Almost all of the interventions reported some significant differences between experimental and control groups, but most of the differences were small and often pertained to only a few of the measures or subgroups.

**Table 9. Studies of Evaluations/Services (N=7)**

<u>PI/Dates</u>	<u>Title</u>	<u>Study Design</u>	<u>Data Source</u>	<u>Results: Outcomes</u>
Borkowski 1986	Predicting and Modifying Parenting in Adolescent Mothers	RCT Longitudinal Multivariate Conditions: Cognitive parenting, Cognitive-behavioral parenting, OR Education pamphlet only	Primary Data Collection South Bend, IN Clinics, Agencies 68 pregnant teens Mostly minority	Parenting knowledge, maternal sensitivity, maternal affection, infant behavior
O'Connell 1996	Evaluating an African- Centered Pregnancy Model	RCT "Rites of Passage" training, OR no training	Memphis City Schools Pregnant or parenting African American teens	Sexual responsibility, pregnancy outcomes, parenting skills, school performance, self- esteem, repeat pregnancy
Black 2003	Resilience Among Adolescent Mothers and Children Age 7	RCT Longitudinal Multivariate Home visiting intervention	Primary Data Collection Baltimore, MD, Teen mothers recruited from hospitals for intervention project 120 mother-child pairs Black, low-income Convenience sample	Maternal economic stability, residential independence, behavior problems, parenting, child cognitive, biological, psychological development
Tanner 2003	Parental Involvement in Teen Risk Behavior	Qualitative Longitudinal Some multivariate	Primary Data Collection Amarillo, Texas Approximately 200 parents recruited for focus groups, experimental intervention, and educational intervention Black and Hispanic Convenience sample	Salience to parents of threat of early sexual behavior, STDs, and pregnancy to their children. Parent abstinence education program participation, parent-child communication
Cottrell 2003	Do As I Say Not As I Do: Parental Monitoring and Teen Sexual Risk	RCT Longitudinal Multivariate Parental monitoring video OR workbook	Primary Data collection West Virginia 573 parent-child dyads White	Parental monitoring, parent-child communication, child risk behaviors, child sexual behaviors
Fagan 2003	Adolescent Fathers' Involvement Intervention	RCT Longitudinal Multivariate Co-parenting curriculum for fathers OR child development/ child birth training	Primary Data Collection Unidentified Northeastern U.S. City Ob/Gyn clinics in low- income neighborhoods 161 teen mothers, 165 fathers Black, Hispanic	Co-parenting measures, parenting alliance, parenting support, father involvement, parenting competence
Somers 2003	An Experiential Teen Pregnancy Prevention Experiment	RCT Longitudinal Multivariate Caring for a quasi- interactive baby-doll or not	Primary Data Collection Middle school, urban area Pre-test: 185 male & female teens Post-test: 10-11 weeks later 1 year follow-up: 173 Black, Hispanic, low-income	Attitudes toward premarital sex, readiness to parent, sexual behaviors, pregnancy, contraception

## **Broad view of gaps in research funded by OPA**

**Study Design.** AFL grantees have made increasingly frequent use of secondary analysis of nationally representative cross-sectional and longitudinal data sets such as National Survey of Adolescent Males, Add Health, and NLSY79 that are useful in producing results with generalizability and also smaller convenience samples that can illuminate more in-depth processes of influence among key variables that are antecedents and/or consequences of sexual behavior. A notable lack is in the area of large scale mixed-method qualitative and process studies of adolescent sexual behavior and consequences, particularly studies that include in-depth, valid measures of social and institutional context, and link those measures to quantitative outcomes. Expanding the focus on multilevel studies that include context is also an area that would benefit from continued emphasis.

**Sample Type—Race/Ethnicity.** A number of studies based on convenience samples have focused on Black respondents, a few among them have included Hispanics but the majority was carried out with White samples. Whereas the nationally representative studies include minorities, the number of participants with mixed race, Native American, or Asian American backgrounds, and subgroups of Asian and Hispanic ethnicities is typically too limited to conduct useful analyses. More studies that employ minority samples are needed. This is especially true for studies of Native Americans and Asian Americans, Hispanics, and members of the African diaspora, including samples from relatively recent refugee and immigrant communities. Because minority groups contain internal heterogeneity, there is a need for larger-sample studies that focus on intra-racial and intra-ethnic variability among minority groups. These refugee and recent immigrant communities are likely to be at increased risk for poor health care and teenage pregnancy, and thus are an important area of focus for public health research.

**Risk Area.** Whereas a couple of studies incorporated the influences of media and technology, studies mostly have not addressed these areas of influence and risk, which have arguably exploded in the last 2 decades. Indeed, the influence of technology (internet, social networking, mobile devices, and the like) on social relationships and also the availability of sexual stimuli—and thus risk—appear poised to grow exponentially in the future. As such, studies that make technology and media a central focus of examinations of risk and influences on sexual mores and behavior are absolutely crucial.

## **RECOMMENDATIONS FOR RESEARCH PRIORITIES**

These recommendations on funding priorities for the Adolescent Family Life Program were developed based on several processes: 1) a review of research AFL has funded that revealed gaps in knowledge, 2) a recognition of social and technological developments in the 21<sup>st</sup> century that influence adolescent lives and reproductive behavior, 3) feedback from the survey of professionals in the fields of pregnancy prevention and services to pregnant and parenting teens commissioned for this contract, and 4) input from the Expert Work Group. The recommendations are organized into (A) those that pertain to

services for pregnant and parenting adolescents, (B) pregnancy prevention, and (C) targeted areas for study that have relevance to both.

## **A. Services for Pregnant and Parenting Adolescents**

### **1. Inventory of available services and their outcomes**

Different agencies have provided a variety of services to adolescent parents. What is needed is a review of extant literature for compiling an inventory of different services that adolescent parents have received. This review should document outcomes associated with services for the mother, father, children, and the family unit as a whole, as well as other caretakers, detailing what worked and what did not. The outcomes should be categorized into short-term (3 months to one year), 1-3 years, and long-term (longitudinal studies of more than three years) post-birth time periods for the baby who is the focus of the intervention. The prenatal period should be included as a category for short-term outcomes, especially with respect to outcomes such as preterm delivery, low-birth weight, and breastfeeding. The compilation should take into consideration demographic differences among parents. This information on what types of services benefit what type of adolescent parents, and children of adolescent parents, will be a useful guide to policy and program development and delivery.

### **2. Best practices associated with program entry and persistence**

There are many programs that serve adolescent parents but many more adolescents who could benefit from services. What are the best practices for identifying needs, recruiting eligible parents, enrolling and retaining them in programs, and assessing long-term program outcomes? What program and service provider characteristics, including awareness, knowledge, and skills of staff and leadership are associated with positive outcomes? Studies in this area should include a focus on the ways best practices may vary by the cultural milieu of the target population, as well as the ways physical, social, and political environment influence the best program implementation approaches.

### **3. A 21<sup>st</sup>-century update**

An important context for adolescent parenthood is historical time. Most follow-up studies of teenage parents are based on cohorts originally recruited well before welfare reform and other institutional and structural changes that influence the lives of adolescent parents. One or more follow-up studies are needed that focus on adolescent cohorts who had babies in the 21<sup>st</sup> century. When possible, such studies should use subsamples from longitudinal data already being collected by several agencies and organizations. If these data do not have large enough samples of adolescent mothers or do not provide the needed information, an AFL-funded study may be needed.

One particular institutional and structural issue that is very salient in the early 21<sup>st</sup> century is the changes in healthcare options for pregnant and parenting teens. What options have they had for healthcare, and do they now have, during this period of transition to the new national healthcare system? The state-by-state differences in implementing healthcare

offer a unique opportunity to assess the impact of different provisions of changes in healthcare coverage and implementation of the changes. Examining contraceptive availability and types of contraceptive coverage (e.g., do plans cover LARC methods?) is a similar issue. In addition, the legal context of access/minor rights, which varies by state, is important to include in state-by-state comparisons of healthcare and contraception availability and their consequences.

## **B. Pregnancy Prevention Studies**

### **1. Contextual Influences**

Some studies have made an effort to examine the influence of context on risks for teenage pregnancy by incorporating multilevel approaches. New studies should follow this trend by continuing to make use of school, neighborhood, census, and state level quantitative data so that individual risks can be understood within their realistic circumstances.

Race, ethnicity, social class, sexual orientation, religion, urbanicity of residence, and geographic region continue to be important social contexts that influence adolescents' sexual and parenting behaviors alone and in interaction with each other. An intersectionality perspective that highlights the unique developmental needs of adolescents and their children who have multiple identities (e.g., a disabled white teen mother who lives in a rural area) can be a useful framework for designing research on risk and protective factors as well as designing interventions for both male and female adolescents. The agency can fund a number of coordinated projects at different locations that can produce results which can be integrated across sites to yield a more comprehensive yet more differentiated view of how the intersection of different social identity contexts influence pregnancy and parenting outcomes.

Future studies should focus on developing additional systematic ways to observe the risk climate that exist at different ecological contexts and suggest ways to decrease those risks for the young people who live within high-risk communities. For example, studies have examined community-level risks such as unemployment and numbers of single men and women. Are there other measureable ways to examine the sexual risk climate of a community, such as examining access to bars, nightclubs, and liquor stores, preponderance of low-rent hotels, parks, or abandoned buildings where teens may be able to congregate privately? Communities vary in the degree to which extensive public displays of affection among teens—and adults—are tolerated and condoned, or socially discouraged. How do community-level norms of public displays of affection influence adolescent sexual activity?

Another contextual issue is the overall environment with respect to health behaviors in general, and how that relates to pregnancy and sexual risk behaviors. Can pregnancy prevention be integrated into interventions that target other health risk behaviors? There is evidence to suggest that risky sexual activities, including early sexual debut, develop as

part of a larger risky health behaviors syndrome. There is also evidence to suggest that sexual health risk behaviors have their own developmental trajectory unrelated to other health risk behaviors. Teasing out causal and co-varying relationships among health risk behaviors and specifying the contexts under which they occur is important for developing realistic expectations of interventions that do not directly target healthy sexual behaviors for both male and female adolescents.

The family context, and how it relates to other contexts and influences adolescent behavior, is crucial. It is a truism that parents are the primary sexuality educators of their children. Parents differ in their effectiveness as sexuality educators regarding what and how they teach about sexuality. When parents avoid teaching about sexuality, children learn that it is a topic that cannot be talked about. What community, cultural, educational, and interpersonal resources, knowledge, attitudes, beliefs, and behaviors can increase parents' effectiveness as sexuality educators for both their sons and daughters?

### **C. Targeted Areas for Study**

#### **1. Cross agency collaboration**

Working in collaboration with agencies that fund research on reproductive health, AFL can participate in funding projects that assess existing knowledge and gaps, determine research needs and priorities, resulting in coordination among agency and foundation portfolios.

#### **2. Intergenerational transmission of teenage parenting**

Follow-up studies of samples collected by Furstenberg, Klerman, and Jekel and others have shown that many of the children of teenage parents themselves become teenage parents. This phenomenon merits investigation for the influence of both fathers and mothers who became teen parents. How does the behavior of parents whose children do not become involved in a pregnancy before completing high school or marriage differ from the behavior of parents whose offspring do become involved in a pregnancy too early? East has generated much of the initial research on this issue, but important questions remain about the cultural, racial/ethnic, social, and community factors that may impinge on adolescents of color (broken down by racial/ethnic groups) who are susceptible to intergenerational transmission of teenage parenting.

#### **3. Immigrant families and adolescent pregnancy**

Many researchers have commented on the immigrant paradox, which finds that first generation immigrants (those born abroad but who give birth in the U.S.) have better pregnancy outcomes than second or third generation immigrants. The evidence points to second and third generation youth assimilating to the most risky elements of American culture (e.g., fast foods, smoking, drugs, school failure). Do second and third generation immigrant youth, especially youth from Latin America, also assimilate to sex outside of marriage, early sexual initiation, and non-use of contraceptives? What are the typical, and some of the different trajectories in regard to acquiring risky behaviors? Do these

trajectories differ among immigrant groups, and for boys vs. girls, and high and low-income immigrants? What also are the protective factors against pregnancy for different immigrant groups?

#### **4. Role of other programs focusing on high-risk families in serving pregnant or parenting adolescents**

Early Head Start, the Nurse-Family Partnership, and other publicly and privately supported programs enroll and serve large numbers of teenagers. We do not know whether many of these programs are operating in locations that also have programs that exclusively serve teenagers. If they do, are the teenagers enrolled in both types of programs? If teenagers choose one or the other type of program, what factors influence that choice? In what ways do the services differ between the two programs that serve teens? Are the outcomes for teenagers in programs that serve diverse high-risk clients comparable to outcomes of those that exclusively serve teenagers? Are the costs comparable?

#### **5. Pregnant or parenting teenagers who do not receive services**

Many pregnant and parenting adolescents are assisted by programs designed for them or those designed for high-risk mothers generally. But some give birth and care for their children seemingly without any input from such programs. It is important to know how many teenagers fall through the cracks, how they manage, and why they are not receiving the services. Which factors influence lack of access or utilization of care, and how does that vary by different demographic groups? Are there sub-groups of adolescents (e.g., age, race, SES, school status, geography, immigration status etc., as well as attitudes of teens about pregnancy or parenting) who disproportionately do not receive services and why? What services are specifically available for teens who are homeless or without any close family to support them? How effective are the programs the prevention of subsequent pregnancies?

#### **6. Second pregnancy prevention**

What factors promote a second unintended pregnancy and what types of interventions are most effective with adolescents who have already had a child, across different demographic groups? What is the effectiveness rate of different programs in preventing second pregnancies? What qualities characterize adolescent fathers who are involved in more than one pregnancy? What types of interventions are effective in reducing young men's rates of being responsible for more than one pregnancy?

#### **7. New technologies**

What are the types of new technologies (e.g., social media, texting) that have been used and can be used to implement interventions directed at teen sexual activity and pregnant and parenting teens? How does their effectiveness compare with more traditional methodologies for implementing interventions? Does the effectiveness of new technology-based interventions vary by sex, age, educational level, urbanization, and

other demographic characteristics of targeted adolescents? What roles can parents play in the interface of new technologies/media influences and teen sexual behavior?

What roles do online resources and social networks play in the lives of pregnant and parenting teens? Do they utilize the internet for gathering resources on healthy pregnancies and parenting skills? Do pregnant and parenting teens join social support groups online? Are there any best practices? What factors play into access to these resources?

## **8. Media influences**

The impact of television consumption on teen reproductive behavior has been extensively examined. However, the impact of “reality” programming has not been a specific focus of studies of pregnant and parenting adolescents. What messages do pregnant and parenting adolescents receive from “reality” television? How are pregnant and parenting teens portrayed in the reality television? Are any demographic groups more frequently portrayed than others? Are there differentials by type of media, media outlets etc?

Content analyses of various media formats (e.g. TV, music, movies, magazines) have documented potentially negative images of teens and women, particularly the hypersexualization of women and stereotypical depictions of race/ethnicity. Few studies have been able to establish how viewers are psychologically affected by these images and whether the images influence their behaviors. Studies of the impact of sexually promiscuous and/or pregnant characters on TV/movies are urgently needed, in particular how these characters and messages are talked about within families and among peers, and whether such conversations play mediating or moderating roles in how behavior is influenced.

## **9. School context**

Effectiveness of school-based programs to prevent unintended pregnancies can vary with the content of the curricular intervention and the fidelity with which the intervention is implemented. What kinds of adaptations to local conditions can be made without reducing the effectiveness of a curriculum? What are effective strategies for scaling up programs with fidelity?

How much value do partnerships between parents and schools and also key stakeholders, including community-based agencies/leaders add to school-based sex education programs?

What services within schools, led by nurses, guidance counselors, mental health workers and others increase potential for adult-student communication on sexual health, relationships, and family issues, and are those services associated with better prevention and more positive teen parenting outcomes? Are there any best practices?

Out-of-school programming for adolescents may be based in schools or in community-based agencies and out-of school-time programming may occur during the school year and/or during the summer. What are the benefits and drawbacks of locating programming in schools or in community-based agencies for pregnancy prevention and for services to pregnant and parenting teens? How effective are out-of school-time programs in reaching teens who have dropped out of school?

## **10. Evaluations**

Implementation and demonstration projects should propose rigorous evaluation plans which should be funded with up to 30% of the full project budget.

AFL should fund a formal experimental evaluation of one or more implementation programs that have some evidence for long-term impact.

What has been the impact of policies designed to influence pregnancy prevention and parenting? Also needed are studies of the impetus, development, and implementation of policies as well as successes and remaining challenges. What were the impacts of the high or low sponsorship, funding, and longevity on the success of policy initiatives?

## **11. Cost effectiveness of programs for pregnant adolescents and parenting teens**

The Office of Adolescent Pregnancy Programs and other groups have funded implementations for many years, but there does not appear to be any information on how much the programs cost on a per-person basis or on their cost-effectiveness. Cost effectiveness studies are much needed.

## APPENDIX A

### AFL Research Projects Funded, 1986-2005

AFL Grant#	Principal Investigator	Project Title	Institution	Project Start Date	End Date
936	Borkowski, John G.	Predicting and Modifying Parenting in Adolescent Mothers	Uni. of Notre Dame	7/1/86	6/30/89
937	Chewing, Betty A.	Adolescent Sexual Risk-Taking: Antecedents and Sequelae	University of Wisconsin-Madison	10/31/86	10/29/87
938	Stevenson, Marguerite B.	Adolescent Parenting Behavior	Uni. of Wisconsin	10/1/86	9/30/89
939	McLaughlin, Steven	Consequences of the Relinquish Versus Parent Decision	Battelle Human Affairs Research Center	10/1/86	9/30/89
941	McRoy, Ruth	Openness in Adoption: Outcomes for the Adoption Triad	Uni. of Texas at Austin	6/1/87	5/31/90
942	Namerow, Pearila B.	Decision-Making Regarding Adoption and Parenting	Columbia Uni.	10/1/87	9/30/90
943	McLaughlin, Steven	Evaluating the Adoption Components of AFL Care Projects	Battelle Memorial Institute	9/15/87	9/14/90
944	Quandt, Sara A.	Rural Adolescent Family Life: Health and Well-Being	Uni. of Kentucky	9/30/87	9/29/89
945	Barnes, Howard L.	Antecedents and Consequences of Teen Sexual Behavior	Kansas State Uni.	9/30/87	9/29/90
946	Hanson, Sandra L.	Effects of Family Involvement on AFL Program Clients	Catholic Uni of America	9/30/87	9/29/89
947	Billy, John O.G.	Contextual Effects on Adolescent Sexual Behavior	Battelle Memorial Institute	9/30/87	9/29/89
948	McLaughlin, Steven	To Parent or Relinquish: Consequences Two Years Later	Battelle Memorial Institute	7/1/88	6/30/91
949	Ward, Mary J.	Teen Mothers' Attachment Relationships: 3 Year Follow-up	Cornell Uni. Medical Center	7/1/88	6/30/91
950	Robbins, Cynthia	Pregnancy and Parenthood in the Adolescent Life Course	Uni. of Kentucky	4/1/87	3/31/90
951	Saltz, Eli	Preventing Teen Pregnancy: Attacking the Personal Fable	Wayne State Uni.	10/1/88	9/30/89

952	Dean, Anne L.	Premarital Sexual Activity in a Rural Black Community	Uni. of New Orleans	6/1/89	5/31/92
953	Sonenstein, Freya L.	Influences on Adolescent Male Premarital Sexual Behavior	Urban Institute	7/1/90	6/30/91
954	McRoy, Ruth	Openness in Adoption: Birthmother Adjustment Patterns	Uni. of Texas at Austin	8/1/90	7/31/92
955	Kalmuss, Debra	The Consequences of Early Childbearing	Columbia Uni.	9/30/90	9/29/93
956	Fuscaldo, Diane	School-Based Services for Teen Parents: A Study	New Jersey Chapter, National Committee for Prevention of Child Abuse	10/1/90	9/30/93
957	McLaughlin, Steven	Consequences of the Adoption Decision: 5-Year Follow-up	Battelle Memorial Institute	5/1/91	4/30/94
958	Priog-Good, Maureen	The Background, Education and Employment of Teen Fathers	Indiana Uni.	9/1/90	8/31/94
959	Moore, Kristin	Antecedents of Adolescent Sexual Attitudes and Behavior	Child Trends	3/1/92	2/28/95
960	Namerow, Pearila B.	Adoption Versus Parenting: Consequences for Young Women	Columbia Uni	3/1/92	2/28/95
961	Mott, Frank	Adolescents at Risk: Predictors of Problem Behavior	Ohio State Uni	7/1/92	6/30/95
963	Sonenstein, Freya L.	Paternity and Pregnancy Among Adolescent Males	Urban Institute	7/1/93	6/30/95
965	Florsheim, Paul	Cross-Ethnic/Longitudinal Study of Adolescent Fatherhood	Uni. of Utah	4/1/96	3/31/99
967	Vicary, Judith	Young Adult Outcomes of Adolescent Sexuality and Pregnancy	Pennsylvania State Uni.	8/1/96	7/31/97
968	Manlove, Jennifer	The Demographic Context of Teen Motherhood, 1980-1995	Child Trends	10/1/97	9/30/00
969	McRoy, Ruth	Adoption Openness: Longitudinal Birthmother Outcomes	Uni. of Texas at Austin	11/1/97	10/31/00
970	East, Patricia	Follow-up of younger Siblings of Teen Mothers	Uni. of California-San Diego		

971	Pike, Lynn M.	Reducing the Risk Curriculum: Replication and Evaluation	Uni. of Missouri	4/1/98	3/31/01
972	Hoppe, Marilyn J.	Communication about Health Between Adults and Teens	Uni. Of Washington	4/1/98	3/31/01
973	Mott, Frank L.	Teen Sexual Behavior: Demographic Risk and Trajectories	Ohio State Uni	9/1/98	8/31/01
974	Black, Maureen	Adolescent Fathers: Patterns of Involvement	Uni. of Maryland at Baltimore School of Medicine	1/1/98	12/31/01
6000	Black, Maureen	Resilience Among Adolescent Mothers and Children Age 7	Uni. of Maryland	9/30/03	9/29/06
6001	Barber, Bonnie	Reducing the Risk of Early Sex in Single Mother Families	Uni. of Arizona	10/1/03	9/31/06
6002	Tanner, John F.	Parental Involvement in Teen Risk Avoidance	Worth the Wait	10/1/03	9/31/04
6003	Cottrell, Lesley	Do As I Say Not As I Do: Parental Monitoring and Teen Sexual Risk	West Virginia Uni. Research Corp.	9/30/03	9/29/06
6004	Fagan, Jay	Adolescent Fathers' Involvement Intervention	Temple Uni	10/1/03	9/31/06
6006	Somers, Cheryl	An Experimental Teenage Pregnancy Prevention Experiment	Waye State Uni.	9/30/03	9/29/04
6008	Blum, Robert	Impact of Parenting on Adolescent Sexual Risk	Johns Hopkins	4/1/05	12/31/07
6009	Longmore, Monica	Social Relationships, Identity, and Teen Sexuality	Bowling Green Uni.	6/1/05	5/30/08

## APPENDIX B-1

### **Publications resulting from AFL research grants funded between 1986 and 2005 with acknowledgment to OPA, OAPP, or AFL program**

In bolded font is the name of the principal investigator, the grant number, and the name of the RFA under which they received funding.

The material in parenthesis is the acknowledgment noted on the publication. Note that these are sometimes not the same as the APR number assigned to the research grant. See Appendix B-2 for other publications that may have been funded by OPA but which cite other funding sources or none.

#### **Barber - APR #6001- Reducing the Risk of Early Sex in Single Mother Families**

No publications located.

#### **Barnes - APR #945 - Antecedents and Consequences of Teen Sexual Behavior**

No publications located.

#### **Billy - APR #947 - Contextual Effects on Adolescent Sexual Behavior**

Billy J, Landale NS, McLaughlin SD. The effect of marital status at first birth on marital dissolution among adolescent mothers. *Demography*. 1986; 60(7):329-349. (OAPP, No. 282-83-0076)

Billy J, Brewster K, Grady, W. Contextual effects on the sexual behavior of adolescent women. *Journal of Marriage and the Family*. 1994; 56(2):387-404. (OPA, APR 000947-02)

Billy J, Landale N, Grady W, Zimmerie D. Effects of sexual activity on adolescent social and psychological development. *Social Psychology Quarterly*. 1988; 51(3):190-212. (OPA, APR-000918-01-1)

Hayward M, Grady W, Billy J. The influence of socioeconomic status on adolescent pregnancy. *Social Science Quarterly*. 1992; 73(4):750-772. (OPA, FPR 000049)

McLaughlin S, Grady W, Billy J, Landale N, Wings L. The effects of the sequencing of marriage and first birth during adolescence. *Family Planning Perspectives*. 1986; 18(1):12-18. (OPA, No. 282-83-0076)

#### **Black - APR #974 - Adolescent Fathers: Patterns of Involvement**

Gavin L, Black M, Minor S, Abel Y, Papas M, Bentley M. Young, disadvantaged fathers' involvement with their infants: an ecological perspective. *Journal of Adolescent Health*. 2002; 31(3):266-276. (OPA, APR # PA000974 & Maternal and Child Health, # MCJ-240301)

#### **Black - APR #6000 - Resilience Among Adolescent Mothers and Children Age 7**

Papas MA, Hurley KM, Quigg AM, Oberlander SE, Black MM. Low-income, African-American adolescent mothers and their toddlers exhibit similar dietary variety patterns. *Journal of Nutrition Education and Behavior*. 2009; 41(2):87-94.

(Maternal and Child Health Research Program MCJ-240301, OPA grant APRPA006000, grant from the Collaborative Cigarette Restitution Fund Program)

**Blum - APR #6008 - Impact of Parenting on Adolescent Sexual Risk**

Roche KM, Ahmed S, Blum RW. Enduring consequences of parenting for risk behaviors from adolescence into early adulthood. *Social Sciences and Medicine*. 2008; 66:2023-2034. (OPA 1 RO1 PG000764-01)

**Borkowski - APR # 936 - Predicting and Modifying Parenting in Adolescent Mothers**

Nath PS, Borkowski JG, Whitman TL, Schellenbach CJ. Understanding adolescent parenting – the dimensions and functions of social support. *Family Relations*. 1991; 20(4):411-420. (PHS grant #AR000936 & NIH 07184)

Passino AW, Whitman TL, Borkowski JG, et al. Personal adjustment during pregnancy and adolescent parenting. *Adolescence*. 1993; 28(109):97-122. (Office of Adolescent Family Life #AR-000936 & NIH #HD-26456)

Sommer K, Whitman TL, Borkowski JG, Schellenbach C, Maxwell S, Keogh D. Cognitive readiness and adolescent parenting. *Developmental Psychology*. 1993; 29(2):389-398. (Office of Adolescent Family Life #AR-000936 & NIH HD-07184)

Whitman TL, Borkowski JG, Schellenbach CJ, Nath PS. Predicting and understanding developmental delay of children or adolescent mothers: A multi-dimensional approach. *American Journal of Mental Deficiency*. 1987; 92(1):40-56. (Public Health Service Grant No. AR000936. The fourth author was supported by National Institutes of Health Training Grant No. HD-07184).

Schellenbach CJ, Whitman TL, Borkowski JG. Toward an integrative model of adolescent parenting. *Human Development*. 1992; 35(2):81-99. (PHS grant #AR000936)

**Chewning - APR #937 - Adolescent Sexual Risk-Taking: Antecedents and Sequelae**  
No publications located.

**Cottrell - APR#6003 - Do As I Say Not As I Do: Parental Monitoring and Teen Health Risk**

(see B-2)

**Dean - APR #952 - Premarital Sexual Activity in a Rural Black Community**

Dean A, Ducey SJ, Malik MM. *Teenage Pregnancy: The Interaction of Psyche and Culture*. 1997. Hillsdale, NJ: Analytic Press. (Eugene Eckert was the project Director for the Office of Adolescent Pregnancy, Department of Health and Human Welfare [sic] that partially supported the second phase of this research.)

### **East - APR #970 - Follow Up of the Siblings of Teen Mothers**

- East PL. The impact of adolescent childbearing on families and younger siblings: Effects that increase younger siblings' risk for early pregnancy. *Applied Developmental Science*. 1998; 2:62-74. (OPA, APR 000970 & NICHD, R29-HD29472)
- East PL. The first teenage pregnancy in the family: Does it affect mothers' parenting attitudes or mother-adolescent communication? *Journal of Marriage and the Family*. 1999; 61(2):306-319. (OPA, APR 000970 & NICHD, R29-HD29472)
- East PL, Jacobson LJ. Adolescent childbearing, poverty, and siblings: Taking new direction from the new literature. *Family Relations*. 2000; 49(3):287-264. (OPA, APR 000970 & NICHD, R29-HD29472)
- East PL. Pregnancy prevention opportunities focusing on the younger sisters of childbearing teens. In D Stokols and M. Jamner MS, eds. *Promoting Human Wellness: New Frontiers for Research, Policy, and Practice*. 2000. Berkeley, CA: University of California Press: 190-221. (R29-HD29472 from the National Institute of Child Health and Human Development, grant APR-000970 from the Office of Population Affairs, and a 1996 Distinguished Wellness Lecturer Award from the California Wellness Foundation and the University of California Office of Health Affairs.)
- East PL, Jacobson LJ. The younger siblings of teenage mothers: A follow-up of their pregnancy risk. *Developmental Psychology*. 2001; 37(2):254-264. (OPA, APR 000970 & NICHD, R29-HD29472)
- East PL, Jacobson LJ. Mothers' differential treatment of their adolescent childbearing and nonchildbearing children: Contrasts between and within families. *Journal of Family Psychology*. 2003; 17(3):384-396. (OPA, APR 000970 & NICHD, R29-HD29472)
- East PL, Khoo ST. Longitudinal pathways linking family factors and sibling relationship qualities to adolescent substance use and sexual risk behaviors. *Journal of Family Psychology*. 2005; 19(4):571-580. (NICHD - #R01-HD43221 & R29-HD29472 and OPA #APR-000970)
- East PL, Reyes BT, Horn EJ. Association between adolescent pregnancy and a family history of teenage births. *Perspectives on Sexual and Reproductive Health*. 2007; 39(2):108-115. (NICHD, R01-HD29472 and OPA, APR-000970)

### **Fagan - APR #6004 - Randomized Study of a Co-Parenting Intervention with Adolescent and Young Fathers Expecting a Baby**

- Fagan J. Randomized study of a prebirth coparenting intervention with adolescent and young fathers. *Family Relations*. 2008; 57(3):309-323. (Office of Family Life Research, APR#PA006004-03-02)
- Fagan J, Schmitz M, Lloyd J. The relationship between adolescent and young fathers' capital and marital plans of couples expecting a baby. *Family Relations*. 2007; 56(3):231-243. (Office of Family Life Research, APR#PA006004-03-02)

### **Florsheim - APR #965 - The Young Parenthood Project**

- Florsheim P, Hall S, Gaskill M, McArthur L, McElligott K. The young parenthood program: A prevention intervention to support positive coparenting among pregnant adolescents and their partners. *Journal of Adolescent Health*. 2007; 40(2):4. (Grant #APR000965)
- Florsheim P, Sumida E, McCann C, et al. The transition to parenthood among young African American and Latino couples: Relational predictors of risk for parental dysfunction. *Journal of Family Psychology*. 2003; 17(1):65-79. (OPA, APR 000965-01);
- Moore DR, Florsheim P. Interpartner conflict and child abuse risk among African American and Latino adolescent parenting couples. *Child Abuse and Neglect*. 2008; 32(4):463-475. (OPA, GNNS)
- Florsheim P, Ngu LQ. Fatherhood as a transformative process. In Kowaleski-Jones L, Wolfinger N, eds. *Fragile Families and the Marriage Agenda*. 2006. SpringerLink: 211-232. (Office of Population Affairs and the Robert Wood Johnson Foundation)
- Moore DR, Florsheim P, Butner J. Interpersonal behavior, psychopathology, and relationship outcomes among adolescent mothers and their partners. *Journal of Clinical Child and Adolescent Psychology*. 2007; 36(4):541-556. (OPA, Adolescent Family Life Program, GNNS)
- Florsheim P, Moore D, Edgington C. Romantic relations among adolescent parents. In: Florsheim P, ed. *Adolescent Romantic Relations and Sexual Behavior: Theory, Research, and Practical Implications*. 2003. Hillsdale, NJ: Lawrence Erlbaum Associates: 297-319. (Adolescent Family Life Program, OPA, APR 000965-01-1; Robert Woods Johnson Foundation; funds from the University of Utah)
- Florsheim P. The economic and interpersonal dynamics of nonresident paternal involvement. In: Taylor R, Wang M, eds. *Resilience Across Contexts: Family, Work, Culture, and Community*. 2000. Hillsdale, NJ: Lawrence Erlbaum Associates. (OPA)

**Fuscaldo - APR #956 - School-Based Services for Teen Parents: A Study**

Fuscaldo D, Kaye J, Philliber S. Evaluation of a program for parenting. *Families in Society*. 1998; 79(1):53-61. (Adolescent Family Life Grant, GNNS)

**Hanson - APR #946 - Effects of Family Involvement on AFL Program Clients**

No publications located.

**Hoppe - APR #972 - Communication about Health Between Adults and Teens**

No publications located.

**Kalmuss - APR # 955 - The Consequences of Early Childbearing**

Kalmuss D, Namerow P. Subsequent childbearing among teenage mothers: the determinants of a closely spaced second birth. *Family Planning Perspectives*. 1994; 26(4):149-159. (OPA #000955)

Kalmuss D, Namerow P, Bauer U. Short-term consequences of parenting versus adoption among young unmarried women. *Journal of Marriage and the Family*. 1992; 54(1):80-90. (OPA, APR-000942)

Kalmuss D, Namerow P, Cushman L. Adopting versus parenting among young pregnant women. *Family Planning Perspectives*. 1991; 23(1):17-23. (OPA, GNNS)

**Longmore - APR #6009 - Social Relationships, Identity, and Teen Sexuality**

(see B-2)

**McLaughlin - APR #939, APR #948 - Short Term Consequences of the Decision to Parent or Relinquish among Adolescent Mothers**

McLaughlin S. To parent or relinquish: Consequences for adolescent mothers. *Social Work*. 1988; 33(4):320-324. (OPA, APR 000919-20-0)

McLaughlin S, Manninen D, Wings L. Do adolescents who relinquish their children fare better or worse than those who raise them? *Family Planning Perspectives*. 1988; 20(1):25-32. (OPA, GNNS)

**McLaughlin - APR #943 - The Relationship of Client and Project Characteristics to the Relinquishment Rates of AFL Care Demonstration Projects**

(see B-2)

**McRoy - APR #941 - Openness to Adoption Outcomes for the Adoption Triad**

**McRoy - APR#954 - Openness in Adoption: Birthmother Adjustment Patterns**

**McRoy - APR#969- Adoption Openness: Longitudinal Birthmother Outcomes**

Mendenhall TJ, Grotevant HD, McRoy RG. Adoptive couples: Communication and changes made in openness levels. *Family Relations*. 1996; 45:223-229. [Funding from the Undergraduate Research Opportunities Program (UROP) at the University of Minnesota from the National Institute of Child Health and Human Development, Federal Office of Population Affairs, Hogg Foundation for Mental Health, Minnesota Agricultural Experimental Station, and University Research Institute of the University of Texas]

Wrobel G, Ayers-Lopez S, Grotevant HD, McRoy RG, Friedrich M. Openness in adoption and the level of child participation. *Child Development*. 1996; 67: 2358-2374. (Funding from the Office of Population Affairs, U.S. Department of Health and Human Services; National Institute of Child Health and Human Development; Hogg Foundation for Mental Health; University Research Institute of the University of Texas at Austin; and Minnesota Agricultural Experiment Station)

Christian CL, McRoy RG, Grotevant HD, Bryant C. Grief resolution of birthmothers in confidential, time-limited mediated, ongoing mediated, and fully disclosed adoptions. *Adoption Quarterly*. 1997; 1(2): 35-58. (Lois and Samuel Silberman Fund; OPA, USDHHS, Hogg Foundation for Mental Health, University Research Institute of the University of Texas at Austin, Minnesota Agricultural Experiment Station, NICHD)

- Grotevant HD, McRoy RG. The Minnesota/Texas Openness in Adoption Research Project: Evolving adoption policies and practices and their implications for development and relationships. *Applied Developmental Science*. 1998; 1:166-184. (Funding from the federal Office of Population Affairs, the Hogg Foundation for Mental Health, the National Institute of Child Health and Human Development, the William T. Grant Foundation, the John D. and Catherine T. MacArthur Foundation, the Minnesota Agricultural Experiment Station, the Center for Research on Interpersonal Relationships at the University of Minnesota, and the University Research Institute of the University of Texas at Austin)
- Grotevant HD, McRoy RG. *Openness in Adoption: Exploring Family Connections*. 1998. Thousand Oaks, CA: Sage. (Funding from Office of Population Affairs, U.S. Department of Health and Human Services; National Institute of Child Health and Human Development; Hogg Foundation for Mental Health; William T. Grant Foundation; Lois & Samuel Silberman Fund; University Research Institute of the University of Texas at Austin; the Center for Research on Interpersonal Relationships at the University of Minnesota; and Minnesota Agricultural Experiment Station)
- Wrobel GM, Kohler JK, Grotevant HD, McRoy RG. Factors related to patterns of information exchange between adoptive parents and children in mediated adoptions. *Journal of Applied Developmental Psychology*. 1998; 19:641-657. (Funding from the Office of Population Affairs, U.S. Department of Health and Human Services; National Institute of Child Health and Human Development; William T. Grant Foundation; Hogg Foundation for Mental Health; University Research Institute of the University of Texas at Austin; and Minnesota Agricultural Experiment Station)
- Grotevant HD, Ross NM, Marchel MA, McRoy RG. Adaptive behavior in adopted children: Predictors from early risk, balance of relationships in the adoptive kinship network, and openness arrangements. *Journal of Adolescent Research*. 1999; 14:231-247. (Funding from the federal Office of Population Affairs, the Hogg Foundation for Mental Health, the National Institute of Child Health and Human Development, the William T. Grant Foundation, the John D. and Catherine T. MacArthur Foundation, the Minnesota Agricultural Experiment Station, the Center for Research on Interpersonal Relationships at the University of Minnesota, and the University Research Institute of the University of Texas at Austin.)
- Fravel DL, McRoy RG, Grotevant HD. Birthmother perceptions of the psychologically present adopted child: Adoption openness and boundary ambiguity. *Family Relations*. 2000;49: 425-433. (Funding from the Department of Applied Health Science at Indiana University, the U. S. Office of Population Affairs, the National Institute of Child Health and Human Development, the William T. Grant Foundation, the John D. and Catherine T. MacArthur Foundation, the Minnesota Agricultural Experiment Station, the Hogg Foundation for Mental Health, the Center for Research on Interpersonal Relationships at the University of Minnesota, and the University Research Institute of the University of Texas at

Austin.)

**Manlove - APR #968 - The Demographic Context of Teen Motherhood, 1980-1995**

Manlove J, Terry E, Gitelson L, Papillo AR, Russell S. Explaining demographical trends in teen fertility, 1980-1995: The changing context of adolescence. *Family Planning Perspectives*. 2000; 32(4):166-175. (OPA, APR 000968-01-1)

**Moore - APR #959 - Antecedents of Adolescent Sexual Attitudes and Behavior**

Miller B, Norton M, Curtis T, Hill E, Schvaneveldt P, Young M. The timing of sexual intercourse among adolescents: Family, peer, and other antecedents. *Youth and Society*. 1997; 29(1):54. (Contract with Child Trends, Inc. to analyze antecedents of adolescent sexual behavior, funded by Grant APR000959 from the Office of Population Affairs to Child Trends.)

Schvaneveldt P, Miller B, Berry E, Lee T. Academic goals, achievement, and age at first sexual intercourse: Longitudinal, bidirectional influences. *Adolescence*. 2001; 36(144):767-787. (OPA, APR000959)

Moore KA, Manlove J, Gleib DA, Morrison DR. Nonmarital school-age motherhood: Family, individual, and school characteristics. *Journal of Adolescent Research*. 1998; 13(4):433-457. (OPA, APR000959)

Miller BC, Monson BH, Norton MC. The effects of forced sexual intercourse on white female adolescents. *Child Abuse and Neglect*. 1995; 19(10):1289-1301. (OPA, APR000959)

Moore K, Morrison D, Gleib D. Welfare and adolescent sex: The effects of family history, benefit levels, and community context. *Journal of Family and Economic Issues*. 1995; 16(2):207-237. (supported by a grant from the Office of Population Affairs, Department of Health and Human Services, under Grant #00000959)

Manlove J. Early motherhood in an intergenerational perspective: The experiences of a British cohort. *Journal of Marriage and the Family*. 1997; 59(2):263-279. (OPA, APR 000959)

Manlove J. *Breaking the cycle of disadvantage: Ties between educational attainments, dropping out and school-age motherhood*. 1995. Washington DC: Child Trends. (OPA, APR 000959 & National Center for Education Statistics, #RED-9255347)

Young MH, Miller BC, Norton MC, Hill EJ. The effect of parental supportive behaviors on life satisfaction of adolescent offspring. *Journal of Marriage and the Family*. 1995; 57(3):813-822. (Contract with Child Trends, Inc., to analyze antecedents of adolescent sexual attitudes and behavior, funded by Grant APR000959 from the Office of Population Affairs.)

**Mott - APR #961 - Adolescents at Risk: Family Predictors of Problem Behavior**

Kowaleski-Jones L, Mott FL. Sex, contraception and childbearing among high-risk youth: Do different factors influence males and females? *Family Planning Perspectives*. 1998; 30(4):163-169. (OPA, APR01-RA-000961)

Menaghan E, Kowaleski-Jones L, Mott F. The intergenerational costs of parental social stressors: Academic and social difficulties in early adolescence for children of

- young mothers. *Journal of Health and Social Behavior*. 1997; 38(1):72-86. (OPA, Adolescent Pregnancy Programs, R01 APR000961)
- Mott FL, Fondell MM, Hu PN, Kowaleski-Jones L, Menaghan EG. The determinants of first sex by age 14 in a high-risk adolescent population. *Family Planning Perspectives*. 1996; 28(1):13-18. (OPA, APR000961)
- Mott FL, Kowaleski-Jones L, Menaghan EG. Paternal absence and child behavior: Does a child's gender make a difference? *Journal of Marriage and the Family*. 1997; 59(1):103-118. (OPA, APA 000961-02-0)
- Cooksey EC, Mott FL, Neubauer SA. Friendships and early relationships: Links to sexual invitation American adolescents born to young mothers. *Perspectives on Sexual and Reproductive Health*. 2002;34(3): 118-126. (OPA, DHHS 2R01 PG00718-01)

**Mott - Teen Sexual Behavior: Demographic Risk and Trajectories**

No publications located.

**Namerow - APR #942 - Decision-Making Regarding Adoption and Parenting**

- Namerow PB, Kalmuss DS, Cushman LF. The determinants of young women's pregnancy resolution choices. *Journal of Research on Adolescence*. 1993; 3(2):193-215. (OPA, APR000942)
- Kalmuss DS, Namerow PB, Bauer U. Short term consequences of parenting versus adoption among young unmarried women. *Journal of Marriage and the Family*. 1992; 54(1):80-90. (OPA, APR000942)
- Kalmuss DS, Namerow PB, Cushman L. Adoption versus parenting among young pregnant women. *Family Planning Perspectives*. 1991; 23(1):17-23. (OPA)

**Namerow - APR #960 - Adoption versus Parenting: Consequences for Young Women**

- Namerow PB, Kalmuss DS, Cushman LF. The Consequences of placing versus parenting among young unmarried women. *Marriage and Family Review*. 1997; 25(3/4):175-197. (OPA, APR000942 & APR 960)
- Cushman LF, Kalmuss DS, Namerow PB. Openness in adoption: Experiences and social psychological outcomes among birth mothers. *Marriage and Family Review*. 1997; 25(3/4):7-18. (OPA, APR000942 & APR 960)

**O'Connell - APR#966 - Evaluating an African-Centered Pregnancy Model**

No publications located.

**Pike - APR #971 - Reducing the Risk Curriculum: Replication and Evaluation**

No publications located.

**Pirog-Good - APR #958 - The Background, Education, and Employment of Teen Fathers**

- Pirog-Good M, Good D. Child support enforcement for teenage fathers: Problems and prospects. *Journal of Policy Analysis and Management*. 1995; 14(1):25-42. (Office of Adolescent Pregnancy Programs, GNNS)
- Pirog-Good M & Magee C. High school completion: The influence of schools, families, and adolescent parenting. *Social Science Quarterly*. 1997; 78:710-724. (Office of Adolescent Parenting Program, U.S. Department of Health and Human Services)
- Pirog-Good M. The education and labor market outcomes of adolescent fathers. *Youth and Society*. 1996; 28:236-262. (Office of Adolescent Pregnancy and Parenting, Adolescent Family Life Program, US DHHS)

**Quandt - APR #944 - Rural Adolescent Family Life: Health and Well Being**

No publications located

**Robbins - APR #950 - Pregnancy and Parenthood in the Adolescent Life Course**

- Robbins C, Streetman LG. Resolution of non-marital adolescent pregnancy and the transition to adulthood: Educational attainment and financial well-being. *Review of Policy Research*. 1994; 13(1):141-156. [Adolescent Family Life Program, Office of Adolescent Pregnancy Programs (OAPP), Office of Population Affairs (APR000940-02) and grants DA02497 and DA0.5312 and the National Institute on Drug Abuse]
- Buchanan M, Robbins C. Early adult psychological consequences for males of adolescent pregnancy and its resolution. *Journal of Youth and Adolescence*. 1990; 19(4): 413-424. (OPA Grant #APR000940-02, NIDA grant RO1 DA02497)

**Saltz - APR #951 - Preventing Teen Pregnancy: Attacking the Personal Fable**

- Saltz E, Perry A, Cabral R. Attacking the personal fable: Role-play and its effect on teen attitudes toward sexual abstinence. *Youth and Society*. 1994; 26(2): 223-242. (OPA, APR000951-01-0)

**Somers - APR #6006 - An Experimental Teenage Pregnancy Prevention Experiment**

No publications located.

**Sonenstein - APR #953 - Influences on Adolescent Male Premarital Sexual Behavior**

- Ku L, Sonenstein F, Pleck J. Neighborhood, family, and work: Influences on the premarital behaviors of adolescent males. *Social Forces*. 1993; 72:479. (OPA, GNNS)
- Sonenstein F, Pleck J, Ku L. Levels of sexual activity among adolescent males in the United States. *Family Planning Perspectives*. 1991; 23(4):162-167. (National Institute for Child Health and Human Development and Office of Adolescent Pregnancy Programs, GNNS)

**Sonenstein - APR #963 - Paternity and Pregnancy Among Adolescent Males**

- Lindberg L, Sonenstein F, Ku L, Martinez G. Age differences between minors who give birth and their adult partners. *Family Planning Perspectives*. 1997; 29(2):61-66. (NICHD & OPA, GNNS)
- Lindberg L, Sonenstein F, Martinez G, Marcotte J. Completeness of young fathers' reports of fertility. *Journal of Economic and Social Measurement*. 1998; 24(1): 15-23. (OPA, GNNS)
- Sonenstein F, Ku L, Lindberg L, Turner C, Pleck J. Changes in sexual behavior and condom use among teenage males: 1998 to 1995. *American Journal of Public Health*. 1998; 88(6):956-959. (National Institute of Child Health and Human Development #R01HD30861 & OPA, APR000963)

**Stevenson Barratt - APR #938 - Adolescent Parenting Behavior**

- Barratt MS, Roach MA, Colbert KK. Single mothers and their infants: Factors associated with optimal parenting. *Family Relations*. 1991; 40:448-454. (Graduate School, University of Wisconsin-Madison; the Spencer Foundation, University of Wisconsin-Madison; DHHS Grant APR938, and DHHS Grant HD03352)
- Barratt MS. School-age offspring of adolescent mothers: Environments and outcomes. *Family Relations*. 1991; 40:442-447. (Office of Population Affairs DHHS grant APR 938)
- Barratt MS, Roach MA. Early interactive processes: Parenting by adolescent and adult single mothers. *Infant Behavior and Development*. 1995; 18(1):97-109. (Graduate School, University of Wisconsin-Madison; the Spencer Foundation, University of Wisconsin-Madison, DHHS Grant APR938, and DHHS Grant HD03352)
- Barratt MS, Roach MA, Morgan KM, Colbert KK. Adjustment to motherhood by single adolescents. *Family Relations*. 1996; 45(2):209-215. (Graduate School at the University of Wisconsin-Madison, the Spencer Foundation through the University of Wisconsin-Madison, DHHS Grant APR938- 01)

**Tanner - APR #6002 - Parental Involvement in Teen Risk Avoidance**

No publications located.

**Vicary - APR #967 - Young Adult Outcomes of Adolescent Sexuality and Pregnancy**

- Johnson C, Vicary J, Heist C, Corneal D. Moderate alcohol and tobacco use during pregnancy and child behavior outcomes. *Journal of Primary Prevention*. 2001; 21(3):367-379. (Office of Adolescent Pregnancy Prevention Programs #00093-05-0)

**Ward - APR #949 - Teen Mothers' Attachment Relationships: 3-Year Followup**

- Ward, J, & Carlson, E. Associations among adult attachment representations, maternal sensitivity, and infant-mother attachment in a sample of adolescent mothers. *Child Development*. 1995; 66 (1): 69-79. (Office of Adolescent Pregnancy Prevention Programs (OAPP) #00028 and #00049)

## APPENDIX B-2

### Publications by grantees that do not acknowledge OPA support but are related to the topic of the AFL grant

**Borkowski** JG, Whitman TL, Passino AW, Rellinger EA, Sommer K, Keogh D. Unraveling the “new morbidity:” Adolescent parenting and developmental delays. *International Review of Research in Mental Retardation*. 1992; 18:159-196. (NIH Grant HD-25456; NIH training Grant HD-07184.)

**Cottrell** L, Yu S, Liu H, Deveaux L, Lunn S, Bain RM, Stanton B. Gender-Based Model Comparisons of Maternal Values, Monitoring, Communication, and Early Adolescent Risk Behavior. *Journal of Adolescent Health*. 2007; 41(4):371-379. [National Institute of Mental Health (R01-MH069229)]

Cottrell SA, Branstetter S, **Cottrell** L, Harris CV, Rishel C, Stanton BF. Development and Validation of a Parental Monitoring Instrument: Measuring How Parents Monitor Adolescents’ Activities and Risk Behaviors *The Family Journal: Counseling and Therapy for Couples and Families*. 2007; 15(4):328-335. (no acknowledgement listed)

Giordano PC, **Longmore** MA, Manning WD, Northcutt M. Adolescents’ identities and sexual behavior: An examination of Anderson’s ‘Player’ hypothesis. *Social Forces*. 2009; 87:1813-1844. [National Institute of Child Health and Human Development (HD36223 and HD044206) and the Department of Health and Human Services (PAR04-185), and by the Center for Family and Demographic Research at Bowling Green State University, which has core funding from the Eunice Kennedy Schriver National Institute of Child Health and Human Development (R24-HD050959-01)]

Giordano PC, Manning WD, **Longmore** MA. Affairs of the heart: Qualities of adolescent romantic relationships and sexual behavior. *Journal of Research on Adolescence*. 2010; 20:983-1013. [This research was supported by a grant from the National Institute of Child Health and Human Development (HD36223) and by the Center for Family and Demographic Research at Bowling Green State University, which has core funding from the Eunice Kennedy Schriver National Institute of Child Health and Human Development (R24-HD050959-01).]

Manning WD, Flanigan C, Giordano PC, **Longmore** MA. Adolescent dating relationships and consistency of condom use. *Perspectives on Sexual and Reproductive Health*. 2009; 41:181-190. [This research was supported by a grant from the National Institute of Child Health and Human Development, HD36223, and by the Center for Family and Demographic Research, Bowling Green State University, which has core funding from the Eunice Kennedy Schriver National Institute of Child Health and Human Development (R24HD050959-01).]

**Longmore** MA, Eng AL, Giordano PC, Manning WD. Parenting and adolescents' sexual initiation. *Journal of Marriage and the Family*. 2009; 71:969-982. [This research is supported by grants from the National Institute of Child Health and Human Development (HD 36223) and the Department of Health and Human Services (PAR04-185), and by the Center for Family and Demographic Research at Bowling Green State University, which has core funding from the Eunice Kennedy Shriver National Institute of Child Health and Human Development (R24HD050959-01).]

Taylor HL, Giordano PC, **Longmore** MA, Manning WD. Variations in adolescent romantic relationships: A pattern-centered approach. Working paper 2008-13. 2008. Bowling Green, OH: Center for Family and Demographic Research. [Research Capacity Expansion grant, grants from the National Institute of Child Health and Human Development (HD36223), and the Center for Family and Demographic Research at Bowling Green State University.]

Grotevant HD, **McRoy** RG, Elde C, Fravel DL. Adoptive family system dynamics: Variations by level of openness in the adoption. *Family Process*. 1994; 33:125-146. (no acknowledgment listed)

Henney SM, Onken SJ, **McRoy** RG, Grotevant HD. Changing agency practices toward openness in adoption. *Adoption Quarterly*. 1998; 1(3):45-76. (Hogg Foundation for Mental Health)

**McRoy** RG, Grotevant HD. American experience and research on openness. *Adoption and Fostering*. 1991; 15(4):99-111. (no acknowledgements listed)

**McRoy** RG, Grotevant HD. Open adoptions: Practice and policy issues. *Journal of Social Work and Human Sexuality*. 1988; 6:119-132. (no acknowledgements listed)

**McRoy** RG, Grotevant HD, Ayers-Lopez S. *Changing Practices in Adoption*. 1994. Austin: Hogg Foundation for Mental Health. (not located)

Hofferth SL, Reid LL, **Mott** FL. Effects of early childbearing on schooling over time. *Family Planning Perspectives*. 2001; 33(6):259-267. (NICHD Family and Child Well-Being Research Network)

**Mott** FL. Teen parenting: Implications for the mother and child generations. *Ohio State Law Journal*. 1996; 57(2): 569-478. (no acknowledgement listed)

**Pirog-Good** M. The family background and attitudes of teen fathers. *Youth and Society*. 1995; 26(3): 351-376. (article taken in part from a manuscript prepared for

Paternity Establishment: A Public Policy Conference sponsored jointly by the Institute for Research on Poverty and the University of Wisconsin-Madison, and by two bodies within the U.S. Department of Health and Human Services: The Office of the Assistant Secretary for Planning and Evaluation and the Administration for Children and Families.)

**Sonenstein** F, Ku L, Pleck J. Why young men don't use condoms: Factors related to the consistency of utilization. In: Besharov D, Stewart F, Gardiner K, Parker M, eds. *Why Some Men Don't Use Condoms: Male Attitudes about Condoms and other Contraceptives*. 1997. Menlo Park, CA: The Henry J. Kaiser Foundation: 1-26. (no acknowledgement listed)

Ku L, **Sonenstein** F, Pleck J. When we use condoms and why we stop. *Population Today*. 1995; 23(3):3. (NICHD)