The Interim Impact Evaluation for the Moving to Opportunity Demonstration

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OMB Submission

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Prepared by

Judith D. Feins Debra McInnis Abt Associates Inc. 55 Wheeler Street Cambridge, MA 02138

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Part A Justification

A.1 Circumstances Making Information Collection Necessary

This request is for the clearance of several survey instruments for the Interim Evaluation of the Moving to Opportunity for Fair Housing (MTO) demonstration program. MTO is a unique experimental research demonstration. Originally authorized by Congress in the Housing and Community Development Act of 1992, MTO makes use of Section 8 rental assistance, in combination with intensive housing search and counseling services, to learn whether moving from a high-poverty neighborhood to a low-poverty community significantly improves the social and economic prospects of poor families. This carefully designed random assignment research effort was sponsored by the U.S. Department of Housing and Urban Development (HUD) in five cities: Baltimore, Boston, Chicago, Los Angeles, and New York. The operational phase of MTO ended in February 1999.

The MTO demonstration had two sets of research goals. First, in the short term, the demonstration compared the costs and services of the MTO program with the routine implementation of the Section 8 tenant-based rental assistance program. HUD reported to Congress in 1996 on the progress and effectiveness of the demonstration. Second, in the long term, the demonstration will assess the impact of the demonstration on participating families' housing, employment and earnings, receipt of cash assistance and income, adult health and education, and the development, education, delinquency, and risk behavior of children in these families, as well as a number of factors that may mediate impacts in these areas.

In order to ensure that the long-term research questions can be answered, the MTO demonstration contains an experimental research design involving the three-way random assignment of participant families to:

- the **MTO EXPERIMENTAL GROUP**, which receives Section 8 certificates or vouchers usable only in low-poverty areas (areas with less than 10 percent of the population below the poverty line in 1989), along with counseling and assistance in finding a private unit to lease;
- the **SECTION 8 COMPARISON GROUP**, which receives regular Section 8 certificates or vouchers (geographically unrestricted) and ordinary briefings and assistance from the PHA; and
- the IN-PLACE CONTROL GROUP, which receives no certificates or vouchers but continues to receive project-based assistance.

Over a ten-year period, the participants assigned to these three groups will be tracked and periodically surveyed to determine the long-term effects of the demonstration. The experience of families receiving the special MTO assistance can be compared with that of families who receive the "regular" Section 8 treatment. The in-place control group is essential in order to estimate correctly the separate impacts of Section 8 rental assistance by itself and MTO assistance with counseling, providing a benchmark against which the outcomes of the two other groups can be measured.

The MTO interim evaluation (the subject of this request) will examine many facets of family life that may have been affected by MTO participation from 4 to 7 years after program entry. The interim evaluation involves the first attempt since baseline to interview sample members in depth, using common instruments across all sites. HUD expects to conduct the final evaluation data collection in 2005 or 2006, which will represent 8 to 11 years after program entry.

A total of 4,608 families enrolled in the MTO demonstration and were randomly assigned, between September 1994 and August 1998. Baseline data were collected from participants under a clearance granted by OMB in 1994.¹ In order to maintain address information for the MTO families and to track interim changes in family status, employment status, and receipt of program services, contact was made periodically with the MTO families through brief canvasses. These were carried out in 1997 and 2000, under clearances previously granted by OMB.²

This request covers the following instruments, which are necessary in order for HUD to determine the mid-term effects of the MTO demonstration:

- A household survey, designed to gather data on interim impacts and mediating factors concerning the respondent and up to two of the respondent's children;
- A youth survey, designed to gather information on interim impacts and mediating factors for sampled youth ages 12 to 19; and
- A child survey, designed to gather information on interim impacts and mediating factors for sampled children ages 8 to 11.

¹ Clearance No. 2528-0161, initially expiring June 1997, finally expiring November 30, 2000.

² Clearance of the MTO canvass data collection was originally granted by OMB under clearance number 2528-0189, expiration date January 1999, extended to April 1999 (see Notice of Short Term Extension from Donald R. Arbuckle, OMB, dated 1/19/1999). This clearance was subsequently extended through June 30, 2002 (see Notice of Office of Management and Budget Action from Donald R. Arbuckle, OMB, dated June 24, 1999).

The interim evaluation will also collect educational achievement data through administration of selected portions of the Woodcock-Johnson Psycho-Educational Battery-Revised. Sampled children ages 5 through 19 in MTO families will be tested for achievement in the areas of reading and math. Further details regarding collection of achievement data are provided in section A.2.1 below.

A.2 Purpose and Use of Information

HUD selected Abt Associates to perform the interim impact evaluation, as well as to track and locate families in the demonstration to support HUD's short- and long-term evaluation needs. The data collected with the interim evaluation survey instruments will be used by Abt Associates and its team of researchers to measure and assess MTO's impacts in six primary domains:

- housing mobility and assistance;
- adult education, employment and earnings;
- household income and cash assistance;
- adult, youth, and child physical and mental health;
- youth and child social well-being, including delinquency and risky behavior; and
- youth and child educational performance.

The hypothesis underlying the MTO evaluation is that relocation of families to low-poverty neighborhoods will lead to improved well-being for adults and children in these six domains. Exhibit 1 lays out in a broad way the hypothesized pathways by which relocation to low-poverty neighborhoods leads to improved outcomes for families. The model shows that the hypothesized influence of neighborhood or community on the lives of families is mediated by a series of factors that bear a logical relationship to each other. That is, the most immediate effects of relocation involve changes to community-level factors, which are necessary precursors to changes in family- and person-level factors, which subsequently affect the outcomes of interest. Although the specific mediating factors to be examined will vary across the outcome domains, the exhibit shows the critical components of the model that are relevant to one or more of the outcome domains.

As listed in the exhibit, the major categories of community-level mediators are housing market conditions, economic opportunities, the social and physical environment, community norms and values, and quality of the school system. *Economic opportunities* in the local community will influence family members' employment and earnings directly and a number of other outcomes indirectly. For example, if family members obtain jobs with better health insurance coverage, they may have better access to medical care and, as a result, improved health. Better economic opportunities may also provide constructive alternatives to crime



Exhibit 1: Hypothesized Pathways of MTO Impacts

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and delinquency. We will attempt to obtain direct measures of wage rates, unemployment rates, and job growth at the local level. We will also ask sample members in the household survey about their proximity to employment.

Individuals who move to a new community are likely to be affected by the *norms and values* of that community through peer pressure and community expectations. We would expect these effects to be stronger the more the individual interacts with members of the new community. We would also expect such effects to be stronger if the norms and values of the new community are substantially different from those of the individual's old community. It will be important, then, to examine families' social networks, to determine the extent to which they interact with their new community, and to obtain at least proxy measures of the extent to which the norms and values of the community in which the family now lives differ from those of their original neighborhood.

The *social and physical environment* in the community may affect a number of outcomes. For example, a potentially important mediating factor may be the incidence of crime and violence in the community. This will affect not only the families' sense of security and wellbeing, but also the likelihood that they themselves will become involved in illegal activities. The social resources of the community, including school quality, recreational facilities, public and private social services, and health care facilities, will facilitate or limit certain behaviors and outcomes. The physical environment, including safety hazards, air quality, and presence of allergens, may have important effects on family health.

Finally, the *quality of the school system* in a community is an important factor in the pathway from community to educational outcomes for children and youth. Schools in lower-poverty neighborhoods are likely to be higher quality, as measured by school achievement scores, teacher qualifications, teacher and student expectations concerning achievement, class size, and difficulty of course offerings. We will measure these indicators of school quality from extant data available from school districts, via web sites and published reports on the schools and faculty in that district.

In turn, these community characteristics (or mediators) are hypothesized to lead to changes in parent attitudes and behaviors, such as stronger belief in the value of education, stronger belief in the chances their own children will have high achievement, parenting practices that are more supportive of educational achievement; and to changes in youth attitudes and behaviors, such as more positive feelings about school and education, more positive peer interactions, etc. These important mediating attitudes and behaviors will be measured through the household and youth surveys.

Ultimately, these changes in family- and person-level mediators lead to the outcomes specified in the model: improvement in the family economic situation, improved health for adults, youth and children in the family, improved social well-being for youth and children, and improved educational achievement for youth and children.

It is important for the evaluation to collect information on these mediating factors as well as on outcomes, in order to be able to trace back effects through the various pathways from relocation to outcomes. We wish to structure the impact analysis to shed light not only on the ultimate impacts of moving out of public housing but also on the *causal mechanisms* through which those effects occur. Therefore, in each domain we not only specify the outcomes of interest but also describe alternative pathways through which impacts on those outcomes might occur and the mediating factors along those pathways. Estimation of impacts on those mediating factors, as well as on final outcomes, can help to distinguish the causal mechanisms responsible for the estimated impacts.

A.2.1 Evaluation Overview

The MTO Demonstration

The Moving to Opportunity (MTO) demonstration was originally authorized in Section 152 of the Housing and Community Development Act of 1992. The demonstration combines Section 8 rental assistance with intensive housing search and counseling services that are intended to ease families' relocation to low-poverty communities and help them become self-sufficient. The legislation set the basic parameters of the demonstration as follows:

- *Family eligibility:* To be eligible, a family had to have a very low income, have children, and reside in public housing or project-based Section 8-assisted housing located in areas with high concentrations of poverty.
- *Site eligibility:* The demonstration was restricted to no more than six *very large cities* with populations of at least 400,000 in metropolitan areas of at least 1.5 million people. Of the 21 cities eligible to participate in MTO, five cities were selected by a competitive process for the demonstration. They are *Baltimore, Boston, Chicago, Los Angeles, and New York;*
- Demonstration operations: Local programs were created via grant agreements between the Secretary of HUD and nonprofit organizations (NPOs) to provide counseling and services in connection with the demonstration, and public housing agencies (PHAs) to administer the rental assistance. The NPOs were funded to help pay for the costs associated with counseling participating families, assisting them in finding appropriate units, and working with landlords to encourage their participation in the MTO program. Local programs had to match federal counseling funds with funds from state or local public or private sources. PHAs received administrative funds for the increased number of Section 8 certificates or vouchers made available through the MTO program.

Prior nonexperimental studies of other mobility programs have been unable to determine conclusively whether observed outcomes were attributable to the impact of the program or simply reflected the characteristics of the families who chose to enter the program. The

MTO demonstration is an experimental research demonstration, carefully designed to answer two crucial sets of questions about the impact of neighborhood on social and economic opportunity for very low-income families:

- What are the impacts of MTO on families' locational choices, and on the housing and neighborhood conditions of families moving to low-poverty neighborhoods?
- What are the impacts of moves to low-poverty neighborhoods on the social and economic well-being of MTO families?

The mechanism that HUD has chosen to address these questions is an experimental research design involving the three-way random assignment of participants to:

- The *MTO experimental group*, which receives certificates or vouchers usable only in low-poverty areas, along with counseling and assistance in finding a private unit to lease;
- The *Section 8 comparison group*, which receives regular Section 8 certificates or vouchers (geographically unrestricted) and ordinary briefings and assistance from the PHA; or
- The *in-place control group*, which receives no certificates or vouchers and continue to receive project-based assistance.

The interim evaluation is designed to answer these questions at the mid-point in the ten-year evaluation period. The experience of families receiving MTO assistance and that of families receiving "regular" Section 8 treatment will be compared with the experience of the in-place control group, which will provide a benchmark against which the outcomes of the two other groups can be measured.

The Interim Impact Evaluation

Background. Poverty in the United States has become increasingly concentrated in highpoverty areas.³ A growing literature suggests that such concentration has a variety of detrimental effects on the residents of these areas, in terms of both their current well-being and their future opportunities.⁴ The deleterious effects of high-poverty areas are thought to be especially severe for children, whose behavior and prospects are particularly susceptible to a number of neighborhood characteristics, such as peer group influences, school quality, and the availability of supervised after-school activities.

³ See Jargowsky (1997).

⁴ See, for example, Wilson (1987, 1996); Jencks and Mayer (1990); and Brooks-Gunn, Duncan, Klebanov, and Saland (1993).

There is a large literature on the harmful effects of living in concentrated-poverty neighborhoods; less has been written about whether and how other neighborhood environments exert positive influences on behavior and life changes. Ellen and Turner (1997) summarize the literature in this area, citing various theories about the mechanisms by which middle-class (often predominantly white) neighborhoods shape or re-shape the lives of their residents.

Until recently, such effects could only be studied by comparing the behavior and life outcomes of low-income residents of high-poverty areas with those of poor families in lowpoverty neighborhoods. Such comparisons potentially confused the effects of neighborhood with the effects of the characteristics of families who lived in those two types of residential areas. The Moving to Opportunity (MTO) demonstration was designed to support direct analysis of neighborhood impacts by employing an experimental design (random assignment) to provide the first opportunity to measure the effects of neighborhood without these confounding factors.

HUD is interested in using this interim evaluation to establish a framework for the final evaluation of MTO's impacts, by defining a set of measures for each impact area that are appropriate for investigating impacts at the interim point (4 to 7 years after random assignment) and are also appropriate to the final evaluation after 8 to 11 years. The interim evaluation is also designed to contribute to our knowledge about the mechanisms by which the neighborhood environment affects the futures of resident adults and children.

In response to this broad research mandate, the Abt Associates team has designed a comprehensive approach to the interim evaluation. The impacts of both the MTO experimental treatment and regular Section 8 assistance will be estimated for a wide range of outcomes in the domains specified above. Data for this analysis will come from a combination of sources, including interviews with heads of household and with children and youth ages 8-19, achievement tests administered to children and youth ages 5-19 by Abt Associates, and extraction of data from administrative records of earnings, welfare benefits, housing assistance, and involvement with the criminal justice system.

The sample for the interim impact analysis consists of the 4,252 families randomly assigned before December 31, 1997. These families contain 8,938 children and youth ages 5-19. The sample does not cover the entire MTO program population. An additional 356 families randomly assigned in calendar year 1998 are excluded from the interim evaluation because they have less than four years' experience in the program.⁵

Policy Context. The questions addressed in this interim evaluation are unusually deep and far-reaching. The basic experimental contrast between project-based assistance and tenant-

⁵ Random assignment began in September 1994 and ended in July 1998. The interim evaluation sample of 4,252 families represents 92.3 percent of the full program population.

based vouchers addresses a fundamental policy choice that first arose in the 1970s and has not been fully resolved in the intervening decades. Over that period, there has been increasing concern that the high concentration of poverty associated with public housing projects may adversely affect resident families. Partly for that reason, a large part of the expansion of housing assistance since 1980 has taken the form of certificates and vouchers that provide subsidies to obtain housing in the private market.⁶ Absent compelling evidence of adverse effects, however, we have continued to maintain the existing stock of project units. This evaluation will cast new light on the desirability of replacing some of these units with rental assistance in the private market.

Within this broad policy issue, there is a question as to whether it is sufficient to move families out of projects into the surrounding community or whether it is necessary to change their environment substantially. Left to their own devices, public housing tenants who receive vouchers will tend to move to areas that still have relatively high rates of poverty. It is not clear whether such moves are sufficient to overcome any deleterious effects associated with project-based assistance. The experimental contrast between the effects of regular Section 8 vouchers, which place no restriction on where the recipient moves, and those of the MTO experimental vouchers, which require that the recipient move to a low-poverty area, speaks to this issue.

The experiment is not, however, simply a test of two specific assistance programs. More fundamentally, it seeks to measure the effects of neighborhood on the lives of low-income families with children and, by extension, the potential benefits of policies designed to disperse those families into low-poverty areas. What we learn about the effects of neighborhood on the lives of low-income families may also speak to the desirability of policies that seek to change the neighborhoods in which these families currently live. If the truly comprehensive changes induced by MTO have little or no effect on outcomes, then the more modest changes that can be made in their existing neighborhoods seem unlikely to have the potential for meaningful effects. Alternatively, large estimates of neighborhood effects may indicate that important changes in individual outcomes can be brought about by community influences. Specific mechanisms may also be identified that will help target issues that can be directly addressed in today's high-poverty communities, such as the physical safety of areas in which children play or the availability of after-school or summer programs to encourage constructive activities over risky behaviors.

⁶ Between 1980 and 1997, over 40 percent of the net growth in the number of assisted families resulted from increases in household-based assistance in existing housing (U.S. House of Representatives (1998), Section 15, Table 15-26).

Participant Data Collection for the Interim Impact Evaluation. Clearance is being requested for three instruments:

- A household survey;
- A youth survey (for youth ages 12 to 19 in MTO families); and
- A child survey (for children ages 8 to 11 in MTO families).

Clearance is also being requested to use the Woodcock-Johnson Revised Assessment for educational achievement testing. The survey instruments are presented in Appendix A (Interim Survey of Households), Appendix B (Interim Survey of Youth), and Appendix C (Interim Survey of Children).

The Interim Survey of Households. The interim survey of households consists of a 65-minute interview with one adult per core MTO household. This adult will be the head of the MTO core family, as defined by the applicant during the Section 8 eligibility determination process. The respondent will be asked questions about his/her mobility, housing and neighborhood conditions, employment status and history, educational attainment, exposure to violence, health, and household composition (similar to the annual MTO canvass). In addition, where the respondent is the primary caretaker of children in the household, she/he will be asked a series of questions about the health, education, and social behavior of up to two children between 5 and 19 years old. In cases where there are more than two children in this age range, we will randomly select two children to be the subject of these questions and to be respondents in the youth survey and child survey.

In developing the interim survey of households, we have drawn heavily on existing studies and instruments. The purpose of doing so is threefold: to have measures consistent with other studies; to use measures that have proven significant in other research; and to have national data with which to compare the MTO results.

Exhibit 2 summarizes the data collection components for *children and youth* that will be carried out for the MTO interim evaluation. At the most, the testing and interviewing combined will take an hour for those between 8 and 11. For the younger children, the testing will take only about 30 minutes, although the tester may play with and supervise the child after that.

Child Age Group	Educational Testing	Interview
Ages 5-7	30 minutes	None
Ages 8-11	45 minutes	15 minutes
Ages 12-19 (youth)	45 minutes	30 minutes

Exhibit 2 Child Data Collection Components

The Interim Survey of Youth. The interim survey of youth will be administered to sample children between the ages of 12 and 19. The youth survey will be 30 minutes in length. It will cover attitudes toward school, ties to the neighborhood, involvement in after-school and community activities, health, and risky behavior. As with the interim survey of households, we have taken great care to select questions from existing surveys whenever possible, ensuring that the questions we ask are questions that have been successfully administered to similar populations and for which national distributions are available.

The Interim Survey of Children. The interim survey of children will be administered to children ages 8-11 who are randomly sampled from MTO families. The child survey will be 15 minutes in length and will focus on school, health, friends, the neighborhood, and family support.

Educational Achievement Testing for Children and Youth. Sampled children ages 5 to 19 will be asked to complete an educational achievement test, as summarized in Appendix D. The test will be 30 minutes in length for those under 8 and 45 minutes in length for those 8 to 19. Our primary measures of educational achievement will be derived from these reading and math tests administered directly to young members from MTO families. We will not conduct any aptitude testing.

After careful analysis of available tests, we believe that the Woodcock-Johnson-Revised (WJ-R) battery best suits the needs of this study. We will administer the two tests in the WJ-R Broad Reading cluster (Letter-Word Identification and Passage Comprehension) and the two tests in the Broad Mathematics cluster (Calculation and Applied Problems).

The WJ-R test battery was selected for the MTO interim evaluation for a number of reasons, as follows:

- First, it is designed to be a test of achievement, as opposed to innate ability. Thus, it measures the construct—educational achievement—that may be affected by a move through MTO.
- Second, the WJ-R has strong psychometric properties. The Woodcock-Johnson Broad Reading and Broad Math clusters both have high average reliabilities for the age range of the study: above .90 for each of the two clusters and above .78 for each of the four tests individually, from calculations based on the split-half procedure comparing responses to odd and even items. Among a tenth grade sample, the correlations with other achievement tests were moderately high and were similar to correlations between other tests of this type (McGrew, Werder, and Woodcock, 1991). Although evidence on the predictive validity of the WJ-R is currently scant, within two years we expect these other longitudinal studies to be useful in assessing how well these tests predict later outcomes.

- Third, the WJ-R was designed to span a wide range of ages, easily encompassing the sampled MTO children ages 5 to 19.
- Fourth, the test will be administered individually. As a result, the WJ-R is suitable for use both in the home and in other settings, a flexibility this study will need. Because we will be administering the test both in the teen center and in people's homes (for children under 12 and for youth who do not come to the teen centers), we need a test that can be used effectively in both types of settings. Also, although time-consuming, individual administration means it can be used reliably and validly with younger children. For tests that are more commonly administered in a group classroom setting, it would be hard to reproduce the appropriate testing environment in someone's home.
- Fifth, the WJ-R is an adaptive test (meaning that the questions each respondent is asked depend on how many questions he/she has gotten right earlier in the test), so it finds a subject's achievement level relatively efficiently and reduces testing time for many students. Many other tests are good at determining whether or not a student is at a given grade level, but they are not good at distinguishing how far below or above grade level a student may be; the WJ-R has good discriminating power across a wide range of ability levels. We hypothesize that many MTO children may be below grade level, and we want to have a test that can pin down their levels with some precision.
- Sixth, the WJ-R is currently being used in related studies. The sub-tests of Woodcock-Johnson that we intend to use were administered in 1997 in the PSID child supplement (ages 6-12) and will be administered again to these children (in 2002 and later) as they grow older, providing a nationally representative sample against which we can benchmark the MTO results. In addition, these sub-tests are being administered (in 1999-2002) to 1,200 youth ages 10 to 14 in "Welfare, Children, and Families: A Three-City Study," providing another comparable population for which panel data are being collected. HUD's Contractor, Abt Associates, is currently administering the WJ-R for the Third National Evaluation of the Even Start Family Literacy Program.

Direct Measurement of Blood Pressure, Height, Weight

In conjunction with the survey data collection, we will take direct measurements of blood pressure for adult respondents and of height and weight for child respondents. These measurements will be taken in the home, using appropriate and up-to-date equipment, by interviewers well-trained in these procedures. The time required to take these measurements has been included in the survey burden estimates. There will be no direct measurement for youth respondents, many of whom will be surveyed and tested in teen centers. Measurement of *adult blood pressure* is triggered by an interviewer prompt in the household survey and is accompanied by questions related to this important health indicator. Elevated blood pressure (hypertension) is also well known to be associated with increased risk of cardiovascular disease, and is a particularly acute issue for African-Americans. There are many mechanisms through which MTO may affect blood pressure. While blood pressure has a substantial genetic component, it is also a function of stress, weight, and activity patterns such as exercise and diet--all of which could be affected by living in a new neighborhood with different social norms. Interviewers will use automated sphygmomanometers approved by the American Association for the Advancement of Medical Instrumentation Standard, accepted by the FDA as the national standard.

Measurement of *child height and weight* is triggered by an interviewer prompt in the child survey. Obesity is a basic health outcome with higher incidence in low-income populations in the U.S. Obesity in young children has been found to be predictive of later health problems. Moves to lower-poverty neighborhoods may reduce obesity through several mechanisms: lower incidence of depression and stress; behavioral changes (like exercise); different social norms and eating habits.

Specialists in obesity and practicing pediatricians argue strongly that parental and self-reports of height and weight for children who are younger than 12 are ultimately unreliable. Since survey questions on height and weight will not provide evidence that will be considered credible by health researchers, we will train the interviewers to weigh and measure children ages 5-11. Interviewers will bring portable equipment into the home to carry out these measurements.

Participant Data Collection Procedures. HUD's Contractor has designed data collection procedures to coordinate the various parts of this effort. The *interim survey of households* will be administered in person by trained interviewers, using the Bellview Computer-Assisted Personal Interviewing (CAPI) system on a laptop computer. The survey will be administered in the respondent's home, with the session scheduled at the respondent's convenience. As described in Section A.11 below, this technology will permit the interviewer to turn the screen toward the respondent and let him/her self-administer sensitive questions. For core household heads with children ages 5-11, the household interview will be coordinated with the child testing and interview.

The *interim survey of children* will be conducted in conjunction with the administration of achievement tests for this same population. Children will be interviewed and tested in their homes, in conjunction with the household survey. Interviewing and testing in households with sampled children will be conducted by sending a team of two field staff—a trained interviewer and a trained tester—to the home together. The purpose of coordinating the child and adult data collection is three-fold: to reduce the degree of intrusion and time burden; to ensure that the parent is home at the time of the child data collection (for reassurance); and to

occupy parent and child separately so that their interview and testing sessions can be separately completed (so that the parent does not influence the child's answers or performance).

The data collection for youth ages 12-19 will be carried out separately, both in timing and location, from the household and child data collection. The *interim survey of youth* will be conducted in conjunction with the administration of achievement tests for this same population. However, to the extent possible, the tests and interviews will be conducted at "teen centers," in order to increase privacy and participation and minimize costs. We will conduct in-home interviews and tests with those youth who do not come to the teen centers.

The evaluation team will establish teen centers in various locations in the five metropolitan areas where most MTO families reside. HUD's Contractor will seek locations of interest to teens, such as meeting rooms in local shopping malls, to help draw them to attend the sessions. Field staff will operate the teen centers on several consecutive weekends, at different points over the data collection period. Sessions at these centers are likely to run on Saturdays or Sundays, beginning hourly from 10 AM until 4 PM, yielding six sessions per day. A total of 15 youth might be invited to each session, with a total of 80 sessions to be run across all five sites.

Teen centers will be located in different parts of the five metropolitan areas, to accommodate both suburban and urban residents with minimum travel time and expense. In addition, we will separate teen sessions by random assignment group, to ensure that we do not create interaction among youths from different experimental groups.

Sample youth ages 12-19 will be invited to schedule an appointment to attend one of several testing sessions in their area for their group. At the center, they will complete the 30-minute youth survey and 45-minute achievement test.. We expect that 60 percent of the youth in the sample will attend these sessions. For the remaining 25 percent (up to the target 85 percent response rate), we will interview them within one week from their invited session in their home.

Youth who do not appear for their appointments or who cannot be scheduled for a teen center time (including those living outside the five metropolitan areas) will be followed up for inperson interviewing and achievement testing. The in-person procedure is likely to take place in the youth's home, although it is possible that other locations can be used (if they prefer). A trained tester cross-trained as an interviewer will administer the WJ-R test and then set up a laptop computer for the youth to complete the survey. As in the teen center setting, the interviewer will give the youth privacy to complete the survey but will answer questions and provide assistance if needed.

A.2.2 Purpose of the Data Collection

As discussed above, prior studies of mobility programs have been unable to demonstrate whether observed outcomes were the result of program impacts or of the characteristics of the families who chose to enroll in the program. This study has been carefully designed to allow comparison of well-matched groups of families in three different locations: public housing in high-poverty areas; private housing in moderate-to-high poverty areas; and private housing in low-poverty areas. The purpose of the interim evaluation data collection is to support the mid-term research on MTO families, making an initial determination of the impacts of moving out of public housing in high-poverty areas. The proposed data collection activities will provide reliable measures of a broad range of outcomes; impacts on these outcomes will be estimated for both the MTO experimental group, who moved to low-poverty areas, and the Section 8 comparison group, who were free to move to any area (but who primarily moved to moderate-to-high poverty areas). In both cases, the impact of moving will be measured relative to the outcomes of the in-place control group, who remained in public housing.

A.2.3 Who Will Use the Information

The primary beneficiary of the interim evaluation data collection will be HUD, which will use the information to assess mid-term effects of MTO for families who have been in the demonstration between four and seven years. These data will begin to answer HUD's questions about impacts in the domains of housing, employment and earnings, cash assistance, educational achievement, health, and delinquency and risky behavior, for the families assisted under the demonstration program. Evaluation contractor Abt Associates will produce a Final Report of the interim evaluation in November 2002.

Secondary beneficiaries of this data collection will be those in the social science research community who have expressed interest in the MTO demonstration and in working with the MTO data. HUD is considering creation of a restricted access analysis file from these data, with appropriate privacy protections, once the interim evaluation analysis has been completed by Abt Associates.

Ultimately, these data will benefit researchers and policy analysts in a wide range of areas. The effects of location on the well-being of low-income families is likely to manifest itself in numerous ways, and may be relevant to a broad array of public programs. This project offers the first opportunity to obtain reliable measures of these effects. The long-term indirect benefits of this research are therefore likely to be substantial.

A.2.4 Instruments—Item by Item Justification

In this section, we present our justification of these instruments and their contents.

Three survey instruments have been developed for the interim evaluation, because of the interest in measuring impacts on adults, youth, and younger children. The household (adult) instrument has several sections concerning the respondent (head) and the full household. In addition, it contains a Parent-on-Child module (to be administered if the parent has a sampled child ages 5-11) and a Parent-on-Youth module (to be administered to parents of youth ages 12-19). Finally, the household instrument contains a member roster (adapted from the MTO canvass instrument) and an update on secondary contact information.

The youth instrument contains sections on education, employment and earnings (for those ages 14 and over), delinquency and risky behavior, health, neighborhood, and family. The child instrument (for respondents ages 8 to 11) covers a smaller set of study domains. The youth and child instruments have been designed to focus on the topics best reported by the children and youth themselves. The contents of Parent-on-Child and Parent-on-Youth modules have been coordinated with the youth and child instruments so that they focus on topics better reported by the parent or on topics where a uniform report is needed across all ages of sampled children.

Because of their length, the item-by-item justifications for these instruments have been provided in appendixes rather than within this section's text. Appendix E provides item-byitem justifications of the questions in the Interim Survey of Households. It shows not only the content and reason for inclusion but also the source of the survey question. Justifications for the Parent-on-Youth and Parent-on-Child modules follow those for the main body of the household survey instrument. Appendix F provides the same item-by-item information for the Interim Survey of Youth. Finally, Appendix G provides item-by-item justifications for the questions in the Interim Survey of Children.

A.3 Use of Improved Information Technology

Improved information technology will be used in this evaluation in three distinct ways:

- to assist the ongoing sample tracking and locating efforts;
- to measure certain outcomes through data abstracted from administrative records; and
- to facilitate collection of the survey data in standardized and accurate ways that also accommodate the confidential collection of sensitive data.

The administrative data collection will significantly reduce the burden on respondents to the household and youth surveys, as will the linkage of interim evaluation data with data collected at baseline for MTO families.

A.3.1 Information Technology and Sample Tracking

The long-term tracking of the MTO population (being conducted by Abt Associates) uses several electronic databases as part of the passive locating effort, in order to minimize respondent burden. The searches of electronic data files include:

- Periodic comparisons of administrative databases; and
- Quarterly searches of electronic data maintained by outside vendors.

These methods do not involve direct contact with the MTO families; they are unintrusive and effective ways to maintain current information on the MTO families. Each strategy is described briefly below.

Routine Checks of Administrative Databases. Abt Associates has collected periodic extracts of tenant characteristics and certification data (HUD Form 50058 data) for MTO families, from some of the public housing agencies (PHAs) participating in the MTO demonstration for the duration of the tracking period and more recently from the Multifamily Tenant Characteristics System (MTCS) at HUD.

Searches of Other Electronic Databases. Passive tracking for the MTO sample also involves use of electronic databases. Abt Associates routinely checks the National Change of Address Database (which catalogs U.S. Postal Service change-of-address notices). Abt also checks national consumer credit databases which list address information provided by creditors based on credit applications and ongoing account maintenance⁷. In addition, automated decedent data are searched annually.

A.3.2 Information Technology and Administrative Data Collection for the Evaluation

The second way in which improved information technology will benefit the MTO interim evaluation is through collection of administrative data on certain outcomes. By accessing administrative information at the state and national level, the evaluation contractor has been able to reduce the scope and burden of the survey instruments. Exhibit 3 shows the plans for collecting these data.

⁷ It is important to note that during periods of active data collection (those which involve direct contact with the family) consumer credit databases are consulted quite frequently to gain updated information.

Exhibit 3 Administrative Data Sources for Outcomes

Domain	Outcomes	Data Sources
Employment and Earnings	Quarterly employment and earnings	State Unemployment Insurance (UI) wage records
Delinquency and Risky Behavior	Arrests and court dispositions	State agencies that maintain data on criminal records
Welfare and other Transfer Programs	Monthly TANF benefits, monthly Food stamp benefits, monthly SSI benefits, exits from cash assistance, date of TANF time limit, TANF sanctions, and participation in welfare to work activities	State welfare agency records
Housing Assistance	Receipt of housing assistance Amount of housing assistance	Multifamily Tenant Characteristics System (HUD) Tenant Rental Assistance Certification System (HUD)
Administrative Data Sour	ces for Mediating Factors	
Domain	Mediating Factors	Administrative Data Sources
Education	school quality school resources crime rates for local area unemployment rate school attendance, grade completion	US Department of Education Common Core of Data on schools FBI, local police departments, Census 2000, Bureau of Labor Statistics (BLS) Local school district web sites and published data
Employment and Earnings	crime rates for local area unemployment rate	FBI, local police departments BLS
Delinquency and Risky Behavior	crime rates for local area school resources school quality SES level	FBI, local police departments US Department of Education Common Core
Welfare and other Transfer Programs	unemployment rate receipt of public assistance in the local area crime rate in the local area	BLS Census 2000 FBI, local Police Departments
Housing Assistance	Fair Market Rents (FMRs) for local area, by housing unit size	HUD

A.3.3 Information Technology and Survey Administration

The surveys for the MTO interim evaluation will be administered using computer-assisted personal interviewing (CAPI) technology. The system that Abt will use (Bellview CAPI) is Pulse Train Technology's integrated multimedia personal interviewing system. Bellview

CAPI has a very user-friendly design, making it easy to self-administer questions. This technology also allows the respondent to answer open-end questions directly, ensures that question skipping is done according to the proper skip patterns, and carries out logic checking of questionnaire responses to ensure data quality. All of this is critical for the MTO interim evaluation data collection since we plan to allow adult and youth respondents to complete sensitive questions on their own to preserve anonymity.

The field interviewers carry laptop computers loaded with our CAPI program. For adults and youths answering sensitive questions, the interviewer will turn her computer toward the respondent and allow the respondent to complete the section.

Bellview CAPI also improves survey management. The system allows interviewers, surveys, and survey assignments to be managed from one central site. Interviewers also have direct email access to supervisors, allowing prompt responses to questions that arise.

Information technology will facilitate the survey data collection in another way, too. Parents will be asked for a history of the schools the sampled children have attended since random assignment. The interviewers will be able to complete the identification of schools with the parents, by accessing data from the Department of Education Common Core of Data.⁸ This will reduce the number of questions they need to ask the parents.

A.4 Efforts to Identify Duplication

The purpose of the surveys for the MTO interim impact evaluation is to obtain current information on the status and well-being of adults, youth, and children in the MTO program population. Information about these respondents' educational achievement, employment and job skills development, physical and mental health, delinquency and risky behavior, and neighborhood ties is not available through any other source. Further, as described in A.3 above, the evaluation will utilize administrative data in conjunction with survey data, so that there will be no duplication of reporting on (e.g.) cash benefits, housing assistance, or residential mobility.

Duplication is also being avoided in this study by use of the MTO data system, which links all the data collected from families in the Participant Baseline Survey (and during the 1997 and 2000 canvasses) with the data newly collected for the interim evaluation. For example, there is no need to ask about personal characteristics or background factors for known household members, because these were covered at baseline. There is no need to ask about where families moved, either initially through the demonstration or later on their own, because address histories can be constructed from tracking data.

⁸ These data are available at http://nces.ed.gov/ccd/ccddata.html.

The educational achievement data for this study, to be collected by testing sampled children 5-19, do not represent a duplication of existing data. Children in the MTO sample are now living in at least 123 school districts. Investigation of the achievement tests used by the numerous school districts in the main MTO sites reveals wide variation in the tests used across districts and grade levels, even within each site. This variation would make it extremely difficult to pool test data across school districts in a way that provides a meaningful measure of achievement. Further, in some areas, permission of the principal of the particular school is required before the district will release data for research, making it infeasible as well as undesirable to collect administrative data on academic achievement for this evaluation.

Finally, the interim survey of households will also obtain current location and household composition information, eliminating the need for these families to be contacted again for a routine canvass in 2001 or 2002.

A.5 Involvement of Small Entities

No small businesses or other small entities are involved as respondents in the proposed data collection effort. Respondents are all members of families participating in the MTO demonstration.

A.6 Consequences of Less Frequent Data Collection

HUD's original plan for the maintenance and evaluation of the Moving to Opportunity demonstration program was designed to minimize the frequency of data collection from participants while at the same time maintaining the longitudinal panel for a ten-year period. The plan involved significant participant data collection only in the baseline period, at the mid-point of the observation period, and at the end. Sample tracking—primarily with passive methods—would be used to maintain the panel in the intervening years.

This request is for the mid-point data collection, to conduct the interim evaluation. There will be no other data collection of similar scale until the final evaluation, at the end of the ten-year period. However, HUD does anticipate conducting future MTO canvasses, between the mid-term and final evaluations, in order to ensure the integrity of the research sample for the final evaluation.

A.7 Special Circumstances

The proposed data collection activities are consistent with the guidelines set forth in 5 CFR 1320.6 (Controlling Paperwork Burden on the Public—General Information Collection Guidelines). There are no circumstances that require deviation from these guidelines.

A.8 Consultation Outside the Agency

In accordance with the Paperwork Reduction Act of 1995, the Department of Housing and Urban Development (HUD) published a notice in the *Federal Register* announcing the agency's intention to request an OMB review of data collection activities for the MTO Interim Evaluation. The notice was published on **[insert date]** in Volume **[?]**, Number **[?]**, pages **[?]** and provided a 30-day period for public comments. A copy of this notice appears in Appendix H.

The MTO interim impact evaluation design was developed and is being implemented with the assistance of Abt Associates Inc., the prime contractor. Key members of the Abt team include Drs. Larry Orr and Judith Feins of Abt, Dr. Susan Popkin of the Urban Institute, Drs. Larry Katz and Jeffrey Liebman of Harvard University, and Dr. Jeffrey Kling of Princeton University.

HUD staff have consulted with the Abt team on the design at critical junctures in the study. The purpose of such consultation is to ensure the technical soundness and usefulness of the data collection instruments, as well as the accessibility of the data required from the MTO tracking system for carrying out the evaluation.

HUD has also formed a Technical Review Panel for the interim evaluation. Its members are: Drs. Greg Duncan and Thomas Cook of Northwestern University; Dr. Lynn Olson of the American Academy of Pediatrics; Dr. Robert Sampson of the University of Chicago; Dr. Jeanne Brooks-Gunn of Columbia University; and Dr. Kristin Moore of Child Trends. In 1994, HUD staff also consulted with Dr. Jeffrey E. Zabel of the Census Bureau on the subject of attrition rates. In addition, HUD and members of the evaluation team have consulted with a variety of academic experts in various fields, including Dr. Katherine Stovel of the University of Washington, Dr. Jens Ludwig of Georgetown University, and Dr. Tama Leventhal of Columbia University.

A.9 Payments to Respondents

Payments to respondents were authorized by OMB for the MTO canvass in 1997 and again in 1999. The incentives were used for household respondents and contributed to successful canvasses in 1997 and 2000. At this time, *HUD is requesting OMB approval of continued use of incentives for MTO respondents for the interim impact evaluation.*

The use of incentive payments for the MTO interim evaluation can be justified on the same grounds that were cited when first requesting their use for the MTO canvass:

- *The MTO panel is small*—A total of 4,608 households joined the program and were randomly assigned to one of the three groups during the course of the demonstration. A total of 1,676 families in the MTO experimental and Section 8 comparison groups used Section 8 certificates or vouchers issued through the program to move.⁹ This population size will permit detection of impacts in the likely size range only if panel attrition is kept very low and survey response rates are high.
- *The MTO study period is long*—A 10-year study is needed to provide sufficient time to detect a wide range of program impacts on the education, employment, and social well-being of the families in the program. The present study is only the mid-point of that observation period. It is important to maintain the panel past the interim impact evaluation, making every effort to encourage further participation after this important data collection.
- *The MTO population is responsive to incentive payments* Previous research had shown that sample members with low incomes and/or low educational attainment have proven responsive to incentives, as have minority group members. These characteristics are heavily represented in the MTO panel.¹⁰ Experience with MTO canvasses in 1997 and 2000 bears out the value of the incentive.
- *Incentive payments can reduce the cost of locating mobile panel members before the main survey data collection*—Abt Associates is planning a focused locating effort leading up to the survey data collection for the interim evaluation.

⁹ Families assigned to the third group, the in-place control group, remain in their current public or Section 8 project-based housing.

¹⁰ See among the sources documenting this recommendation: Allen P. Duffer et al., "Effects of Incentive Payments on Response Rates and Field Costs in a Pretest of a National CAPI Survey" (Research Triangle Institute, May 1994), passim; see also "National Adult Literacy Survey Addendum to Clearance Package, Volume II: Analyses of the NALS Field Test" (Educational Testing Service, September 1991), pp. 2-3.

Based upon prior research as well as the MTO tracking experience, the use of an incentive payment is estimated to significantly reduce the need for expensive field locating.¹¹

There are also two new reasons to increase the incentives to MTO respondents:

- The interim evaluation data collection is the first major step in testing the impacts of MTO—By late 2001, when the surveys are to be conducted, four to seven years will have elapsed since enrollment, and other positive incentives to cooperate with the data collection (such as willingness to fulfill the commitment made at enrollment) are likely to be low. At a 1992 OMB-sponsored symposium on the topic of incentive payments, "most participants agreed with the general thesis that `incentives should be considered whenever the positive forces to cooperate are low."¹²
- *The interim evaluation data collection is extensive*—The combination of the household survey with interviewing and testing youth and children represents a substantial time commitment for the sample members. It seems necessary to recognize the extent of this data collection (compared to the brief canvasses) by offering larger incentive amounts.

For all these reasons, HUD is requesting authorization for a coordinated set of incentive payments for this study:

- a) Incentive payments of \$10 for household heads and departed members to return the initial mailing with consent to interview and test sampled children and youth and with any updated contacting information;
- b) Incentive payments of \$50 for the household heads, who will be asked to complete a 60-minute interview;
- c) Incentive payments of \$50 for youth ages 12-19, who will be asked to respond to a 30-minute interview and cooperate with 45 minutes of achievement testing; and
- d) Incentive payments of \$25 for the household heads or other adult care givers responsible for the younger children being tested; and

¹¹ See Duffer et al., *ibid*.

¹² See *Providing Incentives to Survey Respondents: Final Report* (Council of Professional Associations on Federal Statistics, September 1993), p. 10.

e) Small gifts (worth \$5 or less) for the children under 12 who cooperate with the testing and (if 8-11) the interview.

A.10 Arrangements and Assurances of Confidentiality

Informed Consent and Permission for Child/Youth Data Collection

At the initial intake session for the MTO demonstration program between 1994 and 1998, applicants heard an explanation of the program and of the research design (including the random assignment to three groups). Those who then decided to join MTO signed an Enrollment Agreement acknowledging informed consent and permitting collection of various data about themselves and their family members. A copy of the MTO Enrollment Agreement is provided in Appendix I.

For the MTO interim impact evaluation, we plan to obtain the permission of the core household heads for testing and interviewing their children under the age of 18. For youth ages 18-19, the interim evaluation data collection will be the first direct contact with the MTO research. The evaluation contractor will seek these youths' own consent to collect data at this time and for the remainder of the observation period. Appendix J contains the two consent forms proposed for this study as well as language provided by HUD's Office of General Counsel for this purpose.

Data Confidentiality Protections

The data collected in the surveys for the MTO interim evaluation—as well as the educational achievement test results and the administrative data from the states—will all be used for research purposes only (for analysis and for long-term tracking of the research sample). Mailings to potential respondents and all in-person introductions will include assurances that participation is voluntary, that all information will be kept confidential, and that the respondents' answers will be reported as part of a group only.

In addition, HUD's evaluation contractor, Abt Associates, is applying for an NIMH Confidentiality Certification for the MTO interim evaluation. This certification strengthens the privacy protections otherwise applicable to such research, by virtue of the language in the Public Health Service Act Section 301(d),¹³ which says:

The Secretary may authorize persons engaged in biomedical, behavioral, clinical, or other research...to protect the privacy of individuals who are the subject of such research by withholding from all persons not connected with the conduct of such

¹³ 42 U.S. Code Section 241(d).

research the names or other identifying characteristics of such individuals. Persons so authorized to protect the privacy of such individuals may not be compelled in any Federal, State or local civil, criminal, administrative, legislative, or other proceedings to identify such individuals.

The certification is being requested for the entire MTO interim evaluation. The study's data collection plan, this OMB statement, and the proposed survey instruments will be reviewed by Abt Associates' Institutional Review Board. The IRB's approval is required in order to obtain NIMH certification.

A.11 Sensitive Questions

Two of the surveys for the MTO interim evaluation—the household survey and the youth survey (for youth ages 12-19)—contain some sensitive questions, in the areas of sexual activity, drug and alcohol use, and other risk behaviors. All of the questions dealing with these topics have been drawn from existing survey instruments, including the National Longitudinal Survey of Youth, the Survey of Program Dynamics, the Boston Youth Survey (1989), and Welfare, Children, and Families —A Three-City Study. All of these questions have been answered without particularly high non-response in other data collection efforts. *No sensitive questions will be asked of children below the age of 12.*

Asking these questions about risk behaviors is of considerable importance to this study, because one of the six key study domains concerns delinquency and risk behavior. It is hypothesized that MTO may have important effects on problem behaviors for youth and, to a lesser extent, adults. An extensive literature (summarized in Brock and Durlauf, 1999) posits various theories that neighborhoods may affect social pathologies such as delinquency, substance use, and early childbearing:

- *Peer Influences through Contagion Effects*—Research tells us that higher socioeconomic status (SES) youth have a lower prevalence of delinquent and risky behaviors, compared with low-SES youth. Therefore, we hypothesize that youth in the MTO treatment groups will display lower levels of delinquent and risky behaviors than will youth in the control group. This prediction follows from epidemic or contagion models which emphasize the power of peers to influence one another's behavior and assume "like begets like."
- *Relative Deprivation or Competition Effects*—Models of "relative deprivation" suggest that well-off neighbors may provoke resentment among those from poorer backgrounds so that poor youth could be more likely to develop (or fall into) a deviant sub-culture when living in low-poverty neighborhoods. These models

also suggest youth in the MTO experimental group may also show higher levels of delinquent behaviors than youth in the control group.

- Neighborhood Adult Influences—Collective socialization models posit that adults in a neighborhood may influence young people who are not their children. More affluent adults may act as role models who demonstrate that success is possible if you work hard and play by the rules; and high-SES adults may act as "enforcers" who help maintain public order. In this model, youth in the MTO treatment groups may have lower social pathologies than control group members since MTO movers end up in neighborhoods with a larger proportion of high-SES adults. Movers in the MTO experimental group, who must move to low-poverty areas, may also show lower rates of anti-social behavior than those in the Section 8 comparison group, who may move into higher-poverty areas.
- *Community Resources*—More affluent neighborhoods are likely to offer better labor market opportunities for youth, greater school resources, and possibly a larger range of "positive" recreational and extracurricular activities. Enhanced community resources may increase the perceived returns to legitimate work, educational investments, and "clean" recreational activities relative to illegal activities and other delinquent behaviors. The MTO experimentals (and possibly the Section 8 comparison group) might be expected to have lower delinquency rates and higher rates of involvement in positive activities (work and schooling) if this theory holds.
- *Neighborhood safety influence*—Greater neighborhood safety (lower crime and violence rates) reduces the need to join gangs for protection and may thereby reduce delinquent behaviors and increase positive activities for the MTO treatment groups.

For all these hypothesized reasons, the changes in neighborhood resulting from MTO moves may have affected delinquency and risky behavior among both adults and youth in the sample. We view the measurement of outcomes in this area as extremely important, necessitating the use of sensitive questions in the surveys.

As stated earlier, we will explain the privacy protections of this study to each respondent and assure them that their responses will be kept completely confidential and anonymous. The review by Abt Associates' Institutional Review Board and the Certificate of Confidentiality being sought from NIMH offers additional protections.

We will explain to respondents that these questions are about just one aspect of their lives and that their answers will not be treated any differently than other data collected. They will be treated with the same protections of privacy and confidentiality. In addition, we will offer special means to make the respondents comfortable with answering these questions. Adult and youth respondents will be given the chance to enter their answers directly into the automated CAPI (Computer-Assisted Personal Interviewing) system using the screen and keyboard with which the interviewer has been administering the instruments. As described above, the youth interviews will be administered in a "teen center" setting outside the home, to improve the respondents' confidence in the privacy of their answers and therefore to encourage more truthful responses from them.

A.12 Estimate of Annualized Burden Hours and Costs

The data collection for the MTO interim evaluation is a one-time effort. Although HUD plans to conduct additional data collection at the end of the 10-year observation period, the present request covers only the mid-term data collection effort to be carried out in 2001-2002.

Exhibit 4 shows the actual respondent burden for the MTO population to date. It shows the time, in hours, initially spent by all applicants who completed the MTO enrollment form and the baseline survey. It then shows the actual burden resulting from the two MTO canvasses conducted to date, in 1997 and 2000. The total burden of MTO data collection from participants to date is 5,557 hours over a period of seven years.

Form	Respondent	Number of Respondents	Time to complete (minutes)	Frequency	Total Burden (hours)
Enrollment Form	Eligible MTO applicants	5,301	5 minutes	1 per respondent	442 hours
Participant Baseline Survey	Eligible MTO applicants	5,301	40 minutes	1 per respondent	3,534 hours
1997 Canvass	Families randomly assigned in MTO through 12/31/96	2,624ª	Long form 19 min.; short form 13 min.	1 per respondent	756 hours
2000 Canvass	All families randomly assigned in MTO	3,808 ^b	13 minutes	1 per respondent	825 hours
TOTAL					5,557 hours

Exhibit 4 Actual Respondent Burden (Through December 31, 2000) Under Prior OMB Clearances

Total sample for the 1997 MTO canvass was 2,883; response rate was 91 percent. A portion of the sample was administered the long form canvass (at 19 minutes) while the remainder was administered the short form (13 minutes in length). See Judith D. Feins and Debra McInnis, *Implementation of Tracking and Data Systems for the Moving to Opportunity Demonstration, Task Order 5 OMB Submission* (Cambridge, MA: Abt Associates, Inc., March 1, 1999).

^b Total sample for the 2000 MTO canvass was 4,608; response rate was 82.6 percent. The entire sample was administered the short form of the canvass (13 minutes in length).

Exhibit 5 shows the estimated respondent burden for the data collection associated with the MTO interim evaluation—the data collection for which clearance is being sought in this package. Following HUD's plan for the longitudinal study, the mid-term data collection is one of only two points in time when extensive follow-up data are to be collected.

Exhibit 5 Estimated Future Respondent Burden For the MTO Interim Evaluation Data Collection

Form	Respondent	Number of Respondents ^b	Time to complete (minutes)	Frequency	Total Burden
Interim Survey of Households	Adult head of core household ^a	3,827	65 minutes	1 per respondent	4,145.7 hours
Interim Survey of Youth	Sampled youth ages 12-19 from MTO core households	3,000 ^c	30 minutes	1 per respondent	1,500 hours
Travel time to teen centers	Sampled youth ages 12-19 from MTO core households	3,000 ^c	60 minutes	1 per respondent	3,000 hours
Interim Survey of Children	Sampled children ages 8-11 from MTO core households	2,100°	15 minutes	1 per respondent	525 hours
Educational Achievement Battery (WJ-R)	Sampled youth and children (ages 5-19) from MTO core households	3,000 youth; 2,100 children ages 8-11; 900 children ages 5-7	45 min. for youth and children 8- 11; 30 min. for children 5-7.	1 per respondent (5,100 @45 minutes; 900 @30 minutes)	4,275 hours
MTO Interim Evaluation (all)		9,827 respondents total			13,445.7 hours total

^a The core household refers to the set of persons expected to move together through the MTO program. This household's membership is defined by the applicant for MTO, during the process of completing HUD Form 50058 with the PHA staff. The applicant lists all individuals who will move into a new unit with a Section 8 certificate or voucher, if the family is assigned to the MTO experimental or Section 8 comparison group and succeeds in leasing up. The adult head is the person designated as head on the 50058. In most—but not all—cases, this is the same person who completed the Enrollment Agreement and Participant Baseline Survey when applying to join MTO.

^b Number of respondents for each form reflects a 90 percent response rate. The study's target response rate is 85 percent, but we will seek a 90 percent response if resources allow.

^c Up to two children and youth ages 5-19 will be randomly sampled from each MTO core household. Figures in this exhibit for the distribution of the sample among different subsets, by age, are estimated. The actual numbers will be known when the sample is drawn.

A.13 Estimated Recordkeeping and Reporting Cost Burden on Respondents

The cost to respondents will be the time required to respond to the survey. Youth will incur some expenses to travel to the teen centers. However, these costs will certainly be much lower than the incentive payments being made to the youth.

A.14 Estimate of Cost to the Federal Government

Exhibit 6 shows the costs to the federal government of past and current data collections for the Moving to Opportunity demonstration. The first row of the exhibit shows the actual cost of MTO data collection during the baseline period, when families were joining MTO and when site agencies were submitting data monthly to HUD's implementation contractor.

The second and third rows of Exhibit 6 show the actual cost of the MTO canvasses conducted in 1997 and 2000, which together totaled \$1,269,824. For the number of families in the first canvass sample (only part of the full MTO population, which was not yet complete at the time), the 1997 canvass cost came to \$154 per family. The per family cost in 2000 came to \$179.

The last row of Exhibit 6 shows the *estimated costs* for the interim evaluation data collection covered in this request for OMB clearance. These estimates were prepared by HUD's current Contractor, Abt Associates. Costs to be funded by HUD for the evaluation's survey data collection (including educational testing) will total \$1,829,407. Two other federal agencies, NICHD and NSF, appear likely to add another \$1,684,952 in resources to this data collection. Grants from several private foundations for this research bring the total data collection funding to nearly \$7.5 million.

A.15 Changes in Burden

This request for clearance does not involve a change in burden due to any program changes or adjustments. It concerns a new data collection not previously submitted to OMB for review.

Exhibit 6
Actual and Estimated Costs to the Federal Government

Line Item	Cost to the Federal Government	Total Cost
Total costs for MTO data collection during program operations (1994-1999) ^a	\$689,491	\$689,491
Total costs for 1997 MTO canvass (including incentive payments)	\$444,711	\$444,711
Total costs for 2000 MTO canvass (including incentive payments	\$825,113	\$825,113
Estimated costs for Interim Evaluation data collection (including incentive payments)		
U.S. Department of Housing and Urban Development	\$1,829,407	
Other federal agencies (NICHD, NSF) ^b	<u>\$1,684,952</u>	•
Subtotal	\$3,514,359	\$7,492,502

^a Includes Enrollment Agreements and Participant Baseline Surveys, as well as data collection from site agencies.

^b Funding decisions of NICHD and NSF are not yet final.

A.16 Plans for Tabulation, Analysis, and Publication

The data collected for the MTO interim impact evaluation will be analyzed, tabulated, and reported to HUD by the evaluation contractor. This section describes the basic analytic framework for the evaluation.

A.16.1 Impact Estimates: The Basic Model

A central objective of the evaluation is to estimate the impacts of the housing vouchers and certificates received by the MTO experimental group and the Section 8 comparison group (the "treatment groups") on a wide range of outcomes in the domains discussed in the remainder of this chapter. Random assignment assures that simple comparisons of raw mean outcomes between each of these groups and the in-place control group will provide unbiased estimates of these impacts. To improve the precision of the estimates, we will use regression analysis to control for any chance differences between the treatment and control groups on a number of characteristics measured at baseline. Our basic impact model, then, is:

2.2
$$O_i = \tilde{a}_0 + \acute{O}\tilde{a}_k X_{ki} + \ddot{a}T_i + \acute{1}_i$$

where O_i is the outcome at follow-up for sample member I; X_{ki} is a set of k baseline characteristics of sample member I; T_i is a dichotomous variable equal to 1 if sample member I belongs to the treatment group and zero if s/he is a control; i_i is a random error term; and \tilde{a}_k and \ddot{a} are coefficients to be estimated.

In this model, ä is an unbiased estimate of the *average* impact of the treatment on *all sample members assigned to the treatment group*. It is important to note that this estimate averages in the effect on some individuals who did not receive the subsidy because they are members of families that did not lease up. This estimate is known as the "intent to treat" (ITT) estimate, because it reflects the effect of the treatment on all those to whom it was *offered*, whether or not they actually received it. Thus, it addresses research questions 1 and 2 posed at the beginning of this chapter.

A.16.2 Impact Estimates: Effects of the Treatment on the Treated

While the ITT estimates produced by the basic model are useful for some purposes, it is also important to know the effect of the treatment on those who actually availed themselves of the subsidy—i.e., who leased up and moved. This is the issue posed by research questions 5 and 6 at the beginning of this chapter. Fortunately, we can derive this estimate of the impact of the "treatment on the treated" (TOT) directly from the ITT estimates and knowledge of the proportion of treatment group members who leased up, as follows (see Bloom (1984) and Angrist, Imbens, and Rubin (1996)):

2.3
$$I_{TOT} = I_{ITT}/p_L$$

where I_{TOT} and I_{TTT} are the TOT and ITT estimates of impact, respectively, and p_L is the proportion of the treatment group who leased up.

This adjustment provides an unbiased estimate of the impact of the treatment on those who leased up, under the relatively weak assumption that the treatment had no effect on those who failed to lease up. It is important to note that this adjustment requires no assumption about the characteristics of those who leased up and/or those who did not; in particular, the adjusted estimate will be unbiased even if those who lease up differ markedly from those who do not.

We will produce both "intent-to-treat" and "treatment-on-treated" impact estimates for both the MTO experimental group and the Section 8 comparison group. Great care must be exercised in interpreting comparisons of the impacts on the two treatment groups, however, because the proportion of families who leased up—and therefore the subset of families on whom the treatment had an effect—differed substantially between the two groups. Thus, when we compare the intent-to-treat estimates, we might find that the regular Section 8 subsidies had a larger effect on certain outcomes, *either* because they had a larger effect on those families who leased up *or* because a larger proportion of families leased up in the Section 8 comparison group (or both). And, as noted earlier, in comparing the impact of the treatment on the treated in the two treatment groups, we must be mindful that these represent impacts on different subsets of families, corresponding to the different lease-up rates in the two groups. We might, for example, find that the MTO subsidy had a larger effect on those who leased up than the regular Section 8 subsidy *either* because it would have a larger effect

for *any* subset of families *or* because the subset of families who leased up in the MTO experimental group were more susceptible to such effects than those who leased up in the Section 8 comparison group.

A.16.3 Impacts on Subgroups

We will produce impact estimates for adults and youths age 12-17 in MTO households, across all sites. Youths are of particular interest because previous research on mobility programs has shown fairly substantial effects on some outcomes for this age group (see Rosenbaum, 1992, and Katz, Kling, and Liebman, 1999). We will also estimate impacts for a number of subgroups of these broader populations, such as ethnic groups, individuals in families who were receiving welfare at baseline and those who were not, and those in families grouped by size and age of head. Such estimates will allow us to pinpoint the population groups who benefit most (and those who benefit least) from a mobility program such as MTO.

Impacts on mutually exclusive subgroups (e.g., ethnic groups) will be estimated jointly by running a variant of equation 2.2 on the overall sample:

2.4 $O_i = \tilde{a}_0 + \dot{\Omega}\tilde{a}_k X_{ki} + \dot{\Omega}\tilde{a}_m D_{mi} T_i + \dot{1}_i$

where D_{mi} is a set of dichotomous variables indicating whether individual I is a member of subgroup m. The coefficients \ddot{a}_m measure the impact of the treatment on subgroup m. Statistical tests will be applied to determine whether impacts differ across the m subgroups.¹⁴

A.16.4 Variation in Impacts Over Time

We expect that the effects of a change in neighborhood will take some time to materialize — i.e., that impacts will reflect the cumulative influences of living in a new environment. Therefore, it will be desirable to analyze the time path of impacts wherever possible. For some outcomes, this will not be possible because of data collection constraints; we will simply have point-in-time outcome measures taken at the time of the interim evaluation survey. For these outcomes, equations 2.2 - 2.4 will yield estimates of impact at that point in time. For some outcomes, however, we will have continuous histories from the point of random assignment through the follow-up period. For example, wherever possible, we plan to collect continuous administrative records on earnings, welfare benefits, and housing assistance from the date of random assignment through the end of the follow-up period. To measure the time path of impacts on these outcomes, we will use an estimating equation of the following form:

 $^{^{14}}$ We will use an F-test of the null hypothesis that $\ddot{a}_1=\ddot{a}_2=...=\ddot{a}_m.$

2.5
$$O_i = \tilde{a}_0 + \acute{\Omega}\tilde{a}_k X_{ki} + \acute{\Omega}\tilde{a}_n t_n T_i + \acute{1}_i$$

where t_n is a dichotomous variable indicating subperiod n of the follow-up period (e.g., month n or quarter n after random assignment). The estimated coefficients \ddot{a}_n measure impacts in each of the n subperiods.

A.16.5 Adjustments for Varying Random Assignment Ratios

The initial random assignment ratio in all MTO sites was set to yield equal numbers of *leased-up families* in the MTO experimental and Section 8 comparison groups, given the best available estimate of the lease-up rates that could be expected in the two groups (80 percent in the Section 8 group and 30 percent in the MTO group.).¹⁵ Equal numbers of leased-up families would provide the most statistically efficient (i.e., minimum variance) estimates of differential impact between the two groups receiving certificates or vouchers.

As the demonstration proceeded, it became clear that the lease-up rates for the MTO experimental families in several sites were significantly higher than predicted, relative to the Section 8 lease-up rate. Continuing to assign families at the same random assignment ratio would have resulted in an unbalanced experimental sample, with substantially more leased-up families in the MTO experimental group than in the Section 8 comparison group. Not only would this have been statistically inefficient, but it would have exceeded the resources available to the nonprofit organizations responsible for providing counseling to the MTO experimental families. Therefore, the random assignment ratio was changed to a new ratio that, on the basis of the experience of the early random assignment cohorts in the site, was expected to produce equal numbers of leased-up families in the MTO experimental and Section 8 comparison groups. The random assignment ratio was changed at least once in every site.

When the ratio of treatment and control families randomly assigned differs among parts of the sample, a simple comparison of mean outcomes (or, equivalently, a regression of the form shown in equation 2.2, with a single treatment dummy) may yield biased impact estimates. This is true because such differences confound assignment to treatment group with site and time period, so that assignment is no longer random over the entire assigned sample. In this situation, unbiased impact estimates can still be obtained, however, by estimating the impact of the program within each "assignment set" (i.e., within each subsample assigned under the same random assignment ratio) and then computing the impact on the overall treatment group as the weighted average of the assignment set impacts. Since the treatment and control

¹⁵ The initial ratio was 8 MTO experimental families to 3 Section 8 comparison families to 5 in-place control families.
groups are well-matched within each assignment set, this yields an unbiased impact estimate. The impact within assignment sets can be estimated with a regression of the form:

2.6
$$O_i = \tilde{a}_0 + \acute{O}\tilde{a}_k X_{ki} + \acute{O}\tilde{a}_r S_{ri} T_i + \acute{I}_i$$

where S_{ri} is a set of dichotomous variables indicating membership in assignment set r and the coefficients \ddot{a}_r measure the impact of the treatment within each assignment set.

Alternatively, it is possible to weight individual sample members to correct for these variations in random assignment ratio. This approach is particularly useful for descriptive analyses where regression analysis is either not appropriate or not convenient. In earlier work, Abt Associates has developed such individual weights for the overall MTO sample. Similar weights can be developed for the interim analysis sample. Whichever approach is taken—regression analysis or weighted descriptive statistics—care must be exercised in deriving the estimates and, especially, their standard errors, to ensure that the estimates are unbiased and that appropriate tests of statistical significance are applied.

A.16.6 Analytic Techniques, Tabulations, and Reporting

The experimental design of MTO allows for use of fairly straightforward analytic techniques. The difference in mean outcomes between the in-place control group and either the MTO experimental group or the Section 8 comparison group provides an unbiased estimate of the impact of the treatment. To improve the precision of the estimates, OLS regression will be used to control for chance differences between groups in characteristics that affect the outcomes. For dichotomous outcomes, logistic regression will be employed.

The analytic results will be presented in tables that show the control mean, the means for the MTO experimental and Section 8 comparison groups, the (regression-adjusted) differences in means and their statistical significance, and the MTO and Section 8 impacts as percentages of the control mean. The outcomes to be analyzed were discussed in detail in Section A.2. Exhibit 7 shows one way of displaying these results.

	Adjusted Mean ^a			Difference in Means		Effect Size (Percent Change)⁵	
Impact or Outcome Measures	In-Place Controls	MTO Experi- mentals	Section 8 Compar- isons	Experimen- tals vs. Controls	Section 8 vs. Controls	Experimen- tals vs. Controls	Section 8 vs. Controls

Exhibit 7 Sample Table Shell for Presentation of Impact Estimates

The final report of the interim evaluation, to be submitted to HUD in November 2002, will present a comprehensive analysis of all the data collected over the course of the evaluation. A draft outline of the report is shown in Exhibit 8. The report will include an Executive Summary suitable for dissemination to policy makers and the general public, as well as a more detailed explication of the results in the text and a series of appendices containing documentation of estimation methods and statistical results, data sources, and additional descriptive information. The text of the report will be written in language accessible to the layman.

A.16.7 Time Schedule for Analysis and Reporting

Collection of data from MTO participants is expected to begin in November 2001 and be completed by June 2002. The analysis of these data will be carried out between July and October. A final report is due to HUD at the end of November 2002.

A.17 Expiration Date Display Exemption

All data collection instruments created for the MTO interim impact evaluation will display prominently the expiration date for OMB approval.

A.18 Exceptions to Certification

This submission describing data collection requests no exceptions to the Certificate for Paperwork Reduction Act (5 CFR 1320.9).

Exhibit 8 Draft Outline: Final Report

Executive Summary

Chapter 1 - The Interim Evaluation

The Moving to Opportunity Demonstration Previous Studies of Mobility Programs and the Effects of Neighborhood Previous Analyses of the MTO Demonstration Research Questions Overview of This Report

Chapter 2 - The Evaluation Sample

Sample Allocation by Experimental Treatment and Site Socioeconomic and Demographic Characteristics of the Sample Lease-up Rates and the Determinants of Lease-up Success Other Participation Analyses Residential Mobility of the Sample over the Follow-up Period Sample Members' Perceptions of the Move Experience and Neighborhood

Chapter 3 - The Impacts of Neighborhood on Family Outcomes

Using the Experimental Design to Estimate Impacts Education (Children) Employment and Earnings (Adults) Delinquency and Risky Behavior (Youth Age 12-17) Health (Adults and Children) Welfare and Other Cash Assistance Housing Assistance

[each section will include a discussion of outcomes, mediating factors, and the estimated impacts on the overall sample and selected subgroups]

Chapter 4 - Interpretation and Implications of the Results

How Neighborhood Affects the Lives of Low-Income Families Implications for Policies to Encourage Residential Mobility Implications for the 10-Year Impact Analysis

Appendix A - Estimation Methods and Derivation of Outcome Measures

Appendix B - Data Sources and Data Collection Methods

Appendix C - Descriptive Tables

Appendix D - Detailed Estimation Results

Part B Collection of Information Employing Statistical Methods

B.1 Respondent Universe and Sampling Methods

Universe of Core Households and Interim Evaluation Sample

The purpose of the MTO interim impact evaluation is to assess the effect of the experimental treatment on the lives of participants about mid-way through the 10-year observation period. Because the MTO population was built up over time, there is no single moment that represents the mid-point for all the families. Out of the full program population (4,608 families), the interim evaluation will include 92.3 percent, for a sample totaling 4,252 families.

Universe of Core Household Members

Within the 4,252 core households that are the sample for the interim evaluation, there are 15,733 core members ranging in age from 3 to 96. The core household membership is fixed by definition, having been established by the applicant during the process of Section 8 eligibility determination before random assignment. Thus, core household membership is exogenous to the experiment, while current household composition is not.

Note that the current family composition of the MTO core household heads does not necessarily correspond to the core composition. This could be because members have left or new members have been added in the four to seven years since random assignment. But it could also be because the core household never came into being: if the family did not move as part of the MTO program (either did not succeed in leasing up or was assigned to the inplace control group), its members may have remained in an earlier configuration (particularly the base household composition described in the Participant Baseline Survey).

Through passive tracking and the 1997 and 2000 MTO canvasses, data are available on the whereabouts of nearly all core household members. Sampling of children and youth for the interim evaluation will be carried out regardless of where they are located, and arrangements will be made to test and interview children and youth wherever they are currently living.

Sampling of Children and Youth

Among core household members, 8,938 persons will be between the ages of 5 and 19 on June 1, 2001. These are the members eligible to be selected for the child and youth samples. Exhibit 9 shows their distribution by age group and by number in core family.

The sampling plan calls for random selection of up to two children ages 5 to 19 per core household. Over 90 percent of the 4,252 core households in the interim evaluation still have children in this age range. (The remainder had children under 18 when they joined MTO but now have only core children 20 and over.) The distribution of numbers per household (shown in the lower panel of Exhibit 9) implies that—for the for two-thirds of the households in the study with only one or two children in the relevant age range—there need be no selection of children. The sampling will only affect the remaining 1,144 households. Due to the mix of ages in these households, we will not know the precise age composition of the child/youth sample until it is actually drawn. Where two children are drawn from the same household, appropriate sibling adjustments will be made during the analysis.

Number Percent Age Group on 6/1/2001 Ages 5-7 1264 14.13% 2928 Ages 8-11 32.73 Ages 12-17 3739 41.80 Ages 18-19 1014 11.34 TOTAL 8945 100.00% Number of Children or Youth in Core Household None 6.80% 289 2819 66.30 One or two Three or more 1144 26.90

Exhibit 9 Child and Youth Population for MTO Interim Evaluation

B.2 Information Collection Procedures

Sample Design

There is no sampling required for the selection of households covered in the MTO interim evaluation. All households enrolled in the MTO demonstration through the end of calendar 1997 will be included in the study.

The selection of children and youth ages 5-19 from among core members will involve a simple random sample. Up to two children will be sampled from each household in the study, without further stratification on age. In this way, analyses can be conducted

combining children of different ages without having to weight the data specifically for this step.

Estimation Procedures

As described in Section A.16 above, the data to be collected for the interim evaluation will be used to estimate impacts of the demonstration on a wide range of outcomes in six behavioral domains. For each outcome, impacts will be estimated by regressing the outcome on a set of baseline characteristics and a dummy variable that indicates whether the sample member belongs to the treatment or control group. Impacts will be estimated separately for the MTO experimental group and the Section 8 comparison group, relative to the in-place control group. With random assignment, ordinary least squares will produce unbiased estimates.

Degree of Accuracy Required

It is important to consider the precision with which the evaluation will be able to measure these impacts, given the sample sizes available. The best way to assess the precision of the estimates that can be derived from an experimental design is to examine the *minimum detectable effects* (MDEs) obtainable under that design. The minimum detectable effect is the smallest true program impact that has a good chance of being identified with data from a given sample. The smaller the MDE, the more precise the estimate. Specifically, we define minimum detectable effect as the smallest true impact that has an 80 percent chance of being statistically significant, using a two-tailed hypothesis test at the 10 percent level.

Exhibit 10 shows MDEs as a percent of the control mean for selected outcomes, for heads of household and youths ages 12-19.¹⁶ Separate MDEs are shown for the MTO experimental group and the Section 8 comparison group. The MDEs shown in the exhibit are based on the sample of individuals randomly assigned through December 31, 1997; for youth outcomes, the sample includes up to two children age 12-19 in each household.

As can be seen in the exhibit, for these adult outcomes we can be confident of detecting impacts of 10-29 percent, with slightly better precision (smaller MDEs) for the Section 8 comparison group than for the MTO experimental group. This latter difference reflects the much lower lease-up rate in the MTO experimental group, which degrades the precision of the estimates for any given sample size. If the impacts of MTO are similar to those found by Rosenbaum (1992) for the Gautreaux project, this should be sufficient precision to detect them. For youth, the minimum detectable effects vary more widely, from as small as 2

¹⁶ The MDEs shown here do not take into account two offsetting influences on the precision of the estimates. First, to the extent that covariates in the impact regression explain some of the variation of the dependent variable, the precision of the estimates will be somewhat better than shown here. Second, because the random assignment ratio varied across sites and over time, to obtain unbiased impact estimates the sample observations must be weighted to reflect their different assignment probabilities; this will reduce the precision of the estimates. We do not expect either of these factors to change the MDEs by more than 5-10 percent, and for a typical dependent variable, we expect them to be roughly offsetting.

percent for standardized test scores to over 100 percent for several outcomes. Although the MDEs for many of the youth outcomes are relatively large, it is likely that we will have sufficient precision to detect the impacts of MTO on youths—Katz et al. (1999) found impacts on a number of youth outcomes that were quite large relative to the control mean.

Outcome	Control Mean	MDE, MTO Experimental Group	MDE, Section 8 Group
Adults			
Quarterly earnings	\$1997	29%	25%
Currently employed	.43	22%	19%
Receiving food stamps	.53	18%	16%
Receiving TANF	.47	20%	18%
Receiving any housing assistance	.75	11%	10%
General Health (very good/good vs. fair/poor)	.58	18%	16%
Youths, age 12-19			
Score on standardized test	.93	4%	3%
General health (very good/good vs. fair/poor)	.43	28%	25%
# days smoked, past 30 days	2.15	32%	28%
Gangs in neighborhood/school?	.62	19%	17%
Sibling/cousin/friend a gang member?	.33	34%	30%
Gang member in past 12 months?	.03	127%	112%
Assault or serious fight in past 12 months	.26	41%	36%
Ever arrested or taken into police custody	.13	62%	55%
# sexual partners in past 12 months	1.52	51%	45%

Exhibit 10 Minimum Detectable Effects on Selected Outcomes (TOT Estimates)

Many of the outcomes with relatively large percentage MDEs relate to behaviors or conditions that affect only a small fraction of the sample; this is true, for example, for belonging to a gang in the last 12 months, which characterizes only 3 percent of even a low-income population like the MTO sample. It may be possible to obtain more precise estimates of impacts on these outcomes by focusing on subgroups for whom the outcome in question is

most relevant.¹⁷ One way to do this is to use baseline data to identify those most at risk of such behaviors or conditions. To the extent that appropriate baseline data are available, we will do so in the analysis.

In summary, then, it appears that the pooled sample of families assigned by December 31, 1997 will provide adequate precision to detect impacts of the size that are likely to be caused by the experimental treatments.

Procedures with Special Populations

The MTO population contains a considerable number of respondents whose first language is Spanish. As in all previous MTO data collections, HUD's Contractor will translate each of the survey instruments and modules into Spanish, for administration in the language most comfortable for the respondent. All preliminary contacting materials and consent forms will also be made available in Spanish.

For respondents who are most comfortable in other languages or in sign language, the Contractor will use translators to carry out the interviews. These might be family members or staff members of community agencies. The contact and advance letters will both provide a TTY number for use by the hearing-impaired. Any calls to request materials in other languages will be noted, so that appointments with those respondents can be scheduled with a translator included.

For the educational testing of youth and children, however, HUD's Contractor will only administer the WJ-R tests in English. We have been advised that the test is not well-translated, with respondents likely to get confused and provide unreliable data. In addition, prior data collection and focus group experience indicates that the children in MTO families are proficient in English even when the parents are not.

B.3 Methods to Maximize Response Rates

The target response rate for all elements of the MTO interim evaluation data collection is 85 percent. Due to the tracking and locating efforts HUD has sponsored since the demonstration began, there has been very little attrition and the location of the sample is known to a very high degree.

¹⁷The MDEs in Exhibit 10 do not take account of the inclusion of baseline variables as covariates in the impact regression. This effect will vary across outcomes, but will generally be relatively small. For outcomes that are persistent over time, however (e.g., chronic medical conditions), inclusion of the baseline value can substantially improve the precision of the impact estimate.

Several methods will be used to maximize the response rates for the MTO interim evaluation data collection. These methods involve preliminary tracking and locating, incentive payments, and sample control during the data collection period.

Preliminary Tracking and Locating

In order to maximize response to the MTO interim evaluation, HUD's Contractor has planned a focused locating effort before the main data collection begins. The purpose of this locating effort is to obtain updated address, phone, and secondary contact information for all MTO heads of household, as is done in advance of each MTO canvass. Abt Associates will also attempt to collect the same information for sampled children (ages 5-19) no longer living with the core household head. At the same time, consent will be sought for data collection from sampled children. (The consent forms can be found in Appendix G.)

The locating effort will be carried out largely by mail, with some reminder phone calls and some in-person visits to collect the form. The initial mailing will include consent forms to be completed by the head of household and/or sampled youth ages 18-19:

- The consent form to be completed by the head of household authorizes data collection with sampled children ages 5-17 (educational testing for all, interviews for those 8-17) and collects updated address, phone, and secondary contract information for the household and for core household members no longer living with them.
- The consent form to be completed by sampled youth ages 18 and 19 authorizes us to interview and test them directly.

The locating packet containing these items will be sent to all household heads. We anticipate receiving a 15 percent response to the initial mailing. Approximately 4 weeks after the initial mailing, reminder calls will be made to all household heads who have not yet returned their forms. We estimate that another 15 percent will respond after they receive this call. Returns for an additional 7 percent are likely to come from postal updates or credit bureau searches. Finally, we anticipate an additional 10 percent from in-person visits to homes of non-respondents to the 2000 canvass. In all, we estimate receiving updated locating information for 47 percent of the sample.

Use of Incentive Payments

When respondents are being contacted to schedule appointments, either for data collection in the home or for the youth data collection at teen centers, the interviewers will offer incentive payments as discussed fully in Section A.9 above. The substantial amounts being offered for

cooperation with the surveys and educational testing should help gain cooperation from most of the sample members.

Sample Control During the Data Collection Period

During the data collection period, non-response levels and response bias will be minimized in the following ways:

- The Contractor will use trained field interviewers and testers who are skilled at maintaining rapport with respondents, so that the number of break-offs and the incidence of item nonresponse will be kept low.
- The data collection procedures will limit intrusiveness by conducting the adult and child interviews and testing simultaneously (to reduce the amount of time in the home) and by conducting the youth data collection at teen centers.
- Respondents will have a choice of time for the data collection, and youth will have some choice of place as well.
- Additional tracking and locating steps will be taken, as needed, when sample members are not found at the phone numbers or addresses previously collected.
- Finally, the Contractor's survey director and field supervisors will manage the sample to ensure that the target response rates are achieved (or approached) evenly—for all three randomly assigned groups in each MTO site and for movers and non-movers alike.

By these methods, the Contractor anticipates being able to achieve an 85 percent response rate for all data collection components associated with the interim evaluation.

Of course, it is vital that MTO participants cooperate not only with the interim evaluation data collection but also with ongoing data collection for MTO over the long term. It does little good to locate a sample member if he/she then refuses to be interviewed, or to interview a sample member for this study but end up with a long-term refusal. The interviewers and testers trained for this data collection will be reminded frequently that the research objectives are best met by both current completes and willing respondents for the future.

B.4 Test of Procedures

HUD's data collection contractor, Abt Associates, has pretested all three survey instruments covered by this clearance request. The pretesting was conducted between May 15 and May

21, 2001 with volunteer public housing residents and Section 8 recipients in the Charlotte, NC and Minneapolis, MN metropolitan areas. The pretest interviewers kept close track of elapsed time. They also took detailed notes on places in the instruments where skip patterns needed revision or where respondents did not understand the question wording.

As a result of the pretest, a number of revisions were made to the three survey instruments:

- Each one was shortened, to conform with the planned length. Updated timing estimates, recalibrated based on the pretests, indicate that the instruments included in this package are now the lengths shown in Exhibit 5 above.
- The language was simplified, and/or words were defined, in several places in the Youth and Child instruments, in order to be sure that all respondents would understand what was being asked.
- Skip patterns were clarified (if from existing surveys) or modified to make the questions flow more smoothly and logically for the respondents.

The procedures for collection of educational achievement data using the WJ-R battery have been used in other studies by the Contractor. Further, during the training of testing personnel, there will be opportunity to administer the tests on child and youth volunteers of various ages.

B.5 Individuals Consulted on Statistical Aspects of the Design

The individuals shown in Exhibit 11 assisted the Department in the statistical design of the interim evaluation.

Name	Telephone Number	Role in Study				
Dr. Larry Orr	301-913-0520	Principal Investigator, Abt Associates				
Dr. Barbara Goodson	617-349-2811	Senior Scientist, Abt Associates				
Dr. Lawrence Katz	617-588-0304	Abt Associates team, Harvard University				
Dr. Jeffrey Liebman	617-495-8518	Abt Associates team, Harvard University				
Dr. Jeffrey Kling	609-258-6153	Abt Associates team, Princeton University				
Dr. Greg Duncan	847-467-1503	Technical Review Panel, Northwestern University				

Exhibit 11 Individuals Consulted on the Study Design

Inquiries regarding the statistical aspects of the study's planned analysis should be directed to:

Dr. Larry Orr Abt Associates Telephone: (301) 913-0520

References

Angrist, Joshua, Guido Imbens, and Donald Rubin. (1996). "Identification of Causal Effects Using Instrumental Variables." *Journal of the American Statistical Association*. 91:434 (June), 444-455.

Bloom, Howard. (1984). "Accounting for No-shows in Experimental Evaluation Designs." *Evaluation Review* 8 (April): 225-46.

Brooks-Gunn, Jeanne, Greg J. Duncan, Pamela K. Klebanov, and Naomi Sealand. (1993). "Do Neighborhoods Influence Child and Adolescent Development?" *American Journal of Sociology* 99: 353-95.

Duffer, Allen P. et al. (1994). "Effects of Incentive Payments on Response Rates and Field Costs in a Pretest of a National CAPI Survey" Chapel Hill, NC: Research Triangle Institute.

Jencks, Christopher, and Susan E. Mayer. (1990). "The Social Consequences of Growing Up in a Poor Neighborhood." In *Inner-City Poverty in the United States*, eds. L.E. Lynn, Jr. and M.G.H. McGeary. Washington, DC: National Academy Press, pp. 111-186.

National Adult Literacy Survey Addendum to Clearance Package, Volume II: Analyses of the NALS Field Test (Educational Testing Service, September 1991), pp. 2-3.

Providing Incentives to Survey Respondents: Final Report (Council of Professional Associations on Federal Statistics, September 1993), p. 10.

Feins, Judith D. and Debra McInnis. (1999). *Implementation of Tracking and Data Systems for the Moving to Opportunity Demonstration, Task Order 5 OMB Submission*. Cambridge, MA: Abt Associates, Inc.

Brock, W. and S. Durlauf. (1999). "Interactions-based Models." Unpublished manuscript, University of Wisconsin, August.

Ellen, Ingrid Gould and Margery Austin Turner. (1997). "Does Neighborhood Matter? Assessing Recent Evidence." *Housing Policy Debate*. Volume 8: 833-866.

Jargowsky, Paul A. (1997). "Poverty and Place: Ghettos, Barrios, and the American City." New York: Russell Sage Foundation.

Katz, Lawrence F., Jeffrey R. Kling, and Jeffrey B. Liebman. (1999b). "Moving To Opportunity In Boston: Early Impacts of a Housing Mobility Program." Unpublished manuscript, Princeton University, December 1999.

McGrew, Kevin S., Judy K. Werder, and Richard W. Woodcock. (1991). *WJ-R Technical Manual*. Allen, TX: DLM.

Rosenbaum, James E. (1992). "Black Pioneers: Do Their Moves to the Suburbs Increase Economic Opportunity for the Mothers and Children?" *Housing Policy Debate*. 2:4, 1179-1213.

U.S. House of Representatives. (1998). *Background Material and Data on Programs Within the Jurisdiction of the Committee on Ways and Means* ("Green Book"). Washington, D.C.: Government Printing Office.

Wilson, William Julius. (1987). *The Truly Disadvantaged: The Inner City, The Underclass, and Public Policy.* Chicago: University of Chicago Press.

_____. (1996). *When Work Disappears: The World of the New Urban Poor*. New York: Alfred A. Knopf.