Designing Surveys of Welfare Populations

Report from the Workshop on Designing Surveys of Welfare Recipients

March 15-16, 2001, Ann Arbor, Michigan

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Recent changes in welfare policy impose limits on the amount of time an individual can receive public aid. The primary intention of such policy changes is to move recipients off of welfare and into the labor market as quickly as possible. Many poverty researchers have described the demographic correlates and employment characteristics of successful transitions from welfare to work, but only recently, in light of new reform, has increased attention been focused on mental health, physical health, and family considerations that can influence one's ability to reach self-sufficiency *and* sustain it over time.

A workshop held in March, 2001, sponsored by the Office of the Assistant Secretary of Planning and Evaluation at the U.S. Department of Health and Human Services was designed to generate recommendations for the *study of such factors* – mainly, to answer the central question of how we can best design a survey study of welfare recipients to understand the factors that encourage or, in contrast, hinder welfare recipients in their transitions to employment and self-reliance. Participants included academic and policy researchers with a broad range of methodological and substantive interests and research staff from the Department of Health and Human Services, the National Institute of Mental Health, and the Michigan Family Independence Agency (see Appendix A for a listing of the workshop participants).

The purpose of this paper is to review the main themes of the workshop. For each theme, we summarize the points of discussion and highlight the major recommendations for a survey of welfare recipients. It is beyond the scope of this paper to provide a thorough review of the theoretical, conceptual, or methodological issues related to each theme. This summary does not

consider alternative methodologies for studying the transition from welfare to work. For example, although qualitative research of welfare recipients and employer studies are both useful in understanding the central question described above, the focus of the workshop, and this paper, is on surveys of the welfare population.

We begin with a review of the methodological issues discussed at the workshop. Workshop participants highlighted considerations related to designing a sample and to reducing nonresponse, particularly nonresponse related to an inability to locate sample members. Next, we review some of the benefits and costs to collecting administrative data along with survey data. We highlight some ideas for measures of employability in surveys of welfare recipients, and discuss conceptual and methodological issues related to the study of domestic violence. We detail the central measures of physical and mental health that were recommended at the workshop for welfare studies, and we conclude with a review of the relevant design decisions for collecting data on substance use.

I. Methodological Issues in Surveys of Welfare Recipients

One of the panel discussions at the Workshop on Designing Surveys of Welfare Recipients focused on sample design decisions and protocols for achieving high response from the sample. The following section briefly describes some of the key issues when developing a sampling plan and designing data collection procedures for maximizing response rate.

Sampling

The Survey Methodology panelists highlighted several conceptual and practical matters that need consideration at the sample selection stage. These included decisions affecting sample definition, the choice between cross-section and panel designs, and the choice of sample size and efforts to maximize the response rate.

Sample Definition

In studies of welfare populations, the conceptualization of "leavers" and "stayers" complicates the job of defining a sample. For example, consider the variable time on welfare. New recipients are likely to differ from those who have been in the program for a lengthy period of time, or new recipients may have entered under different eligibility rules. These differences may make it difficult for a study that samples welfare recipients at one point in time to make comparisons to another study that draws a sample from a different point in time. In addition, some welfare recipients may have entered the system for the first time, while others may have been on the welfare rolls more than once. Some leavers remain off welfare for an extended period of time while others return to the welfare system after shorter absences. A "leaver" in one study may look very different from a "leaver" in another study, depending on the sample definition (Acs & Loprest, 2000).

There are multiple reasons for leaving welfare – all of which could reflect diverse life experiences that affect self-sufficiency in different ways. Some sample members may have been terminated from the system because they "didn't follow the rules"; others may have dropped out on their own because they found jobs or were unable or unwilling to deal with new regulations.

Other factors that can influence sample design are state of residence and multiple beneficiaries in a family unit. Different states have different eligibility rules and systems in place for enforcing those rules. An individual who is allowed to remain on welfare in one state may be terminated from welfare in another.

Researchers may decide to include a member of a household if anyone in the family is on welfare. For example, some parents may no longer be receiving welfare for themselves, but their children may be receiving some type of assistance. Depending on the selection criteria, these family heads may be included in a study even though they are not on welfare themselves.

People in any one of the situations mentioned above could experience different outcomes or barriers, and thus complicate analyses if these selection issues are not clarified and incorporated in the study protocol. In sum, construction of a survey instrument and data collection protocols require an explicit sample design, and the policy or program implications drawn from the data are only useful if they are appropriate for the population of inference. Furthermore, comparisons across studies can either be facilitated or hampered depending on how well the sample designs are thought through, described, and matched on relevant characteristics. Research objectives, analytic plans, and sample characteristics need to be coordinated *before* a sample selection procedure is finalized.

Cross-Section vs. Panel Design

Another design consideration is whether to sample a cross-section of all recipients or only recent leavers, or to follow the members of the sample of choice over time. Cross-sectional studies of new welfare recipients can help inform questions about the impact of new policies as they are put into practice. These studies examine status in a population overall. Repeated cross-sectional studies can help inform gross change in a population. Longitudinal studies can also measure gross changes in a population. They have the additional advantages of analyzing the ways in which individuals change over time and identifying events that occur in a specified time period and their impact on the study participants' lives. A longitudinal study of welfare recipients at a point in time can illuminate changes in employment patterns, earning status, and changes in quality of life of both leavers and stayers over time. The numerous variations on longitudinal studies are described elsewhere in more detail (see Kalton & Citro, 1993, for a review of survey design considerations).

Sample Size

The size of the sample is not the most important determinant of the representativeness of the sample to the population of inference. Achieving a high response rate is usually more important than increasing the sample size. The integrity of a study is improved by how well the relevant characteristics of the *respondents* reflect those of the targeted population. In a general sense, this fit between the respondents and the population is increased as the response rate increases. Because interviews are expensive in terms of monetary resources, supporting infrastructure, and human capital, sample size should be carefully determined so that enough cases are scientifically selected to facilitate proper analysis of the data. One should avoid a situation in which pursuit of a large sample compromises one's ability to work the sample to reach respectable response rates within budgetary boundaries. A large number of cases representing only a small proportion of the total sample, i.e., a low response rate, likely will not yield data appropriate for making policy or program recommendations. Likewise is true of the reverse: a high response rate of a conveniently drawn sample that is not representative of the population will not support policy proposals for a diverse group of clients. There must be a balance between a random or stratified random sample selection of the right sample size and a non-biased pool of respondents to the interview itself.

Summary of Recommendations

To summarize the workshop recommendations on designing a sample:

- Clearly define the research goals and hypotheses before a sample is drawn. Determine if one data collection at a specific point in time will inform the study questions, or if several data collections over time are better suited for the study's objectives.
- Consider point-in-time sampling (or "Exit sampling") – stratify the sample by time in program so that long-term recipients do not heavily weight the sample design. Also

consider beginning and end dates. The date when the recipient entered the program could affect eligibility characteristics.

- Do not overlook persons left on welfare, the "stayers". In the light of time limits, it is important to understand factors that keep some recipients from moving off of welfare and into self-sufficiency and how "stayers" differ from "leavers".
- If the study utilizes personal interviews, consider geographically clustering the sample for cost efficiency for in-person interviewing or for follow-up of initial telephone contact.
- Calculate adequate sample size and focus the data collection design around procedures that will achieve a high response rate. Response rate should be given more weight than sample size to improve data quality and generalizability (although adequate sample size must be determined to meet analytic goals).

Improving Response Rates

The next task is to make sure that the survey respondents are representative of the target population. Discussion at the workshop centered around improving response rates based on the assumption that the greater the rate, the more likely the respondent pool will look like the initial sample. It is not always the case, however, that increased response rates will automatically reduce or eliminate nonresponse bias. The key is to avoid disproportionately excluding certain sample members because they are hard to find, more difficult to convince that it is worth their time to do the interview, or more costly to interview (e.g., need to contact them in the evenings or weekends because they work during the day or need to contact them in-person because they lack telephone service).

A nonresponse bias can arise from several situations: (1) the sample member may be unable to participate because of illness or institutionalization; (2) the sample member may refuse to

participate because of time pressures, health conditions, or distrust of researchers; and (3) the interviewer may not make contact *at all* with the sample member. Each category requires tailored approaches to overcome the contact/cooperation obstacle.

Most of the workshop discussion on nonresponse centered on the "no-contact" category, particularly the thorny problem of locating sample members. Interviewers may find tracking in low income studies difficult because initial contact information is incorrect; persons below the poverty line move more frequently than persons above the poverty line; these moves are often to temporary housing situations; and telephone service is less likely to be continuous, making contacts by phone difficult.

Some researchers approach studying welfare populations by randomly selecting low-income households with an expectation of capturing some welfare-assisted households. But more often than not, studies interested in persons on welfare begin with a list of current or former welfare recipients taken from administrative records. Unfortunately, administrative data are not designed for research purposes and may not be best suited for research needs. Oftentimes, administrative data are incomplete and outdated. This is a particular problem in the "electronic age", whereby welfare recipients have their payment direct deposited into their accounts rather than mailed to their homes. This provides less incentive for the agency to maintain current contact information. Even attempts to contact former recipients right after they leave the system can be difficult if their address information has not been updated in recent months (Cantor and Cunningham, 2000).

Once sample members move, locating them can be difficult if there are weak trails to follow, which is characteristic of low-income movers. Low-income persons often have unstable residential patterns, rent rather than own property, have intermittent or no phone service, and are

more likely than not to have little or no credit (Keeter, 1995). For these reasons and more, centralized tracking operations that rely on telephone contacts, directory assistance, or databases, such as credit databases, are not as useful for locating low-income samples as they are for the general population. This mobility can bias the representativeness of the sample if efforts to track down the movers are not well planned and actively pursued. Sample members at both ends of the spectrum are likely to be hard to locate – both those who are experiencing job mobility and work success and those who are experiencing severe hardships.

In addition to frequent moves, anecdotal information from studies that focus on or include low-income persons have reflected increased rates of moves to temporary or informal housing arrangements, which makes tracking by centralized or global approaches typical to telephone studies less effective than field approaches. Inclusion of field or face-to-face tracking in telephone studies can make a significant difference in overall response rates and the types of situations captured by the data.

As mentioned above, telephone service is often interrupted for households who gain or lose service as their financial situation changes or as they move from one location to another (Keeter, 1995). Census data reveal that in some areas of the country, up to 15% of the households are without telephone service, and they tend to be low-income households. Reaching such individuals becomes a difficult, if not an impossible task under a telephone-only data collection mode. Furthermore, many people today do not list their telephone numbers in directories, making it difficult to find their number to begin with. A sample can easily become biased against individuals who do not have continuous telephone service listed in their own names.

Cantor and Cunningham (2000) provide a detailed review of some techniques for locating sample members and enlisting cooperation. The Women's Employment Study (WES) and the

Mother's Well Being Study (MWS) studies at the University of Michigan, as well as a number of other welfare studies have successfully used many of these techniques. Highlights of recommended strategies for securing high response rates are provided below. For more details on these and other design considerations, see Cantor and Cunningham (2000), Groves and Couper (1998), Groves, Cialdini, & Couper (1992), and Dillman (2000).

Recommendations for Resources and Initial Planning

Panelists at the workshop emphasized the need to plan contact strategies in advance, and budget accordingly. Such planning tasks include collecting information in the first place that will inform ways to reach the respondent; collecting information useful for weighting and adjustment after the data collection, developing a sample management system that is both comprehensive and flexible, allowing for recording of a history of contact attempts; and planning for effort in contacts – such as the number of contact attempts and flexibility in their timing.

Background Information. When obtaining contact information from administrative records, Cantor and Cummingham (2000) recommended obtaining as much data as possible to provide clues and inform tracking approaches. On the WES, for example, at the face-to-face interview, the interviewers gather full legal name, address, telephone number, name for whom the telephone is listed under, relationship of that person to the respondent (if not the respondent), and second telephone number where the respondent can be reached. This information can be gathered at the intake stage when a client enters the welfare system, and updated periodically during the client's stay in the system.

Cantor and Cunningham (2000) further recommended collecting detailed contact information and relationship to the respondent for at least two other individuals who are likely to know her location and who are not currently living in her household. In the WES, interviewers

requested this information at each wave of data collection and found it the *most useful resource* for locating the respondent at the next wave of data collection.

Another useful approach is to ask the respondent for her social security number and permission to use it in locating her in the future. Many panel studies utilize this technique, including studies at the National Center for Health Statistics. This information could be gathered at the intake phase and used for recontacting welfare recipients for research purposes after they leave the system, if confidentiality concerns can be resolved.

Data for Post-Data Collection Adjustments. Design the survey to take into account information useful for weighting and adjustment after data collection. During the data collection, assess how hard-to-reach respondents may be different from the easy-to-interview ones. This information can be used to inform decisions on how hard to push for a completed interview during data collection (that is, the amount of resources to spend on the final interviews) as well as how to best modify/design the data collection protocols in future studies.

Flexible Sample Management Systems. Design a sample management system to accommodate the accumulation of tracking leads over the entire course of the study. This flexibility is important because old addresses and telephone numbers may become useful later in the study, or at another wave of data collection. As mentioned earlier, low-income populations move frequently, and often to temporary or informal arrangements. Sample members may move back in with a friend or relative with whom they have lived for a period of time earlier in their lives. If they are not at the address or telephone number considered most current, a useful approach is to try previous addresses or telephone numbers. In addition, telephone service is sometimes interrupted. Calling the same number at a later point in time can result in a successful

contact. On WES, the data collection group maintained a history of contact information across waves of the study for this very purpose.

Effort in Making Contact. Studies of low-income individuals that have achieved high response rates have expended much effort in the contact phase. It is not uncommon for studies of low-income populations to need more contacts to complete an interview than typical cross-section studies. An average of a half-dozen contacts per completed interview is reasonable to expect, while a proportion will require a dozen or more contacts. For this reason, it is important for researchers to avoid signing agreements with survey firms that specify a limited number of contacts per case.

Nonresponse also can result from factors like time pressures and varying lifestyles. As welfare recipients move off of welfare and into the work force, their "at-home" hours will diminish, making contact or arranging an interview more challenging. When making telephone or in-person calls to conduct an interview or set up an appointment, interviewers should vary the days of the week and times of day that calls are made. This requires more flexibility in hiring practices of interviewers and operations of a survey group. For the working population, evenings and weekends are likely the best times to call. Inclusion of week day, weekend, and evening hours should be prioritized over focusing on weekdays only in order to maximize efficiency.

Recommendations for Approaches to Contacting Sample Members

The recommendations for contacting sample members cluster into three general guidelines: contact by mail prior to calling or visiting the household, tailor approaches to the individual respondent when making survey introductions, and a respondent incentive. More specifically:

1. Prior to calling the respondents to set up an appointment for an interview, send them a letter emphasizing the importance of their contributions to the study, encouraging cooperation, and informing them about any incentive for participation.
   - Paying attention to details such as the type of letterhead and mentions of the sponsorship for the research and group conducting the study can lend authority and legitimacy to the study, and promote identification with the research group.
   - Mail the letters with "Address Service Requested" stamped on the envelopes. This instructs the U.S. Postal Service to return forwarding addresses to the sender.
   - Include a toll-free number for the respondents to call so they can update their contact information or find out more about the upcoming data collection. Including a pre-addressed, postage-paid postcard for updating address and telephone information serves a similar function.
   - To catch the sample members' attention to the mailing, consider alternatives such as priority mail or envelopes with an unusual size or color.
   - For the initial study, include a study brochure with the letter. At the first wave of WES, a "Study Fact Brochure" was included with the letter. The brochure addressed specific respondent concerns – such as how the researchers obtained their names, the identity of the research group and sponsorship of the study, the importance of the project, how respondent identities and data are maintained private and confidential, and the toll-free number.
2. If you are conducting a panel study or considering a recontact at a later point in time, keep in touch with the sample by sending a holiday card, birthday card, or newsletter.

In between data collections on WES, the research group maintained contact with respondents by sending out a newsletter with summary information from the composite data file. At each subsequent wave of data collection, the interviewers received positive feedback from the respondents about these reports. Like the advanced contact letter, "Address Service Requested" instructions were included on the outgoing envelope, and the toll-free line was printed in the newsletter. The 800-line served as a critical link, but was relatively inexpensive to set up and use.

3. Allow interviewers to tailor their approach with respondents or tracking informants. This makes use of social norms and helps build rapport. Building rapport, in turn, improves cooperation and raises response rates.

4. Utilize a number of refusal conversion approaches, such as training interviewers to listen to respondent concerns, and respond to them as best as they can; transferring resistant cases to other interviewers – sometimes a different communication style or approach may turn around a resistant respondent, and sending special letters that address specific respondent situations.

5. Incorporate a respondent incentive in the study design. Research has shown that pre-paid incentives (that is, ones paid in advance of conducting the interview—either mailed to the home in advance of a telephone interview, or handed to the respondent in advance of personal interview) and cash incentives encourage cooperation moreso than promised incentives or gifts, or no incentive at all (e.g., Singer, Van Hoewyk, & Maher, 2000). Incentives may encourage respondents to participate by appealing to their sense of reciprocity. Incentives may also influence interviewers because interviewers may expect respondents who have received an incentive to be more

cooperative and they, in turn, behave in such a way as to fulfill their expectations. The WES, for example, included a cash incentive given to the respondent at the time of each personal interview.

Recommendations for Tracking Techniques

Successful tracking efforts rely on skilled and motivated interviewers, history of prior address information and method for working with these data, mixed-mode data collections, and use of multiple tracking approaches for any sample member.

Tracking staff. Try to match the skills of the data collection staff with the tasks. Tracking skills involve a balance between strong investigative and strong communication skills. Making a good first impression helps with cooperation of contacts made during tracking. Experienced interviewers who have built up their interviewing skills and confidence over time often do better at the tracking process than new interviewers.

Order of Contact Attempts. A good place to start tracking is with the respondents' current telephone number. Next, check Directory Assistance for a possible telephone number change, or use a reverse telephone lookup that matches telephone numbers to addresses ("Cross Directories" are available at local libraries, or through some Internet search engines). Many free Internet white pages are based on telephone directories, so if Directory Assistance and Cross Directories do not yield a current address or telephone number, spending resources on multiple Internet white page look-ups may not be very useful.

Next, work backwards through all previous address information available for that respondent, and the contact people. Pay attention to area codes – if the area code has changed for the area more than six months prior, then the message may not state that the phone number is correct, but the area code is wrong.

Rely on Multiple Databases. Use multiple tracking approaches, such as centralized database searches, directory assistance, and field methods. If at all possible, obtain permission to use contact people or identifiers such as social security numbers to search databases. Try other databases as well – such as credit bureaus, public records such as property taxes, or the Department of Motor Vehicles, where permitted.

Optimizing Mixed-Mode Designs. If costs prohibit personal interviews for the full sample, make use of a mixed-mode design for increasing coverage of non-telephone households or otherwise hard-to-reach sample members. The ability to use "face-to-face tracking" can make a significant difference in locating respondents, particularly if they do not have telephone service or if they move frequently. Interviewers can pick up visual clues around the home (for example, name on mailbox), or talk with neighbors and others to find out if the respondent still lives at the address, or where she may now be living.

Follow Leads, Don't Count Calls. If you are looking for a rule-of-thumb on how to gauge the extent of the tracking effort, count the number of leads followed all the way through, rather than counting number of contacts. Do not set an arbitrary number of contacts.

Other Recommendations for Encouraging Cooperation

Emphasize confidentiality and privacy of both the identities of the respondents and their responses to survey questions. This pledge can help respondents feel comfortable in disclosing sensitive information to the interviewing staff. Respondents' comfort and trust with the interviewers contribute to strong cooperation levels.

Acknowledge that obtaining cooperation is influenced by decisions concerning multiple components of a survey design, such as (but not limited to) the survey instrument, training protocol, design of sample management system, and interviewer skill in making survey

introductions and refusal conversion attempts. Availability of resources is important to ensure coverage of "at-home" hours and field tracking when necessary.

II. Interaction of Administrative Data with a Survey Design

One benefit of an administrative dataset is that it contains some information for both survey respondents and nonrespondents. This allows researchers to (a) examine potential differences in selected characteristics of respondents and nonrespondents, or *possible unit nonresponse error*, and (b) assess item nonresponse and verify the accuracy of self-reports, both sources of *measurement error*.

Another benefit is that administrative data can complement survey data by providing information that the respondents do not report during an interview. Such data can provide a wealth of information about program participation and demographic characteristics, such as family size and composition, recipient's age, and recipient's race. A researcher may be able to collect data on the dates of welfare receipt, returns to the welfare system, and amount of payments. Such information may be easier to gather and be of better quality in administrative data records than surveys, since self-reports could be suspect to recall error and over/under reporting. Links to other administrative databases could provide data on the use of child care subsidies and involvement in the child welfare system. For individuals who have left the welfare rolls, researchers may be able to learn if a former recipient is working and her earnings if access can be gained to the state unemployment insurance system records. Confidentiality issues, however, often prevent researchers from making full use of these administrative data linkages.

Since administrative data are not collected for research purposes, they have several drawbacks. The file structure and units of measurement may not be appropriate for analysis; the accuracy and timeliness of the information may be prone to errors, and gaining access to the data

records could be a cumbersome or lengthy process. Data are generally recorded as a cross-section, requiring substantial efforts to link records for a given recipient over time.

Recommendations

- Assess the research objectives and key measures. What information may be easily extracted from administrative records, or even of better quality than survey self-reports?
- Consider factors that might affect the quality or type of measurement, ease of extraction, and comparability in measurement units to other key measures in the survey design. Review a subset of cases to test for data quality.

III. Measuring Employability in Surveys of Welfare Populations

Welfare recipients are now encouraged to move into the labor market as quickly as possible. A number of studies have shown, however, that a sizeable proportion of recipients are unable to get jobs, while others who do obtain employment, often lose them due to inadequate job skills and other problems (see Danziger et al., 2000). Lack of appropriate job skills represents a significant, but, potentially modifiable barrier.

At the Workshop, participants on the Employability Panel commented that oftentimes what employers are looking for in low-wage job candidates are basic academic skills and strong soft skills. Basic academic skills encompass fundamental reading, writing, listening, and math skills. Eberts & Hollenbeck (2001) classified soft skills as ones pertaining to personal characteristics, task achievement behaviors, organizational knowledge, and interpersonal skills. Personal characteristics reflect a sense of responsibility, integrity, honesty, and willingness to learn. Task achievement competencies involve work attendance and punctuality, common sense, problem-solving abilities, and concern for quality of work. Organizational knowledge embodies a

willingness to take ownership for one's own work and an understanding of the organizational mission and functions and ones role in such processes. Interpersonal skills entail teamwork, working well with others, a friendly customer orientation, and respect for diversity.

A number of employer surveys (see Eberts & Hollenbeck, 2001 for a brief review) have emphasized that employers are looking for these basic academic skills and soft skills since entry-level jobs typically have very modest hard-skill requirements. Most specific tasks can be learned on the job. The demand for soft skills is likely to remain high with the introduction of new technologies and changes in the way organizations do business. Many employers, however, tell researchers that their workers do not demonstrate appropriate interpersonal and motivational skills.

Measuring such skills, however, is a challenge. Panelists at the workshop suggested that one way to design survey items in welfare studies is to understand what employers seek in job candidates. This method would help match expectations from employers and perceptions and behaviors of welfare recipients as job candidates.

At the workshop, Carol Hedges presented a measure developed for the Piton Institute called the "Work Readiness Index" (WRI). This measure contains 84 items that assess a welfare client's knowledge of the various soft skill domains related to work habits and behaviors, work attitudes, communication skills, and coping skills. The WRI functions as a tool to use in one-on-one coaching sessions, assessment of trainability for entry-level positions, and evaluation of initial job readiness training programs. It has not been used in research studies, but could inform development of survey measures. More details on the instrument concepts and psychometric properties can be found in Arenz & Kraiger, 2000.

The WES included some survey items that assess soft skills. They were derived from the Multi-City Study of Urban Inequality establishment interview (see Holzer, 1996). In the interview, Holzer surveyed employers to determine skills necessary for entry-level jobs not requiring a college degree and found that most required a high school diploma, general work experience, references, reading and writing skills, simple math, and ability to work with customers.

The WES queried respondents about the frequency with which they carried out basic skills, such as reading instructions, writing letters or memos, working with a computer, working with electronic machines, performing math tasks, filling out forms, using instruments, talking with customers, and supervising others. In Wave Four, WES added a multi-item measure of learning disabilities, which could interfere with learning or performance of specific job tasks.

The WES also measured some "soft skills" using questions from a study of job loss among welfare recipients (see Berg, Olsen, & Conrad, 1991). Recipients were asked about workplace behaviors in their current or most recent job (if they are not working). These items asked the respondent if, in the prior month, she was late for work, lost her temper, took a longer break than scheduled, failed to correct a problem that a supervisor pointed out, had problems getting along with a supervisor, left work earlier than scheduled, refused to do tasks that were part of the job description, or missed a day of work for any reason.

One of the challenges to measuring soft skills is that a respondent's self-perceptions may not reflect her actual behavior. The link between knowledge, attitudes, and behavior is oftentimes weak and difficult to measure (see McGuire, 1985, for a review). One of the best predictors of behavior is past behavior, and it follows that designing survey items to focus on

actual behavioral events rather than attitudes or knowledge may provide a more precise measure of how workplace norms are applied and their role as a potential barrier to employment.

IV. Measuring Domestic Violence in Surveys of Welfare Recipients

Domestic violence covers a wide array of physical and emotional harm that may include direct physical abuse or threats of physical harm, sexual abuse, verbal and psychological abuse, restraints on normal activities and freedom, and denial of access to resources. Domestic violence may affect a woman's ability to follow program rules and to find or keep employment, resulting in loss of income from either welfare benefits or wages. The consequences of a loss or lack of regular income could lead battered women into situations where they remain with abusive partners, or, in turn, leave the abuser and endure extreme economic hardship (Tolman & Rosen, 2001).

Women in domestic violence situations can experience direct and/or indirect work interference. Partners may make it difficult for women to attend or complete job-training programs that would facilitate obtaining a job. They may harass women at the workplace or prevent them from going to work. Women may also miss work as a result of direct physical harm, or be forced to quit their jobs. Absence, in turn, may result in job loss. Some correlates of domestic violence may be harder to measure: women may not have the support to balance the responsibilities at home with those of a new job because their partners are discouraging of their efforts to get off of welfare, or will not help with child care, housework, or transportation (Tolman & Raphael, 2000).

Measurement

Measurement of domestic violence varies substantially across studies. The most common definition of domestic violence is limited to physical attacks (see Tolman & Raphael, 2000 for a

review of welfare studies incorporating domestic violence measures). Broader concepts include behaviors related to sexual coercion, threats of harm, insults, and destruction of property. Because work interference is of particular importance, several welfare population studies have included multiple items addressing harassment and interference with attending work, training, or school.

Although some researchers define domestic violence only in the context of marriage, workshop participants suggested broadening the context to include any current or former intimate relationship. Some studies focus on the occurrence and/or frequency of domestic violence acts across the lifetime, while others examine only the prior 12 months or prior two years. Comparisons across studies can be facilitated when the domains of violence, the number and wording of items, and the reference timeframe for events are the same.

Workshop participants suggested that items should be behaviorally focused and that the instrument should avoid using descriptive phrases such as "abuse" or "domestic violence" (see Allard et al., 1997; Tolman, 2001). In this case, the respondent reports will not be influenced by individual definitions by each respondent as to what constitutes abuse. Objective reports of concrete behaviors will help in understanding the respondent's situation, prevent over- and under-reporting errors, and facilitate comparisons across studies.

The Conflict Tactics Scale (CTS), first developed in the 1970s by Strauss and colleagues is the most widely used measure of domestic violence (see Strauss, 2001). Two important features of the CTS and the revised CTS-2 are: a) the scales gather information about physical and psychological attacks on a spouse, cohabiting partner, or partner in a dating relationship, and b) the scales are based on conflict theory, which assumes that all relationships involve some conflict, but only a subgroup of individuals use violence as a tactic for resolving conflict. The

CTS can measure the occurrence and frequency of domestic violence acts during the respondent's lifetime, and/or during the prior 12 months to the interview date.

The original CTS has three subscales: (i) the reasoning scale, designed to assess attempts to settle disagreements through discussion; (ii) the verbal/symbolic aggression scale, designed to assess the use of threats, intimidation, and insults to resolve conflict; and (iii) the physical violence scale, designed to assess the use of physically aggressive behavior, such as hitting, kicking, or shoving. In the mid 1990s, the CTS was modified to improve measurement of the original scales (and rename them as negotiation, psychological aggression, and physical assault, respectively), and to add two new scales measuring sexual coercion and injury.

The Massachusetts Mother's Study and the Massachusetts Leavers Study included nine items – some similar to items in the CTS, but Survey Director and workshop participant Mary Ellen Colten is quick to say that she does not consider them adaptations of the CTS. Items asked in reference to lifetime and prior twelve month periods included: hit, slapped, or kicked; thrown or shoved onto floor, against wall, or down stairs; hurt badly enough to go to the doctor or clinic; forced to have sex or engage in sexual activity against will; made to think might be hurt by the batterer; and used a gun, knife, or other object in a way that made her fearful. Both Massachusetts studies included several additional questions about: control of property (destroyed or taken possessions or things of value), isolation (tried to keep from seeing or talking to friends or family), and emotional abuse (told that the respondent was worthless) (Allard et al., 1997; Colten, 2001).

The WES adapted items from the CTS, and added items to measure harassment, work interference, and coercive threats. These items included: slapped, kicked, bit; pushed, grabbed, shoved; hit with fist; hit with object; beaten or chocked; threatened to use or used weapon; forced

sexual activity; threatened to take children away; threatened to report respondent to Child Protective Services; threatened to hit with fist; threatened to harm, or harmed, family and friends; forced to do illegal things; hurt badly enough to go to doctor or clinic; harassed at work, training, or school; interfered with attempts to go to work, training, or school; stayed home from work or school because of something partner did to the respondent; and called the police because respondent was threatened. While all of these questions were asked in the survey, most WES papers use a measure labeled "severe abuse" which includes only these items: threatened to use or used weapon; forced sexual activity; threatened to hit with fist; forced to do illegal things; hurt badly enough to go to doctor or clinic; stayed home from work or school because of something partner did to the respondent.

The Utah state welfare study included similar items: hit with fist, hit with object, beaten or choked, threatened to use or used a weapon, and forced sexual activity (Barusch et al., 1999). The Pennsylvania study of welfare-to-work program participants included just physical and sexual violence acts: hit, kick, or threw something at the respondent; cut, bruised, choked, and forced sexual activity (Brush, 1999).

The Nebraska barriers study had a number of items measuring verbal abuse, threats, and isolation, as well as two on sexual and physical violence: yelled at respondent all the time, put her down on purpose, or called her names; tried to control every move; threatened with physical harm; husband/boyfriend/partner prevented her from taking or keeping job; husband/boyfriend/ partner prevented her from participating in any education or training; forced sexual activities; and hit, slapped, kicked, or otherwise physically harmed (Mathematica Policy Research, 2000).

The Alameda County Study asked about several domains of violence, and for those items endorsed, if the batterer was a stranger, a partner, a family member, or some other acquaintance

of the respondent. The domestic violence acts were: having money stolen, being choked, being hurt so much she had to go to the doctor or clinic; being forced to have sex, and used a knife or gun on the respondent.

Data Collection Methods

Aspects of the data collection protocols, such as mode of administration, interviewer characteristics, the interview setting, and procedures for addressing crises situations can have a strong impact on the quality and accuracy of data that is reported in an interview situation, as well as the respondent's safety and well-being.

Mode

A number of studies—including general population studies and geographically focused welfare studies—have measured domestic violence using self-administered and interviewer-administered questionnaires. Experimental studies in the survey methodology literature have shown that self-administered questionnaires of sensitive information are less likely to suffer from under-reporting errors than interviewer-administered ones (e.g., Tourangeau & Smith, 1996; van der Zowen & de Leeuw, 1990). Self-administration can take many forms, such as paper and pencil instruments given or mailed to the respondent, audio-assisted answer sheets, or computer-assisted self-administered components of telephone and personal interviews. Some studies have suggested that audiotaped paper and pencil interviews (Allard et al., 1997; Colten, 2001) and audiotaped, computer assisted interviews or "ACASI" (Tourangeau & Smith, 1996) could improve the quality of reports of sensitive information since they may be perceived as most private and confidential, and furthest from the personal judgment of an interviewer.

In general, self-administered questionnaires without audio-assistance are <u>not</u> recommended for respondents who have low literacy levels. Audio-assisted administration is preferred since it eliminates the burden of reading the question items and determining how to record responses. In

audio-assisted interviews a portable cassette or computer and a headset are used and the instructions for recording answers and the questions themselves are read to the respondent. The respondent, in turn, records her responses directly on paper or in a computer application. Some instruments only show the respondents question numbers and response categories—not the question wording.

The Massachusetts Mothers Study used the audio-assisted self-interview technique with a sample of 734 women who were approached in welfare offices and asked to complete the interview at that setting. Interviews were anonymous—the interviewer did not even know the respondent's name. Colten (2001) observed higher reports of domestic violence among non-Hispanic respondents in the Massachusetts Mothers Study than in the Massachusetts Leaver's Study, a telephone interview using the same measures of domestic violence. The differences in sampling across the two studies could have affected study outcomes, so the researchers are not certain if the mode and technology used in the data collection fully account for the difference in reporting. They feel, however, that the audio-assisted answer sheet may have played some role in reducing under-reporting.

The audiotaped, self-administered question items, however, have higher costs associated with development and require increased administration time (Allard et al., 1997). They require more time for development of survey instruments, set up during the interview itself, and administration (respondent-paced questions typically take longer than interviewer-paced ones). Skips based on responses are not as feasible in a paper and pencil self-administered questionnaire, so every item must be asked (ACASI, however, can branch questions based on responses).

An alternative to self-administration is to have the interviewer administer the domestic violence measures. Domestic violence questions have been asked in-person and by telephone in a number of studies. Both personal and telephone modes may yield quality data if the interviewer establishes rapport, the respondent is free of distractions and perceived safe from a potential batterer, and if confidentiality of information is clearly understood (Tolman, 2001).

In terms of comparing reports of domestic violence from a personal interview with reports from a telephone interview, willingness to accurately disclose such information may stem from a respondent's trust and comfort level with the interviewer. Oftentimes a personal, or face-to-face interview builds rapport and trust, and makes it easier for respondents to disclose sensitive information. On the other hand, respondents may also be more susceptible to embarrassment when facing the interviewer. Telephone interviews offer more "social distance" and sometimes are perceived as a safer social situation. It is more difficult, however, for the interviewer and respondent to establish a relationship over the telephone, and for that reason, telephone interviews may result in under-reporting of domestic violence experiences. On the WES, for example, interviewers have told the research team that they do not think that they could gather as high quality of data as they do now if they had conducted the interviews, or at least the baseline interview, by telephone. Respondents have developed a strong relationship with the interviewing staff, and trust them enough to share the most personal and sensitive information about themselves.

Interview Structure

The structure of the interview itself can impact data quality. To build rapport and make the respondent feel comfortable in disclosing personal information, it is important to begin the interview with less threatening questions and work up to the more sensitive ones (e.g., Sudman & Bradburn, 1982). Items on domestic violence should be included towards the end of the

interview, although they should not be the very last questions. It is best to end the interview on a positive, or at least neutral, topic.

Interviewer Characteristics

Respondents need to feel comfortable with the interviewers, and free from any personal judgment. Use of an all female interviewing staff helps reduce interviewer-related effects on female respondents' reports of sensitive events (e.g., Catania et al., 1996). Many welfare population studies, such as WES and MWS, have employed all female interviewing staff.

Interview Setting

A respondent may be more willing to accurately report domestic violence if the interview is conducted in a private place free of distractions and safe from her spouse/partner or anyone else in the household learning about or overhearing the interview (Colten, 2001). This point about privacy applies to both personal and telephone interviews. For personal interviews, the interviewer and respondent should be alone when domestic violence measures are being administered. In WES, for example, if the interviewers suspected that the respondent's spouse or partner was in the home, they took the respondent outside to the car when asking these questions, or they offered an excuse to terminate the interview and reschedule for another time.

For telephone interviews, interviewers should listen for clues as to whether the spouse or partner is in the same room with the respondent, or has picked up another telephone in the house to listen in. In general, respondents may feel more comfortable answering questions—even YES/NO questions—if the spouse or partner is not around.

Informing the respondent that the interview data are confidential may help her feel more comfortable and safe in disclosing domestic violence experiences. Protocols for explaining the nature of the study, types of questions that will be a part of the interview, and the respondent's rights and protection should be included up front in the interview.

Sensitivity Procedures

Careful planning and implementation of the data collection protocols for personal and telephone interviews can affect the respondent's safety and well-being. Partners, as well as other persons, should never have the opportunity to learn about the content of the interview. Paper materials related to the study's content should not be mailed or left in the home. Interviewers should provide respondents with a toll-free number in case the interview is suddenly interrupted and the respondent needs to call the interviewer back at another time. Interviewers should provide all respondents with a list of referrals to local community services. In emergency situations, the research staff should have a clinical contact person for the interviewers to call immediately. Sometimes a clinician can be of assistance to the interviewers who may not be accustomed to repeatedly hearing about difficult and upsetting situations.

General Design Recommendations

When selecting measures of domestic violence, there are several points to keep in mind:

- The definition of domestic violence can include a number of domains of violence, including physical aggression, sexual abuse, psychological abuse, threats, harassment, and work interference. Consider including a broad range of items, as used in WES and in the Massachusetts Mothers Study.
- Rely on behaviorally-specific items rather than global questions of abuse, as these reduce measurement error associated with over- and under-reporting.
- Carefully decide the time frame for the events queried—lifetime occurrence vs. prior twelve-months. The ability to compare findings from one study to another can be facilitated if the reference of time is the same. Prevalence of domestic violence acts during the twelve months prior to the interview in one study cannot easily translate into prevalence rates across the lifetime in another study.

- The Conflict Tactics Scale (CTS) and revised CTS-2 are validated and reliable measures that have been used in or adapted for hundreds of studies, including most larger-scale welfare studies. The CTS-2 measures the frequency of domestic violence acts that fall within five domains of interpersonal conflict.

The data collection protocols are critical. Keep in mind the following:

- If feasible, incorporate an audiotape interview with self-recording of answers. Audiotape interviews with paper or computer-assisted answer forms have yielded higher reports of domestic violence acts than interviewer-administered questions.
- If audio-assisted self-interview is not feasible, domestic violence can be measured through interviewer-administered telephone or personal interviews. Careful planning of survey design, contact and survey administration protocols, and interviewer training is required.
- Use female interviewers to help reduce interviewer-related effects.
- Be strategic in the placement of domestic violence measures within the context of the survey instrument. Begin the interview with non-threatening, easy-to-answer questions to help establish rapport. Domestic violence items should come towards the end of the interview, but not the very last set of questions.
- Interviews should be conducted in a private place, free from the potential of other persons overhearing the personal or telephone interview.
- Interviewers should behave in a neutral and professional manner. Too much sympathizing or too friendly of a conversational tone may make the respondent suspect to social presentation bias, or a desire to avoid stigma and judgment. This can

happen over the telephone. A too impersonal tone may reduce the likelihood of disclosing extremely sensitive and personal information.

- Clearly articulate that the respondent has rights to privacy and confidentiality before administering the survey. A respondent needs to know that no one will be able to obtain the information that she provides and link it to her name.
- Provide a list of social service resources or referrals for the respondent. These cards can be handed to the respondent at the end of the interview, or sent to her by mail, in the case of a telephone interview. These cards should be provided to all respondents (an example of a referral card from another study is included as an Appendix to this report).
- Avoid sending or leaving written materials about the content of the study. The respondent should not have paper materials left around the house for others to see.
- Have a clinical back-up plan for potential crises, including a project staff clinician to contact respondents in crisis situations, as well as an 800-number for respondents to call back if they need to abruptly terminate an interview session.

V. Measuring Health and Mental Health in Surveys of Welfare Recipients

The positive relationship between employment and health has been extensively documented in a number of studies (see Kalil et al., 1998, for a review). In studies of welfare populations, however, we are beginning to learn that health problems can present a significant barrier to obtaining employment *in the first place*, and may, in fact, reduce the effectiveness of interventions designed to improve employability. Physical and mental health problems may account for a significant proportion of job loss and thus interfere with the ability to retain employment. Welfare recipients experience some physical and mental health problems at a

higher rate than the general population (see Danziger et al., 2000), and with welfare reform, time limits lead to new challenges for identifying and assisting those who are in need of care.

Participants on the Health Panel recommended a core set of measures for studies of welfare populations that can dedicate a limited amount of time to health status measurement. These measures are taken from large national population surveys and allow comparisons with a general population sample. The sections below highlight the workshop recommendations.

Health Measurement

SF-36

The SF-36 is an excellent choice for health assessment in studies of welfare populations. It is a short-form that evaluates a comprehensive set of "generic health concepts" or dimensions of health relevant to functional status and well being that are not specific to any age, disease, or treatment groups. The eight health concepts in the SF-36 were selected from 40 concepts in the Medical Outcomes Study (MOS) that represent multiple definitions of health, such as physical functioning and role limitations (Ware et al., 1993). The SF-36 survey, individual scales of the SF-36, and shorter forms (SF-12 and SF-8) are among the most widely used health concept measures in surveys.

The SF-36 is a grouping of independent scales that each focus on a specific health concept. This design permits use of selected scales without use of the full SF-36. For surveys with tight limits on interview length, this flexibility facilitates selection of the most relevant concepts to the study objectives. The WES and MWS, for example, selected the physical functioning scale of the SF-36. The eight health scales are: physical functioning, role limitations due to physical health problems, role limitations due to emotional health problems, bodily pain, general health, vitality, social functioning, and mental health. Table 1 provides a brief description of the scales.

Table 1. Health Concepts in the SF-36.

SF-36 Scales	No. of Items	Scale Description
Physical Functioning (PF)	10 items	PF Scale measures severe and minor physical limitations on three levels (a lot, a little, or not at all). Items range from limitations due to physical health in vigorous activities such as lifting heavy objects to limitations in bathing or dressing oneself. The PF scale was adopted from the MOS without modification (Ware et al., 1993). Several welfare population studies such as WES and MWS utilize the PF scale as a component of a health barrier-to-work measure.
Role-Physical (RF)	4 items	The RF and RE scales focus on limitations in carrying out work and daily functions due to health problems. The limitation measures in RF and RE include limitations in the kind of work or other usual activities, accomplishing less than usual, reduction in amount of time spent in work or other activities, and difficulty in performing work or other usual activities as a result of one's physical or emotional health. The items are divided into two subscales: one that focuses on role limitations due to physical health problems and one on role limitations due to mental health problems. The RF and RE are subsets of the longer forms in the MOS (Ware et al., 1993).
Role-Emotional (RE)	3 items	
Bodily Pain (BP)	2 items	The BP scale includes two items about the intensity of bodily pain or discomfort, and the extent to which pain interferes with normal activities. The items were taken from the MOS (Ware et al., 1993).
General Health (GH)	5 items	The GH scale includes the self-reported health item described in the next section, as well as four additional items. The GH scale correlates highly with the General Health Rating Index in the MOS, which, in turn, has been shown to highly correlate with clinical health measures and to successfully predict health outcomes. The main advantage of GH over the GHRI is that it is a shorter set of measures, while the main disadvantage is that it does not discriminate severity of symptoms as well as the longer form (Ware et al., 1993).

SF-36 Scales	No. of Items	Scale Description
Vitality (VT)	4 items	The VT scale measures energy level and fatigue. The items were derived from the NHANES survey. The scale has been shown sensitive to the impact of disease and treatment for individuals with some chronic diseases (Ware et al., 1993).
Social Functioning (SF)	2 items	The SF scale measures quantity and quality of social activities with others. The two items are a subset of a longer scale in the MOS that assesses health-related effects (physical or mental) on social activities (Ware et al., 1993).
Mental Health (MH)	5 items	The MH scale was first developed from the 38-item Mental Health Inventory. The five items in the MH scale correlate highly with the full 38 items which measure mental health in clinical populations and have been shown to predict use of mental health and medical services (Ware et al., 1993).
Reported Health Transition	1 item	This item is a general health-rating item that asks the respondent about the amount of change in their health in general over a one-year period of time.

Using all or part of the SF-36 permits comparisons across studies and with national norms targeted to specific age groups, income groups, and geographical areas. The strong validity and reliability of the SF-36, relative short length, and flexibility make it a practical option for measuring health in welfare research.

Self-Rated Health Status

The General Health scale contains one item that invites respondents to rate their own health status on a five-point continuum from excellent to poor. The question reads, "How would you rate your overall physical health—excellent, very good, good, fair, or poor?" This single item is a powerful indicator of morbidity and onset of disability, and is used in a number of national

epidemiological studies (as both a part of the SF-36 and as a single independent measure). Surveys of welfare populations likewise have used this item as a key health indicator. The WES, MWS, CalWORKS, Iowa, and Nebraska Client Survey all included the self-rated, general health item.

SF-12 and SF-8

Two short forms of the SF-36 that take less time to administer are available. The SF-12 selects one or two items from each of the eight health concepts described in the table above, while the SF-8 uses a single item for each health concept. The SF-12 was designed primarily for use in longitudinal health surveys and large population surveys that call for a concise, yet valid, general measure of physical and mental health. The SF-8, in turn, was designed primarily as a screening tool for use in large population studies.

The choice between the full SF-36 and SF-12 (or between the SF-12 and SF-8) is one between cost and efficiency in administration of the instrument on the one hand, and level of detail and precision in measurement of health outcomes on the other. Because the shorter forms (SF-12 or SF-8) depend on just one or two items in each scale as representation of a particular health concept, they produce a less precise measure than the full SF-36. Nonetheless, the SF-12 reproduces the results of the SF-36 in large population studies with 90% accuracy (see Ware et al., 1998 for more information on psychometric properties of the SF-12). Administration time for the SF-36, 12, and 8 averages seven minutes, two minutes, and slightly less than two minutes, respectively.

Some welfare-to-work studies have adopted the SF-12 to assess general physical and mental health. Both the CalWORKS study and MWS have taken advantage of the quick administration and ability to make comparisons to national norms afforded by the SF-12.

Limitations of Activity due to Problems with Physical and Mental Health

Functional limitation and disability measures assess the degree to which physical or mental health affects a person's ability to function along various dimensions, such as going to work, attending training, or taking care of a home and family. Subjective assessments of functional limitations gauge a respondent's own evaluation of how much her health limits her functioning. Usually the question items are context-free and general in focus, yielding a qualitative amount of limitation (e.g., "all of the time", "none of the time") rather than a specific number of days, weeks, or months. As noted in the previous section, the SF-36 PF scale (physical functioning) and the RF and RE scales (limitations in role-related activities) exemplify this type of measure.

Other functional limitation measures emphasize a specific context such as working, staying in bed most of the day, or cutting back on amount of work, and assess the extent of limitation in a more observable method (e.g., a number of days). The National Health Interview Survey (NHIS) and World Health Organization Disability Assessment Schedule (WHO DAS) both include this functional limitation measure.

NHIS functional limitation items referred to above ask about the number of missed work days, bed days, and days where the respondent felt she was less productive during the 12 months prior to the interview. The WES adapted these items in the third and fourth waves of data collection. The NHIS also uses similar items to the SF-36 PF scale, with two additional question sets on vision and hearing impairments. The NHIS differs from the SF-36, however, in that the NHIS queries specific health conditions that caused each identified limitation, and the length of time that the respondent has had the condition.

The WHO DAS measures six general areas of functioning: cognition, mobility, self-care, getting along with others, work and home activities, and participation in society. There are 36 items in total, although a 12-item screener version is currently under development. Of particular

interest to welfare studies are the items measuring functioning in work and home activities in the past 30 days. Some of these items are similar to those in the NHIS – number of missed work days, bed days, and less productive days. Other items tap limitations on the quality of work and amount of effort to perform up to one's usual level. The main difference between the WHO DAS work and home activity items and those in the NHIS is that the former obtains a number of days that one was limited in a specific scenario in the past 30 days and the number of days one was limited due to mental health conditions. The NHIS obtains a number of days affected out of the past 12 months and then a "yes"/ "no" response if the reason was due to physical health conditions and to mental health conditions.

Chronic Health Conditions

Chronic health conditions can impair one's ability to attend work or training. A number of welfare surveys have included such measures. Participants on the Health Panel recommended measures of chronic health conditions found in the Centers for Disease Control studies. The list presented at the workshop contained 15 different health conditions in the NHIS (see appendix for the list of conditions) – the full list in the NHIS contains about twice that number. The respondent is asked if *a doctor ever told her* if she had health conditions that range from hypertension to hay fever.

Health Risk Behaviors

Epidemiological studies emphasize is that health-risk behaviors, such as smoking or being overweight are directly related to morbidity and mortality, and this relationship is exasperated among low-income persons (Lantz et al., 2000; Lynch, Kaplan, & Salonen, 1997). Participants on the Health Panel recommended measures of health risk behaviors. The SF-36 measures, functional limitation questions, or chronic disease items discussed above do not cover health behaviors.

The Behavior Risk Factor Surveillance System (BRFSS) contains a comprehensive list of health behaviors, almost three dozen different items, including participation in physical activities outside regular job responsibilities, smoking behaviors, alcohol consumption, body mass, dieting, and sleep habits. Few welfare-to-work studies have included any health behaviors outside of alcohol consumption. These measures may provide a window to understanding employment barriers and could support potential interventions for changing health-risk behaviors that affect work participation. The WES measured alcohol consumption at all four waves, body mass at Wave 3, and smoking habits at Waves 3 and 4.

Health Care Access

Identifying access to health insurance can serve as a proxy for access to health care in general (although there are limitations to this approach). There are a number of different dimensions that could be measured, but among the most basic is having any type of health insurance. Most welfare surveys have measured whether the respondent and her children have health insurance, and the source of that coverage (public plan or employer-provided plan). The fourth wave of WES included additional items on reasons for lack of coverage.

Measures of Specific Mental Health Disorders

Depression and other mental health conditions are tied to work loss days and lower wages. There are a number of feasible measures that target specific mental health conditions, but measuring all conditions takes more time than is available in most welfare surveys. Selecting measures of specific conditions for the survey depends on several factors, such as prevalence in the general population and low-income population specifically, policy relevance, and the expected size of the conditions' effect on work.

The Composite International Diagnostic Interview, or CIDI, is widely used surveys and is an accepted measure of mental health conditions. The CIDI is a fully structured and

standardized interview developed for administration by persons without a clinical background. The CIDI classifies individuals as meeting or not meeting DSM III/IV and ICD-10 diagnostic criteria. The CIDI is available in lifetime and 12-month versions, in both paper-and- pencil and computer-administered forms. There are also short forms for nine diagnostic areas. All of these versions have been successfully administered in person and by telephone. The CIDI forms are designed in modules that allow researchers to select only the diagnostic categories that best fit the needs of their studies.

The long form of the CIDI measures over two dozen disorders including (but not limited to) major mood disorders, anxiety disorders, substance dependence, and post-traumatic stress disorder. The long form has been validated in a number of studies worldwide, and there are substantial data to provide national prevalence comparisons. The full CIDI gathers data on lifetime and 12-month episodes. The drawbacks are that administration of the interview requires specialized training in the CIDI interview conventions and some areas require use of paper materials to help the respondent identify and focus on symptoms and specific stimuli (e.g., phobic situations, drugs, or trauma events) as aids to help reduce measurement error. If the interview is conducted over the telephone, these materials need to be mailed in advance of the interview appointment. The National Comorbidity Survey (NCS) has successfully used this strategy to conduct some of the interviews by telephone.

Short form versions are available for diagnosis of major depressive episode, generalized anxiety disorder, specific phobias, social phobia, agoraphobia, panic disorder, alcohol dependence, drug dependence, and most recently developed in short-form, obsessive-compulsive disorder. Disorders are measured in 12-month prevalence. Alcohol abuse and drug abuse are measured with just two questions each in the CIDI long forms and therefore do not need a short-

form version (Kessler et al., 1999). The short forms were developed from the National Comorbidity Survey as brief (under three minutes each) and easy-to-administer screening tools to identify psychiatric disorders. They have been used in a number of national surveys, such as the National Household Survey of Drug Abuse (NHSDA). The brevity of the forms and ease of administration make these tools accessible to any researcher interested in assessing psychiatric conditions as possible risk factors for a variety of outcome measures.

Kessler and colleagues (1999) found a strong relationship between the SF and the full CIDI for all nine conditions using the NCS data. They warned, however, that this relationship has been tested in few studies. Kessler and colleagues (1999) recommended that if the researchers plan to use the mental health conditions as outcome measures, the short forms should be supplemented with validation studies. This separate validation is not necessary for use of the CIDI SF as independent variables. For studies of welfare populations that are interested in using psychiatric conditions as risk factors for barriers to employment, the short forms alone would serve as sufficient measures for this research objective.

Depression

Depression is one of the most common mental health disorders among low-income women, in general, and specifically, women on welfare (Lennon, Blome, & English, 2001). Depression, a leading causes of disability in the world (WHO, 2001), can impede getting a job (Danziger, et al., 2000), reduce effectiveness of welfare-to-work programs (Jayakody et al., 2000) and may interrupt employment over time (Danziger, et al., 2000; Jayakody et al., 2000). Low-income women, particularly those without health insurance and those who are African American, are among the least likely individuals to receive treatment for depression (Katz, et al., 1997).

Measurement Options

There are a number of instruments available to measure depression. These measures tend to fall into two basic categories: diagnostic instruments and symptom check lists. The CIDI is the most common diagnostic instrument used to measure depression in welfare studies. The WES, Nebraska Client Barriers Study, and CalWORKS, for example, used the CIDI SF (short form) to measure risk of meeting diagnostic criteria for a major depressive episode.

Symptom inventories, on the other hand, assess the relative level of depressive symptoms. The most widely used symptom inventory in welfare studies is the Center for Epidemiological Surveys – Depression Scale (CES-D), a self-report symptom checklist of 20 items. In the CES-D, individuals report on the number and frequency of depressive symptoms in the past week. The scale is descriptive of how the respondent may have been feeling over the past week, but does not suggest a diagnosis for a major depressive episode. The CES-D does not collect information specified in the DSM-IV needed for this determination (Steffick, 2000).

At the workshop, participants on the Health Panel suggested that both diagnostic and symptom measures provide unique and useful information. If the survey design and costs prohibit inclusion of both measures, discussions at the workshop leaned towards prioritizing a diagnostic measure over a symptom list. A prevalence rate of depression could be more useful in framing policy issues and proposing interventions than a descriptive statistic on symptoms in the past week.

Substance Use, Abuse and Dependence

Substance use, abuse and dependence can be a barrier to finding and retaining employment. Substance abuse and dependence can result in a failure to follow welfare program rules, an inability to find work or attend training programs, and problems on the job, such as absenteeism or poor work performance. In light of new requirements of welfare reform that mandate

recipients enter the labor force within a short time from receipt of welfare assistance, any one of these problems could result in welfare sanctions. If a woman loses welfare benefits, gaining access to treatment for substance abuse or dependence may become more difficult.

At the workshop, participants raised the question about *what* to measure – substance use, abuse, or dependence? One dimension is not a proxy for another. Individuals can have significant problems associated with abuse, but not be classified as dependent. Substance dependence (drug or alcohol) is a long-term condition of substance use that results in significant impairment of everyday functioning. Dependence is characterized by having a minimum of three impairing symptoms such as problems with family, friends or others as a result of the substance use, needing to use more (alcohol or drugs) to get the same effect, or giving up or greatly reducing important activities because of substance use. Alcohol or drug abuse is described as having only one or more of these symptoms. Although dependence is more serious and long-term, both dependence and abuse of alcohol, drugs, or medicines can interfere with the ability to obtain and maintain employment. Furthermore, in terms of long-term health effects, McQuade and colleagues (2000) reported that individuals who do not meet diagnostic criteria for dependence endure much of the burden of morbidity and mortality caused by substance disorders. Health conditions associated with substance use can, in turn, present another obstacle for regularly participating in work and work-related activities.

Measurement Options

Participants at the workshop highlighted several substance use/abuse/dependence measures that they have used in a variety of survey and clinical studies of low-income populations. These measures were the CAGE, Addiction Severity Index, AUDIT, and CIDI.

The CAGE is a four-item screener for alcohol abuse or dependence that frequently is used in welfare studies (for example, the Nebraska Client Survey and CalWorks Project have both

used a version of the CAGE). The CAGE does a good job of detecting abuse, but is less sensitive for early problem drinking or heavy drinking, lacks information on level and pattern of alcohol use, and fails to distinguish current from lifetime problems (US Preventive Services Task Force, 1996). Although the CAGE has been widely used, some studies have noted that it does not produce comparable results across ethnic and racial groups (US Preventive Services Task Force, 1996). The Drug-CAGE is a modified version of the original CAGE intended to measure drug abuse and dependence. Both versions can be administered in person or over the telephone.

The Addiction Severity Index (ASI) was developed to serve as a standardized and reliable instrument for evaluating adults seeking treatment for substance abuse problems. It measures seven problem areas related to substance abuse, including medical status, employment and support, drug use, alcohol use, legal status, family/social status, and psychiatric status. There are approximately 200 items and seven subscales, which take a total of one-hour administration time. The ASI can be administered in person or by telephone, or can be self-administered by the respondent. The index gathers information on recent (past 30 days) and lifetime problems in all of the content areas (NIAAA, 2001). Researchers have used the ASI for a wide variety of clinical outcome studies.

The Alcohol Use Disorders Identification Test (AUDIT) is a 10-item alcohol screener developed primary for use by primary health care workers. A committee formed through the World Health Organization developed it in the early 1980s. Its purpose is to identify individuals with early alcohol problems, including harmful drinking patterns as well as alcoholism. The core instrument contains three items on the amount and frequency of drinking, three questions on alcohol dependence (impaired control over drinking, increased salience of drinking, morning drinking) and four items on problems caused by alcohol, including adverse psychological

reactions such as guilt, blackouts, injuries, and concern of others. The questions were selected on the basis of their representativeness, correlation with alcohol consumption, and ability to distinguish light drinkers from those with harmful drinking.

Some advantages of the AUDIT include identification of harmful and hazardous alcohol use, brevity, and focus on recent alcohol use. While it is consistent with ICD-10 definitions of alcohol dependence and abuse, it does not completely map to the DSM-IV definition. The AUDIT was primarily designed as a self-administered tool, but can be administered by an interviewer over the telephone or in person.

The CIDI long form gathers data on use, abuse and dependence for both alcohol and drugs. It provides lifetime and 12-month assessments and age of onset for both abuse and dependence diagnoses, as well as data concerning the pattern and duration of substance use. The CIDI short form measures alcohol and drug dependence over a 12-month time period. The advantages of the full CIDI forms are (a) possible diagnoses for abuse and dependence; (b) data on the pattern of use and severity of symptoms (or degree of how much drinking or using drugs interferes with daily activities); and (c) detailed information on the timeframe of the problems, including data on lifetime vs. recent (12-month) prevalence and age of onset of the problem.

The additional data collected in the full CIDI (compared to the short-form) requires more administration time than the other measures previously mentioned. The most recent administration time data comes from the 2001 National Comorbidity Survey, which uses a modified version of the CIDI. Current estimates reflect that the substance use section (drug and alcohol are combined into one section although each are asked separately) takes about 6.5 minutes for administration. In the WES, the CIDI short forms took a little over two minutes for administration of <u>each</u> section. Both the full CIDI and CIDI SF can be administered in person

and over the telephone. Scores can be compared to those for general population since the CIDI has been used in several large-scale national surveys.

Other Design Considerations

In measuring substance use, abuse, and/or dependence, researchers should be cognizant of potential sources of measurement error related to self-reporting biases, potential mode and technology effects on survey reports, and the impact of interviewer characteristics. These are similar to the issues discussed above in the measurement of domestic violence. Under-reporting of substance use due to embarrassment or social desirability bias is a common source of measurement error. There is evidence that self-administered surveys may help correct for under-reporting errors often found in data on sensitive topics, such as substance use (Aquilino, 1994; Tourangeau & Smith, 1996). Self-administration, however, can pose other problems in surveys of welfare populations that frequently have low levels of literacy. ACASI may correct for some of the literacy-related problems with self-administered paper surveys. Clinical validation interviews can help assess reporting bias in survey data.

If the study plans to use interviewers, it is important to administer questions about substance use in a neutral, non-threatening way, just as other questions are administered. Interviewers who build rapport with their respondents and exercise professionalism are likely to achieve more accurate reporting than those who deviate from a neutral standpoint. Again, respondent-interviewer matching on gender is more likely to produce smaller interviewer effects.

Other Mental Health Measures Used in Studies of Welfare Population

Participants on the Health Panel reviewed the leading causes of disability worldwide, and commented on ones that are relevant for studying a welfare client's transition to work and involvement in work-related activities. The recommendations for measuring specific mental health conditions in addition to depression and substance abuse and dependence included

Generalized Anxiety Disorder, phobias, and Post Traumatic Stress Disorder. Many welfare studies have already begun to measure these conditions – all of which are available in the CIDI SF (with the exception of PTSD) and can be administered by telephone.

Generalized Anxiety Disorder (GAD) is characterized by episodes of persistent worry about a number of different things or about diffuse things (e.g., "everything" or "nothing in particular") and such worry is accompanied by several physiological problems. The 1990 NCS reported 6.6% lifetime prevalence rate for women (Kessler, et al., 1994). GAD can serve as a barrier to work, as indicated in the WES data (see Danziger et al., 2000).

Phobias can likewise serve as a significant barrier to work. The essential feature of any phobic disorder is persistent and unreasonable fear of a specific object, activity, or situation that may result in a compelling desire to avoid that object or situation, and interference with social and role functioning. Phobic disorders are often categorized as specific phobias, social phobia, and agoraphobia. Some welfare studies like CalWORKS and MWS have measured specific phobias and agoraphobia. The WES and MWS have measured social phobia. Lifetime estimates of specific and social phobias for women in the 1990 NCS were over 15% for both. A lifetime estimate of agoraphobia for women in the 1990 NCS was 7% (Kessler, et al., 1994).

One other mental health condition recommended at the workshop for inclusion in welfare population surveys is the Post Traumatic Stress Disorder (PTSD), which queries respondents about lifetime trauma exposure and reactions to these trauma events. The essential feature of this disorder is the development of symptoms following a stressful event that is outside the range of day-to-day life experiences. Such events are often accompanied by intense fear, terror, and helplessness. The characteristic symptoms involve re-experiencing the traumatic event, avoidance of stimuli associated with the event, and increased attentiveness. The diagnosis is not

made if the disturbance lasts less than one month. Events most likely to produce such long-lasting reactions are a serious threat to one's life or physical integrity; a serious threat or harm to one's children, spouse, or other close relatives and friends; sudden destruction of one's home or community; and seeing another person who has recently been injured or killed as the result of a fatal accident or physical violence. In NCS, the event list included 55 trauma events. The WES and MWS both include a variation on the full CIDI, with listed events. CalWORKS included a simplified version the PTSD measure.

Measures of Psychological Distress

Measures of psychological distress identify individuals who report experiencing distress symptoms and quantify the severity of such symptoms. These measures can identify individuals who may have a mental health condition, but cannot identify any specific disorder. These measures can document the percentage of current or former welfare recipients experiencing distress that may lead to other problems with work and work-related activities. Most measures of psychological distress can be administered in-person or over the telephone in a short amount of time.

Among the recommendations at the workshop is the Mental Health (MH) scale of the SF-36. As described earlier, the MH scale consists of just five items derived from the full 38-item Mental Health Inventory. The five items represent four mental health domains - anxiety, depression, loss of behavioral/emotional control, and psychological well-being. There are national data available for welfare researchers to compare the prevalence in their samples to the general population.

Other workshop recommendations are the 10-question and 6-question psychological distress scales (K10 and K6) developed by Kessler and colleagues (a description of the psychometric properties and development of the scales are detailed in Kessler et al., 2001). The

10-item and 6-item scales were developed for the redesigned National Health Interview Survey, beginning in 1997. The K6 has been incorporated in the World Health Organization Mental Health Initiative surveys conducted in 27 countries, and the 2001 Panel Study of Income Dynamics.

The K10 and K6 scales consist of rating questions on the frequency (from "all of the time" to "none of the time") that the respondent experienced a set of emotions during the prior 30 days to the interview. In the six-item scale, respondents are asked how often in the past 30 days they felt nervous, restless or fidgety, hopeless, worthless, so sad that nothing could cheer them up, and times when they felt everything was an effort. The K10 scale additionally includes "felt depressed", "felt so restless could not sit still", "felt tired out for no good reason", and "felt so nervous nothing could calm them down".

A measure of psychological distress is a good option for surveys that have limited room for measures of mental health issues. The general distress measures described above require just one to two minutes of administration time. A measure of psychological distress may supplement specific measures of mental health conditions since an individual may experience symptoms of psychological distress that are not specific to the conditions selected for measurement in a survey. The unique advantages of the MH scale of the SF-36 and the K10/K6 over other measures of psychological distress is that these measures are brief, developed using modern psychometric methodology, and are represented in national surveys that provide comparisons for welfare population studies.

Summary

Health is a major contributor to one's quality of life and can facilitate or hinder work and work-related activities. The health panel participants at the workshop provided a comprehensive list of health concepts and specific measures that are options for a welfare population study.

Selection of specific physical and mental health concepts and measures depend on research design decisions regarding use of the data once collected. For example, does the study hope to flag general health and mental health concerns of a welfare population, or does the study hope to identify specific conditions? Is there interest in describing prevalence of a number of health and mental health conditions in welfare populations, or targeting problems that researchers feel are feasible to modify through new programs and interventions? Does the researcher want to be able to make comparisons to national norms or other welfare studies? The answer to these questions and others will influence decisions on what and how much the researchers will invest in terms of survey length and costs.

VI. Conclusion

In light of welfare reform, studies of welfare recipients are taking new directions to better inform our understanding of the conditions under which welfare recipients successfully make the transition into the labor force. At the workshop, researchers shared their perspectives and experiences on how to best design a survey study of this population. Such recommendations covered a range of methodological and substantive topics. This paper summarized the main recommendations so to best inform future research endeavors. Further such discussions will continue to build on our knowledge of "best practices" in survey design of welfare studies.

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Appendix B

FIA Summer Project Community Referral Card

Berrien County Community Resources
Family Independence Agency Summer Project Research Study, Summer 2000

AGENCY	HELPS WITH:	HOURS
Benton Harbor Street Ministries 200 E. Empire * Benton Harbor, MI 49022 616-925-4333	Emergency food and financial assistance, also clothing and furniture; classes for teen parents; after-school program	M-F, 9:00 – 5:00 (please call before you come in)
Berrien County Health Department 763 Pipestone * Benton Harbor, MI 49022 616-926-7121	Comprehensive resource for health-related services	M-F, 8:30 – 5:00
Berrien County Legal Services Bureau St. Joseph, MI 49085 1-888-418-1311 (toll free)	Legal services and representation for little or no charge.	M-Th, 9:30 - 12:00, 1:30 - 4:00
Capstone Center 185 E. Main * Benton Harbor, MI 49022 616-926-1979	One-on-one, in-home parenting classes	M-F, 8:30 - 5:30
Child Care Resources 401 8th Street * Benton Harbor, MI 49022 616-925-5575	Assistance and free referrals to parents seeking child care	M-F, 8:00 – 5:00
Emergency Shelter Services 645 Pipestone Street * Benton Harbor, MI 49022 616-925-1131	Emergency shelter for women and children; maximum 30-day stay, referrals to help find permanent housing	M-F, 8:00 – 5:00 (for administration); Shelter is 24 hours.
First Call for Help 185 E. Main Street * Benton Harbor, MI 49022 616-925-7707 or 1-800-310-5454 (toll free)	Referrals to agencies in Berrien County	24 hour assistance
LINK Crisis Intervention Center 2002 South State Street * St. Joseph, MI 49085 616-983-5465	Short-term crisis intervention facility that offers residency for youth in crisis	24 hour assistance
LOFT Teen Center 580 Columbus Avenue * Benton Harbor, MI 49022 616-925-5858	Classes for at-risk youth, junior high age up to age 19, including GED preparation class and after-school program with recreation and academics	M-F, 9:00 – 6:00
Nutrition & Family Education Program 960 Agard Avenue * Benton Harbor, MI 49022 616-925-4822	In-home nutrition and parenting classes, referrals for other assistance	M-F, 8:30 – 5:00

AGENCY	HELPS WITH:	HOURS
Planned Parenthood 785 Pipestone Street * Benton Harbor, MI 49022 616-926-2042	Women's health, birth control, pregnancy tests	Tues, 9:00 – 5:00; W, 9:00– 8:00; Th & F, 9:00 – 5:00; Sat, 10:00-2:00
Safe Shelter, Inc. Benton Harbor 616-925-1866 or 1-888-983-4275 (toll-free, 24 hrs)	Emergency shelter services for victims of domestic violence and their children.	24 hours
Salvation Army 1840 Union Street * Benton Harbor, MI 49022 616-927-4681 and 1105 North Front Street * Niles, MI 49120 616-684-2660	Emergency food, assistance with rent, utilities, and medications	Benton Harbor: M-Th, 9:00 – 4:00 (closed 12:00 – 1:00), F, 9:00 – 12:00 Niles: M/T/Th/F, 9:00 – 1:30; W, 9:00 – 11:00 (call first; they are moving to a new location soon.)
Samaritan Counseling Center 292 Bellview * Benton Harbor, MI 49022 616-926-6199 and 13 South Fourth Street * Niles, MI 49120 616-683-7604	Christian counseling for individuals, couples, families and groups (for children and adults of all ages)	M-F, 9:00 - 5:30 (office) M-F, 8:00 - 7:00 (for appointments)
Senior Nutrition Services 1708 Colfax Avenue * Benton Harbor, MI 49022 616-925-0137 or 1-800-722-5392 (toll-free)	Meals delivered to homebound senior citizens (ages 60+)	M-F, 8:00 – 4:00
Southwest MI Community Action Agency 331 Miller Street * Benton Harbor, MI 49022 616-925-9077 or 1-800-334-7670 (toll-free)	Emergency financial assistance with past due rent, utilities, and first month's rent (there is a waiting list for these services), family shelter, first-time home buyer's program, home weatherization program, food pantry and commodity distribution	M-F, 8:00 – 4:30
Twin Cities Area Literacy Council 292 Bellview * Benton Harbor, MI 49022 616-925-READ (7323)	One-on-one tutoring in reading for adults; computer training, and GED preparation	M-F, 9:00 – 2:00
Women's Resource & Referral 1-800-82-WOMEN (9-6636) (toll free)	Information, referrals, and crisis intervention for women and girls	24-hour assistance

Appendix C

Chronic Health Conditions

Appendix C contains a list of recommended chronic health conditions from the NHIS that was presented at the workshop. The list is also provided in the workshop handout from David Williams entitled, *Measures of Physical Health Status*.

Have you EVER been told by a doctor or other health professional that you had …

Hypertension, also called high blood pressure?	YES	NO
Coronary heart disease?	YES	NO
Angina, also called angina pectoris?	YES	NO
A heart attack, also called myocardial infarction?	YES	NO
Any kind of heart condition or heart disease, other than the ones just asked about?	YES	NO
A stroke?	YES	NO
Emphysema?	YES	NO
Asthma?	YES	NO
An ulcer?	YES	NO
Cancer or a malignancy of any kind?	YES	NO
If yes, what kind of cancer was it?	YES	NO

([If female]: Other than during pregnancy), Have you EVER been told by a doctor or health professional that you have diabetes or sugar diabetes?

YES
NO

During the PAST 12 MONTHS, have you been told by a doctor or other health professional that had …

Have fever?	YES	NO
Sinusitis?	YES	NO
Chronic bronchitis?	YES	NO
Weak or failing kidneys? – Do not include kidney stones, bladder infections or incontinence.	YES	NO
Any kind of liver condition?	YES	NO

During the PAST 12 MONTHS, have you had pain, aching, stiffness, or swelling in or around a joint?

YES

NO