

**Supporting Statement B for  
Interventional Cooperative Agreement Program (ICAP)  
Supportive Housing & Individual Placement and Support (SHIPS) Study**

**B. Collections of Information Employing Statistical Methods**

SSA contracted Westat to conduct the randomized controlled trial of the Supportive Housing & Individual Placement and Support (SHIPS) Study. The primary objective of SHIPS is to determine whether participation in Individual Placement and Support (IPS) improves the employment, income, health, and self-sufficiency of people who are recently homeless and living in supportive housing. The SHIPS study will mark the first study testing the effectiveness of implementing IPS in a supportive housing program.

**1. Statistical Methodology.**

SHIPS is a randomized controlled trial which will sample at least 200 people (100 for each of two treatment arms) and as many as 300 people (150 for each of two treatment arms) from the population of approximately 2000 people receiving supportive housing services from People Assisting the Homeless of Greater Los Angeles (PATH). For the purposes of this study, we define supportive housing as services on the spectrum of supportive housing that incorporate case management. These include place-based and scattered site permanent supportive housing (PB-PSH and SS-PSH) and rapid rehousing (RRH). PATH refers to its RRH services by the program name Time-Limited Support (TLS). Eligible referrals are adults (age 18 and up) living in PATH supportive housing units. All are recently homeless or at risk of being homeless. Most of these individuals are unemployed or underemployed and receiving benefits and health insurance through various disability or unemployment programs.

PATH provides place-based permanent supportive housing services, scattered-site permanent supportive housing services, and rapid rehousing services throughout Los Angeles County. The potential population of SHIPS enrollees includes residents of 13 place-based residences in downtown Los Angeles home to 688 residents; 120 people receiving scattered-site permanent supportive housing; and a projected 400 people receiving TLS services from PATH in SPAs 4 and 5.

Stratum	N	Predicted recruitment rate	Sample N
PB-PSH	700	10%	70
SS-PSH	120	10%	12
RRH	400	30%	120
Total	1220	17%	202

Please see the above table for stratum-specific predicted recruitment rates. Overall, we expect 17% of recently homeless people receiving supportive housing services from PATH and for whom the usual employment services represent the described control condition to enroll. This is based on conservative estimates provided by experts familiar with the population. We expect minimal loss to follow-up among those enrolled in SHIPS, but we have allowed for a 20% dropout rate in our design. Rigorous recruitment

methods, outcome measures that repeat both quarterly and monthly, measures that provide redundancy for primary outcomes, the relative geographic stability of populations in permanent supportive housing, and ongoing efforts to maintain contact with enrollees will ensure valid effect estimates.

## 2. **Procedures for Collecting the Information**

SHIPS is a randomization scheme designed to evenly distribute eligible enrollees to the two treatment arms across strata defined by service type using block randomization with a block size of 4. Strata will consist of people receiving rapid rehousing services, scattered-site permanent supportive housing, and individual place-based permanent supportive housing residences. This will ensure equally sized treatment arms, control for site-level confounders associated with location and service type, including proximity to transportation, and yield manageable and predictable caseloads for the service-specific IPS treatment teams. The research assistants will be blind to study condition until after each participant has completed the baseline interview and are formally enrolled in the study. At this time, the remotely accessed REDCap data collection system, will reveal the participant's treatment assignment. The participant and research assistant will learn of the assignment at the same time.

- *Estimation procedure.* Primary analyses of the effect of IPS on employment, earnings, and housing outcomes will be intent-to-treat. The validity of these analyses is conditional on effective randomization procedures and compliance with treatment assignment. Our randomization procedures will yield treatment arms of equal sizes and characteristics. Small IPS studies, in which participants are recruited from within existing institutions such as community health centers, have had high rates of treatment compliance. We anticipate the existing relationships that PATH has established with enrollees, in combination with scientific recruitment procedures and ongoing efforts by both PATH and SHIPS to maintain contact with those enrolled in the study, will continue this pattern.
- *Degree of accuracy needed for the purpose described in the justification.* Randomized controlled trials yield unbiased estimates of the effect of randomization to treatment arm. Therefore, accuracy of effect estimates will not be an issue. Power calculations estimate that this sample size will yield adequate power to detect a medium effect size (defined as a mean standardized effect size of at least 0.50) The literature on existing IPS trials suggests that a medium effect size is a reasonable assumption. If we enroll 200 participants and experience a 20% dropout rate, the actual sample will be 160. Thus, an enrolled sample of 200 will give us ample power (88%) to detect a medium effect size.
- *Unusual problems requiring specialized sampling procedures.* Westat is implementing SHIPS with PATH at numerous sites throughout the greater Los Angeles area. Place-based permanent supportive housing sites house from about 20-120 residents each, and the populations participating in either scattered site or rapid rehousing are larger than 120 people. Block-randomizing within each place-based residence ensures that trial arms will draw equal numbers from each

residence or population. A single IPS treatment team will cover each site, and distribute those randomized to receive IPS evenly between those teams. Block-randomizing separately within the SS-PSH and RRH populations will accomplish the same goal for those populations.

- *Any use of periodic data collection cycles (less frequent than annual) to reduce burden.* The design of SHIPS does not allow for less frequent data collection. Recall is only valid over about three months, and participation activities are relevant at monthly intervals.

### 3. **Methods to Maximize Response Rates**

This RCT has two stages at which the term “response rate” may have relevance. These are recruitment and follow-up. PATH, Westat, and USC are making efforts to maximize both the proportion of PATH residents who enroll in SHIPS (recruitment) and the rate at which those enrolled complete quarterly interviews (follow-up).

**Recruitment.** We will maximize recruitment rates by first conducting outreach at PATH sites and services involved in SHIPS. These will take the form of posters, presentations, and introduction of the study to residents by case managers. The goal is for the study’s existence to be common knowledge when recruitment begins. The information disseminated will be carefully designed to focus on the benefits of employment; reassure potential participants that they will receive assistance with benefits to minimize the risk of earnings compromising those benefits; and emphasize that both Individual Placement and Support and Worksource Center services are effective at helping people find jobs and neither is superior to the other. This will reduce the likelihood of attrition from usual care due to resentment in that group at not being able to receive services available to those in the IPS arm.

PATH case managers will receive an introduction to IPS and the proposed study. They will identify residents interested in obtaining employment. Potential recruits must be able to understand the project and its requirements and, throughout the recruitment process, consistently express a desire for competitive employment. Eligible individuals will also be unemployed, able to participate in the study, and willing to provide informed consent for a five-year follow-up period. Interested residents will participate in two informational interviews to ask questions and confirm their understanding and motivation, which are the hallmarks of successful recruitment. Our team has successfully used science-based research introduction groups to ensure that potential participants understand the project they are signing up for and desire to work (Bebout et al., 1998; Bond et al., 2007; Drake et al., 1994). A research assistant, with the assistance of a peer advocate, will explain and obtain informed consent from each eligible enrollee following these information interviews. These procedures have resulted in exemplary retention rates even in populations known for their distrust of research and yielded high rates of participation (over 90%) across numerous IPS studies, including two RCTs of IPS enrolling a significant proportion of formerly homeless Black participants that had 12-month retention rates exceeding 90% (Drake et al., 1999; Lehman et al., 2002). A 2-year RCT of IPS that purposively sampled a large subgroup of Hispanic participants

found that 86% completed a 12-month follow-up interview (Mueser et al., 2004).

**Follow-up:** We will take several actions to maximize response rates to quarterly interviews throughout two years of follow-up for each enrollee and longer interviews at 12- and 24-months. These will incentivize continued participation and maintain contact between enrollees and research staff. We will provide reimbursements of \$20 for quarterly phone and \$50 for baseline and end-of-follow-up in-person interviews to participants after they join the study because we have found that such payments decrease loss to follow-up. The project manager will supervise and assist two research assistants in LA who will conduct all interviews, entering data directly into a REDCap online data collection system. The research assistants will live in LA and have primary responsibility for contacting enrollees and conducting quarterly interviews. The PIs and project manager will provide training. The project manager (Dr. Ben Henwood) resides in LA and has prior research experience with the study population. Case managers will assist with community engagement to facilitate continued contact. USC Research assistants will maintain contact with enrollees and awareness of their living status. In addition, the USC Research assistants will ensure the study population lives in centralized locations and are under consistent observation by PATH staff will facilitate this process.

Observational data, which case managers and IPS employment specialists will collect, will serve as secondary, corroborating measures of employment and compliance with treatment assignment. Completion rates for this measure were greater than 90% in the Supported Employment Demonstration.

#### **4. Tests of Procedures**

We do not plan to conduct procedural tests on more than 10 members of the public. Research staff has used all instruments and collection procedures in prior studies. Research staff will test the data collection system throughout its development.

#### **5. Statistical Agency Contact for Statistical Information**

For further information you can communicate with the following staff members:

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