

# **Conducting an Unsheltered Point-in-Time Count During the COVID-19 Pandemic**

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## I. Summary of Recommendations

Since 2003, the Department of Housing and Urban Development (HUD) has required communities to report on the number of people homeless at a particular time as part of its annual funding application. This Point-in-Time (PIT) count provides key estimates of sheltered and unsheltered homelessness needed for service planning and measuring population needs and progress in eliminating homelessness, while providing an opportunity for the community to rally around addressing the issue. This year presents new challenges for conducting the PIT count related to the COVID pandemic.

In this document, we provide guidance on conducting a street-based count that maintains the health and safety of individuals performing the count and of individuals experiencing homelessness. This guidance includes recommended changes in methodologies that may lead to changes in counts for 2021 that may not allow for apples to apples comparisons to prior and future years. While not ideal, we believe that having some data is better than not conducting the count at all. Finally, we note that the 2021 PIT may be an opportunity for communities to re-evaluate their methodologies and procedures even beyond this anomalous year. In particular, statistical sampling strategies and app-based, paperless surveys are tools that could reduce the PIT's burden, increase efficiency, and produce more statistically reliable and valid

estimates, regardless of a pandemic, and should be considered for future adoption. Key recommendations are as follows:

- Leverage professional outreach teams to minimize, or ideally eliminate, your reliance on volunteers for this year's PIT. The logistics of training and conducting the count in current conditions are not amenable to the uncertainties of a volunteer-based count, and stay-at-home orders may legally prevent volunteers from participating.
- Conduct a headcount or reduce the amount of information that you collect, leveraging the flexibility offered by HUD in its written guidance.
- Provide all enumerators with ample Personal Protection Equipment (PPE), including masks, gloves, face shields, and hand sanitizer, for themselves and any unsheltered homeless individuals they encounter.
- Use a web conferencing platform like Zoom or Webex to train enumerators. In-person trainings, which tend to last more than an hour and include many people in a single room, are not safe.
- Use a mobile app rather than paper surveys, this year and in the future. This will increase the efficiency of the count and reduce the need for in-person encounters that could spread the coronavirus.
- Conduct your PIT over multiple days (up to 14 days this year) to reduce resources required each night, following the observation-based and surveying guidelines from HUD and described in this document.
- Use a sampling strategy that allows results from canvassed areas to be extrapolated to non-canvassed areas. This will reduce necessary resources while improving accuracy compared to less scientific sampling approaches (like hotspot-only samples).

## II. Introduction

Since 2003, the Department of Housing and Urban Development has required communities to report on the number of people homeless at a particular time as part of its annual funding application. This Point-in-Time (PIT) count has included the number of people sleeping unsheltered, meaning in a place not meant for human habitation – like streets, parks, transit hubs, and so on. These estimates are useful for:

- service planning;
- demonstrating a need for resources for a community;
- raising public awareness about the issue of homelessness;
- accurately measuring and identifying population needs; and
- measuring performance in eliminating unsheltered and chronic homelessness.

The PIT count also serves as a community's opportunity to rally around addressing homelessness. Volunteer recruitment efforts are used to highlight a Continuum of Care's (CoC's) work and offer communities a much sought-after chance to help their most vulnerable residents.

### **Approaches to the Unsheltered PIT Count**

While sheltered PIT counts often hinge on a data pulled from HMIS, the unsheltered estimate is much more complicated, both methodologically and logistically. Finding, counting, and speaking with people who sometimes do not want to be found is a difficult endeavor, and HUD broadly allows for two methodologies to estimate their number: (1) street-based counts and (2) service-based surveys. Most CoCs conduct street-based counts, sending outreach workers and volunteers to fan out through their communities to find and often speak with their unhoused and unsheltered neighbors. Within this approach, methods vary widely. Some communities look in every nook and cranny, others go to hot spots in which they expect to find people experiencing homelessness, and others conduct statistically valid samples. In a service-based count, social service providers survey consumers about their sleeping arrangements on the designated night of the PIT count.



*Figure 1: A PIT Street-Count Conducted in a Non-Pandemic Year*

### **Impact of the Coronavirus Pandemic**

As the coronavirus pandemic has disrupted nearly every aspect of life in the United States, that is also true with the upcoming PIT count. So much is different this year. For one, we expect that COVID-19 may have changed (1) who is experiencing unsheltered homelessness, (2) the services used by people experiencing unsheltered homelessness, and (3) the locations of people experiencing unsheltered homelessness. For example, there are anecdotal reports that more people are joining encampments.

The standard procedures used during these estimates are simply not feasible or safe in the midst of the current pandemic. Bringing 200 volunteers into a single room for a training, piling them into cars, and sending them around a community to speak with strangers nears the definition of a likely super-spreader event.

As a result, HUD has released amended guidance for estimating the size of unsheltered homeless populations specific to the pandemic. A general approach and guidance document was released in late November 2020, and a companion document focused on sampling procedures was released in early December 2020. [These documents](#) suggest ways that communities can alter their procedures and methodologies in order to safely gather meaningful data. Moreover, HUD has emphasized that it is willing to grant exceptions to general unsheltered PIT reporting requirements. These exceptions can be as narrow as omitting a single required subpopulation or as broad as skipping or postponing the full count.

This report is meant as a companion to HUD's guidance, providing additional guidance by leveraging our experience with PIT counts and medicine, and also responding to questions and feedback we have received from communities. We will focus our recommendations on:

- increasing the use of outreach teams in street-based counts;
- reducing the reliance on volunteers to conduct the PIT;
- increasing the use of technology in training and surveying;
- combining observation-based and survey approaches across nights and populations; and
- reducing the overall burden by creating statistically valid samples.

Like HUD, our overall guidance is that the only acceptable PIT count is a safe PIT count. Any infection that results from efforts to enumerate people experiencing homelessness is unnecessary. We believe that, through a flexible approach, a PIT count can be conducted without endangering health or well-being, and we hope that the guidance we offer here can assist in achieving that goal.

In addition, the 2021 PIT may be an opportunity for communities to re-evaluate their methodologies and procedures even beyond this anomalous year. In particular, statistical sampling strategies and app-based, paperless surveys are tools that could reduce the PIT's burden, increase efficiency, and produce more statistically reliable and valid estimates, regardless of a pandemic and should be considered for future adoption.

### III. Recommendations for the 2021 PIT Count

#### A. Leveraging Existing Outreach Teams

Most communities conducting street-based counts rely on an army of volunteers to fan out through their streets and observe and survey people experiencing homelessness. The unsheltered PIT is often an opportunity to rally communities around helping people experiencing homelessness by volunteering for this single low-burden event. For local residents not professionally involved in homelessness or social services, the PIT may be their once-a-year opportunity to learn about homelessness and for homeless service agencies to describe their work.

However, COVID-19 will limit the use of the 2021 PIT as a public engagement tool for a number of reasons. First, as COVID-19 cases, hospitalizations, and deaths continue to climb there has been an increase in stay-at-home orders, a trend that we expect to continue through the holidays and January. For this reason, voluntary participation in a PIT count may not be legal. Even where there is no stay-at-home order and the CoC has implemented procedures to minimize risk of infection, volunteers are likely to be wary of participating in this event. At a most basic level, it contradicts prevailing public health guidance of staying at home and socially distanced from others as much as possible. In addition, many volunteers may be older adults or have medical conditions that put them at increased risk of severe illness should they become

infected with COVID-19. This will likely result in two outcomes. First, volunteer recruitment and turnout will likely be lower than prior years, and second, potential volunteers who feel that an agency is willing to unnecessarily risk their health may be unwilling to lend their support to future PITs and to that agency generally.

Additionally, and perhaps most prominently, there are serious safety concerns with recruiting hundreds or thousands of volunteers to participate in this count. Normal PIT operations often require volunteers to be trained and staged at a single site with hundreds of other volunteers, to share cars with other volunteers or outreach teams, and to walk as a close team (within six feet) for extended periods of time.

At present, these practices are unsafe. While there are workarounds (some of which we will discuss later in this report), they are logistically and technologically complicated. Remotely training and deploying volunteers to specific areas of a community – without grouping them into teams of strangers – will be possible but complicated and there will be less flexibility to adapt to an excess or, more likely, a shortage of volunteers.

In addition, it will be difficult or impossible to provide Personal Protective Equipment (PPE) to all volunteers. Appropriate PPE for volunteers would include masks, face shields or goggles, and gloves, as well as hand sanitizer. Beyond access, it will be impossible to ensure that volunteers are using PPE appropriately to protect themselves and anyone they come into contact with.

Therefore, we strongly suggest leveraging existing professional street outreach teams. There are several advantages to this approach. First, these outreach teams are already scheduled, meaning you can accurately anticipate available resources. Second, outreach teams are already engaging with people on the streets, meaning that no additional individuals would be placed at risk. Third, outreach teams should already have the necessary PPE, like masks, gloves, face shields, and hand sanitizer.

## B. Increasing PIT Count Efficiency

Of course, communities have fewer outreach personnel than they would have volunteers on a given night, reducing the resources available to complete the count. We see three ways to address this issue.

### 1. Observation-based counts

HUD is encouraging the use of observation-based headcounts in place of surveying. Because enumerators will not be stopping to administer surveys, this will allow counters to cover much more area than usual. In addition, an observation-based count minimizes the potential for transmission of infection between enumerators and respondents.

An observation-based count has two methodological trade-offs.

- First, because enumerators are making assumptions about an individual's housing status based on appearance, there is the potential for biases to influence

determinations of who is and is not experiencing unsheltered homelessness. Using professional outreach teams, rather than untrained or briefly trained volunteers, may alleviate some of these concerns.

- Second, there is a greater risk of duplication, as enumerators will not be collecting any identifying information (initials, birth information, etc.) nor asking individuals if they have already been surveyed. **Communities can reduce the risk of duplication by limiting observation-based counts to a single night.** Generally speaking, if a count spans multiple nights, surveys MUST be conducted after the first night, though HUD will allow communities to conduct observation-based counts in multiple nights if the CoC can give reasonable assurance that there is essentially no movement across boundaries. Guidance from a December 2020 HUD PIT count office hours session states:

*“Observation-based PIT count activities must take place at nighttime on the night designated for the PIT count, with one exception: if the CoC is counting distinct areas on consecutive nights due to the CoC’s large geographic region (e.g., large rural areas, multi-county CoCs, Balances of State, and statewide CoCs might consider this). In this case, a CoC can conduct an observation-only count over multiple nights in distinct geographies where they really don’t think people move between those geographic boundaries from night to night. They can “designate” sequential nights to the PIT count in those different regions. CoCs that go this route should limit their PIT count “nights” to two to four sequential days, depending on the size and number of areas in which the CoC is counting, to reduce the likelihood of duplication. They cannot do, for example, one area on January 22 and another on January 30.”*

## 2. Use of abbreviated surveys

Even when conducting surveys, HUD is encouraging the use of abbreviated surveys. As stated in the HUD guidance, “HUD does not recommend adding questions beyond those a CoC would need to maximize safety, de-duplicate, and confirm that someone was experiencing homelessness on the night of the count.” This is **NOT** the year to administer the VI-SPDAT.

An observation-based count or use of a short survey would limit a CoC’s ability to collect demographic data. HUD has emphasized that enumerators should NOT make assumptions about demographic characteristics based on visual appearance. This could mean that CoCs will be unable to submit these data – for which they must request a waiver – or they may be able to use administrative data specific to unsheltered populations (not from the sheltered population) to fill in these gaps. Examples of observation tally sheets and abbreviated surveys can be found [here](#).

## 3. Expanding the PIT timeframe

HUD is extending the allowable timeframe for conducting survey-based PIT counts. Continuums are generally limited to a 7-day period, but for 2021 HUD will allow CoCs

conducting surveys to administer those for up to 14 days. Extending the timeline could increase the potential for duplication and the chances that an individual does not remember their location on the designated PIT night, but resource constraints may dictate this as the preferable option and worth the trade-off in count accuracy.

For CoCs that are conducting their counts over more than one day or night for a street-based count, it is imperative that you plan which areas will be covered on which night. To reduce the potential for duplication across nights, try to cover adjacent areas, or areas people are likely to move between, on the same night. If possible, try to plan which personnel will cover which area on which night. Doing this requires knowing outreach schedules and estimating the amount of time required to cover each area, which will depend on area size and geographic characteristics (e.g., a park versus city streets), the number of people likely to be encountered, and other factors. The better these are planned, the more likely it is that you will be able to complete your PIT without unnecessary complications.

In many communities, surveys taking place over multiple nights will refer to a single designated PIT night. HUD is also allowing large CoCs to have multiple (adjacent) PIT nights if:

- each geographic area within the CoC boundary has only a single PIT night, and
- the geographic areas are separate enough that the risk of duplication is low.

Perhaps most importantly, plan for contingencies. Have outreach teams as standby enumerators for one or two nights beyond the planned count in case progress is not as swift as anticipated for a range of contingencies. For example, those who had planned to support PIT count activities may be forced to quarantine due to COVID-19 exposure, leaving the CoC with fewer resources. In a survey taking place after a designated PIT night, the survey should specifically ask about housing status on the designated PIT night. To reduce the risk that enumerators are counting someone who was already observed, ask an unsheltered homeless person where they slept on the PIT night and compare this to areas that were covered/observed on that night.

Enumerators should be trained to document the exact location of an individual. Rather than writing that an individual was found “In City Park” the enumerator should write “In a blue sleeping bag on a bench across from a large oak tree in the southeast corner of City Park.”

If the count is being conducted over multiple nights, counts should be organized in a way that minimizes the likelihood that people move between areas covered on different nights. For example, if you are counting in a major city and its outskirts and believe that there is little back-and-forth between those places, plan to canvas in the city on one night and in the surrounding area on subsequent days or nights.

#### 4. Mobile App-Based Surveys

Another step CoCs can take to improve count efficiency is to replace paper-based surveys or tally sheets with mobile app-based surveys. These have grown increasingly common in recent years. Some communities like New York City have created tools in-house, while most who have



taken this route have used one of a few different tools available for sale. While they do entail some cost, there are notable efficiency benefits and information-gathering benefits to mobile apps that apply regardless of the pandemic, including:

- reducing the amount of paper being used and the amount of time required to print, sort, distribute, and collect paper surveys;
- built-in mapping capabilities for many app-based surveys;
- nearly eliminating the need for post-PIT data entry and reducing the chance for errors and thus required quality assurance;
- availability of geolocation features through mobile devices allow administrators to ensure that surveys were completed at proper areas;
- availability of geolocation features allows for easy mapping and storage of results for reference in future years; and
- ease of making changes to survey questions.

Minimizing the need for a physical exchange of paper is particularly important this year given the safety concerns in central staging sites. Any remote deployment would involve separate efforts to retrieve and then drop-off maps and survey forms, which is likely to be difficult and inconvenient for outreach teams and nearly impossible for a count reliant on dispersed volunteers who may or may not participate on their designated night.

Below is information compiled about some of the mobile apps available for purchase or licensing. This is not intended to be comprehensive, but we hope it can ease your search for a mobile phone-based surveying tool.

Table 1: Mobile Survey Tools

Mobile Tool	Free Trial Option	Multiple Plan Options	Customizable Surveys	Count Management Tools	Separate Youth Survey	Trains Volunteers	Secure Data/ Clean Up	Creates Reports
Counting Us	X		X	X	X		X	X
Hyperion		X	X	X		X	X	X
Survey123			X	X			X	X

### C. Training Enumerators

Most years, training for unsheltered PIT enumerators occurs in one or more large rooms, preparing dozens to hundreds of people to go out and canvas their communities. This is simply not an option for the 2021 PIT. For one, many communities have limited the size of indoor gatherings and these events would not be legally permissible. Second, even where they are legal, they are not safe. Putting people from many different households into a single room for an extended period of time unnecessarily increases the risk for virus transmission; additionally, many CoCs “rely on volunteers that are 55 and older” and who are at increased risk for severe illness, though the evidence shows that severe illness can occur for people of all ages and health status.



Figure 2: Training PIT Counters in a Non-Pandemic Year

Any large-scale training must therefore be conducted virtually. These trainings can be done in real-time immediately before enumerators are deployed, or alternatively through a webinar format that is conducted before the count and recorded for those who want to view it later. There are, of course, concerns with virtual trainings. For one, it may be difficult to ensure that volunteers actually watch and pay attention to the training. Second, even if they do, evidence suggests that less learning occurs during a web-based training than an in-person training. It is also more difficult to conduct role-playing exercises, answer questions, and facilitate discussion in a remote versus in-person environment.

This is part of the reason that we suggest relying exclusively, or primarily, on professional staff for whom the learning curve will not be quite as steep, even if a pandemic PIT requires new unique protocols. These virtual trainings should be synchronous, giving enumerators the opportunity to ask questions. Moreover, there should be multiple trainings that are spread out across the week and held at different times to allow for the varying schedules of outreach staff. At least one of these trainings should be recorded for any staff who are unable to attend the synchronous trainings.

These trainings will be best conducted via web conferencing software such as Zoom, Webex, BlueJeans, etc. These tools vary in their strengths and weaknesses, and we provide summaries – including distinctions between free and paid versions – below.

Table 2: Comparing Web Conferencing Software for Use in Enumerator Trainings

Software	Free Plan Option	Multiple Plan Options	Webinar option for extra cost	plan option w/ 100+ participants	Licensing Options	Multiple Hosts at once (explicitly stated)
Go To Meeting	(14-day free trial)	X	X	X		
Webex	X	X	X	X		X
Zoom	X	X	X	X	X	X
Microsoft Teams	X	X	X	X	X	
BlueJeans		X	X			
Google Meet		X	X	X		
U Meeting	X	X	X			

We suggest that you take full advantage of this technology. Screen-sharing features can be used to show maps or simulations of what enumerators should expect to find during the night. If using a mobile app to conduct surveys, communities can share a phone or tablet screen (which can be done directly or through computer) to simulate observations or surveys.

In addition, if new PIT procedures are being used for this year, as most CoCs will be doing to some extent, we recommend testing them in advance of the designated PIT night if teams have the bandwidth to do so. Test a mobile app by using it in “PIT night” conditions if possible. Communities can do this by having outreach teams canvass one or more areas and follow proposed PIT procedures. This should be done with enough time (at least one week) to make revisions to protocols and communication channels as necessary. Note that **NO** observations or surveys completed as part of pre-PIT testing can count toward PIT results. HUD is not interested in predictions of future homelessness.

#### D. Sampling

Another way that communities can reduce the burden of conducting the 2021 PIT is to use a sampling approach to estimate the total number of people who are experiencing unsheltered homelessness on the night of the PIT count. HUD has provided two guidance documents for the mechanics of sampling and, with Abt Associates, discussed the topic at length in its online Office Hours on December 3<sup>rd</sup>.

Sampling, as HUD writes, “is a way to account for information about a whole group of people by only collecting data about a portion of that group.” In the context of an unsheltered PIT count, this means a CoC can estimate the number of people in its region by canvassing only a fraction of its geography. It can also estimate the demographic characteristics of its population by speaking with some sample of everyone it encounters and extrapolating those characteristics to others.

This document will focus on geographic sampling, in which a community canvasses only a portion of its area and extrapolates its findings to its entire region. There are different sampling approaches that communities can take, but as HUD notes in its guidance, “it is not feasible to provide explicit guidance that would apply to every CoC” given the wide extent to which continuums vary by size, urbanity, population type and size, and many other features. We will describe these strategies, and step-by-step implementation procedures, in ways that we think will be applicable to a broad swath of communities. We have also included an example of what implementing these steps might look like in Section F at the end of this guide.

##### **1. Divide your region into smaller regions or subareas.**

We recommend that communities choose other commonly-used geographic units, like census tracts, block groups, or counties. From a cost and logistics perspective, using common boundaries will simplify the ability to create maps for a community’s areas (spoken from years of experience and difficulty with custom-created boundaries). Second, using common boundaries will allow a community to assess relationships between the locations of homeless individuals and geographic characteristics, such as

neighborhood demographic characteristics, proximity to commercial and transit hubs, and more.

The two most common questions surrounding creation of these subareas are:

a. How large should they be?

Subareas should be small enough that the entire subarea can be canvassed, because those results are being used to represent other areas NOT being canvassed. The size of common geographic groupings – especially those used by the U.S. Census Bureau – will vary by geography. A census block group, for example, contains between 600 and 3,000 people. That may represent four blocks in Manhattan, New York, but four square-miles near Manhattan, Kansas. Subareas do not need to be the same size geographically.

b. How many should there be?

There should be enough subareas to allow for statistically robust sample sizes, because much of the precision of the estimate will be directly related to the number of subareas visited. Expect to visit at least 30 areas in order to create a statistically meaningful estimate and, to a point, the more subareas visited, the more precise the estimate. Note that if you create a stratified sample as described below you will want to visit a minimum of 15 sub-areas in EACH stratum.

2. **Choose a sampling approach.** If subareas have a nearly equal chance of containing people experiencing homelessness, you could conduct a simple random sample. Since homelessness is generally not evenly dispersed across a continuum, though, this is rarely the best approach.

In that case, categorize subareas based on predicted levels of homelessness. To do so, follow these steps:

- a. Decide if there are any subareas that **MUST** be visited, meaning that they cannot represent, and cannot be represented by, any other subarea. This could include transit hubs or large encampments that have unusually large unsheltered populations.
- b. Designate “uninhabitable subareas” such as bodies of water – in which it would be impossible for someone to experience unsheltered homelessness.
- c. The remaining areas are those from which the sample can be taken. Divide or “stratify” these areas into categories, also called “strata,” based on the number of people a community would expect to find during the PIT.
  - Many communities using this approach divide their communities into
    - **“High Density”** areas in which they expect to find people, and
    - **“Low Density”** areas in which they do not expect to find people.

To further refine your estimate, add additional categories.

**3. Determine the number of subareas within each category, or stratum, to canvass.**

This is where PIT methodology becomes more art than science. Covering more areas will increase the precision of the estimate but requires additional resources. There are no hard and fast rules for what percentage of subareas should be canvassed within a category (or stratum).

As HUD notes, there are two general guidelines:

- a. Include as many high-density subareas as possible, since this is where a community can expect to find the vast majority of unsheltered homelessness.
- b. Sample enough low or medium-density areas so that unexpected counts in one or two subareas do not unduly influence the count. One danger of a small sample is that a single anomalous subarea can disproportionately influence the final result, while in a larger sample there are more areas with a “normal” result to counteract the outlier.
  - i. For example, if you find 10 people in one sampled low-density area (in which you should expect to find no one), that single area will have a larger impact on the overall result if your sample is only 15 areas rather than 50 areas.

**4. Randomly select the subareas to be sampled.**

- a) **“Certainty subareas”**: there is no sampling within this category; all certainty subareas will be canvassed
- b) **High/medium/low density subareas**: Communities should **RANDOMLY** select areas within each category as designated in the decision-making process in step 3. Selected subareas will be canvassed as part of the PIT, and results will be extrapolated to non-canvassed areas within each stratum. For example, you will use results from sampled “high-density” areas to estimate the number of people in non-sampled high-density areas.
- c) **Excluded subareas**: subareas that are uninhabitable are not included in your results.

**5. Conduct your count.** We have discussed this at length above.

**6. Calculate your results.**

Multiply the number of unsheltered individuals counted in each category (certainty, or high, medium, or low density) by a weighting factor. There is a different weighting factor for each category of subareas, and it is calculated as:

$$\text{Weighting factor (w.f.)} = \frac{\text{The total number of areas in that category}}{\text{The sampled number of areas in that category}}$$

For example, if a community has 60 total high-density areas, but sampled 20 of them, the high-density weighting factor would be calculated as:

$$\text{Weighting factor (w.f.)} = \frac{60}{20} = 3$$

If 15 people were counted in the 20 canvassed areas, the total high-density estimate is calculated as:

$$\text{Category Estimate} = (\text{Number counted}) \times \text{w.f.}$$

$$\text{Category Estimate} = 15 \times 3 = 45 \text{ people}$$

Do this for each category and add the category estimates to produce your total PIT unsheltered estimate. Note that there is no weighting applied to your certainty subareas, since you canvass all of them.

The total estimate is then calculated as:

$$\text{Total PIT Estimate} = \text{Category 1 Estimate} + \text{Category 2 Estimate} + \dots$$

## E. Service-Based Counts and Using HMIS Data

### A) Service-based counts

While this document focuses on adaptations to street-based counts, HUD also allows for service-based counts. In these counts, people who access social services, including homelessness services, food pantries, soup kitchens, and others, are asked about where they slept on the designated PIT night. There is NO observation-based option for a service-based count; these must be conducted via survey. This year, HUD is allowing communities to survey individuals for up to 14 days (rather than 7, which is the maximum number of allowable nights in most years). Service-based counts may, in general, be preferable in extremely rural communities with large geographies and highly dispersed homeless populations. In these settings, a street-based canvass or hotspot approach is unlikely to be efficient. Service-based counts are also better for counting groups that have been especially difficult to estimate through street-based counts; this approach has been especially useful for estimating the number of homeless youth.

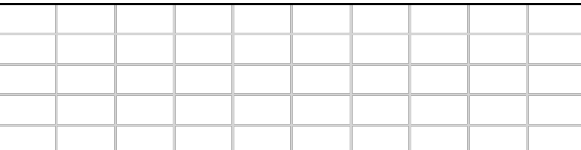
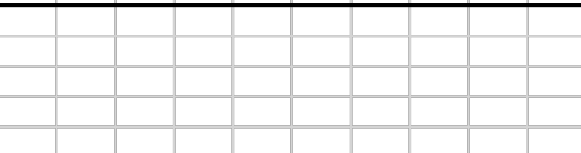
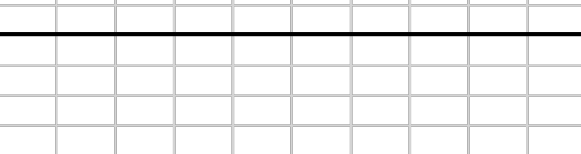
Deduplication is especially important in service-based counts. A consumer may access the same service multiple times or touch multiple service providers during the 7 or 14 days in which the survey is being conducted. In CoCs with mixed geographies, for example, communities can combine street-based in urban areas and service-based counts in rural areas. These divisions can also be made on a county by county basis, rather than urban vs. rural. When doing this, however, the service-based count must ask the geography of an individual's unsheltered location on the PIT night to ensure they were not observed or surveyed during the street-based portion of the count.

One common question is whether it is permissible to combine a service-based approach with a sampling method. This is certainly more challenging and we recommend that communities

### B) HMIS or Other Unsheltered Data

## F. Example

- A downtown
- Other part of the city
- Suburbs

	Downtown
	City Fringe
	Suburbs

15

### A) Dividing Your Community into Subareas

You have decided to pursue a sampling strategy, so you divide your CoC into 200 Zones and each zone is given a number between 1 and 200, seen in Figure 4.

### B) Choosing A Sampling Approach

You are considering stratifying your sample to improve the accuracy of your estimate, so you consult with local outreach teams and review historical outreach data to decide in which of the 200 zones you should expect to find people experiencing homelessness.

1	2	3	4	5	6	7	8	9	10	Downtown
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
41	42	43	44	45	46	47	48	49	50	
51	52	53	54	55	56	57	58	59	60	City Fringe
61	62	63	64	65	66	67	68	69	70	
71	72	73	74	75	76	77	78	79	80	
81	82	83	84	85	86	87	88	89	90	
91	92	93	94	95	96	97	98	99	100	
101	102	103	104	105	106	107	108	109	110	Suburbs
111	112	113	114	115	116	117	118	119	120	
121	122	123	124	125	126	127	128	129	130	
131	132	133	134	135	136	137	138	139	140	
141	142	143	144	145	146	147	148	149	150	
151	152	153	154	155	156	157	158	159	160	
161	162	163	164	165	166	167	168	169	170	
171	172	173	174	175	176	177	178	179	180	
181	182	183	184	185	186	187	188	189	190	
191	192	193	194	195	196	197	198	199	200	

Figure 4: PIT Zones Identified and Numbered

You are told that the number of people you should expect to count in each zone varies considerably. Therefore, your CoC constructs a stratified sample, with three levels:

- **Level 1: Certainty zones.** These are areas that are so unique in their homeless populations that they cannot be excluded and would not be representative of any other zone. There are 2 of these areas (Figure 5, red areas).
- **Level 2: High-Density:** In this case, these are zones in which you would expect to find between 1 and 5 people during the PIT. There are 98 of these areas (Figure 5, green areas).
- **Level 3: Low-Density:** These are areas in which you would not expect to find anyone during the PIT. There are 100 of these areas (Figure 5, blue areas).



1	2	3	4	5	6	7	8	9	10	Downtown
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
41	42	43	44	45	46	47	48	49	50	
51	52	53	54	55	56	57	58	59	60	
61	62	63	64	65	66	67	68	69	70	
71	72	73	74	75	76	77	78	79	80	
81	82	83	84	85	86	87	88	89	90	
91	92	93	94	95	96	97	98	99	100	
101	102	103	104	105	106	107	108	109	110	City Fringe
111	112	113	114	115	116	117	118	119	120	
121	122	123	124	125	126	127	128	129	130	
131	132	133	134	135	136	137	138	139	140	
141	142	143	144	145	146	147	148	149	150	
151	152	153	154	155	156	157	158	159	160	
161	162	163	164	165	166	167	168	169	170	
171	172	173	174	175	176	177	178	179	180	
181	182	183	184	185	186	187	188	189	190	
191	192	193	194	195	196	197	198	199	200	
										Suburbs

Figure 5: Certainty, High, and Low Density Designations

### C) Creating Your Sample

Next, you must choose how many areas you will actually canvass as part of the PIT. This is a function of resources – how many zones can your personnel cover during the allotted time – and precision. You have decided that you have the capacity to canvass 64 zones during the PIT, and you allot them accordingly:

- Level 1: you will canvass all (2) of the must-visit zones
- Level 2: you will canvass 30 of the 98 high density zones
- Level 3: you will canvass 32 of the 100 low density zones

You use Excel or a statistical software program to randomly choose the zones you will canvas, and the below map (Figure 6) represents your actual sample – which areas will be canvassed as part of the PIT.

1	2	3		5	6		8	9	
11						17		19	
			24		26				
	32								40
41			44			47	48		
Downtown									
		53		55					
61						67		69	
			74		76		78		
	82			85				89	90
91									
	102	103				107			110
111		113		115		117			120
City Fringe									
				125	126		128	129	
									140
141		143		145		147			
			154						160
161		163			166				170
								179	
	182	183				187			
191			194		196	197		199	
Suburbs									

Figure 6: Zones to be Sampled

#### D) Assigning Areas to Nights and Teams

Your CoC has decided to conduct its PIT count over **4 nights**. In this example, your CoC has decided to designate the first night as the “PIT” night and will use surveys in all four nights. Your resources include **4 outreach teams** available each night, and you will not use any volunteers because of safety and logistical concerns. Each team can cover 6 areas each night. You must now decide which areas will be covered on each night, and by which outreach team. You create a grid, Figure 7 below, to ensure that everyone knows their assignments for each night. Notice that you are not able to neatly divide each night’s allotment across your CoC’s regions, but you group areas together in a way that ensures that most people – those in downtown and the city fringe - will be counted during the first two nights to reduce opportunities for duplication.

Night	Team	Areas to Cover
1	A	1, 2, 3, 5
1	B	6, 8, 9, 11
1	C	17, 19, 24, 26, 32
1	D	40, 41, 44, 47, 48
2	A	53, 55, 61, 67
2	B	69, 74, 76, 78
2	C	82, 85, 89, 90
2	D	91, 102, 103, 107, 110
3	A	111, 113, 115
3	B	117, 120, 125
3	C	126, 128, 129, 140
3	D	141, 143, 145, 147
4	A	154, 160, 161
4	B	163, 166, 170, 179
4	C	182, 183, 187, 191
4	D	194, 196, 197, 199

Figure 7: Preparing PIT Logistics

### E) Surveying and Compiling Results

Outreach teams conduct a street-based count for the four nights, as outlined above. Your raw counts – meaning the number of unsheltered homeless individuals surveyed are:

Certainty Areas: 41

High-Density Areas: 17

Low-Density Areas: 2

You must now apply the weighting to calculate your total unsheltered PIT estimate.

- 1) **Certainty areas.** Your outreach teams canvassed all certainty areas, and there is no extrapolation required.

**Certainty Areas Total: 41**

- 2) **High-Density Areas.** You canvassed 30 of 98 High-Density areas. Your weighting factor is calculated as:

$$\text{Weighting factor (w.f.)} = \frac{98}{30} = 3.3$$

and the High-Density estimate is calculated as

$$H.D.Estimate = 17 \times 3.3 = 56.1 \text{ people}$$

- 3) **Low-Density Areas.** You visited 32 of 100 Low Density areas. Your weighting factor is:

$$\text{Weighting factor (w.f.)} = \frac{100}{32} = 3.125$$

And the Low-Density estimate is calculated as:

$$L.D.Estimate = 2 \times 3.125 = 6.25 \text{ people}$$

**Now calculate your final PIT estimate from the 3 category subtotals**

$$PIT Estimate = 41 + 56.1 + 6.25$$

$$PIT Estimate = 103.35 \text{ people}$$

**Rounded to the nearest whole number (person) the final PIT estimate for submission to HUD is 103.**