

Estimating the Known Unknown: Combining HMIS and PIT Data for Better Estimates of Your Homeless Population

Dr. Christopher Weare, Sacramento Steps Forward



**Increasing Capacity &
Building Connections:
Bridging to the Future**



Point-in-Time Homeless Counts

- Major advance in our understanding of the scope and characteristics to the population of people experiencing homelessness
- Central tool in policy making



Point-in-Time Homeless Counts

- **Advantages**
 - Attempts to capture all people experiencing homelessness
 - Compares populations who are/are not receiving services



Point-in-Time Homeless Counts

- **Advantages**

- Attempts to capture all people experiencing homelessness
- Compares populations who are/are not receiving services

- **Disadvantages**

- Infrequent
- Expensive
- Only a one-day count
- Inconsistent methodologies
- Evidence of undercounts



HMIS Homeless Services Data

- **Advantages**

- Readily available
- Year-round
- More inclusive of short-term homeless
- Rich detail on demographics and service histories
- More consistent from COC to COC

- **Disadvantages**

- Only includes individuals who engage with services
- Limited by service capacity



PIT data is not sufficient in and of itself to [understand the scale of the need for homelessness services] and should be augmented with other sources of data and methodologies that can help project risks and needs.

(USICH, Navigating Homelessness and Housing Needs Data, March 2019)

Unsheltered Homeless Population (100 individuals)



HMIS Data

Street Outreach Programs Working with 20 Unsheltered Clients





Bi-annual PIT Count Night Arrives

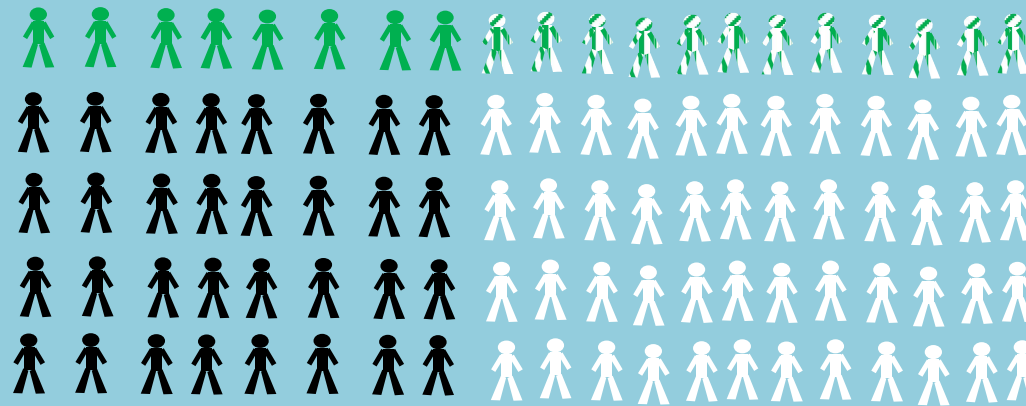


With Best Efforts PIT Identifies 60 Unsheltered Individuals



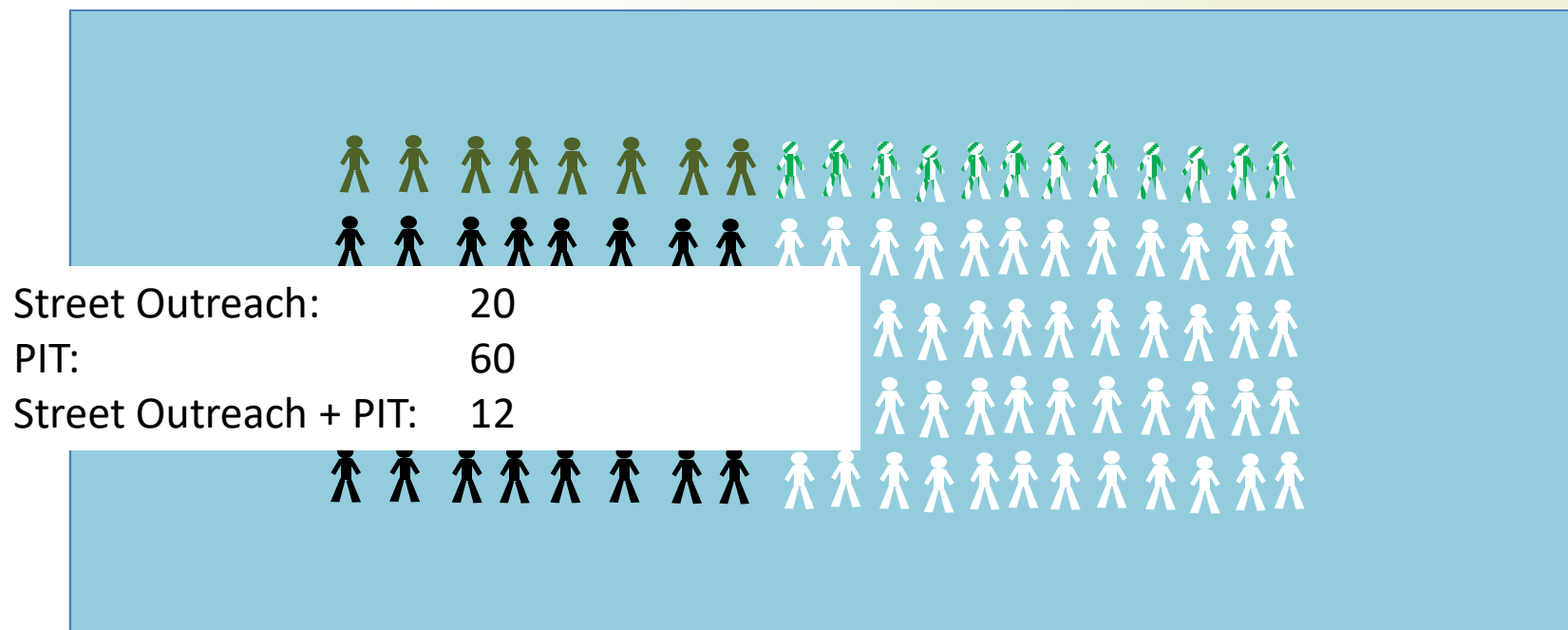


What We Know From Street Outreach & PIT



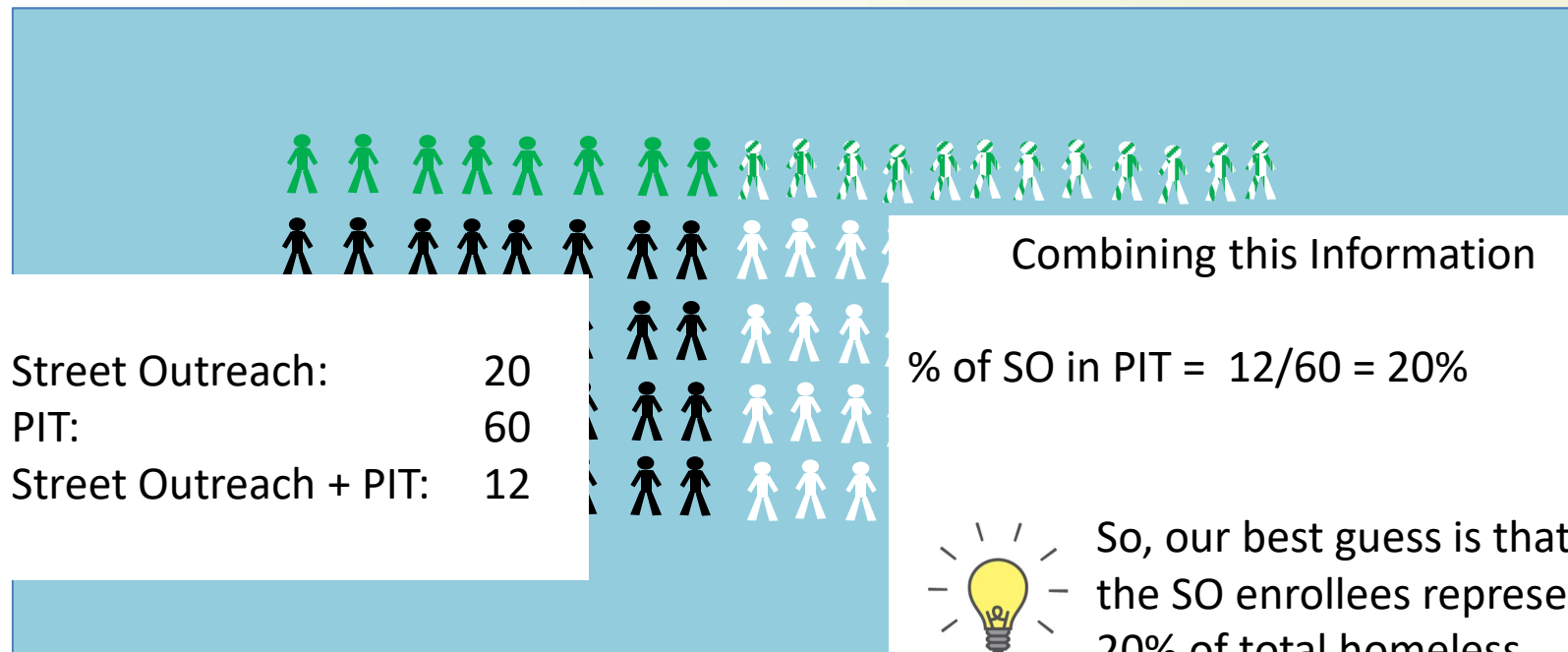


What We Know From Street Outreach & PIT





What We Know From Street Outreach & PIT



So, our best guess is that
the SO enrollees represent
20% of total homeless
population



Estimating Total Homeless Population



If Street Outreach Enrollees are 20% of population:

Total Population * 20% = Street Outreach

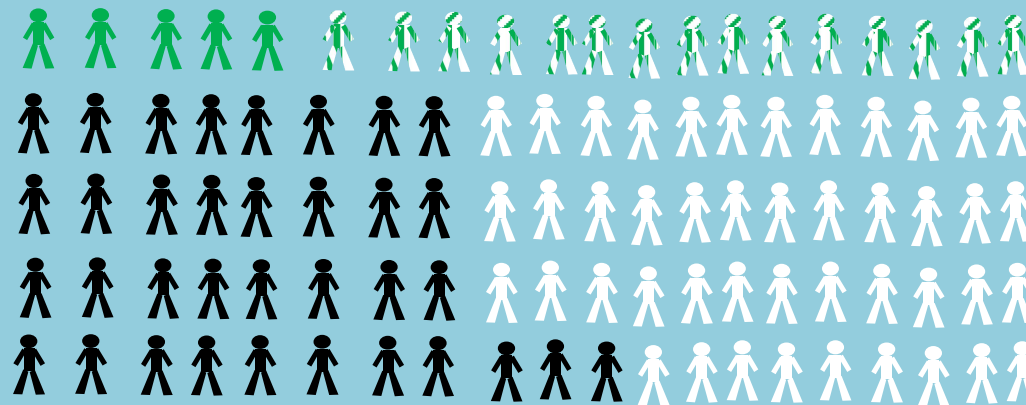
Street Outreach / .2 = Total Population

$$20 / .2 = 100$$

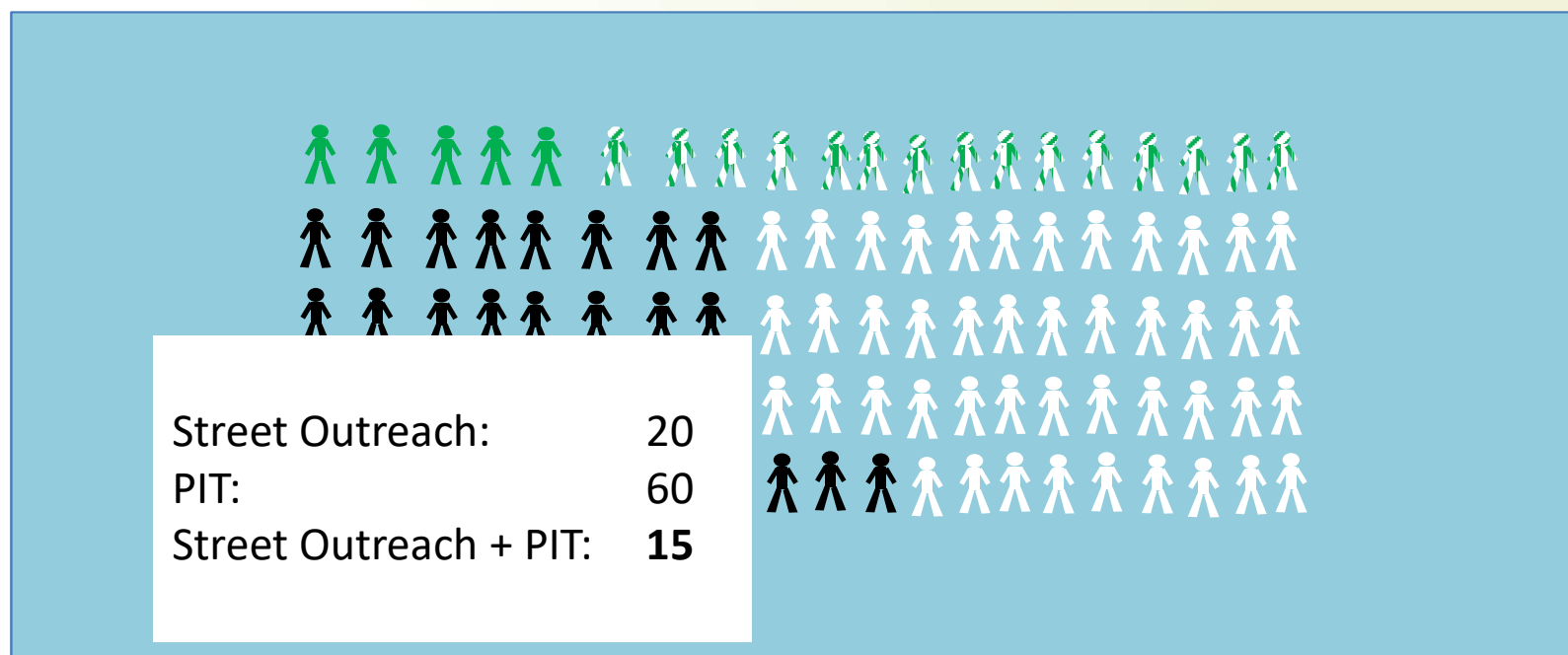
100 is best estimate of total homeless Population



Method May Not Work That Perfectly

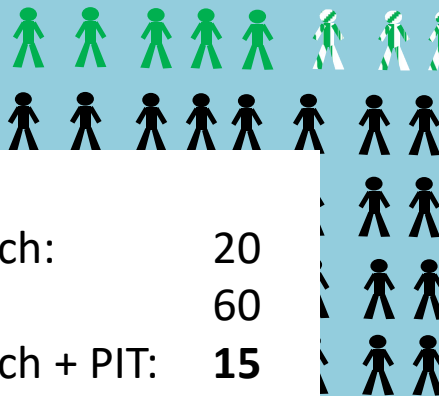


Method May Not Work That Perfectly





Method May Not Work That Perfectly



Street Outreach: 20
PIT: 60
Street Outreach + PIT: 15

SO Enrollees are $15/60 = 25\%$ of population:

Total Population * 25% = Street Outreach

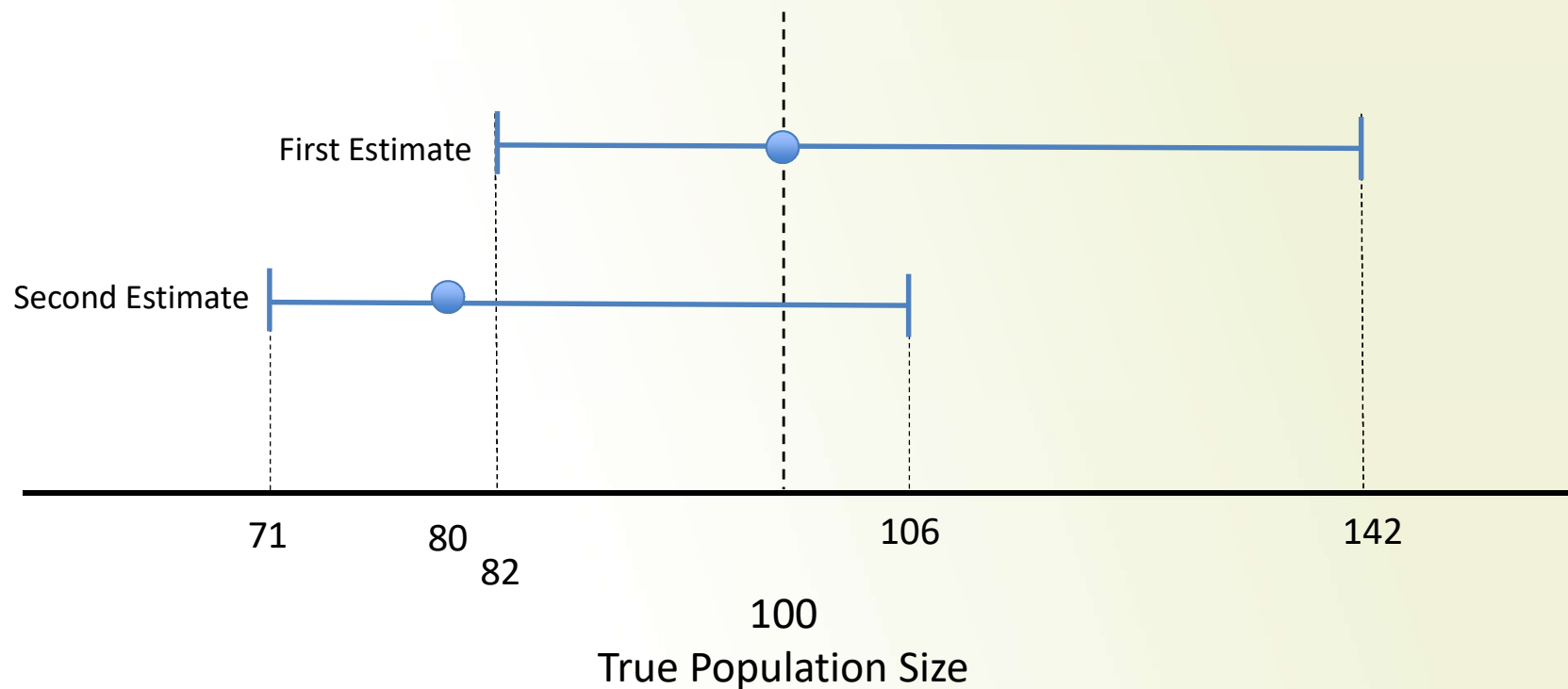
Street Outreach / .25 = Total Population

$$20 / .167 = 80$$

80 is best estimate of total homeless Population



Confidence Intervals of Estimates





Using Method to Verify PIT Count

- Verify that clients in Street Outreach Programs are literally homeless on the PIT Count night
- Gather minimal information in PIT survey to de-duplicate individuals
 - First two letters of first and last name
 - Month and day of birth
- Find number of clients on three lists
 - A. Street Outreach enrollees verified to be literally homeless
 - B. PIT Count surveys that include deduplication data
 - C. Clients on Both Lists
- Total homeless population estimate = $\frac{A*B}{C}$



More Advanced Uses: Real-time Estimates

Los Angeles Times

SUBSCRIBE
4 weeks for only 99¢

LOG IN

Nov. 22, 2018, 9:40 a.m.

CAMP FIRE

Number of homes lost in Paradise fire approaches 14,000 as containment increases

Firefighters continued to make progress with California's deadliest fire, with containment rising to 90% but with number of homes burned now at nearly 14,000.

At least 83 people were killed when the fire swept into Paradise two weeks ago, and hundreds are still missing,

Rain helped firefighters, but the weather has made the search for victims more difficult.

"Precipitation has minimized fire activity and all fire lines continue to hold. Firefighters and resources continue to be deployed throughout the fire area to patrol and remove hazards," Cal Fire said Thursday morning.

READ LESS



More Advanced Uses: Example

- Last 3 months of 2018
 - 100 people exit to a place not meant for human habitation
- First 3 months of 2019
 - 250 literally homeless people enroll in programs
- Of the 250 enrollees, 20 had exited in 2018
- Estimate of total homeless population: $\frac{100 \times 250}{20} = \frac{2500}{20} = 2500$



More Advanced Uses: Example

- Last 3 months of 2018
 - 100 people exit to a place of permanent habitation
- First 3 months of 2019
 - 250 literally homeless people enroll in programs
- Of the 100 people who had exited in 2018

literally homeless population: $\frac{100 \times 250}{20} = \frac{2500}{20} = 2500$



Summary

- Combining PIT and HMIS Data overcomes limitations of each data source used in isolation
- Combining data to verify PIT counts is straight forward
 - Require advanced planning
 - But, implementation is simple
- Use of just HMIS data to estimate homeless population is promising but requires further work