

**Project Title:** A CONUS-wide application of KBAABB for formal assessment of PSAE-funded estimates

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**Period of Report:** January 1, 2025 to June 30, 2025

## 1 Progress

This project is off to a good start. The initial algorithm for simulating CONUS scale populations is under review. Initial round of review was “accept with minor revisions.” We are in the process of revising this work and will resubmit within the next few weeks.

In review:

1. White G.W., Wieczorek J.A., Cody Z.W., Tan E.X., Chistolini J.O., McConville K.S., Frescino T.S., and Moisen G.G. Assessing small area estimates via bootstrap-weighted k-Nearest-Neighbor artificial populations. *Forestry*. Preprint at: <https://arxiv.org/abs/2306.15607>

On-going work:

- We are testing SAE zero-inflated models using these simulated populations in WA and NV with FIA-like data.
- We are experimenting with a modified population generating algorithm that adds more realistic local (e.g., with-stand) spatial and temporal dependence.

## 2 Next Period Plans

Continue progress on all points above. Finalize and further document CONUS simulated populations for use by the PSAE community. Organize comparisons using the population benchmark.

## 3 Problems/Delays

None.