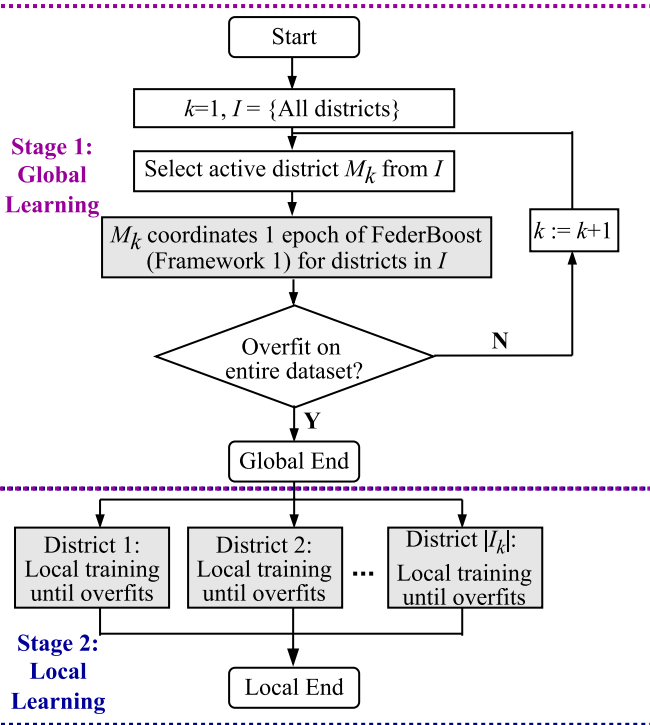**(a) Simultaneous Withdrawal**

(b) Dynamic Withdrawal

Stage 1: Global Learning

Start

$k=1, I = \{\text{All districts}\}$

Select active district M_k from I

M_k coordinates 1 epoch of FederBoost (Framework 1) for districts in I

$k := k+1$

Overfit on entire dataset?

N

Y

Global End

Stage 2: Local Learning

District 1: Local training until overfits

District 2: Local training until overfits

...

District $|I_k|$: Local training until overfits

Local End

Start

$k=1, I_1 = \{\text{All districts}\}$

$I_k = \emptyset$

N

Y

Global End

Select active district M_k from I_k

$k := k+1$

M_k coordinates 1 epoch of FederBoost (Framework 1) for districts in I

Formulate I_{k+1}

District 1: Overfit?

District 2: Overfit?

...

District $|I_k|$: Overfit?

N

N

N

Y

Y

Y

District 1: Withdraw from I_{k+1}

District 2: Withdraw from I_{k+1}

...

District $|I_k|$: Withdraw from I_{k+1}

District 1: Local training until overfits

District 2: Local training until overfits

...

District $|I_k|$: Local training until overfits

Local End

Stage 2: Local Learning

* Shaded blocks indicate training procedures based on GBRTs.