

# ベイス BPT 試算結果（ケースIIIおよびIV）

## ケース表（参考） 南海トラフの地震活動の長期評価（第二版）より抜粋

年	地震名	I	II	III	IV	V
684. 9	白鳳（天武）地震	○	○			
887. 7	仁和地震	○	○			
1098. 1	康和・永長地震	○	○			
1361. 6	正平（康安）地震	○	○	○	○	
1498. 7	明応地震	○	○	○	○	
1605. 1	慶長地震	○		○		
1707. 8	宝永地震	○	○	○	○	○
1855. 0	安政地震	○	○	○	○	○
1946. 0	昭和地震	○	○	○	○	○

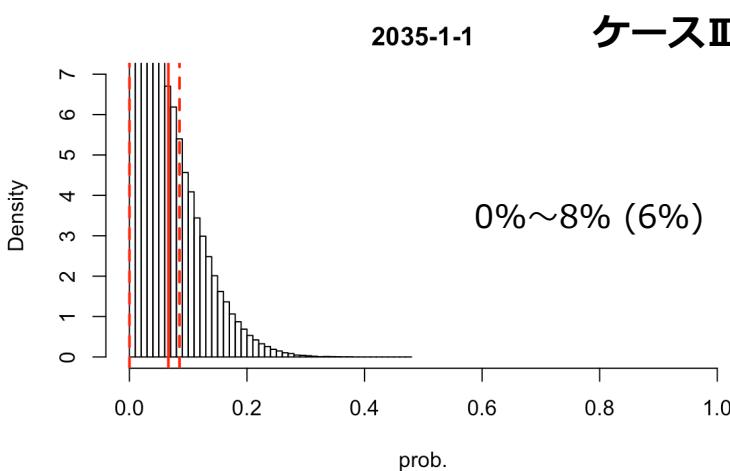
表 4-3 南海トラフで次に発生する地震の発生確率（時間予測モデルを用いない場合）

ケース	平均活動 間隔	今後 30 年間に地震が発生する確率			
		$\alpha$ : 最尤法 ( ) 内は $\alpha$ の値	$\alpha = 0.24$	Poisson 過程	昭和地震 直前の値
I	157. 6	10%程度 (0.40)	3%	20%程度	30%程度
II	180. 1	6% (0.37)	0.6%	20%程度	10%程度
III	116. 9	20%程度 (0.20)	20%程度	20%程度	60%程度
IV	146. 1	10%程度 (0.35)	5%	20%程度	30%程度
V	119. 1	30%程度 (0.34)	20%程度	20%程度	40%程度

2035-1-1

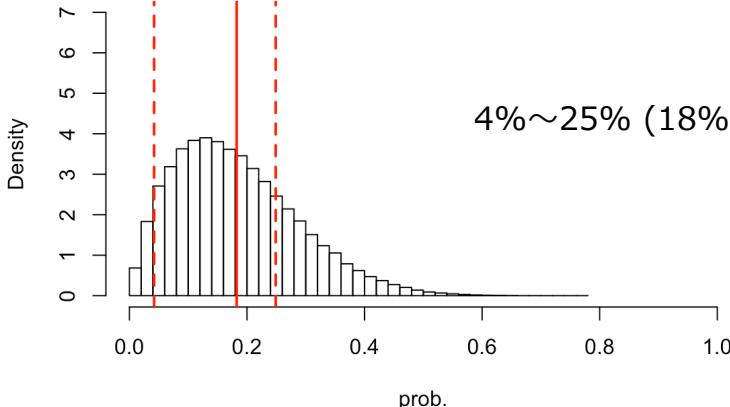
## ケースⅢ

0%~8% (6%)



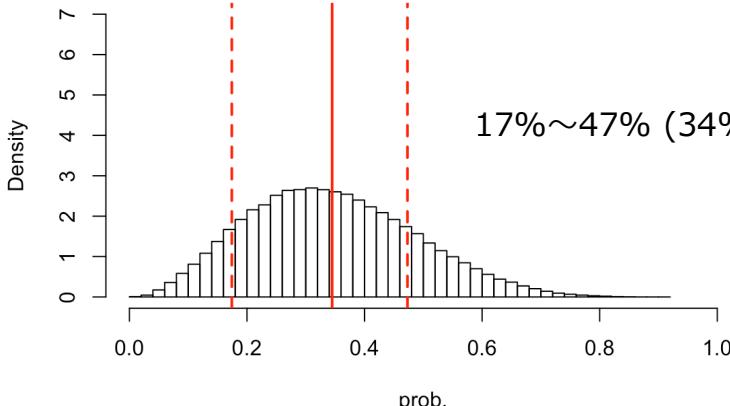
2045-1-1

4%~25% (18%)



2055-1-1

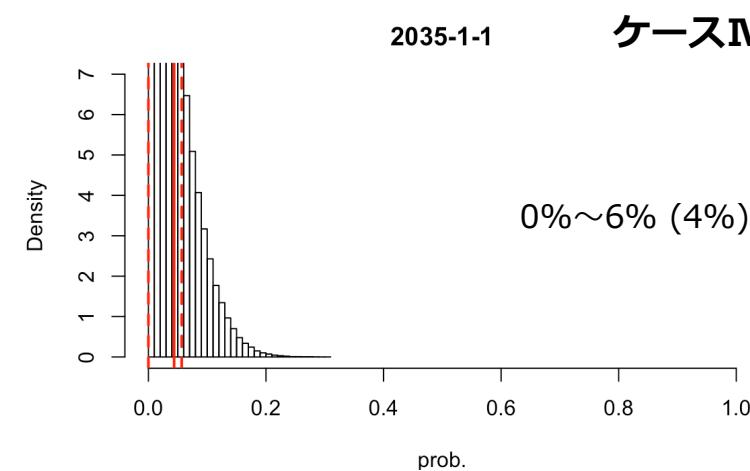
17%~47% (34%)



2035-1-1

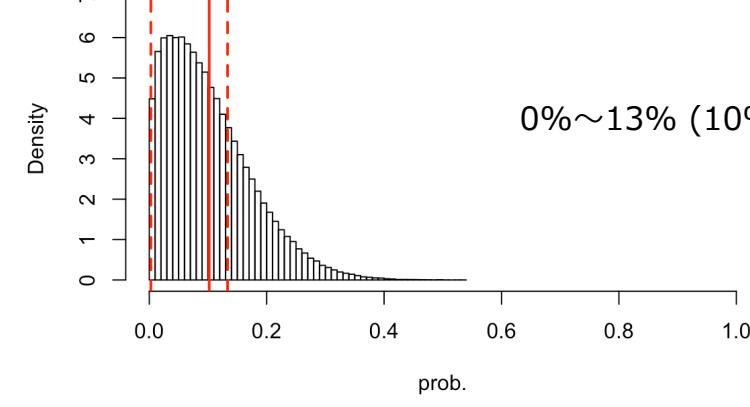
## ケースⅣ

0%~6% (4%)



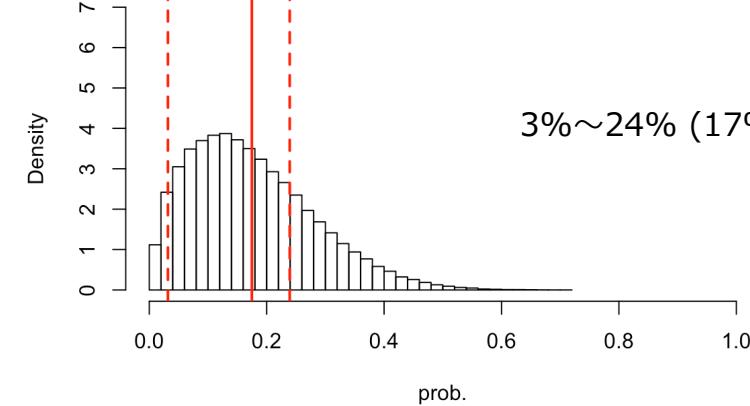
2045-1-1

0%~13% (10%)



2055-1-1

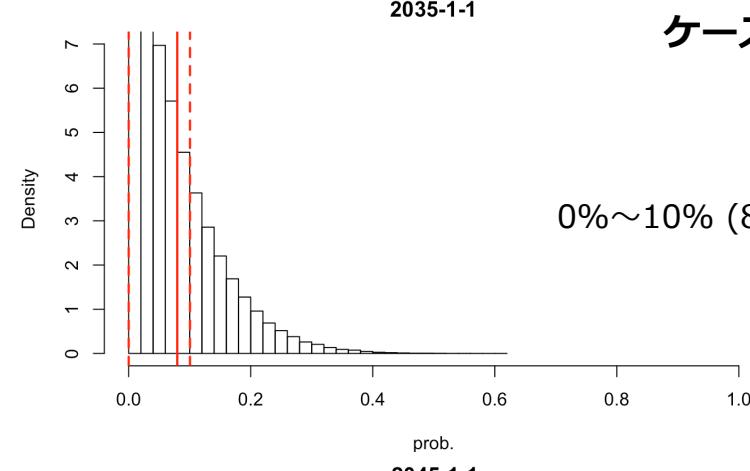
3%~24% (17%)



2035-1-1

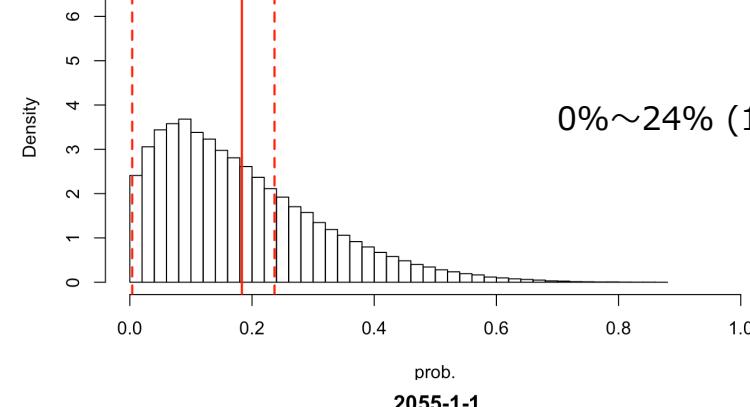
## ケースⅤ

0%~10% (8%)



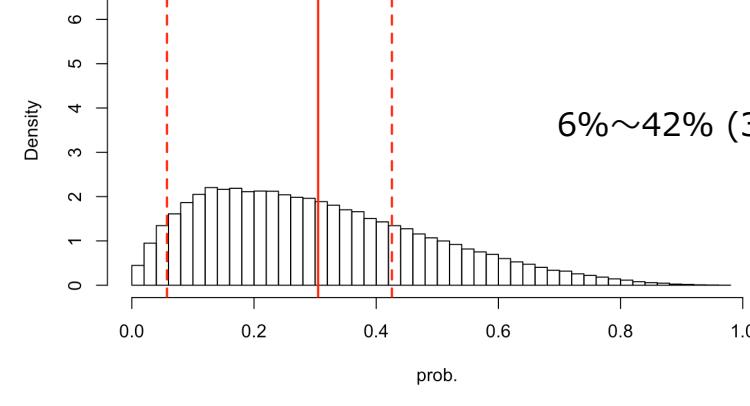
2045-1-1

0%~24% (18%)



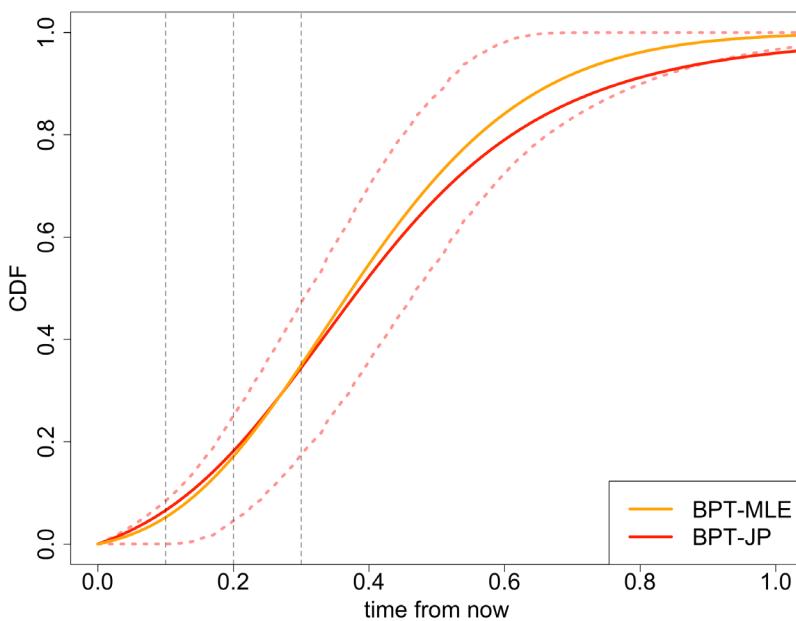
2055-1-1

6%~42% (30%)

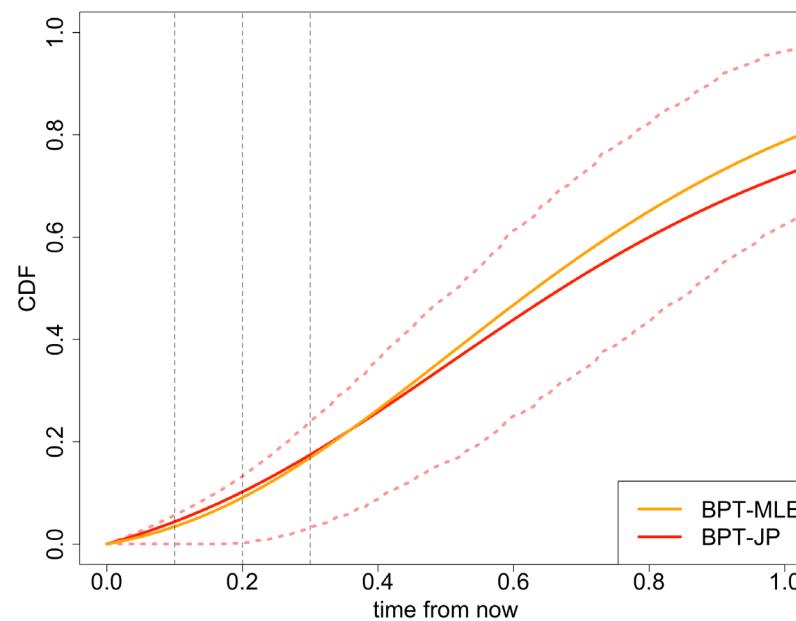


# 経年確率（平均 & 70% 信用区間）

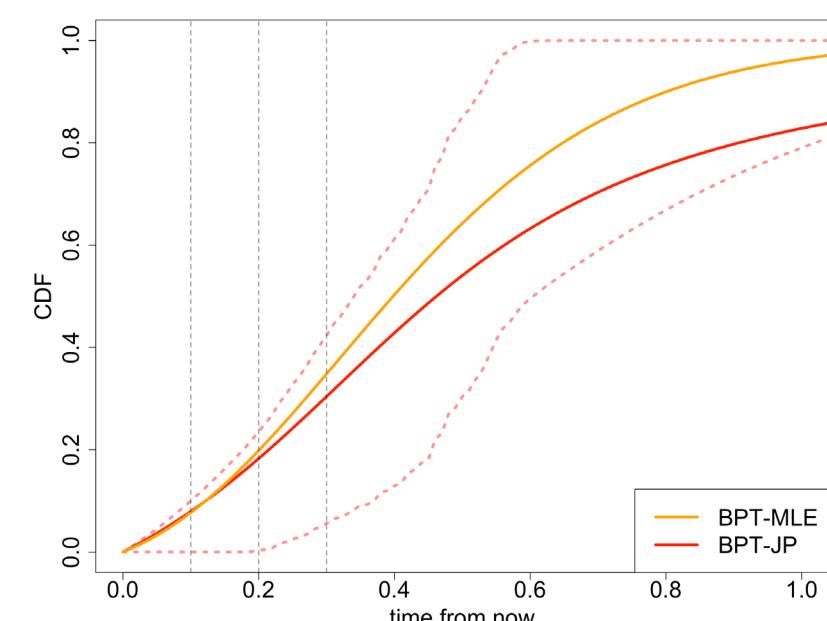
ケースⅢ



ケースⅣ

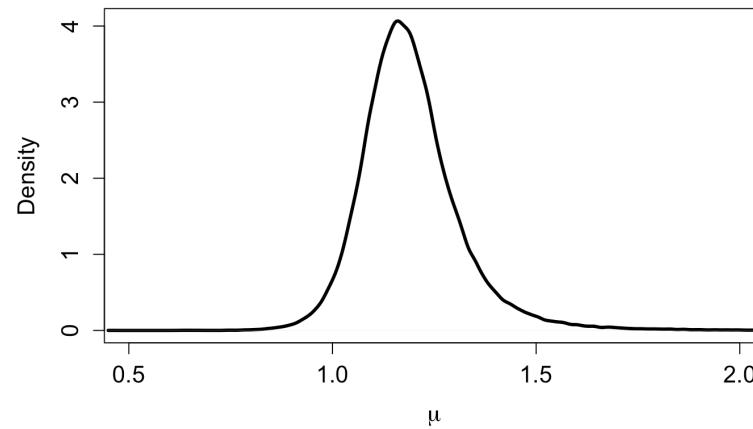


ケースⅤ

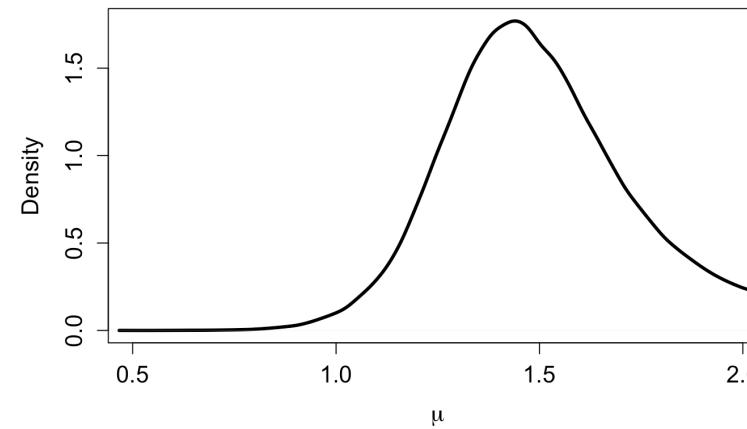


# $\mu, \alpha$ の事後分布

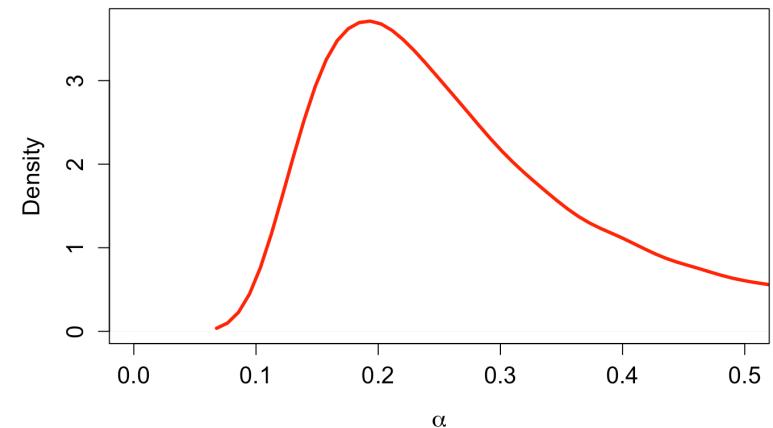
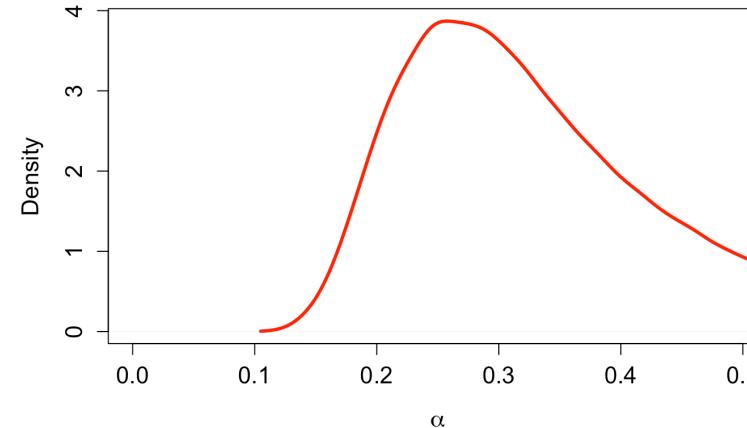
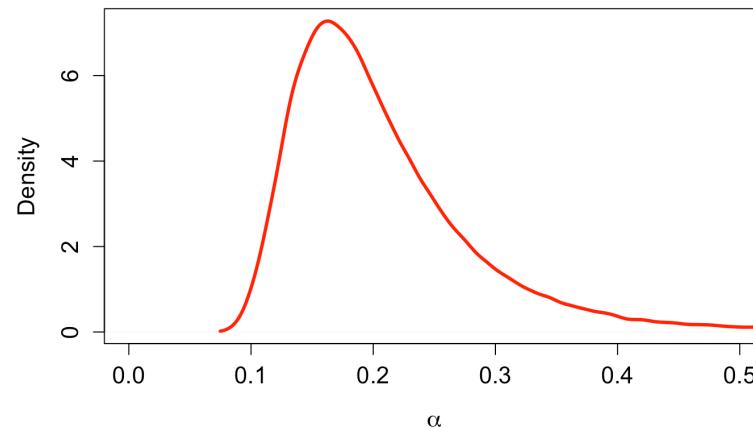
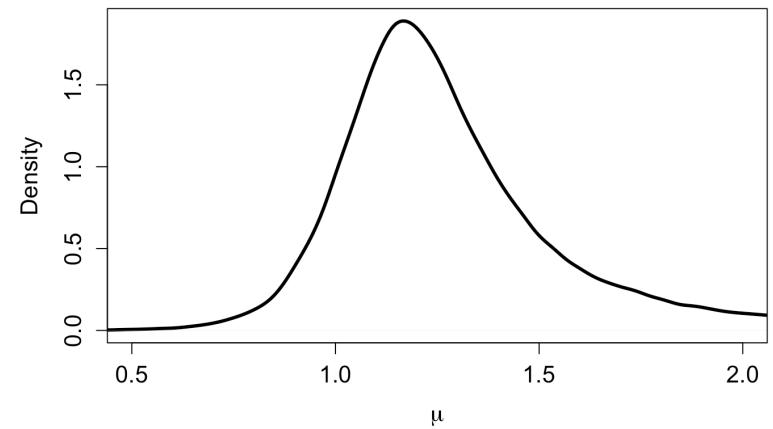
ケースⅢ



ケースIV



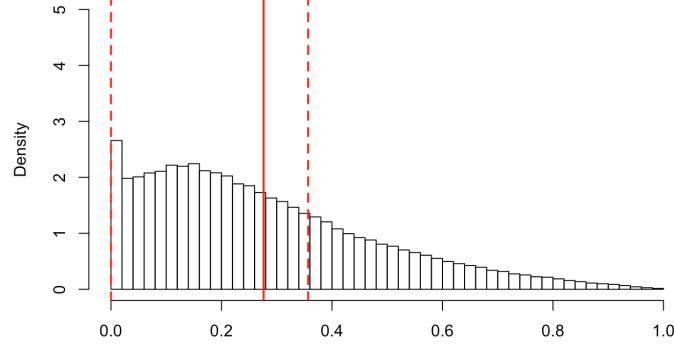
ケースV



# おまけ① (SSD-BPTモデル70%信用区間)

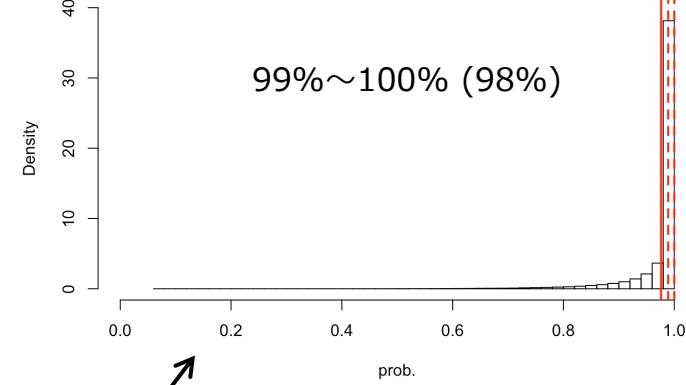
2035-1-1

0%~28% (36%)



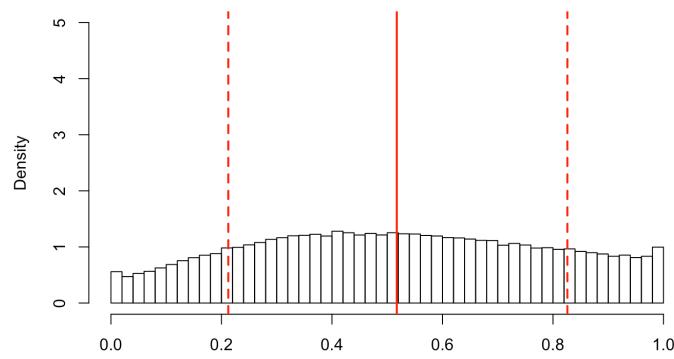
2105-1-1

99%~100% (98%)



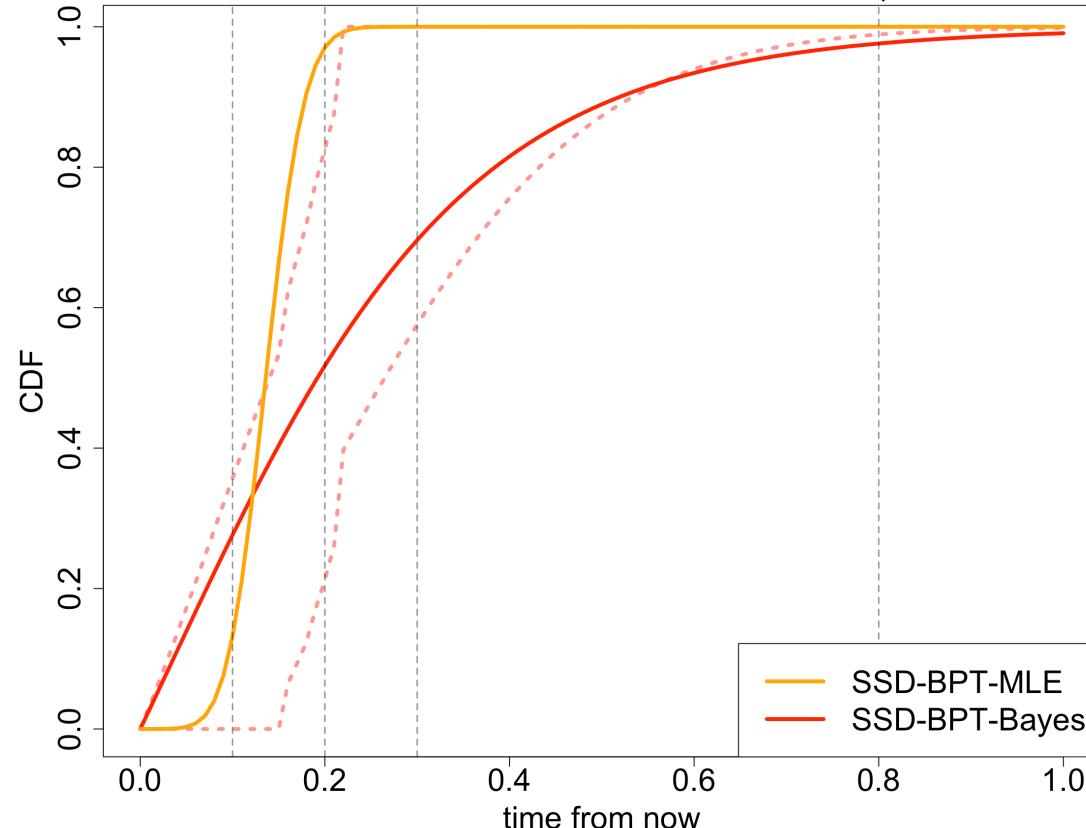
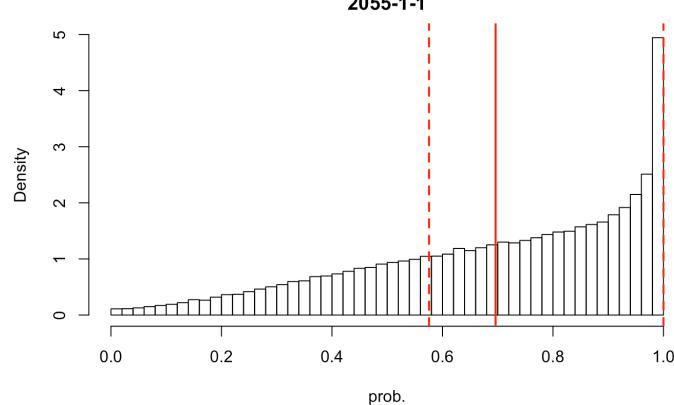
2045-1-1

21%~83% (52%)



2055-1-1

58%~100% (70%)



# おまけ② (30年確率の比較)

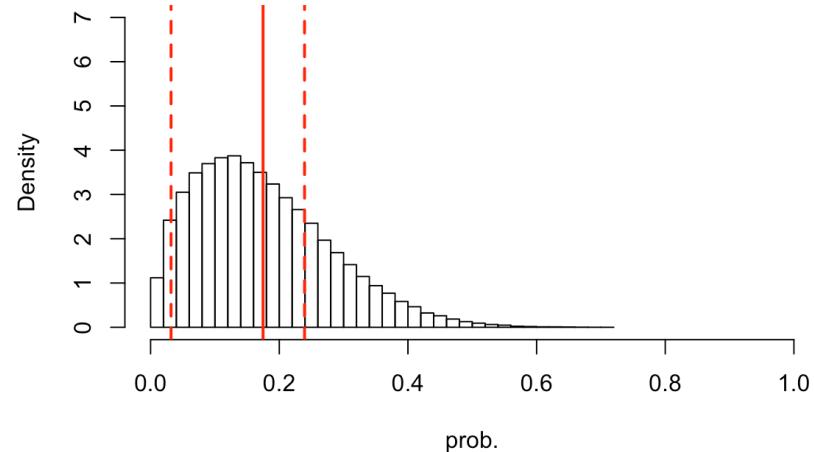
BPT (ケースIV)

3%~20%

3%~24% (17%)

地震本部表記→

2055-1-1

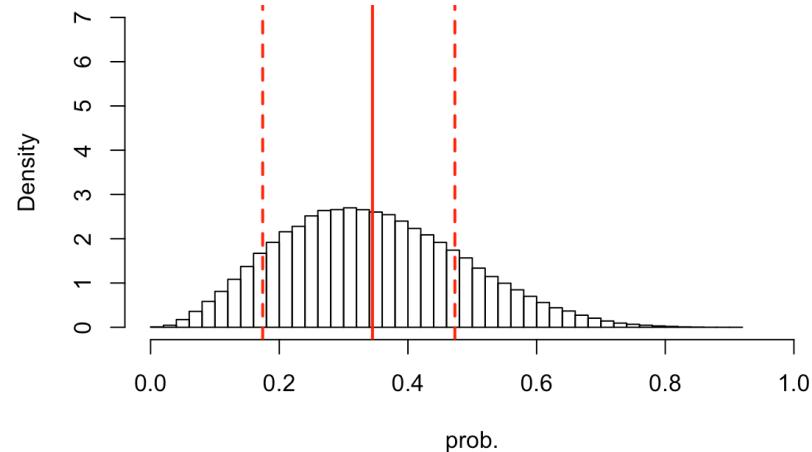


BPT (ケースIII)

20%~50%

17%~47% (34%)

2055-1-1



SSD-BPT

60%~90%程度以上

58%~100% (70%)

2055-1-1

