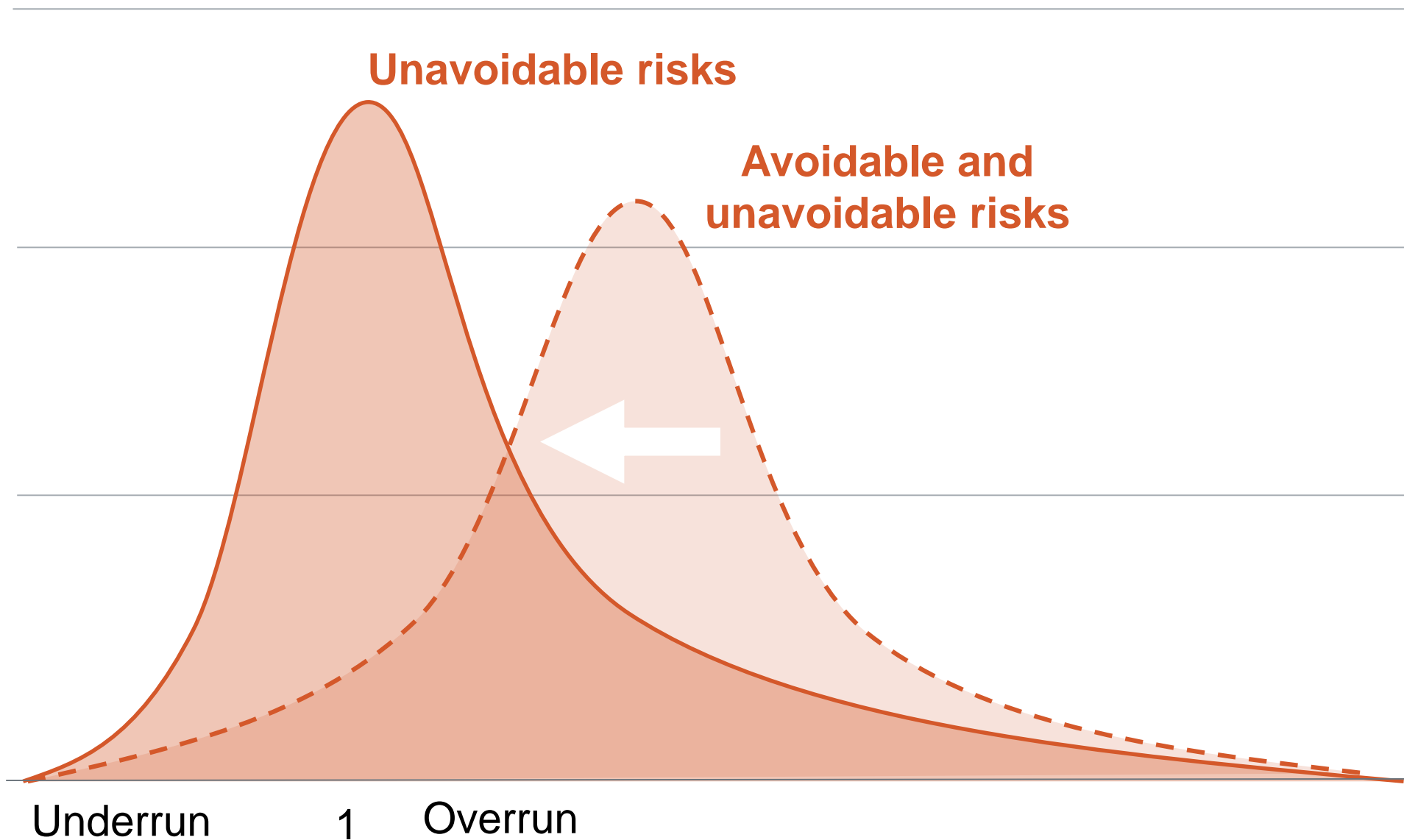


|              | Expected value | Sensitivity analysis | Probability pricing | Reference class forecasting |
|--------------|----------------|----------------------|---------------------|-----------------------------|
| Commonwealth |                |                      |                     |                             |
| NSW          |                |                      |                     |                             |
| VIC          |                |                      |                     |                             |
| QLD          |                |                      |                     |                             |
| WA           |                |                      |                     |                             |
| SA           |                |                      |                     |                             |



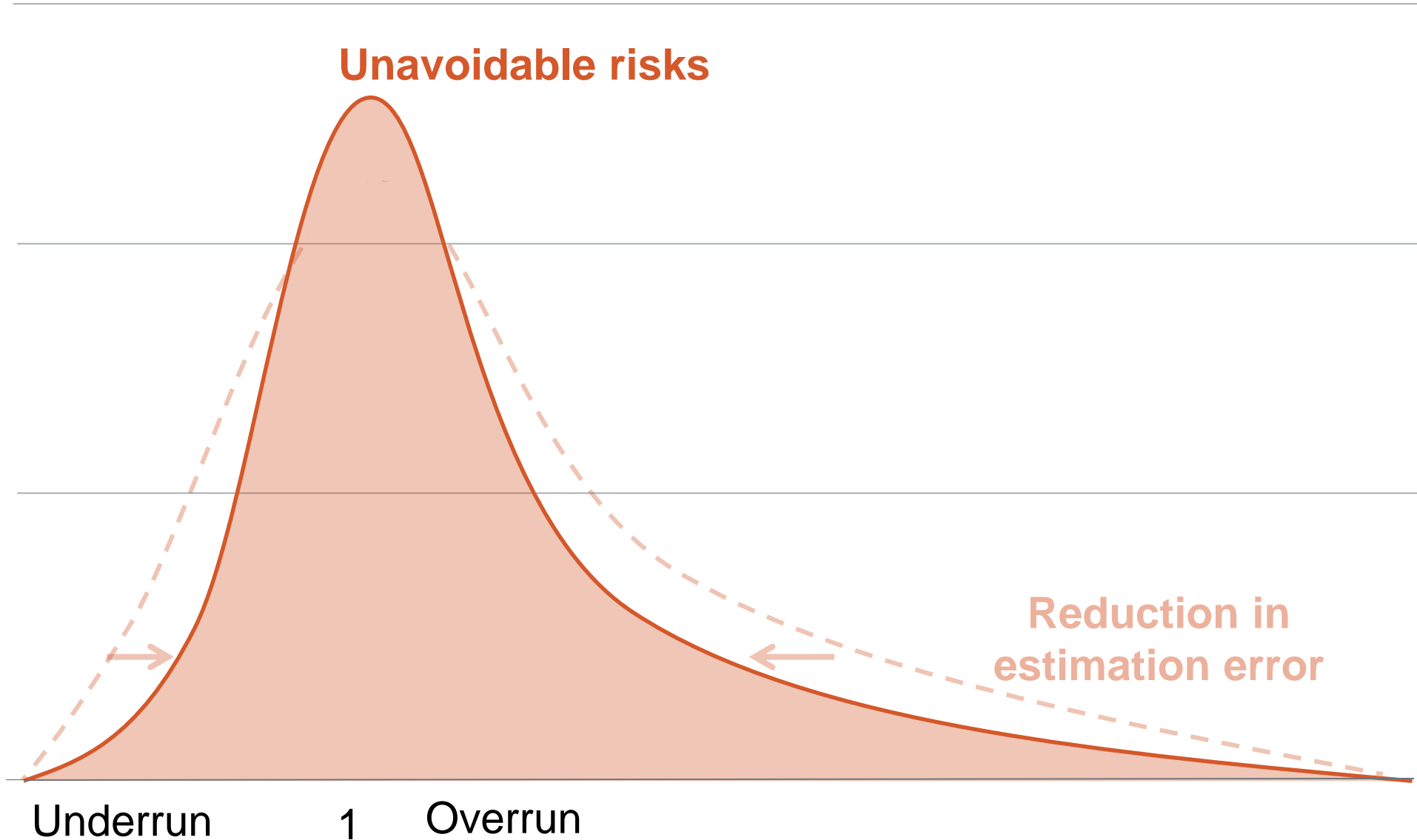
**Unavoidable risks**

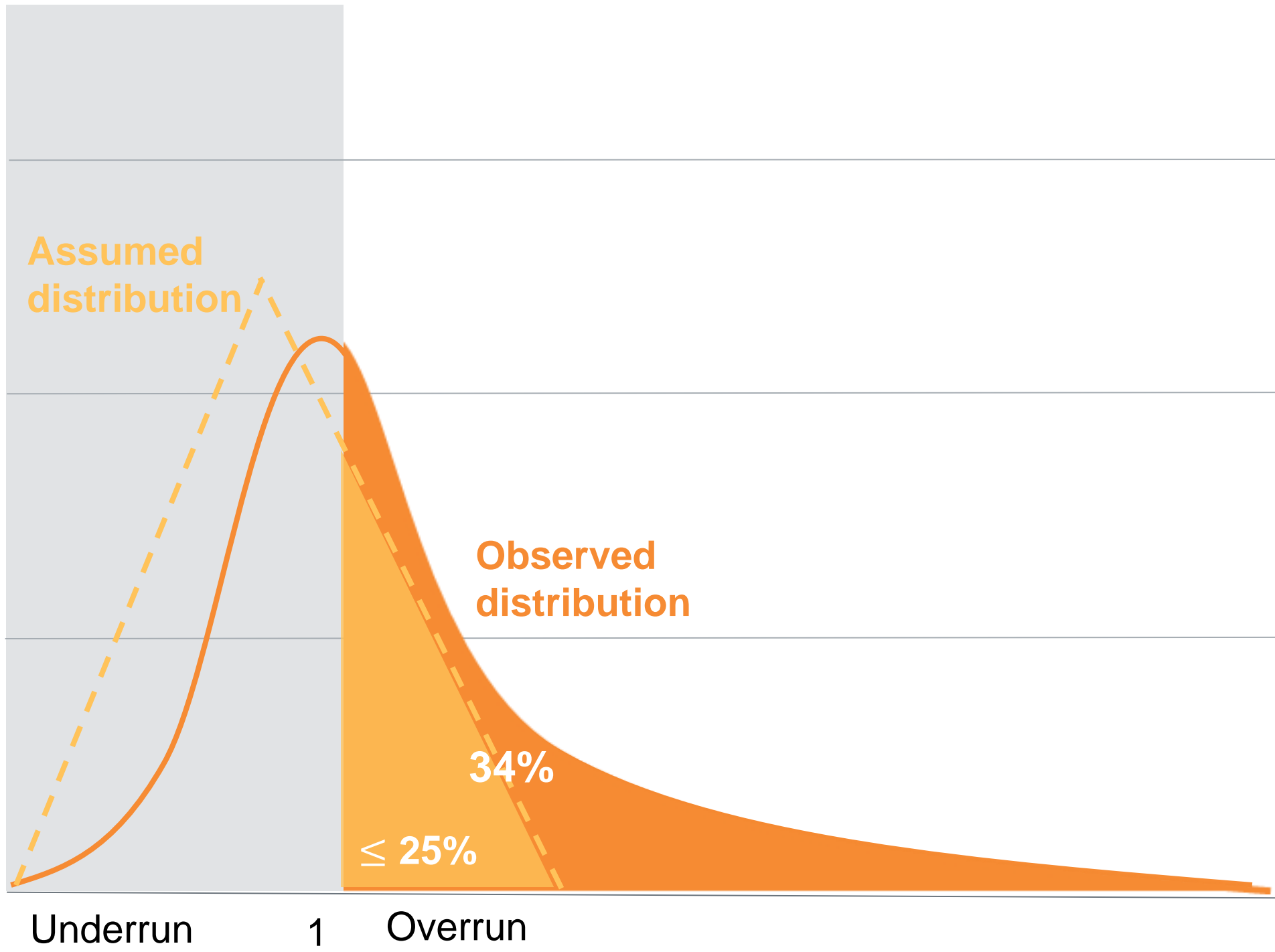
**Reduction in  
estimation error**

Underrun

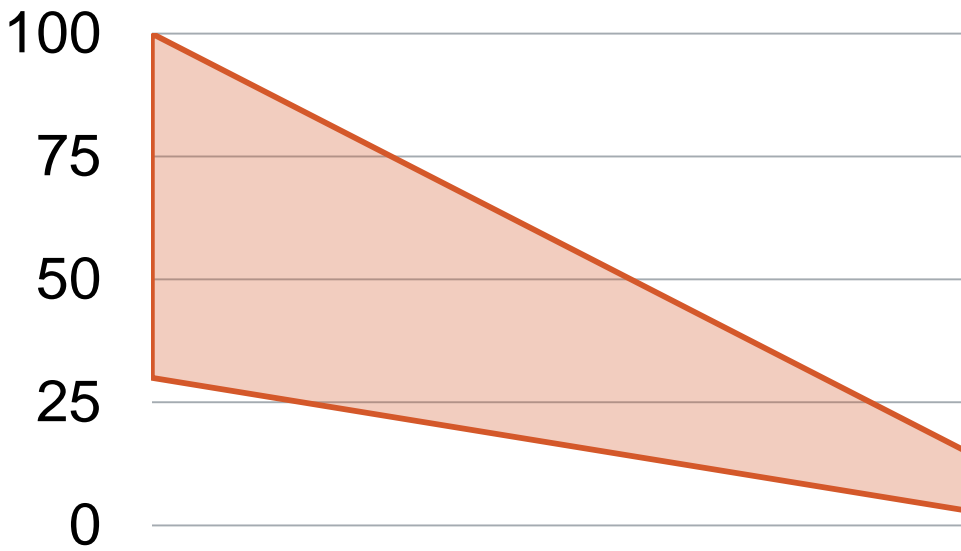
1

Overrun

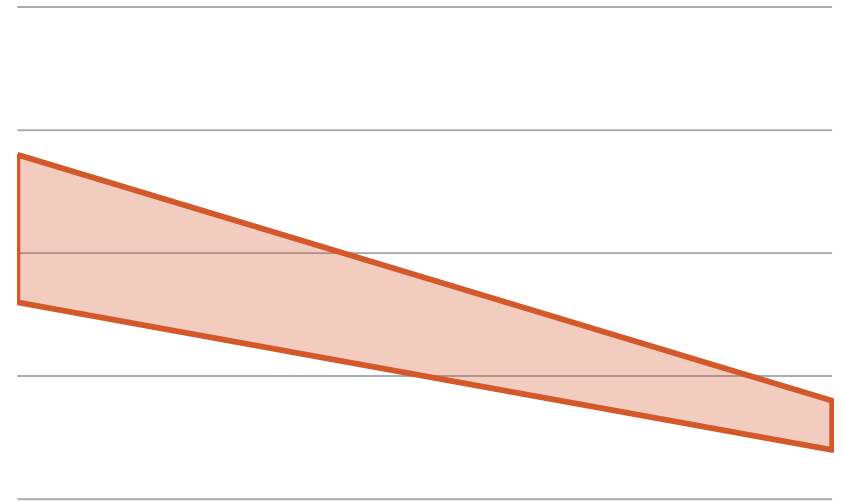




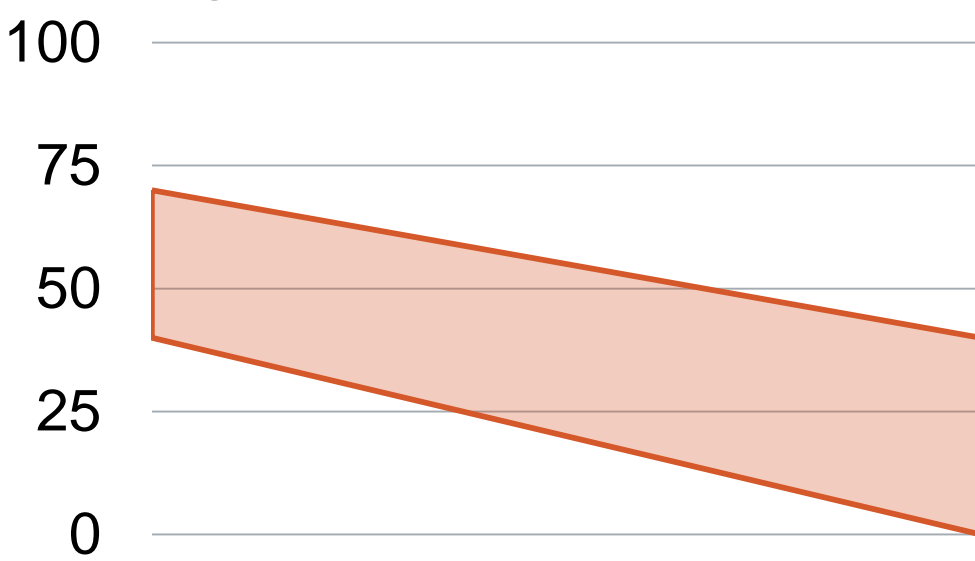
# Association for the Advancement of Cost Engineering



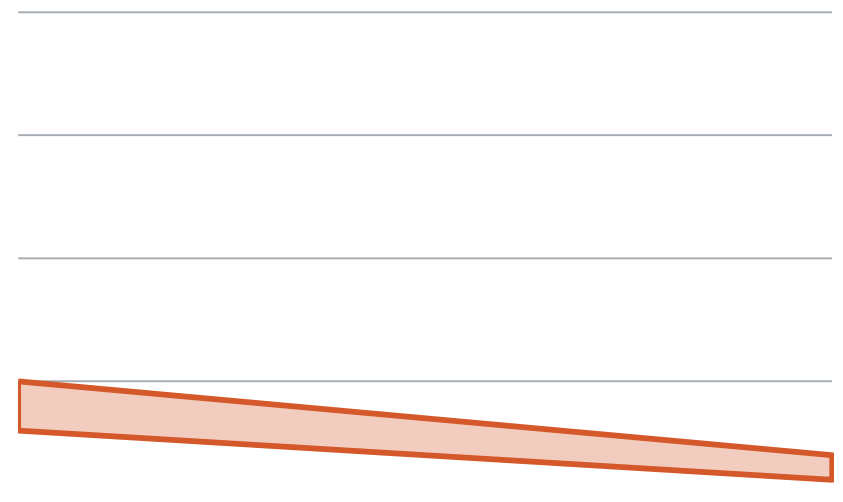
# QLD Department of Transport and Main Roads

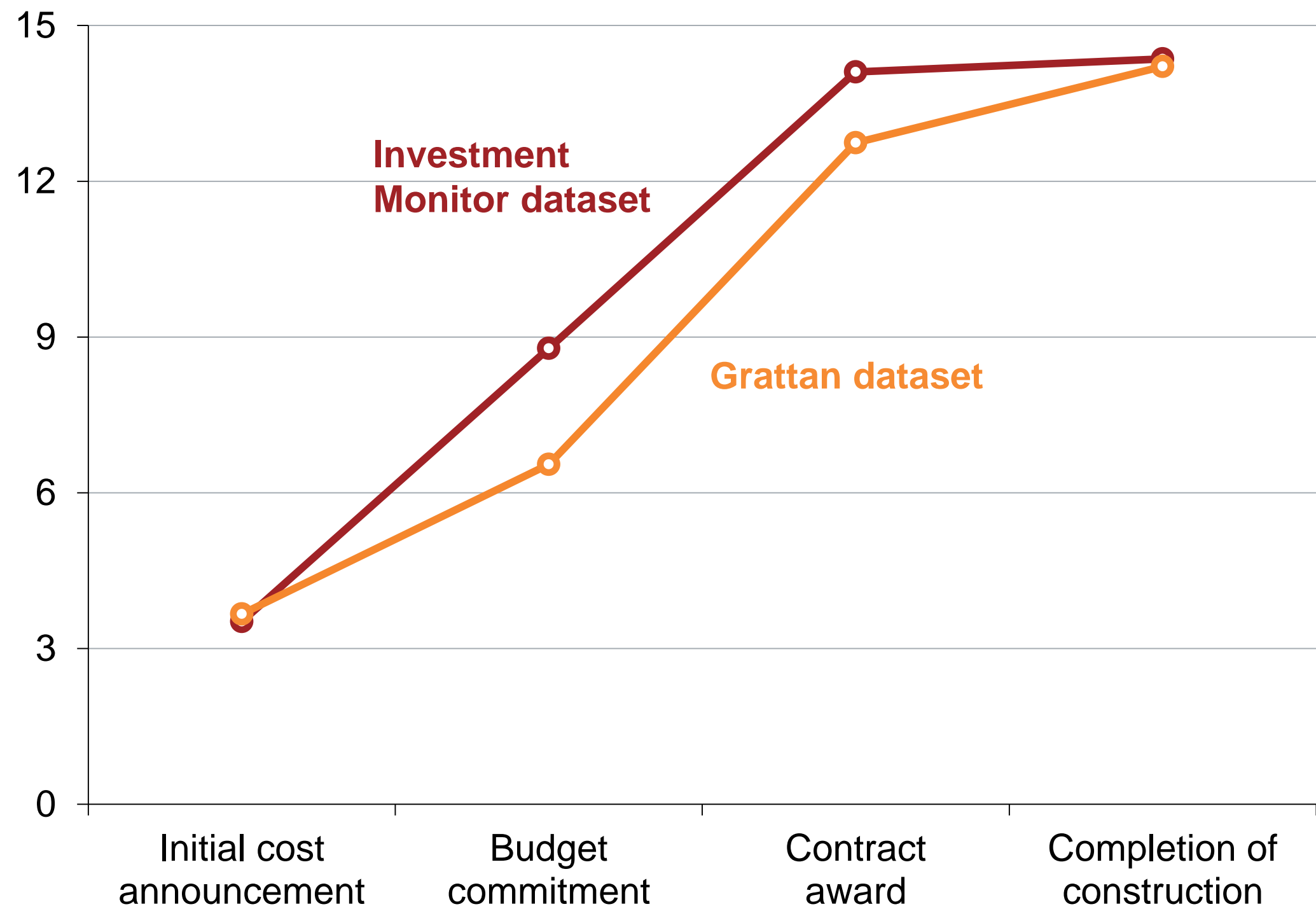


# South Australian Department of Planning, Transport and Infrastructure

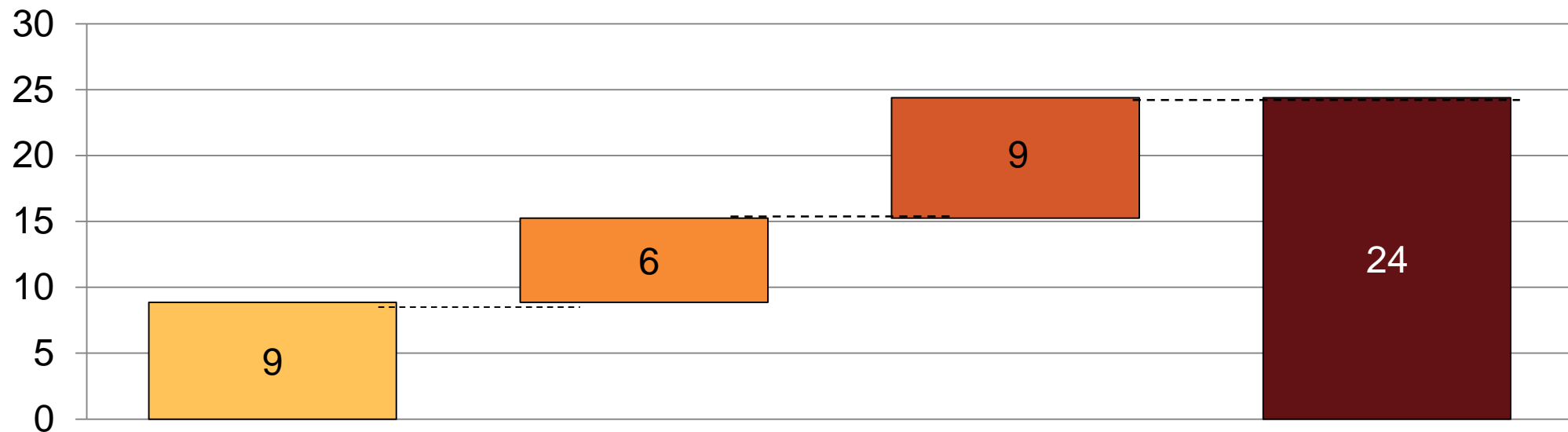


# National Guidelines for Transport System Management

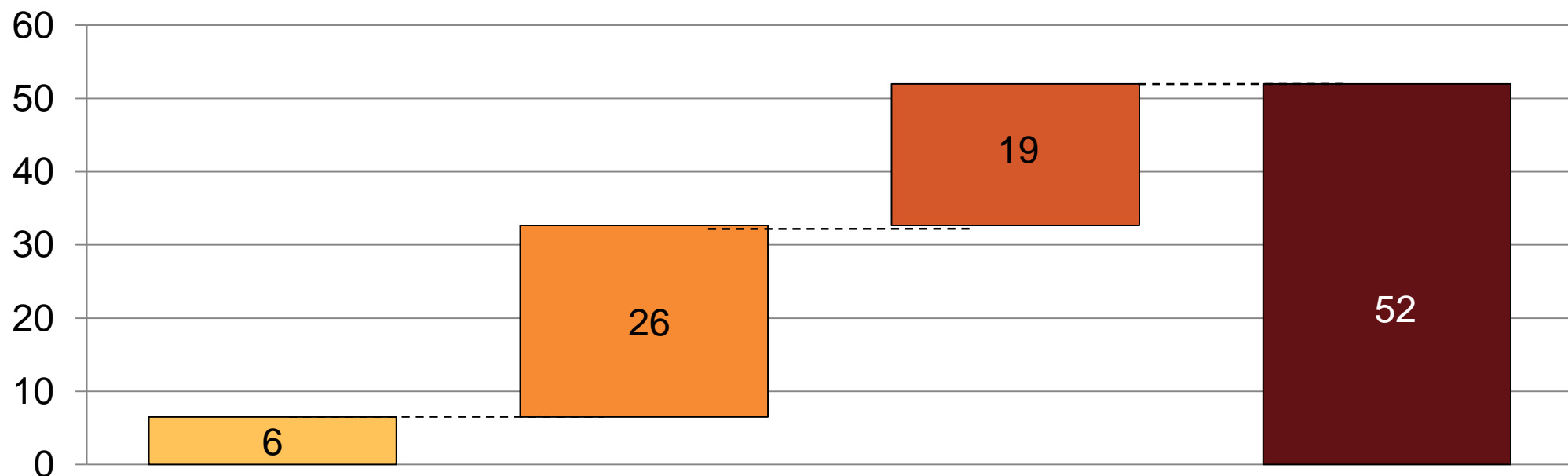




**Investment monitor dataset**



**Grattan dataset**



Initial announcement –  
budget commitment

Budget commitment –  
contract award

Contract award –  
completion

Overall



**Full  
distribution**

Median = P50

Expected value

P90

**Variance**

**50%**

**40%**

**10%**

Underrun 1 Overrun

