

PSAI STANDARDS FOR SPECIAL EVENTS

In the late 1980s, the PSAI and the University of Missouri collaborated on an extensive study to determine the number of portable toilets required on special event sites. The process included field work to determine the time taken by men and women to use the facilities and their likelihood of using the portable restrooms under various conditions.

This information was then used to create a mathematical formula that takes into account the following variables:

- Size of crowd overall and at peak periods
- Gender composition of the crowd
- Length of the event
- Queuing behavior

The PSAI intends to reissue an updated version of the Missouri Study and to introduce a web-based application that will allow portable restroom operators and event planners to more precisely estimate the optimal number of units for given scenarios. Until that occurs, this table provides general guidance on planning the minimum number of units required for special events. It assumes:

- A 50/50 mix of men and women
- No pumping service is provided
- Each guest will use the restroom once every four hours

ONE UNIT PROVIDES
APPROXIMATELY 200 USES

If it will be particularly warm (80°F or higher) or alcohol will be served, increase these numbers by 20 to 30 percent. Also add more units if the event will tend to have a lot of people needing to use the facilities at approximately the same time rather than spaced evenly throughout the day. Don't forget to include the number of volunteers, security people, and vendors who will use the facilities, along with the guests/attendees. Refer to page 78 for information on the required breakdown between standard and ADA-compliant units, and page 42 for information on adjusting these numbers in light of COVID-19 precautions.

	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	9 hr	10 hr
1-50	1	1	1	1	2	2	2	2	2	2
100	2	2	2	2	2	3	3	3	3	3
250	2	2	2	2	3	3	3	3	3	3
500	2	4	4	5	6	7	9	9	10	12
1,000	4	6	8	8	9	9	11	12	13	13
2,000	5	6	9	12	14	16	18	20	23	25
3,000	6	9	12	16	20	24	26	30	34	38
4,000	8	13	16	22	25	30	35	40	45	50
5,000	12	15	20	25	31	38	44	50	56	63
10,000	15	25	38	50	63	55	88	100	113	125
15,000	20	38	56	75	94	113	131	150	169	188
20,000	25	50	75	100	125	150	175	200	225	250
25,000	38	69	99	130	160	191	221	252	282	313

Minimum Number of Hand Wash Stations

NUMBER OF TOILET FACILITIES	HAND WASH STATIONS REQUIRED*
1-10	1
11-20	2
21-30	3
31-40	4
Over 40	1 additional for each 10

*For the purpose of this standard, the required number of hand wash stations are equipped with a minimum of one faucet.