A number of studies have shown that wine judges may be inconsistent in assigning scores in wine tasting. However, few studies have been conducted to examine whether the inconsistency in wine evaluation is affected by different factors in wine competitions. In this paper, we investigate the association between judge agreement and different factors, such as wine variety, flight size, time of wine tasting. The major conclusions are as follows: 1) the major wine variety does not significantly affect judge agreement; 2) flights of small size (less than 10 wines) are associated with lower agreement among judges; 3) flights of moderate or large size (between 10 and 40 wines) do not show a significant difference with respect to judge agreement; 4) judges have consistent (and slightly better) agreement as the process of wine evaluation proceeds, which indicates that fatigue does not affect their performance within the range investigated.