Much attention and not a few dollars are placed on finding the perfect words to describe wine. An entire industry (magazines, books, reviewers, sommeliers and extensive, price-differentiated wine lists) is built on the premise that these words hold value, beyond mere poetic entertainment for the reader. The question of whether such descriptors are useful in discriminating between wines is thus of interest not only to the skeptic of the scientific quantification of taste, but also to the casual buyer or seller of wine.

In prior work, I showed a correlation between certain combinations of descriptors and the price of a bottle, suggesting that wine reviews may be formulated with knowledge of the price in mind. Indeed, substantial research suggests that both laymen and professionals have difficulty in consistently discriminating between wines, and that our enological vocabulary may be over-specified.

Here, I study the dynamics of wine descriptors: which words endure, which are most common, and which most volatile? Are there trends in certain words or certain varietals over time? What is the overall rate of turnover or churn, and are we using the same number of words as we did ten years ago? Finally, can we use this analysis to identify the words that best discriminate between different varietals (and are thus, perhaps, most useful to the consumer)?

To answer these questions, I use a time-series of 10 years of capsule write-ups from a major aggregator of wine reviews. These data comprise more than 20,000 bottles of wine, identified by name, price, region, grape varietal, and review date.

Results of this analysis indicate an average turnover rate of 7.8% of the vocabulary per year in the past decade. After a decline between 2001 and 2004, the rate of churn in descriptors has increased by almost 1% each year since 2004. The number of new words, as well as the total number of words, has been increasing. However, the ratio of new to total words has gone down, suggesting that innovation may be driven in large part by increased verbosity.

Additionally, I present a methodology for classifying individual descriptors according to volatility, and identify words that have been the most and least volatile over the past 10 years. Although they are used approximately as often, cinnamon is much more stable than dusty. I also consider the words with the biggest gain and losses in usage by reviewers, and find that, in general, “dark” words such as chocolate have been losing, and specific, brighter words such as mineral and focused have been on the rise.

Finally, I use volatility and relative volume to identify the words that most distinguish a set of wine varietals, and argue for a simplified vocabulary to make wine descriptions more useful to the consumer (if less enjoyable for the lover of poetic verse).