Report of Yotam Shmargad

I was retained by Ralls & Wille to review and analyze a set of data for a client, Constantine Panousopoulos. The data related to properties in Santa Cruz County, their assessed values for taxation purposes, protests filed to challenge those assessed values, and the results of those protests. I was specifically tasked with searching for temporal variations, patterns, or trends that would demonstrate consistency or variability in proportions of protests that were granted, or not granted, across various metrics. I was also tasked with searching for any indication as to whether the 2019 protest year was significant in any way compared to other years.

Data:

The underlying data was derived from two types of documentation. First, 163 protest documents related to properties owned by Panousopoulos were compiled into a Microsoft Excel document. The relevant variables included information regarding the tax year at issue, the date of the protest, six categories of property value (full cash value and limited property value for the originally assessed values, the owner’s desired values, and the ultimate decision values), the percentage of change from the requested value to the decision value, as well as observations such as “granted in full,” “granted in part,” and “denied in full.”

For this first data set, data cleaning and preparation was conducted. The data was converted into XXX, a format that I could use in the programming language “R.” When certain fields had non-numerical entries, I requested that those fields be converted into a numerical values if at all possible. Attached is a log of changes to the rows during data cleaning, but the following is a description of the types of changes that occurred. The entry “N/C” or “no change” was converted into the numerical value of the original assessed value. For older protests that did not include FCV or LPV, the same number was typed into each category (indicating there was no substantive difference in that variable for that row). For older protests that separated values for “land,” “improvements,” and/or “total,” only a total was used to allow comparison to modern protests. In protest documents that did not challenge the assessed value of the property (such as protests challenging only the property type and corresponding tax rate), the protests were designated to be omitted from the analysis. For protest documents that did not include a decision value, those rows were also designated to be omitted from the analysis. For protest documents that did not include a new requested value by the owner, but did show a reduction, the decision/reduced value was copied into the requested value column, thereby indicating the most favorable outcome for Panousopoulos. Because two rows indicated LPV actually rose from the originally assessed value, the outcome designation of “No Change” was altered to “No Change or Worse,” thereby indicating a completely unfavorable decision. For protest documents that did not include a “tax year,” the tax year was presumed based on the date of the protest filing (in other words, one year was added to determine the tax year). For some of the rows, two documents were provided for the same protest/property/year, in which case data was used from either (1) the document that showed an actual decision, or (2) the document that showed the most favorable decision for Panousopoulos.

The second set of data arose from three Microsoft Excel documents titled “Notice of Value 2014-2015-2016,” “Notice of Value 2017-2018,” and “Notice of Value 2023-2024.” These documents included information regarding the original assessed values for a series of properties. In that data set, I excluded any tables that indicated the properties were not located in Santa Cruz County. This data set included many more properties than the first data set, because only a few properties’ values were protested in any given year. This data was also converted from Excel to XXX to facilitate analysis in “R.”

Measures: