# Summary of Differences Between RAT-STATS 2010 and 2019

### Introduction

The 2019 version of RAT-STATS has been programmed with the goal of replicating exactly the input and output file organization of the 2010 version of RAT-STATS. The results of the new version should match the results of the new version. The new version is designed to be 508 compliant and accounts for several bugs that were causing the older version to crash on newer operating systems. Currently the software is only available on Windows machines; however, we are exploring options to make the software more widely available in the future.

We have been testing the newer software for over a year, and we have had the software reviewed by a third-party contractor. If you identify any issues with the operation of the software, please contact RATSTATS@oig.hhs.gov.

#### **Documentation**

We are currently working on updating the manual for the new RAT-STATS software. The manual for the 2010 version is still applicable in most cases. The organization of the input files and the output files have generally remained unchanged. In a few cases, we have reduced the number of file types that the results can be exported to; however, those changes are directly apparent from the exporting options listed in the new software.

#### **Removed Modules**

Below is a list of modules that have not been included in the 2019 version of RAT-STATS.

- Random Numbers
  - Frames Single Stage
  - o Frames Sets of Two Numbers
- Attribute Appraisals<sup>1</sup>
  - Two-Stage Unrestricted
  - Three-Stage Unrestricted
  - Two-Stage RHC
  - Three-Stage RHC
  - Stratified Cluster
  - Stratified Multistage
- Variable Appraisals<sup>2</sup>
  - Three-Stage Unrestricted
  - o RHC Three-Stage
  - Poststratification
  - Unknown Universe Size

<sup>&</sup>lt;sup>1</sup> The RAT2010 attribute appraisal results can be replicated in 2019 using the variable appraisal modules where any item with the characteristic of interest is coded as 1 and any item without the characteristic of interest is coded as a 0.

<sup>&</sup>lt;sup>2</sup> We removed these modules because we did not have any record of their use within the OIG in the past 5 years.

## **Example New Features**

Below is a list of some of the features that are new to the 2019 version of RAT-STATS.

- Option to calculate a confidence interval using the empirical likelihood<sup>3</sup> approach for unrestricted and stratified variable appraisals.
- Option to generate custom confidence levels in the Unrestricted Attribute and Stratified Attribute Appraisal modules.
- All functionality of the content is operable through a keyboard interface without requiring specific timings for individual keystrokes.
- All non-text content that is presented to the user has a text alternative that serves the equivalent purpose
- Color is not used as the only visual means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.
- Images of text are only used for pure decoration or where a particular presentation of text is essential to the information being conveyed.
- If keyboard focus can be moved to a component of the page using a keyboard interface, then focus can be moved away from that component using only a keyboard interface.
- Any keyboard operable user interface has a mode of operation where the keyboard focus indicator is visible.

<sup>&</sup>lt;sup>3</sup> For more information about the empirical likelihood approach see Chen, J., Chen, S., & Rao, J. N. K. (2003), "Empirical Likelihood Confidence Intervals for the Mean of a Population Containing Many Zero Values", *The Canadian Journal of Statistics*, 31 (1), 53 - 67.