## **Quantile Dea Packages**

Note: Two R qDEA packages ("qDEAC" and "qDEA" have been placed on this site. The author recommends that the user use the "qDEAC" unless is unable to install the package "clpAPI" on their system. All files to install qDEAC on a windows 10 or 11 system are provided on this webpage. (For MAC or LINUX operating systems see note below).

If the user is unable to install "clpAPI" on their system, the alternative package "qDEA" is provided as it allows the user to use 'clpAPI', 'highs', 'glpkAPI', or 'Rglpk' as an LP solver. The "qDEA" package usually takes somewhat (sometimes substantially) longer to obtain the same results obtained using "qDEAC". The "qDEA" package is still under development as the author continues to work on improving the performance of the package with the highs, glpk, and Rglpk solvers. Work also continues on adding additional solver alternatives such as Lindo, Gurobi, CPLEX, etc.

The following excerpt from provided script

"Run0-install-necessary-packages-qDEAC.R"

discusses the clpAPI issue in more detail.

```
# The R package clpAPI is required by the package "qDEAC". The R package clpAPI
# is no longer on CRAN but can installed using procedures and code avilable on
# github site: https://github.com/ArmstrongJ/clpAPI/
# Linux systems:
# click on the BUILD-Linux.md which takes you to page:
# https://github.com/ArmstrongJ/clpAPI/blob/main/BUILD-Linux.md
# MAC systems
# click on the BUILD-macOS.md which takes you to page:
# https://github.com/ArmstrongJ/clpAPI/blob/main/BUILD-macOS.md
# Windows systems: R-4.2.1 or higher required
# Install clpAPI using binary file "clpAPI 1.4.1.zip" process described below
# or by running:
install.packages("https://github.com/ArmstrongJ/clpAPI/releases/download/1.4.1/clpAPI_1.4.1.zip", type="win.binary", repos=NULL)
# qDEAC package
# For Linux or MAC:
# Download and install the package source file: "qDEAC 1.0.0.tar.gz"
# Windows systems:
# Install qDEAC using binary file "qDEAC_1.0.0.zip" in dropbox folder.
# Easiest to do this from RStudio:
# (1) Select Packages tab
# (2) Select Install
# (3) Select Install from: Package Archive File
# (4) Click Browse and Navigate to folder containing "qDEAC 1.0.0.zip" and select it
# (5) Select Install
```