# Testing the Equality of Two Survival Functions with Doubly Truncated Data

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## Abstract

Recently, several algorithms, such as Turnbull (1976) and Efron and Petrosian (1999), have been derived from the likelihood function to estimate the survival function based on doubly truncated data. However, the nonparametric methods for comparing two survival functions have not been developed. Therefore, this paper proposes one test statistics based on the integrated weighted difference between two estimated survival functions to test the equality of two survival functions for doubly truncated data. The comparative results from a simulation study are presented and the implementation of this method to Taiwan's building lifetimes data set is presented.