

Quick Questions 22 Nonparametric Hypothesis Testing of Ordinal Data Part II

- I. Linda is tracking the number of work days missed by employees before and after taking part in the company-sponsored lunchtime physical fitness program. This problem first appeared on page 101. At that time it was assumed the populations were approximately normal. If this assumption is not correct, a paired difference sign test may be conducted at the .10 level of significance to determine whether median work days missed has changed.

Employee Absenteeism and Company Sponsored Physical Fitness							
Employee	A	B	C	D	E	F	G
Before	8	9	6	8	3	4	5
After	6	7	5	6	5	2	5

- II. The page 112 ANOVA high school and college grades study assumed the populations were normally distributed with equal variances. These assumptions are not true or unknown. Conduct a .05 level of significance Kruskal-Wallis test to determine the equality of treatment median grades. Page 112 data has been increased to conform with the $n \geq 5$ test requirement.

Analysis of College Grades Based Upon High School Grades					
High H.S. Grades T_1		Medium H.S. Grades T_2		Low H.S. Grades T_3	
College Grades	Rank (R_1)	College Grades	Rank (R_2)	College Grades	Rank (R_3)
3.4		3.2		2.1	
3.5		2.8		2.5	
3.1		3.0		2.7	
3.3		3.1		2.3	
3.6		2.9		1.8	