

# **Dr. William Howland**

## **TAKS Correlation Analysis**

Dr. William Howland, professor of math at St. Thomas University at the time of his reports, produced several analytical reports for George Scott. Two of the reports are referenced here because they directly relate to correlation analysis involving TAKS scores, PSAT scores, and classroom grades in Katy I.S.D. Dr. Howland, who is now retired, had working experience in participation and evaluation of public education issues.

### **TAKS PERFORMANCE CORRELATION WITH PSAT MATH**

Data from “Tracking Math Course.xls” were copied to a working file, then all middle school data was eliminated as were ALL cases which did not have TAKS or PSAT math scores. Linear correlation and regression were used in an attempt to predict PSAT math scores from TAKS scores. A series of regressions for all the students at 50% mastery or above on TAKS or above using SPSS 14 was performed.

- There are very strong correlations present in the cohort of students with low content mastery on TAKS Math and PSAT Math scores.
  - While doing poorly on the TAKS up to the range of 60% content mastery (Constitutionally general equity passing level incidentally) quite accurately predicts doing poorly on the PSAT.
  - As the cohorts of students rises at or above the 70% content mastery on TAKS, the relationship between TAKS mastery and PSAT performance declines dramatically as TAKS scores rise.
    - Relationships between TAKS mastery and PSAT decline sharply between 65% and 80%.
    - Relationships between TAKS mastery and SAT scores from 85% to 99% decline further prompting Dr. Howland to conclude:
      - **At higher levels of TAKS mastery, “...the TAKS has almost nothing to do with the PSAT math score...**