



# NEVADA STATE HIGH SCHOOL EXECUTIVE BRIEF

NSHS School Administration Data Analysis of School and Student Progress

November 2014

Nevada State High School (NSHS) is an early college high school where 11th & 12th graders attend real college classes as real college students while obtaining the support they need to succeed. The Executive Brief series are data summaries that have been prompted by stakeholder questions.

## Question & Methodology:

### What is the correlation between WorkKeys® Applied Math and the ACT® Math?

Previously (Oct. 2014), NSHS observed a strong 0.766 correlation between the average WorkKeys® scores and the composite ACT® scores. In this issue, analysis show data on students who took both exams (WorkKeys® Applied Math and ACT® Math) resulting in a data set of 386 students with a strong positive correlation of approximately 0.730.

NOTE: Data analyzed for first time test-takers taking the WorkKeys® Applied Math (typically taken during the first week of starting the school) and the ACT® math exam (typically taken late fall or spring of the same school year).

*“To support our students in a college environment with personal, academic an social skills.”*

*NSHS Mission*

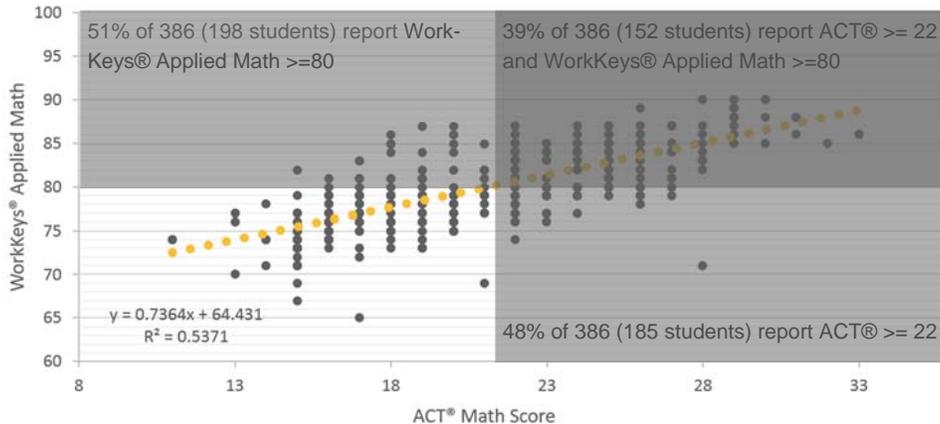


Chart 1: ACT® Math versus WorkKeys® Applied Math Scores (386 students)

### ACT® math correlated with WorkKeys® Applied Math

- Strong correlation of approximately 0.730
- 39% of students show: WorkKeys® Applied Math  $\geq 80$  & ACT® math  $\geq 22$
- 48% have an ACT®  $\geq 22$

## Summary & Best Practices:

Nevada State High School (NSHS) has been working with colleges in Nevada that place students with an ACT® math score of 22 or higher in a college level math courses (MATH 120 or higher). Most students entering NSHS have never taken the ACT® resulting in students taking an abbreviated version of the SAT® college math placement exam called Accuplacer®. NSHS has administered the WorkKeys® as a pretest, and data indicate that 39% of 386 (152 students) who scored an 80 or higher on Applied Math WorkKeys® ended up scoring 22 or higher on their ACT® Math later in the school year. Of these 152 students, 98 (65%) were required to take remedial math courses upon entering the school based on their Accuplacer® score. Overall, NSHS has an incoming 84% remediate rate.

Cost Analysis: If NSHS gave the ACT® exam at approx. \$40 per person to the 143 students (198 students  $\geq 80$  on WorkKeys® Applied Math minus 55 students who placed into college level math using Accuplacer®) who were placed into remedial, it would equal \$5,720. The alternative is for these 143 remedial students to take a 3-credit remedial math class (tuition (\$250), books (\$100), fees (\$10)) equaling \$51,480. However, data indicate that 98 students (68.5% of 143) scored ACT® Math of 22 or higher and are the only subjects to consider for cost savings for non-remedial courses. Calculating class tuition on only these 98 students gives a total of \$35,280 and an overall benefit of \$29,560 (\$35,280 - \$5720).

Knowing there exists a strong positive correlation between the ACT® Math and WorkKeys® Applied Math (0.730) gives the school and others the ability to target certain students to take an earlier administration of ACT® Exam for higher college course placement. This is a potential savings of time and money for schools and students.

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