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# **The Student to Counselor Ratio: Does it Matter?**

Susan A. Carrell, NCC

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## *Introduction*

Public schools today continue to face a myriad of challenges including meeting the needs of students with learning disabilities, managing disruptive students in the classroom, dealing with bullying behavior, and reaching underachieving students. Research suggests that school counselors and other student support service personnel can have a positive impact on improving students' academic outcomes (Sink & Stroh, 2003; Lapan, Brigman & Cambell, 2003; Boutwell & Myrick, 1992; Gysbers & Sun, 1997; Lapan, Gysbers & Petroski, 2001; Webb, Brigman & Cambell, 2005). This impact however, is minimized when many schools across the country assign one school counselor to as many as 1000 students. Furthermore, some districts offer no counseling services at the elementary school level. The American School Counselor Association (ASCA, 2005) recommends a ratio of 1 counselor to 250 students. The California Department of Education (2003) recommends a ratio of 1 to 834 for elementary school, 1 to 461 for middle and junior high, and 1 to 364 for high school. Such a variation in the recommended ratio raises the question of what is an adequate student-to-counselor ratio. A paucity of research has been done on this important topic, and Carrell and Carrell's (2006) study offers one of the first pieces of empirical evidence on the effects on student outcomes when the student-to-counselor ratio is decreased.

## *Method*

To assess the benefit of additional school counselor resources on student outcomes, Carrell and Carrell (2006) examined elementary schools in Alachua County, Florida, in which graduate students from the University of Florida's Counselor Education were completing their practicum or internship placements. Elementary school discipline records from 1995 through 1999 were used to determine the effect of lower student-to-counselor ratios on student discipline outcomes. Data were collected from 23 public elementary schools where disciplinary records were recorded by incident type and date.

Carrell and Carrell (2006) estimated a series of fixed effects models using disciplinary outcomes as the dependent variable and the student-to-counselor ratio as the independent variable. The independent variable is computed by dividing the yearly school enrollment by the number of full-time equivalent (FTE) school counselors for each school by semester. The sample student-to-counselor ratio ranged from 249 to 965 students per counselor. Each elementary school in Alachua County is allotted one paid full-time school counselor. In addition, graduate student counselors from the University of Florida's Department of Counselor Education worked intermittently in semester-long practicum or internships alongside the full-time school counselor. The placement of these

student counselors provided the primary source of within school variation across time in the student-to-counselor ratio.

To control for student characteristics, student data were collected on ethnicity, gender, enrollment in a gifted program, learning disabled status, and eligibility for free and reduced lunch. Additionally, to control for within-school differences across time in classroom size, the student-to-teacher ratio was added as an explanatory variable.

### *Results*

Carrell and Carrell (2006) used linear regression models based on district data to generate predictions of the impact of reducing student-to-counselor ratios on disciplinary referrals. The first model in the study looked at differences from semester-to-semester in disciplinary recurrence. Results showed that reducing the mean of 544 students per counselor to the ASCA recommended ratio of 250 students per counselor would predict a 7.4 percent decrease in the probability of a disciplinary recurrence. When student demographics were added to the fixed effect model, results showed that reducing the student-to-counselor ratio to ASCA's recommended ratio would predict a 9.4 percent decrease in the probability of a disciplinary recurrence for black students. This result is even more pronounced for black males, with a 10.8 percent decrease in the probability of a disciplinary recurrence. Students eligible for free or reduced lunch showed a 9.6 percent decrease in the probability of a disciplinary recurrence.

Outcomes are even more pronounced when effects are examined within a given school year. Reducing the mean of 544 students per counselor to the recommended 250 students per counselor results in a 25.5 percent decrease in the probability of a disciplinary recurrence.

To broaden the scope of the study, Carrell and Carrell (2006) employed a second linear regression model using the percent of the student population with at least one disciplinary incident as the dependent variable. When looking at semester-to-semester variation, results suggested that a "100 person increase in the student to counselor ratio would result in a .34 percentage point increase in the fraction of students involved in a disciplinary incident" (2006). This model predicts that reducing the numbers to the recommended ASCA ratio would result in six fewer students with a disciplinary occurrence within any given semester or an 11.8 percent decrease from the mean. When looking at disciplinary occurrences within a given academic year the results are even greater. Reducing the mean student-to-counselor ratio to the ASCA recommended ratio would result in a 59.1 percent decrease in the mean number of students with a disciplinary occurrence (reducing the numbers by approximately 45 fewer students per year).

Carrell and Carrell (2006) used results from their study to estimate the potential benefit on student discipline when the student-to-counselor ratio was decreased to the ASCA recommendation in the Alachua County elementary schools. The authors found that this reduction would result in approximately "257 to 984 fewer students, per year, involved in at least one disciplinary incident" (Carrell & Carrell, 2006). The annual, additional cost to

reduce the counselor-to-student ratio is approximately \$1.52 million or \$113 per student in Alachua County, Florida.

### *Implications*

Because of inadequate funding, schools are becoming increasingly more selective in deciding which programs to offer their students. Many primary schools reduce or eliminate programs such as art, physical education and music in addition to support service personnel such as counselors, psychologists, social workers and nurses. Presently, funding for education programs is often determined by data-driven models and evidence-based practices. To remain a viable program in the schools, school counselors must market their programs using data-driven models and evidence-based programs. Carrel and Carrell's (2006) study provides one example of such an evidence-based program with results suggesting that lower student-to-counselor ratios decrease both the recurrence of student disciplinary problems and the number of students involved in a disciplinary incident.

### *Critical Perspective*

Most schools have very little variation across time in the student-to-counselor ratio which makes it difficult to measure causal effects on student outcomes. Carrell and Carrell's (2006) study is unique in that it used the placement of practicum and internship counseling students as an exogenous source of variation of the student-to-counselor ratio. Further studies on student-to-counselor ratios could include additional student outcomes such as academic performance, attendance, and school climate as further evidence of school counselor efficacy.

One question Carrell and Carrell's (2006) study may raise is whether practicum and intern students chose a particular school placement based on a school's previous semester's disciplinary records or whether the school district choose a particular school placement based on disciplinary records. Carrell & Carrell (2006) tested for this potential bias using a regression analysis and determined that there may be some evidence of non-random assignment of practicum and intern students resulting in an underestimation of the effectiveness of the school counselor on student disciplinary referrals.

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