



**CALIFORNIA STATE SCIENCE FAIR
2005 PROJECT SUMMARY**

Name(s) Sarah T. Silverstein	Project Number S0322
Project Title A Longitudinal Study of Stress in First Year Dental Students	
Abstract Objectives/Goals Life changes and daily hassles lead to stress which can negatively affect performance and health. This longitudinal study examines change in stress over time in first year dental students at four US schools. It is hypothesized that the sources of stress will change over time and that stress will increase. Methods/Materials 12 dental schools were contacted; 4 participated. Students completed a survey with the Dental Environment Stress (DES) questionnaire, Perceived Stress Scale (PSS), a stress rating and demographic questions at the start of school (Time 1) and 11.7 weeks later (Time 2). Results Of 407 first year students, 397 (97.5%) completed least one survey; 212 (52.1%; n=130 men, n=82 women) completed both. Average age was 24.6. Stress ratings for DES items related to school work and lack of relaxation were high at Time 1 and increased significantly at Time 2 ($p < .0001$). DES items related to school atmosphere had low stress ratings at Time 1 but had large increases over time ($p < .0001$). Personal factors had low stress ratings both times. All three stress scale scores increased over time (DES $t = -5.98$; PSS $t = -6.26$; stress rating $t = -6.14$; $p < .0001$). Stress scale scores varied ($p < .0001$) between schools at Time 1, but only small differences remained at Time 2. Stress scores were higher for women, and for younger and single students. Conclusions/Discussion My hypotheses were supported. Stress, both general and specific to dental school, increased over time. Sources of stress also changed. Although school work was stressful at both time points, elements in the school atmosphere became important sources of stress over time. Expectations related to teaching approach used at a school may modify initial stress levels but has little effect later on. Gender, age and marital status also affect stress.	
Summary Statement This project examines change over time in stress among first year dental students at four dental schools using multiple measures of stress.	
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