

4-H IMPACTS YOUNG PEOPLE'S INTEREST IN SCIENCE, ENGINEERING, AND TECHNOLOGY: Data from the 4-H Study of Positive Youth Development

UNIVERSITY OF CALIFORNIA

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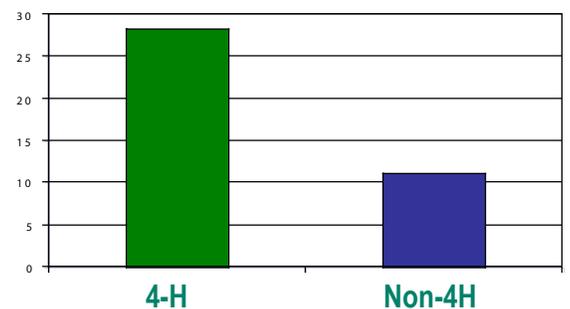
The 4-H Study of Positive Youth Development (4HSPYD) is a national longitudinal study directed by Tufts University. From 2003 through 2008 over 6,000 youth from 41 states participated in the study, which includes questions around a wide variety of topics, such as academic engagement, family and peer relationships, health behaviors, neighborhood indicators, participation in youth programs, personal values, goals, time use, pubertal changes, and risk behaviors. In 2008, California participated in the 4HSPYD for the first time, in the study's sixth wave.

A total of 285 youth from California ages 13-18 from 14 counties participated in the Wave 6 survey. About 70 percent of the California respondents were current 4-H members. Results from this study demonstrate the importance of the 4-H program in impacting young people's interest in science, engineering, and technology.

Key Findings

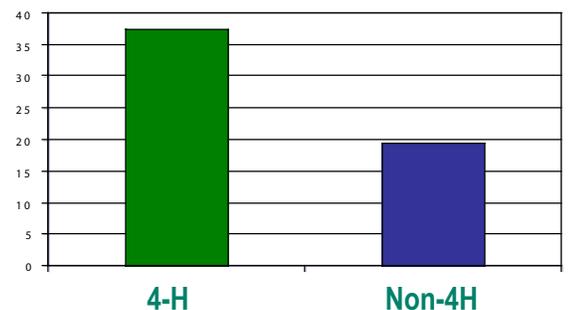
4-H youth in this study were significantly more likely than non-4-H youth to report that the programs they participate in include science "sometimes" or "often." This difference was statistically significant ($p=.0022$).

The programs that I participate in after school and in the summer include science.



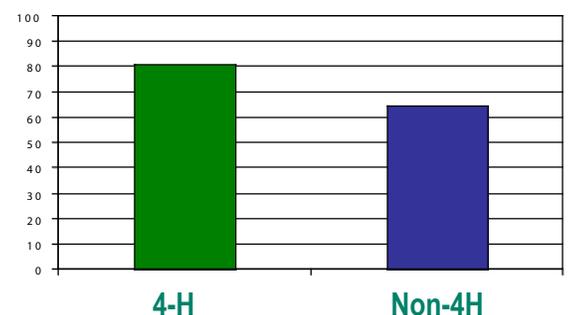
4-H youth were more likely than non-4-H youth to report that the programs they participate in increase their interest in science. A similar result was found for engineering (25 percent vs. 11 percent, $p=.0113$).

The programs that I participate in ... increase my interest in science.



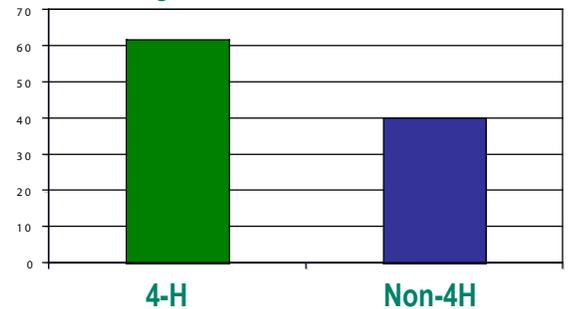
4-H youth were significantly more likely than other youth in the sample to report that they do well in subjects related to science ($p=.0040$), engineering (56 percent vs. 34 percent, $p=.0017$), or computer technology (73 percent vs. 62 percent, nonsignificant at $p=.0757$). They also were more likely than other youth to report performing above average at science.

I do well in subjects related to science.



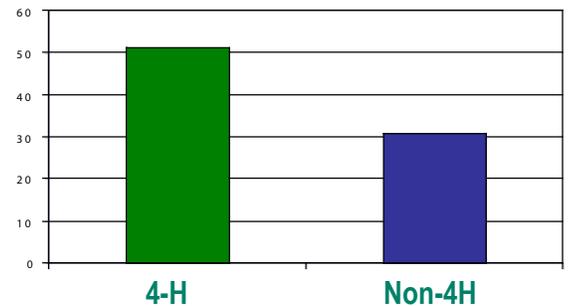
4-H youth were more likely than other youth to report planning to take science courses after finishing high school ($p=.0011$). The percentage reporting plans to take engineering (approximately 28 percent) or computer technology (about 38 percent) courses were similar for 4-H and non-4-H youth.

I plan to take science courses after I finish high school.



A little over half of 4-H respondents said that they plan to pursue a science career, compared with 31 percent of non-4-H youth ($p=.0021$). Numbers were similar for 4-H and non-4-H youth on career plans in engineering or computer technology.

I plan to pursue a science career.



About two-thirds of 4-H respondents were female compared with about half of the non-4-H respondents. Girls tend to report lower levels of interest in science and fewer career plans related to science, yet the girls in this sample of 4-H youth were more interested in science than were the girls not in 4-H. For example, 33 percent of 4-H girls said the programs they participate in increase their interest in science, compared with 15 percent of non-4-H girls ($p=.0235$).

Over 19 percent of 4-H girls reported that the programs that they participate in increase their interest in engineering, compared with no non-4-H girls ($p=.0033$). 4-H girls were significantly more likely than non-4-H girls to report doing well in science and engineering at school, and were more likely to report plans to pursue a career in science (51 percent vs. 33 percent, $p=.0404$).

Summary Fact Sheet by **Katherine Heck** of the 4-H Center for Youth Development, University of California, Davis.

4-H **FACT SHEET**
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