

## CALIFORNIA STATE SCIENCE FAIR 2003 PROJECT SUMMARY

Name(s) **Project Number** Farhad Akbari **J1201 Project Title** To Buy or Not to Buy **Abstract Objectives/Goals** This project's objective is to conclude which is more economical to buy or to rent houses or apartments for different incomes. It will also determine the sufficient down payment, and the length of mortgage. Renting an apartment will probably be cheapest, followed by renting a home, buying an apartment, and buying a home should be most expensive. 15-year mortgage will most likely be cheaper than 30-year mortgage, but will only be available to higher-class homeowners. A higher down payment will almost definitely be required. Methods/Materials Data for ten apartments and houses sold recently and rented apartments and houses from the same area, size, and number of rooms were averaged and used to determine an average price for the area. Data was then gathered from 15 families with five members for assorted bills and expenses were averaged separately as well as yearly. Annual salaries used were \$24,000; \$36,000; \$48,000; and \$60,000. Down payments used were 0%, 20%, 25%, and 30%. Mortgage was then figured out. The rate was dependant on the amount of the loan and the type (15- or 30-year). A second loan up to 20% of the property value is also taken with 0% down payment. Rent increase was then established. Next, salary increase was found out. The savings are then comprehended by subtracting the various expenses from the salary for 15 and 30 years. The property value increase was then determined. The total wealth after 15 and 30 years was then concluded by adding the property value with the savings. **Results** The results were that sold apartments were better at 15 and 30 years as the salary increased, then rented apartments, then sold homes and finally rented homes. 15-year mortgages were cheaper, and a down payment lowers the lost money form interest by a very large number. **Summary Statement** To determine the best real estate choices for different incomes Help Received