



Track the Trends—Predict the FUTURE?

CALIFORNIA: *Still the Golden State?*

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Overview

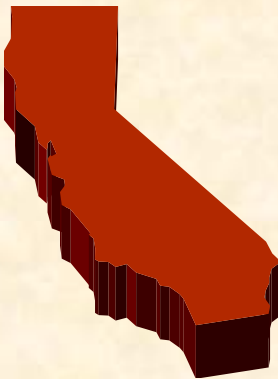
- Who are we?
 - A committee of demographers in the State Department of Finance
- What do we do?
 - Examine population trends in the state
 - Predict overpopulation effects
 - Analyze the implications on state resources and quality of life
- Why is it important?
 - To be able to prepare and plan for possible overpopulation implications and effects before they occur

Our Presentation

- Analyzing California's Population Trend and future predictions
- Implications and effects
- Recommendations

California Population

- Using the US Census Web site, we found the following historical population data (in millions):



Year	Population
1890	1.21
1910	2.38
1930	5.68
1950	10.59
1970	19.91
1990	29.76



Creating the Formula From the Data

- x = number of years since 1890
- y = population of California
- Formula $y = 1.323 \cdot 1.033^x$
- Correlation $r = .994$
- The formula means that population started at 1.323 million people and increased 3.3% per year on average since 1890.

Graphing the Results

The exponential formula nearly matches the actual historical data.



Future Predictions

- Using the formula $y = 1.323 \cdot 1.033^x$, predictions can be made about California's future population.
- For example, 2050 is 160 years since 1890
 $1.323 \times 1.033^{160} = 238.6$ million.

Year	2000	2010	2020	2030	2040	2050	2060
Years Since 1890	110	120	130	140	150	160	170
Population Prediction	47.1	65.1	90.1	124.6	172.4	238.6	330.1

Implications

- California is going to be overpopulated and overcrowded.
 - In 1990, the population was 30 million.
 - In 2010, the population will be 65 million, more than double 1990's population.
 - In 2050, the population will be nearly equal the entire population of the current United States.

Possible Effects of Overpopulation

- Traffic gridlock
- Energy shortages
- Water shortages
- Environmental deterioration
- Increased crime

Our Recommendations

Further study and data trend analysis is needed on the possible effects of overpopulation on the state's resources and quality of life.

We **recommend** that data analysis be completed to obtain information about the relationships between overpopulation and effects such as traffic gridlock, energy and water shortages, environmental deterioration, and increased crime. This will allow us to use data in preparing for and solving our state's problem.

Sources Used

“TI-83 Plus.” Texas Instruments. 2000, Texas Instruments Incorporated. 21 Jul 2000.

<<http://www.ti.com/calc/docs/83plus.htm>>

“Stop Overpopulation.” Save Ourselves, Save The Earth. 18 July 2000. Overpopulation Group. 21 July 2000.

<<http://overpop.org/>>