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Do Virginity Pledges Cause Virginity? Making Sense of Program Effectiveness Claims

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“research-based”

“science-based”

“proven effective”

science

science

social science

science

social science

evaluation

All science requires **constructive skepticism** together with **spirited critique** and **vigorous scrutiny** to advance

ambiguous results

ambiguous results
misleading conclusions

scientific process

scientific process

integrity

No Time for Complacency Teen Births in California

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EXECUTIVE SUMMARY

California's teen birth rate reduction now leads the nation, however now is not the time for complacency.

California has made considerable progress since 1991 in reducing its teen birth rate. In fact, California's teen birth rate reduction now leads the nation. This statewide trend has allowed California to drop below the national teen birth rate in 2001 for the first time in more than a decade (see figure 1).

While California's teens, families, communities, and policymakers should rightly be proud of this accomplishment, analysis of several important considerations indicate that now is not the time for complacency. In fact, a review of the latest population trends and economic factors that traditionally influence teen birth rates shows a serious threat to California's ability to maintain this achievement.

What has California been doing right? And what more needs to be done? To address these questions, this report examines trends of the last decade, together with statistical projections for the future. In addition, teen birth rates and cost estimates are provided by California legislative district. Finally, a variety of policy options are presented. This information is intended to enable policy makers to better understand these issues, and to better develop policies that proactively protect their constituents, their districts' financial health, and the overall well-being of the state of California.

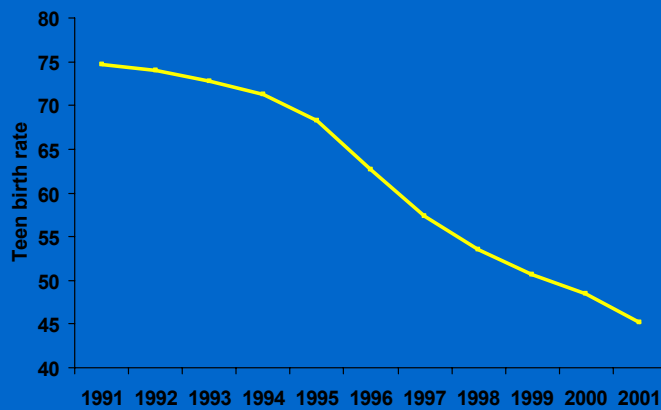


Scientific Process (Integrity)

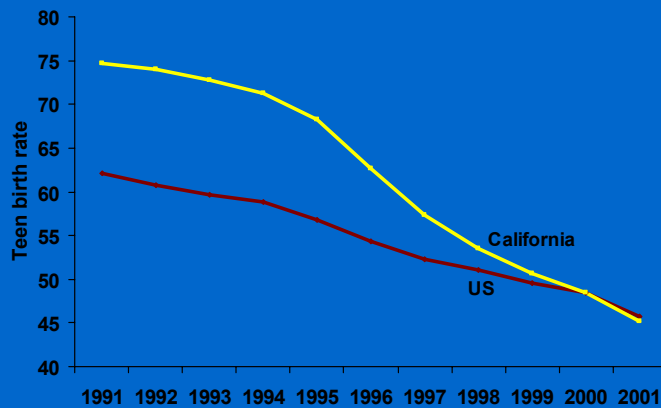
1. Evidence-based logical arguments



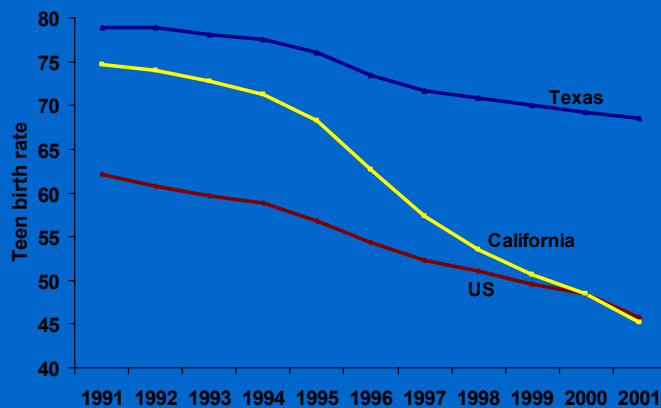
Evidence-based logical argument

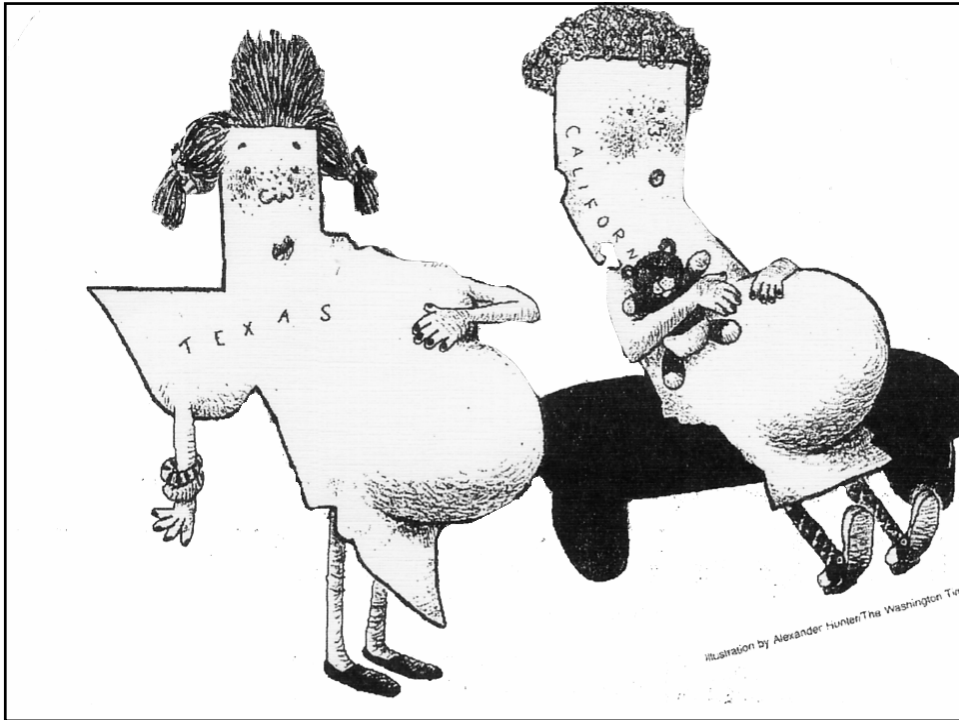


Evidence-based logical argument



Evidence-based logical argument

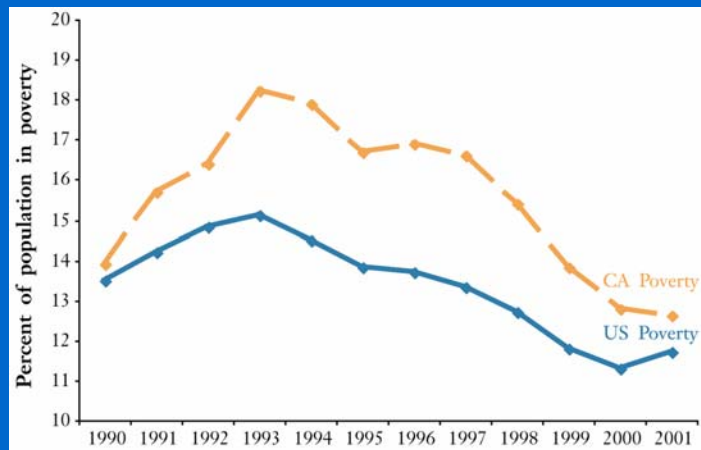




Scientific Process (Integrity)

1. Evidence-based logical arguments
2. Plausible alternative explanations

Plausible alternative explanation



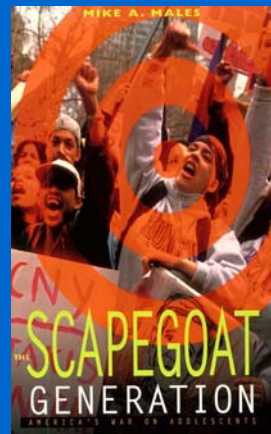
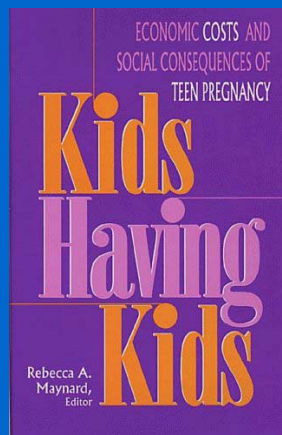
Scientific Process (Integrity)

1. Evidence-based logical arguments
2. Plausible alternative explanations
3. Rational criticism and debate



Valid criticism does you a favor.
- Carl Sagan

Rational criticism and debate



Ir-Rational debate?

“Pointy-headed pundits ...”

-from a Letter to the Editor, Washington Times, by
Jerry Gramckow, Focus on the Family



Ir-Rational criticism?



rotten tomato from Traditional Values Coalition



Scientific Process (Integrity)

1. Evidence-based logical arguments
2. Plausible alternative explanations
3. Rational criticism and debate
4. Complete and accessible documentation



Complete and accessible documentation

<http://teenbirths.phi.org>

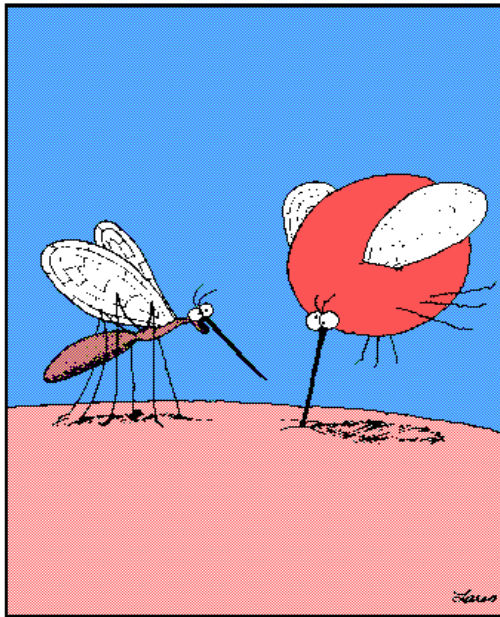
Fact sheets → executive summary → full report and appendices → reference citations



Causation

Causation: The relation between mosquitoes and mosquito bites.

- Michael Scriven



"Pull out, Betty! Pull out! . . . You've hit an artery!"

Causation: necessary criteria

1. Association (correlation)

No causation without manipulation

- Paul Holland (?)

Causation: necessary criteria

1. Association (correlation)
2. Temporality

Causation: necessary criteria

1. Association (correlation)
2. Temporality
3. **Plausible alternative explanations ruled out**



*You can't fix by analysis what
you've bungled by design*

- Richard Light, et al

Pseudo-science?

- Add Health virginity pledge study
- Life Skills Training evaluations



Fishing expeditions?

- Second Steps evaluation
- Reducing the Risk (first evaluation)



Cherry picking?

- Reducing the Risk (“replication”)
- Teen Pregnancy Prevention Grant Program (SB 1170) evaluation



Good science?

- Hutchinson Tobacco Study
- Safer Choices Evaluation
- Family PACT Evaluation
- Infant Health and Development Program



Absence of evidence is not evidence of absence

Evaluators and the people we work with have to critically and thoughtfully examine the evidence that is purported to be “scientific” and draw their own conclusions.

Consumers of evaluations need to attend to “truth in packaging.” Look beyond the label or assertion that some proposal is “science-based” to examine where the evidence comes from and what it really shows.

- Michael Patton

Only ideologues or idiots can claim that evaluation in the arena of social change can possibly offer absolute clarity.

What we can try to extract is every bit of evidence available from the data. What we don't know about how and why things work, or don't work, is the enemy. Everything we can learn about why things work or don't work is an asset. It is feckless to worry about not knowing everything; the best is in such cases always the enemy of the good.

- Hodding Carter III

For further discussion of these issues, and full references for quotes, see:

Constantine, N.A. & Braverman, M.B. (2004).
Appraising Evidence on Program Effectiveness. In *Foundations and Evaluation* (M.B. Braverman, N.A. Constantine, J.K. Slater, Eds). San Francisco: Jossey Bass.

(<http://crahd.phi.org/VirginityPledges.html>)