



UC Davis Extension Collaboration Center
1333 Research Park Drive, Davis, California 95616
Phone (530) 757-8965, Fax (530) 754-5105
Email: collaboration@ucdavis.edu
Web: extension.ucdavis.edu/collaboration

To: Carol J Monahan Cummings, Chief Counsel, OEHHA
From: Kali Trzesniewski, Ph.D.
Date: May 25, 2016
Subject: ACC/Evolving Strategies LLC's Assessment of the Proposition 65 Study

We have reviewed the consultant's report (Assessment), written by Evolving Strategies LLC, and submitted by the American Chemistry Council, critiquing the "Proposition 65 Clear and Reasonable Warning Regulations Study" (Study). We wish to provide the following comments:

The Assessment concluded that the Study cannot be used to evaluate whether the proposed changes will make the Proposition 65 warnings more helpful for the public. This conclusion, however, is based on several misunderstandings. The goal of this response is to correct the misunderstandings and clarify the purpose of the study, which will address many of the concerns raised in the Assessment. This response is not intended to rebut each and every point outlined in the Assessment.

Purpose of the Study

The purpose of the Study was to assess people's opinions of the helpfulness of the current and proposed Proposition 65 warnings in California. The Study uses the term "effective." The term effective is defined as having an intended effect. In this case, the intended effect is to identify the warning that is perceived as most helpful. Effectiveness was defined this way, as helpfulness, on Page 7 of the report. In contrast, the Assessment defined effective as changing behavior. As such, the Assessment concludes that the Study's research question is "a question of behavioral responses and not a question of mere opinion." Viewed this way, the Assessment described the Study as a "public health intervention" that requires a randomized-controlled trial to evaluate its effectiveness. We agree that if the goal of the study was to study behavioral change, several of the Assessment's criticisms would be relevant. However, when viewed as intended, as a study of the relative helpfulness of the current and proposed warnings, several of the criticisms in the Assessment are no longer relevant.

Testing whether the current or proposed warnings are better at changing behavior is a worthwhile long-term goal. However, it is not necessarily the best first step or an appropriate step for the Office of Environmental Health Hazard Assessment (OEHHA) to take. First, it is much more costly to conduct an evaluation of the effectiveness to change behavior than to assess opinions; thus, before making this much larger investment, it is important to make sure the materials of interest are viewed as intended. Second, the purpose of Proposition 65 is to provide "clear and reasonable warning" of exposure to chemicals. Thus, Proposition 65 is focused on providing information, not changing behavior. A person or group interested in learning whether Proposition 65 is worthwhile or effective in changing behavior would likely want to follow the

Assessment's recommendations for assessing behavioral change. However, this is not under the purview of OEHHA who is tasked with providing information as requested by Californians.

Viewed as intended, as a study of perceptions of helpfulness, several of the Assessment's recommendations are not relevant. In particular, conducting a randomized-controlled study is not necessary because assessing differences in behavior in response to each warning was not a goal of the Study. In addition, using non-self-report measures is not necessary. The Assessment argues that the Study is biased by the use of self-report measures which cannot assess objective behavior change and may not reflect reality. Given the goal of assessing personal opinions, there is no objective reality to use as a gauge and thus self-report is the best assessment method.

Clarifications

The Assessment states that the Study was flawed because of the use of interviews by live researchers. This is incorrect. The survey was administered to participants via iPads using Qualtrics offline surveys. The research team gave iPads to the participant and, for the most part, sat or stood near him or her, but far enough away to give privacy. As such, the research team was not able to see the respondents' answers. In less than 5% of the surveys, respondents asked for the researcher's help to read the questions or manipulate the iPad. In those cases, the researcher confirmed the respondent's answers before answering each question.

The Assessment raised concern about respondent fatigue. This concern is based on a misconception of the survey. The survey included a total of 18 questions, 6 of which were demographic questions. Four questions displayed a pair of warnings to compare the current warning with the proposed warning. To prevent bias, a pool of warnings for eight industries (fast food, automotive, etc.) were included in the survey programming. The survey randomly selected one pair of warnings for each of the four questions. Respondents were only shown one pair of warnings - not all pairs of warnings - for each question; and they responded to each question only once.

The Assessment points out that the sampling procedure used does not constitute a representative sample of all of California. This is correct. The goal of the Study was to capture a sample that generally reflects the broad range of individuals living in California and to sample participants from both rural and urban locations and with lower and higher levels of education to capture a range of reading levels. These goals were accomplished as can be seen in the report by the comparisons with the 2014 California census data for gender and ethnicity. Due to an error, omitted from the Study report was the distribution of highest level of education attained. As can be seen in Figure 1, the Study was able to capture participants with a range of education attainment.

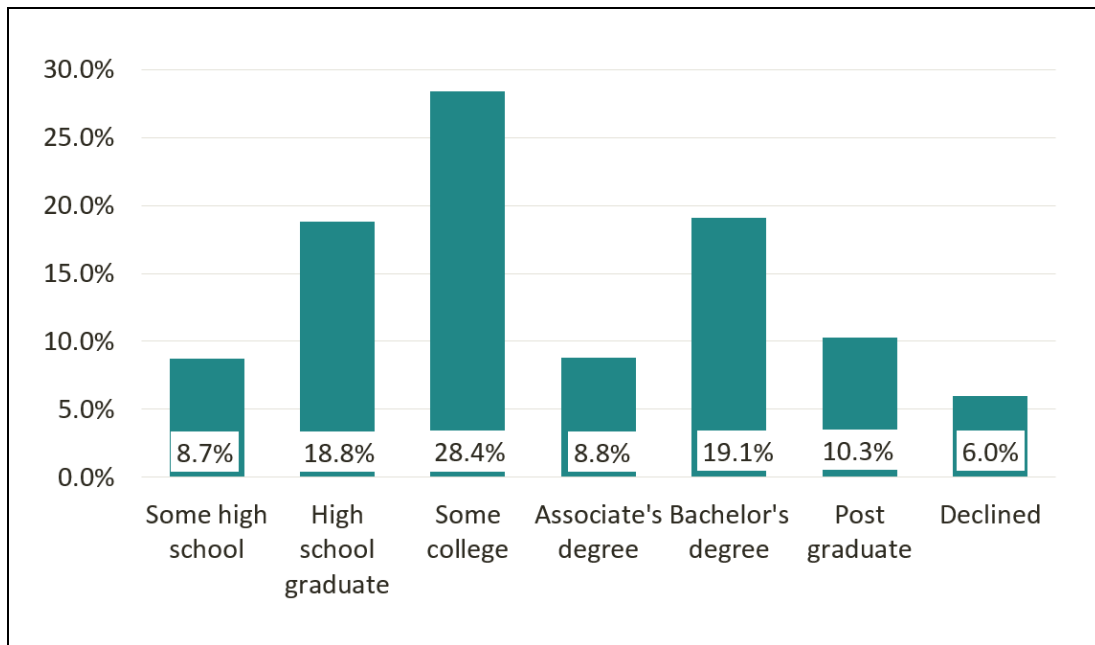


Figure 1: Highest Level of Education

The Assessment states that several questions introduce bias into the study. This would be particularly problematic if the old and new warnings were being rated by different groups of people. However, in this case, each participant rated, in random order, both the old and new warnings. Thus, any bias introduced would likely impact the evaluation of both warnings. It is not clear how any potential bias would differentially impact the evaluation of the helpfulness of the warnings (i.e., cause participants to find the new sign more helpful than the old).

The Assessment suggests that pointing out, in the question wording, the differences between the two warnings biases the Study's results. It is not clear that the wording resulted in biased results, but it is true that the results are most generalizable to opinions formed when attention has been called directly to characteristics of the warnings. It is not possible to use these results to determine people's spontaneous opinions when they may or may not have noticed the differences. However, that was not the intention of the Study.

Conclusion

The Assessment's primary conclusion that the design of the Study severely limits the conclusions that can be made is accurate for a study of behavioral change, but that was not the intended goal of the Study. Given that the Study defined effective as perceived helpfulness, the design of the Study is appropriate.