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TO: The Senators Menor and Sakamoto, Chairs
Committee on Energy and Environment and Committee on Education

FROM: David Nixon, Associate Professor
Social Sciences Public Policy Center
University of Hawaii at Manoa

RE: Testimony in support of SB 2232
Scheduled for Monday, February 11, 3pm, Conference Room 225

Thank you for the opportunity to testify in support of SB 2232. The **Sustainable Saunders initiative** is spearheaded by the Social Science Public Policy Center at the University of Hawaii Manoa, and one of our first projects in 2007 was to pilot test installation of bottle recycling bins throughout Saunders Hall. In cooperation with the UH Landscaping and Grounds Department, we installed 21 separate recycling bins at convenient locations throughout a campus office building (Saunders Hall: home to 7 floors of faculty, staff, undergraduate and graduate student offices and classrooms). We published a Policy Brief about the results of our efforts, which I have attached to this testimony.

Based on a very careful assessment of the waste stream for Saunders Hall that is described in the attached brief, it is clear that provision of bins at convenient locations throughout any public building, such as the SB2232 proposal, is likely to dramatically boost the recycling rate and reduce the discard rate of recyclable bottles. We boosted the overall recycling rate from 81% to 87%. Put another way, (and we documented this through very careful audits of the dumpster contents), provision of bins reduced the number of HI-5 bottles going into the dumpster by 70%.

Costs of the program were beyond the scope of our study, so I have no comment on that aspect. However, I would be happy to distribute our Policy Brief to other members of the legislature, at your request, and I am happy to respond to any inquiries you may have about setting up a recycling program. We have hands-on experience with the possibilities and challenges of such programs.

Thank you for the opportunity to testify



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POLICY BRIEF

number 002, September 2007

Workplace Recycling

This policy brief summarizes the findings from a workplace recycling program implemented on the UH Manoa campus, as part of the “Sustainable Saunders Initiative”. Saunders Hall is an office and classroom building housing 175 staff and featuring 5 classrooms that has been designated as a pilot site for testing various sustainability demonstration projects. One project examined workplace recycling. In Spring 2006, 21 beverage container recycling bins were introduced for the first time to the 7-story building. An examination of that experience demonstrates that workplace HI-5 recycling might be a cost-effective way to significantly boost the overall recycling rate in Hawaii.

Waste disposal is a continuing public policy problem in Hawaii because discarded trash sullies beaches and collected garbage either fills up landfills or must be shipped out of state. In other states, beverage containers have been shown to constitute an unusually large portion of discarded garbage. In 2002, Hawaii followed the lead of 10 other states and implemented statewide bottle and can recycling, based on a 5-cent deposit program. The most recent Hawaii Department of Health numbers indicate that the statewide recycling rate for bottles and cans has stabilized at a level (68%) that is typical of most other “bottle-deposit” states but still significantly below the state’s goal of 80%.

Over the past few years, the state has worked to improve the recycling rate by making

adjustments to its redemption centers and container count rules, and in October 2007, Honolulu began a pilot program for residential curbside recycling. Curbside residential recycling has been shown to boost overall recycling rates, even in states with bottle deposits.

As part of the Sustainable Saunders Initiative, the UH Social Sciences Public Policy Center conducted a survey of recycling behaviors among the public employees in Saunders Hall. We also participated in a detailed student-run analysis of the waste stream from Saunders Hall.

We asked employees what they did with bottles and cans after they consumed beverages at work, and the fate of those containers appears in the top pie chart of Figure 1. A large proportion (72%) of the empty bottles and cans generated at work were being taken home - presumably to be recycled. Ten percent of the container waste was

Key Findings

- Installation of recycling bins boosted the estimated recycling rate for Saunders Hall **from 81% to 87%**. In so doing, the program cut the number of bottles going into the dumpster by 70%.
- Providing recycling bins at the office captured a large majority (68%) of the bottles and cans that had been previously recycled by individual employees taking their bottles home.

being collected by programs or student groups using the deposits as a fundraising mechanism (labeled as “volunteer recycling” in the pie charts). Assuming every person who took an empty container home ended up recycling it, 82% of the bottles and cans consumed in our pilot workplace were already being recycled at the start of the pilot project.

We carefully scrutinized the contents of the Saunders dumpsters and recycle bins throughout the pilot project, in order to:

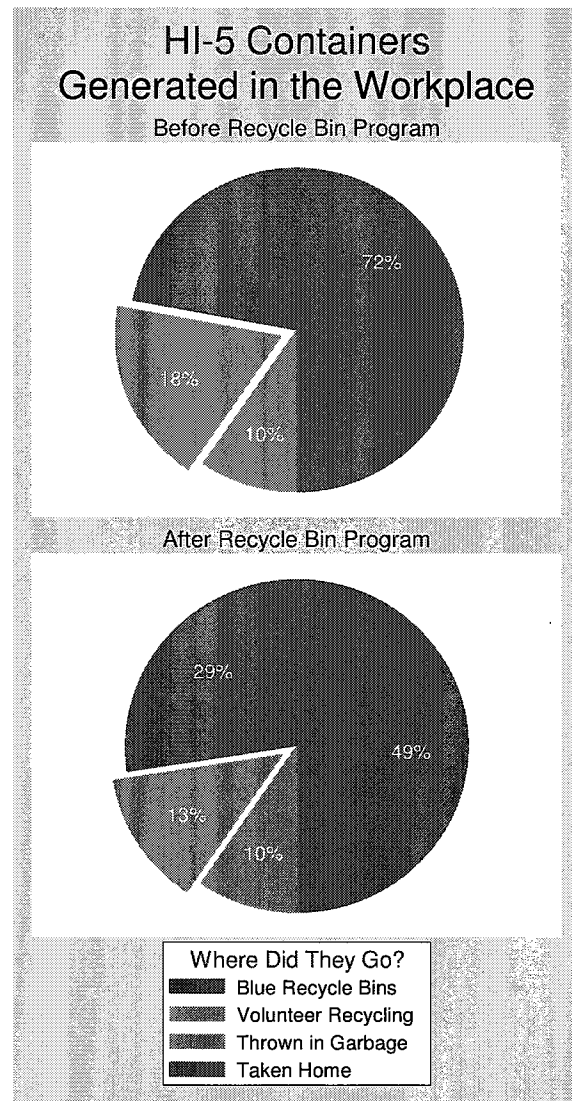
- (a) compare reported recycling rates with actual numbers of container discards in the garbage;
- (b) assess changes in the number of containers discarded in the garbage, once the recycling bins were made available; and
- (c) assess the share of bottles and cans previously recycled at home that are now placed in the Saunders recycling bins.

We carefully compared the survey responses to the actual disposal of bottles we observed in the waste audits, and found that the survey respondents **under-reported** their recycling. Our conclusions about the workplace recycling program are therefore sound, because overreporting is the most likely validity flaw in analyses of survey responses about recycling.

We found that, once workplace beverage container recycle bins were installed, the number of discards in the garbage dropped precipitously (by 70%). The overall estimated recycling rate thus jumped to 87% as a result of the pilot project. While some employees continue to take their containers home, the actual counts from the recycle bins indicate that a large share of the empty bottles and cans generated at work now end up in the Saunders recycle bins.

It is possible to significantly boost the recycling rate and significantly reduce the discard rate by focusing on workplace recycling programs. Such a program likely captures a very substantial portion of the deposits paid by the employees. Workplace recycling programs still may not pay for themselves, but most residential curbside recycling programs don't pay for themselves, either. A careful analysis of the costs versus

benefits for this approach to Hawaii's overall recycling program is warranted.



About the Author

David C. Nixon is an Associate Professor of Public Policy and Public Administration at University of Hawaii. He earned a Ph.D. in political science from Washington University in St. Louis, and specializes in policymaking by appointed officials.

A copy of the survey report on which this Policy Brief is based can be found at www.publicpolicycenter.hawaii.edu/reports.html