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UNIVERSITY OF HAWAI'I AT MĀNOA

LATE TESTIMONY

FROM: David Nixon, Associate Professor, Social Science Public Policy Center  
TO: Representatives Jerry Chang and Roy Takumi, Chairs  
Committees on Higher Education and Education  
RE: SB2774, SD2, scheduled for hearing March 18, 2:30pm, conference room 309

Thank you for the opportunity to testify about SB2774, SD2. The Social Sciences Public Policy Center applauds the Secondary School Conference (SSC) and Senator Jill Tokuda for bringing this important public policy challenge and opportunity to the fore. Like the SSC, we recognize the importance of carefully and accurately assessing the costs and benefits of recycling. As part of the Sustainable Saunders Initiative, the Social Sciences Public Policy Center developed and examined a new bottle recycling program in Saunders Hall, in collaboration with a team of graduate and undergraduate students. Thus, we have the experience and capability of conducting this type of research with student volunteers. The Public Policy Center supports the intention of the bill, and stands ready to offer assistance to the Secondary School Conference student volunteers.

However, we note that the WAM committee report specifically indicates there are to be no monies expended on this important research. Without any support, our role will of necessity be limited to an advisory and coordination capacity. It is unusual to task the university with research responsibility without providing financial support. Similar legislation requests DOE and DOH to conduct a three year pilot project on food waste recycling in public schools (SB2571), and there is no indication of lack of funding in committee reports on that legislation. It seems very unlikely the Departments of Health or Education could comply with SB2571 without funding, and the University is no different.

Should funds become available to support a more serious research effort modeled on our Sustainable Saunders initiative, we envision working with the Secondary Student Conference to assemble one or two teams of high school students in one or two schools, to be directed by a UH student experienced in our bottle recycling effort, and to conduct detailed waste audits before and after implementing a pilot recycling project. The project could be planned during summer 2008, implemented during fall 2008, and a report could be assembled in late fall 2008. The project would be a great way to combine the interests and enthusiasm of UH and SSC students towards contributing to the policy dialogue about recycling.

The Policy Center could carry out the provisions of the bill with the following resources.

faculty research	\$18,000
graduate student support	\$6,500 (\$3,250 per school site)
<u>equipment</u>	<u>\$2,400 (\$1,200 per school site)</u>
total	\$26,900

This budget could be reduced by \$18,000 if the legislation tasked someone other than a PPC faculty with authorship of the project. Thank you for your consideration.



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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:

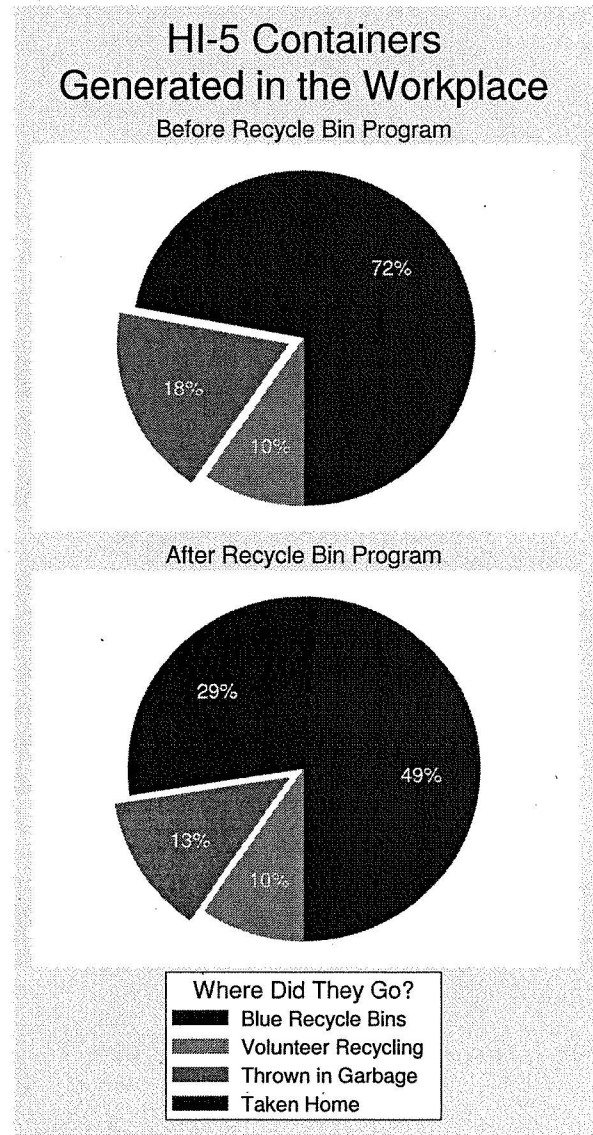
- (a) compare reported recycling rates with actual numbers of container discards in the garbage;
- (b) assess changes in the number of containers discarded in the garbage, once the recycling bins were made available; and
- (c) assess the share of bottles and cans previously recycled at home that are 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](http://www.publicpolicycenter.hawaii.edu/reports.html)