

San Jose State University
Human Subject – Institutional Review Board
Request for Exemption from Human Subjects Review

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Select one: SJSU Student <input type="checkbox"/> SJSU Faculty <input checked="" type="checkbox"/> SJSU Staff <input type="checkbox"/>	
Non-SJSU Investigator <input type="checkbox"/> If Non-SJSU Investigator, SJSU contact:	
If Student, Name of Faculty Advisor:	
Signature of Faculty Advisor:	
Title of proposed project: Household Hazardous Waste Recycling in San Jose: Using GIS to Improve Participation	
Abstract: The purpose of this research is to examine participation in San Jose's household hazardous waste recycling program in order to better understand the socioeconomic and demographic characteristics that influence use of the program. Given limited municipal budgets for solid waste management, understanding how better to utilize resources such as public education and outreach programs to target key neighborhoods is vital in order to improve the efficiency of household hazardous waste programs and to make progress toward a more sustainable society.	
Funded by: Submitted for funding to College of Social Science Research Grants Program	

Instructions

Describe:

1. Purpose of proposed research

According to the Environmental Protection Agency [EPA] (2007a), each year U.S. households generate 1.6 million tons of household hazardous waste (HHW). Common HHW products include automotive fluids, paints and solvents, indoor and outdoor household chemicals, mercury-containing items, lights, batteries, and electronics (CIWMB, 2007a).

Improper disposal of these products can result in serious public health risks as well as environmental contamination. In California, disposal of hazardous waste in the garbage, into the storm drain system, on the ground, or through other improper means is illegal (CIWMB, 2007b). One popular mechanism to reduce illegal disposal is through HHW drop-off collection programs operated by local and county municipal solid waste authorities.

The City of San Jose works with the Santa Clara County HHW program to provide the only legal and free mechanism for local residents to properly dispose of their household hazardous waste. This program has been in operation since 1991 and also accepts hazardous materials from small businesses on a cost-recovery basis (Mosher, 2003).

Approximately 9,000 San Jose residents use the drop-off HHW program each year, but anecdotal evidence suggests that participation rates are unevenly distributed across the city.¹ Residents in higher income neighborhoods where education levels are higher and the percentage of minorities is lower appear more likely to use the program. While part of this discrepancy may be attributed to different HHW generation levels, no empirical research has been undertaken on this issue. The purpose of this research is to develop an understanding of residential participation in San Jose's Household Hazardous Waste Drop-Off Program.

¹ Personal communication, Paul Ledesma, Environmental Services Department, City of San Jose, January 25, 2007.

2. Methodology

Existing research on the relationship between demographic and socioeconomic characteristics and pro-environmental behavior such as recycling or purchasing "green" products suggests that the relationship is complex (Diamantopoulos et al., 2003). Household recycling programs for traditional products such as paper, glass, plastic, and cans have become increasingly popular with more than 9,000 curbside programs across the U.S. (EPA, 2007b). According to Schultz, Oskamp, and Mainieri (1995), the popularity and convenience of these programs makes it more difficult to ascertain the underlying reasons why people recycle. As part of this research, a comprehensive literature review will be conducted drawing on empirical studies related to household recycling and, when available, household hazardous waste recycling² from the environmental psychology, planning, and economics literatures.

Data on participation in San Jose's Household Hazardous Waste Drop-off Program from 2002-2006 will be obtained from the City of San Jose's Environmental Services Department. In conjunction with Santa Clara's HHW Program, comprehensive data on residential participation is collected. The data includes participants' addresses as well as the date of participation.

In order to model HHW program participation, we will first geocode the data using ArcView 9.x in order to visually depict the spatial distribution of program participants. Next, we will combine this information with U.S. Census data at the block group level. This will enable the general characterization of geographic units based on socioeconomic and demographic variables such as age, income, ethnicity, education level, and other relevant variables identified through a comprehensive literature review as likely to influence participation in a household hazardous waste recycling program.

Once we have gathered the relevant data, we will characterize the census block group units into at least two categories of program participation: high participation and low participation block groups. If appropriate, the number of categories may be increased depending on the structure of the geographic data. Next, we will model HHW program participation using either logit/probit or ordered logit/probit regression depending on the data structure.

3. Timelines

- June-August 2007: Literature review and data gathering
- August-October 2007: Initial data analysis (geocoding, compiling Census data)
- October 2007-February 2008: Continued data analysis (logit/probit or ordered logit/probit)
- March-May 2008: Write-up of results, preparation of journal article
- June 2008: Final report to SJSU

4. Procedure for selecting subjects

Subjects are participants in Santa Clara County's household hazardous waste recycling program living in the City of San Jose. Individuals participated in the program from 2002-2006.

5. Number and age of subjects

31,819 adults over the age of 18

6. Status of the information collected is

- Archival
- Data Base
- Non-Collected
- Others: _____

² There are few studies that specifically focus on household hazardous waste, therefore we will draw from traditional recycling studies that rely on drop-off programs for comparisons.

7. How and where information collected will be kept safe

The information with individual names and addresses will be kept on the principal investigator's personal computer in a file protected with a password. For the data analysis, no identifying information will be used as the address information will only be used to generate whether a census block group is a "low" participating neighborhood or "high" participating neighborhood. There will be no way to disaggregate the data to identify individuals.

Attach:

Please see attached letter of permission from the City of San Jose's Environmental Services Department to use this data for this research.

CATEGORY OF EXEMPT RESEARCH __d/e__ (see Categories of Exempt Research, next page)

Do not write below this line — for IRB use only.

HUMAN SUBJECTS—INSTITUTIONAL REVIEW BOARD ACTION		
Request Approved _____	More Information Required _____	HS—IRB Review Required _____
Provide the following information:		
To: HS-IRB Reviewer:: Date:		
Reviewer's Signature: Date:		

San Jose State University Policy (F90-4) exempts several classes of research from HS-IRB review. SJSU bases recognition of these exemptions on the following two assumptions:

1. The risk to participants in the proposed activity is so minimal that required HS-IRB review represents unwarranted intrusion into the process.
2. Investigators (faculty, students, or staff) understand, accept, and will implement the principles of informed consent contained in Appendix C of policy F90-4.

At SJSU, investigators who conduct exempt research are required to provide individual participants with reasonable and necessary information so they may form their own decision to participate (e.g., cover letter to a questionnaire) and/or secure permission to conduct research from participating institutions.

Categories of Exempt Research

- a) Research conducted in established or commonly accepted educational settings, involving normal educational practices, including research on regular and special educational packages and comparisons among instructional techniques. This category will generally allow educational institutions to evaluate their educational programs.
- b) Research involving the use of educational tests, survey procedures, or observation of public behavior unless the information obtained is recorded in such a fashion that individuals can be identified and/or disclosure of responses outside the research could place the subjects at risk of criminal/civil liability and/or damage subjects' financial standing, employability or reputation.
- c) Research involving public officials or collection of personally identifiable information for which federal statutes require permanent confidentiality (rendering HS-IRB review unnecessary).
- d) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or no individual identification can be made.
- e) Research and demonstration projects approved by public agency heads and designed to study, evaluate, or otherwise examine public benefits or service programs.
- f) Taste or food quality evaluation and consumer acceptance studies if wholesome foods without additives are consumed or all ingredients are at or below safe levels set by the FDA.
- g) Requests for information from persons who agree to serve as "primary sources" subject to attribution in the professional writings of journalists, biographers, historians, anthropologists,

etc.

NOTE: *The decision to exempt a protocol from HS-IRB review is made by the HS-IRB reviewer. Exemptions from HS-IRB review will not be granted for research involving protected classes of subjects (e.g., fetuses, pregnant women, prisoners, children, or those institutionalized as mentally disabled), even though the research may appear to belong to exempt category.*

Please submit **two copies** of this request and all supporting materials (as needed) to:

HS-IRB Coordinator
Graduate Admissions and Program Evaluations
San Jose State University
One Washington Square
San Jose, CA 95192-0025

If you have questions, please call (408) 924-2480