

~~Final~~
PROGRESS REPORT
FOREST SERVICE GRANT NO. NA-99-0415

Period covered by this report: September 14, 1999 through December 31, 2001

NOTE: Please review the following information and revise/complete as necessary.

Issued to: The Pennsylvania State University

Address: School of Hotel, Restaurant and Recreation Management, 228 Mateer Building,
University Park, PA 16802-1307

Congressional District Number: ZIP Code 16802, PA 5th District

Project Name: Exploring Social-Demographic and Social Psychological Bases of Environmental Concern and
Urban Wildlife Values in Ethnic Minority Populations

Contact Person/Principal Investigator:

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Date of Award: September 14, 1999

Grant Modifications: Mod. 1: No cost time extension from June 20, 2001 to December 20, 2001

Date of Expiration: December 20, 2001

Funding: Federal Share: \$59,478 plus Grantee Share: \$66,505 = Total Project: \$125,983

FS Grant Manager: Phil Rodbell

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Provide a 100-word abstract on your project as defined by your initial proposal and contract. This abstract will be posted on the Council's internet home page.

Recognizing the need to assess and address the perceptions and values of America's growing multi-cultural, diverse ethnic minority populations with respect to urban forests, parks, wildlife and their management (NUCFAC Action Plan), this study attempted to explore urban recreation characteristics and urban and community forestry related environmental and wildlife attitudes among six population subgroups — five ethnic minority communities (African-Americans, Hispanics/Latinos, Chinese, Koreans, and Japanese) and Anglos/Whites — in two urban and community centers in Northeastern and Southern United States. Results indicated that the Hispanic/Latino, Chinese, Japanese, and Korean groups were similar to Anglos/Whites and African Americans with respect to certain outdoor recreation characteristics and urban and community forestry related environmental and wildlife attitudes. Several differences, in these characteristics, were also observed between the population subgroups. An

examination of acculturation-based differences in recreation patterns, activity participation and preferences for certain park features within the Hispanics/Latinos, Chinese, Japanese, and Koreans also revealed both similarities and dissimilarities between the (high, medium and low) acculturated individuals within the ethnic groups and the Anglo/White and African American respondents. Knowledge generated by this study will assist the NUCFAC, USDA Forest Service, and related natural resource management agencies in identifying and investing in actions that will keep urban and community forestry and park programs across the nation in tune with ethnic minority populations' values and needs.

Project objectives:

This study will survey six groups — five ethnic minority groups [African-Americans, Hispanics (e.g., Cuban, Mexican, Puerto Rican, Dominican, etc.), Chinese, Japanese and Koreans] and Anglo/White populations — in two urban centers in Northeastern and Southern US, respectively - Philadelphia, PA and Atlanta, GA - located within close proximity to urban and community forest lands in order to achieve the following objectives:

1. To identify social demographic and social psychological predictors of attitudes toward urban and community forestry, parks and wildlife of ethnic minority communities and Anglo/White populations.
2. To identify outdoor recreation participation characteristics of ethnic minority communities and Anglo/White populations.
3. To identify behavioral intentions of ethnic minorities and Anglo/White populations in regard to urban and community forestry, parks and wildlife.
4. To examine whether regional variation exists in regard to the previous through comparison of responses from two different urban areas.
5. To develop an environmental education framework for educating urban and community forestry practitioners regarding cross-cultural variations in outdoor recreation and park and forest visitation characteristics, based upon the findings of the study.
6. To systematically assess the relative effectiveness of types of response incentives on the participation rates of ethnic minority groups and Anglo/White populations to the survey.

Objectives met successfully:

During the period from September 14, 1999 through December 31, 2000, the following tasks have been accomplished towards meeting the study objectives:

1. Reviewed existing literature on social-demographic and social-psychological bases of environmental concern and urban wildlife values.
2. Prepared first draft of survey instrument.
3. Mailed-out survey instrument to twelve research scientists within the USDA Forest Service for reviews and comments.
4. Received detailed reviews and comments from eleven (out of 12) research scientists within the USDA Forest Service.
5. Prepared second draft of survey instrument after careful examination of available reviews and comments.
6. Prepared necessary application paperwork for submission to Penn State University's Institutional Review Board (IRB), to ensure compliance with all governmental regulations on the use of human subjects for research purposes.
7. Received approval from Penn State University's Institutional Review Board (IRB) for the use of human subjects in compliance with all governmental and University regulations.
8. Back-translated second draft of survey instrument.
9. Piloted second draft of survey instrument among ethnic minority respondents and respondents from the general population.
10. Prepared final version of survey instrument after careful examination of responses and comments from pilot survey.

11. Prepared customized survey correspondence materials in accordance with Dillman's (2000)¹ Tailored Design Method; customized survey materials include pre-contact letter, pre-contact postcard, second-contact letter, reminder postcard, third-contact letter, and final-contact letter.
12. Prepared customized survey stationery, including plain envelopes with survey letterhead, business reply envelopes with survey letterhead, postcards with survey letterhead, copier paper with survey letterhead.
13. Back-translated final version of survey instrument and survey correspondence materials.
14. Purchased sample of 6000 respondents (500 Hispanic, 500 Japanese, 500 Chinese, 500 Korean, 500 African-American, and 500 Anglo/White respondents, each from Atlanta and Philadelphia, respectively) from Survey Sampling Inc., Fairfield, CT. [The sample was identified using a combination of the Surname and Tract Density Methodology.]
15. Conducted round-table discussion outlining potential outcomes of the study (focusing on multicultural perspectives on recreation and the environment and the development of effective urban forestry and park programs) at the North Eastern Recreation Research (NERR) Symposium at Bolton Landing, New York on April 3rd, 2000.
16. Mailed out pre-contact letter and pre-contact postcard to all 6000 respondents; both, pre-contact letters and pre-contact postcards were made available to all ethnic respondents in two versions - English and Non-English (ethnic language); the Non-English version was determined by the study investigators in accordance with the respondent's ethnicity.
17. Mailed out second-contact letter and questionnaires to all 6000 respondents; both, second-contact letters and questionnaires were made available to all ethnic respondents in two versions - English and Non-English (ethnic language); the Non-English version was determined by the study investigators in accordance with the respondent's ethnicity.
18. Mailed out reminder postcards to those respondents who had not responded to the second-contact letter and questionnaire.
19. Mailed out third-contact letter and questionnaire to those who had not responded to the reminder postcard.
20. Mailed out final-contact letter to those respondents who had not responded to the third-contact letter and questionnaire.
21. Acquired additional funds from The Pennsylvania State University through the College of the Liberal Arts, Department of Agricultural Economics and Rural Sociology Seed Grant program in order to purchase an additional sample (second sample) of 1000 respondents (125 Hispanic, 125 Japanese, 125 Chinese, and 125 Koreans, each from Atlanta and Philadelphia, respectively) from Survey Sampling Inc., Fairfield, CT. [The sample was identified using a combination of the Surname and Tract Density Methodology.]
22. Completed pre-contact, second-contact, reminder postcard, third-contact, and final contact stages of the survey with second sample.
23. Completed data-entry of all completed questionnaires (from both, first and second samples) returned to-date
24. Processed data (cleaning and analyses) in preparation for work on final report.
25. Prepared final report (including charts to illustrate the results, with descriptive interpretations of the respective charts.
26. Prepared environmental education framework to educate urban and community forestry practitioners regarding cross-cultural variations in park and forest visitation characteristics, based upon the findings of the study. The environmental education framework presents the key findings of the examination of the relationship between ethnicity, acculturation and outdoor recreation.
27. Presented outcomes of the study (focusing on multicultural perspectives on recreation and the environment and the development of effective urban forestry and park programs) at the California Society of Park and Recreation Educators (CAL-SPRE) Conference at Asilomar, California on November 2nd, 2001.
28. Shared the results/findings of the study with research social scientists at the USDA Forest Service Pacific Southwest Research Station. Riverside, California (C/o Dr. Deborah Chavez, Research Social Scientist).

¹ Dillman, D. A. (2000). *Mail and internet surveys: The tailored design method*. (2nd ed.) New York: J. Wiley.

29. Findings of the study will be presented at the California and Pacific Southwest Recreation and Park Training Conference at Los Angeles, California, April 4-7, 2002.
30. Based on the outcomes of the study, a refereed article entitled — Multicultural perspectives on recreation and the environment: From rhetoric to practice, is scheduled for publication in Leisure Sciences in February, 2002 issue.

Objectives not met:

The study has been successfully completed — all the objectives of the study, outlined in the study proposal, have been met. In an ongoing attempt to disseminate information pertaining to the study to urban and community forestry practitioners and park management professionals, the researchers will undertake the following efforts:

1. The researchers will continue to share pertinent information to USDA Forest Service research stations — Northeastern Area State And Private Forestry, North Central Forest Experiment Station, Northeastern Forest Experiment Station, Pacific Northwest Research Station, Pacific Southwest Forest and Range Experiment Station, and Southern Research Station.
2. The researchers will continue to present the findings of the study at national and regional level professional conferences and symposia related to parks, forests, and natural resource management.
3. The researchers will continue to publish refereed and non-refereed papers in professional journals and other literature sources related to parks, forests, and natural resource management.
4. A camera-ready copy of a pamphlet will be submitted to the NUCFAC, USDA Forest Service and other agencies/organizations involved in urban and community forestry. This pamphlet will provide a brief overview of the study in non-technical language, implications for management and ways to obtain additional information.

List the major research or policy findings of your project?

The results of this study indicated that increasing or decreasing level of acculturation among the identified ethnic groups produced change in some outdoor recreation characteristics and urban park and forestry related environmental concern and wildlife attitudes of the ethnic groups, in reference to Anglo or White and African American groups, but not in the majority of cases. With reference to the White or Anglo group, preferred characteristics of the identified ethnic groups regarding parks, forests, and recreational areas were most likely to be influenced by acculturation levels whereas the ethnic groups' visitation patterns were most likely to be influenced by acculturation levels, upon comparison with the African American respondents. Based on these results, it may be inferred that, although there are differences in the outdoor recreation characteristics and urban park and forestry related environmental concern and wildlife attitudes among ethnic groups, with reference to non-ethnic groups, increasing or decreasing levels of acculturation of most ethnic visitors are not likely to produce many changes in their characteristics. In other words, the level of acculturation of an ethnic individual did not have a profound impact on his/her outdoor recreation characteristics and urban park and forestry related environmental concern and wildlife attitudes, in most cases. This finding suggests that managers of urban parks and forests need not be overly concerned about acculturation-based differences within a given ethnic group, with respect to outdoor recreation characteristics and urban park and forestry related environmental concern and wildlife attitudes, while managing outdoor recreation resources. Although certain components of urban and community forest and park resource management, such as site design, maintenance, and staffing, could be slightly impacted depending upon levels of

acculturation of ethnic visitors, overall, management guidelines, for an urban park or forest, are more likely to be determined by the ethnic break-up of its visitors, rather than the individuals' levels of acculturation.

~~If not apparent in the above, or if your project did not involve research, how did this project increase the knowledge we have about urban forestry? How did (will) the public benefit?~~

The study will assist the NUCFAC, USDA Forest Service, and related natural resource management agencies in making sound, scientific decisions regarding the protection and improvement of the urban environment in terms of funding, promoting, and operating urban and community forestry facilities and programs. The final report and educational framework developed by this study will help guide the NUCFAC, USDA Forest Service, and related natural resource management agencies in enlightening urban and community forest and park practitioners regarding the economic, environmental, social, and psychological values and benefits of maintaining, conserving, and managing urban and community forestry, parks and wildlife and related resources, as perceived by ethnic minority communities. This understanding of the values and attitudes of ethnic minority communities toward urban and community forestry and park management will enable practitioners to cultivate partnerships and support volunteerism from ethnic minority communities and organizations.

What recommendations might you make for community foresters or others who might benefit from your project?

The findings from this study will have both immediate and long-term policy and practice implications for urban and community forestry and urban outdoor recreational resource management. Understanding the social demographic and social psychological bases of urban and community forestry and wildlife attitudes, and urban parks recreation characteristics of the fastest-growing urban ethnic minority populations can contribute to efforts by the NUCFAC, USDA Forest Service, and related natural resource management agencies in developing and implementing effective components of urban and community forestry strategies geared toward increasing the number of community groups actively involved in efforts to manage and improve urban forests and parks. Based upon the perceptions, values and needs of the surveyed ethnic minority communities with respect to urban and community forestry, parks and wildlife, managers of urban and community forests and parks across the US, can better identify and invest in actions that will keep their programs and efforts congruent with changing citizen values and needs.

Attach copies of reports, publications, or videos. If your work has been published (journals, popular press, etc.), provide where they have been published or reported and how copies can be obtained.

Refer to attachment: Final Management Report (including Environmental Education Framework)

Publications:

Sasidharan, V. (2001)

The Urban Recreation Experience: An Examination of Multicultural Differences in Park and Forest Visitation Characteristics, The Pennsylvania State University, USA, 2001 (Doctoral Dissertation).

Sasidharan, V., Godbey, G., Willits, F., and Elmendorf, W. (2002)

Exploring Social-Demographic And Social Psychological Bases Of Urban Park And Forest Visitation And Outdoor Recreation Characteristics Among Ethnic Minority Populations, Report Prepared for the National Urban and Community Forestry Advisory Council & USDA Forest Service, January 11, 2002.

Sasidharan, V. (2002).

Multicultural perspectives on recreation and the environment: From rhetoric to practice. Leisure Sciences. (in press; to be published in February, 2002 issue)

Sasidharan, V. (2002).

Minority Populations and Their Concern for Urban Parks and Forests. Proceedings of the California and Pacific Southwest Recreation and Park Training Conference, Los Angeles, California, USA, April 4-7, 2002. (to be published after April, 2002)

How were your results disseminated to the public?

All deliverable products have been prepared and submitted free of cost to the NUCFAC and the USDA Forest Service (Pacific Southwest, Southern, North Central, and Northeastern Research Stations). Other interested parties may contact the Principal Investigator for free electronic copies of the results and final project report, and ethnic minority environmental education framework. Deliverable products prepared and submitted to the NUCFAC and USDA Forest Service have not been copywritten. The NUCFAC and USDA Forest Service may produce and distribute copies of the deliverable products among interested parties.

Products developed from this project include a detailed Management Report (documenting all goals, objectives, methods, results, and conclusions) and an ethnic minority environmental education framework. It is anticipated that the contents of these documents will be made available on-line, through a US Forest Service maintained website and the availability of the documents will be made known to members of LISTSERVES which might logically have an interest, including US Forest Service employees, public recreation and park personnel and others.

List the active partners (key individuals or organizations) involved in the project:

The following personnel (and respective organizations) were actively involved in the project:

Dr. Geoffrey Godbey, Principal Investigator, Professor of Leisure Studies, Penn State University;
Dr. Fern Willits, Co- Principal Investigator, Professor of Rural Sociology, Penn State University;
Dr. Vinod Sasidharan, Co- Investigator and Project Director, Assistant Professor of Recreation, Parks, and Tourism, San Diego State University;
Mr. William Elmendorf, Project Consultant, Instructor of Urban and Community Forestry, Penn State University;
Translators, translation of survey instrument, Graduate Students from Penn State University.
USDA Forest Service Research Social Scientists from Pacific Southwest, North Central, Northeastern, and Southern Research Stations

Additionally, it should be noted that all methodological procedures related to the project were developed in conjunction with extensive consultation with the Methodology Center, College of Health and Human Development,

Penn State University as well as with other experienced researchers, including experts in the field of urban and community forestry, urban outdoor recreation, population demographics and statistics.

Photo or Illustration: If possible, please provide a photo or illustration for our use that summarizes or represents the project. Indicate how this illustration should be credited.

NA

If a no-cost time extension was granted for this project, why was it needed?

A no-cost time extension of 6 months (June 20, 2001 to December 20, 2001) was requested. This request was made for the following reason(s):

The study proposal had indicated that a total of 300 households each of Hispanic, Chinese, Korean, and Japanese origin will be identified from each of the 2 cities producing an initial sample of 2400 households (300 households X 4 ethnic groups X 2 cities). Recognizing the importance of surveying a larger population of respondents (than what was originally specified in the study proposal) to obtain a cross-section of responses from the ethnic communities included in the survey while ensuring an adequate response rate, the study investigators (in consultation with survey research experts) determined the need to acquire a bigger sample to meet the study objectives. Cost-saving measures were adopted to minimize costs associated with personnel, supplies, travel, and other direct expenses (subject incentives, mailing list purchases, donations for ethnic minority organizations, telephone, and printing and copying) related to the study. These cost savings were used to purchase a larger sample consisting of 6000 respondents (500 Hispanic, 500 Japanese, 500 Chinese, 500 Korean, 500 African-American, and 500 Anglo/White respondents, each from Atlanta and Philadelphia, respectively) from Survey Sampling Inc., Fairfield, CT. Furthermore, a second sample of 1000 respondents (125 Hispanic, 125 Japanese, 125 Chinese, and 125 Koreans, each from Atlanta and Philadelphia, respectively) was purchased from Survey Sampling Inc., Fairfield, CT, with the help of additional funds acquired from The Pennsylvania State University through its Seed Grant program. This significant (more than 2 times) increase in sample size resulted in the extension of the timeframe required to complete the survey.

A no-cost time extension of 6 months (June 20, 2001 to December 20, 2001) provided the study investigators with adequate time to meet the objectives of the study. Moreover, this extension provided respondents of the first sample with sufficient time to respond to the final-contact stage of the survey while giving the respondents of the second sample adequate time to respond to the third-contact and final-contact stages of the survey.

How would you evaluate the grant process? What changes, if any, would you recommend?

During the entire course of the grant process, the National Urban and Community Forestry Advisory Council (NUCFAC) and the USDA Forest Service have demonstrated high standards of commitment and professionalism toward the institutions and individuals involved in the research study. By keeping the grant process streamlined, while incorporating a great degree of flexibility, the grant awarding agencies have enabled the researchers to meet the study objectives in an efficient and steadfast manner. As far as recommendations for improvement are concerned, it would only be appropriate to state that the current structure of the National Urban and Community Forestry Advisory Council's Challenge Cost-Share Grant Program need not be changed in any way, whatsoever.

Comments considered of importance but not covered above:

Data from this project was used by a doctoral student to write his dissertation, focusing on multicultural perspectives regarding the use of urban parks and forests for outdoor recreation purposes. Further, secondary analyses of this study, dealing more specifically with gender and with constraints to recreation participation in urban parks and forests, are being planned by doctoral students.

This report was prepared by:

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Date: January 7, 2002