

# Human Activity Patterns

Studies of human activity patterns have recently taken on increased emphasis. A large study, "The National Human Activity Pattern Survey (NHAPS)" was conducted for the EPA between October 1992 and September 1994. This NHAPS database is large and rich enough to provide research material or very detailed exposure studies targeted to specific populations in the United States. While a large amount of data was collected on activity patterns for 9,386 subjects over a 24-hour day, certain human activities stand out as "higher exposure," and there is a need for these activities to be studied further.

To partly meet this need, a study in the area of exposure assessment was completed, using this NHAPS database, and is covered in the EPA report titled, "Analysis of the National Human Activity Pattern Survey (NHAPS) Respondents From a Standpoint of Exposure Assessment," by Neil E. Klepeis, Andy M. Tsang, and Joseph V. Behar (EPA/600/R-96/074).

Also, detailed results tables, for every follow-up question, and for most of the 24-hour diary activities and locations (including selected regroupings of the locations and activities for NHAPS) have been assembled into another EPA report titled "A Detailed Analysis of the National Human Activity Pattern Survey (NHAPS) Data," by Andy M. Tsang and Neil E. Klepeis. This latter report is intended to be a reference for use by exposure assessors and other researchers in the environmental health field. Selected portions of this assembled data has been incorporated into the Agency's "Exposure Factors Handbook," (EPA/600/P-95/002/a-c) a three-volume high-profile work completed by the EPA's National Center for Environmental Assessment (NCEA).

Contact: [William H. Engelmann](#), Exposure & Dose Research Branch (EDRB), Las Vegas, NV 89119.

Additional technical contacts for this fast-emerging field of study are provided below:

- Stephen C. Hern, U.S. EPA, EDRB, Las Vegas, NV 89119
- James J. Quackenboss, U.S. EPA, EDRB, Las Vegas, NV 89119
- Karen A. Hammerstrom, U.S. EPA, NCEA, Washington, D.C. 20460
- Jacqueline Moya, U.S. EPA, NCEA, Washington, DC 20460
- Dr. Lance A. Wallace, U.S. EPA, EMAB, Reston, VA 20192

<http://www.epa.gov/heasdweb/edrb/hap.htm>