APPENDIX A

CODING SCHEME FOR DIARY ACTIVITIES FOR THE CALIFORNIA CHILDREN'S ACTIVITY STUDY

November, 1990

CODING SCHEME FOR ARB KIDS STUDY (11/90)

**indicates activities added specifically for Kids study

01-09 Work and Other Income Producing Activities

***For the most part, these codes will not be used that often in the Kids study since most children will not have a "main" job. For children with a job, code "05" should be used. If a child accompanies his/her parent or other adult in activities related to that adult's job, interviewers should probe to determine the specific activity of the child. If the child was merely watching the adult work, and doing nothing else, code "08" will be used to indicate that the child was simply watching (or accompanying).

01 NOT ASCERTAINED ACTIVITIES (not accessible to interviewers)

Not ascertained personal activities, "time not accounted for"

Time gap of more than 10 minutes

"None of your business"

02 UNEMPLOYMENT

**Child's job search: looking for work, including visits to employment agencies, phone calls to prospective employers, answering want ads.

03 TRAVEL DURING WORK

**child traveling during his/her work

05 CHILDREN'S PAID WORK

**Part time job for child
Babysitting for pay, paper route.

06 EATING AT WORK/SCHOOL/DAYCARE

**Meal or snack at school or day care.
(includes eating away from school during school day).

08 Accompanying or watching adult at work.

09 TRAVEL TO WORK/SCHOOL MEALS

Travel to workplace, including time spent waiting for transportation. **Includes travel made by child to his/her own workplace or travel time accompanying parent (or other adult) to work.

Travel related to job search, to obtain unemployment benefits, welfare, food stamps, and waiting for related travel. **Includes travel by child alone and travel made accompanying parent (or other adult).

Travel related to meals during school day.

10-19 Household Activities

For the most part, these codes shouldn't create any problems. As a general rule, the use of codes 10-17 and 19 require that the child was actually engaged in the activity, or in assisting another person with the activity. If the child was watching someone else do the activity, however, code 18 would be used, indicating he/she was simply "watching."

10 FOOD PREPARATION (**includes actually doing activity or assisting an adult with task)

Meal preparation, cooking, fixing lunches

Serving food, setting the table

Preserving foodstuffs (canning, pickling, etc.)

11 MEAL CLEANUP (**includes actually doing activity or assisting an adult with task, does not include watching someone else do task)

Doing dishes, rinsing dishes, loading dishwasher

Meal cleanup, clearing table, unloading dishwasher

12 INDOOR HOUSE CLEANING (**includes actually doing activity or assisting an adult with task, does not include watching someone else do task)

Routine <u>indoor</u> cleaning and chores, picking up, dusting, making beds, washing windows, vacuuming, "fall/spring cleaning," taking out garbage, "housework."

Miscellaneous "work around the house" (not specified whether indoor or outdoor work), "running around picking up things"

13 OUTDOOR HOUSE CLEANING (**includes actually doing activity or assisting an adult with task, does not include watching someone else do task)

Routine outdoor cleaning and chores; yard work, raking leaves, mowing lawn, garbage removal, snow shoveling, putting on storm windows, cleaning garage, cutting wood.

149 WASHING CLOTHES AT LAUNDROMAT (**includes actually doing activity or assisting with task, does not include watching someone else do task)

14 CLOTHES CARE (** includes actually doing activity or assisting with task, does not include watching someone else do task)

Washing clothes

Other clothes care, including mending and other clothing repairs, (does not include sewing or needlework done for recreational purposes)

15 CAR REPAIR/MAINTENANCE (**includes actually doing activity or assisting an adult with task, but does not include watching someone else do task)

Routine car care at home; repairs, tune-up, other car care done by R (does not include car care done by professional garage)

Car maintenance; changed oil, changed tires, washed car, "worked on car"

Customize car, body work on car done at home

16 HOME REPAIRS (**includes actually doing activity or assisting an adult with task, but does not include watching someone else do task)

Indoor repairs: maintenance, fixing, furnace, plumbing

Outdoor repairs: maintenance of house exterior, fixing the roof, repairing the driveway

Home improvements: additions to and remodeling done to the house or garage, putting on a new roof

Carpentry or wood working to repair the home (does not include carpentry or woodworking done as a hobby)

Repairing appliances in the home

Repairing furniture or leisure equipment, "fixing bike," working on bike

Improvements to the grounds around the house, putting in a garden, laying sod, repaving the driveway

Wrapping packages; packing clothes

166 Repairing boats

167 Painting a room or home (interior and/or exterior)

169 Building a fire, "lighting firecrackers"

17 PLANT CARE (**includes actually doing activity or assisting someone else with task, but does not include watching someone else do task)

Picking flowers, fertilizing, weeding, maintaining plants or garden, picking fruit

Care of house plants

18 OTHER HOUSEHOLD

Watching another person do household tasks (any tasks codes 10-17 and 19)

Conducting garage sales (does not include shopping at garage sales)

Loading or unloading the car, putting away groceries, pulling baggage, showing what was purchased

"Getting backpack ready", "got ready for school", packed up to go home

Other household chores (including those not ascertained whether cleaning or repair) (This category will be excluded from the scheme the interviewers get. If something falls here it should first be reviewed by coders to make sure it can't be coded someplace else.)

19 PET CARE (**includes actually doing activity or assisting someone else with task, but does not include watching someone else do task)

Playing with animals, "collecting worms"

Care of domestic household pets (feeding the dog, walking the dog, running with the dog, brushing the cat, changing the hamster's cage, etc.)

Feeding and care of farm animals (feeding and care of chickens, cows, pigs, etc.). Feeding ducks in park, looking at mice.

199 Travel to home, travel to household activities, "travel to help gramma at laundromat."

20-29 Child Care

These codes are to be used only when the child being interviewed tells you he/she had responsibility for or assisted someone else in taking care of another child (e.g., babysitting for a neighbor, taking care of the baby, etc.). NOTE: Do not include child care done for pay. They should not be used if the child being interviewed was the recipient of care by another person.

20 BABY CARE

Providing routine care to children age 4 and under (feeding baby, changing diapers, etc.)

Babysitting when child's age is unspecified

21 CHILD CARE

Helping sister try on clothes

Taking routine care of children of mixed ages, where at least one child is between the ages of 5 and 18

22 HELPING/TEACHING CHILDREN

Helping (other) children learn, fix, or make things

Helping other children with homework

23 TALKING AND READING (IN THE CONTEXT OF CHILD CARE)

Giving other children orders or instructions; asking them to help, telling them to behave

Disciplining other children; yelling at kids, spanking children

Reading to another child

Conversations with other children in the household, listening to other children

24 INDOOR PLAYING WHILE CARING FOR A CHILD

**Indoor playing with babies and/or children as part of child care responsibility; includes games and other forms of indoor play

25 OUTDOOR PLAYING WHILE CARING FOR A CHILD

**Leading outdoor activities as part of child care responsibility; coaching

**Playing outdoors with other children as part of child care responsibility, including sports, walks, biking, other outdoor games

26 MEDICAL CARE FOR OTHER CHILDREN

**Providing medical care (at home or outside the home) for children for whom R has child care responsibility

**Activities associated with providing health care or assisting in the provision of health care to children

27 OTHER CHILD CARE

Coordinating other child's social or instructional non-school activities

Unpaid babysitting or other childcare of children outside of R's home (Paid babysitting is coded "05")

Time spent picking up or dropping off other children (not including travel time)

28 Watching someone provide any kind of child care to another child. (not used in children's survey)

29 TRAVEL RELATED TO CHILD CARE

30-39 Obtaining Goods and Services

For the most part, these codes are concerned with general shopping activities as well as efforts to obtain services. These codes should be used when R was actually doing the task. If R was simply accompanying someone else, code "38."

301 PICKING UP OR DROPPING OFF DRY CLEANING

30 GROCERY SHOPPING

Shopping for food, picking up takeout order at fast food restaurant, grocery shopping, picking up grocery order

31 SHOPPING FOR DURABLE GOODS AND HOUSEHOLD ITEMS

Shopping for clothing, small appliances, at drug stores, hardware stores, department stores, shopping centers, the mall. Also includes window shopping, shopping at a flea market

Walking at the mall is considered like window shopping, thus is coded here (otherwise, walking in a store is coded as walking - 82), at the mall, looking around store or mall

Shopping for durable goods, large appliances, furniture

Shopping for a house or apartment; activities connected to buying, selling, renting, looking for a house or apartment. This includes phone calls made to buy or rent, as well as time spent looking at homes for residential use

NOTE: If child is 3 years or older and activity is listed as shopping code as shopping (30 or 31). If under 3 years, code as accompanying adult to shop or "38"

32 PERSONAL CARE SERVICES

Going to the beauty parlor, barber shop, hairdressers

33 MEDICAL APPOINTMENTS

Obtaining medical services for self; going to the doctor; getting prescriptions filled, waiting for doctors appointment

34 GOVERNMENT AND FINANCIAL SERVICES

Seeking financial services; activities related to taking care of financial business, going to the bank, paying utility bills (in person), going to accountant, tax office, loan agencies

35 CAR REPAIR SERVICES

Buying gasoline

Seeking repair and other automobile services, including waiting for such services

Having work done by someone else on a car -- "not necessary to their running, customizing, painting"

Shopping for new cars, test driving cars

36 OTHER REPAIR SERVICES

Seeking services to have clothing repaired, altered (not including mending activities that R may engage in him/herself)

Seeking services to have appliances repaired, including major and small appliances (e.g., furnaces, water heaters, electric or battery operated appliances).

37 TIME SPENT SEEKING OR OBTAINING OTHER SERVICES

Other professional services such as seeing a lawyer, psychological counseling, etc.

Going to the dump

Renting and picking up (not purchasing various media and leisure materials, e.g., videos, records, sports equipment, fishing gear, etc.

Picking up mail (at post office)

38 ERRANDS

Accompanying parents on errands, or any shopping

Running errands; not ascertained whether for goods or services. Includes borrowing goods.

Watching someone else obtain goods and services or run errands.

"Riding in a shopping cart", riding in stroller while parent runs errands"

"Sitting on tire stand (at auto repair)"

39 TRAVEL RELATED TO GOODS AND SERVICES

40-49 Personal Needs and Care

40 WASHING

Bathing, washing, showering, personal hygiene, going to the bathroom, "drying off", brushing teeth, "sitting in hot tub"

Diaper changed, if over one year

Listening to story while trying to go to bathroom

Throwing up

41 MEDICAL CARE

Providing medical care to self, taking medicine

Having someone else provide medical care to you

Providing medical care to others in household

42 HELP AND CARE (NOT ACCESSIBLE TO INTERVIEWERS)

Non-medical care to adults in HH; routine non-medical care to adults in HH

Help to relatives not living in HH; helping, caring for, providing for needs of relatives; helping move, bringing food, assisting in emergencies, doing housework for relatives, visiting relatives when they are sick.

Dropping adults at work or other locations

Help to neighbors, friends

Help to others, relationship to R not ascertained

43 MEALS AT HOME

Meals at home, including coffee, drinking non-alcoholic or alcoholic beverages, food from a restaurant eaten at home, "breakfast," "lunch"

44 MEALS OUT

Meals at friends' home, including coffee, drinking beverages

Meals at a restaurant

Eating in car while stationary (eating while driving/riding gets travel code)

Eating at Marine World

NOTE: If R is in a bar having a drink, code "77."
Meals at school are "06."
Playing while eating is "875." (Eating at a place like Chuck E. Cheese is coded 711)

45 "NIGHT" SLEEP

**Sleep that lasts for three hours or longer (regardless of the time of day it occurs) There is one exception, however. If sleep occurs for fewer than three hours and occurs between 8:00 p.m. and 8:00 a.m., it will also be coded as "night sleep." This is done to handle infants who may wake up several times during a night. This is a change from the adult study, where "night sleep" was defined as the longest sleep of the day.

46 NAPS

Naps
**Sleep that lasts for fewer than three hours (and does not occur between the hours of 8:00 p.m. and 8:00 a.m.)

47 DRESSING AND GROOMING

Getting dressed or getting ready for bed, setting hair, blow-drying hair at home, being put to bed, "tucked in," having home permanent

474 WASHING AND DRESSING

Not accessible to interviewers.

48 WATCHING PERSONAL CARE

Other personal care activities, watching personal care activities of someone else

49 TRAVEL RELATED TO PERSONAL CARE

Travel related to helping, including travel which is the helping activity, waiting for related travel

Other personal travel

Travel when purpose is not clear

50-59 Education and Professional Training

50 STUDENTS' CLASSES (Code pre-kindergarten activities to the activity)

All classes other than physical education (except pre-school, where we code to the activity) even in the case of courses like arts and crafts.

Student attending classes full-time, except for physical education (Probe P.E. class for physical activity, and code to activity)

51 OTHER CLASSES

Other academic or professional classes, courses, lectures. (To be used when R is not a full time student or not ascertained whether a student.)

Receiving tutoring

52 UNSPECIFIED DAY CARE (to be used when more specific activity cannot be ascertained) includes unspecified babysitting time

54 DOING HOMEWORK

Reading for classes, doing homework, studying, doing research. (To be used when homework done in school, at friend's house, at home, or any location.)

549 Doing Homework While Watching TV

55 USING THE LIBRARY

Time spent at library (not including time spent doing homework in library, or time spent socializing with friends on library)

56 OTHER EDUCATION

Breaks between classes (not including "recess" which should be probed for specific activity)

Gathering up belongings at end of school day

Other education-related activities

57 At day care/nursery before or after school, hanging out before and after school

58 Watching someone else receive educational training

59 TRAVEL RELATED TO EDUCATION

Travel directly from home to class

Travel to day care

Waiting for related travel

Travel to library

**Travel related to school field trips

60-69 **Organizational Activities**

60 ATTENDING MEETINGS OF ORGANIZATIONS

Meetings for team sports (not including playing sports), special interest identity groups

Meetings of political/citizen organizations; including city council meetings

Meetings of volunteer or helping organizations

Meetings of religious groups, Sunday School

Attending services of a church or synagogue (code to specific activity except for the following), including participating in the service, ushering, singing in the choir, leading youth groups, going to church, funerals

Work for religious groups

Work for child/youth/family organizations, including such organizations as Girl Scouts, Boy Scouts, "selling Girl Scout cookies"

Knocking on doors selling chocolates

68 Watching others engaged in or accompanying others engaged in organizational activity

Other organizational activities, "signing up for tennis tournament"

69 TRAVEL RELATED TO ORGANIZATIONAL ACTIVITY

Travel related to all other organizational activities, waiting for related travel, travel to tending to ministry

70-79 **Entertainment/Social Activities**

70 SPORTS EVENTS

Watching sports

Watch other people do active leisure activities

Attending sports events, "getting autographs"

71 MISCELLANEOUS EVENTS

Miscellaneous spectacles, events, circus (sat and watched clown), fairs and amusement parks, rock concerts (includes listening to music at a rock concert), accidents

711 Eating and amusements (i.e., Chuck E. Cheese)

72 MOVIES

Attending movies

73 THEATER

Attending theater, opera, classical music concerts, ballet

74 VISITING MUSEUMS, ZOOS, ART GALLERIES, EXHIBITIONS

"Watching dolphins at Marine World"

75 VISITING WITH OTHERS

Conversations with relatives - grandparents, aunt, uncle - when not ascertained HH or not and when not HH member)
Socializing with people other than members of R's own household, (or if relationship is unspecified) either at R's home or another home; talking/chatting in the context of receiving a visit or paying. (Visiting with household members should not be included. Household visiting is coded "96.")

Affection with non-household members, "sitting on lap", etc.
Conversations with unspecified persons

76 PARTIES

Attending parties, receptions, weddings

Picnicking

77 BAR/LOUNGES/COFFEE SHOPS

Drinking, socializing or hoping to socialize at a bar or cocktail lounge, coffee shop (Does not include activities where R eats a meal)

78 OTHER SOCIAL EVENTS

Watching someone else engaged in social activities

Other events not coded above

79 TRAVEL RELATED TO EVENT/SOCIAL ACTIVITY

80-89 **Recreation**

80 ACTIVE SPORTS

Swimming (including wading or playing in water, playing in pool - not swimming, floating in inner tube, went to pool, playing with water-hose or water balloons), tennis, skating, skateboarding, roller skating, including lessons

"Playing cowboy - running - climbing stairs"

Football, basketball, baseball, volleyball, hockey, soccer, field hockey

Tennis, squash, racquetball, paddleball, handball

Skiing, ice skating, sledding

Trampoline

Riding on hobby horse, on rides/riding horse in front of a dry cleaners, hop scotch, hula hoops, merry-go-round at MacDonald's, jumping rope

Frisbee, catch

Exercises, weightlifting, "practicing cheers"

Judo, boxing, wrestling, "rough-housing with Dad and brother, being spun by Dad, "jumping on bed", bouncing on bed, playing around on water bed

Gymnastics

Amusement park rides, including roller coasters, Pirates of the Caribbean

Swinging (indoors or outdoors)

Playing on playground equipment, "climbing a tree"

801 Golf, miniature golf, golf lessons

802 Bowling, pool, ping pong, pinball

803 Yoga

81 OUTDOOR LEISURE

Hunting, fishing, boating, sailing, canoeing, camping (code to specific activity whenever possible), at the beach, snowmobiling, dune-buggies, gliding, ballooning, flying, kite flying

811 Outdoor play not specified elsewhere, "playing in dirt or sandbox", counting rocks, building forts, looking for something to do - got into boxes, playing make believe, playing house, just played, hide and seek outside (code 811 only if outside - if activity occurs inside, code 87)

82 WALKING/RUNNING/BIKING

Eating and walking

Walking for pleasure (not transportation), hiking, jogging, running, playing tag, bicycling or riding on back of bicycle, motorcycling for pleasure, horseback riding, march in parades, crawling around, running around (can be indoors or outdoors)

Walking in a walker, playing on a trike, big wheel or bike

Walking around grounds at Marine World, walking around store, running around store, walking with mom while tending to ministry

83 HOBBIES

Taking photographs, collections, scrapbooks, making movies

84 DOMESTIC CRAFTS

Knitting, needlework, weaving, crocheting, crewel, embroidery, quilting, quilling, macrame, wrapping gifts

This category also includes taking classes in these areas

85 ART

Sculpture, painting potting, drawing, including taking classes (but not school classes)

86 MUSIC/DRAMA/DANCE

Playing a musical instrument (including practicing), whistling, singing, acting and rehearsing for a play, social and non-social dancing, ballet, modern dance, body movement

Taking classes (not in school) in music, drama, or dance, (including time spent waiting for classes to begin)

Other active leisure

87 INDOOR GAMES

Hide and seek inside

Child under 5 years reading books, choosing books to read

Got face painted

Playing card games (bridge, poker)

Playing board games (monopoly, Yahtzee, Bingo, Dominoes, Trivial Pursuit, etc.)

Playing social games (scavenger hunts), "played games" (kind not ascertained)

Puzzles

Play and fight with brother, 2 year old fighting with friend

Played with toys (indoors)

Played indoors (any unspecified)

Played computer games, such as Pacman, Kong, video games at store, etc.

875 Playing and eating

877 Playing and talking with family members (at the same time) "played and tickled by Dad"

879 Playing and watching TV (at the same time)

88 WATCHING OTHERS ENGAGED IN RECREATION

[Includes being pushed in stroller as leisure activity (not travel)]

89 TRAVEL RELATED TO ACTIVE LEISURE

Related travel, including pleasure drives, rides with family, excursions

90-91 Communication and passive leisure

90 RADIO USE

Radio transmitting, CB radios

Listening to the radio

91 TV USE

TV viewing, including VCR and home movies, cable TV

NOTE: Watching TV and doing homework is coded 549
TV viewing and playing is coded 879
TV and reading is 937

914 TV and eating

915 TV viewing and something not listed above

92 RECORDS/TAPES

Recording music

Listening to records, tapes, stereo; listening to music, listening to others playing musical instruments

93 READING BOOKS

Reading - if child is over five years of age (if under, code as 87 or 94)

Reading books for pleasure

934 Reading books and eating

937 Reading and TV

938 Reading and listening to music

94 READING MAGAZINES/NOT ASCERTAINED

Reading magazines, reviews, pamphlets

Reading (not ascertained what)

Being read to

944 Reading magazines and eating

95 READING A NEWSPAPER

Reading newspaper

954 Reading newspaper and eating a meal or snack

96 CONVERSATIONS

Receiving instructions, being disciplined

Conversations/arguing with HH members

Other passive leisure, pestering, teasing, joking, messing around, laughing, crying (if over 1 year old), "playing pattycake" with family members

Affection between household members, giving and getting hugs, sitting on laps, having sex.

Conversations on the telephone with anyone (not just household members)

97 LETTERS, WRITING, PAPERWORK

Typing letters, writing letters, literature, poetry, writing in a diary, sending cards

971 Household paperwork, paying bills, balancing the checkbook, making lists, getting mail (at home), working on budget

98 OTHER PASSIVE LEISURE

Being a baby (to be used for children 1 year and under and includes diaper change, playing by him/herself or with parent, and all activities other than eating, walking (including "walking in walker") crawling, traveling, sleeping, or accompanying parents to an activity), and ALL PRE-CODED activities. Thus activities will often be coded "98" even when there is a more specific code, such as "87" for "playing with toys." Do not change pre-coded categories (watching TV, eating, etc.) to "98." Also remember that even though we are coding this way, we still need to probe thoroughly those activities -- even though we know it will be coded "98" we still must probe "playing," for example.

Having photos taken

Crying if 1 year old or under

Relaxing "lying in bed", got in bed, thinking, planning, reflecting, "quiet time," doing nothing, "sat around," smoking cigarettes, pipes, dope

Saying prayers

"Watching eclipse", "rocking in rocking chair"

"Just laid there and took rest, not nap"

"Rested in different bed upstairs"

Rocked to sleep

Watching others engaged in passive leisure

"Waiting" if connection to next activity is unclear

99 TRAVEL RELATED TO PASSIVE LEISURE

Related travel, waiting for related travel

APPENDIX B

MAIN BODY OF CATI INSTRUMENT USED FOR THE CALIFORNIA CHILDREN'S ACTIVITY SURVEY

```
%W%     %G%
*****************************************************************************
                        1988-89 Air Resources Board Survey
                             Survey Research Center
                        University of California, Berkeley

            main.q -- Begin substantive interview questions with the
                        child's designated adult primary caretaker
*****************************************************************************

>MAIN<  [allow 1][equiv rmon position 3]


>hous<  To begin, would you describe the building you live in as...


            <1> a separate single-family house,
            <2> a single-family home attached to other dwellings,
            <3> an apartment building,
            <4> a mobile home or trailer, or
            <5> something else?  (SPECIFY)  [specify]

        ===>


>hsnm<  [allow 27][equiv ntm3 position 31]

>ptst<  [if tim1 is <>]
            [settime tim1]
            [endif]
        [if hous is <1>]
            [store <your house> in hsnm]
            [endif]
        [if hous is <2>]
            [store <the building you live in> in hsnm]
            [endif]
        [if hous is <3>]
            [store <your apartment building> in hsnm]
            [endif]
        [if hous is <4>]
            [store <your mobile home or trailer> in hsnm]
            [endif]
        [if hous is <5>]
            [store <the building you live in> in hsnm]
            [endif]
```

>cons< In what year was [fill hsnm] constructed? [equiv hous position 2]

IF NEEDED: What would be your best guess?

<1700-1989> Year of construction

<9998> Don't know; can't say
<9999> Refused

===>

>park< Does [fill hsnm] have an attached garage or a parking area underneath it?

<1> Yes [goto prk2]
<5> No, neither

<8> Don't know; can't say
<9> Refused

===>[goto moth]

>prk2< While [fill name] was at home yesterday, were ANY cars, trucks, motorcycles, or other motor vehicles parked in the attached garage (or under-building parking area)?

<1> Yes (FOR ANY PART OF THE DAY)
<5> No

<8> Don't know; can't say
<9> Refused

===>

>moth< Are any of the following used in your home nowadays:

Any mothballs, or moth crystals or cakes?

<1> Yes
<5> No

<8> Don't know; can't say
<9> Refused

===>

>deod< Any toilet bowl deodorizers?

<1> Yes
<5> No

<8> Don't know; can't say
<9> Refused

===>

>rmfr< Any SCENTED room fresheners?

<1> Yes
<5> No

<8> Don't know; can't say
<9> Refused

===>

>htys< Was the heat turned on at any time in your home yesterday?
Do NOT include using a gas oven for heat.

IF NEEDED: I'll be asking about gas ovens separately a little later.

<1> Yes [goto htfl]
<5> No

<8> Don't know; can't say
<9> Refused

===>[goto open]

>htfl< What kind of heat was it -- gas, electricity, oil, or what?

IF COMBINATION: Which kind was used for heat the longest yesterday?
[allow 2]

<1> Gas
<2> Electricity
<3> Fuel oil or kerosene
<4> Wood
<5> Coal or coke
<6> Solar energy

<7> Other (SPECIFY) [specify]

<98> Don't know; can't say
<99> Refused

===>

>heat< What type of heater was turned on for the longest amount of time? Was it a wall furnace, a floor furnace, forced air, radiator, portable space heater, or something else?
[allow 2]

<1> Wall furnace
<2> Floor furnace
<3> Forced air
<4> Radiator
<5> Wood stove
<6> Fireplace
<7> Gravity heater
<8> Portable space heater

<9> Something else (SPECIFY) [specify]

<98> Don't know; can't say
<99> Refused

===>

```
>open<  Were any doors or windows in your home open for more than a
        minute or two at a time yesterday?

            <1> Yes  [goto opn1]
            <5> No

            <7> VOLUNTEERED ONLY: Yes - have a window open all the time

            <8> Don't know; can't say
            <9> Refused

        --->


>arst<  [if open is <7>]                  ** store maximum minutes
            [store <720> in opn1]         ** when window open ALL the time
            [store <720> in opn2]
            [endif]
        [goto fan1]


>opn1<  For about how long during the day, that is, from 6am to 6pm,
        (were they/was it) open?
                                                  Hours=Minutes

            <1-720> Number of minutes             1= 60   7=420
                                                  2=120   8=480
                <0> Not open between 6am and 6pm  3=180   9=540
                                                  4=240  10=600
              <998> Don't know; can't say         5=300  11=660
              <999> Refused                       6=360  12=720

         [##bla=997][##min=0][##max=720]--->


>opn2<  For about how long during evening or night hours, that is,
        from 6pm to 6am, (were they/was it) open?
                                                  Hours=Minutes

            <1-720> Number of minutes             1= 60   7=420
                                                  2=120   8=480
                <0> Not open between 6pm and 6am  3=180   9=540
                                                  4=240  10=600
              <998> Don't know; can't say         5=300  11=660
              <999> Refused                       6=360  12=720

         [##bla=997][##min=0][##max=720]--->
```

Date printed: 4/10/89

>fan1< Was any kind of fan used in your home yesterday?

<1> Yes [goto fan2]
<5> No

<8> Don't know; can't say
<9> Refused

===>[goto airc]

>fan2< Was that a ceiling fan, window fan, portable room fan, or something else? [allow 2]

<1> ceiling fan
<2> window fan
<3> portable room fan
<4> VOLUNTEERED ONLY: exhaust fan in bathroom or kitchen

<5> something else (SPECIFY) [specify]

<98> Don't know; can't say
<99> Refused

===>

>airc< (Not counting the fan you just told me about) Was any kind of air cooling system used in your home yesterday, such as an air conditioner? [loc 2/8]

<1> Yes [goto ACtp]
<5> No

<8> Don't know; can't say
<9> Refused

===>[goto vac]

>ACtp< What type is it? [allow 2]

<1> Evaporative cooler (swamp cooler)
<5> Refrigeration type (air conditioner)

<7> Other (SPECIFY) [specify]

<98> DK - Have air conditioning but don't know what kind
<99> Refused

===>

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>vac< What type of vacuum cleaner do you use, is it...

[allow 2]

<1> an upright,
<2> a canister,
<3> a canister with a powerhead,
<4> an electric broom, or
<5> some other kind of vacuum cleaner? (SPECIFY) [specify]

<6> Does not own or use a vacuum cleaner [goto flr]

<98> Don't know; can't say [goto flr]
<99> Refused [goto flr]

===>

>vac2< Is your vacuum cleaner working?

<1> Yes
<5> No

<8> Don't know; can't say
<9> Refused

===>

>flr< Yesterday, did [fill name] spend any time down on the floor in your home?

(Please don't include any time [fill name] spent walking from one place to another, but do include any time spent (crawling,) lying, or playing down on the floor.)

<1> Yes [goto flr2]
<5> No

<8> Don't know; can't say
<9> Refused

===>[goto out]

>flr2< Thinking of that floor area where [fill name] spent most of (his/her) time yesterday, was that area carpeted?

<1> Carpeted [goto flr3]
<5> Not carpeted
<7> Equal time on carpeted and uncarpeted [goto flr3]

<8> Don't know; can't say
<9> Refused

===>[goto cln]

>flr3< What type of carpet is on that floor area? Is it...

<1> plush carpet,
<2> level loop carpet,
<3> flat carpet,
<4> multi-level carpet,
<5> shag carpet, or
<6> some other type of carpet? (SPECIFY) [specify]

<8> Don't know; can't say
<9> Refused

===>

>cln< How many days has it been since that floor area was swept or vacuumed?

<0> Was swept or vacuumed today
<1-96> Number of days ago
<97> 97 days or more

<98> Don't know; can't say
<99> Refused

[##bla=99][##min=0][##max=97]===>

>out< Did [fill name] spend any time yesterday playing outdoors?

<1> Yes [goto surf]
<5> No

<8> Don't know; can't say
<9> Refused

===>[goto hum]

>surf< When [fill name] was outdoors yesterday, did (he/she) spend MOST of (his/her) time playing on sand or gravel, dirt, grass, asphalt, or concrete, or some other type of surface?

IF R MENTIONS MORE THAN ONE TYPE OF SURFACE, PROBE: On what surface did (he/she) spend MOST of (his/her) time yesterday?

[allow 2]

<1> sand or gravel
<2> dirt
<3> grass
<4> asphalt or concrete
<5> some other type of surface (SPECIFY) [specify]

<6> AFTER PROBE: combination of surfaces (SPECIFY) [specify]

<98> Don't know; can't say
<99> Refused

--->

>hum< Now, thinking about the time [fill name] spent indoors yesterday -- either at home or someplace else -- was (he/she) in a room where either a humidifier or vaporizer was in use?

IF YES: Was it a humidifier or a vaporizer?

<1> Yes, around a humidifier
<2> Yes, around a vaporizer
<3> Yes, around BOTH a humidifier and vaporizer

<4> No, not around a humidifier or vaporizer

<8> Don't know; can't say
<9> Refused

--->

>ill< Did [fill name] have to limit his/her activity yesterday because of asthma symptoms, cold, flu or any other illness or disability?

<1> Yes [goto ill2]
<5> No

<8> Don't know; can't say
<9> Refused

--->[goto tmsp]

>ill2< What kind of illness or disability did [fill name] have?
[allow 2]

<1> Asthma or asthma symptoms
<2> Cold
<3> Flu
<4> Sore throat
<5> Ear ache
<6> Cough

<7> Some other illness or disability (SPECIFY) [specify]

<98> Don't know; can't say
<99> Refused

--->

>tmsp< How much time did you personally spend with [fill name] yesterday?

<0> No time at all
<1-1439> Number of MINUTES

<1440> 24 Hours

<9998> Don't know; can't say
<9999> Refused

Hours = Minutes		
1= 60	8=480	15=900
2=120	9=540	16=960
3=180	10=600	17=1020
4=240	11=660	18=1080
5=300	12=720	19=1140
6=360	13=780	20=1200
7=420	14=840	21=1260
		22=1320
		23=1380
		24=1440

[##bla=9997][##min=0][##max=1440]--->

>rsex< CODE OR ASK IF NECESSARY:

Is [fill name] a boy or a girl?

<1> Boy
<2> Girl

--->

>SEG1< [allow 3] ** End of interview segment 1

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****
INTRODUCTION TO CHILDREN'S QUESTIONS
****

```
>tpx<   [if rage ge <9>][#and][if rage le <11>]      ** Determine intro to use for
            [goto px9]                               ** children's items, based
            [endif][endif]                           ** on child's age (rage).
        [if rage ge <6>][#and][if rage le <8>]
            [goto px6]
            [endif][endif]
        [if rage ge <0>][#and][if rage le <5>]
            [goto px0]
            [endif][endif]
```

>px9< Those are all the questions I have for you at this point. Now I would like to ask some questions of [fill name]. You may stand by and listen if you'd like. When we're done, I'll have a few more questions for you.

Could I please speak to [fill name]?

<1> Yes and [fill name] comes to phone [goto exp9]

<5> [fill name] not available or can't come to phone
<8> [fill name] refuses to come to phone or be interviewed
<9> Adult refuses to allow [fill name] to be interviewed

===>[goto px9b]

>px6< For the next questions, it would be helpful if [fill name] is nearby so you can ask (him/her) about (his/her) activities during the time when you weren't around yesterday.

IF NECESSARY: (He/She) can be playing or doing something to keep busy as long as (she/he) stays within earshot. [equiv px9]

<1> [fill name] is nearby, proceed with interview
<5> [fill name] not available, proceed with interview anyway

===>[goto ywho]

>px0< Next a few questions about [fill name]'s activities yesterday. [equiv px9]

TYPE <g> TO PROCEED WITH INTERVIEW

===>[goto ywho]

>px9b< In that case, I can just ask YOU those questions about [fill name]'s activities yesterday.

IF ADULT REFUSES OR SOME OTHER PROBLEM PREVENTS CONTINUATION OF INTERVIEW, USE ":sk cb" TO EXIT.

TYPE <1> TO CONTINUE INTERVIEW WITH ADULT

===>[goto ywho]

>exp9< Hello, my name is [fill unam] and I've been talking to [fill whpl] about things that have to do with air pollution and the quality of the air we breathe. We're doing a study for a group called the Air Resource Board that is part of the California state government. They want to understand more about the things that kids do and the kind of air kids breathe.

I'm going to ask you some questions about what you did and where you went yesterday. If there's anything you don't want to tell me about, that's fine, just say so. And if I ask a question you don't understand, tell me and I'll try to explain it better.

Before we start, do you have any questions you want to ask me?
ANSWER ALL QUESTIONS AS BRIEFED, THEN: Allright, ready to start?
[equiv px9b]

<1> Yes, ready to start, proceed with interview [goto ywho]
<8> [fill name] not able to be interviewed now
<9> [fill name] refuses to be interviewed

===>

>ex9b< That's okay. Just let me speak to [fill whpl] again, please.

IF ADULT REFUSES TO COME BACK OR SOME OTHER PROBLEM PREVENTS CONTINUATION OF INTERVIEW, USE ":sk cb" TO EXIT THIS CASE.

<g> Adult ([fill whpl]) comes back to phone

===>

>ex9c< I spoke with [fill name] and (he/she) (can/will) not be interviewed right now. However, if you agree, I can just ask YOU about [fill name]'s activities yesterday.

IF ADULT REFUSES OR SOME OTHER PROBLEM PREVENTS CONTINUATION OF INTERVIEW, USE ":sk cb" TO EXIT.

TYPE <1> TO CONTINUE INTERVIEW WITH ADULT

===>[goto ywho]

```
*****************************************************************************
                        BEGIN CHILDREN'S QUESTIONS
  (Ask of adult caretaker for 0-8 year olds; 9-11 year olds respond directly)
*****************************************************************************


>ywho<  INTERVIEWER CHECKPOINT:  WHO IS BEING INTERVIEWED NOW?

            <1>  [fill name], the child respondent

            <5>  the adult primary caretaker

        --->


>yres<  [allow 1]                    ** summary var: respondent for child questions
                                                     1 = child,  5 = adult

>rpro< [allow 12][equiv hsnm position 28]   ** respondent name or pronoun (you)
>rvrb< [allow 4]                            ** conjugation (was/were)
>rpri< [allow 3]                            ** respondent pronoun (you/he/she)


>tyfi<  [if ywho is <1>]
            [store <1> in yres]
            [store <you> in rpro]
            [store <were> in rvrb]
            [store <you> in rpri]
            [endif]
        [if ywho is <5>]
            [store <5> in yres]
            [store name in rpro]
            [store <was> in rvrb]
            [if rsex is <1>]
                [store <he> in rpri]
                [endif]
            [if rsex is <2>]
                [store <she> in rpri]
                [endif]
            [endif]
```

>pgar< (Now) I am going to ask you some general questions about places where [fill rpro] [fill rvrb] yesterday.

Did [fill rpri] spend ANY time yesterday at a gas station or in a parking garage or auto repair shop?

[equiv yres position 2]

<1> Yes [goto pgys]
<5> No

<8> Don't know; can't say
<9> Refused

===>[goto prkt]

>pgys< About how long in all yesterday did [fill rpri] spend in those places?

<1-840> number of minutes

<841> more than 14 hours

<998> Don't know; can't say
<999> Refused

Hours = Minutes	
1= 60	8=480
2=120	9=540
3=180	10=600
4=240	11=660
5=300	12=720
6=360	13=780
7=420	14=840

[##bla=0][##min=1][##max=841]===>

>pcar< While at the gas station, parking garage or auto repair shop yesterday, did [fill rpri] stay in the car the whole time or did (he/she) get out of the car?

<1> Stayed in car whole time [goto prkt]
<5> Out of the car some of the time

<8> Don't know; can't say
<9> Refused

===>

```
>pgas<  (Did [fill rpri] pump or pour any gasoline (yesterday)
        or) [fill rvrb] [fill rpri] nearby while someone else pumped gas?


            <1> Yes
            <5> No

            <7> VOLUNTEERED ONLY: Someone else pumped or poured gas,
                but [fill name] was there.

            <8> Don't know; can't say
            <9> Refused

        ===>


>prkt< [if rage ge <9>][#and][if prk2 ge <8>]
           [goto prk9]
           [endif][endif]
       [goto gstv]


>prk9<  While [fill rpro] [fill rvrb] at home yesterday, were ANY cars, trucks,
        motorcycles, or other motor vehicles parked in the attached garage
        (or under-building parking area) where you live?


            <1> Yes (FOR ANY PART OF THE DAY)
            <5> No

            <8> Don't know; can't say
            <9> Refused

        ===>


>gstv<  Did [fill rpri] spend any time yesterday in a room where an
        oven, range or stove was turned on?


            <1> Yes                     [goto gore]
            <5> No

            <8> Don't know; can't say
            <9> Refused

        ===>[goto glue]
```

>gore< Was that a gas or electric oven, range, or stove?

IF BOTH GAS AND ELECTRIC, CODE "GAS"

<1> Gas [goto nstv]
<3> Electric

<8> Don't know; can't say
<9> Refused

===>[goto glue]

>nstv< Was that just one or more than one gas oven, range, or stove that [fill rpri] [fill rvrb] around yesterday?

<1> Only one [goto gspr]
<5> More than one [goto msl]

<8> Don't know; can't say
<9> Refused

===>[goto glue]

>msl< Was the gas oven, range, or stove [fill rpro] [fill rvrb] around for the longest time yesterday being used for cooking, for heating the room, for cleaning the oven, or for some other purpose?

[allow 2]

<1> Cooking
<3> Heating the room

<5> (PROBE ONCE FIRST) Both cooking and heating the room

<6> Cleaning the oven

<7> Some other purpose (SPECIFY) [specify]

<98> Don't know; can't say
<99> Refused

===>

>mstm< Roughly how much time IN ALL [fill rvrb] [fill rpri] in rooms where gas ovens, ranges, or stoves were turned on (yesterday)?

(IF NEEDED: About how many minutes or hours?)

<1-840> number of minutes
<841> more than 14 hours

<998> Don't know; can't say
<999> Refused

Hours = Minutes	
1= 60	8=480
2=120	9=540
3=180	10=600
4=240	11=660
5=300	12=720
6=360	13=780
7=420	14=840

[##bla=0][##min=1][##max=841]===>

>ms2< Does the oven, range, or stove that [fill rpri] [fill rvrb] around the longest have a gas pilot light, pilotless ignition, or something else?

[allow 2]

<1> Gas pilot

<3> (VOLUNTEERED RESPONSE ONLY) Light with matches or sparker

<5> Pilotless ignition (makes click-click-click sound)

<7> Other (SPECIFY) [specify]

<98> Don't know; can't say
<99> Refused

===>[goto glue]

>gspr< Was the gas oven, range, or stove being used for cooking, for heating the room, for cleaning the oven, or for some other purpose?

[allow 2]

<1> Cooking
<3> Heating the room

<5> (PROBE ONCE FIRST) Both cooking and heating the room

<6> Cleaning the oven

<7> Some other purpose (SPECIFY) [specify]

<98> Don't know; can't say
<99> Refused

===>

>gstm< Roughly how much time IN ALL [fill rvrb] [fill rpro] in a room where a gas oven, range, or stove was turned on (yesterday)?

IF NEEDED: About how many minutes or hours?

<1-840> number of minutes
<841> more than 14 hours

<998> Don't know; can't say
<999> Refused

Hours = Minutes	
1= 60	8=480
2=120	9=540
3=180	10=600
4=240	11=660
5=300	12=720
6=360	13=780
7=420	14=840

[##bla=0][##min=1][##max=841]===>

>plot< Does the oven, range, or stove have a gas pilot light, pilotless ignition, or something else?

[allow 2]

<1> Gas pilot light
<3> VOLUNTEERED ONLY: Light with matches or sparker
<5> Pilotless ignition (makes click-click-click sound)

<7> Other (SPECIFY) [specify]

<98> Don't know; can't say
<99> Refused

===>

>glue< Did [fill rpri] use or [fill rvrb] [fill rpri] around anyone while they were using any of the following yesterday:

Any glues or liquid or spray adhesives?

(NOT INCLUDING ADHESIVE TAPE)

[# (e.g., see pnt below)

<1> Yes
<5> No

<8> Don't know; can't say
<9> Refused

===>

>pnt< (Did [fill rpri] use or [fill rvrb] [fill rpri] around anyone while they were using:)

Any paint products (yesterday)?

INTERVIEWER: If R volunteers what kind of paint product was used, make a note.

<1> Yes [goto pnt1]
<5> No

<8> Don't know; can't say
<9> Refused

===>[goto solv]

>pnt1< Were they water based paints or oil based paints?

<1> Oil based paints
<2> Water based paints
<3> Both oil based and water based paints

<8> Don't know; can't say
<9> Refused

===>

>solv< (Did [fill rpri] use or [fill rvrb] [fill rpri] around anyone while they were using:)

Any solvents like paint thinner, cleaning fluids, or kerosene (yesterday)?

<1> Yes
<5> No

<8> Don't know; can't say
<9> Refused

===>

>pest< (Did [fill rpri] use or [fill rvrb] [fill rpri] around anyone while they were using:)

Any pesticides (yesterday) like bug strips or bug sprays?

<1> Yes [goto pst2]
<5> No

<8> Don't know; can't say
<9> Refused

===>[goto soap]

>pst2< When [fill rpro] [fill rvrb] around pesticides yesterday, [fill rvrb] [fill rpro] indoors or outdoors most of that time?

<1> Indoors
<5> Outdoors

<7> (CODE ONLY AFTER PROBE) Both indoors and outdoors equally

<8> Don't know; can't say
<9> Refused

===>

>soap< (Did [fill rpri] use or [fill rvrb] [fill rpri] around anyone while they were using:)

Any soaps or detergents (yesterday) -- including bath soaps?

<1> Yes
<5> No

<8> Don't know; can't say
<9> Refused

===>

>Ocln< (Did [fill rpri] use or [fill rvrb] [fill rpri] around anyone while they were using:)

Any other household cleaning agents such as Ajax, other cleansers, ammonia, or anything like that (yesterday)?

<1> Yes
<5> No

<8> Don't know; can't say
<9> Refused

===>

>aero< Yesterday, [fill rvrb] [fill rpro] in a room where someone was using personal care aerosol spray products such as deodorants or hair spray?

IF RSC SAYS NO, PROBE: Did you use any of them?

<1> Yes
<5> No

<8> Don't know; can't say
<9> Refused

===>

>shwr< Did [fill rpro] take a hot shower yesterday?

<1> Yes
<5> No

<8> Don't know; can't say
<9> Refused

===>

>bath< Did [fill rpri] take a hot bath, use an indoor hot tub, or go swimming in an INDOOR swimming pool yesterday?

<1> Yes
<5> No

<8> Don't know; can't say
<9> Refused

===>

```
*****************************************************************************
                    BRANCH TO CHILD'S 24 HOUR ACTIVITY DIARY
                   (refer to "diary.q" for text of questions)
*****************************************************************************

>clc3<  [if dia2 is <> goto clc5]        ** automatically branch first time **

>diar<  INTERVIEWER:  Do you want to branch to the activity diary?

            <1> Yes, branch to the diary to continue adding     [goto clc5]
                  activities (interview is in progress)

            <3> Yes, branch to the diary, but only for review   [goto clc5]
                  or to check coding (R is not on phone now)

            <5> No, bypass the diary                            [goto tdyc]

         IF NECESSARY, USE  :ca  TO ENTER YOUR CHOICE
       ===>


>clc5<  [store <2> in cp04]
        [store <T "> in cmto]
        [store name in cmtn]
        [store rage in cmta]
        [store <y> in cmtm]
        [if rage is <0>]
            [store rmon in cmta]
            [store <m> in cmtm]
            [endif]
        [store yres in cmtt]
        [store <" > in cmtc]
        [store csid in cmti]
        [store <1> in cmts]
        [call cmt]
        [settime din]
        [call com5]                  ** execute diary instrument (diary.q)
        [settime dout]
        [subtime din from dout into CALC]
        [if diar is <1>][addtime CALC to dcum][endif]
        [if diar is <>][addtime CALC to dcum][endif]
        [store <5> in diar]
```

****

RETURN FROM ACTIVITY DIARY

****

>dia2< INTERVIEWER: Describe the condition of the diary, as YOU left it:

<1> Diary completed; entire 24 hour period accounted for

<3> Diary not completed; some time not accounted for

NOTE: ALWAYS ANSWER THIS ITEM - DO NOT USE THE :sk cb COMMAND HERE.
===>

>dcum< [allow 4] ** diary time accumulator

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****
INTERVIEW CONTINUES HERE AFTER ACTIVITY DIARY
****

>tdyc< [if rage ge <9> goto ystu]

>dycr< INTERVIEWER: Does the time diary contain any unspecified "daycare," "babysitting," or "school" activities? [loc 3/8]

<1> Yes
<5> No [goto tyst]

--->

>dc1< Thinking only about the time [fill name] spent (in daycare/ with the babysitter/at school) yesterday, how much time did [fill rpri] spend eating snacks or meals?

<0> No time spent
<1-180> Number of minutes
<181> More than 3 hours

<998> Don't know; can't say
<999> Refused

Hours = Minutes

1 = 60
2 = 120
3 = 180

[##bla=997][##min=0][##max=181]--->

>dc2< Again, thinking only about the time [fill name] spent (in daycare/with the babysitter/at school) yesterday, how much time did [fill rpri] spend napping or resting (during rest periods)?

<0> No time spent
<1-720> Number of minutes
<721> More than 12 hours

<998> Don't know; can't say
<999> Refused

Hours = Minutes

1= 60	7=420
2=120	8=480
3=180	9=540
4=240	10=600
5=300	11=660
6=360	12=720

[##bla=997][##min=0][##max=721]--->

>dc3< And how much time did [fill rpri] spend watching TV while [fill rpri] was (in daycare/with the babysitter/at school) yesterday?

		Hours = Minutes	
<0>	No time spent	1= 60	7=420
<1-720>	Number of minutes	2=120	8=480
<721>	More than 12 hours	3=180	9=540
		4=240	10=600
<998>	Don't know; can't say	5=300	11=660
<999>	Refused	6=360	12=720

[##bla=997][##min=0][##max=721]===>

>dc4< How much time did [fill rpri] spend doing arts and crafts while [fill rpri] was (in daycare/with the babysitter/ at school) yesterday?

		Hours = Minutes	
<0>	No time spent	1= 60	7=420
<1-720>	Number of minutes	2=120	8=480
<721>	More than 12 hours	3=180	9=540
		4=240	10=600
<998>	Don't know; can't say	5=300	11=660
<999>	Refused	6=360	12=720

[##bla=997][##min=0][##max=721]===>

>dc5< When [fill name] was (in daycare/with the babysitter/at school) yesterday, how much time was [fill rpri] actively playing outdoors?

		Hours = Minutes	
<0>	No time spent	1= 60	7=420
<1-720>	Number of minutes	2=120	8=480
<721>	More than 12 hours	3=180	9=540
		4=240	10=600
<998>	Don't know; can't say	5=300	11=680
<999>	Refused	6=360	12=720

[##bla=997][##min=0][##max=721]===>

>ftrp< Did [fill name] go on any field trips yesterday while [fill rpri] was (in daycare/at school)?

<1> Yes [goto ftp2]
<5> No

<8> Don't know
<9> Refused

===>[goto tyst]

>ftp2< Approximately how long was [fill name] on the field trip?

<1-720> Number of minutes
<721> More than 12 hours

<998> Don't know; can't say
<999> Refused

Hours = Minutes	
1= 60	7=420
2=120	8=480
3=180	9=540
4=240	10=600
5=300	11=660
6=360	12=720

[##bla=0][##min=1][##max=721]===>

>tyst< [if rage le <8> goto pend] ** ask ystu of 9-11 year olds only

>ystu< Now that we're finished with the diary, I have just a couple more questions for you. Are you currently in school?

<1> Yes [goto yedu]
<5> No

<8> Don't know; can't say
<9> Refused

===>[goto pret]

>yedu< What grade are you in?

<0-6> Elementary grades

<7-9> Junior high grades

<98> Don't know; can't say
<99> Refused

[##bla=97][##min=0][##max=9]===>

>pret< Those are all the questions I have for you, but I would like to speak to your [fill whpl] again for a few minutes. Would you ask (him/her) to come to the phone.

<g> [fill whpl] returns to phone, continue

IF [fill whpl] IS NOT AVAILABLE OR SOME OTHER PROBLEM PREVENTS CONTINUATION OF INTERVIEW, USE ":sk cb" TO EXIT.

===>[goto pend]

****

CONCLUDE INTERVIEW WITH THE ADULT

****

```
>pend<  Now I have just a few more questions for you, to be sure we talk to
        people from all walks of life.

        TYPE <g> TO PROCEED


        ===>

>tys8<  [if rage ge <9> goto ethn]        ** ask adult ystu for 0-8 yr olds
        [if rage le <3> goto ethn]        ** don't ask children under 4 years

>yst2<  CODE OR ASK AS NECESSARY:

        Is [fill name] currently in school?

        IF NEEDED DURING SUMMER: Was [fill name] in school during
                                 this past school year?


            <1> Yes  [goto yed2]
            <5> No

            <8> Don't know; can't say
            <9> Refused

        ===>[goto ethn]


>yed2<  What grade is [fill name] in?

        IF NEEDED DURING SUMMER: What grade was [fill name] in during
                                 this past school year?


            <0-9> Elementary grades

             <98> Don't know; can't say
             <99> Refused

         [##bla=97][##min=0][##max=9]===>
```

>ethn< Which of the following terms best describes [fill name]'s ethnic background? Is (he/she)...

[allow 2]

<1> White or Caucasian,
<2> Black,
<3> Hispanic or Mexican American,
<4> Asian, or
<5> something else? (SPECIFY) [specify]

<98> Don't know; can't say
<99> Refused

===>

>wght< How much does [fill name] weigh? (What would be your best guess?)

<1-350> pounds

<998> Don't know; can't say
<999> Refused

===>

>arel< ASK IF NOT CLEAR: How are you related to [fill name]?

[allow 2]

<1> Father
<2> Mother
<3> Step-father
<4> Step-mother
<5> Grandfather
<6> Grandmother
<11> Uncle
<12> Aunt
<13> Brother
<14> Sister

<7> Other relative (SPECIFY) [specify]
<8> Other non-relative (SPECIFY) [specify]

<98> Don't know
<99> Refused

===>

>mrtl< CODE OR ASK AS NECESSARY:

Are you now married, living with someone in a marriage-like relationship, widowed, divorced, separated, or have you never been married?

<1> Married and living with spouse (or spouse in military)
<2> Living in a marriage-like relationship
<3> Widowed
<4> Separated
<5> Divorced
<6> Never married

<8> Don't know
<9> Refused

===>

>wkjb< Are you currently working, unemployed and looking for work, on layoff from a job, retired, going to school, keeping house, or something else?

[allow 2]

<1> Working [goto wkj2]
<2> Looking for work
<3> On layoff from work
<4> Retired
<5> Going to school
<6> Keeping house
<7> Something else (SPECIFY) [specify]

<98> Don't know; can't say
<99> Refused

===>[goto aedu]

>wkj2< Are you working full time or part time?

<1> Full time (30 or more hours per week)
<2> Part time (fewer than 30 hours per week)

<8> Don't know; can't say
<9> Refused

===>

>aedu< What is the highest grade of school or year of college you COMPLETED?

<0> No school

ELEMENTARY SCHOOL
<1> 1st grade
<2> 2nd grade
<3> 3rd grade
<4> 4th grade
<5> 5th grade
<6> 6th grade
<7> 7th grade
<8> 8th grade

HIGH SCHOOL
<9> 9th grade (freshman)
<10> 10th grade (sophomore)
<11> 11th grade (junior)
<12> 12th grade (senior)

COLLEGE (for credit only)
<13> 1 year (freshman)
<14> 2 years (sophomore)
<15> 3 years (junior)
<16> 4 years (senior)
<17> 5 or more years

<98> Don't know
<99> Refused

[##bla=97][##min=0][##max=17]===>

>asex< INTERVIEWER, CODE OR ASK AS NECESSARY: Sex of ADULT respondent

<1> male
<2> female

===>

>tmr1< [if mrtl le <2> goto swk1] ** ask swk1 if married/marriage-like
[goto zip]

>swk1< Is your (husband/wife/partner) currently working, unemployed and looking for work, on layoff from a job, retired, going to school, keeping house, or something else?
[allow 2]

<1> Working [goto swk2]
<2> Looking for work
<3> On layoff from work
<4> Retired
<5> Going to school
<6> Keeping house

<7> Something else (SPECIFY) [specify]

<98> Don't know; can't say
<99> Refused

===>[goto saed]

Date printed: 4/10/89

>swk2< Is (he/she) working full time or part time?

<1> Full time (30 or more hours per week)
<2> Part time (fewer than 30 hours per week)

<8> Don't know; can't say
<9> Refused

===>

>saed< What is the highest grade of school or year of college your (husband/wife/partner) COMPLETED?

<0> No school

ELEMENTARY SCHOOL
<1> 1st grade
<2> 2nd grade
<3> 3rd grade
<4> 4th grade
<5> 5th grade
<6> 6th grade
<7> 7th grade
<8> 8th grade

HIGH SCHOOL
<9> 9th grade (freshman)
<10> 10th grade (sophomore)
<11> 11th grade (junior)
<12> 12th grade (senior)

COLLEGE (for credit only)
<13> 1 year (freshman)
<14> 2 years (sophomore)
<15> 3 years (junior)
<16> 4 years (senior)
<17> 5 or more years

<98> Don't know
<99> Refused

[##bla=97][##min=0][##max=17]===>

>zip< What is the postal ZIP code for your home address?

<90000-99999> Adult's home ZIP code

<7> Other (SPECIFY) [specify]

<8> Don't know; can't say
<9> Refused

[##md1=9][##md2=8][##min=90000][##max=99999]===>

Date printed: 4/10/89

>cnty< What county do you live in? (ASK R TO SPELL IF UNCLEAR)

<1> Alameda
<2> Alpine
<3> Amador
<4> Butte
<5> Calaveras
<6> Colusa
<7> Contra Costa
<8> Del Norte
<9> El Dorado
<10> Fresno
<11> Glenn
<12> Humboldt
<13> Imperial
<14> Inyo
<15> Kern
<16> Kings
<17> Lake
<18> Lassen
<19> Los Angeles
<20> Madera
<21> Marin
<22> Mariposa
<23> Mendocino
<24> Merced
<25> Modoc
<26> Mono
<27> Monterey
<28> Napa
<29> Nevada
<30> Orange
<31> Placer
<32> Plumas
<33> Riverside
<34> Sacramento
<35> San Benito
<36> SanBernardino
<37> San Diego
<38> SanFrancisco
<39> San Joaquin
<40> SanLuisObispo
<41> San Mateo
<42> SantaBarbara
<43> Santa Clara
<44> Santa Cruz
<45> Shasta
<46> Sierra
<47> Siskiyou
<48> Solano
<49> Sonoma
<50> Stanislaus
<51> Sutter
<52> Tehama
<53> Trinity
<54> Tulare
<55> Tuolomne
<56> Ventura
<57> Yolo
<58> Yuba

<98> Don't know; can't say
<99> Refused

===>

>area< Would you say the area you live in is rural, suburban, or a city?

IF R SAYS "small town", PROBE: Is it within 25 miles of a city?
(WITHIN 25 MILES, CODE AS SUBURBAN; FARTHER AWAY CODE AS RURAL)

<1> rural
<3> suburban
<5> a city

<8> Don't know; can't say
<9> Refused

===>

>bg15< How many telephones, counting extensions, do you have in your home?

<1> One [goto SY15]
<5> Two or more [goto bg16]

<8> Don't know, not sure
<9> Refused

===>

>tb15< [if bg15 is <8>][store <98> in bg17][endif]
[if bg15 is <9>][store <99> in bg17][endif]
[goto EOY]

```
>bg16<  Do (both/all) the telephones have the same number?   [indirect]

           <1> Yes          [goto SY15]
           <5> No           [goto bg17]

           <8> Don't know, not sure
           <9> Refused

         ===>


>tb16<  [if bg16 is <8>][store <98> in bg17][endif]
        [if bg16 is <9>][store <99> in bg17][endif]
        [goto EOY]


>bg17<  How many different numbers are there?   [indirect] [no erase]

          <2-25> ENTER NUMBER

            <98> Don't know, not sure
            <99> Refused


         ===> [goto EOY]


>SY15<   [store <1> in bg17]

>EOY<    [allow 1][end]


>i30<   Think of the income BEFORE TAXES of ALL MEMBERS of your household
        living with you in 1988, and include income from all sources including
        wages, pensions, dividends, interest, and all other income.

        Was the total income from all sources, (including your own,)
        under or over $30,000?

        (IF UNCERTAIN: What would be your best guess?)


                <1> Under $30,000     [goto i10]
                <3> Exactly $30,000
                <5> Over $30,000      [goto i50]

                <8> Don't know; can't say
                <9> Refused

        ===>[goto tin1]
```

>i50< Was it under or over $50,000?

(IF UNCERTAIN: What would be your best guess?)

<1> Under $50,000 [goto i40]
<3> Exactly $50,000
<5> Over $50,000 [goto i70]

<8> Don't know; can't say
<9> Refused

===>[goto tin1]

>i70< Was it under or over $70,000?

(IF UNCERTAIN: What would be your best guess?)

<1> Under $70,000 [goto i60]
<3> Exactly $70,000
<5> Over $70,000

<8> Don't know; can't say
<9> Refused

===>[goto tin1]

>i40< Was it under or over $40,000?

(IF UNCERTAIN: What would be your best guess?)

<1> Under $40,000
<3> Exactly $40,000
<5> Over $40,000

<8> Don't know; can't say
<9> Refused

===>[goto tin1]

>i60< Was it under or over $60,000?

(IF UNCERTAIN: What would be your best guess?)

<1> Under $60,000
<3> Exactly $60,000
<5> Over $60,000

<8> Don't know; can't say
<9> Refused

===>[goto tin1]

```
>i10<   Was it under or over $10,000?

        (IF UNCERTAIN: What would be your best guess?)

                <1> Under $10,000
                <3> Exactly $10,000
                <5> Over $10,000            [goto i20]

                <8> Don't know; can't say
                <9> Refused

        ===>[goto tin1]


>i20<   Was it under or over $20,000?

        (IF UNCERTAIN: What would be your best guess?)

                <1> Under $20,000
                <3> Exactly $20,000
                <5> Over $20,000

                <8> Don't know; can't say
                <9> Refused

        ===>[goto tin1]


>ISUM<  [allow 2]

>tin1<  [if i30 is <8>][store <88> in ISUM][goto stm4][endif][#Don't know
        [if i30 is <9>][store <99> in ISUM][goto stm4][endif][#Refused
        [if i10 is <8>][store <81> in ISUM][goto stm4][endif][#DK - lt 20K
        [if i10 is <9>][store <91> in ISUM][goto stm4][endif][#RF - lt 20K
        [if i20 is <8>][store <82> in ISUM][goto stm4][endif][#DK - lt 30K
        [if i20 is <9>][store <92> in ISUM][goto stm4][endif][#RF - lt 30K
        [if i40 is <8>][store <83> in ISUM][goto stm4][endif][#DK - 10-30K
        [if i40 is <9>][store <93> in ISUM][goto stm4][endif][#RF - 10-30K
        [if i50 is <8>][store <84> in ISUM][goto stm4][endif][#DK - gt 30K
        [if i50 is <9>][store <94> in ISUM][goto stm4][endif][#RF - gt 30K
        [if i60 is <8>][store <85> in ISUM][goto stm4][endif][#DK - 50-70K
        [if i60 is <9>][store <95> in ISUM][goto stm4][endif][#RF - 50-70K
        [if i70 is <8>][store <86> in ISUM][goto stm4][endif][#DK - gt 50K
        [if i70 is <9>][store <96> in ISUM][goto stm4][endif][#RF - gt 50K
```

```
>tin2<  [if i10 is <1>][store <01> in ISUM][goto stm4][endif][#Under   10K
        [if i10 is <3>][store <02> in ISUM][goto stm4][endif][#Exactly 10K
        [if i20 is <1>][store <03> in ISUM][goto stm4][endif][#gt10-lt 20K
        [if i20 is <3>][store <04> in ISUM][goto stm4][endif][#Exactly 20K
        [if i20 is <5>][store <05> in ISUM][goto stm4][endif][#gt20-lt 30K
        [if i30 is <3>][store <06> in ISUM][goto stm4][endif][#Exactly 30K
        [if i40 is <1>][store <07> in ISUM][goto stm4][endif][#gt30-lt 40K
        [if i40 is <3>][store <08> in ISUM][goto stm4][endif][#Exactly 40K
        [if i40 is <5>][store <09> in ISUM][goto stm4][endif][#gt40-lt 50K
        [if i50 is <3>][store <10> in ISUM][goto stm4][endif][#Exactly 50K
        [if i60 is <1>][store <11> in ISUM][goto stm4][endif][#gt50-lt 60K
        [if i60 is <3>][store <12> in ISUM][goto stm4][endif][#Exactly 60K
        [if i60 is <5>][store <13> in ISUM][goto stm4][endif][#gt60-lt 70K
        [if i70 is <3>][store <14> in ISUM][goto stm4][endif][#Exactly 70K
        [if i70 is <5>][store <15> in ISUM][goto stm4][endif][#Over    70K


>stm4<  [goto din]

>din<   [allow 4][equiv rpri position 4] ** diary timer
>dout<  [allow 4]                        ** diary timer

>cmt<   [allow 26]            [##T]
>cmto<  [allow 3][equiv cmt]
>cmtn<  [allow 12]
>cmta<  [allow 2]
>cmtm<  [allow 1]
>cmtt<  [allow 1]
>cmtc<  [allow 2]
>cmti<  [allow 4]
>cmts<  [allow 1]


>yzzx<  [goto chck]
```

>int1< ATTENTION INTERVIEWER: [indirect]

There are currently [fill used] activities recorded in this diary.
The reference date for those activities is [fill ddmo]/[fill ddda]/[fill ddyr
The entire 24-hour period has[fill DSTS] been accounted for.

Why have you accessed the activity diary?
[loc 0/116]

<1> To continue adding activities for the date shown
<2> To review and possibly edit the activity list
<3> To perform post-interview activity/location data coding

<7> To delete all existing diary data and re-ask all diary questions
WARNING: A supervisor must be consulted BEFORE this option is selected. The diary reference date will be re-set, if necessary, to yesterday's date.

<9> MISTAKE! Don't really want to access the diary - take me out.

===>

>tin1< [if int1 is <1> goto next]
[if int1 is <2> goto next]
[if int1 is <3> goto code]
[if int1 is <7> goto int2]
[if int1 is <9> goto EX1]

>int2< WARNING!!! YOU MUST HAVE SUPERVISOR APPROVAL BEFORE PROCEEDING!
[indirect]

ALL EXISTING DIARY DATA WILL BE DESTROYED AND THE DIARY REFERENCE DATE WILL BE RE-SET TO YESTERDAY'S DATE. YOU'LL THEN BE TAKEN TO THE BEGINNING OF THE DIARY QUESTION SEQUENCE.

ARE YOU SURE YOU WANT TO CONTINUE?

<1> Yes -- proceed with diary erase and re-set

<5> No -- do not continue

<d> Simply display the existing list of activities (nothing will be changed or deleted)

===>

```
>tin2<  [if int2 is <1> goto rasa]
        [if int2 is <5>]
            [store <> in int1]
            [store <> in int2]
            [goto int1]
            [endif]
        [if int2 is <d>]
            [store <> in int2]
            [goto int3]
            [endif]


>int3<  [display t single][allow 1]TYPE <g> TO CONTINUE   ===>

>tin3<  [store <> in int3]
        [goto int2]


>rasa<  WHY IS THIS DIARY BEING ERASED?                          [indirect]

        Include your name and the name of the supervisor who approved this
        action.  End your comment by typing 3 slashes, ///.
                                                                 [allow 1]


TEXT    ===>[specify]


>rasb<  [if int2 isnt <1> goto int1]
>rasc<  [roster begin actv]
>rasd<  [store <> in mov1]
        [store <> in mov2]
        [store <> in ddat]
>rase<  [roster end]
>rasf<  [store <0> in used]
        [store otot in free]
        [store <> in int2]
        [goto setd]
```

```
>setd<   [setdate date]                          ** preserve current date
         [store date in DDAT]                    ** DDAT to be adjusted
         [if tdda isnt <1>]
             [subtract <1> from ddda]            ** adjustment is simple when
             [goto intr]                         ** today isnt 1st of month
             [endif]
         [if tdmo is <1>]                        ** New Year's Day is special
             [store <12> in ddmo]
             [store <31> in ddda]
             [subtract <1> from ddyr]            ** roll back the year, too
             [goto intr]
             [endif]
         [subtract <1> from ddmo]                        ** set the month
         [store <31> in ddda]                            ** default end of month
         [if ddmo is <2>][store <28> in ddda][endif]     ** adjust the exceptions
         [if ddmo is <4>][store <30> in ddda][endif]
         [if ddmo is <6>][store <30> in ddda][endif]
         [if ddmo is <9>][store <30> in ddda][endif]
         [if ddmo is <11>][store <30> in ddda][endif]
         [goto intr]


>intr<   Now, we're going to start with midnight, night before last, and go
         through the 24 hours ending at midnight last night.  For each
         thing [fill name] did during that period, I'll ask you to tell me
         what [fill name] [fill vcon] doing, where [fill name] [fill vcon],
         and what time [fill name] finished and turned to something else.

         Please tell me about everything [fill name] did yesterday in the same
         order that it happened -- there shouldn't be any gaps in time between
         activities.


         TYPE <g> TO BEGIN THE ACTIVITY QUESTIONS

         ===>[goto sint]


>sint<   [store <a> in next][goto tcon]


>DO1<    What [fill vcon] [fill name] doing at midnight, night before last?
         (12:01 A.M. on [fill ddmo]/[fill ddda]/[fill ddyr])
                                                    [allow 1][loc 0/143]
             <1> School or childcare related activity          [goto do2b]
             <2> Travel, going from one place to another
             <3> Eating meals or snacks
             <4> Sleeping or napping
             <5> Watching TV
             <6> Bathing, showering, "going to the bathroom"
             <7> Getting dressed, personal grooming

             <x> Some other activity, not codeable above       [goto do3]

          ===>[goto tdo2]
```

```
>do2<   What did [fill name] do next?  (On [fill ddmo]/[fill ddda]/[fill ddyr])
                                                        [allow 1][equiv DO1]

            <1> School or childcare related activity            [goto do2b]
            <2> Travel, going from one place to another
            <3> Eating meals or snacks
            <4> Sleeping or napping
            <5> Watching TV
            <6> Bathing, showering, "going to the bathroom"
            <7> Getting dressed, personal grooming

            <x> Some other activity, not codeable above         [goto do3]

         ===>[goto tdo2]

>do2b<  ENTER THE SPECIFIC SCHOOL/CHILDCARE RELATED ACTIVITY
                                                   [allow 1][loc 0/144]

            <1> Attending a regular school class/activity
            <2> Recess/break between school classes
            <3> "Hanging out" (before or after school only)
            <4> Doing school homework
            <5> Eating lunch/snacks (school or childcare)
            <6> Childcare (specific activity unknown)

            <x> Some other activity, not codeable above         [goto do3]

         ===>[goto tdo2]
```

```
>tdo2<
        [if DO1 is <1>]
            [if do2b is <1>]
                [store <attending that class/school activity> in do3]
                [endif]
            [if do2b is <2>]
                [store <taking a break/having recess> in do3]
                [endif]
            [if do2b is <3>]
                [store <'hanging out' (before or after school)> in do3]
                [endif]
            [if do2b is <4>]
                [store <doing that homework> in do3]
                [endif]
            [if do2b is <5>]
                [store <eating that meal/snack> in do3]
                [endif]
            [if do2b is <6>]
                [store <doing that childcare activity> in do3]
                [endif]
            [endif]
        [if DO1 is <2>]
            [store <traveling/going from (PLACE) to (PLACE)> in do3]
            [endif]
        [if DO1 is <6>]
            [store <bathing/showering/going to the bathroom> in do3]
            [endif]
        [if DO1 is <7>]
            [store <getting dressed/grooming self> in do3]
            [endif]
        [if DO1 is <3>]
            [store <eating that meal/snack> in do3]
            [endif]
        [if DO1 is <5>]
            [store <watching TV> in do3]
            [endif]
        [if DO1 is <4>]
            [store <sleeping/napping> in do3]
            [endif]
        [goto twhr]


>do3<   INTERVIEWER: TYPE A BRIEF DESCRIPTION OF THE ACTIVITY
                                                [allow 44][loc 0/146]

            (must use 44 characters or less)

TEXT    ===>
```

```
>twhr<  [if DO1 is <2>]                    ** automatic branch for travellers
            [store <5> in whr1]
            [goto whr8]
            [endif]


>whr1<  ASK IF NECESSARY:

        Where [fill vcon] [fill name] when (he/she/you) [fill vcon]
        "[fill do3]",
        (at home, at school, in a store, going to or from somewhere, or what)?
                                                                  [loc 0/135]

            <1> Home                                              [goto whr3]
            <2> School/Childcare location                         [goto whr2]
            <3> Friend/Other's house                              [goto whr5]

            <4> Stores, places related to                         [goto whr4]
                  shopping, eating, errands

            <5> Traveling, going from one place to another        [goto whr8]

            <7> Other location not codeable above                 [goto whr6]

        ===>


>whr2<  IF NECESSARY: Where [fill vcon] [fill name] when (he/she/you) [fill vcon]
        "[fill do3]"?
                                                        [allow 3][loc 0/136]
            <251> At school

            <253> Childcare at a HOUSE (e.g., babysitter's house)
            <255> Childcare at a COMMERCIAL BLDG. (not at a home or school)

            <259> Other school/childcare location, not codeable above [goto whr9]

            <998> Don't know; can't say
            <999> Refused

        ===>[goto io]
```

```
>whr3<  ASK IF NECESSARY:

        Where in the house [fill vcon] [fill name] when (he/she/you) [fill vcon]
        "[fill do3]"?
                                                          [allow 3] [equiv whr2]
           <1> Kitchen                          <7> Garage
           <2> Living rm, family rm, den        <8> Basement
           <3> Dining room                      <9> Utility/laundry room
           <4> Bathroom                        <10> Pool, spa OUTDOORS
           <5> Bedroom                         <11> Yard, patio, other
           <6> Study/office                           OUTSIDE house

          <12> Moving from room to room in the house
          <13> Other house location, not codeable above          [goto whr9]

          <998> Don't know    <999> Refused


        ===> [goto io]


>whr4<  IF NECESSARY: Where [fill vcon] [fill name] when (he/she/you) [fill vcon]
        "[fill do3]"?
                                                          [allow 3][equiv whr2]
             <23> Grocery store (incl supermarkets, convenience stores)
             <24> Shopping mall, other non-grocery store
             <21> Office building (e.g., bank, post office)

             <28> Restaurant
             <29> Bar, nightclub

             <36> Dry cleaners
             <37> Beauty parlor, barber shop, hairdresser
             <33> Auto repair shop, gas station, indoor parking area

             <39> Other location, not codeable above [goto whr9]
          [# (40) Other OUTDOOR location, not codeable above (goto whr9)

            <998> Don't know; can't say
            <999> Refused

        ===>[goto io]
```

```
>whr5<  ASK IF NECESSARY:

        Where in the house [fill vcon] [fill name] when (he/she/you) [fill vcon]
        "[fill do3]"?
                                                          [allow 3] [equiv whr2]
         <301> Kitchen                        <307> Garage
         <302> Living rm, family rm, den      <308> Basement
         <303> Dining room                    <309> Utility/laundry room
         <304> Bathroom                       <310> Pool, spa OUTDOORS
         <305> Bedroom                        <311> Yard, patio, other
         <306> Study/office                         OUTSIDE house

         <312> Moving from room to room in the house
         <313> Other house location, not codeable above [goto whr9]

         <998> Don't know    <999> Refused


        ===> [goto io]


>whr6<  IF NECESSARY: Where [fill vcon] [fill name] when (he/she/you) [fill vcon]
        "[fill do3]"?
                                                          [allow 3][equiv whr2]
             <34> Park, playground
             <27> Hospital, doctor's office, health care facility
             <31> Indoor gym, sports/health club
             <35> Hotel or motel
             <22> Industrial plant, factory

             <21> Office building (e.g., bank, post office)
             <26> Public building (e.g., museum, library, theater)

             <30> Church, Synagogue, Temple, Mosque

             <39> Other place, not codeable above                    [goto whr9]
          [# (40) Other OUTDOOR location, not codeable above         (goto whr9)
            <998> Don't know; can't say
            <999> Refused

        ===>[goto io]
```

```
>whr8<  IF NECESSARY: How [fill vcon] [fill name] travelling?

        ([fill vcon] [fill name] in a car, on a bus, in a truck, walking,
        on a bike, or travelling in some other way?)
                                                        [allow 3][equiv whr2]

            <51> Car
            <52> Pick-up truck or van
            <57> Other kind of truck
            <55> On a bus
            <54> At bus/train/ride STOP
            <53> Walking
            <59> Bicycle/skateboard/rollerskates
            <63> In a stroller or carried by adult
            <56> On train/rapid transit
            <58> Airplane
            <60> Motorcycle/motorized scooter

            <69> Other travel/transit, not codeable above        [goto trv2]
           <998> Don't Know          <999> Refused

        ===>[goto io]


>trv2<  INTERVIEWER: TYPE A BRIEF DESCRIPTION OF HOW R WAS TRAVELLING
                                                [no erase][allow 25][loc 0/204]


           (use 25 characters or less)
                          ________________________
TEXT    ===>


>trv3<  [goto io]

>whr9<  INTERVIEWER: TYPE A BRIEF DESCRIPTION OF WHERE ACTIVITY TOOK PLACE
                                                [no erase][allow 25][equiv trv2]


            (use 25 characters or less)
                          ________________________
TEXT    ===>


>twh9<  [goto io]
```

>io< CODE OR ASK IF NOT SURE: [fill vcon] [fill name] (mostly) inside or (mostly) outside (when [fill vcon] [fill name] "[fill do3]")?

[allow 1][loc 0/145]

<1> Inside (or mostly inside)
<3> Outside (or mostly outside)
<5> Equal time inside and outside

<8> Don't know, no idea
<9> Refused

--->

```
>gosb<  [if do2 is <> goto QBRa]
        [if stop is <> goto QBRa]
        [if mode is <i>]
            [if mod2 is <n> goto RINa]
            [goto RIUa]
            [endif]
        [if mode is <a>]
            [if mod2 is <n> goto RANa]
            [goto RAUa]
            [endif]
        [if mode is <r> goto RRWa]
        [goto QBRa]
```

```
>next<                          MODE MENU

        INTERVIEWER: To continue the activity question cycle, use code a or
        code i.  To make adjustments, use code d or code r.  Use code c to
        stop the activity question cycle.
                                                        [allow 1][loc 0/237]

            <a> ADD an activity to end of list
            <i> INSERT an activity between other activities

            <d> DELETE an activity completely
            <r> REVISE an activity, (description, location, finish time, etc.)

            <c> CLOSE the activity list and return to main interview

            <s> SHOW the current list of activities

        ===>
```

```
>gosb<  [if do2 is <> goto QBRa]
        [if stop is <> goto QBRa]
        [if mode is <i>]
            [if mod2 is <n> goto RINa]
            [goto RIUa]
            [endif]
        [if mode is <a>]
            [if mod2 is <n> goto RANa]
            [goto RAUa]
            [endif]
        [if mode is <r> goto RRWa]
        [goto QBRa]
```

>next<

MODE MENU

INTERVIEWER: To continue the activity question cycle, use code a or code i. To make adjustments, use code d or code r. Use code c to stop the activity question cycle.

[allow 1][loc 0/237]

<a> ADD an activity to end of list
<i> INSERT an activity between other activities

<d> DELETE an activity completely
<r> REVISE an activity, (description, location, finish time, etc.)

<c> CLOSE the activity list and return to main interview

<s> SHOW the current list of activities

===>

APPENDIX C

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APPENDIX C

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APPENDIX D

SAMPLING REPORT FOR THE CALIFORNIA CHILDREN'S ACTIVITY SURVEY

SAMPLING METHODS AND FIELD RESULTS

FOR THE

1989-90 ACTIVITY PATTERN SURVEY OF CALIFORNIA CHILDREN

by

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Introduction

The 1989-90 Activity Pattern Survey of California Children was designed to measure the time spent in activities and locations of California children, aged 11 or younger, on a typical day, and to assess their potential exposure to sources of air pollution in the home and at school. A major part of the study was the generation of a time diary of a day's activities for each sampled child. This information on activities was obtained either from a parent, or from the child, or from both, depending on the age of the child.

The survey was funded by the Air Resources Board of the State of California. The Survey Research Center of the University of California, Berkeley, contracted to design a telephone sample of households of the State of California, assist in questionnaire construction, conduct the interviewing, and prepare the data for analysis. This report summarizes the sampling methods used for this study. The general design of the sample is given first. Then various aspects of the design are described in more detail.

1. General Design of the Sample

The sample is a clustered random-digit telephone sample of all households in California. The sample was generated using procedures described by J. Waksberg ("Sampling Methods for Random Digit Dialing," Journal of the American Statistical Association, vol. 73, March 1978, pp. 40-46). Households with no telephone, of course, are excluded. Households with no English-speaking adults (about 3 percent of our sample) were also excluded by design, in order to avoid the cost of translating the questionnaire and hiring bilingual or multi-lingual interviewers.

Prior to selection, all of the telephone exchanges in the state were grouped into three strata: Los Angeles and the Southern Coast, the San Francisco Bay Area, and the rest of the state. When clusters of telephone numbers were selected for the study, the sampling fraction was doubled for the Bay Area, in comparison with Los Angeles and the Southern Coast; the sampling fraction was doubled again for the rest of the state. This oversampling was carried out in order to spread the selected households more widely over a variety of climatic zones.

Within each selected household, an enumeration of children aged 11 or younger residing in the household was carried out. If more than one child aged 11 or younger resided in the household, one of them was selected at random to be the focus of the interview. If a child in that age range resided there, the appropriate parent or guardian was administered a short interview and asked about the child's activities; the child was also interviewed if he or she was at least 9 years old.

2. Stratification

A goal of this study was to obtain information from households in a wide variety of climatic zones. Since most of the California population is clustered in a few metropolitan areas, an unrestricted sample would result in the completion of very few interviews in other more sparsely populated, but climatically diverse, areas of the state. A stratification of all the telephone exchanges in the state was carried out, therefore, in order to provide a means of oversampling the non-metropolitan areas and of distributing the sample over as many climatic zones as possible. There are two aspects of this stratification: the creation of three explicit major strata, and an implicit geographic stratification within each of the major strata. We now review each of these aspects in turn.

2.1 Creation of Three Major Strata

A list of all the central office telephone codes (prefixes) in California was taken from the February 1989 American Telephone and Telegraph V & H Coordinate Tape (produced monthly by AT&T). The record for each prefix includes the area code, the prefix (first three digits of a phone number), the name of the city or billing location, and two geographic coordinates (north-south and east-west). After deletion of prefixes for directory assistance and time, and of a few other prefixes known to be non-residential, the remaining prefixes were divided into three groups or strata.

1. The first stratum was the Southern Coast area, comprising the Los Angeles air basin and part of San Diego County. Information on the boundaries of the Los Angeles air basin was obtained from the South Coast Air Quality Management District. That information was then compared with the city names on the prefix records (after sorting them on geographic coordinates) in order to decide into which stratum to

place each telephone prefix. It turned out that the prefixes in the 818, 213, and 714 area codes cover that area almost exactly. As for San Diego County, prefixes in the southern part of the 619 area code were sorted from east to west; then place names were compared with a map; and the western portion was placed into the Southern Coast stratum.

2. The second stratum was the San Francisco Bay Area. Boundary information for that air basin was obtained from the Bay Area Air Quality Management District. The five-county center of that area coincides with the 415 area code. However, the air basin also includes Napa County, the southern portions of Sonoma and Solano counties, and the northern portion of Santa Clara County (principally San Jose). Prefixes in the 707 and 408 area codes were therefore sorted from north to south; then place names were compared with a map; and the appropriate prefixes were placed into the Bay Area stratum.

3. The third major stratum consisted of all the California prefixes left over, after creating the first two strata. Because of the heterogeneity of this third stratum, we found it desirable to carry out some further stratification, as described next.

2.2 Further Implicit Stratification

Prior to the selection of primary clusters, prefixes within each area code (or within each part of an area code, if it had been divided between major strata) were sorted geographically, using the north-south and the east-west coordinates on the AT&T tape. The direction of the sort for each area code is shown in Table 1. For example, all of the prefixes in area code 818 fall within the Southern Coast major stratum, and they were sorted from north to south (n-s).

Table 1

STRATA FOR AIR RESOURCES BOARD TELEPHONE SAMPLE

(Treatment of 10 California Area Codes)

Area code	Portion	Sort	Location
1. Southern Coast			
(818)	all	n-s	Los Angeles Co.
(213)	all	n-s	Los Angeles Co.
(714)	all	w-e	Orange, Riverside, part of S. Bern. counties
(619)	SW part	e-w	San Diego County
2. San Francisco Bay Area			
(707)	S part	n-s	Napa Co., S. parts of Sonoma and Solano
(415)	all	n-s	S.F., Alameda, Contra Costa, S. Mateo, Marin
(408)	N part	n-s	Santa Clara Co.
3. Rest of State			
(707)	N part	s-n	North coast
(916)	all	n-s	Northern valley and mountains
(619)	N & SE	n-s	Desert
(209)	all	n-s	Central valley
(805)	all	e-w	Central valley and coast
(408)	S part	s-n	Central coast

Note: Prior to systematic random selection of primary clusters, prefixes within each (part of an) area code were sorted geographically in the direction indicated; the sorted area code lists were then put together in the order shown into one list for each major stratum.

The purpose of this sorting was to distribute the sample proportionately over the various regions within each major stratum. The third stratum in particular (the "rest of the state") includes several regions of distinct interest. This sorting procedure ensured that each of the regions was included in the sample in proportion to its number of telephone prefixes.

After the prefixes were sorted within area code, all of the prefix lists within a major stratum were put together into one list, in the order given in Table 1. The lists for each major stratum were then ready for the selection of primary clusters.

3. Selection of Primary Clusters

Our goal for the first stage of sampling was to identify approximately 250 clusters of residential telephone numbers throughout the state. Most random telephone numbers are either non-working, business, or government numbers. In order to identify 250 residential numbers, we estimated (based on past experience) that we should start with about 940 numbers. Since it is preferable to subsample an equal number of units within each cluster, the oversampling of certain parts of the state was done at this stage of primary cluster selection.

Within each of the three major strata we selected a certain proportion of possible telephone numbers by systematic random sampling -- that is, by setting a selection interval, taking a random start, and then selecting every *n*th number. The systematic nature of the procedure ensured that the implicit geographic stratification of the prefixes would be preserved.

The proportion of telephone numbers selected from each major stratum is shown in Table 2. In the Southern Coast stratum, for example, we selected 200 out of 1668 prefixes (each of which has 10,000 possible telephone numbers), or .12 of the prefixes. The proportion selected was doubled for the San Francisco Bay Area, and doubled again for the rest of the state. This disproportionate sampling was carried out in order to spread the sample over a wide variety of climatic zones. Without such disproportionate selection, the sample would have been clustered primarily in a few large urban areas. Note that a weight inversely proportional to the rate of oversampling must be used in the data analysis if statewide estimates of statistics are made.

After the primary telephone numbers were selected, each was called and administered a short screening interview to determine if the number was a residence. If it

Table 2

SELECTION OF PRIMARY CLUSTERS

	No. Prefixes	Selections	Fraction
Major Stratum			
Southern Coast	1668	200	0.120
S.F. Bay Area	819	197	0.241
Rest of State	1133	544	0.480
	3620	941	

was not, that cluster was dropped from the sample. If, on the other hand, the number was a residence, additional telephone numbers within that cluster were generated for the main study. Of the 941 original telephone numbers, 279 were determined to be residences and formed the clusters for our sample.

4. Selection of Telephone Numbers

The telephone numbers within each cluster were generated by varying at random the last two digits of the primary number. For example, if the primary number for a cluster was (415) 642-6578, additional telephone numbers within the cluster were generated by replacing the "78" with one of the 99 other two-digit possibilities.

Under the clustered sampling procedure, a set of telephone numbers is prepared for interviewing from each cluster. If a telephone number turns out to be non-residential, it is replaced. The total number of residences in each cluster, consequently, remains fixed. The probability of selecting a household is constant across clusters (within major strata), provided that the same number of residential telephone numbers has been set up for interviewing in each cluster. For this study, we assigned 23.5 residential numbers to each cluster (a random half had 23, and the other half had 24). A few clusters, however, exhausted the pool of 100 available numbers and therefore had fewer residences for interviewing; an adjustment for this variation could be made, but its effect would not be substantial. Note that although an original cluster size of 23.5 may appear large, most households do not include a child aged 11 or younger. In terms of completed interviews, the average cluster size was only about 4.4.

5. Creation of Weights for Each Case

Weights were computed to adjust for unequal probabilities of selection and also to balance results by season and day of the week. We will describe each of these two types of weights.

5.1 Adjustment for Selection Probabilities

Households in the three major strata were selected into the sample at different rates, as described above in Section 3. Analyses which pool data from different strata, consequently, should use a weight to adjust for those different selection probabilities. Otherwise the resulting statistics will disproportionately reflect persons residing in the oversampled rural areas and the San Francisco Bay Area.

Another factor affecting the probabilities of selection is the number of eligible children (aged 11 or younger) in each selected household. Since only one eligible child was selected to be the focus of the interview in each household, children residing in households with fewer children of that age were more likely to be selected than children in households with more children of the target age.

One other factor that should be taken into account is the number of distinct telephone numbers that ring in each household. A person who can be reached on two telephone numbers has twice the chance of being selected as a person with only one number. The former should therefore receive half the weight of the latter in computing statistics.

All three of these factors were taken into account in computing a weight to adjust for unequal probabilities of selection. The distribution of these factors is shown in Table 3. The relative weight assigned to cases at each level of the factors is also

Table 3

DISTRIBUTION OF COMPONENTS OF SAMPLING WEIGHT

Number of Eligible Children	Relative Weight	Cases
1	1	580
2	2	444
3	3	137
4	4	30
5	5	5
6	6	3
7	7	1
		1200

Region of State		
Southern Coast	1	224
S.F. Bay Area	1/2	263
Rest of State	1/4	713
		1200

Number of Telephone Lines		
1	1	1053
2	1/2	127
3	1/3	15
4	1/4	3
5 or more	1/5	2
		1200

given in the table. The weight for each case was computed as follows:

$$W = kp/gt$$

where,

p = number of eligible children (aged 11 or under) in the household
g = geographic factor (Southern Coast=1; Bay Area=2; Rest of State=4)
t = number of telephone numbers into the household
k = a constant, the same for all cases, selected to make the weighted number of cases equal the actual unweighted number of cases.

This weight is contained in the data record for each case. It is identified in the codebook as "sampwt," the household sampling weight.

5.2 Adjustment for Season and Day of Week

The activities asked about during the interview always referred to "yesterday." Since activity patterns vary by season and day of the week, it is necessary to take into account just when the interview was done. A disproportionate number of interviews were planned to be done on weekends. The distribution of interviews over the four seasons was also not exactly the same.

In order to adjust for the distribution of interviews over days of the week and seasons, a weight for each respondent was computed. For purposes of computing this weight, we classified each completed interview by the day of the week on which the reported activities took place (not the day of the interview itself, which was a day later); the days were combined into three categories: Saturday, Sunday, and weekday. Similarly, we classified each completed interview by the season during which the reported activities took place; the seasons were defined by the four sets of calendar quarters: January-March, April-June, July-September, and October-December.

If the interviews had been spread perfectly evenly over the year, we would expect that the proportion reporting on activities for a Sunday in spring, for example, would

be (1/7)*(1/4) = (1/28). The same proportion applies to a Saturday or a Sunday in each of the four seasons. The corresponding expected proportion for a weekday in each season is (5/7)*(1/4) = (5/28).

To compute the appropriate adjustment, we generated the actual distribution of respondents across the three day-categories and the four season-categories. Since we wanted to combine this adjustment with the adjustment for unequal selection probabilities into a single weight, we used the sampling weight in generating the season-by-day distribution. That distribution is shown in Table 4.

The proportion expected in a given category (if the interviewing had been perfectly spread out), divided by the proportion actually obtained, is the adjustment factor. For example, we expect 5/28 = .1786 of the cases to report on activities referring to a weekday in the winter(January - March). Since the actual proportion referring to a weekday in that season is only .1648, the adjustment factor is .1786/.1648 = 1.084. This means that every completed case that reports on activities for a weekday in the summer would be assigned a weight which incorporates that adjustment factor.

This second weight for each child respondent was then computed as follows:

$$W' = hfW$$

where,

f = the season-by-day adjustment factor, as described above
W = the weight to adjust for selection probabilities
h = a constant, the same for all children, selected to make the weighted number of cases equal the actual unweighted number of cases

The weight to adjust for season and day of the week is included in the data record for each case. Note that this weight includes the adjustment for selection probability. It is identified in the codebook as "timewt," the season-day weight for households.

Table 4

DISTRIBUTION OF COMPONENTS OF SEASON-DAY WEIGHT

(Proportion After Adjusting for Sampling Weight)

CALENDAR QUARTER	DAY OF WEEK Weekday	Saturday	Sunday	Total
Jan - Mar	.1648	.0453	.0524	.2625
Apr - Jun	.0970	.0346	.0226	.1541
Jul - Sep	.2457	.0448	.0597	.3503
Oct - Dec	.1337	.0385	.0610	.2331
Total	.6412	.1631	.1957	1.0000

5.3 Which Weight to Use

The sample was deliberately designed, at the request of the sponsor, to over-represent the non-metropolitan parts of the state, and the San Francisco Bay Area, relative to the Southern Coast area. If statistics are being computed separately for geographic areas that do not pool cases from more than one of the major strata, one might consider not using any weights at all. The values of the weight for selection probability do not vary much within each major stratum. And since the adjustment for season and day of the week was done on the basis of the full statewide sample, the corresponding weight may not be appropriate for a given subsample.

On the other hand, if statistics are being computed for the entire state, it is quite important to use at least the weight to compensate for unequal probabilities of selection ("sampwt"). Otherwise there is likely to be a bias because of the over-representation of certain parts of the state.

The weight to adjust (also) for seasonal and day-of-week effects could be important if a statewide analysis is focusing on variables or activities which are sensitive to the weekend/weekday distinction or to the particular time of the year. Since much of this study concerns such variables, it is probably a good idea to use that weight ("timewt") most of the time.

6. Field Outcome and Response Rates

The disposition of each sampled household and each selected child is summarized in this section. We will discuss each of these two outcomes in turn.

Table 5 shows the results for each of the telephone numbers selected as described above in Section 4. As shown in Table 5, a total of 11,414 telephone numbers was set up for interviewing. Of that number, 5,172 were not eligible households. Of the remaining 6,242 valid sample units, 91.7 percent were successfully enumerated -- that is, an interviewer was able to determine whether any eligible children (aged 11 or younger) resided there and, if so, how many there were. We found 1,413 housing units with one or more eligible children.

Interviews were attempted with (or concerning) a randomly selected child in each of those 1,413 households. Table 6 shows the results for the children selected. For the 1,413 children, 1,200 interviews were completed, or 84.9 percent. The overall response rate is the product of the rate of successful enumeration (.917) and the rate of completion among children selected (.849); that product gives an overall response rate of 77.9 percent.

Table 5

OUTCOME FOR HOUSEHOLDS

	Number	% of Total	% of Eligible
Total Selections	11414	100.0	
Ineligible for the Sample			
Not a residence*	4976	43.6	
Not English speaking	196	1.7	
Total ineligible	5172	45.3	
Eligible Sample Units	6242	54.7	100.0
Refused enumeration	367	3.2	5.9
Unresolved status	149	1.3	2.4
Enumerated households			
No eligible children	4313	37.8	69.1
One or more eligibles	1413	12.4	22.6
Total enumerated	5726	50.2	91.7

*Includes a few numbers never answered after at least 25 calls; most of those are disconnected business numbers, although a small proportion could be residential.

Table 6

OUTCOME FOR CHILDREN SELECTED

	Number	% of Selected
Total Children selected	1413	100.0
Non-response		
Refusals	139	9.8
Respondent never home	54	3.8
Incomplete diary	20	1.4
Total non-response	213	15.1
Completed Interviews	1200	84.9